

Population trends for coastal migratory Waterbirds in the East Atlantic Flyway: A new initiative for monitoring in coastal West Africa



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At least 12 million waterbirds use the East-Atlantic Flyway and migrate yearly between the Arctic, Europe and Africa. The majority of these birds rely for their survival on a limited number of key sites in coastal areas, such as the Wadden Sea in Europe and the Banc d'Arguin and Archipelago dos Bijagós in West-Africa. The pressure on these sites – and therefore on the birds – is increasing. Reliable population estimates and trends are needed to guide conservation action, both at the site level and for the flyway as a whole.

