Annex 3. East Asian-Australasian Flyway (EAAF) populations size estimates and trends

Source & Citation

Mundkur, T. and Langendoen, T. 2022. Report on the Conservation Status of Migratory Waterbirds of the East Asian – Australasian Flyway. First Edition. Report to the East Asian – Australasian Flyway Partnership. Wetlands International, Ede, The Netherlands

Column name: links & explanations

Pop#	Population Identification Number used in the WPP portal
Taxonomic#	Taxonomic order number set by HBW and BirdLife Taxonomic Checklist v6 http://datazone.birdlife.org/species/taxonomy
Family	See HBW and BirdLife Taxonomic Checklist v6 http://datazone.birdlife.org/species/taxonomy
Scientific Name	See HBW and BirdLife Taxonomic Checklist v6 http://datazone.birdlife.org/species/taxonomy
Common Name	See HBW and BirdLife Taxonomic Checklist v6 http://datazone.birdlife.org/species/taxonomy
Red List	See IUCN Red List of threatened species https://www.iucnredlist.org/
Population Name	See Waterbirds Populations Portal http://wpp.wetlands.org/background/WIWP
Breeding Range (bre)	See Waterbirds Populations Portal http://wpp.wetlands.org/explore
Non-breeding Range (non-bre)	See Waterbirds Populations Portal http://wpp.wetlands.org/explore
Flyway/Biogeographic Region	See Waterbirds Populations Portal http://wpp.wetlands.org/background/WAF
Population Notes	Additional information explaining the population definition
Size Start Year	See Waterbirds Populations Portal http://wpp.wetlands.org/data/PE
Size End Year	See Waterbirds Populations Portal http://wpp.wetlands.org/data/PE
Minimum size	See Waterbirds Populations Portal http://wpp.wetlands.org/data/PE
Maximum size	See Waterbirds Populations Portal http://wpp.wetlands.org/data/PE
Estimate quality	See Waterbirds Populations Portal http://wpp.wetlands.org/data/PE
Size Notes	Additional information explaining the population size estimates
Trend Start Year	See Waterbirds Populations Portal http://wpp.wetlands.org/data/PT
Trend End Year	See Waterbirds Populations Portal http://wpp.wetlands.org/data/PT
Trend Code	See Waterbirds Populations Portal http://wpp.wetlands.org/data/PT
Trend Quality Code	See Waterbirds Populations Portal http://wpp.wetlands.org/data/PT
Trend Notes	Additional information explaining the population trend assessments
1% threshold	See Waterbirds Populations Portal http://wpp.wetlands.org/data/Threshold
0.25 % threshold	Following the same methodology as the 1% threshold, used to identify East-Asian Australasian Flyway Network Sites
Trend references	See http://wpp.wetlands.org/downloads/references
Size references	See http://wpp.wetlands.org/downloads/references
URL	Link to the population page on http://wpp.wetlands.org/

Weblinks

EAAF CSR1 Summary Report	https://www.wetlands.org/eaaf-conservation-status-review1/
EAAF CSR 1 population assessments	http://wpp.wetlands.org/explore?conservation=3
East Asian-Australasian Flyway Partnership (EAAFP)	https://www.eaaflyway.net/
Wetlands International	https://www.wetlands.org/
WaterbirdFund	https://waterbird.fund/

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Pop #	Taxo-nomic#	Family	Scientific Name	Common Name	Red List	Population Name	Breeding Range (bre)	Non-breeding Range (non-bre)	Flyway/Biogeographic Region	Population Notes	Size Start Year	Size End Year	Minimum size	Maximum size	Estimate quality	Size Notes	Trend Start Year	Trend End Year	Trend Code	Trend Quality Code	Trend Notes	1% threshold	0.25 % threshold	Trend references	Size references	URL
1337	430	Anseranatidae	Anseranas semipalmata	Magpie Goose	LC	N Australia, SE Indonesia, S New Guinea	N Australia, SE Indonesia, S New Guinea		Australasia		1999	1999	1,000,000	1,000,001	Best guess	No recent population size assessment. Last assessment based on Garnett & Crowley (2000).	2012	2017	STA	Reasonable	Recorded as fluctuating between 1982 - 2011 (WPE5), based on 2005 information. In AU, as per Clemens et al (2019), no significant trend in long (1983-2017) and medium term (1997 to 2017), and flat short-term trajectory (2012 to 2017). No recent information from ID and PG.	20,000	20,000	Clemens R, Driessen J, Ehmke G (2019) 'Australian Bird Index Phase 2 – Developing Waterbird Indices for National Reporting'. Report to the Department of the Environment and Energy, Canberra.	Kingsford, R.T., Porter, J.L. and Halse, S.A. 2012. National waterbird assessment. Waterlines report, National Water Commission, Canberra. Available online at http://nwc.gov.au/publications/waterlines/74; Jaensch, Roger, August 2005. Detailed data and notes on numbers and distribution of waterbirds in Australia, updated from Jaensch, 2003, and derived from more than 90 Australian sources including Wetlands International, Birds Australia and Jaensch, 2003,; Halse, S.A., Pearson, G.B., Jaensch, R.P., Kulmoi, P., Gregory, P., Kay, W.R. and Storey, A.W. 1996. Waterbird surveys of the Middle Fly River floodplain, Papua New Guinea. Wildlife Research 23 (5): 557-569. (CSIRO Publishing, Australia).; Garnett, S.T. and Crowley, G.M. 2000. The Action Plan for Australian Birds 2000. Environment Australia, Canberra.	http://wpp.wetlands.org/explore/346/1337
1343	435	Anatidae	Dendrocygna bicolor	Fulvous Whistling-duck	LC	S Asia	S Asia, Myanmar		Indo-Malay		2006	2006	50,000	50,000	Best guess	As summarised in Wetlands International (2002) - "Li in litt. 2005: 40,000 in AWC 2003 in South Asia, including: 31,000 at Tangua Haor, Bangladesh. Balachandran (2005): Indian population estimate 25,000."	2012	2021	Unknown	No idea	Assessed as decreasing between 1977-1991 (WPE5); no new information.	500	130		Li, David, and Asian Waterbird Census network in litt. 2005.; Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12, Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/349/1343
1339	436	Anatidae	Dendrocygna eytoni	Plumed Whistling-duck	LC	Australia, S New Guinea	N & E Australia, S New Guinea		Australasia		2004	2008	100,000	1,000,000	Best guess	No information available for a new assessment; previous estimate by Wetlands International (2012).	2005	2017	STA	Poor	In AU Long (1983-2017) and short term trends (2005 to 2017) stable, but short-term trajectory 2012 to 2017 down (Clemens et al. 2019). Trend across rest of range unknown.	10,000	2,500	Clemens R, Driessen J, Ehmke G (2019) 'Australian Bird Index Phase 2 – Developing Waterbird Indices for National Reporting'. Report to the Department of the Environment and Energy, Canberra.	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/348/1339
1348	437	Anatidae	Dendrocygna arcuata	Wandering Whistling-duck	LC	australis	Australia, New Guinea, West Papua		Australasia		1988	2008	100,000	1,000,000	Best guess	No information available for a new assessment; previous estimate by Wetlands International (2012).	2012	2017	STA	Poor	In AU Long-term trend (1983-2017) increasing, short term (2005 to 2017) insignificant results, and short-term trajectory 2012 to 2017 flat (Clemens et al. 2019). Trend across rest of range unknown.	10,000	2,500	Clemens R, Driessen J, Ehmke G (2019) 'Australian Bird Index Phase 2 – Developing Waterbird Indices for National Reporting'. Report to the Department of the Environment and Energy, Canberra.	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/350/1348
1350	438	Anatidae	Dendrocygna javanica	Lesser Whistling-duck	LC	E & SE Asia	E & SE Asia, Andaman & Nicobar Is to W Indonesia		Indo-Malay		1987	1991	100,000	1,000,000	Best guess		2011	2020	STA	Poor	The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (0.9649), over 3 generations 2010-2020 (0.9577) and a stable trend for 1989-2020 (0.9847). However, based on the growth rate of the last 10 years, the population is projected to decrease by 30% over 3 generations compared to the population levels in 2011.	10,000	2,500	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Perennou, C.P., Mundkur, T. and Scott, D.A. 1994. The Asian Waterfowl Census 1987-1991: distribution and status of Asian waterfowl. IWRB Spec. Publ. No. 24. AWB Spec. Publ. No. 86. Slimbridge, UK and Kuala Lumpur, Malaysia.	http://wpp.wetlands.org/explore/351/1350
2518	458	Anatidae	Cygnus olor	Mute Swan	LC	E China (non-bre)	L Baikal (Russia), Mongolia, NW & NE China	E China	Eastern Palearctic	Separated from the former East Asia population after WPE5. The E China (non-bre) population may also include individuals from the former Central Asia population, although the extent of overlap in the breeding season with the current West & Central Asia/Caspian population is uncertain.	2015	2015	400	400	Census based	Incomplete counts; 403 swans were recorded in 2014/15 but where fewer than 30 have been counted in more recent years (Meng et al. 2020).	2004	2020	Unknown	No idea	Numbers in non-breeding period in CN, showed no clear population trends from 2004 to 2020 due to lack of systematic continuous and synchronous surveys (Meng et al. 2020).	4	1	Meng, F., Chen, L., Zhang, B., Li, C., Zhao, G., Batbayar, N., Natsagdorj, T., Damba, I., Liu, S., Wood, K.A., Cao, L. and Fox, AD. 2020. The migratory Mute Swan Cygnus olor population in East Asia. WildfowlSpecial Issue 6: 73–96	Meng, F., Chen, L., Zhang, B., Li, C., Zhao, G., Batbayar, N., Natsagdorj, T., Damba, I., Liu, S., Wood, K.A., Cao, L. and Fox, AD. 2020. The migratory Mute Swan Cygnus olor population in East Asia. WildfowlSpecial Issue 6: 73–96	http://wpp.wetlands.org/explore/366/2518
2519	458	Anatidae	Cygnus olor	Mute Swan	LC	Korean Peninsula (non-bre)	Russia, Mongolia, NE China	Korean Peninsula	Eastern Palearctic	Separated from the former East Asia population after WPE5.	2016	2021	200	300	Best guess	In KR non-breeding pop has been adequately censused between 2016-2020 with a mean of 6 individuals with a max of 17 recorded during the annual Winter Waterbird Census of Korea (NIBR 2016, 2017, 2018, 2019, 2020). In KS counts during the AWC were 214 in Jan. 2019, 201 in Jan. 2020, 250 in Feb. 2021 (Institute for Biodiversity of State Academy of Sciences, DPR Korea, pers. comm. 2022).	2012	2021	Unknown	No idea	Count information available for only two years, 231 in 2019 and 202 in 2020 for KR & KS is not adequate to assess the overall population trend during the last decade (NIBR 2019, 2020, for KR and Institute for Biodiversity of State Academy of Sciences, DPR Korea (pers. comm. 2022) for KS).	2	1	NIBR. 2020. 2019-2020 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Meng, F., Chen, L., Zhang, B., Li, C., Zhao, G., Batbayar, N., Natsagdorj, T., Damba, I., Liu, S., Wood, K.A., Cao, L. and Fox, AD. 2020. The migratory Mute Swan Cygnus olor population in East Asia. WildfowlSpecial Issue 6: 73–96; NIBR. 2019. 2018-2019 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.	NIBR. 2016. 2015-2016 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Meng, F., Chen, L., Zhang, B., Li, C., Zhao, G., Batbayar, N., Natsagdorj, T., Damba, I., Liu, S., Wood, K.A., Cao, L. and Fox, AD. 2020. The migratory Mute Swan Cygnus olor population in East Asia. Wildfowl Special Issue 6: 73–96; NIBR. 2017. 2016-2017 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2020. 2019-2020 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2019. 2018-2019 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2018. 2017-2018 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.	http://wpp.wetlands.org/explore/366/2519
1556	460	Anatidae	Cygnus cygnus	Whooper Swan	LC	E Asia	C & E Siberia to NE China	E Asia	Eastern Palearctic		2014	2019	58,100	58,100	Census based	The latest population estimated of 58,050 (rounded to 58,100) is based on 24,405 individuals in CN in 2019, 27,307 individuals in JP and 5,978 birds in KR (based on a five-year average count between 2015–2019 and 2014–2018 respectively) Ao et al (2020) and 360 in Jan 2019 in KP (AWC database).	1970	2019	INC	Reasonable	The current estimate 58,100 in 2019 is close to an earlier estimate of 60,000 in late 1990s (Miyabayashi & Mundkur 1999). Numbers recorded for the three non-breeding countries from January 1970–2019 show differing trends (Ao et al. 2020). The KR pop increased significantly from 1,955 in 1999 to 7,229 in 2018. The JP pop increased between 1970 and early 2000s, with numbers stabilising or declining slightly 2015-2019; with an overall growth from 11,095 in 1970 to 24,795 in 2019. The trend in CN was not significant, because of sparse data, despite an increase from 8,915 in 1992/93 to 24,405 in 2018/19. The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (0.9722) and a stable trend for 2005-2020 (0.9854), with data from JP & KR (Langendoen, et al., 2021). Based on the growth rate of the last 10 years, the population is projected to decrease by 57% in 3 generations compared to the population levels in 2011.	580	150	Miyabayashi, Y. and Mundkur, T. 1999. Atlas of Key Sites for Anatidae in the East Asian Flyway. Wetlands International, Japan, Tokyo, and Wetlands International, Asia Pacific, Kuala Lumpur. 148 pp.; Ao et al 2020. Migration routes and conservation status of the Whooper Swan Cygnus cygnus in East Asia Wildfowl Special Issue 6: 43–72.; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Ao et al 2020. Migration routes and conservation status of the Whooper Swan Cygnus cygnus in East Asia Wildfowl Special Issue 6: 43–72.	http://wpp.wetlands.org/explore/369/1556
2521	461	Anatidae	Cygnus columbianus	Tundra Swan	LC	bewickii, China (non-bre)	E & C Siberia	China	Eastern Palearctic	Separated from jankowskii after WPE5.	2019	2020	65,000	65,000	Census based	The population is assessed to be 65,000 individuals in 2020 based on extensive wintering survey coverage (Fang et al 2020).	2000	2020	DEC	Reasonable	Numbers have declined from 65,000 birds in 2020 based on extensive wintering survey coverage, compared to c. 81,000 in the early 2000s, based on less complete coverage (Fang et al 2020). A total of 75-80,000 estimated during aerial surveys along entire breeding range in RU in 2020-2021 (Solovyeva et al 2022) for this and the JP/KR (non-bre) population; and may exclude non-breeding juveniles/subadults (Katsumi Ushiyama, pers. comm. 2022).	650	160	Fang, L., Zhang, J., Zhao, Q., Solovyeva, D., Vangeluwe, D., Rozenfeld, S.B., Lameris, T., Xu, Z., Bysykatova-Harmey, I., Batbayar, N., Konishi, K., Moon, O.-K., He, B., Koyama, K., Moriguchi, S., Shimada, T., Park, J., Kim, H., Liu, G., Hu, B., Gao, D., Ruan, L., Natsagdorj, T., Davaasuren, B., Antonov, A., Mylnikova, A., Stepanov, A., Kirtaev, G., Zamyatin, D., Kazantzidis, S., Sekijima, T., Damba, I., Lee, H., Zhang, B., Xie, Y., Rees, E.C., Cao L. & Fox, A.D. 2020. Two distinct flyways with different population trends of Bewick's Swan Cygnus columbianus bewickii in East Asia. Wildfowl (Special Issue No. 6): 13–42.; Solovyeva, D.V., Barykina, D.A. Kirtaev G.V., Nikiforova, V.V., and S.B. Rozenfeld 2022. Tundra swan Cygnus columbianus (Anatidae) in the eastern Asian arctic: trends and ranges of different flyway populations. Zoologicheskiy Zhurnal.	Fang, L., Zhang, J., Zhao, Q., Solovyeva, D., Vangeluwe, D., Rozenfeld, S.B., Lameris, T., Xu, Z., Bysykatova-Harmey, I., Batbayar, N., Konishi, K., Moon, O.-K., He, B., Koyama, K., Moriguchi, S., Shimada, T., Park, J., Kim, H., Liu, G., Hu, B., Gao, D., Ruan, L., Natsagdorj, T., Davaasuren, B., Antonov, A., Mylnikova, A., Stepanov, A., Kirtaev, G., Zamyatin, D., Kazantzidis, S., Sekijima, T., Damba, I., Lee, H., Zhang, B., Xie, Y., Rees, E.C., Cao L. & Fox, A.D. 2020. Two distinct flyways with different population trends of Bewick's Swan Cygnus columbianus bewickii in East Asia. Wildfowl (Special Issue No. 6): 13–42.	http://wpp.wetlands.org/explore/371/2521
2522	461	Anatidae	Cygnus columbianus	Tundra Swan	LC	bewickii, Japan/Korea (non-bre)	Russian Far East	Japan, Korea	Eastern Palearctic	Separated from jankowskii after WPE5.	2019	2021	40,000	50,000	Census based	The population is assessed in JP to have increased from 40,000 in 2019–2020 to >50,000 individuals in 2021 (Katsumi Ushiyama, pers. comm. 2022). While the population in KR has declined to 10 birds in Jan 2020 (Fang et al 2020).	2000	2021	INC	Good	Numbers in JP have increased from 30,350 in 2000–2005 to 40,000 in 2019–2020; to >50,000 in 2021 (Katsumi Ushiyama, pers. comm. 2022). While in KR declined significantly from 792 birds in Jan 1999 to 10 birds in Jan 2020 (Fang et al 2020). A total of 75-80,000 estimated during aerial surveys along entire breeding range in RU in 2020-2021 (Solovyeva et al 2022) for this and the CN (non-bre) population; and may exclude non-breeding juveniles/subadults (Katsumi Ushiyama, pers. comm. 2022).	450	110	Fang, L., Zhang, J., Zhao, Q., Solovyeva, D., Vangeluwe, D., Rozenfeld, S.B., Lameris, T., Xu, Z., Bysykatova-Harmey, I., Batbayar, N., Konishi, K., Moon, O.-K., He, B., Koyama, K., Moriguchi, S., Shimada, T., Park, J., Kim, H., Liu, G., Hu, B., Gao, D., Ruan, L., Natsagdorj, T., Davaasuren, B., Antonov, A., Mylnikova, A., Stepanov, A., Kirtaev, G., Zamyatin, D., Kazantzidis, S., Sekijima, T., Damba, I., Lee, H., Zhang, B., Xie, Y., Rees, E.C., Cao L. & Fox, A.D. 2020. Two distinct flyways with different population trends of Bewick's Swan Cygnus columbianus bewickii in East Asia. Wildfowl (Special Issue No. 6): 13–42.; Solovyeva, D.V., Barykina, D.A. Kirtaev G.V., Nikiforova, V.V., and S.B. Rozenfeld 2022. Tundra swan Cygnus columbianus (Anatidae) in the eastern Asian arctic: trends and ranges of different flyway populations. Zoologicheskiy Zhurnal.	Fang, L., Zhang, J., Zhao, Q., Solovyeva, D., Vangeluwe, D., Rozenfeld, S.B., Lameris, T., Xu, Z., Bysykatova-Harmey, I., Batbayar, N., Konishi, K., Moon, O.-K., He, B., Koyama, K., Moriguchi, S., Shimada, T., Park, J., Kim, H., Liu, G., Hu, B., Gao, D., Ruan, L., Natsagdorj, T., Davaasuren, B., Antonov, A., Mylnikova, A., Stepanov, A., Kirtaev, G., Zamyatin, D., Kazantzidis, S., Sekijima, T., Damba, I., Lee, H., Zhang, B., Xie, Y., Rees, E.C., Cao L. & Fox, A.D. 2020. Two distinct flyways with different population trends of Bewick's Swan Cygnus columbianus bewickii in East Asia. Wildfowl (Special Issue No. 6): 13–42.	http://wpp.wetlands.org/explore/371/2522
2449	463	Anatidae	Branta bernicla	Brent Goose	LC	nigricans, Japan (non-bre)	Lena and Yana delta, NE Siberia	Japan + Korean E coast	Eastern Palearctic	In WPE4 this pop belonged to a single population of nigricans, E Asia (non-bre).	2014	2017	2,500	2,500	Census based	Recent counts in JP between 2014-2017 provide an estimate of 2,500 birds (Fujii 2017) compared to and est of 2,500-3,000 (Kurechi, M. in litt. 2012, as stated in WPE5). Numbers in KR have declined from <100 in midwinter (Moores, N. In litt. 2012, as stated in WPE5) to < 15 birds in last decade, additional surveys of east coast of KR required (Sawa et al 2020).	1998	2019	INC	Reasonable	In JP increase of 2% per year for 1998/99–2018/19, while in KR, uncertain, where numbers have decreased in the early 2000s and has remained very low over the last decade (< 15 birds). There was no relationship reported in the annual change in population size between JP and KR (Sawa, et al. 2020). The IWC analysis reports an uncertain trend falling in the stable range for 2011-2012 (1.0202), largely in JP, with a decline in the small population in KR; and an increasing trend for 2005-2020 (1.0294) (Langendoen, et al., 2021).	25	6	Sawa, Y, Tamura, C, Ikeuchi, T, Fujii, K., Ishioroshi, A, Shimada, T, Tatsuzawa, S, Deng, X, Cao, L, Kim, H & Ward, D. 2020. Migration routes and population status of the Brent Goose Branta bernicla nigricans wintering in East Asia. Wildfowl (2020) Special Issue 6: 244–266; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Sawa, Y, Tamura, C, Ikeuchi, T, Fujii, K., Ishioroshi, A, Shimada, T, Tatsuzawa, S, Deng, X, Cao, L, Kim, H & Ward, D. 2020. Migration routes and population status of the Brent Goose Branta bernicla nigricans wintering in East Asia. Wildfowl (2020) Special Issue 6: 244–266; Fujii, K. 2017. Population size and distribution of Brent Geese in Japan (2014 to 2017). Bird Research 13: 69–77. (In Japanese with English summary.)	http://wpp.wetlands.org/explore/386/2449
2450	463	Anatidae	Branta bernicla	Brent Goose	LC	nigricans, China (non-bre)	Lena and Yana delta	China	Eastern Palearctic	In WPE4 this pop belonged to a single population of nigricans, E Asia (non-bre).	1993	2018	2,500	6,000	Best guess	Approximately 6,000 Brent Geese are expected to migrate and the spend northern winter in CN; this is based on the staging population size during southward migration in Notsuke Bay, Japan of 8,469 in 2018 (Sawa et al. 2019) and northern wintering population in Japan estimated at 2,500 (Fujii 2017). The CN population includes a 1993 AWC count of 1,200 from Shandong (Li et al 2009). The current distribution in CN remains incompletely understood.	2012	2021	Unknown	No idea	Inadequate information since 2011 for a trend assessment. Additional surveys required in CN.	40	10			http://wpp.wetlands.org/explore/386/2450
2448	466	Anatidae	Branta hutchinsii	Cackling Goose	LC	leucopareia, Kuril (Ekarmar-Japan)	Kuril Is	N Japan	Eastern Palearctic	New population added in WPE5 based on success of a reintroduction programme. Previously included under Branta canadensis.	2020	2021	8,900	9,000	Census based	Almost extinct in E Asia from middle of 20th century until 1995, when Aleutian Canada Goose Recovery Project in NE Asia began, resulting in re-establishment of the population in JP. Numbers have greatly increased in the last decades (Kurechi & Sugawa (eds) 2021), with a full census counting 8,916 individuals in winter of 2020/2021 (Kurechi Masayuki pers comm 2021).	2012	2021	INC	Good	Numbers have greatly increased in the last decades (Ministry of the Environment, 2020, Kurechi & Sugawa (eds) 2021), with a full census counting 8,916 individuals in winter of 2020/2021 (Kurechi Masayuki pers. comm. 2021).	90	20	Ministry of the Environment. 2020. Monitoring site 1000 Anatidae survey 2004-2017 summary report. Biodiversity Center, Natural Environment Bureau, Ministry of the Environment, Japan.; Kurechi, M. & Sugawa, H. (eds) 2021. Shijukara-gan Monogatari (A Tale of Aleutian Cackling Geese, in Japanese). An account of recovery of the Aleutian Cackling Goose population in East Asia. Kyoto Tsushinsha Press. Kyoto. 295pp.	Kurechi, M. & Sugawa, H. (eds) 2021. Shijukara-gan Monogatari (A Tale of Aleutian Cackling Geese, in Japanese). An account of recovery of the Aleutian Cackling Goose population in East Asia. Kyoto Tsushinsha Press. Kyoto. 295pp.	http://wpp.wetlands.org/explore/10644/2448
1990	472	Anatidae	Anser canagicus	Emperor Goose	NT	N Pacific	Alaska, NE Siberia	Aleutian Is, Gulf of Alaska & Kamchatka	Central Pacific Flyway		2015	2015	158,000	158,000	Census based		1990	2015	INC	Good		1,600	400	U.S. Fish and Wildlife Service. 2020. Waterfowl population status, 2020. U.S. Department of the Interior, Washington, D.C. USA.	Dooley, J., E. Osnas & G. Zimmerman. 2016. Analysis of emperor goose survey data and harvest potential. Report to U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Region 7 and Alaska Migratory Bird Co-Management Council, Anchorage, AK.	http://wpp.wetlands.org/explore/382/1990
1951	473	Anatidae	Anser caerulescens	Snow Goose	LC	caerulescens, E Asia	Wrangel Is, Russia	E China, Korea, Japan	Eastern Palearctic		2016	2020	250	1,650	Census based	The pop is limited to CN, JP and KR; an update population estimate is based on recent counts from JP where increasing numbers are reported each year in the AWC (232 in 2016, 1608 in 2020) and KR where small numbers (1-5) every year since 1999, with 5 in the AWC 2020 (based on Winter Waterbird Census of Korea by NIBR). No recent counts are available from CN.	2016	2020	INC?	Poor	No information available from CN for a new assessment. Numbers in JP are increasing each year as reported in the AWC (232 in 2016 to 1,608 in 2020).	6	2			http://wpp.wetlands.org/explore/380/1951
1929	475	Anatidae	Anser indicus	Bar-headed Goose	LC	C, S & SE Asia	Kyrgyzstan, C China,Tibet, Mongolia	S Russia, China, India, Pakistan, Bangladesh, Nepal, Myanmar	Central Asian Flyway		1999	2016	97,000	118,000	Census based	Based on the assessment of Liu et al (2017), the population was assessed to have increased to 97,000 - 118,000 individuals, primarily driven by an increase of the population in the Penbo and Nyang Qu River valleys in Tibet. An assessment of the current population size south of the Himalaya is needed.	2014	2018	INC	Poor	In CN, the population of non-breeding birds has risen in Tibet, primarily due to increasing agricultural development in the Penbo and the Nyang Qu River valleys (Liu et al. 2017, Bishop et al. 2021), while numbers in Yunnan–Guizhou Plateau show a relatively stable trend (Liu et al. 2017). In IN, the population at some locations has increased such as Pong Dam, while nationwide there is an uncertain current and long-term trend (-13.4%) as per SoIB (2020). Trends in BG, MM and PK are unknown.	1,100	270	Liu, D, Zhang, G., Li, F, Ma, T., Lu, J. and Qian, F. 2017. A revised species population estimate for the Bar-headed Goose (Anser indicus). Avian Res. 8:7; Bishop, Ma, Liu, D., Zhang, G., Tsamchu, D., Yang, L, Qian, F. & Li, F. 2021. Rapid growth of the Bar-headed Goose Anser indicus wintering population in Tibet, China: 1991–2017. Bird Conservation International. doi:10.1017/S0959270921000265; SoIB 2020. State of India's Birds factsheet: Bar-headed Goose Anser indicus https://www.stateofindiasbirds.in/species/bahgoo/ . Accessed on 2020-07-06	Liu, D, Zhang, G., Li, F, Ma, T., Lu, J. and Qian, F. 2017. A revised species population estimate for the Bar-headed Goose (Anser indicus). Avian Res. 8:7; Bishop, Ma, Liu, D., Zhang, G., Tsamchu, D., Yang, L, Qian, F. & Li, F. 2021. Rapid growth of the Bar-headed Goose Anser indicus wintering population in Tibet, China: 1991–2017. Bird Conservation International. doi:10.1017/S0959270921000265	http://wpp.wetlands.org/explore/379/1929
1911	476	Anatidae	Anser anser	Greylag Goose	LC	rubrirostris, E Asia (non-bre)	N China, Mongolia, SC & SE Russia	Mainland China, Taiwan, S to Myanmar, N Vietnam	Eastern Palearctic		2017	2020	30,000	34,000	Census based	A recent estimate of about 30,000 individuals based on 2017/2018-2019/2020 census (Yan et al. 2020) doubles the previous estimate of 15,000, based on the estimation of 13,000 in early 2000 (Cao et al. 2008). In early 2018-2020, the Yangtze River survey results were about 25,000-34,000 in 3 consecutive years. While in the Yellow River Delta National Nature Reserve, 25,000 individuals were counted in 2015/2016, and 40,000 in 2020/2021 (Cao Lei, pers. comm. 2022).	2003	2020	INC?	Poor	Increasing numbers reported in CN 2003/04 (890), 2004/05 (3,263), 2015/16 (3,441), 2017/18 (25,035), 2018/19 (29,800) and 2019/20 (31,602), but with increased coverage, the trend is not clear (Yan et al. 2020)	320	80	Yan, M., Yi, K., Zhang, J., Batbayar, N., Xu, Z., Liu, G., Hu, B., Zheng, B., Antonov, A., Goroshko, O., Zhao, G., Davaasuren, B., Erdenechimeg, T., Nergui, J., Damba, I., Cao, L., Fox, A. 2020. Flyway connectivity and population status of the Greylag Goose Anser anser in East Asia. Wildfowl, 157-180.; Yan, M., Yi, K., Zhang, J., Batbayar, N., Xu, Z., Liu, G., Hu, B., Zheng, B., Antonov, A., Goroshko, O., Zhao, G., Davaasuren, B., Erdenechimeg, T., Nergui, J., Damba, I., Cao, L., & Fox, A. (2020). Flyway connectivity and population status of the Greylag Goose Anser anser in East Asia. Wildfowl, (Special Issue 6), 157-180. https://wildfowl.wwt.org.uk/index.php/wildfowl/article/view/2741	Yan, M., Yi, K., Zhang, J., Batbayar, N., Xu, Z., Liu, G., Hu, B., Zheng, B., Antonov, A., Goroshko, O., Zhao, G., Davaasuren, B., Erdenechimeg, T., Nergui, J., Damba, I., Cao, L., Fox, A. 2020. Flyway connectivity and population status of the Greylag Goose Anser anser in East Asia. Wildfowl, 157-180.; Fox, A.D. & Leafloor, J.O. (eds.) 2018. A Global Audit of the Status and Trends of Arctic and Northern Hemisphere Goose Populations (Component 2: Population accounts). Conservation of Arctic Flora and Fauna International Secretariat: Akureyri, Iceland. ISBN 978-9935-431-74-5; Cao, L., Barter, M. and Lei, G. 2008. New Anatidae population estimates for eastern China: implications for flyway population sizes. Biol. Conserv. 141: 2301-2309.	http://wpp.wetlands.org/explore/378/1911
2533	477	Anatidae	Anser cygnoid	Swan Goose	VU	inland China (non-bre)	SC Siberia	Inland E China	Eastern Palearctic	Separated from C & E Asia population after WPE5 following Damba et al. 2020.	2016	2020	54,000	54,000	Census based	Assessment of main wetlands of Yangtze River in 2000-2005 estimate 78,000, with 54,000 by averaging the total numbers counted on the Yangtze River in winters 2018/19 and 2019/20 (Damba et al. 2020).	2000	2020	DEC	Good	Main pop in Yangtze declined in CN in last decades; 78,000 in 2000-2005, 75,000 in 2007-2011 and 54,000 in 2016-2020. Pop in KR almost stable in last decades; 18 in 2000-2005, 54 in 2007-2011 and 47 in 2016-2020 (Damba et al. 2020).	540	140	Damba et al. 2020. Flyway structure, breeding, migration and wintering distributions of the globally threatened Swan Goose Anser cygnoides in East Asia. Wildfowl. Special Issue 6: 97–123.	Damba et al. 2020. Flyway structure, breeding, migration and wintering distributions of the globally threatened Swan Goose Anser cygnoides in East Asia. Wildfowl. Special Issue 6: 97–123.	http://wpp.wetlands.org/explore/373/2533
2534	477	Anatidae	Anser cygnoid	Swan Goose	VU	coastal China & Korea (non-bre)	Amur, Sakhalin	Coastal SE China & Korea	East Asian-Australasian Flyway	Separated from C & E Asia population after WPE5 following Damba et al. 2020.	2016	2020	420	420	Census based	New estimate based on averaging total numbers counted on Minjiang River estuary, CN and in KR during winters 2015/16–2019/2020 survey (Damba et al 2020).	2000	2020	DEC	Good	Main pop in Minjiang estuary, CN declined in last decades; 810 in 2000-2005, 640 in 2007-2011 and 368 in 2016-2020. Pop in KR almost stable in last decades; 18 in 2000-2005, 54 in 2007-2011 and 47 in 2016-2020. Small numbers recorded in the Han River estuary in KS bordering Haeju Bay in KR appear to be higher in Dec than in Jan (NIBR 2016, 2017, 2018, 2019, 2020). A report of 5,080 individuals in late Feb. 2021 at three sites in the Haeju Bay in KS (Institute for Biodiversity of State Academy of Sciences, DPR Korea, pers. comm. 2022) could indicate a larger population remain on the Korean peninsula through the non-breeding period or be early arrivals from the main non-breeding population in inland CN.	4	1	NIBR. 2020. 2019-2020 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2017. 2016-2017 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2016. 2015-2016 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Damba et al. 2020. Flyway structure, breeding, migration and wintering distributions of the globally threatened Swan Goose Anser cygnoides in East Asia. Wildfowl. Special Issue 6: 97–123.; NIBR. 2019. 2018-2019 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2018. 2017-2018 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.	Damba et al. 2020. Flyway structure, breeding, migration and wintering distributions of the globally threatened Swan Goose Anser cygnoides in East Asia. Wildfowl. Special Issue 6: 97–123.	http://wpp.wetlands.org/explore/373/2534
2438	478	Anatidae	Anser fabalis	Bean Goose	LC	serrirostris, Japan (non-bre)	Kamchatka to E Chukotka	Japan	Eastern Palearctic	In WPE4 this pop belonged to a single pop of serrirostris.	2014	2019	900	900	Census based	Some challenges in identification of the two subspecies, so older figures may not have been accurate (Li et al., 2020)	2014	2019	INC	Reasonable	Slow increase since 1990s, some challenges in identification of the two subspecies, so older figures may not have been accurate (Li et al., 2020)	9	2	Li et al 2020. Population trends and migration routes of the East Asian Bean Goose Anser fabalis middendorffii and A. f. serrirostris. Wildfowl (2020) Special Issue 6: 124–156	Li et al 2020. Population trends and migration routes of the East Asian Bean Goose Anser fabalis middendorffii and A. f. serrirostris. Wildfowl (2020) Special Issue 6: 124–156	http://wpp.wetlands.org/explore/375/2438
2440	478	Anatidae	Anser fabalis	Bean Goose	LC	middendorffi, Japan (non-bre)	Kamchatka	Japan	Eastern Palearctic	In WPE4 this pop belonged to a single pop of middendorfii.	2014	2019	9,400	9,400	Census based		2014	2019	INC	Reasonable	Slow increase since 1990s, some challenges in identification of the two subspecies, so older figures may not have been accurate (Li et al., 2020)	95	25	Li et al 2020. Population trends and migration routes of the East Asian Bean Goose Anser fabalis middendorffii and A. f. serrirostris. Wildfowl (2020) Special Issue 6: 124–156	Li et al 2020. Population trends and migration routes of the East Asian Bean Goose Anser fabalis middendorffii and A. f. serrirostris. Wildfowl (2020) Special Issue 6: 124–156	http://wpp.wetlands.org/explore/375/2440
2441	478	Anatidae	Anser fabalis	Bean Goose	LC	middendorffi, Korea (non-bre)	Yakutia	Korean peninsula	Eastern Palearctic	In WPE4 this pop belonged to a single pop of middendorfii.	2016	2020	7,700	7,700	Census based	Mean of 7,705 (6,385-8,942) for 2016-2020 (Hwajung Kim, pers. comm. 2022).	1999	2021	STA/INC?	Poor	Stable or slow increase since 1990s (Li et al., 2020)	75	20	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	Li et al 2020. Population trends and migration routes of the East Asian Bean Goose Anser fabalis middendorffii and A. f. serrirostris. Wildfowl (2020) Special Issue 6: 124–156	http://wpp.wetlands.org/explore/375/2441
2442	478	Anatidae	Anser fabalis	Bean Goose	LC	middendorffi, China (non-bre)	Sayan/Altai, Mongolia	China: Dongting Lake	Eastern Palearctic	In WPE4 this pop belonged to a single pop of middendorfii.	2006	2020	24,100	24,100	Census based		1998	2020	STA	Reasonable	In CN, trend information for Yangtze flood plain region more reliable that from other parts (Li et al 2020).	240	60	Li et al 2020. Population trends and migration routes of the East Asian Bean Goose Anser fabalis middendorffii and A. f. serrirostris. Wildfowl (2020) Special Issue 6: 124–156	Li et al 2020. Population trends and migration routes of the East Asian Bean Goose Anser fabalis middendorffii and A. f. serrirostris. Wildfowl (2020) Special Issue 6: 124–156	http://wpp.wetlands.org/explore/375/2442
2544	478	Anatidae	Anser fabalis	Bean Goose	LC	serrirostris, China (non-bre)	Taymyr to E Chukotka (excl. Kamchatka)	E China	Eastern Palearctic	Separated from serrirostris, Central & Eastern Siberia after WPE5.	2006	2020	229,000	229,000	Census based		1998	2020	INC	Poor	In CN slight increase (Li et al. 2020)	2,300	570	Li, C, Zhao, Q, Solovyeva, D, Lameris, T, Batbayar, N, Bysykatova-Harmey, I, Li, H, Emelyanov, V, Rozenfeld, S, Park, J, Shimada, T, Koyama, K, Moriguchi, S, Hou, J, Natsagdorj, T, Kim, H, Davaasuren, B, Damba, I, Liu, G, Hu, B, Xu, W, Gao, D, Goroshko, O, Antonov, A, Prokopenko, O, Tsend, O, Stepanov, A, Savchenko, A, Danilov, G, Germogenov, N, Zhang, J, Deng, X, Cao, L & Fox, A 2020, 'Population trends and migration routes of the East Asian Bean Goose Anser fabalis middendorffii and A. f. serrirostris', Wildfowl, nr. Special Issue 6, s. 124-156. <https://wildfowl.wwt.org.uk/index.php/wildfowl/article/view/2740>	Li et al 2020. Population trends and migration routes of the East Asian Bean Goose Anser fabalis middendorffii and A. f. serrirostris. Wildfowl (2020) Special Issue 6: 124–156	http://wpp.wetlands.org/explore/375/2544
2545	478	Anatidae	Anser fabalis	Bean Goose	LC	serrirostris, Korea (non-bre)	Indigirka to E Chukotka (excl. Kamchatka)	Korean peninsula	Eastern Palearctic	Separated from serrirostris, Central & Eastern Siberia after WPE5.	2016	2020	80,600	80,600	Census based	Annual counts between 2016-2020, with a max of 80,600, based on Winter Waterbird Census of Korea by NIBR, and in Li et al (2020). The latest estimate is an increase from 55000-66,000 by Jia et al (2016).	2004	2020	INC	Good	Slight increase reported through long term trend analysis (Li et al 2020).	810	200	Li et al 2020. Population trends and migration routes of the East Asian Bean Goose Anser fabalis middendorffii and A. f. serrirostris. Wildfowl (2020) Special Issue 6: 124–156	Winter Waterbird Census of Korea by NIBR.; Jia, Q., Koyama, K., Choi, C-Y., Kim, H.J., Cao, L., Gao, D.L., Liu, G.H. & Fox, A.D. 2016. Population estimates and geographical distributions of swans and geese in East Asia based on counts during the non-breeding season. Bird Conservation International 26: 397–417.; Li et al 2020. Population trends and migration routes of the East Asian Bean Goose Anser fabalis middendorffii and A. f. serrirostris. Wildfowl (2020) Special Issue 6: 124–156	http://wpp.wetlands.org/explore/375/2545
2443	480	Anatidae	Anser albifrons	Greater White-fronted Goose	LC	frontalis, China (non-bre)	E Siberia	China	Eastern Palearctic	In WPE4 this pop belonged to a single pop of frontalis, E Asia. The separation is based on Syroechkovskiy 2006.	2018	2020	48,000	48,000	Census based	48,000 in 2020 (Deng et al. 2020).	1992	2020	DEC	Reasonable	Irregular surveys suggest a declining trend from the 1990s with perhaps some recent recovery. Estimate of 142,000 in the 1990s (mean of 1990–1999), with 33,000 in 2005, 18,000 in 2011, 48,000 in 2020 (Deng et al, 2020). More recent increases may be a result of improved coverage, as the range of this population has contracted significantly.	480	120	Deng, X., Zhao, Q., Zhang, J., Kölzsch, A., Solovyeva, D., Bysykatova-Harmey, I., Xu, Z., Kruckenberg, H., Cao, L. & Fox, A.D. 2020. Contrasting trends in two East Asian populations of the Greater White-fronted Goose Anser albifrons. Wildfowl, 181-205.; Deng, X., Zhao, Q., Solovyeva, D., Lee, H., Bysykatova-Harmey, I., Xu, Z., Ushiyama, K., Shimada, T., Koyama, K., Park, J., Kim, H., Liu, G., Xu, W., Hu, B., Gao, D., He, B., Zhang, Y., Natsagdorj, T., Davaasuren, B., Moriguchi, S., Barykina, D., Antonov, A., Stepanov, A., Zhang, J., Cao, L., & Fox, A. (2020). Contrasting trends in two East Asian populations of the Greater White-fronted Goose Anser albifrons. Wildfowl, 0, 181-205. Retrieved from https://wildfowl.wwt.org.uk/index.php/wildfowl/article/view/2742	Deng, X., Zhao, Q., Solovyeva, D., Lee, H., Bysykatova-Harmey, I., Xu, Z., Ushiyama, K., Shimada, T., Koyama, K., Park, J., Kim, H., Liu, G., Xu, W., Hu, B., Gao, D., He, B., Zhang, Y., Natsagdorj, T., Davaasuren, B., Moriguchi, S., Barykina, D., Antonov, A., Stepanov, A., Zhang, J., Cao, L., & Fox, A. (2020). Contrasting trends in two East Asian populations of the Greater White-fronted Goose Anser albifrons. Wildfowl, 0, 181-205. Retrieved from https://wildfowl.wwt.org.uk/index.php/wildfowl/article/view/2742; Deng, X., Zhao, Q., Zhang, J., Kölzsch, A., Solovyeva, D., Bysykatova-Harmey, I., Xu, Z., Kruckenberg, H., Cao, L. & Fox, A.D. 2020. Contrasting trends in two East Asian populations of the Greater White-fronted Goose Anser albifrons. Wildfowl, 181-205.	http://wpp.wetlands.org/explore/376/2443
2444	480	Anatidae	Anser albifrons	Greater White-fronted Goose	LC	frontalis, Japan (non-bre)	E Siberia	Japan	Eastern Palearctic	In WPE4 this pop belonged to a single pop of frontalis, E Asia. The separation is based on Syroechkovskiy 2006.	2017	2020	224,000	242,000	Census based	Population estimate in 2020 is based on a mean of the maximum numbers counted each winter of 224,000 in 2017/18 and 242,000 in 2018/19 (Deng et al 2020).	2004	2018	INC	Good	Annual trend indices over 5-year (2013/14–2017/18), 10-year (2008/09–2017/18) and 15-year (2003/04–2017/18) periods shown increases (Shimada et al. 2019)	2,300	580	Shimada, T. Mori, A. & Tajiri, H. 2019. Regional variation in long-term population trends for the Greater White-fronted Goose Anser albifrons in Japan. Wildfowl 69: 105-117.	Deng, X., Zhao, Q., Zhang, J., Kölzsch, A., Solovyeva, D., Bysykatova-Harmey, I., Xu, Z., Kruckenberg, H., Cao, L. & Fox, A.D. 2020. Contrasting trends in two East Asian populations of the Greater White-fronted Goose Anser albifrons. Wildfowl, 181-205.; Ministry of the Environment. 2018. Japan Integrated Biodiversity Information System. Ministry of the Environment, Tokyo, Japan. Accessible at http://wwwgankamo/	http://wpp.wetlands.org/explore/376/2444
2445	480	Anatidae	Anser albifrons	Greater White-fronted Goose	LC	frontalis, Korea (non-bre)	E Siberia	Korea	Eastern Palearctic	In WPE4 this pop belonged to a single pop of frontalis, E Asia. The separation is based on Syroechkovskiy 2006.	2016	2020	142,000	142,000	Census based	Mean of 142,399 (91,928-182,608) for 2016-2020 as per Hwajung Kim (pers. comm. 2022).	2014	2020	INC	Good	Increasing numbers from 63,459 (2014/15) to 182,608 (2019/20) for 2011-2020 (Hwajung Kim pers. comm. 2022).	1,400	360	Deng, X., Zhao, Q., Solovyeva, D., Lee, H., Bysykatova-Harmey, I., Xu, Z., Ushiyama, K., Shimada, T., Koyama, K., Park, J., Kim, H., Liu, G., Xu, W., Hu, B., Gao, D., He, B., Zhang, Y., Natsagdorj, T., Davaasuren, B., Moriguchi, S., Barykina, D., Antonov, A., Stepanov, A., Zhang, J., Cao, L., & Fox, A. (2020). Contrasting trends in two East Asian populations of the Greater White-fronted Goose Anser albifrons. Wildfowl, 0, 181-205. Retrieved from https://wildfowl.wwt.org.uk/index.php/wildfowl/article/view/2742	Deng, X., Zhao, Q., Zhang, J., Kölzsch, A., Solovyeva, D., Bysykatova-Harmey, I., Xu, Z., Kruckenberg, H., Cao, L. & Fox, A.D. 2020. Contrasting trends in two East Asian populations of the Greater White-fronted Goose Anser albifrons. Wildfowl, 181-205.	http://wpp.wetlands.org/explore/376/2445
1880	481	Anatidae	Anser erythropus	Lesser White-fronted Goose	VU	C & E Siberia	C & E Siberia	E China, Korea, Japan	Eastern Palearctic	Small groups in Japan and Korea could be considered as separate populations.	2015	2020	6,800	6,800	Census based	6,800 indviduals, including 6,600 (mean of peak numbers counted during winters 2015/16, 2017/18, 2018/19 and 2019/20) in CN and 200 in JP (Ao et al. 2020).	2005	2020	DEC	Reasonable	In CN numbers have declined in the last decade from over 24,000 in 2010/11 to about 5,500 in 2017/18 to 4,000 in 2019/20, while increased in JP 107 to 307 in this same period (Ao et al. 2020).	70	20	Ao, Peiru, Xin Wang, Diana Solovyeva, Fanjuan Meng,, Toshio Ikeuchi, Tetsuo Shimada, Jinyoung Park, Dali Gao, Guanhua Liu, Binhua Hu, Tseveenmyadag Natsagdorj, Bofu Zheng, Sergey Vartanyan, Batmunkh Davaasuren, Junjian Zhang,, Lei Cao, & Anthony D. Fox (2020) Rapid decline of the geographically restricted and globally threatened Eastern Palearctic Lesser White-fronted Goose Anser erythropus. Wildfowl. Special Issue 6: 206–243.	Jia, Q., Koyama, K., Choi, C-Y., Kim, H.J., Cao, L., Gao, D.L., Liu, G.H. & Fox, A.D. 2016. Population estimates and geographical distributions of swans and geese in East Asia based on counts during the non-breeding season. Bird Conservation International 26: 397–417.	http://wpp.wetlands.org/explore/377/1880
2370	484	Anatidae	Clangula hyemalis	Long-tailed Duck	VU	E Asia (non-bre)	E Siberia	Seas of E Asia	Eastern Palearctic		1998	1998	500,000	1,000,000	Expert opinion	No information available for a new assessment; previous estimate from 1999 (Miyabayashi and Mundkur, 1999). Poorly covered by the AWC, max counts between 2016-2020: CN 1, JP 36, in 2016; KP 5 in 2020; KR 1 in 2016 & 2020.	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994). JP recorded a steep long term decline (-16.5% annually) between 1990–2015 that was sharper (-23.5%) between 2000–2015 (Shimada et al 2016). The species is poorly covered by the AWC and trend information from JP covers only a small part of its range.	7,100	1,800	Shimada, T., Mori, A. & Higuchi. H. (2016) Trends in the abundance of diving ducks and seaducks wintering in Japan. Wildfowl 66: 176–185.; Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Miyabayashi, Y. and Mundkur, T. 1999. Atlas of Key Sites for Anatidae in the East Asian Flyway. Wetlands International, Japan, Tokyo, and Wetlands International, Asia Pacific, Kuala Lumpur. 148 pp.	http://wpp.wetlands.org/explore/490/2370
2358	485	Anatidae	Somateria fischeri	Spectacled Eider	NT	E Siberia, N & W Alaska	Siberian coast E of Yana, N & W Alaska	Bering Sea pack ice	Eastern Palearctic		2006	2011	360,000	400,000	Expert opinion		1994	2016	DEC	Poor	1994-2015 stable breeding pop in Alaska (Amundson et al. 2019). In RU (Chaun Delta) nest densities were stable during 2003–2009 but declined by 8.0% per annum during 2009–2016 (Solovyeva et al 2018).	3,800	950	Amundson, C. L., P. L. Flint, R. A. Stehn, R. M. Platte, H. M. Wilson, W. W. Larned and J. B. Fischer. 2019. Spatio-temporal population change of Arctic-breeding waterbirds on the Arctic Coastal Plain of Alaska. Avian Conservation and Ecology 14(1):18. https://doi.org/10.5751/ACE-01383-140118; Solovyeva D.V., Vartanyan S.L., Frederiksen M., Fox A.D. 2018. Changes in nesting success and breeding abundance of Spectacled eiders Somateria fischeri in the Chaun delta, Chukotka, Russia, 2003-2016. Polar Biology 41(4), 743-751.	Larned, W., Bollinger, K. and Stehn, R. 2012. Late winter population and distribution of spectacled eiders in the Bering Sea 2009 and 2011. Unpublished report, USFWS, Anchorage, Alaska.	http://wpp.wetlands.org/explore/486/2358

Pop #	Taxo-nomic#	Family	Scientific Name	Common Name	Red List	Population Name	Breeding Range (bre)	Non-breeding Range (non-bre)	Flyway/Biogeographic Region	Population Notes	Size Start Year	Size End Year	Minimum size	Maximum size	Estimate quality	Size Notes	Trend Start Year	Trend End Year	Trend Code	Trend Quality Code	Trend Notes	1% threshold	0.25 % threshold	Trend references	Size references	URL
2557	486	Anatidae	Somateria spectabilis	King Eider	LC	N Pacific	N Alaska, Arctic NW Canada, NE Russia	Extreme N Pacific coast	Central Pacific Flyway	Combination of the former E Asia (bre) and Alaska, NW Canada (bre) populations following WPE5.	2014	2014	400,000	500,000	Best guess	400,000 nest in western arctic Canada and northern Alaska and an additional 100,000 or more nest in Russia (Sea Duck Joint Venture, 2015)	1995	2015	STA/DEC?	Poor	In N America (Amundson et al. 2019) state ""the pop initially increased but has stabilized in recent years, while decreased substantially on the North Slope from the 1970s to 1990s (Suydam et al. 2000) and a population model suggests a stable or slowly declining population in Alaska driven mostly by adult and duckling survival (Bentzen and Powell 2012)." The current population trend of the RU breeding birds is unknown.	4,500	1,100	Amundson, C. L., P. L. Flint, R. A. Stehn, R. M. Platte, H. M. Wilson, W. W. Larned and J. B. Fischer. 2019. Spatio-temporal population change of Arctic-breeding waterbirds on the Arctic Coastal Plain of Alaska. Avian Conservation and Ecology 14(1):18. https://doi.org/10.5751/ACE-01383-140118	Sea Duck Joint Venture, 2015. King Eider. Species Status Summary and Information Needs. Sea Duck Joint Venture, June 2015. https://seaduckjv.org/wp-content/uploads/2014/08/KIEI-status-summary-June-2015-FINAL.pdf	http://wpp.wetlands.org/explore/485/2557
2344	487	Anatidae	Somateria mollissima	Common Eider	NT	v-nigrum	NE Siberia, Alaska, W Canadian Arctic	Bering Sea, Aleutians to Kamchatka	Central Pacific Flyway		1998	1998	130,000	170,000	Expert opinion	No information available for a new assessment; previous estimate from 1999 (Miyabayashi and Mundkur, 1999). Not covered by the AWC.	1986	2021	STA	Poor	Aerial surveys in Yukon-Kuskokwim Delta, Alaska between 1986–2017 reveal a significant increase in breeding population (Wilson, et al. 2018). Population trend in RU breeding grounds (one monitoring point in Apapelgino, Chukotka is declining by 12.6% per annum in 2018-2021 (O. Prokopenko, unpublished data, Anatidae Working Group, pers. comm. 2022).	1,500	370	Wilson, H.M., Larned, W.W. and Swaim, M.A. 2018. Abundance and Trends of Waterbird Breeding Populations on the Arctic Coastal Plain, Alaska, 1986-2017. USFWS, MBM – Arctic Coastal Plain Breeding Waterbird Survey.	Wetlands International. (2006) Waterbird Population Estimates - Fourth Edition. Wetlands International. Wageningen, The Netherlands.; Miyabayashi, Y. and Mundkur, T. 1999. Atlas of Key Sites for Anatidae in the East Asian Flyway. Wetlands International, Japan, Tokyo, and Wetlands International, Asia Pacific, Kuala Lumpur. 148 pp.	http://wpp.wetlands.org/explore/484/2344
2360	488	Anatidae	Polysticta stelleri	Steller's Eider	VU	N Pacific (non-bre)	N Siberian coast, N & W Alaska	SW Alaska, Aleutians, Kamchatka, Kuril Is	Central Pacific Flyway		2011	2011	180,000	180,000	Expert opinion	Limited information on the current size estimate for the population; and no new estimate is proposed. As per Fredrickson, L. H. (2020), best information from wintering concentrations along Alaska Peninsula. Estimates of 400,000–500,000 individuals in 1960s dropped to 200,000 in 1990s; aerial surveys along Alaska Peninsula and Bristol Bay, AK, in 1990s showed peak numbers of 137,000. Aerial surveys in Russia (1993–1995) estimated population of 149,000 breeders.; Current estimate of 20,000 individuals in RU (as per Institute of Biological Problems of the North FEB RAS Lab of Ornithology, Diana V Solovyeva pers. comm. 2022).	2012	2021	Unknown	No idea	As per Fredrickson, L. H. (2020), "Current populations on breeding and wintering sites in Alaska have decreased from those in 1960s. Poorly known population wintering in E Asia may have declined by 20–40% to c. 20,000–25,000 birds, including 10,000–15,000 in the Russian Far East, with numbers wintering on Bering I, in the Commander Is, RU, declining from c. 10,000 in the 1960s to 3356–4994 in 2005–2007. More consistently scheduled aerial surveys beginning in the 1980s provide better information on numbers and distribution in winter, but too few Steller's Eiders are encountered on all North American breeding areas to make estimates."	1,800	450	Amundson, C. L., P. L. Flint, R. A. Stehn, R. M. Platte, H. M. Wilson, W. W. Larned and J. B. Fischer. 2019. Spatio-temporal population change of Arctic-breeding waterbirds on the Arctic Coastal Plain of Alaska. Avian Conservation and Ecology 14(1):18. https://doi.org/10.5751/ACE-01383-140118; Fredrickson, L. H. 2020. Steller's Eider (Polysticta stelleri), version 1.0. In Birds of the World (S. M. Billerman, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.steeid.01	Fredrickson, L. H. 2020. Steller's Eider (Polysticta stelleri), version 1.0. In Birds of the World (S. M. Billerman, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.steeid.01	http://wpp.wetlands.org/explore/487/2360
2381	491	Anatidae	Melanitta stejnegeri	Siberian Scoter	LC	E Asia	C & E Siberia E of R Yenisey	Coastal Far East & E Asia	East Asian-Australasian Flyway	Melanitta stejnegeri is accepted as a distinct species. Previously, stejnegeri was considered a subspecies of deglandi (WPE4) or in some taxonomic systems a subspecies of fusca.	1998	1998	600,000	1,000,000	Expert opinion	No information available for a new assessment; previous estimate from 1999 (Miyabayashi and Mundkur, 1999). 463 in 2016-2020) In KR, a mean of 221 (43 to 463 in 2016-2020), based on Winter Waterbird Census of Korea by NIBR.	2012	2021	Unknown	No idea	No idea	7,700	1,900	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.; Winter Waterbird Census of Korea by NIBR.; Miyabayashi, Y. and Mundkur, T. 1999. Atlas of Key Sites for Anatidae in the East Asian Flyway. Wetlands International, Japan, Tokyo, and Wetlands International, Asia Pacific, Kuala Lumpur. 148 pp.	http://wpp.wetlands.org/explore/11141/2381
2373	494	Anatidae	Melanitta americana	Black Scoter	NT	americana, E Asia	Siberia E of Lena	Coastal E Asia S to Korea	Eastern Palearctic	Melanitta nigra and americana are accepted as different species.	1996	1996	300,000	500,000	Expert opinion	No information available for a new assessment; previous estimate from Gerasimov and Gerasimov (1997). Coastal and offshore species poorly covered in the AWC - max counts in AWC 2015-2020: JP 1,280 in 2015: KR 416 2017: KP 55 in 2020.	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from Rose and Scott (1994). In JP, an annual decline −0.84% (2000–2015) was evident in the medium term (i.e. over the 26 years from 1990–2015) although more recently their numbers are considered to be "stable" (Shimada et al 2016).	3,900	970	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Winter Waterbird Census of Korea by NIBR.; Gerasimov, N.N. and Gerasimov, Yu.N. 1997. Observations of the Spring migration of divers and seaducks along the western coast of Kamchatka, Russia. Wetlands International Seaduck Specialist Group Bulletin No 6: 26-28.	http://wpp.wetlands.org/explore/10508/2373
2387	498	Anatidae	Bucephala clangula	Common Goldeneye	LC	clangula, E Asia (non-bre)	E Siberia, N Monglia NE China	E Asia, S Siberia	Eastern Palearctic		2006	2006	100,000	1,000,000	Best guess	No information available for a new assessment; previous estimate by Wetlands International (2006). Max counts in AWC 2016-2020: CN 2,196, KR 4,652 in 2016; JP 2,795, MN 8 in 2017; MM 12 in 2019; KP 2,568 in 2020.	2012	2020	STA	Poor	The IWC analysis reports a stable trend for 2010-2020 (1.0083), over 3 generations 2000-2020 (0.9939) and 1999-2020 (0.9917). Low reported numbers from the AWC suggest only a small proportion of the population is monitored. In JP, the 1990–2015 trend was a moderate decline although over 2000–2015 it was stable (Shimada et al 2016).	10,000	2,500	Shimada, T., Mori, A. & Higuchi. H. (2016) Trends in the abundance of diving ducks and seaducks wintering in Japan. Wildfowl 66: 176–185.; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Wetlands International. (2006) Waterbird Population Estimates - Fourth Edition. Wetlands International. Wageningen, The Netherlands.; Winter Waterbird Census of Korea by NIBR.; Shimada, T., Mori, A. & Higuchi. H. (2016) Trends in the abundance of diving ducks and seaducks wintering in Japan. Wildfowl 66: 176–185.	http://wpp.wetlands.org/explore/494/2387
2396	500	Anatidae	Mergellus albellus	Smew	LC	E Asia (non-bre)	E & C Siberia, Hokkaido	E Asia	Eastern Palearctic		2008	2020	25,000	35,000	Expert opinion	Max counts in AWC 2016-2020: CN 698, JP 1,838, KR 1,666 in 2017; HK 1 in 2018; KP 29 in 2020 in 2016-2020). Cao et al (2008) estimated 29,000 individuals in eastern CN. The maximum estimate has been revised to 35,000 on the basis of this estimate.	2011	2020	DEC	Poor	The IWC analysis reports a declining trend for 2011-2020 (0.9586) and 2008-2020 (0.9582). Based on the growth rate of the last 10 years, the population is projected to decrease by 40% in 3 generations compared to the population levels in 2011. Monitoring information in CN is sparse and the trend is therefore not considered to be representative of the population.	300	75	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Cao, L., Zhang, J., Barter, M. and Lei, G. 2009. Anatidae in eastern China during the non-breeding season: geographical distributions and protection status. Biol. Conserv. 143: 650-659.; Wetlands International. (2006) Waterbird Population Estimates - Fourth Edition. Wetlands International. Wageningen, The Netherlands.; Winter Waterbird Census of Korea by NIBR.	http://wpp.wetlands.org/explore/497/2396
2418	502	Anatidae	Mergus merganser	Goosander	LC	merganser, E Asia (non-bre)	C & E Siberia, NE China, Korea, Hokkaido	E Asia	Eastern Palearctic	Sometimes ascribed to comatus and was previously ascribed to orientalis.	1998	1998	50,000	100,000	Best guess	No information available for a new assessment; previous estimate from 2002 (Wetlands International, 2002). Mean 11,180 (9,465 to 13,448 in 2016-2020) in KR in KR by the Winter Waterbird Census of Korea (NIBR 2016, 2017, 2018, 2019, 2020). In eastern CN Cao, et al. (2008) estimated 29,000 individuals.	2011	2020	STA	Reasonable	The IWC analysis reports a stable trend for 2011-2020 (0.9856) and over 3 generations 2003-2020 (1.002) and an increasing trend for 1999-2020 (1.0125). The KR population is stable, based on Winter Waterbird Census of Korea by NIBR (2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020).	710	180	NIBR. 2015. 2014-2015 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; NIBR. 2013. 2012-2013 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2019. 2018-2019 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2014. 2013-2014 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2011. 2010-2011 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2017. 2016-2017 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2020. 2019-2020 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2016. 2015-2016 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2018. 2017-2018 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2012. 2011-2012 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.	NIBR. 2017. 2016-2017 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2016. 2015-2016 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.; NIBR. 2019. 2018-2019 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2018. 2017-2018 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Cao, L., Zhang, J., Barter, M. and Lei, G. 2009. Anatidae in eastern China during the non-breeding season: geographical distributions and protection status. Biol. Conserv. 143: 650-659.; Winter Waterbird Census of Korea by NIBR.	http://wpp.wetlands.org/explore/502/2418
2407	503	Anatidae	Mergus squamatus	Scaly-sided Merganser	EN	E & SE Asia	Extreme SE Russia, NE China, N Korea	S & E to C & S China, Korea	East Asian-Australasian Flyway		2010	2012	4,660	4,660	Expert opinion	Solovyeva and Pearce (2011) indicated a population of 2,400-10,000, and Solovyeva, et al (2014) revised the estimate down to 4660 based on two years of surveys 2010-2012. Zeng et al (2015) modelled the size of the CN non-breeding population for 2010-2012 to be 3,561 ± 478 birds. Mean 68 (range from 53 to 95 in 2016-2020) in KR by the Winter Waterbird Census of Korea (NIBR 2016, 2017, 2018, 2019, 2020).	2014	2016	STA	Reasonable	Solovyeva, et al. (2017) mentioned a significant decline was reported in the breeding grounds in northwest Sikhote-Alin (RU) in 1960s and '70s, followed by an increase between the 1990s and 2006, since when numbers have stabilised. Large scale citizen-science based monitoring of main non-breeding grounds in CN between 2014-2016 suggest that numbers may be stable (Zeng, et. al., 2018). Declining numbers in KR from 95-58 between 2016-2019 (NIBR). Further information from KP is required to provide a complete assessment.	45	10	Winter Waterbird Census of Korea by NIBR.; NIBR. 2019. 2018-2019 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2016. 2015-2016 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2017. 2016-2017 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Solovyeva, D.V., P.A. Cranswick & B. Hughes. 2017. International Single Species Action Plan for the Conservation of the Scaly-sided Merganser Mergus squamatus. CMS Technical Series No. #, EAAFP Technical Series No. #.; Zeng, Q., Wei, Q. and Lei, G. 2018. Contribution of citizen science towards cryptic species census: "many eyes" define wintering range of the Scaly-sided Merganser in mainland China. Avian Res 9:6 https://doi.org/10.1186/s40657-018-0098-5; NIBR. 2018. 2017-2018 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.	NIBR. 2019. 2018-2019 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Solovyeva, D.V., P.A. Cranswick & B. Hughes. 2017. International Single Species Action Plan for the Conservation of the Scaly-sided Merganser Mergus squamatus. CMS Technical Series No. #, EAAFP Technical Series No. #.; Zeng Q, Zhang Y, Sun G, Duo H, Wen L, Lei G (2015) Using Species Distribution Model to Estimate the Wintering Population Size of the Endangered Scaly-Sided Merganser in China. PLoS ONE 10(2): e0117307. doi:10.1371/journal.pone.0117307; NIBR. 2017. 2016-2017 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2018. 2017-2018 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Winter Waterbird Census of Korea by NIBR.; Solovyeva, D.V., P. Liu, A.I. Antonov, A.A. Averin, V.V. Pronkevich, V.P. Shokhrin, S.L. Vartanyan & P.A. Cranswick. 2014. The population size and breeding range of the Scaly-sided Merganser Mergus squamatus. Bird Conservation International 29: 393–405; NIBR. 2016. 2015-2016 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.	http://wpp.wetlands.org/explore/501/2407
2403	504	Anatidae	Mergus serrator	Red-breasted Merganser	LC	E Asia (non-bre)	E & C Siberia, NE China	E Asia	Eastern Palearctic		1997	1997	25,000	100,000	Best guess	No recent population size assessment available; current estimate (Rose and Scott, 1997). Max counts in AWC 2016-2020: CN 103 in 2016; TW 4 in 2017; KR 3,180 in 2018; JP 3,648 in 2019; KP 279 in 2020.	2011	2020	DEC	Poor	The IWC analysis reports a decreasing trend for 2011-2020 (0.9611) and an increasing trend over 3 generations 2001-2020 (1.0572) and 1999-2020 (1.0577). Based on the growth rate of the last 10 years, the population is projected to decrease by 53% in 3 generations compared to the population levels in 2011. Low reported numbers from the AWC suggest only a small proportion of the population is monitored. JP reported a steep long-term decline (-3.2% annually) 1990–2015 and over 2000–2015 (-3.9%) (Shimada et al 2016).	1,000	250	Shimada, T., Mori, A. & Higuchi. H. (2016) Trends in the abundance of diving ducks and seaducks wintering in Japan. Wildfowl 66: 176–185.; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Winter Waterbird Census of Korea by NIBR.; Rose, P.M. and Scott, D.A. 1997. Waterfowl Population Estimates – Second Edition. Wetlands International. Publ. 44. Wageningen, The Netherlands.; Rose, P.M. and Scott, D.A. 1997. Waterfowl Population Estimates – Second Edition. Wetlands International. Publ. 44. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/500/2403
2366	507	Anatidae	Histrionicus histrionicus	Harlequin Duck	LC	E Asia (pacificus)	E Siberia, N Japan	Coastal NW Pacific (rare China & Korea)	Eastern Palearctic	Pacific population has been described as a geographical subspecies, pacificus, but doubtfully valid.	1994	1994	25,000	100,000	Best guess	No information available for a new assessment; previous estimate by Rose and Scott (1994). Max counts in AWC 2016-2020: KR 63 in 2019; KP 5, JP 209 in 2020.	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994). In JP, the 1990–2015 (7.2% annual decline) and 2000–2015 trends (-8.7%) were a steep decline (Shimada et al 2016). The species is poorly covered by the AWC and trend information from JP covers only a small part of its range.	1,000	250	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.; Shimada, T., Mori, A. & Higuchi. H. (2016) Trends in the abundance of diving ducks and seaducks wintering in Japan. Wildfowl 66: 176–185.	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.; Winter Waterbird Census of Korea by NIBR.	http://wpp.wetlands.org/explore/489/2366
2111	519	Anatidae	Tadorna tadorna	Common Shelduck	LC	E Asia (non-bre)	EC Asia, Mongolia, NE China, Siberia	E mainland China, Korea, Japan, Taiwan	East Asian-Australasian Flyway		1998	1998	100,000	150,000	Expert opinion	No recent population assessment is available; the current size estimate was proposed in 1999 (Miyabayashi and Mundkur, 1999). In coastal CN a max of 42,924 (in 2013) between 2012 and 2019 (Choi et al 2020); in Yangtze floodplain 1,963 (Meng 2019); in KR a mean of 22,164 individuals (14,836 to 31,184 in 2016-2020) based on Winter Waterbird Census of Korea by NIBR.	2011	2020	STA	Poor	The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (0.9874) and a decreasing trend for 1999-2020 (0.9772). Based on the growth rate of the last 10 years, the population is projected to decrease by 29% in 3 generations compared to the population levels in 2011. Occasional but inconsistent high count numbers from CN suggests the monitoring of this population is inadequate.	1,200	310	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Choi, C.-Y., Li, J. & Xue, W.J. (2020). China Coastal Waterbird Census Report (Jan. 2012–Dec. 2019). Hong Kong: Hong Kong Bird Watching Society. (in Chinese); Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.; Meng F. 2019. Distribution and habitat selection of wintering ducks along the East Asian flyway in China. University of Chinese Academy of Sciences and Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences (PhD degree thesis, supervised by Professor Lei Cao.); Miyabayashi, Y. and Mundkur, T. 1999. Atlas of Key Sites for Anatidae in the East Asian Flyway. Wetlands International, Japan, Tokyo, and Wetlands International, Asia Pacific, Kuala Lumpur. 148 pp.	http://wpp.wetlands.org/explore/402/2111
2100	520	Anatidae	Tadorna ferruginea	Ruddy Shelduck	LC	E Asia (non-bre)	EC Asia, Mongolia, NE China, Siberia	S China, Korea, Myanmar N Thailand, Laos	East Asian-Australasian Flyway		1998	1998	50,000	100,000	Expert opinion	No recent population assessment is available; the current size estimate was proposed in 1999 (Miyabayashi and Mundkur, 1999). In KR a mean of 2,213 individuals (1,525 to 3,126 in 2016-2020) based on Winter Waterbird Census of Korea by NIBR.	2011	2020	INC	Poor	The IWC analysis reports a statistically significant increase 2011-2020 (1.1063) and a decreasing trend for 2000-2020 (0.9294). Based on the growth rate of the overall trend, the population is projected to decrease by 81% in 3 generations (23 y). Trend assumed through partial information, inadequate monitoring in CN in last 10 years and variable in MM.	710	180	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Miyabayashi, Y. and Mundkur, T. 1999. Atlas of Key Sites for Anatidae in the East Asian Flyway. Wetlands International, Japan, Tokyo, and Wetlands International, Asia Pacific, Kuala Lumpur. 148 pp.	http://wpp.wetlands.org/explore/397/2100
2138	531	Anatidae	Nettapus coromandelianus	Cotton Pygmy-goose	LC	coromandelianus, E & SE Asia	E, SE Asia	SE Asia, W Indonesia	Indo-Malay		1987	1991	25,000	1,000,000	Best guess		2011	2020	Unknown	No idea	The IWC analysis reports an uncertain trend for 2011-2020 (1.0403), over 3 generations 2000-2020 (1.0953) and 1989-2020 (0.9996). Low reported numbers from the AWC suggest only a small proportion of the population is monitored.	10,000	2,500	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Perennou, C.P., Mundkur, T. and Scott, D.A. 1994. The Asian Waterfowl Census 1987-1991: distribution and status of Asian waterfowl. IWRB Spec. Publ. No. 24. AWB Spec. Publ. No. 86. Slimbridge, UK and Kuala Lumpur, Malaysia.	http://wpp.wetlands.org/explore/414/2138
2148	535	Anatidae	Aix galericulata	Mandarin Duck	LC	China (non-bre)	Russian Far East, China, N Korea	China	East Asian-Australasian Flyway		1998	1998	20,000	20,000	Expert opinion	No information available for a new assessment; the current size estimate was proposed in 1999 (Miyabayashi and Mundkur, 1999).	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate declining from Rose and Scott (1994). Range expansion in RU to NW (Degtyarev 2015); increasing densities along the rivers in Amur Region (A Antonov, unpublished data, Anatidae Working Group, pers. comm. 2022) may increase a population increase but it is not adequate to reassess the population trend.	200	50	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.; Degtyarev, V.G. 2015. Range expansion of the Mandarin Duck Aix galericulata (Aves: Anseriformes: Anatidae) to the Lena River catchment, Siberia. Journal of Threatened Taxa. 7, 12 (Oct. 2015), 7937–7939. DOI:https://doi.org/10.11609/JoTT.o4078.7937-9.	Miyabayashi, Y. and Mundkur, T. 1999. Atlas of Key Sites for Anatidae in the East Asian Flyway. Wetlands International, Japan, Tokyo, and Wetlands International, Asia Pacific, Kuala Lumpur. 148 pp.	http://wpp.wetlands.org/explore/418/2148
2149	535	Anatidae	Aix galericulata	Mandarin Duck	LC	Korea (non-bre)	E Asia	Korea	Eastern Palearctic		2010	2020	5,000	5,000	Expert opinion	They are dispersed in small groups in inland wetlands in KR during the northern wintering season. Considering the number of scattered populations based on the wintering counts are a max. of 2,000, the overall population is estimated to be about 5,000, based on expert opinion (Hwajung Kim, pers. comm. 2021).	2011	2020	STA	Reasonable	The population trend is also judged as STA based on expert opinion of NIBR (Hwajung Kim. pers. comm. 2021). The IWC analysis reports an uncertain trend with an increasing tendency for 2011-2020 (1.0564), an uncertain trend in the stable range over 3 generations 2003-2020 (1.0463) and a stable trend for 1989-2020 (0.9906).	50	15	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.		http://wpp.wetlands.org/explore/418/2149
2150	535	Anatidae	Aix galericulata	Mandarin Duck	LC	Japan (non-bre)	Japan, S Kuril Is	Japan	Eastern Palearctic		1999	1999	40,000	40,000	Census based	No information available for a new assessment; previous estimate from 1999 (Miyabayashi and Mundkur, 1999). As per Ministry of the Environment, Japan (2021a) less than 2,000 individuals were counted in 2020/21, in keeping with previous counts of between 1100-2,200 birds (2004/05-2017/18) as per Ministry of the Environment, Japan (2020). A more expansive survey in 2020/21 recorded 29,850 individuals (Ministry of the Environment of the Government of Japan, 2015).	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate stable from Rose and Scott (1994).	400	100	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Ministry of the Environment. 2020. Monitoring site 1000 Anatidae survey 2004-2017 summary report. Biodiversity Center, Natural Environment Bureau, Ministry of the Environment, Japan.; Ministry of the Environment of the Government of Japan. 2015. Census on Anatidae Populations. Ministry of the Environment, Tokyo, Japan.; Ministry of the Environment, Japan. 2021a. Monitoring site 1000 Anatidae survey 2020/21 Survey Report. Biodiversity Center, Natural Environment Bureau, Ministry of the Environment, Japan.; Miyabayashi, Y. and Mundkur, T. 1999. Atlas of Key Sites for Anatidae in the East Asian Flyway. Wetlands International, Japan, Tokyo, and Wetlands International, Asia Pacific, Kuala Lumpur. 148 pp.	http://wpp.wetlands.org/explore/418/2150
2315	547	Anatidae	Aythya ferina	Common Pochard	VU	E Asia (non-bre)	Siberia, Sakhalin, NE China, Hokkaido	Mainly Korea & Japan	East Asian-Australasian Flyway		2006	2006	300,000	300,000	Expert opinion	No recent population assessment is available; previous estimate from 2006 (Wetlands International, 2006). Max counts in AWC 2016-2020: JP 14,559, in 2016; TW 161 in 2017; KP 1,373, KR 34,308, MM 2,036, PH 86, TH 3, in 2020. In CN Yangtze floodplain 18,394 in 2019 (Meng, 2019) and a max of 20,002 individuals in coastal counts in 2015, between 2012-2019 (Choi et al., 2021).	1999	2020	DEC	Good	The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (1.0272) and with a strong decrease for 1999-2020 (0.9058). Based on the smoothed imputed totals, the population has decreased by 69% (n.s.) in 17 years, i.e. in 3 generations (0.9381). In JP, the 1990–2015 trend was a moderate decline (Shimada et al 2016) and continued up to 2017 (Ministry of the Environment, 2021, Ministry of the Environment, 2017). An overall decline is also observed across its range in Eurasia (Mischenko, et al. 2020).	3,000	750	Mischenko, A., Fox, A. D., Švažas, S., Sukhanova, O., Czajkowski, A., Kharitonov, S., Lokhman, Y., Ostrovsky, O. & Vaitkuvienė, D. (2020). Recent changes in breeding abundance and distribution of the Common Pochard (Aythya ferina) in its eastern range. Avian Research, 11(1), 1-14.; Ministry of the Environment. 2020. Monitoring site 1000 Anatidae survey 2004-2017 summary report. Biodiversity Center, Natural Environment Bureau, Ministry of the Environment, Japan.; Ministry of the Environment of the Government of Japan. 2017. Census on Anatidae Populations. Ministry of the Environment, Tokyo, Japan.; Shimada, T., Mori, A. & Higuchi. H. (2016) Trends in the abundance of diving ducks and seaducks wintering in Japan. Wildfowl 66: 176–185.; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Wetlands International. (2006) Waterbird Population Estimates - Fourth Edition. Wetlands International. Wageningen, The Netherlands.; Meng F. 2019. Distribution and habitat selection of wintering ducks along the East Asian flyway in China. University of Chinese Academy of Sciences and Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences (PhD degree thesis, supervised by Professor Lei Cao.)	http://wpp.wetlands.org/explore/472/2315
2324	552	Anatidae	Aythya baeri	Baer's Pochard	CR	C, E, SE & S Asia	SE Siberia, NE China	S mainland China, Korea, Japan, Taiwan, SE Asia S to Myanmar, Thailand, NE India, Bangladesh	East Asian-Australasian Flyway		2010	2020	1,640	1,700	Expert opinion	Population estimate is based on incomplete survey and monitoring data and population size has been developed employing some expert opinion for extrapolating from this data with more accuracy than a best guess; The January 2020 CN wide census organised by CBA counted 1635 birds (Lei & Lu, 2020) & MM produced about 1640 birds. There is new evidence to suggest in a shift of the distribution of the population, and that there are relatively large wintering populations in Shandong, Anhui and Henan with the northernmost wintering sites in Beijing (Wu et al 2022). Small numbers are also recorded in BN, IN, NP & TH.	2011	2020	DEC	Good	A rapid decline in the population has been reported (Wang et al. 2012, Hearn et al. 2013, IUCN Red List 2019) and more recently by the Baer's Pochard Task Force (Richard Hearn, pers. comm. 2021). Nationally declines reported in BN (Chowdhury et al. 2012) and MM (Aung et al. 2016) over last decade.	15	4	Hearn, R., Tao, X., & Hilton, G. 2013. A species in serious trouble: Baer's Pochard Aythya baeri is heading for extinction in the wild. Birding ASIA, 19, 63-67.; Chowdhury, S.U., Lees, A.C. & Thompson, P.M. (2012) Status and distribution of the endangered Baer's Pochard Aythya baeri in Bangladesh. Forktail 28:57–61.; The IUCN Red List of Threatened Species 2019: Aythya baeri. Available online: https://dx.doi.org/10.2305/IUCN.UK.2019-3.RLTS.T22680384A154436811.en (accessed on 30 April 2022).; Aung, T.D, T.Z. Naing, S. Moses, L. Win, A.M. Tun, T.S. Zaw & S. Chan. 2016. An assessment of the wintering population of Baer's Pochard in central Myanmar. Unpublished report, Biodiversity And Nature Conservation Association: 47 pp.; Wang, X., Barter, M., Cao, L., Lei, J. & Fox, A.D. 2012. Serious contractions in wintering distribution and decline in abundance of Baer's Pochard Aythya baeri. Bird Conservation International, 22, 121-127, doi:10.1017/s0959270912000214.	Wu, L., Wang, Y., Mo, X., Wei, Q., Ma, C.; Wang, H., Townshend, T., Jia, Y., Hu, W., Lei, G. Shifted to the South, Shifted to the North, but no Expansion: Potential Suitable Habitat Distribution Shift and Conservation Gap of the Critically Endangered Baer's Pochard (Aythya baeri). Remote Sens. 2022, 14, 2171. https://doi.org/10.3390/rs14092171; Baer's Pochard Task Force, Decision 10.12; Lei, JY and Lu, JS. 2020. Internal Report on the census of wintering Baer's Pochard in China, January 2020. China Birdwatching Association / EAAFP Science Unit / China Baer's Pochard Task Force report to SEE Foundation and Chang Jiang Conservation Foundation.	http://wpp.wetlands.org/explore/478/2324
2322	553	Anatidae	Aythya nyroca	Ferruginous Duck	NT	S, E & SE Asia (non-bre)	C Asia to W China & W Mongolia	S, E & SE Asia	Central Asian Flyway		2005	2005	100,000	100,000	Expert opinion	No information available for a new assessment; the previous estimate was proposed in Perennou et al. (1994). In CN, Xumano and Maming (2014) estimate 6,000–8,000 individuals based on records between 1979 - 2012.	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate declining from Perennou et al. (1994). In CN, Meng (2019) report 182 individuals in the 2019 Yangtze surveys.	1,000	250	Meng F. 2019. Distribution and habitat selection of wintering ducks along the East Asian flyway in China. University of Chinese Academy of Sciences and Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences (PhD degree thesis, supervised by Professor Lei Cao.); Perennou, C.P., Mundkur, T. and Scott, D.A. 1994. The Asian Waterfowl Census 1987-1991: distribution and status of Asian waterfowl. IWRB Spec. Publ. No. 24. AWB Spec. Publ. No. 86. Slimbridge, UK and Kuala Lumpur, Malaysia.	Perennou, C.P., Mundkur, T. and Scott, D.A. 1994. The Asian Waterfowl Census 1987-1991: distribution and status of Asian waterfowl. IWRB Spec. Publ. No. 24. AWB Spec. Publ. No. 86. Slimbridge, UK and Kuala Lumpur, Malaysia.; Xumao, Z. and Maming, R. (2014) The status of Ferruginous Duck Aythya nyroca breeding and wintering in China. Wildfowl 64: 116–125.	http://wpp.wetlands.org/explore/476/2322
2331	556	Anatidae	Aythya fuligula	Tufted Duck	LC	E & SE Asia (non-bre)	C & E Siberia, NE China, Hokkaido	E, SE Asia S to Thailand	East Asian-Australasian Flyway		2006	2006	200,000	300,000	Expert opinion	No recent population size assessment available; previous estimate (Wetlands International, 2006). Max counts in AWC 2016-2020: HK 5,142, VN 8 in 2016; TW 3,055 in 2017; MM 4,058, in 2018; MY 1 in 2019; JP 23,444, KP 68, KR 12,841, PH 37,894, TH 8, in 2020. CN 6,150 in the Yangtze in 2019 (Meng 2019) and a max of 11,613 in Shenzhen Bay/Deep Bay in 2016; 21,100 in Liaoning Dandong in 2015 and 5,920 at Zhejiang Wenzhou Bay in 2019 in coastal counts between 2012-2019 (Choi et al., 2020).	2011	2020	STA	Reasonable	The IWC analysis (Langendoen et al., 2021) reports a stable trend for 2011-2020 (0.9903) and decreasing trend over 3 generations 2002-2020 (0.9297) and 2000-2020 (0.9136). Additional information needed from CN. In JP, the 1990–2015 trend was a moderate increase (0.88% annually) although over 2000–2015 it was stable (Shimada et al 2016), while a decline was recorded between 2004-2017 (Ministry of the Environment, 2020). Li et al (2021) report a significant increase in TW for 2014-2020. KR pop was stable for 2011-2020 (NIBR 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020).	2,400	610	NIBR. 2015. 2014-2015 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Shimada, T., Mori, A. & Higuchi. H. (2016) Trends in the abundance of diving ducks and seaducks wintering in Japan. Wildfowl 66: 176–185.; NIBR. 2020. 2019-2020 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2016. 2015-2016 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2019. 2018-2019 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; NIBR. 2017. 2016-2017 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2018. 2017-2018 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Ministry of the Environment. 2020. Monitoring site 1000 Anatidae survey 2004-2017 summary report. Biodiversity Center, Natural Environment Bureau, Ministry of the Environment, Japan.; Li et al. 2021. Taiwan New Year Bird Count 2021 Annual Report. Chinese Wild Bird Federation, Taiwan Endemic Species Research Institute, Taiwan. ; NIBR. 2012. 2011-2012 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2011. 2010-2011 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Choi, C.-Y., Li, J. & Xue, W.J. (2020). China Coastal Waterbird Census Report (Jan. 2012–Dec. 2019). Hong Kong: Hong Kong Bird Watching Society. (in Chinese); NIBR. 2013. 2012-2013 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2014. 2013-2014 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.	Wetlands International. (2006) Waterbird Population Estimates - Fourth Edition. Wetlands International. Wageningen, The Netherlands.; Meng F. 2019. Distribution and habitat selection of wintering ducks along the East Asian flyway in China. University of Chinese Academy of Sciences and Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences (PhD degree thesis, supervised by Professor Lei Cao.); Winter Waterbird Census of Korea by NIBR.	http://wpp.wetlands.org/explore/480/2331
2335	557	Anatidae	Aythya marila	Greater Scaup	LC	nearctica, E Asia	E Siberia	E Asia	Eastern Palearctic	Now listed by BOU as Aythya marila nearctica. Proposed name mariloides, sometimes applied to NE Asian and/or North American populations, is invalid, as it was attached to specimens of A. affinis; now replaced by name nearctica.	1998	1998	200,000	300,000	Expert opinion	No information available for a new assessment; previous estimate from 1999 (Miyabayashi and Mundkur, 1999). Max counts in AWC 2016-2020: CN 24 in 2016; TW 22 in 2017; KR 33,322 in 2018; JP 83,458 in 2019, HK 1, KP 301, MM 3 in 2020.	2011	2020	STA	Poor	The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (1.0207) and 1999-2020 (0.9905). Based on the smoothed imputed totals, the population has decreased by 5% (n.s.) in 14 years, i.e. in 3 generations. In JP, the 1990–2015 trend was a moderate increase although over 2000–2015 it was a moderate decline (Shimada et al 2016). KR pop was stable for 2011-2020 (NIBR 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020). As a coastal species, it may be missed in many counts. Nial Moores. in litt. 2012: numbers post 2010 now suspected to be much lower than this, but data inadequate.	2,400	610	NIBR. 2015. 2014-2015 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Shimada, T., Mori, A. & Higuchi. H. (2016) Trends in the abundance of diving ducks and seaducks wintering in Japan. Wildfowl 66: 176–185.; NIBR. 2011. 2010-2011 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2017. 2016-2017 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2016. 2015-2016 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2013. 2012-2013 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; NIBR. 2019. 2018-2019 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2014. 2013-2014 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2020. 2019-2020 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2018. 2017-2018 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2012. 2011-2012 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.	Winter Waterbird Census of Korea by NIBR.; Miyabayashi, Y. and Mundkur, T. 1999. Atlas of Key Sites for Anatidae in the East Asian Flyway. Wetlands International, Japan, Tokyo, and Wetlands International, Asia Pacific, Kuala Lumpur. 148 pp.	http://wpp.wetlands.org/explore/482/2335
2282	568	Anatidae	Spatula querquedula	Garganey	LC	E & SE Asia (non-bre)	C & E Siberia, NE China	E & SE Asia	East Asian-Australasian Flyway		2006	2006	100,000	200,000	Best guess	No recent population size assessment available; previous estimate (Wetlands International, 2006). In the IWC count totals were around 3,539-19,710 between 2016-2020.	2010	2019	INC?	Poor	The IWC analysis reports an uncertain trend with increasing tendency for 2010-2019 (1.1164) and over 3 generations 2009-2019 (1.0677) but a decreasing trend for 1990-2019 (0.9203). Numbers appear to have greatly reduced in TH (Phil Round. in litt., 2020).	1,400	350	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Wetlands International, 2006. Edited by Simon Delany and Derek Scott. Waterbird Population Estimates 4th edition. Wetlands International, Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/460/2282

Pop #	Taxo-nomic#	Family	Scientific Name	Common Name	Red List	Population Name	Breeding Range (bre)	Non-breeding Range (non-bre)	Flyway/Biogeographic Region	Population Notes	Size Start Year	Size End Year	Minimum size	Maximum size	Estimate quality	Size Notes	Trend Start Year	Trend End Year	Trend Code	Trend Quality Code	Trend Notes	1% threshold	0.25 % threshold	Trend references	Size references	URL
2242	575	Anatidae	Spatula clypeata	Northern Shoveler	LC	E & SE Asia (non-bre)	E Siberia, NE China	E & SE Asia	East Asian-Australasian Flyway		2002	2002	500,000	500,000	Best guess	No recent population assessment is available; the previous estimate from 2002 (WPE3, Wetlands International, 2002). Max counts in AWC 2016-2020: CN 12,555 & MM 214 in 2016; KP 2, KR 8,798, JP 1,393, MY 1, PH 2,651, TH 23 in 2020; HK 7,126 in 2019; TW 12,005 in 2017. In KR a mean of 6,522 (4,263 to 8,798 in 2016-2020), based on Winter Waterbird Census of Korea by NIBR.	2011	2020	INC	Good	The IWC analysis reports an increasing trend for 2011-2020 (1.0747) and a stable trend over 3 generations 2005-2020 (0.9775) and for 2002-2020 (0.9953). For HK, Sung et al (2021) report a 129% increase between 2008–2017, as do Li et al (2021) from TW for 2014-2020.	5,000	1,300	Sung Y-H, Pang C, Li TC, Wong PPY, Yu Y (2021) Ecological Correlates of 20-Year Population Trends of Wintering Waterbirds in Deep Bay, South China.Front. Ecol. Evol. 9: doi: 10.3389/fevo.2021.658084; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Li et al. 2021. Taiwan New Year Bird Count 2021 Annual Report. Chinese Wild Bird Federation, Taiwan Endemic Species Research Institute, Taiwan.	Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/448/2242
2283	578	Anatidae	Sibirionetta formosa	Baikal Teal	LC	E Asia	E Siberia to Kamchatka	Korea, E mainland China, Japan, Taiwan	Eastern Palearctic		2016	2020	500,000	700,000	Expert opinion	The previous estimate was 500,000 -1,000,000 from 2010 (Wetlands International, 2012); based on more recent counts, the upper limit is reduced to 700,000. The KR non-breeding population is estimated to 300,000-500,000 (Winter Waterbird Census of Korea by NIBR). Max counts in AWC 2016-2020: JP 3,037, KR 466,587 in 2020; BD 1, TW 2 in 2018. In CN 20,120 in the Yangtze in 2019 (Meng 2019). The previous national estimate for CN from 2008 was 91,000 (Cao et al. 2008).	2011	2020	STA	Reasonable	The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (1.0016) and a stable trend for 1999-2020 (1.0132). Based on the smoothed imputed totals, the population has decreased significantly (0.9461) by 61% (p < 0.05) in 11 years. i.e. in 3 generations. The population trend for 2011-2020 years is STA, based on Winter Waterbird Census of Korea by NIBR. Information on monitored in CN not adequately known.	5,900	1,500	Winter Waterbird Census of Korea by NIBR; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Meng F. 2019. Distribution and habitat selection of wintering ducks along the East Asian flyway in China. University of Chinese Academy of Sciences and Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences (PhD degree thesis, supervised by Professor Lei Cao.); Cao, L., Barter, M. and Lei, G. 2008. New Anatidae population estimates for eastern China: implications for flyway population sizes. Biol. Conserv. 141: 2301-2309.; Winter Waterbird Census of Korea by NIBR.	http://wpp.wetlands.org/explore/461/2283
2180	579	Anatidae	Mareca falcata	Falcated Duck	NT	C & E Asia	Mongolia, NE China, SE Siberia to Hokkaido and S Kuril Is	China, Korea and Japan	Eastern Palearctic		2016	2020	132,500	132,500	Best guess	The previous estimate of 78,000-89,000 from Cao et al (2008) has been revised based on recent non-breeding counts in the last five years to provide an updated minimum estimate of 132,472 individuals (rounded to 132,500). This included 125,046 individuals in Yangtze floodplain in CN in 2019/20 (Meng 2019, Zhang et al. 2020), 1,153 in Jan 2020 in KP, 4,066-1,625 in 2016-2020 in JP, and 2,610 to 6,023 in 2016-2020 in KR based on Winter Waterbird Census of Korea by NIBR, with smaller numbers of 2 MM, 3 HK, 17 TW and 25 TH in the AWC.	2006	2019	STA/INC?	Poor	The IWC analysis reports an uncertain trend falling in the stable range for 2006-2015 (1.0334), over 3 generations 2004-2015 (1.0308) and a stable trend for 2003-2015 (1.0301). Occasional but inconsistent high count numbers from CN suggests that reports of the monitoring of this population to the AWC need to be improved. Studies by Meng (2019), Zhang et al (2020) in CN and Goroshko (2012) in RU suggest that the population may be increasing in recent years based on increases in some areas, but this is balanced by declines in some coastal areas, and a more comprehensive assessment is required.	1,300	330	Zhang, B., Wang, X., Meng, F., Kharitonov, S., Hu, B., Gao, D., Liu, G., Zhang, Y., Antonov, A., Batmunkh, D., Goroshko, O., Mundkur, T., Cao L., & Fox, A.D. 2020. Contrasting changes in abundance of Falcated Duck Mareca falcata wintering in the Yangtze River floodplain and on the eastern coast of China. Wildfowl, [S.l.], p. 267-292. ISSN 2052-6458. Available at:; Meng F. 2019. Distribution and habitat selection of wintering ducks along the East Asian flyway in China. University of Chinese Academy of Sciences and Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences (PhD degree thesis, supervised by Professor Lei Cao.); Goroshko, O.A. 2012. Falcated Duck. In E.V. Vishnyakov et al. (eds.), The Red Data Book of Zabaikalsky Krai, pp. 73–75. Novosibirsk Publishing House, Novosibirsk, Russia.; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Goroshko, O.A. 2012. Falcated Duck. In E.V. Vishnyakov et al. (eds.), The Red Data Book of Zabaikalsky Krai, pp. 73–75. Novosibirsk Publishing House, Novosibirsk, Russia.; Zhang, B., Wang, X., Meng, F., Kharitonov, S., Hu, B., Gao, D., Liu, G., Zhang, Y., Antonov, A., Batmunkh, D., Goroshko, O., Mundkur, T., Cao L., & Fox, A.D. 2020. Contrasting changes in abundance of Falcated Duck Mareca falcata wintering in the Yangtze River floodplain and on the eastern coast of China. Wildfowl, [S.l.], p. 267-292. ISSN 2052-6458. Available at:; Cao, L., Barter, M. and Lei, G. 2008. New Anatidae population estimates for eastern China: implications for flyway population sizes. Biol. Conserv. 141: 2301-2309.; Meng F. 2019. Distribution and habitat selection of wintering ducks along the East Asian flyway in China. University of Chinese Academy of Sciences and Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences (PhD degree thesis, supervised by Professor Lei Cao.)	http://wpp.wetlands.org/explore/428/2180
2177	580	Anatidae	Mareca strepera	Gadwall	LC	strepera, E Asia (non-bre)	N E Asia	E Asia	East Asian-Australasian Flyway		1998	1998	500,000	1,000,000	Expert opinion	No recent population assessment is available; the previous estimate from 1999 (Miyabayashi and Mundkur, 1999). In KR a mean of 7,647 individuals (4,578 to 12,022 in 2016-2020) based on Winter Waterbird Census of Korea by NIBR. In JP between 7,720-2,374 in 2016-2020 reported during the AWC. In MM, 1,168-1,253 reported during the AWC 2017-2018. In CN, 50,898 reported during the AWC 2017, indicating a large proportion of the population is not being accounted to get a reliable estimate.	2011	2020	STA	Poor	The IWC analysis (Langendoen et al., 2021) reports a stable trend for 2011-2020 (1.0222), over 3 generations 2010-2020 (1.016) and 1999-2020 (0.9984). Low reported numbers from the AWC suggest only a small proportion of the population is monitored. Surveys on the CN coast indicate an increase in one of five regions between 2012-2019 (Choi et al., 2020).	7,100	1,800	Choi, C.-Y., Li, J. & Xue, W.J. (2020). China Coastal Waterbird Census Report (Jan. 2012–Dec. 2019). Hong Kong: Hong Kong Bird Watching Society. (in Chinese); Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Miyabayashi, Y. and Mundkur, T. 1999. Atlas of Key Sites for Anatidae in the East Asian Flyway. Wetlands International, Japan, Tokyo, and Wetlands International, Asia Pacific, Kuala Lumpur. 148 pp.	http://wpp.wetlands.org/explore/427/2177
2185	581	Anatidae	Mareca penelope	Eurasian Wigeon	LC	E Asia (non-bre)	E Siberia, Mongolia, NE China	E Asia	East Asian-Australasian Flyway		1998	1998	500,000	1,000,000	Expert opinion	No recent population assessment is available; the previous estimate from 1999 (Miyabayashi and Mundkur, 1999). Recent counts include from KR between 6,478 to 10,930 in 2016-2020 (Winter Waterbird Census of Korea by NIBR); CN where counts have been irregular, with 15,329 from Yangtze River floodplains in 2019 (Meng, 2019). The eastern CN population was estimated as 82,000 between 2010 and 2020 (Beixi Zhang et al. in prep.). In JP between 17,300-18,600 have been reported during the AWC 2016-2020. Maximum of smaller numbers reported to the AWC 2016-2020 include TH 30 and VN 74 in in 2016, PH 15 in 2020, MM 383 in 2019 and KP 756 in 2020.	2011	2020	INC	Poor	The eastern CN population was estimated to be between 120,000 and 230,000 between 1990 and 2000, but fell to around 50,000 between 2000 and 2010, recovering a little to 82,000 between 2010 and 2020 (Beixi Zhang et al. in prep.); with a decline in coastal areas, from 95% to 72% and 54% over the three decades. Choi et al (2020) report one increase and one decrease across three sectors of the CN mainland during 2012-2019; while Sung et al. (2021) report a decline of 58% between 2008–2017 and a long term decline of 89% over 1998–2017 in Hong Kong. The IWC analysis (Langendoen, et al. 2021) reports a stable trend for 2011-2020 (1.0125) and trend for 2003-2020 (0.989) and a decreasing trend over 3 generations 2008-2020 (0.9825). Based on the smoothed imputed totals, the population has decreased by 15% (n.s.) in 12 years, i.e. in 3 generations.	7,100	1,800	Sung Y-H, Pang C, Li TC, Wong PPY, Yu Y (2021) Ecological Correlates of 20-Year Population Trends of Wintering Waterbirds in Deep Bay, South China.Front. Ecol. Evol. 9: doi: 10.3389/fevo.2021.658084; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Choi, C.-Y., Li, J. & Xue, W.J. (2020). China Coastal Waterbird Census Report (Jan. 2012–Dec. 2019). Hong Kong: Hong Kong Bird Watching Society. (in Chinese)	Miyabayashi, Y. and Mundkur, T. 1999. Atlas of Key Sites for Anatidae in the East Asian Flyway. Wetlands International, Japan, Tokyo, and Wetlands International, Asia Pacific, Kuala Lumpur. 148 pp.; Meng F. 2019. Distribution and habitat selection of wintering ducks along the East Asian flyway in China. University of Chinese Academy of Sciences and Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences (PhD degree thesis, supervised by Professor Lei Cao.)	http://wpp.wetlands.org/explore/429/2185
2214	589	Anatidae	Anas zonorhyncha	Chinese Spot-billed Duck	LC	zonorhyncha	SE Siberia, Japan, Korea, NE & E mainland China, Taiwan	S & E China mainland, Japan, Korea, Taiwan	Eastern Palearctic		1987	1998	800,000	1,600,000	Best guess	No recent population assessment is available; the previous estimate from 1994 (Perennou et al, 1994). Recent counts during the AWC including CN 40,835-75,148 2016-2017, KP 12,874 in 2020, KR 85,922-109,800 in 2016-2020 (based on Winter Waterbird Census of Korea by NIBR), in JP 8,663-13,431 in 2016-2019, TW 1083 in 2018, with small numbers from HK 7, MY 2, MM 7 and TH 2-4. Nearly 22,900 counted in the Yangtze basin of CN in 2019 (Meng 2019).	2011	2020	INC?	Poor	The IWC analysis reports a moderate increasing trend for 2011-2020 (1.0697) and over 3 generations for 2008-2020 (1.0336) and a decreasing trend for 1999-2020 (0.9747). Occasional but inconsistent high count numbers from CN suggests the monitoring of this population is inadequate. In KR an INC reported for 2011-2020 (based on Winter Waterbird Census of Korea by NIBR). In JP between shows a stable or slightly increasing population between 2011-2021 (Kazuo Koyama, pers. comm. 2022).	11,300	2,800	NIBR. 2018. 2017-2018 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2015. 2014-2015 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2013. 2012-2013 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2011. 2010-2011 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2014. 2013-2014 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2012. 2011-2012 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2019. 2018-2019 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2020. 2019-2020 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2017. 2016-2017 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2016. 2015-2016 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Perennou, C.P., Mundkur, T. and Scott, D.A. 1994. The Asian Waterfowl Census 1987-1991: distribution and status of Asian waterfowl. IWRB Spec. Publ. No. 24. AWB Spec. Publ. No. 86. Slimbridge, UK and Kuala Lumpur, Malaysia.; Meng F. 2019. Distribution and habitat selection of wintering ducks along the East Asian flyway in China. University of Chinese Academy of Sciences and Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences (PhD degree thesis, supervised by Professor Lei Cao.)	http://wpp.wetlands.org/explore/11089/2214
2215	590	Anatidae	Anas poecilorhyncha	Indian Spot-billed Duck	LC	haringtoni	E Assam, Myanmar, E to S China & Laos	SE Asia	Indo-Malay		1987	1991	10,000	100,000	Best guess		2011	2020	STA	Poor	The IWC analysis reports a stable trend for 2011-2020 (0.9846), over 3 generations 2009-2020 (1.0152) and 2001-2020 (1.0563). Based on the growth rate of the last 10 years, the population is projected to decrease by 16% in 3 generations compared to the population levels in 2011. Low reported numbers from the AWC suggest only a small proportion of the population is monitored.	1,000	250	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Perennou, C.P., Mundkur, T. and Scott, D.A. 1994. The Asian Waterfowl Census 1987-1991: distribution and status of Asian waterfowl. IWRB Spec. Publ. No. 24. AWB Spec. Publ. No. 86. Slimbridge, UK and Kuala Lumpur, Malaysia.	http://wpp.wetlands.org/explore/438/2215
2208	592	Anatidae	Anas platyrhynchos	Mallard	LC	platyrhynchos, E Asia (non-bre)	NE & E Asia	E Asia	East Asian-Australasian Flyway		1998	1998	1,500,000	1,500,000	Expert opinion	No recent population assessment is available; the previous estimate from 1999 (Miyabayashi and Mundkur, 1999). Cao et al. (2008) published an estimate of 73,000 in eastern CN from counts in 2002/03–2006/07. Recent non-breeding counts to the AWC 2016-2020 include CN 45,620 - 47,737 in 2016-2017, KR 153,351 - 221,558 (based on Winter Waterbird Census of Korea by NIBR); JP 81,664 - 56,933, KP 5,393 in 2020, MN 150 in 2016, MM 420 in 2017, PH 49 in 2020, TH 2 in 2017.	2012	2021	Unknown	No idea	No population trend assessment. In KR a moderate INC reported for 2011-2020 (based on Winter Waterbird Census of Korea by NIBR).	15,000	3,800		Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/435/2208
2270	608	Anatidae	Anas acuta	Northern Pintail	LC	E & SE Asia	E Siberia	E & SE Asia S to Thailand	East Asian-Australasian Flyway		2006	2006	200,000	300,000	Expert opinion	No recent population assessment is available; previous estimate from 2006 (WPE4, Wetlands International, 2006). Max counts in AWC 2016-2020: CN 18,839, TH 976, VN 36 in 2016; MM 5272, MY 1, TW 4,292 in 2017; HK 3,747 in 2018; ID 6, JP 34,216, KP 218, KR 12,484, PH 679, in 2020. In a separate analysis, the eastern CN population was estimated at 47,000 between 2010-2020 (Beixi Zhang et al. in prep.).	2011	2020	STA?	Poor	The IWC analysis reports a moderate increasing trend for 2011-2020 (1.0797), a decreasing trend for 1989-2020 (0.981) and stable over 3 generations 2001-2020 (0.9948). In a separate analysis, the eastern CN population was estimated to be between 80,000 and 150,000 during the 1990s, but fell to 46,000 during 2000-2010, remaining stable to an estimated 47,000 during 2010-2020 (Beixi Zhang et al. in prep.), mainly in coastal areas as reported in two of five sectors along the wider CN coast between 2012-2019 (Choi et al., 2020). However, a recent 68% decline between 2008-2017 and a long term decline of 90% between 1998–2017 has been reported from HK (Sung et al., 2021). In JP a decline was recorded between 2004-2017 (Ministry of the Environment, 2021); that coincides with a long term decline of 70% between 1996 to 2018.	2,400	610	Ministry of the Environment. 2021. Monitoring site 1000 Anatidae survey 2004-2017 summary report. Biodiversity Centre of Japan.; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Choi, C.-Y., Li, J. & Xue, W.J. (2020). China Coastal Waterbird Census Report (Jan. 2012–Dec. 2019). Hong Kong: Hong Kong Bird Watching Society. (in Chinese); Sung Y-H, Pang C, Li TC, Wong PPY, Yu Y (2021) Ecological Correlates of 20-Year Population Trends of Wintering Waterbirds in Deep Bay, South China.Front. Ecol. Evol. 9: doi: 10.3389/fevo.2021.658084	Wetlands International. (2006) Waterbird Population Estimates - Fourth Edition. Wetlands International. Wageningen, The Netherlands.; Winter Waterbird Census of Korea by NIBR.	http://wpp.wetlands.org/explore/457/2270
771	612	Anatidae	Anas crecca	Common Teal	LC	crecca, E & SE Asia (non-bre)	E Siberia, NE China	E & SE Asia	East Asian-Australasian Flyway		1992	1997	600,000	1,000,000	Best guess	No information available for a new assessment; previous estimate from 2002 (Wetlands International, 2002). Mean 17,526 (range from 12,855 to 21,576 in 2016-2020) in KR, based on Winter Waterbird Census of Korea by NIBR. Between 11,988-52,551 reported in the AWC from 2016-2020 in JP.	2011	2021	STA	Poor	The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (1.0084), a stable trend over 3 generations 2009-2020 (0.997) and a declining trend from 1991-2021 (0.9709). HK reports a decline of -66% between 2008-2017 (Sung et al 2021) and TW a stable trend between 2014-2021 but with some local declines (Lin et al. 2021). Choi et al 2020 report an uncertain increasing trend in coastal CN, with 89,000 in the Yangtze floodplain in 2019 (Meng 2019). These large but irregular counts from mainland CN and relatively low coverage in JP (where the species is widespread outside the monitoring network (MOEJ 2021)) suggest that only a small proportion of the population is monitored. Therefore, it is not considered representative of the population.	7,700	1,900	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Li et al. 2021. Taiwan New Year Bird Count 2021 Annual Report. Chinese Wild Bird Federation, Taiwan Endemic Species Research Institute, Taiwan. ; Meng F. 2019. Distribution and habitat selection of wintering ducks along the East Asian flyway in China. University of Chinese Academy of Sciences and Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences (PhD degree thesis, supervised by Professor Lei Cao.); Ministry of the Environment, Japan. 2021. Monitoring site 1000 Anatidae survey 2020/21 Survey Report. Biodiversity Center, Natural Environment Bureau, Ministry of the Environment, Japan.; Choi, C.-Y., Li, J. & Xue, W.J. (2020). China Coastal Waterbird Census Report (Jan. 2012–Dec. 2019). Hong Kong: Hong Kong Bird Watching Society. (in Chinese)	Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/10038/771
1388	623	Podicipedidae	Tachybaptus ruficollis	Little Grebe	LC	poggei	E, SE Asia		Indo-Malay	T.r. poggei now includes the former subspecies T.r. kunikyonis following O'Donnel & Fjeldså (1995). O'Donnel & Fjeldså (1995) includes kunikyonis (Ryukyu Is).	2001	2001	100,000	1,000,000	Best guess		2012	2021	Unknown	No idea		10,000	2,500		Chan, Simba, In litt,. 2002. Unpublished information on Asian waterbirds.	http://wpp.wetlands.org/explore/3611/1388
1424	636	Podicipedidae	Podiceps grisegena	Red-necked Grebe	LC	holbollii, E Asia	N E Asia	Coastal E Asia	Eastern Palearctic		2006	2006	50,000	50,000	Best guess	No information available for a new assessment; previous estimate (Wetlands International, 2006). Mean 34 (range from 2 to 76 in 2016-2020) in KR, based on Winter Waterbird Census of Korea by NIBR.	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994).	500	130	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Wetlands International. (2006) Waterbird Population Estimates - Fourth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3621/1424
1434	637	Podicipedidae	Podiceps cristatus	Great Crested Grebe	LC	cristatus, E Asia (non-bre)	NE Asia	E Asia	Eastern Palearctic		1987	1991	25,000	50,000	Best guess	No information available for a new assessment; previous estimate from 2002 (Wetlands International, 2002). In KR mean of 13,758 individuals (12,155-17,332 in 2016-2020) based on Winter Waterbird Census of Korea by NIBR.	2011	2020	STA	Good	In KR, a moderate increase reported for last 10 years (2011-2020), based on Winter Waterbird Census of Korea by NIBR. In CN, an increase reported from coastal sites monitoring a small population (2012-2019) by Choi et al. (2020); whereas in HK, numbers have declined between 1998–2007 and 2008–2017 (Sung et al., 2021). The IWC analysis (Langendoen et al., 2021) reports a stable trend 2011-2020 (1.0333) and an increasing trend for 2000-2020 (1.1377) and over 3 generations: 2003-2020 (1.1458).	350	90	Sung Y-H, Pang C, Li TC, Wong PPY, Yu Y (2021) Ecological Correlates of 20-Year Population Trends of Wintering Waterbirds in Deep Bay, South China.Front. Ecol. Evol. 9: doi: 10.3389/fevo.2021.658084; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Choi, C.-Y., Li, J. & Xue, W.J. (2020). China Coastal Waterbird Census Report (Jan. 2012–Dec. 2019). Hong Kong: Hong Kong Bird Watching Society. (in Chinese)	Rose, P.M. and Scott, D.A. 1997. Waterfowl Population Estimates – Second Edition. Wetlands International. Publ. 44. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3622/1434
1441	638	Podicipedidae	Podiceps auritus	Horned Grebe	VU	auritus, E Asia (non-bre)	E Asia	Coastal E Asia	Eastern Palearctic		2006	2006	10,000	25,000	Best guess	No information available for a new assessment; previous estimate from 2006 (Wetlands International, 2006). In KR a mean of 109 individuals (23 to 286 in 2016-2020), based on Winter Waterbird Census of Korea by NIBR.	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate unknown by Rose and Scott (1994).	250	65	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Wetlands International. (2006) Waterbird Population Estimates - Fourth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3623/1441
1447	639	Podicipedidae	Podiceps nigricollis	Black-necked Grebe	LC	nigricollis, E Asia (non-bre)	E Asia	Coastal E Asia	Eastern Palearctic		1987	1991	10,000	100,000	Best guess	No information available for a new assessment. In KR, mean of 619 individuals (234-1,227 in 2016-2020) based on Winter Waterbird Census of Korea by NIBR.	2012	2021	Unknown	No idea	No information available for a new assessment; previously estimate unknown by Rose and Scott (1994).	1,000	250	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.		http://wpp.wetlands.org/explore/3624/1447
68	1974	Heliornithidae	Heliopais personatus	Masked Finfoot	EN	S, SE Asia	NE India SE to Vietnam, Malaysia, Sumatra		Indo-Malay		1998	2019	160	460	Expert opinion	Latest estimate from Chowdhury et al. (2020) based on range wide total of 108 - 304 mature individuals, with a multiplication factor of 1.5 to account for juveniles.	1998	2019	DEC	Reasonable		3	1	Chowdhury, S.U., Yong, D.L., Round, P.D., Mahood, S., Tizard, R., & Eames, J.C. (2020). The status and distribution of the Masked Finfoot Heliopais personatus—Asia's next avian extinction? Forktail 36: 16–24.	Chowdhury, S.U., Yong, D.L., Round, P.D., Mahood, S., Tizard, R., & Eames, J.C. (2020). The status and distribution of the Masked Finfoot Heliopais personatus—Asia's next avian extinction? Forktail 36: 16–24.	http://wpp.wetlands.org/explore/2793/68
114	1993	Rallidae	Rallina tricolor	Red-necked Crake	LC	New Guinea, NE Australia	New Guinea & offshore Is, NE Queensland (Australia), S Moluccas	New Guinea & offshore Is, NE Queensland (Australia)	Australasia	Up to 6 subspecies have been described, but geographical variation not well understood (Taylor & van Perlo (1998)).	1994	2021	-1	-1	No estimate	No population size assessment (Rose and Scott, 1994). Information inadequate to develop an estimate for this poorly studied population.	2012	2021	Unknown	No idea	No evidence of decline in Kuranda area, Far North Queensland, AU.	-1	-1			http://wpp.wetlands.org/explore/2821/114
116	1995	Rallidae	Rallina fasciata	Red-legged Crake	LC	S & SE Asia	S Myanmar to Philippines, to Greater Sundas		Indo-Malay		1994	2021	-1	-1	No estimate	No population size assessment (Rose and Scott, 1994). Information inadequate to develop an estimate for this very widespread and poorly studied population.	2012	2021	Unknown	No idea	No information available for a new assessment; previously estimated unknown by Rose and Scott (1994).	-1	-1	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.		http://wpp.wetlands.org/explore/2823/116
119	1996	Rallidae	Rallina eurizonoides	Slaty-legged Crake	LC	telmatophila	Myanmar & Thailand E to C Vietnam & SE China	S Thailand & Sumatra to W Java	Indo-Malay		1994	2021	-1	-1	No estimate	No population size assessment (Rose and Scott, 1994). Information inadequate to develop an estimate for this poorly studied population.	2012	2021	Unknown	No idea	No information available for a new assessment; previously estimated unknown by Rose and Scott (1994).	-1	-1	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.		http://wpp.wetlands.org/explore/2824/119
98	1997	Rallidae	Coturnicops exquisitus	Swinhoe's Rail	VU	E Asia	SE Siberia, Mongolia, E China, Japan	S China to Korea, Japan	East Asian-Australasian Flyway		2005	2005	3,500	15,000	Best guess	The more recent population estimate from BirdLife International (2021) provides an estimate from 2001 states "The global population is estimated to number c.2,500-9,999 mature individuals, based on recent records and surveys by BirdLife International (2001). This estimate equates to 3,750-14,999 individuals, rounded here to 3,500-15,000 individuals."	2012	2021	Unknown	No idea		70	20		BirdLife International (2021) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 11/12/2021.; Collar, N.J., Crosby, M.J. and Stattersfield, A.J. 1994. Birds to Watch 2. The World List of Threatened Birds. BirdLife Conservation series No. 4. BirdLife International, Cambridge, UK. 407 pp.	http://wpp.wetlands.org/explore/2813/98
230	2023	Rallidae	Rallus aquaticus	Western Water Rail	LC	korejewi, Western Siberia/South-west Asia	Aral Sea - L Balkhash S to Iran, Kashmir, WC China	E Arabia, NW India, N Indochina, to coastal E China	Central Asian Flyway		1994	2021	-1	-1	No estimate	No population size assessment (Rose and Scott, 1994). Information inadequate to develop an estimate for this very widespread and poorly studied population.	2012	2021	Unknown	No idea	No information available for a new assessment; population recently split.	-1	-1			http://wpp.wetlands.org/explore/2860/230
231	2024	Rallidae	Rallus indicus	Eastern Water Rail	LC	indicus	N Mongolia & E mainland China to Manchuria, Korea, Sakhalin & N Japan, Taiwan?	NE India, N Indochina, E to SE mainland China, Hainan, Taiwan, S Japan, Korea	East Asian-Australasian Flyway	Rallus aquaticus and R. indicus (del Hoyo and Collar 2014) were previously lumped as R. aquaticus (see BirdLife International (2016) Species factsheet: Rallus indicus.)	1994	2021	-1	-1	No estimate	No population size assessment (Rose and Scott, 1994). Information inadequate to develop an estimate for this very widespread and poorly studied population.	2012	2021	Unknown	No idea	No information available for a new assessment; population recently split.	-1	-1			http://wpp.wetlands.org/explore/11146/231
191	2033	Rallidae	Lewinia striata	Slaty-breasted Rail	LC	albiventer	India & Sri Lanka to SC China & Thailand	India & Sri Lanka to SC China, Thailand, Malaysia?	Indo-Malay		1994	2021	-1	-1	No estimate	No population size assessment (Rose and Scott, 1994). Information inadequate to develop an estimate for this very widespread and poorly studied population.	2012	2021	Unknown	No idea	No information available for a new assessment; previously estimated unknown by Rose and Scott (1994).	-1	-1	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.		http://wpp.wetlands.org/explore/2853/191
195	2033	Rallidae	Lewinia striata	Slaty-breasted Rail	LC	gularis	Vietnam & Cambodia, Malaysia, W Indonesia, S China		Indo-Malay		1994	2021	-1	-1	No estimate	No population size assessment (Rose and Scott, 1994). Information inadequate to develop an estimate for this very widespread and poorly studied population.	2012	2021	Unknown	No idea	No information available for a new assessment; previously estimated unknown by Rose and Scott (1994).	-1	-1	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.		http://wpp.wetlands.org/explore/2853/195
309	2097	Rallidae	Zapornia fusca	Ruddy-breasted Crake	LC	erythrothorax	S Kuril Is, Japan, Korea, E & S China, E & S Indochina	S Japan, S China, E & S Indochina	East Asian-Australasian Flyway		1994	2021	-1	-1	No estimate	No population size assessment (Rose and Scott, 1994). Information inadequate to develop an estimate for this very widespread and poorly studied population.	2012	2021	Unknown	No idea	No information available for a new assessment; previously estimated unknown by Rose and Scott (1994).	-1	-1	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.		http://wpp.wetlands.org/explore/2899/309
2528	2097	Rallidae	Zapornia fusca	Ruddy-breasted Crake	LC	bakeri	Pakistan and N India, E to SC China and Indochina	Movements imperfectly known	Indo-Malay	Population added after WPE5 as new subspecies now recognised.	0	0	-1	-1	No estimate		2012	2021	Unknown	No idea	No information available for a new assessment; population added after WPE5 as new subspecies.	-1	-1			http://wpp.wetlands.org/explore/2899/2528
311	2098	Rallidae	Zapornia paykullii	Band-bellied Crake	NT	E & SE Asia	Russian Far East, NE China	Indochina, Sumatra, Java, Borneo	East Asian-Australasian Flyway		1994	2021	-1	-1	No estimate	No population size assessment (Rose and Scott, 1994). Information inadequate to develop an estimate for this very widespread and poorly studied population.	2012	2021	Unknown	No idea	No information available for a new assessment; previously estimated unknown by Rose and Scott (1994).	-1	-1	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.		http://wpp.wetlands.org/explore/2900/311
2558	2102	Rallidae	Zapornia pusilla	Baillon's Crake	LC	pusilla SE Asia (non-bre)	S Russia to N China, Japan	Myanmar, S China, Taiwan to Indonesia, Philippines	East Asian-Australasian Flyway	Population split from the former pusilla population after WPE5.	1994	2021	-1	-1	No estimate	No population size assessment (Rose and Scott, 1994). Information inadequate to develop an estimate for this very widespread and poorly studied population.	2012	2021	Unknown	No idea	No information available for a new assessment; previously estimated unknown by Rose and Scott (1994).	-1	-1	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.		http://wpp.wetlands.org/explore/2891/2558
2541	2116	Rallidae	Amaurornis phoenicurus	White-breasted Waterhen	LC	phoenicurus, E & SE Asia	E, SE Asia	E, SE Asia S to Java	East Asian-Australasian Flyway	Split from phoenicurus after WPE5. Sometimes ascribed to chinensis.	0	0	-1	-1	No estimate		2012	2021	Unknown	No idea	No information available for a new assessment; population recently split.	-1	-1			http://wpp.wetlands.org/explore/2886/2541
2543	2121	Rallidae	Gallicrex cinerea	Watercock	LC	cinerea, E & SE Asia	E & SE Asia	SE Asia	East Asian-Australasian Flyway	Split from cinerea after WPE5.	0	0	-1	-1	No estimate		2012	2021	Unknown	No idea	No information available for a new assessment; population recently split.	-1	-1			http://wpp.wetlands.org/explore/2916/2543
383	2142	Rallidae	Gallinula chloropus	Common Moorhen	LC	chloropus, SE Asia (non-bre)	E Asia, Indochina, C Malaysia	S E Asia, Indochina, W Malaysia, W Indonesia	East Asian-Australasian Flyway	Sometimes ascribed to indica.	1994	2021	-1	-1	No estimate	No population size assessment (Rose and Scott, 1994). Information inadequate to develop an estimate for this very widespread and poorly studied population.	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from Rose and Scott (1994). TW reported a declining trend between 2014-2021 (Lin et al. 2021).	-1	-1	Li et al. 2021. Taiwan New Year Bird Count 2021 Annual Report. Chinese Wild Bird Federation, Taiwan Endemic Species Research Institute, Taiwan. ; Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	http://wpp.wetlands.org/explore/2926/383
405	2154	Rallidae	Fulica atra	Common Coot	LC	atra, E, SE Asia (non-bre)	E Asia	E, SE Asia	East Asian-Australasian Flyway		2012	2020	100,000	1,000,001	Best guess	No recent population assessment; previous estimate from Perennou et al. (1994). Mean 28,255 (range from 24,315 to 33,409 in 2016-2020) in KR, based on Winter Waterbird Census of Korea by NIBR. Max 73,250 in Nov 2014 based on the China Coastal Waterbird Census Report (Choi & Xue, 2020).	2011	2020	STA	Poor	The IWC analysis reports a stable trend for 2011-2020 (0.9887) and an increasing trend for 2008-2020 (1.0122). Increases reported in KR (2011-2020) based on Winter Waterbird Census of Korea by NIBR, increases in JP from 1990s-2012, with likely declines in mainland CN (Hashimoto & Sugawara 2013), but additional surveys needed in CN to clarify situation. Long-term decline reported in HK between 1998-2017 (Sung et al. 2021); while in TW, Li et al (2021) report an significant increase between 2014-2021.	20,000	20,000	Li et al. 2021. Taiwan New Year Bird Count 2021 Annual Report. Chinese Wild Bird Federation, Taiwan Endemic Species Research Institute, Taiwan. ; Hashimoto, H and Sugawa, H. (2013) Population trends of wintering Eurasian Coot Fulica atra in East Asia. Ornithol Sci 12: 91 – 105; Sung Y-H, Pang C, Li TC, Wong PPY, Yu Y (2021) Ecological Correlates of 20-Year Population Trends of Wintering Waterbirds in Deep Bay, South China.Front. Ecol. Evol. 9: doi: 10.3389/fevo.2021.658084; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Choi, C.-Y., Li, J. & Xue, W.J. (2020). China Coastal Waterbird Census Report (Jan. 2012–Dec. 2019). Hong Kong: Hong Kong Bird Watching Society. (in Chinese)	http://wpp.wetlands.org/explore/2933/405
10	2177	Gruidae	Leucogeranus leucogeranus	Siberian Crane	CR	E Asia	NE Siberia Kolyma - R Yana	Poyang, China	Eastern Palearctic	In previous WPE editions, placed in the genus Grus.	2019	2021	4,500	5,500	Census based	5,130 individuals estimated in the tundra breeding range in RU in 2020-21 (Rozenfeld et al 2022). 5,521 high counted on staging/stopover areas in NE China in 2020 (Jiang et al., 2021). With 4,488 individuals counted in northern winter 2019-2020 (Cranes in China) and 4,276 counted in Yangtze River basin in January 2021.	2012	2018	INC	Good	Steady increase reported through annual synchronized surveys in NE China from 2016-2021 (unpublished data by China National Bird Banding Center and International Crane Foundation 2021) and annual northern winter counts in the Poyang Lake Basin.	50	10	Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.	Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.; Rozenfeld S.B., Bysykatova-Harmey, I. P., Barykina, D.A., Kirtaev , G.V. & Solovyeva, D.V. 2022. Modern trends of the populations of the Siberian crane (Grus leucogeranus) and the Sandhill crane (Grus canadensis) in the tundra of Yakutia and Chukotka from aerial surveys. ЗООЛОГИЧЕСКИЙ ЖУРНАЛ, 2022, том, №, с. УДК 598.241.2 (in Russian); Jiang H., Liu, W., & Wang, Y. 2021. The updated population estimate and distribution of the Siberian Crane at migration stopovers in China. Cranes of Eurasia, 2021, 6: 320-334.	http://wpp.wetlands.org/explore/2778/10
19	2179	Gruidae	Grus vipio	White-naped Crane	VU	China (non-bre)	Mongolia, NE China, extreme SE Russia	China (Yangtze Basin)	Eastern Palearctic		2019	2021	900	1,000	Expert opinion	The latest estimates are based on counts in 2019-2020 with 889 individuals, most in mid-Yangtze basin census (as per the United Crane Conservation Committee of China Wildlife Conservation Association, 2019-2020 winter survey, unpublished) and 675 individuals recorded in January 2021 (Beijing Forestry University, WWF, Conservation International,and International Crane Foundation, pers. comm. through ICF. 2022).	1996	2021	Unknown	No idea	The average of eight basin-wide counts at Poyang Lake have dropped from 2,278 in 1996–2004 to the average of six counts of 1,167 from 2005–2012 (Li et al. 2012) with 889 individuals, most in mid-Yangtze basin census in 2019-2020 (as per the United Crane Conservation Committee of China Wildlife Conservation Association , 2019-2020 winter survey, unpublished), with 675 individuals recorded in January 2021 (Beijing Forestry University, WWF, Conservation International,and International Crane Foundation, pers. comm. through ICF. 2022).	9	2	Li F, Wu J, Harris J, Burnham J. 2012. Number and distribution of cranes wintering at Poyang Lake, China during 2011–12. Chinese Birds 3(3):180–190.; Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.	Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.	http://wpp.wetlands.org/explore/2781/19
20	2179	Gruidae	Grus vipio	White-naped Crane	VU	Korea, Japan (non-bre)	Mongolia, NE China, extreme SE Russia	Korean Peninsula, Japan	Eastern Palearctic		2014	2020	6,200	7,000	Census based	The latest estimate of 6,200–6,500 is based on multiple counts from northern winters in 2012–13, 2013–14, and 2014–15 (Mirande and Harris, 2019). Mean 4,479 (3,278 to 5,697 in 2016-2020) and 7,012 in 2020-2021 in KR, based on Winter Waterbird Census of Korea (NIBR, 2016, 2017, 2018, 2019, 2020, 2021).	1994	2021	INC	Good	In KR, increased from 4,900–5,300 (Meine & Archibald, 1996) to 6,200–6,500, based on multiple counts from winters 2012–13 to 2014–15 (Mirande & Harris, 2019) to a mean of 4,479 (3,278 to 5,697 in 2016-2020) and 7,012 in 2020-2021 based on Winter Waterbird Census of Korea (NIBR, 2016, 2017, 2018, 2019, 2020, 2021).	65	15	Meine, C.D. and Archibald, G.W. (eds.). 1996. The Cranes: status survey and conservation Action Plan. IUCN, Gland, Switzerland and Cambridge, UK. 294 pp.; NIBR. 2017. 2016-2017 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2020. 2019-2020 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2018. 2017-2018 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.; NIBR. 2019. 2018-2019 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2016. 2015-2016 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.	Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.; NIBR. 2020. 2019-2020 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2019. 2018-2019 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2018. 2017-2018 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2017. 2016-2017 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2016. 2015-2016 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.	http://wpp.wetlands.org/explore/2781/20
12	2180	Gruidae	Grus antigone	Sarus Crane	VU	sharpii, Indochina	N Cambodia, Possibly S Laos, S Vietnam	Vietnam, Cambodia, Laos, possibly NE Thailand	Indo-Malay	In WPE2 this population belonged to one single population (G.a. sharpii, South-eastern Asia). WPE4: Division into subspecies may not be justified (Jones et al. 2005).	2019	2019	250	250	Expert opinion	Based on recent information from across its range, the population is assessed to be a minimum to 300 individuals and a maximum of 150+164 = 320 individuals. Highest records in Cambodia/Vietnam from annual counts have been 878 in 2002 and 869 in 2011 (van Zalinge et al. 2011). However, counts have recently shown a dramatic decline from 671 in 2014 to 572 in 2015, 433 in 2016, 253 in 2018 and 164 in 2021 (Triet et al. 2021). In Thailand, a reintroduced population since 2011 has produced a population of about 150 individuals in 2021 (Tran Triet, pers. comm. 2022). This population has originated from the Cambodian breeding population and so the two populations are combined, although there is no evidence of migration of the Thailand population as yet.	2001	2018	DEC	Reasonable	Highest records in KH & VN during annual counts were 878 in 2002 and 869 in 2011 (van Zalinge et al. 2011). However, more recent counts have shown a dramatic decline from 671 in 2014 to 572 in 2015, 433 in 2016, and 253 in 2018 (Tran et al. 2018) and 164 in 2021 (Tran et al. 2021). The IWC analysis (Langendoen et al., 2021) reports an uncertain trend falling in the stable range for 2011-2020 (1.0332) and a decreasing trend for 2000-2020 (1.0091). With a small population and variation in coverage, information submitted to the IWC in this period may not be adequate for a reliable trend assessment. Synchronized counts in Cambodia and Vietnam showed a clear declining trend during 2012-2021 (Tran Triet, pers. comm 2022).	2	1	Tran T, Hong C, Bou V. 2018. Census of non-breeding Sarus Cranes in Cambodia and Vietnam – 2018 Summary report. Baraboo, Wisconsin, USA: International Crane Foundation. 8 p.; Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.; Triet, T, Chamnan, H and Vorsak, B. 2021. Census of non-breeding Sarus Cranes in Cambodia and Vietnam - 2021 Summary Report, unpublished. International Crane Foundation – Southeast Asia Program, Ministry of Environment, Cambodia, Wildlife Conservation Society, Cambodia Program and BirdLife International, Cambodia Programme.; Van Zalinge R, Tran T, Evans T, Hong C, Seng KH, Barzen J. 2011. Census of non-breeding Sarus Cranes in Cambodia and Vietnam, 2011. Phnom Penh, Cambodia: Wildfowl & Wetlands Trust, Cambodian Lower Mekong Wetlands Project.	Van Zalinge R, Tran T, Evans T, Hong C, Seng KH, Barzen J. 2011. Census of non-breeding Sarus Cranes in Cambodia and Vietnam, 2011. Phnom Penh, Cambodia: Wildfowl & Wetlands Trust, Cambodian Lower Mekong Wetlands Project.; Tran T, Hong C, Bou V. 2018. Census of non-breeding Sarus Cranes in Cambodia and Vietnam – 2018 Summary report. Baraboo, Wisconsin, USA: International Crane Foundation. 8 p.; Triet, T, Chamnan, H and Vorsak, B. 2021. Census of non-breeding Sarus Cranes in Cambodia and Vietnam - 2021 Summary Report, unpublished. International Crane Foundation – Southeast Asia Program, Ministry of Environment, Cambodia, Wildlife Conservation Society, Cambodia Program and BirdLife International, Cambodia Programme.; Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.	http://wpp.wetlands.org/explore/2779/12
13	2180	Gruidae	Grus antigone	Sarus Crane	VU	sharpii, Myanmar	Myanmar. Possibly disperses short distances into surrounding countries		Indo-Malay	In WPE2 this population belonged to one single population (G.a. sharpii, South-eastern Asia).	2019	2021	300	400	Expert opinion	The estimate is a collation of surveys from different parts of the country over a decade. The stronghold of the population in the Ayeyarwady Region in 2016–2017 recorded 158 cranes. In northern MM, small numbers recorded around Indawgyi Lake, while in western MM, 38, reported. In central MM and other locations, small numbers recorded. Results from recent surveys in the Ayeyarwady Delta (Myo Sander Winn, personal comm. 2017). Combined with previous records from other regions, suggest an estimate of 300–400 Sarus Cranes in MM. A small, probably breeding population is known from the western Yunnan province and Yunxiang County in CN contiguous with the population in Kachin and Shan states of MM (Barzen & Seal 2001, in Mirande & Harris, 2019), although the current size and status of this population needs confirmation.	2012	2016	DEC	Poor	Numbers of nests roughly stable in KH, although disturbance and predation likely to reduce population. Non-breeding counts have recently shown a dramatic decline from 671 in 2014 to 572 in 2015, 433 in 2016, and 253 in 2018 (Mirande and Harris 2019).	3	1	Harrison, S. and Mao, K. (2017) An Update to the Bird Nest Protection Programme in the Northern Plains of Cambodia, 2009 – 2016. Wildlife Conservation Society, Cambodia Programme, Phnom Penh.; Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.	Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.; Barzen JA, Seal US. 2001. Eastern sarus crane PHVA final report. Apple Valley, Minnesota, USA: IUCN/SSC Conservation Breeding Specialist Group. 204 p.	http://wpp.wetlands.org/explore/2779/13

Pop #	Taxo-nomic#	Family	Scientific Name	Common Name	Red List	Population Name	Breeding Range (bre)	Non-breeding Range (non-bre)	Flyway/Biogeographic Region	Population Notes	Size Start Year	Size End Year	Minimum size	Maximum size	Estimate quality	Size Notes	Trend Start Year	Trend End Year	Trend Code	Trend Quality Code	Trend Notes	1% threshold	0.25 % threshold	Trend references	Size references	URL
33	2184	Gruidae	Anthropoides virgo	Demoiselle Crane	LC	E Asia (bre)	E Asia: Mongolia, SE Russia, NE China	Indian Subcontinent	Central Asian Flyway	In previous WPE editions placed in the genus Grus.	2019	2019	65,000	98,000	Best guess	The size and status of the population that spends the non-breeding period in CN needs confirmation.	1995	2015	DEC	Reasonable	Estimated numbers in mid-1990s to estimated numbers in mid-2010s have declined from 110,000-120,000 to 65,000-98,000. As summarised by Mirande & Harris (2019), estimated numbers in the four breeding regions for these time periods are: (a) South of Central Siberia - 600-700 (Prokofiev 1991) increased to 3,000; (b) Baikal and Transbaikalia - 22,000-27,000 declining to 12,000-15,000; (c) MN - 80,000-90,000 to 40,000-70,000, stable in the north and centre, but decrease in south, east and west; (d) North-west CN population - 10,000 in mid-2010s (not determined in 1990s).	800	200	Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.	Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.	http://wpp.wetlands.org/explore/2783/33
56	2185	Gruidae	Grus japonensis	Red-crowned Crane	VU	E China (non-bre)	NE China, SE Russia	E China	Eastern Palearctic		2017	2021	350	600	Expert opinion	The mean population was 493 individuals (range 353-600) for 2017-2021; based on Winter Waterbird Census counts and rounded to 350 and 500 for minimum and maximum estimates. Recent synchronized surveys were organized by the Crane Union Conservation Committee of China's Wildlife Conservation Association.	2012	2021	DEC	Good	Decreasing trend based on annual counts over last decade; 500, 708, 450, 357, 650, 737, 700, 600, 580, 454, 353 and 477 between 2012 - 2021 (International Red-crowned Crane Network 2021). The population has a potentially increasing trend based on synchronized surveys of the recent three winter periods 2019-20, 2020-21, 2021-22), which were organized by the United Crane Conservation Committee of China's Wildlife Conservation Association. A large increase was at Yellow River Delta, where the wintering population increased to 200 individuals in winter of 2021-22. This increase was largely associated with the harvesting of reed this winter, which increased the visibility of cranes.	5	1	United Crane Conservation Committee of China's Wildlife Conservation Association and International Red-crowned Crane Network 2021; Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.	United Crane Conservation Committee of China's Wildlife Conservation Association and International Red-crowned Crane Network 2021; Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.	http://wpp.wetlands.org/explore/2790/56
57	2185	Gruidae	Grus japonensis	Red-crowned Crane	VU	Korea (non-bre)	NE China, SE Russia	C Korea	Eastern Palearctic		2017	2021	1,000	1,700	Census based	The mean population was 1,449 individuals (range 1,000 -1,693) for 2017-2021; rounded to 1,000 and 1,700 for minimum and maximum estimates; based on Winter Waterbird Census of Korea (NIBR 2017, 2018, 2019, 2020, 2021).	2012	2021	INC	Good	Increasing trend based on annual counts over last decade; 950, 781, 969, 916, 1,001, 1,161, 1,251, 1,469, 1,669 and 1,693 between 2012 - 2021 (NIBR 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021).	15	3	NIBR. 2011. 2010-2011 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2020. 2019-2020 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.; NIBR. 2013. 2012-2013 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2016. 2015-2016 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2019. 2018-2019 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2012. 2011-2012 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2015. 2014-2015 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2014. 2013-2014 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2017. 2016-2017 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2018. 2017-2018 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.	NIBR. 2019. 2018-2019 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2015. 2014-2015 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2016. 2015-2016 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2018. 2017-2018 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2017. 2016-2017 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2011. 2010-2011 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2012. 2011-2012 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2020. 2019-2020 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.; NIBR. 2014. 2013-2014 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2013. 2012-2013 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.	http://wpp.wetlands.org/explore/2790/57
58	2185	Gruidae	Grus japonensis	Red-crowned Crane	VU	Japan	Hokkaido, Japan		Eastern Palearctic		2020	2021	1,800	1,900	Census based	The mean population was 1,740 individuals (range 1,750 -1,900) for 2017-2021; rounded to 1,800 and 1,900 for minimum and maximum estimates. Over the longer term, the population has increased from 600 individuals during 1995-1996 to 1,900 in 2020-2021 (Red-crowned Crane Conservancy 2022).	2012	2021	INC	Good	Increasing trend based on annual counts over last decades; from 600 individuals during 1995-1996 (Mirande & Harris, 2019) to 1,900 in 2020-2021 (Red-crowned Crane Conservancy 2022). Within the last decade, annual counts were 1,471, 1,442, 1,450, 1,550, 1,850, 1,750, 1,600, 1,650, 1,800 and 1,900 between 2012 - 2021 (Red-crowned Crane Conservancy 2022).	20	5	Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.; Red-crowned Crane Conservancy 2022. RCC, http://www6.marimo.or.jp/tancho1213, in Japanese	Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.; Red-crowned Crane Conservancy 2022. RCC, http://www6.marimo.or.jp/tancho1213, in Japanese	http://wpp.wetlands.org/explore/2790/58
47	2187	Gruidae	Grus grus	Common Crane	LC	grus, C/S China, Myanmar, Vietnam (non-bre)	China, Russia, Mongolia	China, Myanmar, Vietnam	Central Asian Flyway	E form lilfordi (Turkey to EC Asia; wintering NE Africa E to S China) sometimes recognized, but here regarded as probably undiagnosable, differences from nominate believed to be based on plumage colour variations due in part to differences in feather-painting behaviour.	1998	2021	50,000	70,000	Expert opinion	The latest overall population is estimated based on breeding counts as a min of 50,000 (40,000 in CN, 10,000 in MM) to a maximum of 70,000 (60,000 in CN, 10,000 in MM). About 40,000 to 60,000 individuals are estimated across northern wintering areas (Cranes in China, May 2021). In MM the numbers have been increasing during the past two decades (Mirande & Harris 2019) with an estimate of 10,000 in 2021 (Tran Triet, pers. comm. to International Crane Foundation, 2022). In VN there have been no sighting of Eurasian Cranes for many years (Tran Triet, pers. comm. to International Crane Foundation, 2022). Information on breeding populations are available for only Eastern Siberia (Irkutsk Oblast, the Republic of Buryatia and Zabaikalsky Krai) where an expert assessment of nesting habit and average density between 1968–2017, provide an estimate of 9,500–12,000 nesting adults (Melnikov et al. 2018); comparable figures from rest of the breeding range in RU, MN and CN are not available. The latest population estimate is higher than approximately 12,000 individuals (Mirande & Harris 2019), with the population distributed over several major non-breeding grounds in CN such as Poyang Lake (~7,000; Jin 2015), Shanxi (2500; Liu et al 1989), and Shannxi (~1,000; Wu et al. 1998). Numbers in Yellow River Delta and Beijing outskirts have not been stable. Yellow River Delta was a major site, but numbers had declined to almost zero after 2000 (Shan et al. 2005). However thereafter the Chinese Coastal Waterbird Census (CCWC) have reported significant numbers from this and nearby sites, suggesting a possible recovery (8,800 at Shandong Dongying in 2016, 1,250 at Yellow River Delta in 2011). The increase has continued at the Yellow River Delta from 1,050 in 2012/13, 2,650 in 2013/14, 3,000 in 2015/16, 4,319 in 2016/17, 2,231 in 2017/18, 3,908 in 2018/19 and 4,449 in 2019/20 (Yan et al., 2020). Counts in the Yangtze (4,600 at Poyang Lake in 2011, 500 at Nanchong in 2011, 400 at Dongting Lake in 2011 and 2015) by the WWF China and WWT surveys, and 4,079, 7,695, 9,230 and 1,2780 between 2016/17 and 2019/20 (Wang 2022); with 3,000 at Yancheng NNR, Jiangsu in 2011 (IWC database).	1988	2021	INC	Reasonable	Trends in CN are reported as uncertain (Mirande & Harris 2019), although more recent surveys by the China Coastal Waterbird Survey (CCWC) and WWF China/WWT have reported significant but irregular numbers from coastal and inland sites. At the Yellow River Delta numbers have increased steadily from 1,050 in 2012/13 to 4,449 in 2019/20 (Yan et al., 2020). WWF China and WWT surveys have also reported large numbers in the Yangtze (4,600 at Poyang Lake in 2011, 500 at Nanchong in 2011, 400 at Dongting Lake in 2011 and 2015) and 3,000 at Yancheng NNR, Jiangsu in 2011 (IWC database). In 2020/2021, 89,359 individuals, most in mid-Yangtze basin were reported by the United Crane Conservation Committee of China Wildlife Conservation Association 2019-2020 winter survey, unpublished). In MM the numbers have been increasing during the past two decades (Mirande & Harris 2019).	590	150	Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.; Choi, C.-Y., Li, J. & Xue, W.J. (2020). China Coastal Waterbird Census Report (Jan. 2012–Dec. 2019). Hong Kong: Hong Kong Bird Watching Society. (in Chinese); Jin J. 2015. Wintering Eurasian Cranes increasing in recent years at Poyang Lake. China Crane News 19(2):40–42.; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Yang F, Zhang Y. 2014. Quantities and distribution of the Black-necked Crane (Grus nigricollis) and other large waterfowl on the Yunnan and Guizhou Plateau. Zoological Research 35(S1):80–84.; Shan K, Lu J, Zhu S, Yu H, Zhou L. 2005. Number and habitat protection of cranes at Yellow River Delta. In: Wang Q, Li F, editors. Crane Research in China: Yunnan Province, China: Yunnan Education Publishing House. p 66–73. (In Chinese with English abstract.); Wu J, Fang S, Zhu X. 1998. Shannxi Huang He Wetland and its rare waterbirds. Chinese Wildlife 19(3):4–6. (In Chinese.); Liu H, Gao S, Li P, Zhu J. 1989. Study on the Gruiformes birds in Shanxi Province. Chinese Journal of Zoology 24(2):12–16. (In Chinese.)	Jin J. 2015. Wintering Eurasian Cranes increasing in recent years at Poyang Lake. China Crane News 19(2):40–42.; Liu H, Gao S, Li P, Zhu J. 1989. Study on the Gruiformes birds in Shanxi Province. Chinese Journal of Zoology 24(2):12–16. (In Chinese.); Yang F, Zhang Y. 2014. Quantities and distribution of the Black-necked Crane (Grus nigricollis) and other large waterfowl on the Yunnan and Guizhou Plateau. Zoological Research 35(S1):80–84.; Мельников, Ю. И., Дурнев, Ю. А., & Горошко, О. А. 2018. Распределение, численность, размножение и ди- намика ареала серого журавля Grus grus в Восточной Сибири. УДК 598.241.2:591.5(571.5) DOI: 10.18101/2542-0623-2018-2-27-47 (in Russian with English summary). Melnikov, Y.I., Durnev, Y.A. & Goroshko, O.A. 2018. Dynamics of distribution area, abundance, and breeding of Common Crane Grus grus in eastern Siberia.; Choi, C.-Y., Li, J. & Xue, W.J. (2020). China Coastal Waterbird Census Report (Jan. 2012–Dec. 2019). Hong Kong: Hong Kong Bird Watching Society. (in Chinese); Wu J, Fang S, Zhu X. 1998. Shannxi Huang He Wetland and its rare waterbirds. Chinese Wildlife 19(3):4–6. (In Chinese.); Wang Y. (2021). Population dynamics of 10 species of waterbirds in the Middle and lower of the Yangtze River floodplain. University of Science and Technology of China. Graduate thesis (in Chinese). 王昱熙. 长江中下游湿地10种水鸟种群动态研究[D]. 中国科学技术大学,2021; Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.; Shan K, Lu J, Zhu S, Yu H, Zhou L. 2005. Number and habitat protection of cranes at Yellow River Delta. In: Wang Q, Li F, editors. Crane Research in China: Yunnan Province, China: Yunnan Education Publishing House. p 66–73. (In Chinese with English abstract.)	http://wpp.wetlands.org/explore/2786/47
48	2187	Gruidae	Grus grus	Common Crane	LC	grus, SW China (non-bre)	E and C Tien-Shan (Xinjiang-Uyghur Autonomous Region) of Kazakhstan, Kyrgyzstan & China	SW China	East Asian-Australasian Flyway	Wintering area of Tibetan birds assumed with no strong basis. E form lilfordi (Turkey to EC Asia; wintering NE Africa E to S China) sometimes recognised, but here regarded as probably undiagnosable, differences from nominate believed to be based on plumage colour variations due in part to differences in feather-painting behaviour.	2018	2021	10,000	18,000	Expert opinion	The total population maximum is revised to 18,000 individuals, based on a new estimate of 14,800 individuals during the non-breeding period in Xinjiang (Ma et al. 2020, Ma Ming, pers. comm. 2022), with additional 1,000 individuals (Ma et al. 2011) that possibly spend non-breeding period in the south part of Central Tibet and 1,500 individuals on the Yunnan-Guizhou Plateau in Yunnan Province (Yang & Zhang 2014) at altitudes from 2,000–3,400m above sea level (Mirande & Harris 2019).	2012	2021	INC	Reasonable	Increase in numbers and northward expansion of non-breeding range in Xinjiang (MaMing, pers. comm. 2022).	130	35	Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.; Ilyashenko VY, Belyalov OV. 2011. The new subspecies of the Eurasian Crane – Grus grus korelovi ssp. n. (Aves: Gruidae), from Central and Eastern Tien-Shan. Russian Ornithological Journal 20 (express-issue 687):1803–1811. (In Russian.); Ma M, Li W, Zhang H, Zhang X, Yuan G, Chen Y, Yuan L, Ding P, Zhang Y, Cheng Y, Sagen G. 2011. Distribution and population state of Black-necked Crane Grus nigricollis in Lop Nur and Kunlun Mountains, Southern Xinjiang. Chinese Journal of Zoology 46(3):64–68.	Li, J.W., Ma, M., Meng, F.J., lyashenko, E.I., Ilyashenko, V.Y., Belyalov, O.V., Gavrilov, A.E., Zaripova, S.K., Batbayar. N. & Lei, C. 2020. Overwintering and behavioural observation of the Common Crane Grus grus in Tianshan Murzati River Wetland. Journal of Ecology and Rural Environment. 36(5): 573-579; Royal Society for Protection of Nature. 2015. Species Conservation. Thimphu, Bhutan: Royal Society for Protection of Nature Bhutan. Available at http://www.rspnbhutan.org/annual-report-2015/ (quoted in Mirande & Harris (eds.) 2019)); Ilyashenko VY, Belyalov OV. 2011. The new subspecies of the Eurasian Crane – Grus grus korelovi ssp. n. (Aves: Gruidae), from Central and Eastern Tien-Shan. Russian Ornithological Journal 20 (express-issue 687):1803–1811. (In Russian.); Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.; Ma M, Li W, Zhang H, Zhang X, Yuan G, Chen Y, Yuan L, Ding P, Zhang Y, Cheng Y, Sagen G. 2011. Distribution and population state of Black-necked Crane Grus nigricollis in Lop Nur and Kunlun Mountains, Southern Xinjiang. Chinese Journal of Zoology 46(3):64–68.	http://wpp.wetlands.org/explore/2786/48
49	2188	Gruidae	Grus monacha	Hooded Crane	VU	C China (non-bre)	NE China, SE Russia	China	Eastern Palearctic		2019	2021	450	1,500	Expert opinion	As per Mirande & Harris (2019) estimates vary from 1,000 from one source to between 1,150 to 1,500 from another; 473 were counted in 2019-2020 (Cranes in China), while in 2020, 813 individuals were reported, most in the mid-Yangtze basin (China wintering cranes census in 2020-2021 organized by United Crane Conservation Committee of China Wildlife Conservation Association) and 449 counted in Yangtze Basin in January 2021.	2012	2021	DEC?	Poor	Census numbers between 2012-2021 very variable, as reported in size notes. Additional surveys are required to determine trends.	8	2	Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.	Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.	http://wpp.wetlands.org/explore/2787/49
50	2188	Gruidae	Grus monacha	Hooded Crane	VU	Korea, Japan (non-bre)	NE China, SE Russia	Korea, Japan	Eastern Palearctic		2017	2021	15,700	15,700	Census based	In JP, the stronghold of the population, 2017–18, about 14,000 individuals were counted in Izumi, JP. A small number of cranes (less than 10 individuals) winter at Shunan (Yamaguchi Province) and Isahaya (Nagasaki Province). About 100 Hooded Cranes spent the winter in Shikoku in 2014–15. (Mirande & Harris, 2019). In KR, mean of 1,879 individuals (1,332 to 2,522 in 2016-2020), based on Winter Waterbird Census of Korea by NIBR and 3,015 in 2020-2021 (NIBR 2021).	1996	2018	STA	Reasonable	In 2017–18, about 14,000 individuals were counted in Izumi, JP, the stronghold of the population. A small number of cranes (less than 10 individuals) winter at Shunan (Yamaguchi Province) and Isahaya (Nagasaki Province). About 100 Hooded Cranes spent the winter in Shikoku in 2014–15. While in KR, in 2017–18, about 1,700 wintered in the coastal wetlands of Suncheon Bay, an increase from about 200 in 1996. , as reported in size notes.	160	40	Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.	NIBR. 2019. 2018-2019 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2017. 2016-2017 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2020. 2019-2020 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.; NIBR. 2016. 2015-2016 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2018. 2017-2018 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.	http://wpp.wetlands.org/explore/2787/50
2546	2189	Gruidae	Grus nigricollis	Black-necked Crane	NT	Western (non-bre)	Extreme NW India E to SW China	Bhutan, SC Tibet, NE India	Eastern Palearctic	Separated from C & S Asia population after WPE5.	2006	2021	10,000	11,500	Expert opinion	Post WPE5 (Wetlands International, 2012), based on recent migration information (Mirande & Harris 2019), this species has been separated into three populations. The latest maximum estimate of 12,500 is based on 11,000 individuals in the 2019-2020 winter survey in CN (United Crane Conservation Committee of China Wildlife Conservation Association 2019-2020 winter survey, unpublished) and 552 individuals in 2021 in BN (Jigme Tshering, pers. comm, to International Crane Foundation, 2022). Previous northern winter counts include 5,558 (Zhang et al. 2014), 8,291 at Yarlung Tsangpo River basin in Tibet in 2017-2018 (Jia, et al. 2019), 544 birds in BN in 2014–15 (Royal Society of Protection of Nature 2015); 590 (69 juvs) in 2020 and 552 (57 juvs) in 2021 (Jigme Tshering, pers. comm, to International Crane Foundation, 2022) and 11 birds in NE IN in 2006 (Chandan et al., 2014) (Pankaj Chandan pers comm. 2022) and few individuals in 2017 (Menzies, et al. 2019). A max of 139 birds in breeding areas in Ladakh in 2012 (Chandan et al. 2014), 111 in 2016 (Chandan & Rigzin 2017), 106 in 2017 and 82 in 2018 (Chandan et al, 2021) and 87 (incl. 5 juv) in 2019 (Pankaj Chandan, pers comm. 2022).	2015	2021	INC	Reasonable	Sustained increase of the main pop in Yarlung Tsangpo River basin in Tibet from approximately 5,500 in 2014 (Zhang et al. 2014) to 6,500 to 8,291 (>30%) between 2015 and 2018 (Jia et al. 2019) to 12,000 based on the 2019-2020 winter survey (United Crane Conservation Committee of China Wildlife Conservation Association, 2019-2020 winter survey, unpublished). The population in breeding grounds in Ladakh, NW IN is considered stable, although breeding productivity shows a decreasing trend (Pankaj Chandan, in litt, 2021); a max of 139 birds reported in 2012 (Chandan et al., 2014) to 111 in 2016 (Chandan & Rigzin 2017).	110	30	Chandan, P, Rahmani, A.R., Rigzin, T., & Zarri, A.A. 2021. Breeding population of black-necked cranes in Changtang, Ladakh (2017-2018). Jungwa, Newsletter of the Wildlife Conservation and Birds Club of Ladakh. 2: 32-33.; Chandan P, Khan A, Takpa J, Hussain SA, Mehdi K, Jamwal PS, Rattan R, Khatoon N, Rigzin T, Anand A, Dutta PK, Ahmad T, Ghose PS, Shrestha P, Theengh LT. 2014. Status and distribution of Black-necked Crane (Grus nigricollis) in India. Zoological Research 35(S1):39–50.; Chandan P. & T. Rigzin (2017): Current status & conservation of Black-necked Crane in Ladakh (2012-2016). JUNGWA. Wildlife and Birds Club Of Ladakh. 1: 22-24.; Jia, R., Ma, T., Zhang, F., Zhang, G., Liu, D., & Lu, J. 2019. Population dynamics and habitat use of the Black-necked Crane (Grus nigricollis) in the Yarlung Tsangpo River basin, Tibet, China. Avian Res 10:32 https://doi.org/10.1186/s40657-019-0170-9; United Crane Conservation Committee of China Wildlife Conservation Association, unpublished	Jia, R., Ma, T., Zhang, F., Zhang, G., Liu, D., & Lu, J. 2019. Population dynamics and habitat use of the Black-necked Crane (Grus nigricollis) in the Yarlung Tsangpo River basin, Tibet, China. Avian Res 10:32 https://doi.org/10.1186/s40657-019-0170-9; Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.; Chandan P, Khan A, Takpa J, Hussain SA, Mehdi K, Jamwal PS, Rattan R, Khatoon N, Rigzin T, Anand A, Dutta PK, Ahmad T, Ghose PS, Shrestha P, Theengh LT. 2014. Status and distribution of Black-necked Crane (Grus nigricollis) in India. Zoological Research 35(S1):39–50.; Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.; Chandan, P, Rahmani, A.R., Rigzin, T., & Zarri, A.A. 2021. Breeding population of black-necked cranes in Changtang, Ladakh (2017-2018). Jungwa, Newsletter of the Wildlife Conservation and Birds Club of Ladakh. 2: 32-33.; Royal Society for Protection of Nature. 2015. Species Conservation. Thimphu, Bhutan: Royal Society for Protection of Nature Bhutan. Available at http://www.rspnbhutan.org/annual-report-2015/ (quoted in Mirande & Harris (eds.) 2019)); Menzies Rohan K, Rao Megha, Kumar Abhinav. 2019. Two new locations for the Vulnerable Black-necked crane Grus nigricollis (Przhevalsky, 1876) (Aves: Gruiformes: Gruidae) in Arunachal Pradesh, India. Journal of Threatened Taxa: 11(10):14381-4. doi: 10.11609/jott.5337.11.10.14381-14384	http://wpp.wetlands.org/explore/2789/2546
2547	2189	Gruidae	Grus nigricollis	Black-necked Crane	NT	Central (non-bre)	SW China	NW Yunnan	Eastern Palearctic	Separated from C & S Asia population after WPE5.	2014	2020	230	300	Expert opinion	Post WPE5 (Wetlands International, 2012), based on recent migration information (Mirande & Harris 2019), this species has been separated into three populations. Napahai Provincial NR, with 270 in 2006/7, holds >90 of pop (Wang et al 2009), pop estimated 230-300 in 2014 (Mirande & Harris (eds.) 2019).	2006	2021	STA	Good	Stable population from 2006/7 to 2021. Napahai Provincial NR, with 270 in 2006/7 which held >90 of pop (Wang et al 2009) and estimated 230-300 in 2014 (Mirande & Harris 2019) to 300 based on the 2019-2020 winter survey (United Crane Conservation Committee of China Wildlife Conservation Association, unpublished).	3	1	United Crane Conservation Committee of China Wildlife Conservation Association, unpublished	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.; Wang K, Yang X, Zhao J, Yu H, Min L. 2009. Relations of daily activity patterns to age and flock of wintering Black-necked Crane (Grus nigricollis) at Napa Lake, Shangri-La in Yunnan. Zoological Research. 30(1):74–82. (in Chinese); United Crane Conservation Committee of China Wildlife Conservation Association, unpublished; Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.	http://wpp.wetlands.org/explore/2789/2547
2548	2189	Gruidae	Grus nigricollis	Black-necked Crane	NT	Eastern (non-bre)	SW China	NE Yunnan, NW Guizhou Provinces	Eastern Palearctic	Separated from C & S Asia population after WPE5.	2013	2020	4,000	4,500	Expert opinion	Post WPE5 (Wetlands International, 2012), based on recent migration information (Mirande & Harris 2019), this species has been separated into three populations. Previous counts include 2,469 cranes in 2004 from Dashanbao, Cao Hai and Huize NRs that formed 69% of pop (Li and Yang 2005); with a total pop of 4,300 (Li et al 2014, as per Jia et al 2019).	1992	2021	INC	Reasonable	Increase from 3,687 in Jan 2013 (Zhang & Yang, 2014) and 4,300 (in Li, 2014, as quoted in Jia et al. 2019) to 4,500 in the 2019-2020 winter survey (United Crane Conservation Committee of China Wildlife Conservation Association 2019-2020 winter survey, unpublished).	40	10	United Crane Conservation Committee of China Wildlife Conservation Association, unpublished; Li, F.S. 2014. IUCN Black-necked Crane (Grus nigricollis) conservation plan. Zool Res.35:3–9 (in Chinese); Jia, R., Ma, T., Zhang, F., Zhang, G., Liu, D., & Lu, J. 2019. Population dynamics and habitat use of the Black-necked Crane (Grus nigricollis) in the Yarlung Tsangpo River basin, Tibet, China. Avian Res 10:32 https://doi.org/10.1186/s40657-019-0170-9; Mirande CM, Harris JT, editors. 2019. Crane Conservation Strategy. Baraboo, Wisconsin, USA: International Crane Foundation. 454 pp.	United Crane Conservation Committee of China Wildlife Conservation Association, unpublished; Li F, & Yang F. 2005. Distribution and population of Black-necked Cranes on the Yunnan-Guizhou Plateau. In: Wang Q, Li F, editors. Crane research in China. Kunming, China: Yunnan Education Publishing House. p 29–43.; Jia, R., Ma, T., Zhang, F., Zhang, G., Liu, D., & Lu, J. 2019. Population dynamics and habitat use of the Black-necked Crane (Grus nigricollis) in the Yarlung Tsangpo River basin, Tibet, China. Avian Res 10:32 https://doi.org/10.1186/s40657-019-0170-9; Li JR, Cao J, Yang F, Li Z, Wang W, Li LX. 2014. Distribution and conservation status of Black-necked Crane (Grus nigricollis) in Qinghai, China: a review. Zool Res. 35:76–9 (in Chinese)	http://wpp.wetlands.org/explore/2789/2548
2067	2244	Gaviidae	Gavia stellata	Red-throated Loon	LC	E Asia (non-bre)	Arctic E Asia and Alaska	E Asia	Central Pacific Flyway		1994	1994	10,000	100,000	Best guess	No information available for a new assessment; previous estimate by Rose and Scott(1994). Old estimates of wintering numbers in RU of 1,000–10,000 and JP up to 10,000 (Brazil 2009). In KR a mean of 22 individuals (8 to 66 in 2016-2020) based on Winter Waterbird Census of Korea by NIBR. The population remains poorly censused.	1992	2016	DEC	Poor	Amundson et al. (2019) report a decline of north Alaska breeders that migrate to E Asia, at 3.4% per year between 1992–2016. The population trend of breeders in the Russian arctic remains unknown.	1,000	250	Amundson, C. L., P. L. Flint, R. A. Stehn, R. M. Platte, H. M. Wilson, W. W. Larned and J. B. Fischer. 2019. Spatio-temporal population change of Arctic-breeding waterbirds on the Arctic Coastal Plain of Alaska. Avian Conservation and Ecology 14(1):18. https://doi.org/10.5751/ACE-01383-140118; Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.; Brazil, M. 2009. Birds of East Asia – China, Taiwan, Korea, Japan and Russia. Helm Field Guides, London, UK.	http://wpp.wetlands.org/explore/3846/2067
2071	2245	Gaviidae	Gavia arctica	Arctic Loon	LC	viridigularis	N E Asia E of R Lena, W Alaska	NW Pacific	Central Pacific Flyway		1987	1991	25,000	1,000,000	Best guess	No information available for a new assessment; the current size estimate was proposed in 1994 (WPE1, Rose and Scott, 1994). In KR a mean of 927 individuals (147 to 2,840 in 2016-2020) based on Winter Waterbird Census of Korea by NIBR.	2012	2021	Unknown	No idea	No information available for a new assessment; previous increasing estimate from 2012 (Wetlands International, 2012).	10,000	2,500	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.; Perennou, C.P., Mundkur, T. and Scott, D.A. 1994. The Asian Waterfowl Census 1987-1991: distribution and status of Asian waterfowl. IWRB Spec. Publ. No. 24. AWB Spec. Publ. No. 86. Slimbridge, UK and Kuala Lumpur, Malaysia.	http://wpp.wetlands.org/explore/3847/2071
2072	2246	Gaviidae	Gavia pacifica	Pacific Loon	LC	E Asia	Coastal NE Siberia	Coastal E Asia	Central Pacific Flyway	Often considered conspecific with G. arctica.	1987	1991	25,000	100,000	Best guess	No recent population assessment is available; the current size estimate was proposed in 1994 (WPE1, Rose and Scott, 1994). In KR a mean of 490 individuals (18 to 1,697 in 2016-2020) based on Winter Waterbird Census of Korea by NIBR.	2012	2021	Unknown	No idea	No population trend assessment (Rose and Scott, 1994).	1,000	250	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	http://wpp.wetlands.org/explore/3848/2072
2550	2248	Gaviidae	Gavia adamsii	Yellow-billed Loon	NT	N Pacific (non-bre)	Arctic N America, E Siberia	N Pacific	Central Pacific Flyway	This population combines the Eastern range of the Northern Europe (win) population and the former N America population. Survey data indicates a distinction between European and Asian populations whilst tracking studies have shown N American individuals to mix with Asian populations in the N Pacific (non-bre).	2010	2021	10,000	10,000	Best guess	Preliminary estimated population of in RU East Asia is approximately 4,200 individuals; based on estimate of 2,800 individuals in W Chukotka (Solovyeva et al 2017), 500 in E Chukotka, and max 1,000 in the rest of the breeding range on Asian population (D. Solovyeva, pers. comm, 2020). North America – rough estimate of 4,000 individuals, estimated on 2,200 individuals based on annual surveys of ACP Alaska breeding population between 2004 to 2013 estimated to be 2,199 individuals Amundson et al. (2019) with the rest in Western Alaska and Canadian coast and islands. Small numbers(1~2) recorded in northern East Sea of KR, based on Winter Waterbird Census of Korea by NIBR.	1992	2016	INC	Poor	There is no ongoing monitoring across the breeding range in RU, Alaska and CN that provides information on the trend of the whole population. However, as per Uher-Koch (et al 2021), annual quantification on the Arctic Coastal Plain in northern Alaska indicated that the population did not change significantly between 1986 and 1993 (Groves et al. 1996), and analyses through 2003 indicated population stability in that region (Earnst et al. 2005). More recent data through to 2012 indicated a slight increase in abundance, with a 1.5% population trend (Stehn et al. 2013). Using the same data platform as Stehn et al. (2013) from the Arctic Coastal Plain from 1992 to 2016, Amundson et al. (2019) found a similar increasing trend. Limited data suggests a stable population on the Seward Peninsula (Schmidt et al. 2014).	100	25	Amundson, C. L., P. L. Flint, R. A. Stehn, R. M. Platte, H. M. Wilson, W. W. Larned and J. B. Fischer. 2019. Spatio-temporal population change of Arctic-breeding waterbirds on the Arctic Coastal Plain of Alaska. Avian Conservation and Ecology 14(1):18. https://doi.org/10.5751/ACE-01383-140118; Earnst, S. L., R. A. Stehn, R. M. Platte, W. W. Larned, and E. J. Mallek (2005). Population size and trend of Yellow-billed Loons in northern Alaska. Condor 107:289–304.; Schmidt, J. H., M. J. Flamme, and J. Walker (2014). Habitat use and population status of Yellow-billed and Pacific loons in western Alaska, USA. Condor 116:483–492.; Stehn, R. A., W. W. Larned, and R. M. Platte. 2013. Analysis of aerial survey indices monitoring waterbird populations of the Arctic Coastal Plain, Alaska, 1986–2012. U.S. Fish and Wildlife Service, Office of Migratory Bird Management, Anchorage, AK, USA.; Groves, D.J., Conant, B., King, R.J., Hodges, J.I. and King, J.G. 1996. Status and trends of Loon populations summering in Alaska 1971-1993. The Condor 98: 189-195.; Uher-Koch, B. D., M. R. North, and J. A. Schmutz (2020). Yellow-billed Loon (Gavia adamsii), version 1.0. In Birds of the World (S. M. Billerman, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.yebloo.01		http://wpp.wetlands.org/explore/3850/2550
2049	2442	Ciconiidae	Leptoptilos dubius	Greater Adjutant	EN	Cambodia (bre)	Cambodia	Cambodia, Myanmar, Thailand, S Laos, S Vietnam	Indo-Malay	In WPE2 this population belonged to one single population, Southern/South-eastern Asia.	2021	2021	750	750	Census based	Based on latest nest count for 2020 of over 250, the pop is estimated to be 250 nesting pairs or 750 individuals (Chanvireak, 2021)	2009	2016	DEC	Good	Population decline in main nesting colonies in KH due to egg and chicks being raided (Harrison and Mao, 2017).	8	2	Harrison, S. and Mao, K. (2017) An Update to the Bird Nest Protection Programme in the Northern Plains of Cambodia, 2009 – 2016. Wildlife Conservation Society, Cambodia Programme, Phnom Penh.	Mao Chanvireak 2021. Greater adjutant increases in Cambodia. https://www.khmertimeskh.com/50899812/greater-adjutant-increases-in-cambodia/	http://wpp.wetlands.org/explore/3823/2049
2001	2446	Ciconiidae	Mycteria leucocephala	Painted Stork	NT	SE Asia	Cambodia, Thailand	Cambodia, Myanmar, Thailand, Laos, Vietnam	Indo-Malay		1987	1991	5,000	10,000	Best guess	Based on IWC data from KH, MY & TH for 2019-2020 and 2020-2021 is about 5,300 individuals, the minimum estimate is 5,000. In KH 2,500 pairs recorded breeding in 2012 (Sun & Mahood, 2015).	2011	2020	INC	Poor	The IWC analysis reports an increasing trend for 2011-2020 (1.249) and 2002-2020 (1.0436). These results are based on KH & TH but additional surveys required in MM & MY.	70	20	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Visal, S. and Mahood, S. 2015. Wildlife Monitoring at Prek Toal Ramsar Site, Tonle Sap Great Lake, 2013 and 2014. Wildlife Conservation Society, Cambodia.; Perennou, C.P., Mundkur, T. and Scott, D.A. 1994. The Asian Waterfowl Census 1987-1991: distribution and status of Asian waterfowl. IWRB Spec. Publ. No. 24. AWB Spec. Publ. No. 86. Slimbridge, UK and Kuala Lumpur, Malaysia.	http://wpp.wetlands.org/explore/3808/2001
2002	2448	Ciconiidae	Anastomus oscitans	Asian Openbill	LC	S, SE Asia	S & SE Asia		Indo-Malay		2006	2006	300,000	300,000	Best guess	No information available for a new assessment; previous estimate from 2006 (Wetlands International, 2006).	2006	2015	INC	Good	The IWC analysis reports an increasing trend for 2006-2015 (1.0952), over 3 generations 1995-2015 (1.1166) and for 1987-2015 (1.0877) (Langendoen, et al., 2021). This reflects an observed expansion of its range in Thailand and SE Asia (Round & Gardner 2008) and China (Liu et al. 2015).	3,000	750	Liu , Q., & Buzzard, P., & Luo, X. 2015. Rapid range expansion of Asian Openbill Anastomus oscitans in China. Forktail. 31: 141-143.; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Round, P. D. & Gardner, D. (2008) Birds of the Bangkok area. Bangkok: White Lotus.	Wildlife Research Group. 2004. Distribution of nesting colonies and population of Asian Openbills in Thailand. Unpublished Report. Department of National Parks, Wildlife and Plants Conservation, Bangkok (in Thai).	http://wpp.wetlands.org/explore/3809/2002
2009	2450	Ciconiidae	Ciconia nigra	Black Stork	LC	South Asia (non-bre)	W & C Asia, S Russia, Xinjiang, Mongolia	Pakistan & N India to N Indochina, Thailand, SW China	Central Asian Flyway		2012	2020	500	10,000	Best guess	No recent population size assessment (Rose and Scott, 1994). Based on IWC data from IN, MM, NP & PK for 2019-2020 the minimum estimate is 500 individuals.	2012	2020	DEC	Poor	The IN trend is a strong decline (SOIB 2020). In MM, small numbers each year, seems to be stable (Zöckler & Kottelat, 2017; Zöckler, et al., 2020). In Napahai Wetland Yunnan, CN the average non-breeding numbers were 40, 129 and 182 in 2004-2005, 2007-2008 and 2008-2009, respectively (Liu et al. 2013) with 66 in 2013 (Yang & Zhang 2013).	20	6	Zöckler, C. & Kottelat, M. 2017. Biodiversity of the Ayeyarwady Basin. Ayeyarwady State of the Basin Assessment (SOBA) Report No. 4.5. National Water Resources Committee (NWRC), Yangong, Myanmar.; SoIB 2020. State of India's Birds factsheet: Black Stork Ciconia nigra https://www.stateofindiasbirds.in/species/blasto1/ Accessed on 2022-06-01; Zöckler, C. & Kottelat, M. 2017. Biodiversity of the Ayeyarwady Basin. Ayeyarwady State of the Basin Assessment (SOBA) Report No. 4.5. National Water Resources Committee (NWRC), Yangong, Myanmar.; Liu, Q., Yang, X-J, & Zhu, J-G. 2013. Wintering Population Census and Migration of Black Stork at Napahai Wetland, Yunnan, China. Chinese Journal of Zoology 48(5) : 707 – 711		http://wpp.wetlands.org/explore/3811/2009
2010	2450	Ciconiidae	Ciconia nigra	Black Stork	LC	E Asia (non-bre)	E Siberia, E Mongolia & China	S China mainland, Korea, Japan and N Indochina	East Asian-Australasian Flyway		2012	2020	250	250	Census based	An estimate of 250 individuals was provided in 2020 (as per the EAAF Crane Working Group, via Simba Chan, pers. comm. 2020).	2012	2021	Unknown	No idea	No information on trends available over the last decade for the main population in CN and KR. Observations at a flyway bottleneck on the South Baikal migratory pass of 48 individuals on southward migration in 2016 was similar to numbers recorded in previous periods of counts (26-86 per year), and the authors conclude no visible trend since late 1990s until now (Povarintsev & Fefelov 2017); and with 33 counted in 2021 (Igor Fefelov, pers. comm. 2022).	3	1	Zöckler, C. & Kottelat, M. 2017. Biodiversity of the Ayeyarwady Basin. Ayeyarwady State of the Basin Assessment (SOBA) Report No. 4.5. National Water Resources Committee (NWRC), Yangong, Myanmar.; Povarintsev, A.I. & Fefelov, I.V. 2017. Autumn migration of Black Stork Ciconia nigra and Oriental Honey-Buzzard Pernis ptilorhyncus in the South Baikal migratory pass in 2016. Baikalskij Zoologicheskij Zhurnal [Baikal Journal of Zoology], 1 (20): 103-104. In Russian.		http://wpp.wetlands.org/explore/3811/2010

Pop #	Taxo-nomic#	Family	Scientific Name	Common Name	Red List	Population Name	Breeding Range (bre)	Non-breeding Range (non-bre)	Flyway/Biogeographic Region	Population Notes	Size Start Year	Size End Year	Minimum size	Maximum size	Estimate quality	Size Notes	Trend Start Year	Trend End Year	Trend Code	Trend Quality Code	Trend Notes	1% threshold	0.25 % threshold	Trend references	Size references	URL
2022	2457	Ciconiidae	Ciconia boyciana	Oriental Stork	EN	E Asia	SE Siberia, NE China mainland, South Korea and Japan	S & SE China mainland, Taiwan, Japan, Korean peninsula	East Asian-Australasian Flyway		2011	2021	10,300	10,300	Census based	The population estimate includes wild and reintroduced populations in the entire range in East Asia, including RU, CN, KR, KP and JP. The current size estimate of 10,300 (rounded from 10,290 is based on a rough estimate of 10,000 individuals in CN in 2021, 200 in JP, 88 in KR in 2020 and 2 in KP in 2021). The CN non-breeding population is roughly estimated at around 10,000 individuals (Jiang Hongxing, pers. comm 2022); where there has been an expansion of breeding areas in Heilongjiang, Jilin, Jiangsu, Anhui and Jiangxi Provinces and non-breeding grounds north to Bohai Bay (incl. Taishan wetland of Hebei Province, Tianjin wetland and Yellow River Delta wetland of Shandong) in recent years. In two years, a total of 6,485 and 4,952 were reported in 2017-2018 and 2018-2019 in the Yangtze River floodplain, Bohai Bay and coastal Jiangsu, Zhejiang, Shanghai, and Hong Kong (Ga, 2021). Population in RU Amur region in 2018-2019 was 1,000 individuals (Sasin et al., 2021). In KR a mean of 37 individuals (range 13-88 in 2016-2020); with migratory pop under 20 individuals before 2016. Since 2017, the non-breeding population has increased due to recruitment from releases from an artificially breeding pop based on annual Winter Waterbird Census (NIBR 2016, 2017, 2018, 2019, 2020). Two individuals were reported in KP during the AWC 2021 (provided by the Institute for Biodiversity of State Academy of Sciences, DPR Korea). In JP the reintroduced population is increasing with 119 individuals in 2017 (Ezaki & Ohsako 2019) and 200 individuals in 2020 (as per the EAAF Crane Working Group, via Simba Chan, pers. comm. 2020).	2012	2021	INC	Good	The population is increasing in the last decade. The CN non-breeding population has seen an expansion of breeding areas in Heilongjiang, Jilin, Jiangsu, Anhui and Jiangxi Provinces and non-breeding grounds north to Bohai Bay (incl. Taishan wetland of Hebei Province, Tianjin wetland and Yellow River Delta wetland of Shandong) in recent years is roughly estimated at around 10,000 individuals (Jiang Hongxing, pers. comm 2022); where large numbers of artificial nest platforms have been provided. Population in RU Amur region in 2018-2019 was 1,000 individuals (Sasin et al., 2021). In KR a mean of 37 individuals (range 13-88 in 2016-2020); with migratory pop under 20 individuals before 2016. Since 2017, the non-breeding population has increased due to recruitment from releases from an artificially breeding pop (based on Winter Waterbird Census, NIBR 2016, 2017, 2018, 2019, 2020). In JP the reintroduced population is increasing with 119 individuals in 2017 (Ezaki & Ohsako 2019).	100	25	NIBR. 2019. 2018-2019 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2016. 2015-2016 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Ezaki, Y., Ohsako, Y. 2019. Reintroduction and successful re-establishment of a breeding population of the Oriental White Stork Ciconia boyciana in Japan. Jpn J Ornithol 68: 183–192.; NIBR. 2017. 2016-2017 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2018. 2017-2018 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2020. 2019-2020 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.	Zhu Q, Zhan YH, Liu GH, Wu JD, Zhan HY, Huang YZ, Huang J, Zhang B, Hu BH, Li Y. 2012. Investigation of number and distribution of the waterfowl of Poyang Lake in the winter of 2011. Jiangxi Forestry Science and Technology, (3): 1-9. (in Chinese) Wei et al 2016; NIBR. 2019. 2018-2019 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Ga R. 2021. Distribution, population abundance and habitat selection of Oriental Stork (Ciconia boyciana) in Bohai Bay. Master's degree thesis. Inner Mongolia Normal University (In Chinese).; Sasin, A. A., Parilov, M. P. & Serdyuk, A. Y. 2021. Oriental stork (Ciconia boyciana Swinhoe) breeding population survey in the Amur region in 2018-2019. Amurian Zoological Journal. XIII, no. 1: 89–104.; NIBR. 2018. 2017-2018 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2016. 2015-2016 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Ezaki, Y., Ohsako, Y. 2019. Reintroduction and successful re-establishment of a breeding population of the Oriental White Stork Ciconia boyciana in Japan. Jpn J Ornithol 68: 183–192.; NIBR. 2017. 2016-2017 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2020. 2019-2020 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.	http://wpp.wetlands.org/explore/3817/2022
1964	2466	Threskiornithidae	Platalea leucorodia	Eurasian Spoonbill	LC	leucorodia, E Asia	NE Asia	China, Korea, Japan	East Asian-Australasian Flyway	Asian populations have been assigned separate race, major, but this considered doubtfully valid.	2016	2020	20,000	20,000	Expert opinion	Recent population size assessment by Xi et al. (2021) estimate about 20,000 individuals (about 19,500 in CN, 300 in KR and 80 in JP). In KR a mean of 338 individuals (226 to 405 in 2016-2020) based on Winter Waterbird Census of Korea by NIBR.	2016	2020	INC	Reasonable	(2013/14–2017/18), 10-year (2008/09–2017/18) and 15-year (2003/04–2017/18)	200	50	Xi, J, Zhao, G., Zhao, Q., Nyambayar, B., Kazuo, K., Jeong, MS., and Cao, L. (2021) Study on distribution and population trend of Eurasian Spoonbill (Platalea leucorodia) wintering in China. Environmental Protection Science. 47(6): DOI：10.16803/j.cnki.issn.1004－6216.2021－0000－00.	Xi, J, Zhao, G., Zhao, Q., Nyambayar, B., Kazuo, K., Jeong, MS., and Cao, L. (2021) Study on distribution and population trend of Eurasian Spoonbill (Platalea leucorodia) wintering in China. Environmental Protection Science. 47(6): DOI：10.16803/j.cnki.issn.1004－6216.2021－0000－00.	http://wpp.wetlands.org/explore/3783/1964
1968	2467	Threskiornithidae	Platalea minor	Black-faced Spoonbill	EN	minor	N & S Korea, NE China, Russia	Japan, South Korea, South mainland China, Vietnam, Taiwan, Philippines, Thailand	East Asian-Australasian Flyway		2021	2021	5,222	5,222	Census based	Increasing annual coverage of the annual coordinated International Black-faced Spoonbill Census 2021 by the Hong Kong Bird Watching Society (HKBWS 2021) provides an updated figure of 5222 in Jan 2021. Numbers reported in TW and VN have increased annually. In KR a mean of 33 individuals (25 to 38 in 2016-2020) based on Winter Waterbird Census of Korea by NIBR.	1994	2021	INC	Good	Increasing annual coverage of the annual coordinated International Black-faced Spoonbill Census 2021 by the Hong Kong Bird Watching Society (HKBWS 2021) provides an updated figure of 5,222 in Jan 2021. According to the Census, the 3,132 individuals in TW account for 60% of the global total and increased by 347 individuals (+12.5%) from 2020. The number in JP & VN increased by 4.8% and 36.7% compared with 2020. While numbers have declined in Deep Bay (including HK and Shenzhen side) by 15% over the course of 7 years. The IWC analysis reports a statistically significant increasing trend for 2011-2020 (1.2216), over 3 generations 2000-2020 (1.1003) and 1988-2020 (1.0975).	50	15	HKBWS 2021 https://cms.hkbws.org.hk/cms/en/hkbws/work/endangered-species/bfs-en/bfs-census-2021; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	HKBWS 2021 https://cms.hkbws.org.hk/cms/en/hkbws/work/endangered-species/bfs-en/bfs-census-2021	http://wpp.wetlands.org/explore/3786/1968
1965	2468	Threskiornithidae	Platalea regia	Royal Spoonbill	LC	Australia, New Zealand	Australia (not Tasmania), New Zealand	Australia, New Zealand, New Guinea, E Indonesia	Australasia		2004	2009	25,000	100,000	Best guess	No information available for a new assessment; previous estimate from 2012 (Wetlands International, 2012).	2012	2017	STA	Poor	Recorded as fluctuating between 1982 - 2011 (WPE5), based on 2005 information. In AU, as per Clemens et al (2019), no significant trend in long (1983-2017) and medium term (1997 to 2017), and slighty down short-term trajectory (2012 to 2017). Increase reported in NZ (Robertson et al 2021). No recent information from ID and PG.	1,000	250	Clemens R, Driessen J, Ehmke G (2019) 'Australian Bird Index Phase 2 – Developing Waterbird Indices for National Reporting'. Report to the Department of the Environment and Energy, Canberra.; Robertson, H.A., Baird, K., Dowding, J.E., Elliott, G.P., Hitchmough, R.A., Miskelly, C.M., McArthur, N., O'Donnell, C.F.J., Sagar, P.M., Scofield, R.P. and Taylor, G.A. (2017) Conservation status of New Zealand birds, 2016. New Zealand Threat Classification Series 19. Department of Conservation, Wellington; Robertson, HA, Baird, KA, Elliott, GP, Hitchmough, RA, McArthur, NJ, Makan, T, Miskelly, CM, O'Donnell, CJ, Sagar, PM, Scofield, RP, Taylor GA & Michel, P. 2021. Conservation status of birds in Aotearoa New Zealand, 2021. New Zealand Threat Classification Series 36. Department of Conservation, Wellington. 43 p. https://nztcs.org.nz/assessments/118875	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3784/1965
1940	2472	Threskiornithidae	Threskiornis melanocephalus	Black-headed Ibis	NT	SE Asia	SE Asia		Indo-Malay		2001	2001	1	10,000	Best guess	No information available for a new assessment; previous estimate from 2002 (Wetlands International, 2002).	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 2002 (Wetlands International, 2002).	100	25	Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3776/1940
1945	2473	Threskiornithidae	Threskiornis moluccus	Australian Ibis	LC	moluccus	Australia (excl. Tasmania), New Guinea	Australia (excl. Tasmania), W, S New Guinea, S Moluccas, Timor Leste	Australasia	Separated into T.m. molucca and T.m. (strictipennis) populations in WPE3 but combined again following WPE5 as subspecies strictipennis is no longer recognised. Until WPE2, the population was named Aust/New Guinea/Indonesia.	1993	1993	80,000	80,000	Best guess	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994).	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1997 (Wetlands International, 2002).	800	200	Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	http://wpp.wetlands.org/explore/3777/1945
1946	2474	Threskiornithidae	Threskiornis spinicollis	Straw-necked Ibis	LC	Australia, S New Guinea	Australia (not Tasmania)	Australia, S New Guinea	Australasia		1983	2009	100,000	1,000,000	Best guess	No information available for a new assessment; previous estimate from Wetlands International (2012).	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994). In AU medium term (1997 to 2017) no significant trend and a short-term flat trajectory reported for 2012-2017 (Clemens et al., 2019). Trend across rest of range unknown.	10,000	2,500	Clemens R, Driessen J, Ehmke G (2019) 'Australian Bird Index Phase 2 – Developing Waterbird Indices for National Reporting'. Report to the Department of the Environment and Energy, Canberra.; Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3778/1946
1900	2498	Threskiornithidae	Plegadis falcinellus	Glossy Ibis	LC	Philippines, Indonesia & Australia	Australia (not Tasmania), New Guinea, Philippines, Indonesia	Australia (not Tasmania), New Guinea, Philippines, Indonesia, Timor Leste	Australasia	Marchant & Higgins (1990) considers this species to be monotypic. Populations of Philippines, Indonesia and Australia have been separated as race peregrinus, but recent studies show that differences are not significant.	1995	2009	25,000	1,000,000	Best guess	No information available for a new assessment; previous estimate (Wetlands International, 2012).	2012	2017	DEC?	Poor	In AU a short-term downward trajectory reported for 2012-2017 (Clemens et al., 2019). Trend across rest of range unknown.	10,000	2,500	Clemens R, Driessen J, Ehmke G (2019) 'Australian Bird Index Phase 2 – Developing Waterbird Indices for National Reporting'. Report to the Department of the Environment and Energy, Canberra.	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3758/1900
2532	2498	Threskiornithidae	Plegadis falcinellus	Glossy Ibis	LC	E & SE Asia	E & SE Asia	E & SE Asia	East Asian-Australasian Flyway	Separated from S, SE Asia (non-bre) after WPE5. Hoyo & Collar (2014) considers this species to be monotypic. Populations of Philippines, Indonesia and Australia have been separated as race peregrinus, but recent studies show that differences are not significant.	2021	2021	-1	-1	No estimate	No population size assessment, since it was split from the South Asian population, after WPE5 (Wetlands International 2012). Only small numbers (286-7,461) reported during the IWC between 2016-2020.	2012	2021	Unknown	No idea	The IWC analysis reports a moderate increasing trend for 2002-2020 (1.2191), with an uncertain trend over 2011-2020 (1.6229). This is based on a small population from MM & TH and may not be representative of the population as a whole.	-1	-1			http://wpp.wetlands.org/explore/3758/2532
1860	2510	Ardeidae	Botaurus stellaris	Eurasian Bittern	LC	stellaris, SE & E Asia (non-bre)	S & SE Russia, Mongolia, N China, Japan	N India - Myanmar, S & E mainland China, Taiwan, Korea, S Japan	East Asian-Australasian Flyway	Sometimes ascribed to orientalis.	2001	2001	25,000	100,000	Best guess		2012	2021	Unknown	No idea	No information available for a new assessment; previous decreasing estimate from Wetlands International (2002).	1,000	250		Chan, Simba, In litt,. 2002. Unpublished information on Asian waterbirds.	http://wpp.wetlands.org/explore/3747/1860
1824	2519	Ardeidae	Ixobrychus sinensis	Yellow Bittern	LC	E & SE Asia	E & SE Asia	E & SE Asia to New Guinea, Micronesia	East Asian-Australasian Flyway		2006	2006	100,000	1,000,000	Best guess	Barré & Dutson (2000): Recently colonised New Caledonia.	2012	2021	Unknown	No idea	No information available for a new assessment; previous increasing estimate from 2006 (Wetlands International, 2006).	10,000	2,500		Unpublished information supplied by Wetlands International Specialist Groups, 2006.	http://wpp.wetlands.org/explore/3738/1824
1841	2520	Ardeidae	Ixobrychus eurhythmus	Schrenck's Bittern	LC	E & SE Asia	SE Siberia, Japan, Korea, NE & E China	S China, S Japan, Indochina, Malay Peninsula, Greater Sundas, Sulawesi & Philippines	East Asian-Australasian Flyway		2008	2008	1,000	50,000	Best guess	No information available for a new assessment; previous estimate from 1997 (Rose and Scott, 1997). The minimum and maximum estimate is revised to 1,000 and 50,000 respectively based on national population estimates (Brazil 2009) of c.100-10,000 breeding pairs and c.50-1,000 individuals on migration in CN; < c.10,000 breeding pairs and < c.1,000 individuals on migration in KR; < c.100 breeding pairs and < c.50 individuals on migration in JP and c.100-10,000 breeding pairs and c.50-1,000 individuals on migration in RU.	1999	2021	DEC	Poor	As per Hafner et al. (2000) the population is suspected to be in decline owing to ongoing habitat destruction.	250	65	Hafner, H., Lansdown, R.V., Kushlan, J.A., Butler, R.W., Custer, T.W., Davidson, I.J., Erwin, R.M., Hancock, J.A., Lyles, A.M., Maddock, M., Marion, L., Morales, G., Mundkur, T., Perennou, C., Pineau, O., Turner, D., Ulenaers, P., van Vessem, J. & Young, L. 2000. Conservation of herons. Pp 343-376. In Heron Conservation (Eds. Kushlan, J.A. and H. Hafner). Academic Press, San Diego.	Rose, P.M. and Scott, D.A. 1997. Waterfowl Population Estimates – Second Edition. Wetlands International. Publ. 44. Wageningen, The Netherlands.; BirdLife International 2021 website; Brazil, M. 2009. Birds of East Asia – China, Taiwan, Korea, Japan and Russia. Helm Field Guides, London, UK.	http://wpp.wetlands.org/explore/3741/1841
1843	2521	Ardeidae	Ixobrychus cinnamomeus	Cinnamon Bittern	LC	E & SE Asia	SE Asia to NE mainland China, Taiwan, S Japan	SE Asia to Ryukyu Is	East Asian-Australasian Flyway		2006	2006	100,000	1,000,000	Best guess		2012	2021	Unknown	No idea	No information available for a new assessment; previous stable estimate from 2006 (Wetlands International, 2006).	10,000	2,500		Unpublished information supplied by Wetlands International Specialist Groups, 2006.	http://wpp.wetlands.org/explore/3742/1843
1846	2523	Ardeidae	Ixobrychus flavicollis	Black Bittern	LC	flavicollis, E, SE Asia	Myanmar, Thailand, Indochina, S China, Philippines	Myanmar, Thailand, Indochina, S China, Malaysia, Indonesia, Philippines	Indo-Malay		2006	2006	10,000	100,000	Best guess		2012	2021	Unknown	No idea	No information available for a new assessment; previously estimated as unknown by Rose and Scott (1994).	1,000	250	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Unpublished information supplied by Wetlands International Specialist Groups, 2006.	http://wpp.wetlands.org/explore/3744/1846
1783	2525	Ardeidae	Oroanassa magnifica	White-eared Night-heron	EN	SE Asia	S & E China, Hainan, Vietnam		Indo-Malay		2001	2001	350	1,500	Expert opinion	updated from WPE5 based on BirdLife International (2021)	2012	2021	DEC	Poor	"This species's population is presumed to be experiencing a rapid decline owing to hunting and the clearance and fragmentation of forest, primarily owing to demands for timber or agricultural land and damming of some sites for stream regulation" BirdLife International (2021).	7	2	BirdLife International (2021) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 11/12/2021.	BirdLife International (2021) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 11/12/2021.	http://wpp.wetlands.org/explore/3726/1783
1784	2526	Ardeidae	Gorsachius goisagi	Japanese Night-heron	VU	E & SE Asia	Japan	Ryukyu Is, SE mainland China,Taiwan, Philippines, Indonesia	East Asian-Australasian Flyway		2021	2021	7,500	15,000	Expert opinion	Updated from WPE5 based on BirdLife International (2021)	2012	2021	Unknown	No idea	No information available for a new assessment; previous trend from 2012 decreasing (Wetlands International, 2012).	110	25	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	BirdLife International (2021) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 11/12/2021.	http://wpp.wetlands.org/explore/3727/1784
1786	2527	Ardeidae	Gorsachius melanolophus	Malay Night-heron	LC	melanolophus, SE Asia	Indochina, SW China	NE India, Malaysia, W Indonesia	Indo-Malay		1994	2021	500	50,000	Best guess	A minimum and maximum estimate of 500 and 50,000 individuals is proposed, based on national population sizes have been estimated at c.100-10,000 breeding pairs, c.50-1,000 individuals on migration and c.50-1,000 wintering individuals in Taiwan and c.100-10,000 breeding pairs in JP (Brazil 2009).	1987	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Perennou et al., 1994).	-1	-1	Perennou, C.P., Mundkur, T. and Scott, D.A. 1994. The Asian Waterfowl Census 1987-1991: distribution and status of Asian waterfowl. IWRB Spec. Publ. No. 24. AWB Spec. Publ. No. 86. Slimbridge, UK and Kuala Lumpur, Malaysia.	Brazil, M. 2009. Birds of East Asia – China, Taiwan, Korea, Japan and Russia. Helm Field Guides, London, UK.	http://wpp.wetlands.org/explore/3728/1786
1773	2532	Ardeidae	Nycticorax nycticorax	Black-crowned Night-heron	LC	nycticorax, E, SE Asia	Japan, Korea E & S mainland China, Taiwan, Indochina, Malaysia, Indonesia, Philippines	Japan, SE China mainland , Indochina, Taiwan, Philippines, Indonesia	East Asian-Australasian Flyway		2006	2006	100,000	1,000,000	Best guess	No information available for a new assessment; the current size estimate was proposed in 2002 (WPE3, Wetlands International, 2002). In KR breeding numbers were 1,292 in 2018-2019 (NIBR 2020).	2002	2021	Unknown	No idea	No information available for a new assessment; the previous estimate was proposed in 2002 (Wetlands International, 2002). In JP, numbers of breeding birds remained relatively constant between 2002-2011 in Ibaraki Prefecture (Mashiko and Toquenaga, 2013). KR breeding pop has decreased by 47% ; 2,420 in 2011-2012 to 1,292 in 2018-2019(NIER 2012, NIBR 2020).	10,000	2,500	Mashiko, M. and Y. Toquenaga. 2013. Increasing variation in population size and species composition ratio in mixed-species heron colonies in Japan. Forktail 29:71-77.; NIBR. 2020. Current status of heronies in Korea. National Institute of Biological Resources, Incheon. 472pp. In Korean.; Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12, Wageningen, The Netherlands.; NIBR. 2012. Egrets and herons in Korea. National Institute of Environmental Research, Incheon. 496pp. In Korean.	NIBR. (2020) Current status of heronies in Korea. National Institute of Biological Resources (NIBR), Incheon, South Korea; Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12, Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3723/1773
1720	2536	Ardeidae	Butorides striata	Green-backed Heron	LC	amurensis	NE mainland China, SE Russia S to Shandong & Korea, Japan, Ryukyu & Bonin Is, Taiwan & S mainland China	S China to Sumatra & Philippines	East Asian-Australasian Flyway		1994	2021	-1	-1	No estimate	No population size assessment (Rose and Scott, 1994). Information inadequate to develop an estimate for this poorly studied population.	2012	2021	Unknown	No idea	No population trend assessment (Rose and Scott, 1994).	-1	-1	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	http://wpp.wetlands.org/explore/3718/1720
1721	2536	Ardeidae	Butorides striata	Green-backed Heron	LC	actophila	S China to N Indochina & N Myanmar	S Nicobar Is, Sumatra, Borneo	Indo-Malay	Includes connectens.	1994	2021	-1	-1	No estimate	No population size assessment (Rose and Scott, 1994). Information inadequate to develop an estimate for this poorly studied population.	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994).	-1	-1	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.		http://wpp.wetlands.org/explore/3718/1721
1710	2543	Ardeidae	Ardeola bacchus	Chinese Pond-heron	LC	E, SE & S Asia	NE & E mainland China to Korean peninsula, W to Assam; occasionally Japan	S mainland China, Taiwan, Indochina, Borneo, Sumatra, Ryukyu Is, Philippines	East Asian-Australasian Flyway		2001	2001	25,000	1,000,000	Best guess		2011	2020	STA	Poor	The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (0.9546) and an uncertain trend falling in the stable range for 2010-2020 (0.9508). Based on the growth rate of the last 10 years, the population is projected to decrease by 43% in 3 generations compared to the population levels in 2011. Low reported numbers from the AWC suggest only a small proportion of the population is monitored. Challenges in identification of species in non-breeding plumage in some countries, indicate that monitoring of breeding surveys are more appropriate to monitor the trend of this population.	10,000	2,500	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Chan, Simba, In litt,. 2002. Unpublished information on Asian waterbirds.	http://wpp.wetlands.org/explore/3714/1710
1711	2544	Ardeidae	Ardeola speciosa	Javan Pond-heron	LC	speciosa	W & C Indonesia, S Philippines		Indo-Malay		1994	2021	-1	-1	No estimate	No population size assessment (Rose and Scott, 1994). Information inadequate to develop an estimate for this widespread and poorly studied population.	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994).	-1	-1	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.		http://wpp.wetlands.org/explore/3715/1711
1712	2544	Ardeidae	Ardeola speciosa	Javan Pond-heron	LC	continentalis	C Thailand, S Indochina		Indo-Malay		1987	1991	10,000	100,000	Best guess		2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994).	1,000	250	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Perennou, C.P., Mundkur, T. and Scott, D.A. 1994. The Asian Waterfowl Census 1987-1991: distribution and status of Asian waterfowl. IWRB Spec. Publ. No. 24. AWB Spec. Publ. No. 86. Slimbridge, UK and Kuala Lumpur, Malaysia.	http://wpp.wetlands.org/explore/3715/1712
1690	2547	Ardeidae	Bubulcus ibis	Cattle Egret	LC	coromanda, E, SE Asia	E & SE Asia		Indo-Malay	Often placed in genus Ardea.	2001	2001	100,000	1,000,000	Best guess	No recent population assessment is available; the current size estimate was proposed in 1997 (WPE2, Rose and Scott, 1997). In KR breeding adult numbers were 5,292 in 2018-2019 (NIBR 2020).	2011	2020	DEC	Reasonable	The IWC analysis (Langendoen et al., 2021) reports a decreasing trend for 2011-2020 (0.8945) and 2008-2020 (0.8981). Based on the growth rate of the overall trend and the last 10 years, the population is projected to decrease by 90% in 21 years, i.e. in 3 generations as well as compared to the population levels in 2011. As a species that feeds in wetlands as well as in crop lands and scrub/forest lands, the IWC analysis may require validation through other national census programmes. The IWC may not be most appropriate to monitor this species and breeding surveys may be more appropriate to monitor trends. In JP, numbers of breeding birds declined between 2002-2011 in Ibaraki Prefecture (Mashiko and Toquenaga, 2013). KR breeding pop has decreased by 38% ; 8,500 in 2011-2012 to 5,292 in 2018-2019(NIER 2012, NIBR 2020).	10,000	2,500	NIBR. 2020. Current status of heronies in Korea. National Institute of Biological Resources, Incheon. 472pp. In Korean.; NIBR. 2012. Egrets and herons in Korea. National Institute of Environmental Research, Incheon. 496pp. In Korean.; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Mashiko, M. and Y. Toquenaga. 2013. Increasing variation in population size and species composition ratio in mixed-species heron colonies in Japan. Forktail 29:71-77.	Rose, P.M. and Scott, D.A. 1997. Waterfowl Population Estimates – Second Edition. Wetlands International. Publ. 44. Wageningen, The Netherlands.; NIBR. (2020) Current status of heronies in Korea. National Institute of Biological Resources (NIBR), Incheon, South Korea	http://wpp.wetlands.org/explore/3711/1690
1691	2547	Ardeidae	Bubulcus ibis	Cattle Egret	LC	coromanda, Oceania	New Zealand, Australia, New Guinea		Australasia	Often placed in genus Ardea.	1999	2011	25,000	1,000,000	Best guess	Estimate in broad range based on size of large colonies in far N AU and status as common and locally breeding in coastal E AU.	2012	2021	Unknown	No idea	In AU short term (2005 to 2017) increasing but short-term trajectory 2012 to 2017 decreasing (Clemens et al. 2019). Trend across rest of range unknown.	10,000	2,500	Clemens R, Driessen J, Ehmke G (2019) 'Australian Bird Index Phase 2 – Developing Waterbird Indices for National Reporting'. Report to the Department of the Environment and Energy, Canberra.	Jaensch, R. April 2012. Detailed data and notes on numbers and trends of waterbirds in Australia and other parts of the Oceania region, in a spreadsheet prepared for Wetlands International - Oceania for the 5th edition of WPE.; Jaensch, Roger, August 2005. Detailed data and notes on numbers and distribution of waterbirds in Australia, updated from Jaensch, 2003, and derived from more than 90 Australian sources including Wetlands International, Birds Australia and Jaensch, 2003,; Chatto, R. 2000. Waterbird breeding colonies in the Top End of the Northern Territory. Technical Report 69, Parks and Wildlife Commission of the Northern Territory, Australia.	http://wpp.wetlands.org/explore/3711/1691
1639	2548	Ardeidae	Ardea cinerea	Grey Heron	LC	jouyi, E, SE Asia	Japan to N Myanmar S to Java	E/SE Asia	East Asian-Australasian Flyway		1987	1991	100,000	1,000,000	Best guess	No recent population assessment is available; the current size estimate was proposed in 2002 (WPE3, Wetlands International, 2002). In KR breeding numbers was 28,816 in 2018-2019 based on NIBR (2020).	2011	2020	STA	Poor	The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (1.0221) and an increasing trend for 1999-2020 (1.0194). Low reported numbers from the AWC suggest only a small proportion of the population is monitored. In JP, numbers of breeding birds increased between 2002-2011 in Ibaraki Prefecture (Mashiko and Toquenaga, 2013). In HK, long term monitoring 2008–2017 showed a decline of 29% (Sung et al., 2021). KR breeding pop has increased by 6% ; 27,180 in 2011-2012 to 28,816 in 2018-2019(NIER 2012, NIBR 2020).	10,000	2,500	NIBR. 2012. Egrets and herons in Korea. National Institute of Environmental Research, Incheon. 496pp. In Korean.; NIBR. 2020. Current status of heronies in Korea. National Institute of Biological Resources, Incheon. 472pp. In Korean.; Sung Y-H, Pang C, Li TC, Wong PPY, Yu Y (2021) Ecological Correlates of 20-Year Population Trends of Wintering Waterbirds in Deep Bay, South China.Front. Ecol. Evol. 9: doi: 10.3389/fevo.2021.658084; Mashiko, M. and Y. Toquenaga. 2013. Increasing variation in population size and species composition ratio in mixed-species heron colonies in Japan. Forktail 29:71-77.; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12, Wageningen, The Netherlands.; NIBR. (2020) Current status of heronies in Korea. National Institute of Biological Resources (NIBR), Incheon, South Korea	http://wpp.wetlands.org/explore/3698/1639
1669	2557	Ardeidae	Ardea purpurea	Purple Heron	LC	manilensis, E & SE Asia	E & SE Asia, Ryukyu Is (Japan)	Birds breeding in N China mainland migrate S in winter, when range includes Taiwan	East Asian-Australasian Flyway		1987	1991	10,000	100,000	Best guess		2011	2020	STA	Poor	The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (1.0291), over 3 generations 2002-2020 (1.0116) and an increasing trend for 2000-2020 (1.0244). Low reported numbers from the AWC suggest only a small proportion of the population is monitored.	1,000	250	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Perennou, C.P., Mundkur, T. and Scott, D.A. 1994. The Asian Waterfowl Census 1987-1991: distribution and status of Asian waterfowl. IWRB Spec. Publ. No. 24. AWB Spec. Publ. No. 86. Slimbridge, UK and Kuala Lumpur, Malaysia.	http://wpp.wetlands.org/explore/3707/1669
2425	2558	Ardeidae	Ardea alba	Great White Egret	LC	modesta, Australia, S New Guinea	Australia, S New Guinea		Australasia	Sometimes considered as Ardea (Casmerodius, Egretta) modesta.	1995	2011	25,000	100,000	Best guess	Estimate based on review of previous information and recent information that suggests total numbers remain between 25,000 and 100,000. Numbers in PG can reach the same level but likely to be mostly migrants from AU.	2012	2021	Unknown	No idea	No information available for a new assessment; previous trend from 2012 fluctuating (Wetlands International, 20012).	1,000	250	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	Jaensch, Roger, August 2005. Detailed data and notes on numbers and distribution of waterbirds in Australia, updated from Jaensch, 2003, and derived from more than 90 Australian sources including Wetlands International, Birds Australia and Jaensch, 2003,; Halse, S.A., Pearson, G.B., Jaensch, R.P., Kulmoi, P., Gregory, P., Kay, W.R. and Storey, A.W. 1996. Waterbird surveys of the Middle Fly River floodplain, Papua New Guinea. Wildlife Research 23 (5): 557-569. (CSIRO Publishing, Australia).; Jaensch, R. April 2012. Detailed data and notes on numbers and trends of waterbirds in Australia and other parts of the Oceania region, in a spreadsheet prepared for Wetlands International - Oceania for the 5th edition of WPE.	http://wpp.wetlands.org/explore/3709/2425
2516	2558	Ardeidae	Ardea alba	Great White Egret	LC	modesta, E/SE Asia (bre)	E & SE Asia	E & SE Asia	East Asian-Australasian Flyway	Population added following WPE5, combining the modesta, Indonesia population and modesta individuals from the earlier modesta, E Asia (non-bre) population, which had been found to also include Ardea alba alba individuals.	2021	2021	-1	-1	No estimate	No population size assessment, since it was reorganised, after WPE5 (Wetlands International 2012). Breeding adult numbers in KR were 21,814 in 2018-2019 based on NIBR (2020).	2011	2020	INC	Reasonable	It is unclear to what extent this population in SE Asia overlaps with the alba, E Asia (bre) population. The IWC analysis (Langendoen et al. 2021) reports a moderate increasing trend for 2011-2020 (1.0313) and 2003-2020 (1.0367). KR breeding pop has increased by 29% ; 16,904 in 2011-2012 to 21,814 in 2018-2019(NIER 2012, NIBR 2020).	-1	-1	NIBR. 2012. Egrets and herons in Korea. National Institute of Environmental Research, Incheon. 496pp. In Korean.; NIBR. 2020. Current status of heronies in Korea. National Institute of Biological Resources, Incheon. 472pp. In Korean.; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.		http://wpp.wetlands.org/explore/3709/2516
2517	2558	Ardeidae	Ardea alba	Great White Egret	LC	alba, E Asia (bre)	SE Russia, Mongolia, N China	E Asia, S China and S Tibet	Eastern Palearctic	Population added following WPE5, partially replacing the former modesta, E Asia population. This earlier population was found to include both alba and modesta individuals.	2021	2021	-1	-1	No estimate	No population size assessment, since it was reorganised, after WPE5 (Wetlands International 2012). In KR during non-breeding period, mean of 3,042 individuals (858 to 3,717) for 2016-2020 based on Winter Waterbird Census of Korea by NIBR.	2012	2021	Unknown	No idea	No information available for a new assessment; population recently split. Review of IWC counts largely from KR suggests an increase, but is not representative of the population in E Asia.	-1	-1			http://wpp.wetlands.org/explore/3709/2517
1682	2560	Ardeidae	Ardea intermedia	Intermediate Egret	LC	intermedia, E, SE Asia	E & SE Asia C Japan S to Indonesia	Birds breeding in N of range migrate to S China & S Japan	Indo-Malay		2006	2006	25,000	100,000	Best guess	No information available for a new assessment; previous estimate from 2006 (WPE4, Wetlands International, 2006). In KR breeding numbers were 4,488 in 2018-2019 (NIBR. 2020); in TW, Jan counts were between 261-468 (2015-2020), as per Lin et al. (2020).	2012	2021	Unknown	No idea	No information available for a new population wide assessment; previous trend estimate was proposed in 1997 (WPE2, Rose and Scott, 1997). In JP, numbers of breeding birds increased between 2002-2011 in Ibaraki Prefecture (Mashiko and Toquenaga, 2013). While in KR breeding pop has decreased by 25% ; 5,964 in 2011-2012 to 4,488 in 2018-2019(NIER 2012, NIBR 2020).	1,000	250	Rose, P.M. and Scott, D.A. 1997. Waterfowl Population Estimates – Second Edition. Wetlands International. Publ. 44. Wageningen, The Netherlands.; NIBR. 2020. Current status of heronies in Korea. National Institute of Biological Resources, Incheon. 472pp. In Korean.; Mashiko, M. and Y. Toquenaga. 2013. Increasing variation in population size and species composition ratio in mixed-species heron colonies in Japan. Forktail 29:71-77.; Wetlands International, 2002. Waterbird Population Estimates - Third Edition. Wetlands International Global Series No. 12. Wageningen, The Netherlands.; NIBR. 2012. Egrets and herons in Korea. National Institute of Environmental Research, Incheon. 496pp. In Korean.	Wetlands International. (2006) Waterbird Population Estimates - Fourth Edition. Wetlands International. Wageningen, The Netherlands.; NIBR. (2020) Current status of heronies in Korea. National Institute of Biological Resources (NIBR), Incheon, South Korea; Lin, D-L, Lin Y-L, Chao J, Chang A-Y, Pursner S, Lyu A, Lin K-H, Chiang K-K, Lin, R-S. 2020. Taiwan New Year Bird Count 2020 Annual Report. Taiwan Wild Bird Federation, Taiwan Endemic Species Research Institute, Taiwan.	http://wpp.wetlands.org/explore/3710/1682
1683	2561	Ardeidae	Ardea plumifera	Plumed Egret	LC	plumifera	E Indonesia - New Guinea - Australia (not Tasmania)		Australasia	Ardea intermedia, A. brachyrhyncha and A. plumifera (del Hoyo and Collar 2014) were previously placed in the genus Mesophoyx and lumped as M. intermedia (see BirdLife International (2016) Species factsheet: Ardea plumifera.)	1995	2011	100,000	1,000,000	Best guess	No information available for a new assessment; previous estimate from 2006 (Wetlands International, 2006).	2012	2021	Unknown	No idea	In AU an insignificant medium term trend (1997 to 2017) but short-term downward trajectory for 2012-2017 (Clemens et al., 2019). Trend across rest of range unknown.	10,000	2,500	Clemens R, Driessen J, Ehmke G (2019) 'Australian Bird Index Phase 2 – Developing Waterbird Indices for National Reporting'. Report to the Department of the Environment and Energy, Canberra.	Wetlands International. (2006) Waterbird Population Estimates - Fourth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/11156/1683
1671	2567	Ardeidae	Egretta picata	Pied Heron	LC	Australia, Sulawesi, New Guinea	N Australia, New Guinea, S Sulawesi		Australasia	Sometimes placed in genus Ardea.	1995	2002	25,000	100,000	Best guess	No information available for a new assessment; previous estimate from Wetlands International (2012).	2012	2021	Unknown	No idea	No information available for a new assessment; previous trend from 2012 stable (Wetlands International, 2012).	1,000	250	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3708/1671
1606	2575	Ardeidae	Egretta garzetta	Little Egret	LC	garzetta, E, SE Asia	E, SE Asia	Some N breeding birds migrate S in winter	Indo-Malay		1996	1996	100,000	1,000,000	Best guess	No information available for a new assessment; the previous on was proposed in 1997 (Rose and Scott, 1997). KR breeding pop of 7,012 in 2018-2019 (NIBR, 2020); no information available to assess current population.	1981	2021	Unknown	No idea	No information available for a new assessment; previous proposed (Wetlands International (2002). In JP, numbers of breeding birds declined between 2002-2011 in Ibaraki Prefecture (Mashiko and Toquenaga, 2013). KR breeding pop has decreased by 30% ; 10,050 in 2011-2012 to 7,012 in 2018-2019(NIER 2012, NIBR 2020).	10,000	2,500	NIBR. 2020. Current status of heronies in Korea. National Institute of Biological Resources, Incheon. 472pp. In Korean.; NIBR. 2012. Egrets and herons in Korea. National Institute of Environmental Research, Incheon. 496pp. In Korean.; Mashiko, M. and Y. Toquenaga. 2013. Increasing variation in population size and species composition ratio among mixed-species heron colonies in Japan. Forktail 29: 71-77.; Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	Rose, P.M. and Scott, D.A. 1997. Waterfowl Population Estimates – Second Edition. Wetlands International. Publ. 44. Wageningen, The Netherlands.; NIBR. (2020) Current status of heronies in Korea. National Institute of Biological Resources (NIBR), Incheon, South Korea	http://wpp.wetlands.org/explore/11021/1606
1607	2575	Ardeidae	Egretta garzetta	Little Egret	LC	nigripes	Java, New Guinea, associated islands SE Asia & SW Pacific		East Asian-Australasian Flyway		1987	1991	25,000	1,000,001	Best guess		2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994).	20,000	20,000	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Perennou, C.P., Mundkur, T. and Scott, D.A. 1994. The Asian Waterfowl Census 1987-1991: distribution and status of Asian waterfowl. IWRB Spec. Publ. No. 24. AWB Spec. Publ. No. 86. Slimbridge, UK and Kuala Lumpur, Malaysia.	http://wpp.wetlands.org/explore/11021/1607
1608	2575	Ardeidae	Egretta garzetta	Little Egret	LC	immaculata	Australia (not Tasmania), New Zealand		Australasia	Included in nigripes by Marchant & Higgins (1990).	2002	2004	25,000	100,000	Best guess	No recent population size assessment available; previous estimate from Wetlands International (2012).	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994).	1,000	250	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/11021/1608
1627	2578	Ardeidae	Egretta eulophotes	Chinese Egret	VU	E & SE Asia	Korea, E China, Furugelm Is (Russian Far East)	S mainland China, Japan, Taiwan, SE Asia	East Asian-Australasian Flyway		2012	2012	3,800	15,000	Best guess	No recent population size assessment available; previous estimate from Wetlands International (2012).Breeding adult numbers in KR were 1,416 at 10 islands in 2021, based on unpublished census data by Bo-Yeon Hwang (Hwajung Kim, pers. comm. 2021).	2011	2020	STA	Poor	The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (0.9887), over 3 generations 2004-2020 (0.9863) and for 1992-2020 (0.9908). Based on the smoothed imputed totals, the population has decreased by 9% (n.s.) in 16 years, i.e. in 3 generations. Based on the growth rate of the last 10 years, the population is projected to decrease by 17% in 3 generations compared to the population levels in 2011. Low reported numbers from the AWC suggest only a small proportion of the population is monitored. The species may not be identified properly in some instances.	75	20	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	BirdLife International 2021	http://wpp.wetlands.org/explore/3695/1627
1983	2586	Pelecanidae	Pelecanus crispus	Dalmatian Pelican	NT	E Asia	W Mongolia	S & E China	East Asian-Australasian Flyway		2014	2021	130	150	Expert opinion	Total population size in East Asia is estimated between 130-150 individuals; with between 30-35 breeding pairs left in western MN (Batbayar et al. in prep).	2006	2016	DEC	Reasonable	In CN 70-130 individuals in non-breeding counts between 2006-2016 (Catsadorakis and Portolou, 2018), 101-123 in 2019-2020 winter, 102 in Nov 2020 and 94 in 2020-2021 winter (Shengwu Jiao , pers. comm. 2022).	1	1	Catsadorakis, G. and Portolou, D. (compilers). 2018. International Single Species Action Plan the Conservation of the Dalmatian Pelican (Pelecanus crispus). CMS Technical Series No. 39, AEWA Technical Series No. 69, EAAFP Technical Report No. 1. Bonn, Germany and Incheon, South Korea.	Catsadorakis, G. and Portolou, D. (compilers). 2018. International Single Species Action Plan the Conservation of the Dalmatian Pelican (Pelecanus crispus). CMS Technical Series No. 39, AEWA Technical Series No. 69, EAAFP Technical Report No. 1. Bonn, Germany and Incheon, South Korea.; Batbayar, N., Tseveenmyadag, N., and Ch.Bayarmaa, Editors. in prep. Action plan for Dalmatian Pelican conservation in Mongolia: 2022-2027. Ministry of Environment and Tourism of Mongolia. Ulaanbaatar.	http://wpp.wetlands.org/explore/3792/1983

Pop #	Taxo-nomic#	Family	Scientific Name	Common Name	Red List	Population Name	Breeding Range (bre)	Non-breeding Range (non-bre)	Flyway/Biogeographic Region	Population Notes	Size Start Year	Size End Year	Minimum size	Maximum size	Estimate quality	Size Notes	Trend Start Year	Trend End Year	Trend Code	Trend Quality Code	Trend Notes	1% threshold	0.25 % threshold	Trend references	Size references	URL
1985	2587	Pelecanidae	Pelecanus philippensis	Spot-billed Pelican	NT	SE Asia	Cambodia	Cambodia, Laos, Vietnam, Thailand; Extinct S China	Indo-Malay		2016	2020	5,000	5,800	Expert opinion	The population estimate is based on nest counts at the main known colonies in KH (Visal & Mahood, 2015). In 2014, 1803 nests were recorded, with a confidence interval of 1,660-1,946. As these are the last known colonies in SE Asia, this is used to generate the current population estimate of 5,000 - 5,800 individuals. IWC counts were between 1,402-3,899 individuals (2016-2020) mainly in KH, the current stronghold of the species. In TH may be increasing (BirdLife International (2021) quoting Phil Round); while the population in MM has declined and may have disappeared from parts of its range (Zöckler et al 2019).	2011	2020	INC	Good	The IWC analysis reports an increasing trend for 2011-2020 (1.1016) and stable over 1999-2020 (1.0216).	55	15	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Zöckler, C., Lwin, N. Tun, T.Z, Pfützke, S., Momberg, F., Van Der Ven, F. & Delany, S. (2020) Surveys of riverine birds along the Ayeyarwady River in 2017–2019 and conservation implications. Forktail. 36: 1–15.; BirdLife International 2021 website; Visal, S. and Mahood, S. 2015. Wildlife Monitoring at Prek Toal Ramsar Site, Tonle Sap Great Lake, 2013 and 2014. Wildlife Conservation Society, Cambodia.	http://wpp.wetlands.org/explore/3793/1985
542	2633	Phalacrocoracidae	Urile pelagicus	Pelagic Cormorant	LC	pelagicus	N Pacific		Central Pacific Flyway		2006	2011	10,000	25,000	Census based	Global population probably in range of 10,000-25,000. Mean 1,600 (782-2,312 in 2016-2020) in KR, based on Winter Waterbird Census of Korea by NIBR. 3,000-15,000 estimated for CA for both subspecies combined (Environment Canada 2012). Other national population estimates include: c.100-10,000 breeding pairs, c.50-1,000 individuals on migration wintering individuals in KR; c.10,000-100,000 breeding pairs, c.1,000-10,000 individuals on migration and c.1,000-10,000 wintering individuals in JP and c.10,000-100,000 breeding pairs and c.1,000-10,000 individuals on migration in RU (Brazil 2009).	2011	2020	INC?	Poor	The trend in KR is INC for 2011-2020, based on Winter Waterbird Census of Korea by NIBR. But no information across rest of range.	250	65		Environment and Climate Change Canada. 2019. The Status of Birds in Canada Website, Data-version 2019. Environment and Climate Change Canada, Gatineau, Quebec, K1A 0H3; Brazil, M. 2009. Birds of East Asia – China, Taiwan, Korea, Japan and Russia. Helm Field Guides, London, UK.	http://wpp.wetlands.org/explore/9905/542
1563	2634	Phalacrocoracidae	Urile urile	Red-faced Cormorant	LC	N Pacific	Bering Sea, coastal Alaska & N Japan		Central Pacific Flyway		1997	1997	200,000	200,000	Best guess	No information available for a new assessment; previous estimate from 1997 (Rose and Scott, 1997).	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994). In JP (Ministry of the Environment Japan. 2021) numbers decreased between 1980 to 2015 as per analysis of the Japanese Seabird Colony Database. As per BirdLife International (2021), the population trend is decreasing in North America (based on BBS/CBC data: Butcher and Niven 2007).	2,000	500	BirdLife International 2021 website; Ministry of the Environment Japan. 2021. Monitoring site 1000 & Small Island Seabird Surveys 2004-2018 Summary Report. Ministry of the Environment, Natural Environment Bureau, Biodiversity Center, Japan.; Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Rose, P.M. and Scott, D.A. 1997. Waterfowl Population Estimates – Second Edition. Wetlands International. Publ. 44. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3678/1563
1520	2637	Phalacrocoracidae	Phalacrocorax carbo	Great Cormorant	LC	sinensis, E, SE Asia (non-bre)	E, SE Asia		East Asian-Australasian Flyway		2002	2002	25,000	100,000	Best guess	No precise information available for a new assessment since the previous estimate by Wetlands International (2002) when the population was estimated to be between 25,000-100,000. Count information from some breeding and non-breeding sites and reports of individual roosts in CN (e.g. Yancheng NNR) and KR (Saemungeum) are known to hold over 10,000 individuals (Nial Moores, pers. comm. 2022) indicate that the population size is much larger than previously estimated. and increasing, and may be possibly closer to a 1,000,000 birds). In KR a mean of 14,643 individuals (10,723 to 18,328 in 2016-2020) based on Winter Waterbird Census of Korea by NIBR; in TW 4,380 to 18,473 in 2015-2020 (Lin et al. 2020); a maximum of 26,565 (Choi et al., 2020). From, the breeding grounds in RU, the population in the Baikal area is estimated at 39-40 thousand individuals (Yelayev et al 2021); which represents a small part of the breeding grounds of the population, with no information available from its breeding grounds in the rest of RU, CN, MN, KR or KS.	2011	2020	INC	Poor	While no regional population trend assessment is available, indications from KR and parts of CN indicate an increase. In KR the trend in increasing for ten years (2011-2020), based on Winter Waterbird Census of Korea by NIBR. In coastal CN, the pop has increased in three of four regions (Choi et al., 2020); while in HK the INC has been 37% between 2008–2017 (Sung et al 2021), with an increase in TW (Li et al 2021).	1,000	250	Choi, C.-Y., Li, J. & Xue, W.J. (2020). China Coastal Waterbird Census Report (Jan. 2012–Dec. 2019). Hong Kong: Hong Kong Bird Watching Society. (in Chinese); Li et al. 2021. Taiwan New Year Bird Count 2021 Annual Report. Chinese Wild Bird Federation, Taiwan Endemic Species Research Institute, Taiwan. ; Sung Y-H, Pang C, Li TC, Wong PPY, Yu Y (2021) Ecological Correlates of 20-Year Population Trends of Wintering Waterbirds in Deep Bay, South China.Front. Ecol. Evol. 9: doi: 10.3389/fevo.2021.658084	Yelayev E.N., Dorzhiev Ts.Z., Ananin A.A., Pyzhyanov S.V., Yankus G.A., Badmaeva E.N., Mokridina M.S., Bazarov L.D. Feeding ecology and epizootological value of the Great Cormorant (Phalacrocorax carbo) during the secondary expansion of the Baikal region. South of Russia: ecology, development. 2021, vol. 16, no. 4, pp. 47-55. (In Russian) DOI: 10.18470/1992-1098-2021-4-47-55; Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12, Wageningen, The Netherlands.; Lin, D-L, Lin Y-L, Chao J, Chang A-Y, Pursner S, Lyu A, Lin K-H, Chiang K-K, Lin, R-S. 2020. Taiwan New Year Bird Count 2020 Annual Report. Taiwan Wild Bird Federation, Taiwan Endemic Species Research Institute, Taiwan.	http://wpp.wetlands.org/explore/3662/1520
1535	2638	Phalacrocoracidae	Phalacrocorax capillatus	Japanese Cormorant	LC	E Asia	N Japan, S Kuril Is, Korea	Japan, Korea, mainland China, Taiwan	Eastern Palearctic		1994	1994	25,000	100,000	Best guess	No information available for a new assessment; previous estimate by Rose and Scott (1994). Mean 1,600 (range from 782 to 2,312 in 2016-2020) in KR, based on Winter Waterbird Census of Korea by NIBR; in TW 1 to 23 in 2015-2020 (Lin et al. 2020).	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994). The trend in KR is STA for ten years (2011-2020), based on Winter Waterbird Census of Korea by NIBR. Trend elsewhere across range in CN, JP, KP and RU unknown.	1,000	250	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.; Lin, D-L, Lin Y-L, Chao J, Chang A-Y, Pursner S, Lyu A, Lin K-H, Chiang K-K, Lin, R-S. 2020. Taiwan New Year Bird Count 2020 Annual Report. Taiwan Wild Bird Federation, Taiwan Endemic Species Research Institute, Taiwan.	http://wpp.wetlands.org/explore/3663/1535
732	2678	Haematopodidae	Haematopus ostralegus	Eurasian Oystercatcher	NT	osculans	Kamchatka, Korea, NE & E China	Japan, Korea, E mainland China S to Taiwan	East Asian-Australasian Flyway		2014	2020	11,000	12,000	Expert opinion	An updated estimate of 11,000-12,000 is proposed based on recent counts AWC 2,900-10,600 between 2014-2018; complemented by individual contributions from CN - max of 5000 in Jan 2015 (Choi et al 2020); JP a max of 500 reported in the AWC 2016-2020; KR - census-based mean of 5,077 (2,228-6,913 in 2016-2020), based on Winter Waterbird Census of Korea by NIBR. This is slightly higher than an estimate of 11,000 following counts in 2013 (Melville et al 2014).	2011	2020	STA	Poor	The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (1.0196) and an uncertain trend with increasing tendency between 2000-2020 (1.0769). Occasional but inconsistent high count numbers from CN suggests the monitoring of this population is inadequate.	110	30	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Melville, D.S., Gerasimov, Y.N., Moores, N., Yat-Tung, Y & Bai, Q. 2014. Conservation assessment of Far Eastern Oystercatcher Haematopus [ostralegus] osculans. International Wader Studies 20: 129–154.; Choi, C.-Y., Li, J. & Xue, W.J. (2020). China Coastal Waterbird Census Report (Jan. 2012–Dec. 2019). Hong Kong: Hong Kong Bird Watching Society. (in Chinese)	http://wpp.wetlands.org/explore/3076/732
791	2690	Recurvirostridae	Recurvirostra avosetta	Pied Avocet	LC	E Asia	SE Siberia, NE China	SE mainland China to Taiwan	East Asian-Australasian Flyway		2008	2008	100,000	100,000	Expert opinion	No recent population size assessment available; previous estimate from Wetlands International (2012). A max of 26,216 reported in Mar 2019 (Choi et al, 2020).	2012	2019	DEC?	Poor	No information on overall trend of population. However, based on coastal counts in CN a decline reported during 2012-2019 (Choi et al 2020). A similar decline also reported in HK between between 2008–2017 that reverses an increase between 1998–2007 (Sung et al. 2021).	1,000	250	Choi, C.-Y., Li, J. & Xue, W.J. (2020). China Coastal Waterbird Census Report (Jan. 2012–Dec. 2019). Hong Kong: Hong Kong Bird Watching Society. (in Chinese); Sung Y-H, Pang C, Li TC, Wong PPY, Yu Y (2021) Ecological Correlates of 20-Year Population Trends of Wintering Waterbirds in Deep Bay, South China.Front. Ecol. Evol. 9: doi: 10.3389/fevo.2021.658084	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.; Choi, C.-Y., Li, J. & Xue, W.J. (2020). China Coastal Waterbird Census Report (Jan. 2012–Dec. 2019). Hong Kong: Hong Kong Bird Watching Society. (in Chinese)	http://wpp.wetlands.org/explore/3095/791
759	2694	Recurvirostridae	Himantopus himantopus	Black-winged Stilt	LC	himantopus, E & SE Asia	SE & E Asia including recent expansion of range into mainland China, Taiwan, Korea, Japan		East Asian-Australasian Flyway		2007	2007	25,000	100,000	Best guess	No information available for a new assessment; previous estimate from Bamford et al. (2008).	2011	2020	INC	Poor	The IWC analysis reports an increasing trend for 2011-2020 (1.0538) and for 2005-2020 (1.0358). Only a small proportion of the population is monitored. Therefore, it is not considered representative of the population.	1,000	250	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Bamford, M.J., Watkins, D.G., Bancroft, W. Tischler, G and Wahl, J. (2008). Migratory Shorebirds of the East Asian-Australasian Flyway. Population Estimates and Important Sites. Wetlands International - Oceania.	http://wpp.wetlands.org/explore/3089/759
761	2694	Recurvirostridae	Himantopus himantopus	Black-winged Stilt	LC	leucocephalus, SE Asia - Australia	Java E to New Guinea S to Australia	As breeding range + Philippines, Gtr Sundas, Sulawesi	East Asian-Australasian Flyway	Considered conspecific with H himantopus.	1992	2009	25,000	1,000,000	Best guess	As per the WPE5, the estimate based on AU data and accounts for previous estimate (1993), minimum numbers from national survey at end of major drought period, and peak numbers after major flood events in several sub-regions. Addition of birds in SE Asia would probably keep estimate in same broad range. As per Pierce & Kirwan (2020) the population in AU was estimated at 266,000 birds, although numbers in E AU appear to have collapsed during the course of last three decades. The NZ population was estimated as 30,000 in early 1990s (Adams 2013). A recent assessment of the population status is required.	2008	2017	DEC	Good	The IWC analysis reports a decreasing trend for 2008-2017 (0.9274) and over 3 generations 1997-2017 (0.9502) and overall stable trend 1981-2017 (0.9926). Based on the smoothed imputed totals, the population has decreased by 45% (n.s.) in 20 years, i.e. in 3 generations. Based on the growth rate of the last 10 years, the population is projected to decrease by 78% in 3 generations compared to the population levels in 2008. The assessment is largely based on counts from AU, with a small number of counts from TL. Reigen & Sagar (2020) report a reduction of the NZ population from 28,000 in 1983–1994 to 24,000 in 2019.	10,000	2,500	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Pierce, R.J. and G. M. Kirwan (2020). Pied Stilt (Himantopus leucocephalus), version 1.0. In Birds of the World (S. M. Billerman, B. K. Keeney, P. G. Rodewald, and T. S. Schulenberg, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.piesti1.01; Riegen, A & Sagar, P. 2020 Distribution and numbers of waders in New Zealand. Notornis 67: 591-634	Pierce, R.J. and G. M. Kirwan (2020). Pied Stilt (Himantopus leucocephalus), version 1.0. In Birds of the World (S. M. Billerman, B. K. Keeney, P. G. Rodewald, and T. S. Schulenberg, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.piesti1.01; Adams, R. 2013 [updated 2017]. Pied stilt. In Miskelly, C.M. (ed.) New Zealand Birds Online. www.nzbirdsonline.org.nz	http://wpp.wetlands.org/explore/3089/761
806	2702	Charadriidae	Pluvialis squatarola	Grey Plover	LC	squatarola, E, SE Asia & Australia (non-bre)	Arctic Russia	E, SE Asia & Australia	East Asian-Australasian Flyway		2004	2016	80,000	80,000	Expert opinion	Expert opinion estimate for the species in the EAAF is 80,000 (derived predominantly from spatial analyses for extrapolation) by Hansen et al (2016). The AU pop estimate is 12,600 (min 10,950- max 15,900) with a high reliability for this subspecies (Flaherty et al. 2021). In CN, a max of 21,036 individuals reported in Apr 2014 (during northward migration) during counts between 2012-2019 (Choi et al. 2020); while in KR during the same period a mean of 9,635 individuals (8,010-12,198) in 2015-2019 were reported by NIBR.	2011	2020	STA	Poor	The IWC analysis reports a stable trend for 2011-2020 (0.9926) and 2000-2020 (1.0014). Low reported numbers from the AWC suggest only a small proportion of the population is monitored. In CN, an increase has been reported between 2012-2019, with a max of 21,036 individuals reported in Apr 2014 (during northward migration) by Choi et al. (2020). Clemens et al (2016) report a significant decline of the population in AU between 1973 to 2014, reiterated by Flaherty et al (2021). Unusually, nearly all Grey Plovers reported going to AU are females (Rogers et al. 2011) and sex-based trends from other parts of the range would be important to understand.	800	200	Clemens Robert S., Rogers Danny I., Hansen Birgita D., Gosbell Ken, Minton Clive D. T., Straw Phil, Bamford Mike, Woehler Eric J., Milton David A., Weston Michael A., Venables Bill, Weller Dan, Hassell Chris, Rutherford Bill, Onton Kimberly, Herrod Ashley, Studds Colin E., Choi Chi-Yeung, Dhanjal-Adams Kiran L., Murray Nicholas J., Skilleter Gregory A., Fuller Richard A. (2016) Continental-scale decreases in shorebird populations in Australia. Emu 116, 119-135.; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Rogers DI, Hassell CJ, Boyle A, Gosbell K, Minton CDT, Rogers KG, Clarke RH (2011) Shorebirds of the Kimberley Coast – Populations, key sites, trends and threats. Journal of the Royal Society of Western Australia 94, 377–391.; Choi, C.-Y., Li, J. & Xue, W.J. (2020). China Coastal Waterbird Census Report (Jan. 2012–Dec. 2019). Hong Kong: Hong Kong Bird Watching Society. (in Chinese); Flaherty T, Christie M, Clemens R, Rogers D, Carey M, Garnett ST (2021) Eastern Grey Plover Pluvialis squatarola squatarola and Wrangel Island Grey Plover P. s. tomkovichi. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 241–244. CSIRO Publishing, Melbourne.	Choi, C.-Y., Li, J. & Xue, W.J. (2020). China Coastal Waterbird Census Report (Jan. 2012–Dec. 2019). Hong Kong: Hong Kong Bird Watching Society. (in Chinese); Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016; Flaherty T, Christie M, Clemens R, Rogers D, Carey M, Garnett ST (2021) Eastern Grey Plover Pluvialis squatarola squatarola and Wrangel Island Grey Plover P. s. tomkovichi. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 241–244. CSIRO Publishing, Melbourne.	http://wpp.wetlands.org/explore/3102/806
2525	2702	Charadriidae	Pluvialis squatarola	Grey Plover	LC	tomkovichi	Wrangel Is	SE Asia to Australia	East Asian-Australasian Flyway	Population added after WPE5 as the tomkovichi subspecies is now recognised.	2010	2020	3,750	5,400	Best guess	There is little specific knowledge about distribution and abundance of this newly described and poorly known population across its range. The current size estimate only reflects the estimate from AU, where based on a first assessment 2900 mature individuals or min of 3750 and max of 5400, with medium reliability is proposed (Flaherty et al., 2021).	2010	2020	DEC	Poor	The AU pop is assessed as declining with high certainty (Flaherty et al., 2021). As the distribution range of the pop is unknown, the overall trend has not been assessed.	45	10	Flaherty T, Christie M, Clemens R, Rogers D, Carey M, Garnett ST (2021) Eastern Grey Plover Pluvialis squatarola squatarola and Wrangel Island Grey Plover P. s. tomkovichi. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 241–244. CSIRO Publishing, Melbourne.	Flaherty T, Christie M, Clemens R, Rogers D, Carey M, Garnett ST (2021) Eastern Grey Plover Pluvialis squatarola squatarola and Wrangel Island Grey Plover P. s. tomkovichi. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 241–244. CSIRO Publishing, Melbourne.	http://wpp.wetlands.org/explore/3102/2525
800	2704	Charadriidae	Pluvialis fulva	Pacific Golden Plover	LC	E, SE Asia Australia & New Zealand (non-bre)	N, C & E Siberia	E, SE Asia, Australia & New Zealand	East Asian-Australasian Flyway		2015	2015	120,000	120,000	Expert opinion	The recent population estimate by Hansen et al. (2016) of 120,000 is adopted over the previous estimate from Wetlands International (2012).	2011	2020	DEC	Good	The IWC analysis reports a decreasing trend for 2011-2020 (0.9315) and a stable trend over 3 generations 2006-2020 (0.9904) and over 1990-2020 (1.0072). Based on the growth rate of the last 10 years, the population is projected to decrease by 63% in 3 generations compared to the population levels in 2011. Clemens et al (2016) report a significant decline of the population in AU 1973 to 2014 (note it is not possible to separate the two populations in the field).	1,200	300	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Clemens RS, Rogers DI, Hansen BD, Gosbell K, Minton CDT, Straw P, Bamford M, Woehler EJ, Milton DA, Weston MA, Venables B, Weller D, Hassell C, Rutherford B, Onton K, Herrod A, Studds CE, Choi CY, Dhanjal-Adams KL, Murray NJ, Skilleter GA, Fuller RA (2016) Continental-scale decreases in shorebird populations in Australia. Emu 116:119–135. https:// doi. org/ 10. 1071/ MU150 56; Riegen, A & Sagar, P. 2020 Distribution and numbers of waders in New Zealand. Notornis 67: 591-634	Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016; Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3100/800
801	2704	Charadriidae	Pluvialis fulva	Pacific Golden Plover	LC	Pacific Is (non-bre)	W Alaska & Russian Far East	Pacific Is to New Zealand & E Australia	Central Pacific Flyway	Population added in WPE3.	2006	2006	35,000	50,000	Best guess	No information available for a new assessment; previous estimate from 2006 (Wetlands International, 2006). Alaska breeding population 35,000 - 50,000 (Morrison et al. 2005). 3,500 winter in New Caledonia (Barre & Dutson, 2000).	1983	2019	DEC	Poor	Riegen & Sagar (2020) summarise numbers in NZ from 1983–1994 surveys that ranged from 151 (1993) to 1,120 (1987), with an average of 466 birds. Thereafter, fewer were counted during the 2005–2019 survey period with counts ranging from 64 (2014) to 301 (2007), average of 181. This represents a decline of around 60%, although not all favoured sites were counted in the most recent survey period, and counts at the most favoured sites varied considerably from year to year.	420	100	Riegen, A & Sagar, P. 2020 Distribution and numbers of waders in New Zealand. Notornis 67: 591-634	Wetlands International. 2006. Waterbird Population Estimates - Fourth Edition. Wetlands International, Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3100/801
815	2713	Charadriidae	Charadrius placidus	Long-billed Plover	LC	E, SE & S Asia	Russian Far East, EC to NC China, Korea, Japan	E Nepal, NE India, Bhutan, N Indochina, S mainland China, Taiwan, S Korea, Japan	East Asian-Australasian Flyway		2007	2007	1,000	10,000	Best guess	While the WPE3-5 includes a broad range of 1-25,000 individuals, Bamford et al. (2008) estimated it probably below 10,000, which is considered the current estimate, in the absence of new information. The riverine habitat favoured by this species is poorly monitored and no recent information is available to assess the current population. Undated national population estimates include: c.100-10,000 breeding pairs, c.50-1,000 individuals on migration and c.50-1,000 wintering individuals in CN; c.100-10,000 breeding pairs in JP; c.100-10,000 breeding pairs and c.50-1,000 individuals on migration in RU and c.100-10,000 breeding pairs in KR (Brazil 2009); although Moores (2006) estimated only about 300 breeding pairs in KR. Based on the WPE 4, an estimate of 670-17000 individuals was generated by BirdLife International (2021). In KR a mean of 61 individuals are reported (42-74) in 2016-2020 during the Winter Waterbird Census of Korea by NIBR, with numbers considered an under estimate.	2004	2017	DEC	Poor	The IWC analysis (Langendoen et al., 2021) reports an uncertain trend falling in the stable range for 2011-2020 (1.0051) and over 3 generations 2009-2020 (1.0025) and a stable trend for 2000-2020 (0.9968). The trend is based on only 4 countries/regions (JP, KR, CN and TW). Very low reported numbers from the AWC suggest only a small proportion of the population is monitored. Therefore, it is not considered representative of the population. In JP, the population has declined by 49% based on southward migration counts between 2004-2017 (Ministry of the Environment, 2020); on which the population trend is based.	250	65	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Ministry of the Environment. 2020. Monitoring Promotion Project for Important Ecosystem Monitoring Areas (Monitoring Site 1000) Shorebirds Survey 2004-2017 Summary Report. Biodiversity Center, Nature Conservation Bureau, Ministry of the Environment. (Japanese) http://www.biodic.go.jp/moni1000/findings/reports/pdf/third_term_shorebirds.pdf	NIBR. 2020. 2019-2020 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Moores, N. 2006. South Korea's shorebirds: a review of abundance, distribution, threats and conservation status. Stilt 50, 62–72.; NIBR. 2017. 2016-2017 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2019. 2018-2019 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; Brazil, M. 2009. Birds of East Asia – China, Taiwan, Korea, Japan and Russia. Helm Field Guides, London, UK.; NIBR. 2018. 2017-2018 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.; NIBR. 2016. 2015-2016 Winter Waterbird Census of Korea. NIBR, Incheon. In Korean.	http://wpp.wetlands.org/explore/3106/815
820	2714	Charadriidae	Charadrius dubius	Little Ringed Plover	LC	curonicus E, SE & S Asia	Siberia, N, E & S mainland China, Korea & Japan, Taiwan	S Asia, SE Asia, S China to Papua Is	East Asian-Australasian Flyway	Population added in WPE3. Previously named C & E Asia.	2007	2007	25,000	25,000	Expert opinion	No recent range-wide assessment of the population; previous estimate from Bamford et al (2008). In KR, a mean of 163 individuals (95 to 229 in 2015-2019) on northward migration (Korean data on migratory shorebirds by NIBR).	2004	2017	DEC?	Poor	In JP, the population has declined by 38% based on southward migration counts between 2004-2017 (Ministry of the Environment, 2020). There is little quantitative information from elsewhere and the overall trend of the population is undocumented.	250	65	Ministry of the Environment, Japan. 2020. Monitoring Promotion Project for Important Ecosystem Monitoring Areas (Monitoring Site 1000) Shorebirds Survey 2004-2017 Summary Report. Biodiversity Center, Nature Conservation Bureau, Ministry of the Environment. (Japanese) http://www.biodic.go.jp/moni1000/findings/reports/pdf/third_term_shorebirds.pdf	Bamford, M.J., Watkins, D.G., Bancroft, W. Tischler, G and Wahl, J. (2008). Migratory Shorebirds of the East Asian-Australasian Flyway. Population Estimates and Important Sites. Wetlands International - Oceania.	http://wpp.wetlands.org/explore/3107/820
821	2714	Charadriidae	Charadrius dubius	Little Ringed Plover	LC	jerdoni	Indian Subcontinent, Sri Lanka & SE Asia		Indo-Malay		1987	1991	25,000	100,000	Best guess		2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from Rose and Scott (1994).	1,000	250	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Perennou, C.P., Mundkur, T. and Scott, D.A. 1994. The Asian Waterfowl Census 1987-1991: distribution and status of Asian waterfowl. IWRB Spec. Publ. No. 24. AWB Spec. Publ. No. 86. Slimbridge, UK and Kuala Lumpur, Malaysia.	http://wpp.wetlands.org/explore/3107/821
2457	2725	Charadriidae	Charadrius alexandrinus	Kentish Plover	LC	nihonensis	Sakhalin and S Kuril Is.	E Asia S to Micronesia	East Asian-Australasian Flyway	Population proposed following WPE5, separated from the population of C. alexandrinus dealbatus.	2021	2021	-1	-1	No estimate	No population size assessment, since it was reorganised, after WPE5 (Wetlands International 2012).	2004	2017	DEC	Good	The majority of the population is expected to breed in JP; where the population has declined by 55% based on non-breeding counts and 64-65% on migration counts between 2004-2017 (Ministry of the Environment, 2020).	-1	-1	Ministry of the Environment, Japan. 2020. Monitoring Promotion Project for Important Ecosystem Monitoring Areas (Monitoring Site 1000) Shorebirds Survey 2004-2017 Summary Report. Biodiversity Center, Nature Conservation Bureau, Ministry of the Environment. (Japanese) http://www.biodic.go.jp/moni1000/findings/reports/pdf/third_term_shorebirds.pdf		http://wpp.wetlands.org/explore/3117/2457
2530	2725	Charadriidae	Charadrius alexandrinus	Kentish Plover	LC	alexandrinus, E Asia	E Asia	SE Asia	East Asian-Australasian Flyway	Population proposed following WPE5, separated from the population of C. alexandrinus dealbatus, which is now a separate species. Extent of overlap is currently uncertain.	2007	2007	70,000	70,000	Best guess	Wetlands International (2002) proposed a combined estimate for C. alexandrinus alexandrinus and C. a. dealbatus of 100,000 individuals. The nominate subspecies is widespread across inland and northern coastal Yellow Sea, MN to southern RU, while dealbatus has a more restricted southern geographic breeding distribution (Wang et al. 2019) and is limited mainly to coastal habitat that is under high human pressure. Based on large counts of alexandrinus, particularly on northward migration in the Yellow Sea and RU (Bamford et al., 2008), it is expected that a significant proportion of the overall original estimate are alexandrinus. Based on this, the current estimate for alexandrinus and dealbatus are tentatively proposed to be 70,000 and 30,000 individuals. Additional surveys are needed to confirm the current status.	2012	2021	Unknown	No idea	No information available for a new assessment; split since 2012.	700	180		Bamford, M.J., Watkins, D.G., Bancroft, W. Tischler, G and Wahl, J. (2008). Migratory Shorebirds of the East Asian-Australasian Flyway. Population Estimates and Important Sites. Wetlands International - Oceania.; Wang, X., Que, P., Heckel, G., Hu, J., Zhang, X., Chiang, C.-Y., Zhang, N., Huang, Q., Liu, S., Martinez, J., Pagani-Núñez, E., Dingle, C., Leung, Y.Y., Székely, T., Zhang, Z. and Liu, Y. (2019) Genetic, Phenotypic and Ecological Differentiation Suggests Incipient Speciation in Two Charadrius Plovers along the Chinese Coast. BMC Evolutionary Biology, 19, Article No. 135. https://doi.org/10.1186/s12862-019-1449-5 ; Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3117/2530
850	2726	Charadriidae	Charadrius dealbatus	White-faced Plover	DD	SE & E Asia	S coast of mainland China, Vietnam	Hainan, Vietnam, S to Malaysia and Sumatra	East Asian-Australasian Flyway	Considered a separate species, following BirdLife 2012 review.	2007	2007	30,000	30,000	Best guess	Wetlands International (2002) proposed a combined estimate for C. alexandrinus alexandrinus and C. a. dealbatus of 100,000 individuals. The nominate subspecies is widespread across inland and northern coastal Yellow Sea, MN to southern RU, while dealbatus has a more restricted southern geographic breeding distribution (Wang et al. 2019) and is limited mainly to coastal habitat that is under high human pressure. Based on large counts of alexandrinus, particularly on northward migration in the Yellow Sea and RU (Bamford et al., 2008), it is expected that a significant proportion of the overall original estimate are alexandrinus. Based on this, the current estimate for alexandrinus and dealbatus are tentatively proposed to be 70,000 and 30,000 individuals. Additional surveys are needed to confirm the current status. The field separation of C. alexandrinus alexandrinus and C. a. dealbatus is difficult and ranges overlap in SE Asia during the non-breeding period when most counts are available. Surveys during the breeding season are needed to generate size estimate information.	2012	2021	Unknown	No idea	The field separation of C. alexandrinus alexandrinus and C. a. dealbatus is difficult and ranges overlap in SE Asia during the non-breeding period when most counts are undertaken. Surveys during the breeding season are needed to generate trend information.	300	75		Bamford, M.J., Watkins, D.G., Bancroft, W. Tischler, G and Wahl, J. (2008). Migratory Shorebirds of the East Asian-Australasian Flyway. Population Estimates and Important Sites. Wetlands International - Oceania.; Wang, X., Que, P., Heckel, G., Hu, J., Zhang, X., Chiang, C.-Y., Zhang, N., Huang, Q., Liu, S., Martinez, J., Pagani-Núñez, E., Dingle, C., Leung, Y.Y., Székely, T., Zhang, Z. and Liu, Y. (2019) Genetic, Phenotypic and Ecological Differentiation Suggests Incipient Speciation in Two Charadrius Plovers along the Chinese Coast. BMC Evolutionary Biology, 19, Article No. 135. https://doi.org/10.1186/s12862-019-1449-5 ; Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/11008/850
866	2735	Charadriidae	Charadrius bicinctus	Double-banded Plover	NT	bicinctus	New Zealand & Chatham Is	N Zealand, S & E Australia, Tasmania, S Melanesia	Australasia		2009	2020	19,000	27,000	Census based	Population size information across sources varies; a conservative minimum of 19,000 (Hansen et al. 2022) and maximum of 27,000 (Robertson et al. 2021) is proposed.	1983	2017	DEC	Reasonable	In AU Long-term trend (1983-2017) declining, short term (2005 to 2017) increasing, but short-term trajectory (2012 to 2017) flat (Clemens et al. 2019); while in NZ predicted decline 30–70% (Robertson et al. 2017).	230	55	Clemens R, Driessen J, Ehmke G (2019) 'Australian Bird Index Phase 2 – Developing Waterbird Indices for National Reporting'. Report to the Department of the Environment and Energy, Canberra.; Robertson, H.A., Baird, K., Dowding, J.E., Elliott, G.P., Hitchmough, R.A., Miskelly, C.M., McArthur, N., O'Donnell, C.F.J., Sagar, P.M., Scofield, R.P. and Taylor, G.A. (2017) Conservation status of New Zealand birds, 2016. New Zealand Threat Classification Series 19. Department of Conservation, Wellington	Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016; Robertson, HA, Baird, KA, Elliott, GP, Hitchmough, RA, McArthur, NJ, Makan, T, Miskelly, CM, O'Donnell, CJ, Sagar, PM, Scofield, RP, Taylor GA & Michel, P. 2021. Conservation status of birds in Aotearoa New Zealand, 2021. New Zealand Threat Classification Series 36. Department of Conservation, Wellington. 43 p. https://nztcs.org.nz/assessments/118875; Hansen, B.D., Rogers, D.I., Watkins, D., Weller, D.R., Clemens, R.S., Newman, M., Woehler, E.J., Mundkur, T., Fuller, R.A. 2022. Generating population estimates for migratory shorebird species in the world's largest flyway. Ibis. DOI: 10.1111/ibi.13042	http://wpp.wetlands.org/explore/3123/866
873	2736	Charadriidae	Charadrius mongolus	Lesser Sandplover	LC	mongolus	Inland E Siberia, Russian Far East	Taiwan to Australia	East Asian-Australasian Flyway		2007	2009	25,500	25,500	Expert opinion		1988	2020	DEC	Poor	Assessment of declining with high certainty for the species (mongolus and stegmanni) in AU, where 16% are estimated to occur (Rogers et al 2021). No information available for a new assessment; previous estimate was a declining trend from 2012 (Wetlands International, 2012).	260	65	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.; Rogers D, Clemens R, Carey M, Garnett ST (2021) Mongolian Lesser Sand Plover Charadrius mongolus mongolus and Kamchatkan Lesser Sand Plover C. m. stegmanni. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 244–247. CSIRO Publishing, Melbourne.	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3126/873
874	2736	Charadriidae	Charadrius mongolus	Lesser Sandplover	LC	atrifrons	Himalaya, S Tibet	India to Sumatra	Central Asian Flyway		2006	2006	120,000	150,000	Expert opinion	No information available for a new assessment; previous estimate from 2006 (Wetlands International, 2006).	1994	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994).	1,300	340	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Wetlands International. (2006) Waterbird Population Estimates - Fourth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3126/874
875	2736	Charadriidae	Charadrius mongolus	Lesser Sandplover	LC	schaeferi	E Tibet to S Mongolia	Coast Thailand to Greater Sunda Is	East Asian-Australasian Flyway		2007	2007	30,000	30,000	Expert opinion	No information available for a new assessment; previous estimate from Bamford et al. (2008).	1994	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994).	300	75	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Bamford, M.J., Watkins, D.G., Bancroft, W. Tischler, G and Wahl, J. (2008). Migratory Shorebirds of the East Asian-Australasian Flyway. Population Estimates and Important Sites. Wetlands International - Oceania.	http://wpp.wetlands.org/explore/3126/875
876	2736	Charadriidae	Charadrius mongolus	Lesser Sandplover	LC	stegmanni	Kolymskiy, Kamchatka, N Kuril Is N to Chukotskiy	Kyushu, Izu Bonin & Ryukyu Is (Japan) & Taiwan to Australia	East Asian-Australasian Flyway		2007	2009	13,000	13,000	Expert opinion	No new estimate published for the subspecies, so remains unchanged. In KR, mean 6,075 individuals (4,102 to 8,243 in 2015-2019) on southward migration (Korean database on migratory shorebirds by NIBR).	1988	2020	DEC	Poor	Assessment of declining with high certainty for the species (mongolus and stegmanni) in AU, where 16% are estimated to occur (Rogers et al 2021). No information available for a new assessment; previous estimate was a declining trend from 2012 (Wetlands International, 2012).	130	35	Rogers D, Clemens R, Carey M, Garnett ST (2021) Mongolian Lesser Sand Plover Charadrius mongolus mongolus and Kamchatkan Lesser Sand Plover C. m. stegmanni. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 244–247. CSIRO Publishing, Melbourne.; Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.		http://wpp.wetlands.org/explore/3126/876
881	2737	Charadriidae	Charadrius leschenaultii	Greater Sandplover	LC	leschenaultii, SE Asia, Australia (non-bre)	W China, S Mongolia, S Siberia & Altai Mts	Coastal Indochina, S Japan, Taiwan, Indonesia, Philippines, New Guinea, Australia	East Asian-Australasian Flyway		2005	2016	200,000	300,000	Expert opinion	Estimate revised from previous estimate of 145,000-155,000 (Wetlands International, 2012), based on expert opinion estimate (derived predominantly from spatial analyses for extrapolation) by Hansen et al. (2016).	2007	2016	STA	Reasonable	The IWC analysis reports an uncertain trend falling in the stable range for 2007-2016 (0.957), and an increasing trend over 3 generations 1999-2016 (1.0551) and 1983-2016 (1.0505). Based on the growth rate of the last 10 years, the population is projected to decrease by 53% in 3 generations compared to the population levels in 2007. The large number of counts from AU dominated the trend analysis. The IWC analysis is complemented by Rogers et al. (2021) who report an overall stable trend in three generations (-1.0%) "which is the average of the following estimates of change over three generations: +10% (Clemens et al. 2016), -8% (Clemens et al. 2019; Waterbird meta-analysis) and -4% (Clemens et al. 2019; Generalised Additive Model to three generations)."	2,400	610	Clemens RS, Rogers DI, Hansen BD, Gosbell K, Minton CDT, Straw P, Bamford M, Woehler EJ, Milton DA, Weston MA, Venables B, Weller D, Hassell C, Rutherford B, Onton K, Herrod A, Studds CE, Choi CY, Dhanjal-Adams KL, Murray NJ, Skilleter GA, Fuller RA (2016) Continental-scale decreases in shorebird populations in Australia. Emu 116:119–135. https:// doi. org/ 10. 1071/ MU150 56; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Clemens R, Driessen J, Ehmke G (2019) 'Australian Bird Index Phase 2 – Developing Waterbird Indices for National Reporting'. Report to the Department of the Environment and Energy, Canberra.; Rogers D, Clemens R, Carey M, Garnett ST (2021) Eastern Greater Sand Plover Charadrius leschenaultii leschenaultii. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 247–250. CSIRO Publishing, Melbourne.	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.; Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016	http://wpp.wetlands.org/explore/3127/881

Pop #	Taxo-nomic#	Family	Scientific Name	Common Name	Red List	Population Name	Breeding Range (bre)	Non-breeding Range (non-bre)	Flyway/Biogeographic Region	Population Notes	Size Start Year	Size End Year	Minimum size	Maximum size	Estimate quality	Size Notes	Trend Start Year	Trend End Year	Trend Code	Trend Quality Code	Trend Notes	1% threshold	0.25 % threshold	Trend references	Size references	URL
883	2739	Charadriidae	Charadrius veredus	Oriental Plover	LC	C Asia (bre)	S Siberia, W N & E Mongolia, NE China	Greater Sundas, Philippines to NW & NC Australia	East Asian-Australasian Flyway		2005	2016	230,000	230,000	Expert opinion	Estimate revised from previous estimate of 145,000-155,000 (Wetlands International, 2012), based on expert opinion estimate (derived predominantly from spatial analyses for extrapolation) by Hansen et al. (2016).	2012	2017	STA	Poor	The population is largely in AU in the non-breeding season, and poorly covered during the monitoring programme; a short-term flat trajectory reported for 2012-2017 (Clemens et al., 2019). Trend across the rest of the range is unknown.	2,300	580		Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016; Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3129/883
906	2749	Charadriidae	Vanellus vanellus	Northern Lapwing	NT	E, SE Asia (non-bre)	S & E Siberia, Mongolia, N China	E, SE Asia	East Asian-Australasian Flyway		2006	2006	100,000	1,000,000	Best guess	No information available for a new assessment; previous estimate from 2006 (Wetlands International, 2006). Mean 232 (range from 111 to 389) in 2016-2020 in KR, based on Winter Waterbird Census of Korea by NIBR.	2002	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 2002 (Wetlands International, 2002).	10,000	2,500	Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	Wetlands International. (2006) Waterbird Population Estimates - Fourth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3141/906
925	2763	Charadriidae	Vanellus cinereus	Grey-headed Lapwing	LC	E, SE & S Asia	NE China, neighbouring Russia, Japan	India, Nepal, Bangladesh, SE & E Asia	East Asian-Australasian Flyway		2001	2001	25,000	100,000	Best guess		2011	2020	STA	Poor	The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (0.9848) and an increasing trend over 3 generations 2006-2020 (1.0629) and for 1994-2020 (1.0474). Based on the growth rate of the last 10 years, the population is projected to decrease by 19% in 3 generations compared to the population levels in 2011. Based on the growth rate of the last 10 years, the population is projected to decrease by 19% in 3 generations compared to the population levels in 2011. Occasional but inconsistent high count numbers from BD suggests the monitoring of this population is inadequate. Generally low reported numbers from the AWC also suggest only a small proportion of the population is monitored. An 11% reduction in the annual trend frequency of reporting from 2014/15 to 2018/19 in India (SoIB 2020).	1,000	250	SoIB 2020. State of India's Birds factsheet: Grey-headed Lapwing Vanellus cinereus https://www.stateofindiasbirds.in/species/gyhlap1/ . Accessed on 2020-07-06; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Chan, Simba, In litt,. 2002. Unpublished information on Asian waterbirds.	http://wpp.wetlands.org/explore/3152/925
2555	2782	Rostratulidae	Rostratula benghalensis	Greater Painted-snipe	LC	E & SE Asia	E & SE Asia		East Asian-Australasian Flyway	Population split from the former Asia population following WPE5.	2007	2007	25,000	100,000	Best guess	No information available for a new assessment; Bamford et al (2008) proposed an estimate based on review of flyway counts. In TW between 27-70 (2014-2020) reported by Lin et al. (2020).	2012	2021	Unknown	No idea	No information available for a new assessment. In TW it decreased significantly from 2014 to 2019 ($p < 0.05$) as per Lin et al. (2020).	1,000	250	Lin, D-L, Lin Y-L, Chao J, Chang A-Y, Pursner S, Lyu A, Lin K-H, Chiang K-K, Lin, R-S. 2020. Taiwan New Year Bird Count 2020 Annual Report. Taiwan Wild Bird Federation, Taiwan Endemic Species Research Institute, Taiwan.	Bamford, M.J., Watkins, D.G., Bancroft, W. Tischler, G and Wahl, J. (2008). Migratory Shorebirds of the East Asian-Australasian Flyway. Population Estimates and Important Sites. Wetlands International - Oceania.; Lin, D-L, Lin Y-L, Chao J, Chang A-Y, Pursner S, Lyu A, Lin K-H, Chiang K-K, Lin, R-S. 2020. Taiwan New Year Bird Count 2020 Annual Report. Taiwan Wild Bird Federation, Taiwan Endemic Species Research Institute, Taiwan.	http://wpp.wetlands.org/explore/3055/2555
2554	2788	Jacanidae	Hydrophasianus chirurgus	Pheasant-tailed Jacana	LC	E & SE Asia	E & SE Asia		East Asian-Australasian Flyway	Population added after WPE5	2012	2021	30,000	50,000	Best guess	No population size assessment since it was separated as a population and an estimate of 30,000-50,000 for this population is derived from the previous species estimate (Wetlands International 2012). In TW between 40-390 (2014-2020) reported Li et al (2020).	2012	2021	Unknown	No idea		390	95	Lin, D-L, Lin Y-L, Chao J, Chang A-Y, Pursner S, Lyu A, Lin K-H, Chiang K-K, Lin, R-S. 2020. Taiwan New Year Bird Count 2020 Annual Report. Taiwan Wild Bird Federation, Taiwan Endemic Species Research Institute, Taiwan.	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3061/2554
512	2796	Scolopacidae	Numenius phaeopus	Whimbrel	LC	variegatus, E & SE Asia (non-bre)	EC Siberia	Coasts Indochina-Taiwan, Philippines, Indonesia, Australia	East Asian-Australasian Flyway		2005	2016	65,000	65,000	Expert opinion	Revised from previous estimate of 155,000 from 1999 (Wetlands International, 2002), based on expert opinion estimate (derived predominantly from spatial analyses for extrapolation) by Hansen et al (2016). In KR, a mean of 6,406 individuals (2,644 to 10,351 in 2015-2019) on northward migration and a mean of 3,859 (2,549 to 4,606 in 2015-2019) on southward migration; census based (Korean data on migratory shorebird by NIBR). Recent research by Li et al 2020 and Kuang et al 2022 suggest that a substantial population in Southeast Asia are of the subspecies rogacheva previously considered to migrate to the west; this will need to be factored into future population delineations and size estimates.	2011	2020	STA	Reasonable	Clemens et al (2016) report no significant decline in AU 1973 to 2014, while Clemens et al (2021) included an assessment of stable over 3 generations with high certainty. The IWC analysis reports an uncertain trend in the stable range for 2011-2020 (1.0181) and a significantly increasing trend over 3 generations 1999-2020 (1.0249) and 1990-2020 (1.0207). Low reported numbers from the AWC suggest only a small proportion of the population is monitored.	650	160	Clemens R, Rogers D, Carey M, Garnett ST (2021) Eastern Siberian Whimbrel Numenius phaeopus variegatus. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 262-264. CSIRO Publishing, Melbourne.; Clemens RS, Rogers DI, Hansen BD, Gosbell K, Minton CDT, Straw P, Bamford M, Woehler EJ, Milton DA, Weston MA, Venables B, Weller D, Hassell C, Rutherford B, Onton K, Herrod A, Studds CE, Choi CY, Dhanjal-Adams KL, Murray NJ, Skilleter GA, Fuller RA (2016) Continental-scale decreases in shorebird populations in Australia. Emu 116:119–135. https:// doi. org/ 10. 1071/ MU150 56; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016; Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/2998/512
499	2797	Scolopacidae	Numenius minutus	Little Curlew	LC	N Siberia (bre)	NC & NE Siberia	New Guinea, Australia	East Asian-Australasian Flyway		2005	2016	110,000	110,000	Expert opinion	Revised from previous estimate of 180,000 from Wetlands International (2006), based on expert opinion estimate (used analyses of distribution and density on the breeding grounds) by Hansen et al. (2016).	2012	2017	DEC?	Poor	In AU a short-term downward trajectory reported for 2012-2017 (Clemens et al., 2019). Trend across rest of range unknown.	1,100	280	Clemens R, Driessen J, Ehmke G (2019) 'Australian Bird Index Phase 2 – Developing Waterbird Indices for National Reporting'. Report to the Department of the Environment and Energy, Canberra.	Wetlands International. (2006) Waterbird Population Estimates - Fourth Edition. Wetlands International. Wageningen, The Netherlands.; Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016	http://wpp.wetlands.org/explore/2996/499
538	2801	Scolopacidae	Numenius arquata	Eurasian Curlew	NT	orientalis, E & SE Asia (non-bre)		E & SE Asia	East Asian-Australasian Flyway		2008	2020	100,000	100,000	Expert opinion	The minimum population estimate for eastern CN is 82,000 birds (Cao et al., 2008), although a more recent estimate for CN is not available. Recent counts in KR provide a mean of 5,654 (range 2,100-9,518 in 2016-2020), based on Winter Waterbird Census by NIBR. With about 5,600 birds counted outside CN (and that being probably on the low side), the Flyway population of ~100,000 birds (as per the WPE5) is maintained as a pragmatic estimate in the absence of additional information.	2011	2020	STA	Reasonable	The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (1.0036) and for 1991-2020 (1.0281), while the trend over 3 generations (1992-2020) is increasing (1.0291) and may reflect changes in coverage of sites across countries/regions.	1,000	250	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Cao, L., Barter, M. and Lei, G. 2008. New Anatidae population estimates for eastern China: implications for flyway population sizes. Biol. Conserv. 141: 2301-2309.	http://wpp.wetlands.org/explore/3001/538
545	2802	Scolopacidae	Numenius madagascariensis	Far Eastern Curlew	EN	C & E Asia (bre)	NE Mongolia, NE China, E Siberia to Kamchatka	Australia, New Zealand, New Guinea, Indonesia	East Asian-Australasian Flyway		2005	2016	35,000	35,000	Expert opinion	Revised from previous estimate of 32,000 from Wetlands International (2012), based on expert opinion estimate (derived predominantly from spatial analyses for extrapolation), Hansen et al. (2016). Recent counts in KR during migration include a mean 9,889 (range 7,533-11,837 in 2015-2019) in northward migration and a mean 9,324 (range 8,053-11,765 in 2015-2019) in southward migration (Korean data on migratory shorebirds by NIBR).	1973	2019	DEC	Reasonable	Lilleyman et al (2021) report a significant decline of the population in AU 1973-2019; the overall population trend in three generations is −66% (−76% to +30%). There is no trend information for the population in SE Asia for this time period.	350	90	Lilleyman A, Woodworth BK, Clemens R, Carey M, Rogers DI, Garnett ST (2021) Far Eastern Curlew Numenius madagascariensis. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 264–267. CSIRO Publishing, Melbourne.; Clemens RS, Rogers DI, Hansen BD, Gosbell K, Minton CDT, Straw P, Bamford M, Woehler EJ, Milton DA, Weston MA, Venables B, Weller D, Hassell C, Rutherford B, Onton K, Herrod A, Studds CE, Choi CY, Dhanjal-Adams KL, Murray NJ, Skilleter GA, Fuller RA (2016) Continental-scale decreases in shorebird populations in Australia. Emu 116:119–135. https:// doi. org/ 10. 1071/ MU150 56	Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016; Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3003/545
492	2803	Scolopacidae	Limosa lapponica	Bar-tailed Godwit	NT	baueri	N & W Alaska	Pacific Is, New Zealand, E Australia	East Asian-Australasian Flyway		2020	2020	126,000	126,000	Census based	Schuckard et al. (2021) provide the latest estimate based on a comprehensive population wide assessment in NZ and AU. Various assessments made in the last decade, including Andres et al. (2012) estimate the population (80,000-120,000) and Studds et al. (2017) indicated population is around 115,000 individuals based on analysis from 1993 and 2012.	1993	2020	DEC	Reasonable	Various assessments of population trends over the last decades indicate a decline. Conklin et al. (2016) reported a declining trend between 1995-2012 in NZ, where the bulk of the population occurs. However the same study also reports a stabilisation of the population since the low point of 2004. Studds et al (2017) indicate a declining trend between 1993-2012 in AU with high certainty based on statistical analyses, supported by Clemens et al (2020) reporting a decline with high certainty. Surveys in AU & NZ in 2019/2020 suggest the declining trend may still be ongoing (Schuckard et al. 2020).	1,300	320	Schuckard RS, Melville DS, Riegen A, Driscoll P, Driessen JR, Kidd LR (2021) Numbers of bar-tailed godwits (Limosa lapponica baueri) in New Zealand and Australia during the austral summer of 2019–2020. Notornis 67, 643–650.; C.E. Studds, B.E. Kendall, N.J. Murray, H.B. Wilson, D.I. Rogers, R.S. Clemens, K. Gosbell, C.J. Hassell, R. Jessop, D.S. Melville, D.A. Milton, C.D.T. Minton, H.P. Possingham, A.C. Riegen, P. Straw, E.J. Woehler, R.A. Fuller (2017). Rapid population decline in migratory shorebirds relying on Yellow Sea tidal mudflats as stopover sites. Nat. Commun. 8_1-7. https://doi.org/10.1038/ncomms14895; Clemens R, Rogers D, Melville DS, Carey M, Garnett ST (2020) Anadyr Bar-tailed Godwit Limosa lapponica anadyrensis, Alaskan Bar-tailed Godwit L. l. baueri and Yakutian Bar-tailed Godwit L. l. menzbieri. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 267-271. CSIRO Publishing, Melbourne.; Conklin JR, Lok T, Melville DS, Riegen AC, Schuckard R, Piersma T, Battley PF (2016) Declining adult survival of New Zealand Bar-tailed Godwits during 2005–2012 despite apparent population stability. Emu 116,147–157.	Andres, B.A., P.A. Smith, R.I.G. Morrison, C.L. Gratto-Trevor, S.C. Brown, and C.A. Friis. 2012. Population estimates of North American shorebirds, 2012. Wader Study Group Bulletin 119(3): 178-194.; C.E. Studds, B.E. Kendall, N.J. Murray, H.B. Wilson, D.I. Rogers, R.S. Clemens, K. Gosbell, C.J. Hassell, R. Jessop, D.S. Melville, D.A. Milton, C.D.T. Minton, H.P. Possingham, A.C. Riegen, P. Straw, E.J. Woehler, R.A. Fuller (2017). Rapid population decline in migratory shorebirds relying on Yellow Sea tidal mudflats as stopover sites. Nat. Commun. 8_1-7. https://doi.org/10.1038/ncomms14895; Schuckard RS, Melville DS, Riegen A, Driscoll P, Driessen JR, Kidd LR (2021) Numbers of bar-tailed godwits (Limosa lapponica baueri) in New Zealand and Australia during the austral summer of 2019–2020. Notornis 67, 643–650.	http://wpp.wetlands.org/explore/2994/492
2523	2803	Scolopacidae	Limosa lapponica	Bar-tailed Godwit	NT	menzbieri	NE Siberia E of R Kolyma	Coastal S mainland China, Taiwan, SE Asia to Australia	East Asian-Australasian Flyway	Separated from menzbieri & (anadyrensis) after WPE5.	1995	2012	100,000	150,000	Census based	Murray et al (2017) estimated the population in Australia 100,160 (95% CRI: 88,436 121,263) in 2012.	1995	2012	DEC	Reasonable	Murray. et. al. (2017) reported a decline of −6.7% per year between 1995 and 2012, estimated as 229,480 (95% CRI: 160,599 347,041) in 1995 to 100,160 (95% CRI: 88,436 121,263) in 2012. The decline was associated with loss of intertidal mudflats in the Yellow Sea that serve as critical staging sites for 100% of the population.	1,200	310	Murray, N. J., Marra, P. P., Fuller, R. A., Clemens, R. S., Dhanjal-Adams, K., Gosbell, K. B., et al. (2017). The large-scale drivers of population declines in a long-distance migratory shorebird. Ecography 41, 867–876. doi: 10.1111/ecog. 02957	Murray, N. J., Marra, P. P., Fuller, R. A., Clemens, R. S., Dhanjal-Adams, K., Gosbell, K. B., et al. (2017). The large-scale drivers of population declines in a long-distance migratory shorebird. Ecography 41, 867–876. doi: 10.1111/ecog. 02957	http://wpp.wetlands.org/explore/2994/2523
2524	2803	Scolopacidae	Limosa lapponica	Bar-tailed Godwit	NT	anadyrensis	Chukotka, FE Russia	Uncertain, presumably S China, SE Asia to E Australia, New Zealand	East Asian-Australasian Flyway	Separated from menzbieri & (anadyrensis) after WPE5.	2010	2020	6,300	7,400	Best guess	Based on a population estimate of 6,900 mature individuals with low reliability for the population that spends the non-breeding period in AU (Clemens et al., 2020), a minimum 6,300 and maximum 7,400 individuals is proposed.	2012	2021	Unknown	No idea		70	15		Clemens R, Rogers D, Melville DS, Carey M, Garnett ST (2020) Anadyr Bar-tailed Godwit Limosa lapponica anadyrensis, Alaskan Bar-tailed Godwit L. l. baueri and Yakutian Bar-tailed Godwit L. l. menzbieri. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 267–271. CSIRO Publishing, Melbourne.	http://wpp.wetlands.org/explore/2994/2524
484	2806	Scolopacidae	Limosa limosa	Black-tailed Godwit	NT	melanuroides	Disjunct areas in C & E Siberia: E Mongolia, NE China, Russian Far East	India, Indochina, Japan, E & S mainland China, Taiwan, Philippines, S to Indonesia, New Guinea, Australia	East Asian-Australasian Flyway		2005	2016	160,000	160,000	Expert opinion	Revised from previous estimate of 139,000 from Wetlands International (2012), based on expert opinion estimate (derived predominantly from spatial analyses for extrapolation) by Hansen et al (2016). This population currently also includes the newly described subspecies bohaii which breeds in the RU Far East (Zhu et al. 2021).	2009	2018	STA	Poor	The IWC analysis reports an uncertain trend falling in the stable range for 2009-2018 (1.0068) an increasing trend for 1983-2018 (1.0538) and an uncertain trend with increasing tendency over 3 generations 1996-2018 (1.0518). Clemens et al. (2021) report a significant decline in AU over 3 generations to 2017. It is unclear if this is representative of a true population decline or short-stopping, which has been reported for the Limosa limosa, Western Europe/NW & West Africa population (Márquez-Ferrando et al. 2014).	1,600	400	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Márquez-Ferrando, R., Figuerola, J., Hooijmeijer, J. C. E. W., & Piersma, T. (2014). Recently created man-made habitats in Doñana provide alternative wintering space for the threatened Continental European Black-tailed Godwit population. Biological Conservation, 171, 127– 135. doi:10.1016/j.biocon.2014.01.022; Clemens RS, Rogers DI, Hansen BD, Gosbell K, Minton CDT, Straw P, Bamford M, Woehler EJ, Milton DA, Weston MA, Venables B, Weller D, Hassell C, Rutherford B, Onton K, Herrod A, Studds CE, Choi CY, Dhanjal-Adams KL, Murray NJ, Skilleter GA, Fuller RA (2016) Continental-scale decreases in shorebird populations in Australia. Emu 116:119–135. https:// doi. org/ 10. 1071/ MU150 56; Clemens R, Rogers D, Carey M, Garnett ST (2021) Eastern Black-tailed Godwit Limosa limosa melanuroides. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 271–274. CSIRO Publishing, Melbourne.	Zhu, B-R, Verkuil, Y I, Conklin, J R, Yang, A, Lei, W, Alves, J A, Hassell, C J, Dorofeev, D, Zhang, Z & Piersma, T 2021. Discovery of a morphologically and genetically distinct population of Black-tailed Godwits in the East Asian-Australasian Flyway. Ibis 163: 448-462.; Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.; Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016	http://wpp.wetlands.org/explore/2992/484
601	2807	Scolopacidae	Arenaria interpres	Ruddy Turnstone	LC	interpres, Pacific & SE Asia (non-bre)	High Arctic Siberia, NW Alaska	E & SE Asia, W & S Pacific Is, Australasia, California, Mexico	East Asian-Australasian Flyway	Sometimes ascribed to oahuensis.	2005	2016	30,000	30,000	Expert opinion	Revised from previous estimate of 28,500 individuals from Wetlands International (2012), based on expert opinion estimate (derived predominantly from spatial analyses for extrapolation) and relate to the population within the EAAF region only.	2009	2018	DEC	Reasonable	Clemens et al (2016) report a significant decline of the population in Australia 1973 to 2014. The breeding population in Chukotka, RU is documented to have strongly declined (Tomkovich 2020). The IWC analysis reports a declining trend for 2009-2018 (0.9689), over 3 generations 2000-2018 (0.9773) and a stable trend for 1984-2018 (0.9856). Based on the smoothed imputed totals, the population has decreased by 32% ($p < 0.05$) in 18 years, i.e. in 3 generations. Based on the growth rate of the last 10 years, the population is projected to decrease by 43% in 3 generations compared to the population levels in 2009. The trends relate to the population within the EAAF and low reported numbers from the AWC suggest only a small proportion of the population is monitored.	300	75	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Clemens RS, Rogers DI, Hansen BD, Gosbell K, Minton CDT, Straw P, Bamford M, Woehler EJ, Milton DA, Weston MA, Venables B, Weller D, Hassell C, Rutherford B, Onton K, Herrod A, Studds CE, Choi CY, Dhanjal-Adams KL, Murray NJ, Skilleter GA, Fuller RA (2016) Continental-scale decreases in shorebird populations in Australia. Emu 116:119–135. https:// doi. org/ 10. 1071/ MU150 56; Tomkovich, P. 2020. The situation with the Ruddy Turnstone Arenaria interpres in Chukotka, the Russian Far East. Information Materials Of The Working Group On Waders Of Northern Eurasia. 33. 51-54.	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.; Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016	http://wpp.wetlands.org/explore/3023/601
611	2809	Scolopacidae	Calidris tenuirostris	Great Knot	EN	SE Asia, Australia (non-bre)	NE Siberia E of Verhoyansk Mts	NE India, Bangladesh, SE Asia, New Guinea, Australia	East Asian-Australasian Flyway		2005	2016	425,000	425,000	Expert opinion	Revised from previous estimate of 290,000 from Wetlands International (2012), based on expert opinion estimate (derived predominantly from spatial analyses for extrapolation) by Hansen et al, 2016. In KR, mean of 33,910 individuals (27,434 to 36,916 in 2015-2019) on northward migration and mean of 6,679 (2,843 to 9,526 in 2015-2019) on southward migration as per census based counts (Korean data on migratory shorebirds by NIBR).	1993	2012	DEC	Good	Studds et al. (2017) have reported a significant flyway decline between 1993-2012, while Clemens et al. (2016) report no significant decline over a longer period of 1973-2014, while reporting some shifts in the population within AU. Southward monitoring in JP reveals a 37% decline between 2000-2017 (Ministry of the Environment, Japan, 2020). Studies from 2007–2012 revealed an apparent annual survival decline from 0.86–0.68 (Piersma et al. 2016)	4,300	1,100	C.E. Studds, B.E. Kendall, N.J. Murray, H.B. Wilson, D.I. Rogers, R.S. Clemens, K. Gosbell, C.J. Hassell, R. Jessop, D.S. Melville, D.A. Milton, C.D.T. Minton, H.P. Possingham, A.C. Riegen, P. Straw, E.J. Woehler, R.A. Fuller (2017). Rapid population decline in migratory shorebirds relying on Yellow Sea tidal mudflats as stopover sites. Nat. Commun. 8_1-7. https://doi.org/10.1038/ncomms14895; Clemens RS, Rogers DI, Hansen BD, Gosbell K, Minton CDT, Straw P, Bamford M, Woehler EJ, Milton DA, Weston MA, Venables B, Weller D, Hassell C, Rutherford B, Onton K, Herrod A, Studds CE, Choi CY, Dhanjal-Adams KL, Murray NJ, Skilleter GA, Fuller RA (2016) Continental-scale decreases in shorebird populations in Australia. Emu 116:119–135. https:// doi. org/ 10. 1071/ MU150 56; Ministry of the Environment, Japan. 2020. Monitoring Promotion Project for Important Ecosystem Monitoring Areas (Monitoring Site 1000) Shorebirds Survey 2004-2017 Summary Report. Biodiversity Center, Nature Conservation Bureau, Ministry of the Environment. (Japanese) http://www.biodic.go.jp/moni1000/findings/reports/pdf/third_term_shorebirds.pdf ; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Piersma T, Lok T, Chen Y, Hassell CJ, Yang HY, Boyle A, Slaymaker M, Chan YC, Melville DS, Zhang ZW, Ma Z (2016) Simultaneous declines in summer survival of three shorebird species signals a flyway at risk. Journal of Applied Ecology 53, 479–490	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.; Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016	http://wpp.wetlands.org/explore/3029/611
614	2810	Scolopacidae	Calidris canutus	Red Knot	NT	piersmai	New Siberian archipelago	Australia, ?New Zealand	East Asian-Australasian Flyway	Population added in WPE3. Subspecies first described 2001 (Tomkovich (2001)).	2009	2009	50,500	62,000	Expert opinion		2012	2019	DEC	Reasonable		560	140	Clemens R, Rogers D, Melville DS, Carey M, Garnett ST (2021) New Siberian Islands Red Knot Calidris canutus piersmai and North-eastern Siberian Red Knot C. c. rogersi. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 281–284. CSIRO Publishing, Melbourne		http://wpp.wetlands.org/explore/3030/614
616	2810	Scolopacidae	Calidris canutus	Red Knot	NT	rogersi	Chukotskiy Peninsula, far NE Russia	New Guinea, Australia, New Zealand.	East Asian-Australasian Flyway	WPE4 estimate included piersmai.	2009	2009	48,500	60,000	Expert opinion		2012	2019	STA	Reasonable		540	130	Clemens R, Rogers D, Melville DS, Carey M, Garnett ST (2021) New Siberian Islands Red Knot Calidris canutus piersmai and North-eastern Siberian Red Knot C. c. rogersi. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 281–284. CSIRO Publishing, Melbourne.	Clemens R, Rogers D, Melville DS, Carey M, Garnett ST (2021) New Siberian Islands Red Knot Calidris canutus piersmai and North-eastern Siberian Red Knot C. c. rogersi. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 281–284. CSIRO Publishing, Melbourne	http://wpp.wetlands.org/explore/3030/616
2549	2812	Scolopacidae	Calidris pugnax	Ruff	LC	E & SE Asia, Australia (non-bre)	E Siberia, NE Asia	E & SE Asia, Australia	East Asian-Australasian Flyway	Population added after WPE5.	2021	2021	500	1,000	Best guess	No population size assessment, since it was reorganised, after WPE5 (Wetlands International 2012). Mean of 2 (range from 0 to 4 in 2015-2019) on northward migration and a mean of 6 (range from 1 to 15 in 2015-2019) on southward migration as per census data (Korean data on migratory shorebirds by NIBR). In TW, between 2-10 in Jan counts between 2014-2019 (Li et al 2020). Several hundreds reported on migration in Kelabit Highlands (Anthony Sebastian, pers. comm. 2021).	2004	2017	DEC	Poor	In JP, the population has declined by 46% based on southward migration counts between 2004-2017 (Ministry of the Environment, 2020).	-1	-1	Ministry of the Environment, Japan. 2020. Monitoring Promotion Project for Important Ecosystem Monitoring Areas (Monitoring Site 1000) Shorebirds Survey 2004-2017 Summary Report. Biodiversity Center, Nature Conservation Bureau, Ministry of the Environment. (Japanese) http://www.biodic.go.jp/moni1000/findings/reports/pdf/third_term_shorebirds.pdf	Ministry of the Environment, Japan. 2020. Monitoring Promotion Project for Important Ecosystem Monitoring Areas (Monitoring Site 1000) Shorebirds Survey 2004-2017 Summary Report. Biodiversity Center, Nature Conservation Bureau, Ministry of the Environment. (Japanese) http://www.biodic.go.jp/moni1000/findings/reports/pdf/third_term_shorebirds.pdf	http://wpp.wetlands.org/explore/3051/2549
672	2813	Scolopacidae	Calidris falcinellus	Broad-billed Sandpiper	LC	sibirica	Taymyr Peninsula to NE Siberia	NE India, Malaysia, Indonesia, Taiwan, Philippines, Australia	East Asian-Australasian Flyway		2011	2016	30,000	30,000	Expert opinion	Revised from previous estimate of 25,000 individuals (Wetlands International, 2012), based on expert opinion estimate (derived predominantly from spatial analyses for extrapolation) by Hansen et al (2016).	2012	2021	Unknown	No idea	In AU a short-term upward trajectory reported for 2012-2017 (Clemens et al., 2019). No trend information for rest of SE Asia.	300	75		Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016; Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3050/672
640	2814	Scolopacidae	Calidris acuminata	Sharp-tailed Sandpiper	LC	C & E Siberia (bre)	NC & NE Siberia Lena Delta - Kolyma River	Australia, New Guinea, Indonesia, China	East Asian-Australasian Flyway		2005	2016	85,000	85,000	Expert opinion	Revised from previous estimate of 160,000 from Bamford et. al. (2008), based on expert opinion estimate (derived predominantly from spatial analyses for extrapolation).	2012	2017	STA	Reasonable	In AU, as per Clemens et al (2019), a declining trend in long-term (1983-2017), no significant trend in the medium term (1997 to 2017), and flat short -term trajectory (2012 to 2017).	850	210	Clemens R, Driessen J, Ehmke G (2019) 'Australian Bird Index Phase 2 – Developing Waterbird Indices for National Reporting'. Report to the Department of the Environment and Energy, Canberra.; Clemens RS, Rogers DI, Hansen BD, Gosbell K, Minton CDT, Straw P, Bamford M, Woehler EJ, Milton DA, Weston MA, Venables B, Weller D, Hassell C, Rutherford B, Onton K, Herrod A, Studds CE, Choi CY, Dhanjal-Adams KL, Murray NJ, Skilleter GA, Fuller RA (2016) Continental-scale decreases in shorebird populations in Australia. Emu 116:119–135. https:// doi. org/ 10. 1071/ MU150 56	Bamford, M.J., Watkins, D.G., Bancroft, W. Tischler, G and Wahl, J. (2008). Migratory Shorebirds of the East Asian-Australasian Flyway. Population Estimates and Important Sites. Wetlands International - Oceania.; Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016	http://wpp.wetlands.org/explore/3042/640
667	2816	Scolopacidae	Calidris ferruginea	Curlew Sandpiper	NT	E, SE Asia & Australia (non-bre)	Arctic Siberia Yamal Penin - N Chukotskiy Penin	Australia, SE Asia, China	East Asian-Australasian Flyway		2004	2016	90,000	90,000	Expert opinion	Revised from previous estimate of 135,000 from Wetlands International (2012) based on expert opinion estimate (derived predominantly from spatial analyses for extrapolation) by Hansen et al (2016).	1993	2012	DEC	Good	Significant decline from 1993 to 2012 across the flyway in Studds et al. (2017). AU -9.5% per year between 1973-2014 (Clemens et al. 2016), and 2 other analyses for AU of -50% (Clemens et al. 2019; Waterbird meta-analysis) and -41% (Clemens et al. 2019; General Additive Model to three generations). IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (1.0402) and over 3 generations 2004-2020 (0.9803) and a declining trend for 1981-2020 (0.951). This may reflect changes in coverage of sites across countries/regions. Additional surveys required in ID & VN.	900	230	Clemens RS, Rogers DI, Hansen BD, Gosbell K, Minton CDT, Straw P, Bamford M, Woehler EJ, Milton DA, Weston MA, Venables B, Weller D, Hassell C, Rutherford B, Onton K, Herrod A, Studds CE, Choi CY, Dhanjal-Adams KL, Murray NJ, Skilleter GA, Fuller RA (2016) Continental-scale decreases in shorebird populations in Australia. Emu 116:119–135. https:// doi. org/ 10. 1071/ MU150 56; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; C.E. Studds, B.E. Kendall, N.J. Murray, H.B. Wilson, D.I. Rogers, R.S. Clemens, K. Gosbell, C.J. Hassell, R. Jessop, D.S. Melville, D.A. Milton, C.D.T. Minton, H.P. Possingham, A.C. Riegen, P. Straw, E.J. Woehler, R.A. Fuller (2017). Rapid population decline in migratory shorebirds relying on Yellow Sea tidal mudflats as stopover sites. Nat. Commun. 8_1-7. https://doi.org/10.1038/ncomms14895; Studds CE, Kendall BE, Murray NJ, Wilson HB, Rogers DI, Clemens RS, Gosbell K, Hassell CJ, Jessop R, Melville DS, Milton DA (2017) Rapid population decline in migratory shorebirds relying on Yellow Sea tidal mudflats as stop-over sites. Nature communications 8_1-7. https://doi.org/10.1038/ncomms14895; Clemens R, Driessen J, Ehmke G (2019) 'Australian Bird Index Phase 2 – Developing Waterbird Indices for National Reporting'. Report to the Department of the Environment and Energy, Canberra.	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.; Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016	http://wpp.wetlands.org/explore/3046/667
634	2817	Scolopacidae	Calidris temminckii	Temminck's Stint	LC	E & SE Asia (non-bre)	N Siberia	Indochina, S mainland China, Taiwan, Malay Peninsula, Borneo	East Asian-Australasian Flyway		2007	2007	25,000	100,000	Best guess	No information available for a new assessment; previous estimate from Bamford et al. (2008).	2011	2020	Unknown	No idea	The IWC analysis reports an uncertain trend with increasing tendency for 2011-2020 (1.0574), as well as over 3 generations 2009-2020 (1.0507) and an uncertain trend in the stable range for 1989-2020 (1.0186). Low reported numbers from the AWC and variable coverage in MM and TH suggest only a very small proportion of the population is monitored. Therefore, it is not considered representative of the population and no clear trend can be proposed.	1,000	250	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Bamford, M.J., Watkins, D.G., Bancroft, W. Tischler, G and Wahl, J. (2008). Migratory Shorebirds of the East Asian-Australasian Flyway. Population Estimates and Important Sites. Wetlands International - Oceania.	http://wpp.wetlands.org/explore/3036/634

Pop #	Taxo-nomic#	Family	Scientific Name	Common Name	Red List	Population Name	Breeding Range (bre)	Non-breeding Range (non-bre)	Flyway/Biogeographic Region	Population Notes	Size Start Year	Size End Year	Minimum size	Maximum size	Estimate quality	Size Notes	Trend Start Year	Trend End Year	Trend Code	Trend Quality Code	Trend Notes	1% threshold	0.25 % threshold	Trend references	Size references	URL
635	2818	Scolopacidae	Calidris subminuta	Long-toed Stint	LC	Siberia (bre)	Disjunct populations SW, C & E Siberia, Commander & Kuril Is	E India, Sri Lanka, Indochina through SE & E Asia to W & SE Australia	East Asian-Australasian Flyway		2007	2007	25,000	25,000	Expert opinion	No information available for a new assessment; previous estimate from Bamford et al. (2008).	2011	2020	DEC?	Poor	The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (0.9746), an uncertain trend with declining tendency over 3 generations 2009-2020 (0.9253) and a declining trend for 1990-2020 (0.9552). Based on the smoothed imputed totals, the population has decreased by 54% (n.s.) in 11 years, i.e. in 3 generations. Based on the growth rate of the last 10 years, the population is projected to decrease by 25% in 3 generations compared to the population levels in 2011. Low reported numbers from the AWC suggest only a small proportion of the population is monitored and, occasional but inconsistent high count numbers from PH suggests the monitoring of this population is inadequate. Therefore, it is not considered representative of the population.	250	65	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Bamford, M.J., Watkins, D.G., Bancroft, W. Tischler, G and Wahl, J. (in prep, 2006). Migratory Shorebirds of the East Asian-Australasian Flyway. Population Estimates and Important Sites. Wetlands International - Oceania.	http://wpp.wetlands.org/explore/3037/635
670	2819	Scolopacidae	Calidris pygmaea	Spoon-billed Sandpiper	CR	E Siberia (bre)	Chukotskiy Peninsula S to N Kamchatka	SE India, Bangladesh, Sri Lanka, Myanmar? Vietnam, Thailand	East Asian-Australasian Flyway		2014	2019	800	800	Census based	Revised from previous size estimate of 140-480 individuals in 2011 from Wetlands International (2012). Three independent statistical models estimated population and trend (Green et al 2021) where the weighted mean world population size at the end of the breeding season, based on 10 surveys in 3 countries was 490 mature individuals (95% CL = 360–620) and 773 individuals of all ages (95% CL = 569–978); rounded to 800.	2009	2016	DEC	Good	Assessments by Green et al (2021) report a decline at a mean rate of 8% per year, but this did not differ significantly from zero (no change). The precision of this trend estimate was low, but its rate is similar to the 9% per year decline during 2009–2016, derived from surveys of the local population at the most important known non-breeding season site in MM. Additionally, although the rapid population decline indicated by surveys of breeding populations observed prior to 2009 (mean 26% decline per year) has probably slowed as a result of conservation efforts.	8	2	Green, R.E., Syroechkovskiy, E.E., Anderson, G.Q.A., Chang, Q., Chowdhury, S.U., Clark, J.A., Mohammod Foysal, M., Gerasimov, Y., Hughes, B., Kelly, C., Lappo, E., Lee, R., Leung, K.K.S., Li, J., Loktionov, E.Y., Melville, D.S., Phillips, J., Tomkovich, P.S., Weston, E., Weston, J., Yakushev, N. & Clark, N.A. 2021 New estimates of the size and trend of the world population of the Spoon-billed Sandpiper using three independent statistical models. Wader Study 128	Green, R.E., Syroechkovskiy, E.E., Anderson, G.Q.A., Chang, Q., Chowdhury, S.U., Clark, J.A., Mohammod Foysal, M., Gerasimov, Y., Hughes, B., Kelly, C., Lappo, E., Lee, R., Leung, K.K.S., Li, J., Loktionov, E.Y., Melville, D.S., Phillips, J., Tomkovich, P.S., Weston, E., Weston, J., Yakushev, N. & Clark, N.A. 2021 New estimates of the size and trend of the world population of the Spoon-billed Sandpiper using three independent statistical models. Wader Study 128; Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3049/670
630	2820	Scolopacidae	Calidris ruficollis	Red-necked Stint	NT	NE Siberia (bre)	W, C & E Siberia; sporadic W & N Alaska	E India, Sri Lanka, through SE & E Asia to Australasia	East Asian-Australasian Flyway		2005	2016	475,000	475,000	Expert opinion	Revised from previous estimate of 315,000 from Bamford et al. (2008), based on expert opinion estimate (derived predominantly from spatial analyses for extrapolation) by Hansen et al. (2016).	2008	2017	DEC	Good	The IWC analysis reports a decreasing trend for 2008-2017 (0.9315) and over 3 generations 2004-2017 (0.9382) and 1981-2017 (0.9906). Based on the smoothed imputed totals, the population has decreased by 62% ($p < 0.05$) in 13 years, i.e. in 3 generations. Based on the growth rate of the last 10 years, the population is projected to decrease by 60% in 3 generations compared to the population levels in 2008. Clemens et al (2016) report a significant decline of the population in AU 1973 to 2014.	4,800	1,200	Clemens RS, Rogers DI, Hansen BD, Gosbell K, Minton CDT, Straw P, Bamford M, Woehler EJ, Milton DA, Weston MA, Venables B, Weller D, Hassell C, Rutherford B, Onton K, Herrod A, Studds CE, Choi CY, Dhanjal-Adams KL, Murray NJ, Skilleter GA, Fuller RA (2016) Continental-scale decreases in shorebird populations in Australia. Emu 116:119–135. https:// doi. org/ 10. 1071/ MU150 56; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Bamford, M.J., Watkins, D.G., Bancroft, W. Tischler, G and Wahl, J. (2008). Migratory Shorebirds of the East Asian-Australasian Flyway. Population Estimates and Important Sites. Wetlands International - Oceania.; Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016	http://wpp.wetlands.org/explore/3035/630
621	2821	Scolopacidae	Calidris alba	Sanderling	LC	rubida, E & SE Asia, Australia, New Zealand (non-bre)	Severnaya Zemlya, Taymyr, Lena Delta, New Siberian Is, N Alaska	Coastal Australia, SW Pacific Is, Indonesia, Philippines, Indochina, S mainland China, Taiwan, Korea	East Asian-Australasian Flyway	Birds breeding in Lena Delta and New Siberian Islands sometimes ascribed to rubida, along with those in Alaska and Canada.	2005	2016	30,000	30,000	Expert opinion	Revised from previous estimate of 315,000 from Bamford et al. (2008), based on expert opinion estimate (derived predominantly from spatial analyses for extrapolation) by Hansen et al. (2016).	2011	2020	DEC	Reasonable	The IWC analysis reports a decreasing trend for 2011-2020 (0.9482), a stable trend over 3 generations 2001-2020 (1.0033) and a moderate increase over 1983-2020 (1.0447). Based on the growth rate of the last 10 years, the population is projected to decrease by 64% in 3 generations compared to the population levels in 2011. However this assessment does not include counts from AU for the 2017-2020 period. Clemens et al (2016) report no significant decline of the population in AU 1973 to 2014 ; but monitoring during southward migration revealed a slight decline of 4% between 2004-2017 in JP (Ministry of the Environment, Japan, 2020); a decrease also reported in TW for 2014-2020 (Li et al (2021).	300	75	Li et al. 2021. Taiwan New Year Bird Count 2021 Annual Report. Chinese Wild Bird Federation, Taiwan Endemic Species Research Institute, Taiwan. ; Clemens RS, Rogers DI, Hansen BD, Gosbell K, Minton CDT, Straw P, Bamford M, Woehler EJ, Milton DA, Weston MA, Venables B, Weller D, Hassell C, Rutherford B, Onton K, Herrod A, Studds CE, Choi CY, Dhanjal-Adams KL, Murray NJ, Skilleter GA, Fuller RA (2016) Continental-scale decreases in shorebird populations in Australia. Emu 116:119–135. https:// doi. org/ 10. 1071/ MU150 56; Ministry of the Environment, Japan. 2020. Monitoring Promotion Project for Important Ecosystem Monitoring Areas (Monitoring Site 1000) Shorebirds Survey 2004-2017 Summary Report. Biodiversity Center, Nature Conservation Bureau, Ministry of the Environment. (Japanese) http://www.biodic.go.jp/moni1000/findings/reports/pdf/third_term_shorebirds.pdf ; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016; Bamford, M.J., Watkins, D.G., Bancroft, W. Tischler, G and Wahl, J. (2008). Migratory Shorebirds of the East Asian-Australasian Flyway. Population Estimates and Important Sites. Wetlands International - Oceania.	http://wpp.wetlands.org/explore/3031/621
651	2822	Scolopacidae	Calidris alpina	Dunlin	LC	kistchinskii	N Sea of Okhotsk, Kamchatka, Kuril Is	unknown	East Asian-Australasian Flyway	Population added in WPE3.	2007	2007	100,000	1,000,000	Best guess	No information available for a new assessment; previous estimate from 2002 (Wetlands International, 2002). The species cannot be distinguished from other populations in the field in its non-breeding range and will require breeding season size assessments.	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 2006 (Wetlands International, 2006). The species cannot be distinguished from other populations in the field in its non-breeding range and will require breeding season trend assessments.	10,000	2,500	Wetlands International. (2006) Waterbird Population Estimates - Fourth Edition. Wetlands International. Wageningen, The Netherlands.	Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3045/651
652	2822	Scolopacidae	Calidris alpina	Dunlin	LC	arcticola	N Alaska N of Seward Peninsula, NW Canada	E Asia	East Asian-Australasian Flyway	Population added in WPE3.	2012	2012	304,000	696,000	Census based	Revised from the WPE5 figure based on final population estimates in Andres et al. (2012).	2003	2012	DEC	Reasonable		4,600	1,100	Andres, B.A., Smith, P.A., Morrison, R.I.G., Gratto-Trevor, C.L., Brown, S.C. and Friis, C.A. 2012. Population estimates of North American shorebirds, 2012. Wader Study Group Bulletin. 119(3): 178–194.	Andres, B.A., Smith, P.A., Morrison, R.I.G., Gratto-Trevor, C.L., Brown, S.C. and Friis, C.A. 2012. Population estimates of North American shorebirds, 2012. Wader Study Group Bulletin. 119(3): 178–194.	http://wpp.wetlands.org/explore/3045/652
662	2822	Scolopacidae	Calidris alpina	Dunlin	LC	sakhalina	Kolyma River to Chukotskiy Peninsula	E mainland China, Korea, Japan, Taiwan, W N America?	East Asian-Australasian Flyway		2002	2002	100,000	1,000,000	Best guess	No information available for a new assessment; previous estimate (Wetlands International, 2002). The species cannot be distinguished from other populations in the field in its non-breeding range and will require breeding season size assessments.	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1997 (Rose and Scott, 1997). The species cannot be distinguished from other populations in the field in its non-breeding range and will require breeding season trend assessments. Nest density in Chaun delta is stable in 2011-2021 (D. Solovyeva unpublished data, pers. comm. 2022) but is not considered adequate to assess trend for the population.	10,000	2,500	Rose, P.M. and Scott, D.A. 1997. Waterfowl Population Estimates – Second Edition. Wetlands International. Publ. 44. Wageningen, The Netherlands.; Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3045/662
663	2822	Scolopacidae	Calidris alpina	Dunlin	LC	actites	N Sakhalin	unknown	East Asian-Australasian Flyway	Population added in WPE3.	2002	2002	900	900	Best guess	No information available for a new assessment; previous estimate from 2002 (Wetlands International, 2002).	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 2002 (Wetlands International, 2002). The species cannot be distinguished from other populations in the field in its non-breeding range and will require breeding season trend assessments.	9	2	Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3045/663
647	2823	Scolopacidae	Calidris ptilocnemis	Rock Sandpiper	LC	tschuktschorum	E Chukotskiy Peninsula - W Alaska	Coastal NW N America, E Japan	Central Pacific Flyway	Southern part of winter range appears to have contracted northward (Buchanan (1999)).	2012	2012	50,000	50,000	Census based		2003	2012	Unknown	No idea		500	130	Andres, B, Smith, P., Morrison, R., Gratto-Trevor, C., Brown, S & Friis, C. (2013). Population estimates of North American shorebirds, 2012. Wader Study Group Bulletin. 119. 178-194.	Andres, B.A., Smith, P.A., Morrison, R.I.G., Gratto-Trevor, C.L., Brown, S.C. & Friis, C.A. 2012. Population estimates of North American shorebirds, 2012. Wader Study Group Bull. 119(3): 178–194.	http://wpp.wetlands.org/explore/3044/647
608	2840	Scolopacidae	Limnodromus semipalmatus	Asian Dowitcher	NT	C & E Asia (bre)	W, C & E Siberia, Mongolia, N Manchuria	E India, SE Asia, Sumatra, Java, N Australia	East Asian-Australasian Flyway		2021	2021	28,400	28,400	Expert opinion	Recent counts on northward migration provide a basis for updating estimate. In May 2019, over 22,432 recorded at Lianyungang, Jiangsu prov, CN (Yang et al. 2019); while 27,000+ were recorded here on 12 May 2021 (Z.Yang unpubl.). An additional 1,377 were recorded at Luannan, Hebei prov, CN on the same day (Katherine Leung pers.comm.). Luannan and Lianyungang are the only known stopover sites in CN that support a substantial number of Asian Dowitchers. The estimate is revised to 28,400 (27,000+1,377=28,377)	2007	2016	STA	Poor	The IWC analysis reports an uncertain trend falling in the stable range for 2007-2016 (1.0306), an increasing trend over 3 generations 1994-2016 (1.0629) and 1983-2016 (1.0592). Surveys from Luannan, CN show an increasing tendency but with high uncertainty whilst trend in HK has fluctuated but stable between 2011-2020 (Chi-Yeung Choi in litt. 2021, Yang et al. 2021).	280	70	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Yang Z, Li J, Han Y, Hassell CJ, Leung K-SK, Melville DS, Yu Y-T, Zhang L, Choi C-Y. (2021). Coastal wetlands in Lianyungang, Jiangsu Province, China: probably the most important site globally for the Asian Dowitcher (Limnodromus semipalmatus). Avian research, 12(1), 38. doi:10.1186/s40657-021-00272-7	Yang Z, Li J, Han Y, Hassell CJ, Leung K-SK, Melville DS, Yu Y-T, Zhang L, Choi C-Y. (2021). Coastal wetlands in Lianyungang, Jiangsu Province, China: probably the most important site globally for the Asian Dowitcher (Limnodromus semipalmatus). Avian research, 12(1), 38. doi:10.1186/s40657-021-00272-7; Yang, Z., Han, Y., Li, J., Cai, S., Guo, J., Xiang, L, Zhang, L. & Cho, CY. 2019. Significant numbers of Asian Dowitcher Limnodromus semipalmatus found during waterbird surveys at Lianyungang, Jiangsu province, China. BirdingASIA 32: 58–64; Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016	http://wpp.wetlands.org/explore/3027/608
436	2843	Scolopacidae	Scolopax rusticola	Eurasian Woodcock	LC	C & E Asia (bre)	C Asia to Sakhalin & Japan	N India, Indochina - SE China	East Asian-Australasian Flyway		2005	2005	25,000	1,000,000	Best guess		2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from Rose and Scott (1994).	10,000	2,500	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Bamford, M.J., Watkins, D.G., Bancroft, W. Tischler, G and Wahl, J. (in prep, 2006). Migratory Shorebirds of the East Asian-Australasian Flyway. Population Estimates and Important Sites. Wetlands International - Oceania.	http://wpp.wetlands.org/explore/2967/436
445	2861	Scolopacidae	Gallinago solitaria	Solitary Snipe	LC	japonica	SE Siberia, NE China, Sakhalin to Kamchatka	Amurland to Kamchatka, Korea, Japan, E China	Eastern Palearctic		2005	2005	1	10,000	Best guess		2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate of declining from Wetlands International (2012). Poorly censused in the non-breeding grounds.	100	25		Bamford, M.J., Watkins, D.G., Bancroft, W. Tischler, G and Wahl, J. (in prep, 2006). Migratory Shorebirds of the East Asian-Australasian Flyway. Population Estimates and Important Sites. Wetlands International - Oceania.	http://wpp.wetlands.org/explore/2973/445
446	2862	Scolopacidae	Gallinago hardwickii	Latham's Snipe	LC	E Asia (bre)	Japan, Kuril Is, S Sakhalin, E Pimorskiy	E Australia	East Asian-Australasian Flyway		1986	2016	35,000	35,000	Census based	Revised from previous estimate of 36,000 (Garnett and Crowley, 2000), based on expert opinion estimate (based on extrapolated counts in breeding range) by Hansen et al. (2016).	2012	2017	DEC	Poor	In the main breeding area, in Hokkaido, JP (Ura et al. 2018) report a decline. This compares to short-term upward trajectory for 2012-2017 in AU, the main non-breeding area (Clemens et al., 2019).	350	90	Clemens R, Driessen J, Ehmke G (2019) 'Australian Bird Index Phase 2 – Developing Waterbird Indices for National Reporting'. Report to the Department of the Environment and Energy, Canberra.; Ura, T., A. Takemae, H. Tajiri, S. Nakamura, S. Hayama, K. Ohata, T. Tomioka 2018. Estimating the breeding population of Latham's Snipe in Hokkaido. Japan Ornithological Conference, 14-17 September 2018, Niigata University, Niigata. [in Japanese]	Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016; Garnett, S.T. and Crowley, G.M. 2000. The Action Plan for Australian Birds 2000. Environment Australia, Canberra.	http://wpp.wetlands.org/explore/2974/446
447	2863	Scolopacidae	Gallinago nemoricola	Wood Snipe	VU	S & S East Asia, SW China	Himalayas NW India, S & E Tibet, Nepal, Bhutan, Min mountains and Qionglai mountains in SW China	India, Sri Lanka, Bangladesh, Myanmar, N Laos, N Vietnam, N Thailand, SW China mainland	Indo-Malay		2000	2000	3,500	15,000	Best guess	No information available for a new assessment; previous estimate from BirdLife International (2001). In NP, the total population is estimated to be fewer than 100 individuals (Inskipp et al. 2016), although a more recent study suggests a larger population (Basnet et al. 2021).	2012	2021	DEC?	Poor	No information available for a new assessment; previous estimate of declining from Wetlands International (2012). Poorly censused across the non-breeding grounds. A study in NP within and outside protected areas revealed that cattle and human disturbance and climate change were threatening the breeding habitat (Basnet et al. 2021). Recent studies in CN on the breeding grounds and non-breeding grounds by Xiaotong Ren (pers. comm. 2022) indicate with apparently stable numbers in one with decline in observations in some areas. As the high altitude habitats used by these birds are under growing human pressure and from climate change, it is possible that numbers are declining, although more evidence is needed.	70	20	Basnet, H., M.B. Shrestha, D.C. Thakuri, T. Pun, D. Chaudhary & H.S. Baral. 2021. Ecology and status of Wood Snipe Gallinago nemoricola in Lamtang National Park, Nepal. Wader Study 128(3): 220–225.	Collar, N.J. 2001. Threatened birds of Asia: The BirdLife International Red Data Book, Chinese Egret, Egretta eulophotes. Pp 111-136.; Inskipp, C., H.S. Baral, S. Phuyal, T.R. Bhatt, M. Khatiwada, T. Inskipp, A. Khatiwada, S. Gurung, P.B. Singh, L. Murray, L. Poudyal & R. Amin. 2016. The status of Nepal's Birds: The national red list series. Zoological Society of London, UK.; Basnet, H., M.B. Shrestha, D.C. Thakuri, T. Pun, D. Chaudhary & H.S. Baral. 2021. Ecology and status of Wood Snipe Gallinago nemoricola in Lamtang National Park, Nepal. Wader Study 128(3): 220–225.	http://wpp.wetlands.org/explore/2975/447
449	2864	Scolopacidae	Gallinago stenura	Pintail Snipe	LC	E & SE Asia (non-bre)	C Siberia - Sea of Okhotsk	Indochina - SE mainland China, Taiwan, S to Philippines, W Indonesia	East Asian-Australasian Flyway	Presumed to breed predominantly in eastern half of Siberia.	2005	2015	25,000	1,000,000	Expert opinion	No recent information to assess population size estimate.	2010	2019	Unknown	No idea	The IWC analysis reports a decreasing trend for 2010-2019 (0.8898) and over 3 generations 2009-2019 (0.9075) and with a moderate decrease over 1989-2019 (0.9154). Low reported numbers from the AWC suggest only a small proportion of the population is monitored. Therefore, it is not considered representative of the population. AWC is not appropriate to monitor the trend of this cryptic species.	10,000	2,500	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016; Bamford, M.J., Watkins, D.G., Bancroft, W. Tischler, G and Wahl, J. (2008). Migratory Shorebirds of the East Asian-Australasian Flyway. Population Estimates and Important Sites. Wetlands International - Oceania.	http://wpp.wetlands.org/explore/2976/449
450	2865	Scolopacidae	Gallinago megala	Swinhoe's Snipe	LC	C Asia (bre)	CS Siberia, N Mongolia, SE Russia & NE China	S & E India E to S mainland China, Taiwan, SE Asia to N Australia	Central Asian Flyway		2005	2015	40,000	40,000	Expert opinion	Revised from previous estimate of 25,000-100,000 in 1991 by Perennou et al. (1994), based on expert opinion estimate (based on breeding range and density used for estimation of population size) by Hansen et al. (2016).	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate of declining from Wetlands International (2012). Poorly censused in the non-breeding grounds.	400	100		Perennou, C.P., Mundkur, T. and Scott, D.A. 1994. The Asian Waterfowl Census 1987-1991: distribution and status of Asian waterfowl. IWRB Spec. Publ. No. 24. AWB Spec. Publ. No. 86. Slimbridge, UK and Kuala Lumpur, Malaysia.; Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016	http://wpp.wetlands.org/explore/2977/450
782	2869	Scolopacidae	Gallinago gallinago	Common Snipe	LC	gallinago, E & SE Asia (non-bre)	N C Asia to Kamchatka, W Aleutians	Indochina, E mainland China, Taiwan, S Korea, S Japan, Philippines, W Indonesia	East Asian-Australasian Flyway		1987	1991	100,000	1,000,000	Best guess	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994). In KR a mean of 17 (14 to 19 in 2015-2019) in northward migration and a mean of 125 (49 to 225 in 2015-2019) on southward migration (Census based data on migratory shorebirds by NIBR).	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994).	10,000	2,500	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	http://wpp.wetlands.org/explore/10061/782
471	2876	Scolopacidae	Lymnocryptes minimus	Jack Snipe	LC	E, SE Asia (non-bre)	C & E Siberia	S China, Vietnam	East Asian-Australasian Flyway		2001	2001	1	10,000	Best guess		2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate of declining from Wetlands International (2012). Poorly censused in the non-breeding grounds.	100	25		Carey, Geoff, in litt. 2002.	http://wpp.wetlands.org/explore/2989/471
679	2878	Scolopacidae	Phalaropus lobatus	Red-necked Phalarope	LC	NE Asia (bre)	C & E Siberia	Pelagic, C Indonesia to Philippines, W Melanesia, Sri Lanka, Malaysia	East Asian-Australasian Flyway	Population added in WPE3.	2005	2016	250,000	250,000	Census based		2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate of declining from Wetlands International (2012). Offshore species in the non-breeding grounds and not censused.	2,500	630		Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016	http://wpp.wetlands.org/explore/3053/679
584	2880	Scolopacidae	Xenus cinereus	Terek Sandpiper	LC	E, SE Asia & Australia (non-bre)	Boreal E & C Siberia	Taiwan, Indochina, Indonesia, New Guinea, NE, N & W Australia	East Asian-Australasian Flyway		2005	2016	50,000	50,000	Expert opinion	Previous estimate of 50,000 from Wetlands International (2012) retained based on expert opinion estimate (derived predominantly from spatial analyses for extrapolation), Hansen et al. (2016). Recent counts from KR include a mean 7,427 (range 5,097-9,435 in 2015-2019) on northward migration and a mean of 11,687 (range 10,656-12,683 in 2015-2019) on south migration (unpublished Korean data on migratory shorebirds by NIBR).	1973	2014	DEC	Reasonable	Clemens et al (2016) report a significant decline of the population in AU 1973 to 2014. More recent analysis summarised by Clemens et al (2021) of overall population trend in three generations is -42%, which is the average of the following estimates of change over three generations: -53% (Clemens et al. 2016), -27% (Studds et al. 2017), -45% (Clemens et al. 2019; Waterbird meta-analysis) and -45% (Clemens et al. 2019; Generalised additive model to three generations). The results are also consistent with trend analysis for north-western AU (Rogers et al. 2020). The IWC analysis reports an uncertain trend falling in the stable range for 2007-2016 (0.9895), a stable trend over 3 generations 2002-2016 (1.0108) and an increasing trend over 1994-2016 (1.0438). Based on the growth rate of the last 10 years, the population is projected to decrease by 14% in 3 generations compared to the population levels in 2007.	500	130	Studds CE, Kendall BE, Murray NJ, Wilson HB, Rogers DI, Clemens RS, Gosbell K, Hassell CJ, Jessop R, Melville DS, Milton DA (2017) Rapid population decline in migratory shorebirds relying on Yellow Sea tidal mudflats as stop-over sites. Nature communications 8_1-7. https://doi.org/10.1038/ncomms14895; Clemens R, Rogers D, Carey M, Garnett ST (2021) Terek Sandpiper Xenus cinereus. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 300–303. CSIRO Publishing, Melbourne.; Clemens R, Driessen J, Ehmke G (2019) 'Australian Bird Index Phase 2 – Developing Waterbird Indices for National Reporting'. Report to the Department of the Environment and Energy, Canberra.; Clemens RS, Rogers DI, Hansen BD, Gosbell K, Minton CDT, Straw P, Bamford M, Woehler EJ, Milton DA, Weston MA, Venables B, Weller D, Hassell C, Rutherford B, Onton K, Herrod A, Studds CE, Choi CY, Dhanjal-Adams KL, Murray NJ, Skilleter GA, Fuller RA (2016) Continental-scale decreases in shorebird populations in Australia. Emu 116:119–135. https:// doi. org/ 10. 1071/ MU150 56; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016; Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3015/584
588	2881	Scolopacidae	Actitis hypoleucos	Common Sandpiper	LC	E & SE Asia to Oceania (non-bre)	C Asia, E & C Siberia, NE mainland China to Kamchatka, Sakhalin & Japan, Korea, Taiwan	Indochina, SE mainland China, Japan, Taiwan, Malaysia, Indonesia, Philippines, New Guinea, Australia	East Asian-Australasian Flyway		2005	2016	190,000	190,000	Expert opinion	Revised from previous estimate of 50,000 from Wetlands International (2006), based on expert opinion estimate (derived predominantly from spatial analyses for extrapolation).	2011	2020	STA	Poor	The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (0.9763), a stable trend for 3 generations: 2007-2020 (1.0084) and an increasing trend between 1991-2020 (1.0133), although this may reflect a long term increase in coverage of a widely dispersed species. Based on the growth rate of the last 10 years, the population is projected to decrease by 27% in 3 generations compared to the population levels in 2011. Low reported numbers from the AWC suggest only a small proportion of the population is monitored.	1,900	480	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.; Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016	http://wpp.wetlands.org/explore/3016/588
576	2883	Scolopacidae	Tringa ochropus	Green Sandpiper	LC	E & SE Asia (non-bre)	EC Siberia, NE China	Indochina, Malaysia, Philippines, SE mainland China, Taiwan, S Japan , Korea	East Asian-Australasian Flyway		1987	2000	25,000	100,000	Best guess		2011	2020	STA	Poor	The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (1.0486) and over 3 generations: 2005-2020 (1.0097) and a stable trend for 2000-2020 (1.0008). Numbers reported in KR & JP increased over this period, Low reported numbers from the AWC suggest only a small proportion of the population is monitored. Therefore, it is not considered as representative of the population. The small population monitored in HK declined significantly between 1998–2017 (Sung, et al., 2021).	1,000	250	Sung Y-H, Pang C, Li TC, Wong PPY, Yu Y (2021) Ecological Correlates of 20-Year Population Trends of Wintering Waterbirds in Deep Bay, South China.Front. Ecol. Evol. 9: doi: 10.3389/fevo.2021.658084; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Bamford, M.J., Watkins, D.G., Bancroft, W. Tischler, G and Wahl, J. (2008). Migratory Shorebirds of the East Asian-Australasian Flyway. Population Estimates and Important Sites. Wetlands International - Oceania.	http://wpp.wetlands.org/explore/3013/576
591	2885	Scolopacidae	Tringa brevipes	Grey-tailed Tattler	NT	C & E Siberia (bre)	NC & NE Siberia, Kamchatka, N Kuril Is	Indonesia, Philippines, New Guinea, Australia	East Asian-Australasian Flyway	Often placed in genus Tringa.	2005	2016	70,000	70,000	Expert opinion	Revised from previous estimate of 180,000 (Wetlands International, 2012), based on expert opinion estimate (derived predominantly from spatial analyses for extrapolation) by Hansen et al. (2016).	1973	2014	STA	Reasonable	Clemens et al (2016) report no decline of the population in AU 1973 to 2014. No trend information from rest of its range to provide an overall assessment.	700	180	Clemens RS, Rogers DI, Hansen BD, Gosbell K, Minton CDT, Straw P, Bamford M, Woehler EJ, Milton DA, Weston MA, Venables B, Weller D, Hassell C, Rutherford B, Onton K, Herrod A, Studds CE, Choi CY, Dhanjal-Adams KL, Murray NJ, Skilleter GA, Fuller RA (2016) Continental-scale decreases in shorebird populations in Australia. Emu 116:119–135. https:// doi. org/ 10. 1071/ MU150 56	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.; Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016	http://wpp.wetlands.org/explore/3018/591
592	2886	Scolopacidae	Tringa incana	Wandering Tattler	LC	N N America (bre)	Far Eastern Russia, S Alaska E to Yukon, S British Colombia	SW USA, W Mexico, Ecuador, Galapagos, C & S Pacific Is, NE Australia	Central Pacific Flyway	Often placed in genus Tringa.	2012	2012	10,000	25,000	Best guess	No information available for a new assessment; previous estimate from Andres et al. (2012). Chukotka probably low 100s of breeding pairs (Lappo et al 2012).	2003	2012	Unknown	No idea		250	65	Andres, B.A., Smith, P.A., Morrison, R.I.G., Gratto-Trevor, C.L., Brown, S.C. and Friis, C.A. 2012. Population estimates of North American shorebirds, 2012. Wader Study Group Bulletin. 119(3): 178–194.	Andres, B.A., Smith, P.A., Morrison, R.I.G., Gratto-Trevor, C.L., Brown, S.C. and Friis, C.A. 2012. Population estimates of North American shorebirds, 2012. Wader Study Group Bulletin. 119(3): 178–194.	http://wpp.wetlands.org/explore/3019/592
550	2889	Scolopacidae	Tringa erythropus	Spotted Redshank	LC	E, SE Asia (non-bre)	N Siberia	Taiwan, SE mainland China, Indochina, Thailand, Myanmar, Malaysia	East Asian-Australasian Flyway		2008	2008	25,000	25,000	Expert opinion		2006	2015	Unknown	No idea	The IWC analysis reports an uncertain trend falling in the increasing range for 2006-2015 (1.107), uncertain trend falling in the decreasing range over 3 generations: 2001-2015 (0.8979) and for 1986-2015 (0.8962). Sung et al. (2021) do not report a significant change in population change in Hong Kong between 1998-2017, while occasional but inconsistent high count numbers from CN suggests the monitoring of this population is inadequate. Generally low reported numbers from the AWC suggest only a small proportion of the population is monitored. Therefore, it is not considered representative of the population.	250	65	Sung Y-H, Pang C, Li TC, Wong PPY, Yu Y (2021) Ecological Correlates of 20-Year Population Trends of Wintering Waterbirds in Deep Bay, South China.Front. Ecol. Evol. 9: doi: 10.3389/fevo.2021.658084; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Cao, L., Zhang, J., Barter, M. and Lei, G. 2009. Anatidae in eastern China during the non-breeding season: geographical distributions and protection status. Biol. Conserv. 143: 650-659.	http://wpp.wetlands.org/explore/3005/550
567	2890	Scolopacidae	Tringa nebularia	Common Greenshank	LC	E, SE Asia, Australia (non-bre)	C Asia, EC Siberia to Kamchatka	E, SE Asia Indonesia & Australia	East Asian-Australasian Flyway		2005	2016	110,000	110,000	Expert opinion	Revised from previous estimate of 100,000 from Wetlands International (2006), based on expert opinion estimate (based on extrapolated counts of breeding range and density) by Hansen et al. (2016).	2011	2020	DEC	Good	The IWC analysis reports a deceasing trend for 2011-2020 (0.9503) and a stable trend over 3 generations 2001-2020 (0.9891) and overall for 1990-2020 (0.9939). Based on the growth rate of the last 10 years, the population is projected to decrease by 62% in 3 generations compared to the population levels in 2011. Sung et al (2021) reported a significant recent decline of 49% for 2008–2017 in HK but with an increase of 138% over 1998-2017. Clemens et al (2016) report a significant decline of the population in AU between 1973 to 2014 of 2.89% per year. As per Clemens et al. (2021), the AU population trend in three generations is –34%, which is the average of the following estimates of change over three generations: -32% (Clemens et al. 2016), -22% (Clemens 2017), -31% (Clemens et al. 2019; Waterbird meta-analysis) and -50% (Clemens et al. 2019; Generalised Additive Models to three generations).	1,100	280	Clemens RS, Rogers DI, Hansen BD, Gosbell K, Minton CDT, Straw P, Bamford M, Woehler EJ, Milton DA, Weston MA, Venables B, Weller D, Hassell C, Rutherford B, Onton K, Herrod A, Studds CE, Choi CY, Dhanjal-Adams KL, Murray NJ, Skilleter GA, Fuller RA (2016) Continental-scale decreases in shorebird populations in Australia. Emu 116:119–135. https:// doi. org/ 10. 1071/ MU150 56; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Clemens R, Rogers D, Carey M, Garnett ST (2021) Common Greenshank Tringa nebularia. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 305-308. CSIRO Publishing, Melbourne.; Sung Y-H, Pang C, Li TC, Wong PPY, Yu Y (2021) Ecological Correlates of 20-Year Population Trends of Wintering Waterbirds in Deep Bay, South China.Front. Ecol. Evol. 9: doi: 10.3389/fevo.2021.658084	Wetlands International. (2006) Waterbird Population Estimates - Fourth Edition. Wetlands International. Wageningen, The Netherlands.; Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016	http://wpp.wetlands.org/explore/3008/567
556	2892	Scolopacidae	Tringa totanus	Common Redshank	LC	ussuriensis, S & SE Asia (non-bre)	Mongolia E to Manchuria, Russian Far East	S & SE Asia	Central Asian Flyway		2002	2002	25,000	100,000	Best guess	No information available for a new assessment; previous estimate (Wetlands International, 2002). The species cannot be distinguished from other populations in the field in its non-breeding range and will require breeding season population size assessments.	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994). The species cannot be distinguished from other populations in the field in its non-breeding range and will require breeding season trend assessments.	1,000	250	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3006/556
557	2892	Scolopacidae	Tringa totanus	Common Redshank	LC	terrignotae	E China (S Manchuria)	SE & E Asia	East Asian-Australasian Flyway		2002	2002	10,000	100,000	Best guess	No information available for a new assessment; previous estimate (Wetlands International, 2002). Barter 2002: East Asian-Australasian Flyway population (terrignotae and craggi combined) estimated at 65,000. The species cannot be distinguished from other populations in the field in its non-breeding range and will require breeding season population size assessments.	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994). The species cannot be distinguished from other populations in the field in its non-breeding range and will require breeding season trend assessments.	1,000	250	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3006/557

Pop #	Taxo-nomic#	Family	Scientific Name	Common Name	Red List	Population Name	Breeding Range (bre)	Non-breeding Range (non-bre)	Flyway/Biogeographic Region	Population Notes	Size Start Year	Size End Year	Minimum size	Maximum size	Estimate quality	Size Notes	Trend Start Year	Trend End Year	Trend Code	Trend Quality Code	Trend Notes	1% threshold	0.25 % threshold	Trend references	Size references	URL
558	2892	Scolopacidae	Tringa totanus	Common Redshank	LC	craggi	NW Xinjiang	SE Asia and/or E China?	Eastern Palearctic		2002	2002	10,000	100,000	Best guess	No information available for a new assessment; previous estimate from 2002 (Wetlands International, 2002). The species cannot be distinguished from other populations in the field in its non-breeding range and will require breeding season size assessments.	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994). The species cannot be distinguished from other populations in the field in its non-breeding range and will require breeding season trend assessments.	1,000	250	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3006/558
581	2893	Scolopacidae	Tringa glareola	Wood Sandpiper	LC	E, SE Asia & Australia (non-bre)	C & E Siberia to Kamchatka, Commander Is, NE China	Indochina, S mainland China, Taiwan, Indonesia, Philippines, Australia	East Asian-Australasian Flyway		2005	2016	130,000	130,000	Expert opinion	Revised from previous estimate of 100,000 individuals (Bamford et al. 2008), based on expert opinion estimate (used analyses of distribution and density on the breeding grounds) by Hansen et al. (2016).	2011	2020	DEC	Poor	The IWC analysis reports a decreasing trend for 2011-2020 (0.9375), over 3 generations 2010-2020 (0.9363) and a stable trend for 2001-2020 (0.962). Based on the smoothed imputed totals, the population has decreased by 65% (n.s.) in 10 years, i.e. in 3 generations. Based on the growth rate of the last 10 years, the population is projected to decrease by 48% in 3 generations compared to the population levels in 2011. Low reported numbers from the AWC suggest only a small proportion of the population is monitored. Therefore, it is not considered representative of the population. Sung et al. (2021) report a 57% decline of population between 2008–2017 in HK, with a 117% increase in the previous decade; while in TW, Li et al (2021) report a decline between 2014-2021.	1,300	330	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Sung Y-H, Pang C, Li TC, Wong PPY, Yu Y (2021) Ecological Correlates of 20-Year Population Trends of Wintering Waterbirds in Deep Bay, South China.Front. Ecol. Evol. 9: doi: 10.3389/fevo.2021.658084; Li et al. 2021. Taiwan New Year Bird Count 2021 Annual Report. Chinese Wild Bird Federation, Taiwan Endemic Species Research Institute, Taiwan.	Bamford, M.J., Watkins, D.G., Bancroft, W. Tischler, G and Wahl, J. (2008). Migratory Shorebirds of the East Asian-Australasian Flyway. Population Estimates and Important Sites. Wetlands International - Oceania.; Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016	http://wpp.wetlands.org/explore/3014/581
563	2894	Scolopacidae	Tringa stagnatilis	Marsh Sandpiper	LC	E, SE Asia, Oceania (non-bre)	Siberia to NE China	Mainland China, Taiwan, Indochina, Indonesia, Philippines, Australia	East Asian-Australasian Flyway		2005	2016	130,000	130,000	Best guess	Revised from previous estimate of 100,000-1,000,000 individuals (Bamford et al. 2008) based on expert opinion (breeding range & density estimation of the population) by Hansen et al. (2016).	2011	2020	STA	Poor	Clemens et al (2016) report a significant decline of the population in AU 1973 to 2014 of 10.89%, while Sung et al (2021) report no significant change over 1998–2017 in HK. The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (0.9846), a decreasing trend over 3 generations 2008-2020 (0.9695) and stable over 1994-2020 (1.008). Based on the smoothed imputed totals, the population has decreased by 52% (p < 0.05) in 12 years, i.e. in 3 generations.	1,300	330	Clemens RS, Rogers DI, Hansen BD, Gosbell K, Minton CDT, Straw P, Bamford M, Woehler EJ, Milton DA, Weston MA, Venables B, Weller D, Hassell C, Rutherford B, Onton K, Herrod A, Studds CE, Choi CY, Dhanjal-Adams KL, Murray NJ, Skilleter GA, Fuller RA (2016) Continental-scale decreases in shorebird populations in Australia. Emu 116:119–135. https:// doi. org/ 10. 1071/ MU150 56; Sung Y-H, Pang C, Li TC, Wong PPY, Yu Y (2021) Ecological Correlates of 20-Year Population Trends of Wintering Waterbirds in Deep Bay, South China.Front. Ecol. Evol. 9: doi: 10.3389/fevo.2021.658084; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Bamford, M.J., Watkins, D.G., Bancroft, W. Tischler, G and Wahl, J. (2008). Migratory Shorebirds of the East Asian-Australasian Flyway. Population Estimates and Important Sites. Wetlands International - Oceania.; Hansen, B.D., Fuller, R.A., Watkins, D., Rogers, D.I., Clemens, R.S., Newman, M., Woehler, E.J. and Weller, D.R. (2016) Revision of the East Asian-Australasian Flyway population estimates for 37 listed migratory shorebird species. Unpublished report for the Department of the Environment. BirdLife Australia, Melbourne, Victoria. https://www.environment.gov.au/biodiversity/publications/revision-east-asian-australasian-flyway-population-2016	http://wpp.wetlands.org/explore/3007/563
568	2895	Scolopacidae	Tringa guttifer	Spotted Greenshank	EN	NE Asia (bre)	Sakhalin Is & W Okhotsk Sea	NE India, Bangladesh, Myanmar, Thailand, Malay Peninsula, Sumatra	East Asian-Australasian Flyway		2010	2020	900	1,200	Expert opinion	Revised from previous estimate of 400-600 individuals in 2011 (Wetlands International, 2012), About 850–950 birds winter in SE Asia, unsurveyed areas in Borneo and elsewhere and east coast of IN, about 250. Numbers counted during southward migration on Jiangsu CN coast - 956 in Tiaozini (841 ind), Yangkou and Dongling, in Sept/Oct 2014 and 1,110 in Tiaozini (946 ind), Yangkou and Dongling, in Sept/Oct 2015 (Peng et al. 2017) and 1,083 in Tiaozini on 17 Oct 2020 (Leung et al. 2020).	2014	2020	STA?	Poor	Limited count information across the flyway provides variable trend results. The trend assessment for the population of STA? is based on limited increasing counts during southward migration on Jiangsu CN (see Size Note). While the trend based on limited non-breeding sites may indicate an apparently increasing population (Zockler et al. 2020); for e.g. on the Ayeyarwady delta in MY counts increased from 28 in 2013 to 46 in 2015 and 48 in 2016, although this could be a reflection of increased site monitoring or birds moving in from nearby sites in response to disturbance or habitat loss. Additional monitoring is required across their non-breeding range over multiple years to strengthen the trend assessment. The core breeding area is on Sakhalin Island and adjacent parts of the RU mainland where the population has declined sharply and is still subject to various threats.	10	3	Zöckler, C., D. Li, S.U. Chowdhury, M. Iqbal & C. Yu. 2018. Winter distribution, habitat and feeding behaviour of Nordmann's Greenshank Tringa guttifer. Wader Study 125(1):	Peng, H-B., Anderson, G. Q. A., Chang, Q., Choi, C-Y., Chowdhury, S. U., Clark, N. A., Gan, X., Hearn, R. D., Li, J., Lappo, E. G., Liu, W-L., Ma, Z., Melville, D. S., Phillips, J. F., Syroechkovskiy, E. E., Tong, M., Wang, S., Zhang, L. and Zockler, C. (2017) The intertidal wetlands of southern Jiangsu province, China – globally important for Spoon-billed Sandpipers and other threatened waterbirds, but facing multiple serious threats. Bird Conserv. Internatn. 27: 305–322.; Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.; Leung, K., Zhang, L. & Yang, Z. 2020. Surveys of Spoon-billed Sandpiper and Nordmann's Greenshank on the southern Jiangsu coast. Spoon-billed Sandpiper Task Force News Bulletin. No 23: 19-21.; Zöckler, C., D. Li, S.U. Chowdhury, M. Iqbal & C. Yu. 2018. Winter distribution, habitat and feeding behaviour of Nordmann''s Greenshank Tringa guttifer. Wader Study 125(1):	http://wpp.wetlands.org/explore/3009/568
1006	2929	Glareolidae	Stiltia isabella	Australian Pratincole	LC	Australia, New Guinea, E Indonesia	N & E & SE Australia	N & E Australia, New Guinea, E Indonesia	Australasia		1992	2009	25,000	100,000	Best guess	No information available for a new assessment; previous estimate (Wetlands International, 2012).	2012	2021	Unknown	No idea		1,000	250		Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3182/1006
998	2931	Glareolidae	Glareola maldivarum	Oriental Pratincole	LC	E-SE Asia, Australia	S Siberia, NE Mongolia, E mainland China, Taiwan, Japan, Indochina, Philippines	SE Asia, Indonesia, New Guinea, Australia, Philippines?	East Asian-Australasian Flyway		2006	2006	2,880,000	2,880,000	Census based	No information available for a new assessment; previous estimate from Wetlands International (2006).	2012	2017	STA?	Poor	In AU a short-term flat trajectory reported for 2012-2017 (Clemens et al., 2019). Trend across rest of range unknown.	28,800	7,200		Wetlands International. (2006) Waterbird Population Estimates - Fourth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3176/998
1294	2937	Laridae	Anous stolidus	Brown Noddy	LC	pileatus	Seychelles & Madagascar E to N Australia, Polynesia, Hawaii, Easter Is, Bonin Is	Indian & Pacific Oceans	Indian and Pacific Oceans		2001	2008	1,000,000	1,000,001	Best guess	No information available for a new assessment; previous estimate (Wetlands International, 2012).	1980	2015	INC	Poor	Population fluctuating with oceanic conditions. In JP (Ministry of the Environment Japan. 2021) breeding numbers increased from 1980 to 2015 as per analysis of the Japanese Seabird Colony Database.	20,000	20,000	Ministry of the Environment Japan. 2021. Monitoring site 1000 & Small Island Seabird Surveys 2004-2018 Summary Report. Ministry of the Environment, Natural Environment Bureau, Biodiversity Center, Japan.	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3281/1294
1297	2939	Laridae	Anous minutus	Black Noddy	LC	minutus	NE Australia, New Guinea, S & SW Pacific Is		Australasia		1999	2004	1,000,000	1,000,001	Best guess		2012	2021	Unknown	No idea	No information available for a new assessment. Offshore species in the non-breeding grounds and not censused.	20,000	20,000			http://wpp.wetlands.org/explore/3282/1297
1298	2939	Laridae	Anous minutus	Black Noddy	LC	worcesteri	Islands in Sulu Sea (Philippines, Borneo)	Sulu Sea (Philippines, Borneo)	Indo-Malay		1994	2021	-1	-1	No estimate	No population size assessment (Rose and Scott, 1994). Information inadequate to develop an estimate for this widespread and poorly studied population.	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994).	-1	-1	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	http://wpp.wetlands.org/explore/3282/1298
1015	2948	Laridae	Rynchops albicollis	Indian Skimmer	EN	S & SE Asia	E Pakistan, N & E India, Bangladesh, Myanmar; possibly extinct along Mekong River		Indo-Malay		2018	2020	3,700	4,400	Expert opinion	As summarised in BirdLife International (2020), the revised estimate is based on numbers recorded during the non-breeding season, when a majority of the population occurs in a few large groups at regular sites. The largest numbers recorded in recent decades have been from the Meghna-Padma delta in Bangladesh, where 3,108 were counted at Nijhum Dwip in February 2020 (D.K. Das in litt. 2020). This is the highest count since 2001, when 5,400 individuals were recorded from the same area (Li et al. 2009). This 2020 count is considerably higher than previous counts here in the 2019/20 season (and for many years), it presumably includes birds noted earlier from Chittagong (Chowdhury et al. 2020) plus any birds unseen in the area. As such it is likely to represent a count close to the total number in the non-breeding period in Bangladesh. In India, most observations during the non-breeding season are of few birds but larger congregations are known from a handful of key sites. To the far west of the range c. 150 are regularly recorded from Jamnagar in Gujarat (eBird 2020, Shaikh 2020), centrally c. 100-300 remain on the Yamuna and Ganges rivers (Shaikh 2020), while on the east coast between 200 and 400 have been recorded at Satkosia on the River Mahanadi in Odisha (Debata et al. 2019, S. Debata in litt. 2020) and around 120 at Coringa Wildlife Sanctuary and Kakinada in Andhra Pradesh (eBird 2020, Wetlands International South Asia 2020). Individuals or very small numbers may occur almost anywhere around the coast (for example, recorded in 2018 at Kanyakumari, the southernmost tip of mainland India [S. Balachandran in litt. 2020]) and wander widely in central India during the non-breeding season (eBird 2020). The population in Pakistan is now thought to be very small: 15 birds were found in surveys of Badin province in 2018 (Ali et al. 2018), close to and possibly connected with those wintering in Gujarat. One bird was observed in the Gulf of Mottama, Myanmar in 2018 (Chowdhury et al. 2020), but it does not seem likely that there is still a regular wintering population in Myanmar. The last regular known wintering group, near Sittwe, numbered 27 in 2008 fell to 9 in 2012, and none have been recorded since (C. Zöckler in litt. 2020)..	2001	2020	DEC	Reasonable	The pop is estimated to have declined by 41% (33.9-45.9%) over three generations (16 years) from the 2001 population estimate (Li et al. 2004, S. Balachandran in litt. 2005) in BirdLife International (2020). BD - decline in Meghna-Padma delta from 5,400 individuals in 2001 (Li et al. 2009) to 3,108 at Nijhum Dwip in February 2020 (D.K. Das in litt. 2020). This 2020 count is considerably higher than the previous counts conducted in the area in the 2019/20 season (and for many years), it presumably includes birds noted earlier from Chittagong (Chowdhury et al. 2020) plus any wintering birds unseen in the area (BirdLife International, 2020). MY - the last regular known site near Sittwe recorded 27 in 2008 had dropped to 9 in 2012, with none recorded since (C. Zöckler, in litt. 2020) in BirdLife International (2020). IN - no trend information	40	10	Li, Z.W.D, A. Bloem, S. Delany, G. Martakis & J.O. Quintero. 2009. Status of Waterbirds in Asia - Results of the Asian Waterbird Census: 1987-2007. Wetlands International, Kuala Lumpur, Malaysia.; BirdLife International. 2020. Rynchops albicollis. The IUCN Red List of Threatened Species 2020: e.T22694268A178970109. https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T22694268A178970109.en. Downloaded on 10 June 2021.; Chowdhury, S. U., Foysal, M., Prince, N. U., Mohsanin, S., Miron, M. K. & Alam, A. B. M. S. 2020. Discovery of a new wintering area for Indian Skimmer Rynchops albicollis in Bangladesh. BirdingASIA 32: 99-102	BirdLife International. 2020. Rynchops albicollis. The IUCN Red List of Threatened Species 2020: e.T22694268A178970109. https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T22694268A178970109.en. Downloaded on 10 June 2021.	http://wpp.wetlands.org/explore/3193/1015
1108	2949	Laridae	Saundersilarus saundersi	Saunders's Gull	VU	NE Asia (bre)	South Korea, Coastal NE & E China	S Japan, South Korea, E & S mainland China, Taiwan, Vietnam	East Asian-Australasian Flyway		2012	2021	34,000	34,000	Expert opinion	The overall population is currently roughly estimated to be 34,000 individuals based on 33,000 individuals in CN + 900 individuals in KR. The breeding population in CN is estimated to be 11,000 breeding pairs (or 33,000 individuals), based on nest counts in three major breeding grounds (Liaohekou (the former Shuangtaihekou) in Liaoning Province, Yellow River Delta in Shandong Province and Yancheng in Jiangsu Province); in addition to smaller colonies in Chongming Dongtan in Shanghai, and Qingdao in Shandong Province (Jiang Hongxing, pers. comm 2022). Based on 58 nests in 2018 and 110 nests in 2019 in Chongming (Melville et al. 2020), the population may have been about 110 x 3 = 330 individuals. The species has also bred in KR with 1300 breeding individuals reported in 2009 (Park 2010) although more recently (2011–2016) the breeding population has decreased to about 200–300 pairs equivalent to about 900 individuals (Yoon et al., 2018). The current population estimate is higher than the previous estimate that was roughly equivalent to 21,000-22,000 individuals and derived from a population estimate of 14,400 mature individuals from analysis of records and surveys (BirdLife International 2011).	2012	2021	INC	Reasonable	The previous estimate to be roughly equivalent to 21,000-22,000 individuals derived from a population estimate of 14,400 mature individuals from analysis of records and surveys by BirdLife International (2011), while the current estimate is up to 30,500 individuals. There appears to be an increase over this ten year period, particularly in CN with a decline in the smaller breeding population in KR over the last decade, while the status of breeding in KP remains unknown. In CN the main colony at Liaohe NNR (estimated to be over 10,000 pairs), and additional colonies at the Yellow River NNR, Yancheng NNR and Chongming NNR (Jiang Hongxing, pers. comm 2022); with breeding having spread to Chongming NNR since 2018 (Melville et al. 2020). While in KR, there was an increase from the first breeding record in 1998 to June 2009 (Park 2010) when 1300 breeding individuals were reported; more recently (2011–2016) the size of the breeding population has been roughly estimated to be 200–300 pairs (Yoon et al., 2018).	340	85	Park H.W. 2010. Breeding populations trend of the Saunders' gull (Larus saundersi Swinhoe) in Incheon Bay. Korean J. Environ Biol. 28: 49–55.; Melville, D.S., Wu, W., Yang, S., Ke, W., Ke, X., White, G., Copleston, M., Kew, J., Ausden, M., Lock, L. & Dixon, M. 2020. Saunders's Gulls Saundersilarus saundersi nesting at Chongming Dongtan National Nature Reserve, Shanghai, China. BirdingASIA 34: 54–58.; Yoon, HJ, Joo, EJ, Ha, DS, Nam, HK and Yoon, J. 2018. Does Nest Predation Influence Colony Movements of Saunders's Gulls (Saundersilarus saundersi) in a Reclaimed Land Area? Zoological Science, 35(5):389-395. https://doi.org/10.2108/zs170193.	Melville, D.S., Wu, W., Yang, S., Ke, W., Ke, X., White, G., Copleston, M., Kew, J., Ausden, M., Lock, L. & Dixon, M. 2020. Saunders's Gulls Saundersilarus saundersi nesting at Chongming Dongtan National Nature Reserve, Shanghai, China. BirdingASIA 34: 54–58.; BirdLife International 2021; Park H.W. 2010. Breeding populations trend of the Saunders' gull (Larus saundersi Swinhoe) in Incheon Bay. Korean J. Environ Biol. 28: 49–55.	http://wpp.wetlands.org/explore/3230/1108
1134	2956	Laridae	Rissa tridactyla	Black-legged Kittiwake	VU	pollicaris, W Pacific (bre)	NE Siberia, Kamchatka, Sea of Okhotsk, Kuril Is	N Pacific	Eastern Palearctic		1995	1995	4,800,000	4,800,001	Best guess	No information available for a new assessment; previous estimate from del Hoyo et al. (1996).	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994).	48,000	12,000	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	del Hoyo, J., Elliot, A. and Sargatal, J. (eds). 1996. Handbook of the Birds of the World. Volume 3: Hoatzin to Auks. Lynx Edicions, Barcelona.; Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3242/1134
1083	2959	Laridae	Larus brunnicephalus	Brown-headed Gull	LC	C Asia (bre)	Mountains of SC Asia	Coasts of S Asia, Indochina, S China & W to Arabian Peninsula	Central Asian Flyway		2006	2006	100,000	200,000	Best guess	No information available for a new assessment; previous estimate from Wetlands International (2006).	2006	2015	DEC	Reasonable	The IWC analysis (Langendoen et al. 2021) reports a decreasing trend for 2006-2015 (0.9191) and a moderately increasing trend over 3 generations 1992-2015 (1.0261) and 1989-2015 (1.0232). Based on the growth rate of the last 10 years, the population is projected to decrease by 86% in 3 generations compared to the population levels in 2006. Inadequate/consistency in coverage in some countries/regions over the longer term. In IN trend is uncertain with a declining tendency and a long-term decline of -73.4 (%) (SoIB 2020).	1,400	350	SoIB 2020. State of India's Birds factsheet: Brown-headed Gull Chroicocephalus brunnicephalus https://www.stateofindiasbirds.in/species/bnhgul1/. Accessed on 2021-12-08.; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Wetlands International. (2006) Waterbird Population Estimates - Fourth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3220/1083
1102	2960	Laridae	Larus ridibundus	Black-headed Gull	LC	E & SE Asia (non-bre)	C Asia to Kamchatka, NE China	E & SE Asia, N Australia	East Asian-Australasian Flyway		2001	2001	100,000	1,000,001	Best guess	No new population estimate available. CN - max of 19,167 recorded in Feb 2016 during coastal counts of the mainland (Choi et al., 2020). KR mean of 14,771 (12,361-16,845 in 2016-2020), based on Winter Waterbird Census of Korea by NIBR.	2011	2020	STA	Poor	No regional assessment is available, while the population is now recorded further south in parts of its range (BirdLife International 2021). In HK, the pop declined by 63% between 2008–2017; a continued trend from recorded between 1998–2007 (Sung et al., 2021). The IWC analysis (Langendoen et al., 2021) reports an uncertain trend falling in the stable range for 2011-2020 (0.979) and a statistically significant decrease for 1995-2020 (0.9881). Based on the smoothed imputed totals, the population has decreased by 29% (n.s.) in 28 years, i.e. in 3 generations. Based on the growth rate of the last 10 years, the population is projected to decrease by 45% in 3 generations compared to the population levels in 2011. Breeding surveys are more appropriate to monitor the trend of this population.	20,000	20,000	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Sung Y-H, Pang C, Li TC, Wong PPY, Yu Y (2021) Ecological Correlates of 20-Year Population Trends of Wintering Waterbirds in Deep Bay, South China.Front. Ecol. Evol. 9: doi: 10.3389/fevo.2021.658084	Choi, C.-Y., Li, J. & Xue, W.J. (2020). China Coastal Waterbird Census Report (Jan. 2012–Dec. 2019). Hong Kong: Hong Kong Bird Watching Society. (in Chinese); BirdLife International website 2021	http://wpp.wetlands.org/explore/3227/1102
1082	2972	Laridae	Larus ichthyaetus	Pallas's Gull	LC	C Asia (bre)	C Asia E to L Balkash, S to Tibet	Coastal Pakistan, India, Sri Lanka, Bangladesh, Myanmar	Central Asian Flyway		1987	1991	25,000	100,000	Best guess	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994).	2011	2020	DEC	Poor	The centre of the non-breeding population is along the coast of the Indian subcontinent, with smaller numbers reported within the EAAF. The IN trend is uncertain with a declining tendency (SOIB 2020). The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (1.0464) and for 1990-2020 (1.0432). Population breeding at one major breeding site in CN at Qinghai Lake reported to drop over 87,000 in the 1970s to about 15,000 in present times (Zhang et al 2014).	1,000	250	Zhang, G.G., Dong-Ping, L., Yun-Qiu, H., Hong-Xing, J., Ming, D., Fa-Wen, Q., Jun, L., Tian, M., Li-Xia, C., Zhi, X., & Li, FS. 2014. Migration routes and stopover sites of Pallas's Gulls Larus ichthyaetus breeding at Qinghai Lake, China, determined by satellite tracking. Forktail 30: 104-108.; SoIB 2020. State of India's Birds factsheet: Pallas's Gull Ichthyaetus ichthyaetus https://www.stateofindiasbirds.in/species/gbhgul2/ Accessed on 2022-06-01; Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	http://wpp.wetlands.org/explore/3219/1082
1111	2973	Laridae	Larus relictus	Relict Gull	VU	C Asia (bre)	Isolated colonies on lakes C Asia-NC China	E China (Tianjin coast), South Korea	Eastern Palearctic		2010	2011	15,000	30,000	Best guess		2011	2015	DEC	Poor	The species breeds in remote lakes across Central Asia and are not properly censused. Water level changes over time result in shrinkage and loss of breeding islands. On long term study at Hongjian Lake, a major breeding site in CN indicated the population increased from 174 in 2001 to the maximum value of 15,494 in 2010, and the population decreased from 15,412 in 2011 to 4,000 in 2015 (Liang & Yan 2017). Breeding numbers have declined in the last years at Ordos, another major site, due to lake shrinkage (Yan et al. 2017).	210	55	Yan, G., Lou, H., Liang, K., and Zhang, Z. (2017) Dynamics and driving forces of Bojiang lake area in Erdos Larus relictus National Nature Reserve, China. Quat. Int. doi:10.1016/j.quaint.2016.12.034.; Wetlands International. (2006) Waterbird Population Estimates - Fourth Edition. Wetlands International. Wageningen, The Netherlands.; Liang, K. and Yan, G. (2017) Application of Landsat Imagery to Investigate Lake Area Variations and Relict Gull Habitat in Hongjian Lake, Ordos Plateau, China. Remote Sens. 9, 1019 doi:10.3390/rs9101019; Zhang, G.G., Dong-Ping, L., Yun-Qiu, H., Hong-Xing, J., Ming, D., Fa-Wen, Q., Jun, L., Tian, M., Li-Xia, C., Zhi, X., & Li, FS. 2014. Migration routes and stopover sites of Pallas's Gulls Larus ichthyaetus breeding at Qinghai Lake, China, determined by satellite tracking. Forktail 30: 104-108.	BirdLife International 2021	http://wpp.wetlands.org/explore/3233/1111
1024	2980	Laridae	Larus crassirostris	Black-tailed Gull	LC	E Asia	Coasts SE Russia, Japan, Korea, E China	E Asia Pacific coast N Japan to NE China Sea	East Asian-Australasian Flyway		2001	2001	1,100,000	1,100,000	Best guess	No information available for a new assessment; previous estimate from Malling and Larsson (2002). The KR mean non-breeding population is 35,832 (between 2016-2020), based on Winter Waterbird Census of Korea by NIBR.	2011	2020	Unknown	No idea	The IWC analysis (Langendoen et al., 2021) reports a stable trend for 2011-2020 (0.9859) and an increasing trend over 2000-2020 (1.0317). The trend is based on only 2 countries (KR and JP) and is therefore not considered representative of the population. In KR it is STA for 10 years (2011-2020), based on Winter Waterbird Census of Korea by NIBR. In JP (Ministry of the Environment Japan. 2021) numbers decreased by 72% from 1980 to 2015 as per analysis of the Japanese Seabird Colony Database and Senzaki et al. (2020).	11,000	2,800	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.; Senzaki M, Terui A, Tomita N, Sato F, Fukuda Y, KataokaY & Watanuki Y (2020) Long-term declines in common breeding seabirds in Japan. Bird Conservation International 30: 434-446.; Ministry of the Environment Japan. 2021. Monitoring site 1000 & Small Island Seabird Surveys 2004-2018 Summary Report. Ministry of the Environment, Natural Environment Bureau, Biodiversity Center, Japan.	Malling Olsen, K. and Larsson, H. 2002. Gulls of Europe, Asia and North America. Helm and Princeton University Press.; Croxall JP, Butchart SHM, Lascelles B, Stattersfield AJ, Sullivan B, Symes A, (2012) Seabird conservation status, threats and priority actions: A global assessment. Bird Conserv Int 22(1):1–34.	http://wpp.wetlands.org/explore/3198/1024
1037	2984	Laridae	Larus canus	Mew Gull	LC	kamtschatschensis	NE Siberia	Coasts E, SE Asia	Eastern Palearctic	Two subspecies winter in E Asia (Moores, N. in litt. 2005.).	2001	2001	25,000	100,000	Best guess	No recent population assessment; previous estimate from Kushlan et al. (2002). In KR, a mean of 16,544 individuals (7,179 to 24,576 in 2016-2020) reported based on the Winter Waterbird Census of Korea by NIBR.	2011	2020	Unknown	No idea	The IWC analysis reports an uncertain trend with an increasing tendency for 2011-2020 (1.0504) and for 2000-2020 (1.0032). The trend is based on only 2 countries (KR and JP) and statistically uncertain. Therefore, it is not considered representative of the population.	1,000	250	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Kushlan, James, A., Melanie J. Steinkamp, Katharine Parsons, Jack Capp, Martin Acosta Cruz, Malcolm Coulter, Ian Davidson, Loney Dickson, Naomi Edelson, Richard Elliot, R. Michael Erwin, Scott Hatch, Stephen Kress, Robert Milko, Steve Miller, Kyra Mills, Richard Paul, Roberto Phillips, Jorge E. Saliva, Bill Sydeman, John Trapp, Jennifer Wheeler, and Kent Wohl. 2002. North American Waterbird Conservation Plan, Version 1. Waterbird Conservation for the Americas, Washington, DC, USA.	http://wpp.wetlands.org/explore/3203/1037
1068	2994	Laridae	Larus smithsonianus	Arctic Herring Gull	LC	vegae	Taymyr to Chukotka & Anadyr, NE China	W Pacific S to Japan, Korea, Taiwan, and S mainland China	East Asian-Australasian Flyway	Possibly merits full specific status. Includes weakly defined birulai from W Taymyr to New Siberian Islands. Larus argentatus and L. smithsonianus (the latter including vegae and mongolicus) (del Hoyo and Collar 2014) were previously lumped as L. argentatus (see BirdLife International (2016) Species factsheet: Larus smithsonianus.)	1994	2021	-1	-1	No estimate	No population size assessment (Rose and Scott, 1994). KR mean of 46,661 (40,144 to 55,177 in 2016-2020) based on Winter Waterbird Census of Korea by NIBR.	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994). Trend in KR for 2011-2020 is STA, based on Winter Waterbird Census of Korea by NIBR.	-1	-1	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.		http://wpp.wetlands.org/explore/10879/1068
1069	2994	Laridae	Larus smithsonianus	Arctic Herring Gull	LC	mongolicus	SE Altai & L Baikal to Mongolia & W coast of Korea	China, S Korea	East Asian-Australasian Flyway	Population added in WPE3. Larus argentatus and L. smithsonianus (the latter including vegae and mongolicus) (del Hoyo and Collar 2014) were previously lumped as L. argentatus (see BirdLife International (2016) Species factsheet: Larus smithsonianus.)	2000	2000	57,000	66,000	Best guess	No information available for a new assessment; previous estimate from Yesou (2001). KR mean of 604 (411 to 1,077 in 2016-2020), based on Winter Waterbird Census of Korea by NIBR.	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 2002 (Wetlands International, 2002).	610	150	Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	Yesou, P. 2001. Phenotypic variations and systematics of Mongolian Gull. Dutch Birding 23: 65-82; Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/10879/1069
1074	2997	Laridae	Larus schistisagus	Slaty-backed Gull	LC	NE Asia	Coast NE Siberia Cape Navarin - Kamchatka - N Japan - Vladivostok	NE Asia Pacific S to Taiwan	Eastern Palearctic		1994	1994	25,000	1,000,000	Best guess	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994). KR mean of 4,368 (2,168-6,289 in 2016-2020), based on Winter Waterbird Census of Korea by NIBR.	1980	2015	DEC?	Poor	In JP (Ministry of the Environment Japan. 2021) numbers decreased by 65% from 1980 to 2015 as per analysis of the Japanese Seabird Colony Database and Senzaki et al. (2020); while trend in KR for 2011-2020 is STA, based on Winter Waterbird Census of Korea by NIBR. Trend in RU is increasing, range expansion reported (Zelenskaya, 2013, 2018, 2021a, 2021 b) but unknown in CN.	10,000	2,500	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.; Зеленская Л.А. 2018. Морские открыто гнездящиеся птицы Ямских островов (Охотское море). Численность и распределение. Зоологический журнал, т.97, №5 С. 572-581. Zelenskaya L.A. 2018. Marine open nesting birds of the Yamsky Islands (Sea of Okhotsk). Number and distribution. Zoological Journal, 2018, vol. 97, No. 5, pp. 572-581.; Ministry of the Environment Japan. 2021. Monitoring site 1000 & Small Island Seabird Surveys 2004-2018 Summary Report. Ministry of the Environment, Natural Environment Bureau, Biodiversity Center, Japan.; Зеленская Л.А. 2021. Состояние колоний морских птиц полуострова Старицкого (Тауйская губа, Охотское море). Вестник Северо-Восточного научного центра ДВО РАН. № 2, с. 87-98. Zelenskaya L.A. 2021. Status of seabird colonies on the Staritsky Peninsula (Tauy Bay, Sea of Okhotsk). Bulletin of the North-Eastern Scientific Center of the Far Eastern Branch of the Russian Academy of Sciences. No. 2, p. 87-98.; Senzaki M, Terui A, Tomita N, Sato F, Fukuda Y, KataokaY & Watanuki Y (2020) Long-term declines in common breeding seabirds in Japan. Bird Conservation International 30: 434-446.; Зеленская Л.А. 2021. Результаты обследования колоний морских птиц восточной части Тауйской губы (Охотское море). Вестник Северо-Восточного научного центра ДВО РАН. 2021. № 1, с. 108–122. Zelenskaya L.A. 2021. Results of a survey of seabird colonies in the eastern part of the Taui Bay (Sea of Okhotsk). Bulletin of the North-Eastern Scientific Center of the Far Eastern Branch of the Russian Academy of Sciences. No. 1, p. 108–122.; Зеленская Л.А. 2013. Колонии морских птиц Тауйской губы и полуострова Кони. Вестник СВНЦ ДВО РАН, №3, с. 87-100. Zelenskaya L.A. 2013. Colonies of seabirds in the Taui Bay and the Koni Peninsula. Bulletin of the SVNTs FEB RAS, No. 3, p. 87-100.	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	http://wpp.wetlands.org/explore/3216/1074
1056	2998	Laridae	Larus glaucescens	Glaucous-winged Gull	LC	N Pacific	Coasts Commander Is, Aleutians, Pribilofs, to Alaska S to Oregon	Bering Sea S to Korea & Japan, Baja California	Central Pacific Flyway		2005	2005	422,000	422,000	Best guess		2012	2021	Unknown	No idea		4,200	1,100		BirdLife International 2021	http://wpp.wetlands.org/explore/3209/1056
1062	2999	Laridae	Larus hyperboreus	Glaucous Gull	LC	pallidissimus	Taymyr Peninsula E to Bering Sea, Pribilof Is	NE Asia	Eastern Palearctic	Classified as L.hyperboreus pallidissimus North-western Pacific in WPE 1 and 2.	2005	2005	103,000	103,250	Best guess		2012	2021	Unknown	No idea	In W Chukotka nest density trend is stable in colonies; declining in 2011-2017 with slight increase in 2018-2021 (Solovyeva et al 2021).	1,000	260		US Fish & Wildlife Service 2006	http://wpp.wetlands.org/explore/3212/1062
1257	3017	Laridae	Onychoprion aleuticus	Aleutian Tern	VU	N Pacific (bre)	Sakhalin, Sea of Okhotsk, Kamchatka, Aleutians, SW Alaska	Poorly known; S China Sea, Philippines to Malay Peninsula	East Asian-Australasian Flyway		2015	2015	46,500	46,500	Census based	A minimum worldwide breeding population of Aleutian Terns as 31,131 birds across 202 colonies, with 18% (5 529 birds in 110 colonies) in Alaska and 82% (25,602 birds in 92 colonies) in RU (Renner et al.2015). Based on the minimum total recorded by Renner et al. (2015), the global population estimate has therefore been revised to 31,000 mature individuals by BirdLife (2020 Datazone).	1960	2013	DEC	Poor	No population trend assessment for the species across its range. Trends at known colonies within discrete geographic regions of Alaska (Aleutian Islands, Bering Sea, Chukchi Sea, Gulf of Alaska and Kodiak Island) were consistently negative; only represent <20% of the global population. Trend analysis indicated that colony counts in Alaska declined on average 8.1% per year (95% credible interval 10.7%–5.5%) between 1960 and 2013. RU hosts about 80% of the population, where in some regions, numbers appear to have increased substantially in recent decades, especially on Sakhalin Island and the southern coast of the Koryak Highland (Renner at al 2015). Surveys of four historically large colonies in RU (2018) and Alaska (2019), which together may comprise 30–50% of the global breeding population supported <2,500 pairs of Aleutian Terns in the survey years (Renner et al. 2021), which further suggests a decline, although confirmation through simultaneous counts of colonies is necessary to get a complete estimate and trend.	470	120	Renner, H, Renner, M, Lyons, D., Zykov, V., Revyakina, Z & Oehlers, S. 2021. Aleutian Tern Onychoprion aleuticus abundance estimates at four globally significant colonies Bird Conservation International. 1–15. doi:10.1017/S095927092100037X; Renner, H.M., Romano, M.D., Renner, M., Pyare, S., Goldstein, M.I. & Arthukin, Y. 2015. Assessing the breeding distribution and population trends of the Aleutian Tern Onychoprion aleuticus. Marine Ornithology 43: 179–187	BirdLife International (2021) Species factsheet: Onychoprion aleuticus. Downloaded from http://www.birdlife.org on 31/03/2021. Renner, H.M., Romano, M.D., Renner, M., Pyare, S., Goldstein, M.I. & Arthukin, Y. 2015. Assessing the breeding distribution and population trends of the Aleutian Tern Onychoprion aleuticus. Marine Ornithology 43: 179–187	http://wpp.wetlands.org/explore/3272/1257
1268	3018	Laridae	Onychoprion fuscatus	Sooty Tern	LC	nubilosus, Red Sea, Gulf of Aden, E to Pacific	Gulf of Aden, Coastal E Africa, Indian Ocean - Madagascar - Andaman Is; Philippines - S Japan	Indian Ocean to W Pacific Ocean	Indian and Pacific Oceans		2003	2012	18,200,000	18,200,000	Expert opinion	The overall estimate for this population is 18,223,468 - 18,227,968 individuals.	2012	2021	Unknown	No idea	No information available for a new assessment. There has been no recent overview of the subspecies in the western Indian Ocean since Feare et al. who estimated some populations to be increasing while others decreased, in numbers, but most trends remain unknown.	182,000	45,500	Angel, A. & Wanless, R.M. 2014 Report on numbers, trends and conservation status of tropical seabird species included in the Agreement. Project report to Wetlands International.	Angel, A. & Wanless, R.M. 2014 Report on numbers, trends and conservation status of tropical seabird species included in the Agreement. Project report to Wetlands International.	http://wpp.wetlands.org/explore/3275/1268
1270	3018	Laridae	Onychoprion fuscatus	Sooty Tern	LC	nubilosus, Indonesia	C Indonesia (range uncertain)	Indian to Pacific Ocean	Indo-Malay	Population added in WPE3. Proposed form infuscatus (Indonesia) also subsumed within nubilosus.	2002	2021	-1	-1	No estimate	No population size assessment (Wetlands International, 2002).	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 2002 (Wetlands International, 2002).	-1	-1	Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.		http://wpp.wetlands.org/explore/3275/1270
1271	3018	Laridae	Onychoprion fuscatus	Sooty Tern	LC	serratus	New Guinea, Australia, New Caledonia	Tropical Pacific Ocean	Australasia		1995	2011	1,200,000	1,500,000	Best guess	No information available for a new assessment; previous estimate (Wetlands International, 2012).	2012	2021	Unknown	No idea	No information available for a new assessment; previous trend from 2012 fluctuating (Wetlands International, 2012).	13,400	3,400	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3275/1271

Pop #	Taxo-nomic#	Family	Scientific Name	Common Name	Red List	Population Name	Breeding Range (bre)	Non-breeding Range (non-bre)	Flyway/Biogeographic Region	Population Notes	Size Start Year	Size End Year	Minimum size	Maximum size	Estimate quality	Size Notes	Trend Start Year	Trend End Year	Trend Code	Trend Quality Code	Trend Notes	1% threshold	0.25 % threshold	Trend references	Size references	URL
1262	3019	Laridae	Onychoprion anaethetus	Bridled Tern	LC	anaethetus	S Japan, Taiwan, Philippines, Indonesia, New Guinea, Australia	SW Pacific to NE Indian Ocean	East Asian-Australasian Flyway		1994	2011	100,000	1,000,000	Best guess	No information available for a new assessment; previous estimate (Wetlands International, 2012).	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 2012 was probably increasing (Wetlands International, 2002).	10,000	2,500		Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3274/1262
1264	3019	Laridae	Onychoprion anaethetus	Bridled Tern	LC	anaethetus (rogersi)	N Western Australia	SW Pacific to NE Indian Ocean	Australasia	described forms rogersi (N Western Australia) and novaehollandiae (Queensland to S Australia) currently synonymized with nominate; further study desirable.	1994	2021	-1	-1	No estimate	No population size assessment (Rose and Scott, 1994).	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994).	-1	-1	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	http://wpp.wetlands.org/explore/3274/1264
1265	3019	Laridae	Onychoprion anaethetus	Bridled Tern	LC	anaethetus (novaehollandiae)	Queensland to S Australia, New Caledonia	SW Pacific to NE Indian Ocean	Australasia	described forms rogersi (N Western Australia) and novaehollandiae (Queensland to S Australia) currently synonymized with nominate; further study desirable.	1994	2021	-1	-1	No estimate	No population size assessment (Rose and Scott, 1994).	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994).	-1	-1	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	http://wpp.wetlands.org/explore/3274/1265
1241	3021	Laridae	Sternula albifrons	Little Tern	LC	pusilla	NE India, Myanmar, Sumatra, Java	Indian Ocean & SE Asia	Indo-Malay		2006	2006	50,000	100,000	Best guess	No information available for a new assessment; previous estimate from Wetlands International (2006).	2012	2021	Unknown	No idea	No population trend estimate exists (Rose and Scott, 1994).	710	180	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3263/1241
1242	3021	Laridae	Sternula albifrons	Little Tern	LC	sinensis	E & SE Asia to Australia, Sri Lanka	SE Asia-Australia	East Asian-Australasian Flyway		1993	1993	10,000	100,000	Best guess		2012	2021	Unknown	No idea	No information available for a new assessment; previous trend from 2012 decreasing (Wetlands International, 20012).	1,000	250			http://wpp.wetlands.org/explore/3263/1242
1243	3021	Laridae	Sternula albifrons	Little Tern	LC	placens	E Australia & N & E Tasmania	Australia, New Zealand	Australasia		2020	2020	1,000	2,000	Expert opinion	The subspecies placens not readily identifiable in the field. The subspecies has been separated from S. a. sinensis by del Hoyo & Collar (2014) and an estimate proposed by Mahon et al. (2021).	2012	2021	DEC	Reasonable	In AU, as per Mahon et al (2021), "monitored populations in NSW have declined so steeply in the last three generations that there would still have been a substantial decline even if populations in Queensland, Victoria and Tasmania were stable."	15	4	Mahon P, McDougall A, Woehler EJ, Menkhorst P, Carey M, Garnett ST (2021) Tasman Little Tern Sternula albifrons placens. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 319–322. CSIRO Publishing, Melbourne.	https://www.environment.gov.au/biodiversity/threatened/nominations/ineligible-species/sterna-albifrons-sinensis; Mahon P, McDougall A, Woehler EJ, Menkhorst P, Carey M, Garnett ST (2021) Tasman Little Tern Sternula albifrons placens. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 319–322. CSIRO Publishing, Melbourne.	http://wpp.wetlands.org/explore/3263/1243
1145	3029	Laridae	Gelochelidon nilotica	Common Gull-billed Tern	LC	affinis	E & SE China	SE & S Asia, N Australia	East Asian-Australasian Flyway	Higgins & Davies (1996) and others (see Rodgers Jr et al. (1995)) consider the identity of migrants of this species in N Australia as most likely to be affinis. Not considered in WPE3.	1994	2021	10,000	100,000	Best guess	No recent population assessment is available; previous estimate by Perennou et al. (1994). The IWC count totals for IN, MY and PH were around 727-5,232 between 2016-2020.	2012	2021	Unknown	No idea	The IWC analysis reports an uncertain trend falling in the stable range for 2011-2020 (0.9549) and an increasing tendency trend for 2008-2020 (1.0024). Based on the growth rate of the last 10 years, the population is projected to decrease by 74% in 3 generations compared to the population levels in 2011. Although counts are from 3 countries (IN,MY and PH), the trend is only based on PH is and statistically uncertain. Therefore, it is not considered representative of the population.	1,000	250	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	Langendoen, T, Mundkur, T. & Nagy, S., (2021) Flyway trend analyses based on data from the Asian Waterbird Census from the period of 1987-2020. Online publication. Wetlands International, Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3244/1145
1144	3030	Laridae	Gelochelidon macrotarsa	Australian Gull-billed Tern	LC	Australia (bre)	Australia	Australia, New Guinea, E Indonesia, Timor Leste	Australasia	Gelochelidon nilotica and G. macrotarsa (del Hoyo and Collar 2014) were previously placed in the genus Sterna and lumped as S. nilotica (see BirdLife International (2016) Species factsheet: Gelochelidon macrotarsa.)	2004	2004	25,000	100,000	Best guess	No information available for a new assessment; previous estimate (Wetlands International, 2006).	2012	2017	INC	Poor	In AU long-term (1983-2017) no significant trend, medium term (1997 to 2017) Increasing, short -term trajectory 2012 to 2017 up (Clemens et al., 2019). Trend across rest of range unknown.	1,000	250	Clemens R, Driessen J, Ehmke G (2019) 'Australian Bird Index Phase 2 – Developing Waterbird Indices for National Reporting'. Report to the Department of the Environment and Energy, Canberra.	Wetlands International. (2006) Waterbird Population Estimates - Fourth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/11164/1144
1160	3031	Laridae	Hydroprogne caspia	Caspian Tern	LC	E & SE Asia (non-bre)	C Asia, C Siberia, E China	E mainland China, Taiwan, Indochina	East Asian-Australasian Flyway		1987	1991	10,000	25,000	Best guess		2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994).	250	65	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Perennou, C.P., Mundkur, T. and Scott, D.A. 1994. The Asian Waterfowl Census 1987-1991: distribution and status of Asian waterfowl. IWRB Spec. Publ. No. 24. AWB Spec. Publ. No. 86. Slimbridge, UK and Kuala Lumpur, Malaysia.	http://wpp.wetlands.org/explore/3245/1160
1283	3034	Laridae	Chlidonias hybrida	Whiskered Tern	LC	hybrida, Transbaikalia to E China mainland & Taiwan	EC Asia, E China	Poorly known: S China, Taiwan to SE Asia	East Asian-Australasian Flyway	Here, forms indicus (E Iran to N India), leggei (Sri Lanka, non-breeding) and swinhoei (Transbaikalia to E China and Taiwan), all sometimes recognised, are included in nominate.	1994	2021	-1	-1	No estimate	No population size assessment (Rose and Scott, 1994). Information inadequate to develop an estimate for this very widespread and poorly studied population.	2012	2021	Unknown	No idea	No population trend estimate exists (Rose and Scott, 1994).	-1	-1	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	http://wpp.wetlands.org/explore/3277/1283
1285	3034	Laridae	Chlidonias hybrida	Whiskered Tern	LC	javanicus	Australia	Australia, New Guinea, Moluccas, Philippines	East Asian-Australasian Flyway	Higgins & Davies (1996) and others recognise javanica as the form breeding in Australia, and consider Asian populations to be nominate hybrida. Fluviatilis (Australia) is synonymized with javanicus.	1987	1991	100,000	1,000,000	Best guess	No information available for a new assessment; previous estimate (Perennou et al 1994).	2012	2021	Unknown	No idea		10,000	2,500		Perennou, C.P., Mundkur, T. and Scott, D.A. 1994. The Asian Waterfowl Census 1987-1991: distribution and status of Asian waterfowl. IWRB Spec. Publ. No. 24. AWB Spec. Publ. No. 86. Slimbridge, UK and Kuala Lumpur, Malaysia.	http://wpp.wetlands.org/explore/3277/1285
1287	3035	Laridae	Chlidonias leucopterus	White-winged Tern	LC	Asia, Australasia	E & C Siberia, N Mongolia - SE Russia, NE China	India, Sri Lanka, Indochina, S & E China to Australia, New Zealand	East Asian-Australasian Flyway		1987	1991	100,000	1,000,000	Best guess	No information available for a new assessment; previous estimate (Perennou et al 1994).	2012	2017	DEC?	Poor	In AU a short-term downward trajectory reported for 2012-2017 (Clemens et al., 2019). Trend across rest of range unknown.	10,000	2,500	Clemens R, Driessen J, Ehmke G (2019) 'Australian Bird Index Phase 2 – Developing Waterbird Indices for National Reporting'. Report to the Department of the Environment and Energy, Canberra.	Perennou, C.P., Mundkur, T. and Scott, D.A. 1994. The Asian Waterfowl Census 1987-1991: distribution and status of Asian waterfowl. IWRB Spec. Publ. No. 24. AWB Spec. Publ. No. 86. Slimbridge, UK and Kuala Lumpur, Malaysia.	http://wpp.wetlands.org/explore/3278/1287
1163	3037	Laridae	Sterna aurantia	River Tern	VU	S & SE Asia	E Pakistan to S India, Nepal, Bangladesh, SW China, Myanmar, C Indochina to Mekong Delta		Indo-Malay		2008	2015	30,000	100,000	Expert opinion	The species is poorly assessed in its stronghold in the IN subcontinent. AWC surveys for the 2008-2015 period have recorded an overall 29,577 birds across MM (39 birds), TH (2), BD (74), IN (17,776), NP (31), PK (11,485) and KH (170) (Mundkur et al. 2017). Based on current information, a minimum estimate of 30,000 individuals is proposed. In SE Asia numbers have declined and in the whole Mekong basin (KH, LA, TH), the population is currently estimated at less than 100 birds (F. Goes in litt. 2020) as quoted in BirdLife International (2021).	2008	2016	DEC	Reasonable	As per BirdLife International (2021), "precipitous declines have occurred in parts of South-East Asia, whilst local increases and stability have been noted in a few areas of India, making the deciphering of past population trends difficult. Recent estimates in IN show that the long-term trend of the species amounts to 41.2% decline (measured as an index of abundance in 2014/2015 relative to pre-2000 data; State of India's Birds 2020). An average annual change estimated at 5.2% (measured between 2014/2015 and 2018/2019; State of India's Birds 2020), additionally translates to over 70% decline over a 3-generation period (23.4 years; Bird et al. 2020). In CN however, following historical declines, the species seems to be in recovery on at least one main site, although this is recognised as being only a small proportion of the species' overall range (W. Cheng in litt. 2020). Declines may however still be present on some riverine habitats, with certain sites known to be deteriorating and under continuous population decline (X. Zheng in litt. 2020). In KH, the species is experiencing a continuing decline, with >80% reduction observed in the past 20 years (Claassen 2018, J. C. Eames in litt. 2020). It was also recorded to have undergone a strong decline during surveys in 2017-2019 at Ayeyarwady River between Myitkyina and Bagan, MM (Zöckler 2020). Similarly on a tributary in the Chindwin River, a 90% decline had been observed since 2004 (C. Zöckler in litt. 2020). Reports to the International Waterbird Census (IWC) have been declining in the last decades, with an all-time maximum of 10,011 individuals in 2001, to 5,999 in 2010 and 3,944 in 2016 (IWC 2020, T. Mundkur in litt. 2020). This equates to a 76.6% decline over a 3-generation period, assuming the population had undergone an exponential decline since at least 2001."	550	140	State of India's Birds. 2020. State of India's Birds factsheet: River Tern Sterna aurantia. Available at: https://www.stateofindiasbirds.in/species/rivter1/. (Accessed: 28th July 2020).; BirdLife International 2021 website	BirdLife International website 2021; Mundkur, T., Langendoen, T. and Watkins, D. (eds.). 2017. The Asian Waterbird Census 2008-2015 – results of coordinated counts in Asia and Australasia. Wetlands International, Ede. http://www.eaaflyway.net/documents/resources/aewa%20ref/AWC_2008-2015_Summary_Report_31Mar17.pdf.	http://wpp.wetlands.org/explore/3246/1163
1190	3038	Laridae	Sterna dougallii	Roseate Tern	LC	gracilis, SE Asia	Coasts Ryukyu Is, mainland China, Taiwan, S to Indonesia, E to Solomon Is, New Caledonia	Pacific Ocean S to Australia	East Asian-Australasian Flyway	Sometimes ascribed to bangsi.	2004	2007	44,000	44,000	Census based	No information available for a new assessment; previous estimate (Wetlands International, 2012).	1980	2015	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994). Information from JP (Ministry of the Environment Japan. 2021) indicates breeding numbers decreasing at some colonies from 1980 to 2015 as per analysis of the Japanese Seabird Colony Database, but additional surveys needed. Trend across rest of range unknown.	440	110	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.; Ministry of the Environment Japan. 2021. Monitoring site 1000 & Small Island Seabird Surveys 2004-2018 Summary Report. Ministry of the Environment, Natural Environment Bureau, Biodiversity Center, Japan.	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3253/1190
1198	3038	Laridae	Sterna dougallii	Roseate Tern	LC	gracilis, S Asia	Sri Lanka Andaman Is, SW Myanmar	Indian & Pacific Oceans	Indo-Malay	Sometimes ascribed to korustes.	1994	1994	1	10,000	Best guess	No information available for a new assessment; previous estimate by Rose and Scott (1994).	2012	2021	Unknown	No idea	No population trend estimate exists (Rose and Scott, 1994).	100	25	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	http://wpp.wetlands.org/explore/3253/1198
1199	3038	Laridae	Sterna dougallii	Roseate Tern	LC	gracilis, Australia & Moluccas Is	Australia & Moluccas Is	Indian & Pacific Oceans	Australasia		2004	2011	90,000	90,000	Expert opinion	No information available for a new assessment; previous estimate (Wetlands International, 2012).	2012	2021	Unknown	No idea	No population trend estimate exists (Rose and Scott, 1994).	900	230	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3253/1199
1200	3039	Laridae	Sterna striata	White-fronted Tern	NT	striata	New Zealand	SE Australia S Queensland-Tasmania-S Australia	Australasia	In WPE2 this population belonged to one single population (New Zealand & Is/SE Australia).	2016	2016	7,500	30,000	Census based	Revised from previous estimate of (del Hoyo et al. 1996) and separation of subspecies. Latest estimate from Robertson et al. (2017) of 5,000-20,000 mature individuals or 7,500-30,000 individuals.	1996	2016	DEC	Good	In NZ the population has declined at a rate approaching 30% in three generations (Robertson et al 2017).	150	40	Robertson, H.A., Baird, K., Dowding, J.E., Elliott, G.P., Hitchmough, R.A., Miskelly, C.M., McArthur, N., O'Donnell, C.F.J., Sagar, P.M., Scofield, R.P. and Taylor, G.A. (2017) Conservation status of New Zealand birds, 2016. New Zealand Threat Classification Series 19. Department of Conservation, Wellington; Woehler EJ, Baker GB, Garnett ST (2021) New Zealand Antarctic Tern Sterna vittata bethunei. In The Action Plan for Australian Birds 2020. (Eds ST Garnett and GB Baker) pp. 334–336. CSIRO Publishing, Melbourne.	del Hoyo, J., Elliot, A. and Sargatal, J. (eds). 1996. Handbook of the Birds of the World. Volume 3: Hoatzin to Auks. Lynx Edicions, Barcelona.; Robertson, H.A., Baird, K., Dowding, J.E., Elliott, G.P., Hitchmough, R.A., Miskelly, C.M., McArthur, N., O'Donnell, C.F.J., Sagar, P.M., Scofield, R.P. and Taylor, G.A. (2017) Conservation status of New Zealand birds, 2016. New Zealand Threat Classification Series 19. Department of Conservation, Wellington	http://wpp.wetlands.org/explore/3254/1200
1204	3040	Laridae	Sterna sumatrana	Black-naped Tern	LC	sumatrana	NE Indian Ocean, Malaysia, Indonesia, Philippines, S mainland China, Taiwan, S Japan S to N & E Australia, SW Pacific Is	NE Indian Ocean, Malaysia, Indonesia, Philippines, S to N & E Australia, SW Pacific Is	Indo-Malay		1994	2021	-1	-1	No estimate	No population size estimate exists (Rose and Scott, 1994). Information inadequate to develop an estimate for this very widespread and poorly studied population.	2012	2021	Unknown	No idea	No information available for a new assessment; previous estimate from 1994 (Rose and Scott, 1994). In JP (Ministry of the Environment Japan. 2021) breeding numbers have decreased from 1980 to 2015 as per analysis of the Japanese Seabird Colony Database. Trend across rest of range unknown.	-1	-1	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.; Ministry of the Environment Japan. 2021. Monitoring site 1000 & Small Island Seabird Surveys 2004-2018 Summary Report. Ministry of the Environment, Natural Environment Bureau, Biodiversity Center, Japan.	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	http://wpp.wetlands.org/explore/3255/1204
1209	3042	Laridae	Sterna hirundo	Common Tern	LC	longipennis	NE Siberia S to NE China	SE Asia to Australia	East Asian-Australasian Flyway		1993	2006	30,000	70,000	Best guess	No information available for a new assessment; previous estimate (Wetlands International, 2012).	2012	2021	Unknown	No idea	No population trend estimate exists (Rose and Scott, 1994).	460	110	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3257/1209
1218	3042	Laridae	Sterna hirundo	Common Tern	LC	tibetana	Mountains W Mongolia S to Kashmir, Tibet, Sichuan	Mostly E Indian Ocean	Central Asian Flyway	Breeds in NW Sri Lanka, ssp unknown (Siriwardena, D. & Warakagoda, U.in litt. 2005.).	1987	1991	10,000	100,000	Best guess		2012	2021	Unknown	No idea	No population trend estimate exists (Rose and Scott, 1994).	1,000	250	Rose, P.M. and Scott, D.A. 1994. Waterfowl Population Estimates. IWRB Publication 29. Slimbridge, UK.	Perennou, C.P., Mundkur, T. and Scott, D.A. 1994. The Asian Waterfowl Census 1987-1991: distribution and status of Asian waterfowl. IWRB Spec. Publ. No. 24. AWB Spec. Publ. No. 86. Slimbridge, UK and Kuala Lumpur, Malaysia.	http://wpp.wetlands.org/explore/3257/1218
1220	3044	Laridae	Sterna paradisaea	Arctic Tern	LC	NW N America & E Russia (bre)	Alaska, Canada, NW USA, E Russia	Antarctic Ocean	Central Pacific Flyway	In WPE2 this population belonged to one single population (Arctic (bre)/S Oceans (win)).	2012	2015	500,000	1,000,001	Best guess	A preliminary minimum and maximum number is proposed in the absence of comprehensive estimates of the breeding population in Alaska & N Canada. In Alaska, there may be several hundred thousand birds breeding most nesting inland (Hatch et al, 2020) with smaller numbers breeding on the coast and islands. Little information on the breeding population in RU; up to 3,000 individuals from Far East RU based on old information (Kondratyev et al. 2000).	2002	2015	DEC	Poor	There is no ongoing monitoring across the breeding range in RU, Alaska and CN that provides information on the trend of the whole population. However, the population on the north slope of Alaska has declined in the recent ten year period between 2002-2015 (Amundson et al. 2019) as well as in the Canadian High Arctic between 2002-2013 (Maftei et al, 2015).	20,000	20,000	Amundson, C. L., P. L. Flint, R. A. Stehn, R. M. Platte, H. M. Wilson, W. W. Larned and J. B. Fischer. 2019. Spatio-temporal population change of Arctic-breeding waterbirds on the Arctic Coastal Plain of Alaska. Avian Conservation and Ecology 14(1):18. https://doi.org/10.5751/ACE-01383-140118; Maftei, M., Davis, S. E. & Mallory, M. L. 2015. Assessing regional populations of ground-nesting marine birds in the Canadian High Arctic. Polar Research 34. https://doi.org/10.3402/polar.v34.25055	Kondratyev, A. Y., Litvinenko, N. M. , Shibaev, Y. V. & Vyatkin, P. S. (2000). The breeding seabirds of the Russian Far East. In Seabirds of the Russian Far East (A. Y. Kondratyev, N. M. Litvinenko, & G. W. Kaiser, Editors), Canadian Wildlife Service, Ottawa, ON, Canada. pp. 37-78; Hatch, J. J., Gochfeld M., Burger J., & Garcia E. F. J., (2020). Arctic Tern (Sterna paradisaea), version 1.0. In Birds of the World (S. M. Billerman, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.arcter.01	http://wpp.wetlands.org/explore/3258/1220
1256	3049	Laridae	Sterna acuticauda	Black-bellied Tern	EN	S & SE Asia	Pakistan, India, Nepal, E to SW China, S to S Vietnam		Indo-Malay		2005	2005	10,000	25,000	Best guess	No information available for a new assessment; previous estimate from 2002 (Wetlands International, 2002). Declines/possible extinction in LA & KH (BirdLife International, 2021) with great decline in MM (Zockler, et al., 2020, BirdLife International, 2021).	2012	2020	DEC	Reasonable	Declines/possible extinctions in LA & KH (BirdLife International, 2021) with great decline in MM in last decade (Zockler, et al., 2020, BirdLife International, 2021). Not adequately reported during the IWC to assess a trend.	250	65	BirdLife International 2021 website; Zöckler, C., Lwin, N. Tun, T.Z, Pfützke, S., Momberg, F., Van Der Ven, F. & Delany, S. (2020) Surveys of riverine birds along the Ayeyarwady River in 2017–2019 and conservation implications. Forktail. 36: 1–15.	Wetlands International. (2002) Waterbird Population Estimates - Third Edition. Wetlands International Global Series No 12. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3271/1256
1171	3051	Laridae	Thalasseus bengalensis	Lesser Crested Tern	LC	torresii	Sulawesi to New Guinea & N, NE Australia	SW Pacific Ocean	East Asian-Australasian Flyway		1995	1995	25,000	100,000	Best guess	No information available for a new assessment; previous estimate (Wetlands International, 2012).	2012	2017	DEC	Poor	In AU a medium term trend (1997 to 2017) increasing, but short-term downward trajectory for 2012-2017 (Clemens et al., 2019). Trend across rest of range unknown.	1,000	250		Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3249/1171
1181	3052	Laridae	Thalasseus bernsteini	Chinese Crested Tern	CR	E China (bre)	Poorly known; E China coast	Taiwan & S mainland China to Indonesia & Philippines	East Asian-Australasian Flyway		2016	2019	100	150	Expert opinion	The population is increasing and spreading to new breeding locations since its rediscovery in the Matsu Islands in TW in 2000 (Liang et al., 2000), in CN in 2004 (Chen et al., 2005) and most recently in KR in 2016 (Sung et al 2017). In Matsu Islands, numbers have varied with 16 breeding adults in 2016 (Hung et al., 2018), 77 breeding adults on Tiedun Dao and Yaqueshan colony sites in 2016 (Lu et al., 2020), together estimated as 140 individuals; in addition to 5 individuals were recorded at a colony in KR in 2016 (Sung et al 2017). Based on counts of adults at all colonies between 2015-2018, an updated estimate of between 100-150 is proposed by (Lu et al, 2020).	2012	2018	INC	Reasonable	Increase reported at breeding colonies in CN, TW & KR (Lu et al., 2020), see notes on population size estimates.	1	1	Lu, Y., Roby, DD, Fan, Z, Chan, S., Lyons, D.E., Hong, CH, Wang, S., Yang, J., Zhou, X., Chen, D., Yuan, H.W. and Chen, S. (2020). Creating a conservation network: Restoration of the critically endangered Chinese crested tern using social attraction. Biological Conservation 248: https://doi.org/10.1016/j.biocon.2020.108694	Song, S.K., Lee, S.W., Lee, Y.K., Lee, S.Y., Kim, C.H., Choi, S.S., Shin, H.C., Park, J.Y., Lee, J.H., Kim, W.Y., 2017. First report and breeding record of the Chinese crested tern Thalasseus bernsteini on the Korean peninsula. Journal of Asia-Pacific Biodiversity 10: 250–253.; Chen S.H., Yan C.W., Fan Z.Y., Chen C.S. and Zhang F.G. (2005) The Breeding Colony of Chinese Crested Tern at Jiushan Archipelago in Zhejiang. Chinese Journal of Zoology 40(1): 96-97 (in Chinese).; Lu, Yiwei et al. (2020). Creating a conservation network: Restoration of the critically endangered Chinese crested tern using social attraction. Biological Conservation 248: 108694; Liang, C.T., Chang S.H. and Fang W.H. (2000) Discovery of a breeding colony of Chinese Crested Terns. Oriental Bird Club Bull. 32:1819.; Lu, Y., Roby, DD, Fan, Z, Chan, S., Lyons, D.E., Hong, CH, Wang, S., Yang, J., Zhou, X., Chen, D., Yuan, H.W. and Chen, S. (2020). Creating a conservation network: Restoration of the critically endangered Chinese crested tern using social attraction. Biological Conservation 248: https://doi.org/10.1016/j.biocon.2020.108694; Hung, C.H., Chang, L.N., Chiang, K.K., Yuan, H.W., 2019. Trends in numbers of the critically endangered Chinese crested tern Thalasseus bernsteini and sympatrically nesting greater crested Tern T. bergii in the Matsu archipelago, Taiwan. Bird Conservation International 29, 386–399. https://doi.org/10.1017/S0959270918000369.	http://wpp.wetlands.org/explore/3251/1181
1178	3056	Laridae	Thalasseus bergii	Greater Crested Tern	LC	cristatus	Japan, Taiwan, E mainland China, Indonesia - Philippines, E Australia, SW Pacific Is		East Asian-Australasian Flyway		1995	1995	100,000	1,000,000	Best guess	No information available for a new assessment; previous estimate (Wetlands International, 2012).	2012	2017	INC	Poor	In AU Long-term trend (1983-2017) declining, medium term (1997 to 2017) declining, short -term trajectory 2012 to 2017 up (Clemens et al., 2019). Trend across rest of range unknown.	10,000	2,500	Clemens R, Driessen J, Ehmke G (2019) 'Australian Bird Index Phase 2 – Developing Waterbird Indices for National Reporting'. Report to the Department of the Environment and Energy, Canberra.	Wetlands International. (2012) Waterbird Population Estimates – Fifth Edition. Wetlands International. Wageningen, The Netherlands.	http://wpp.wetlands.org/explore/3250/1178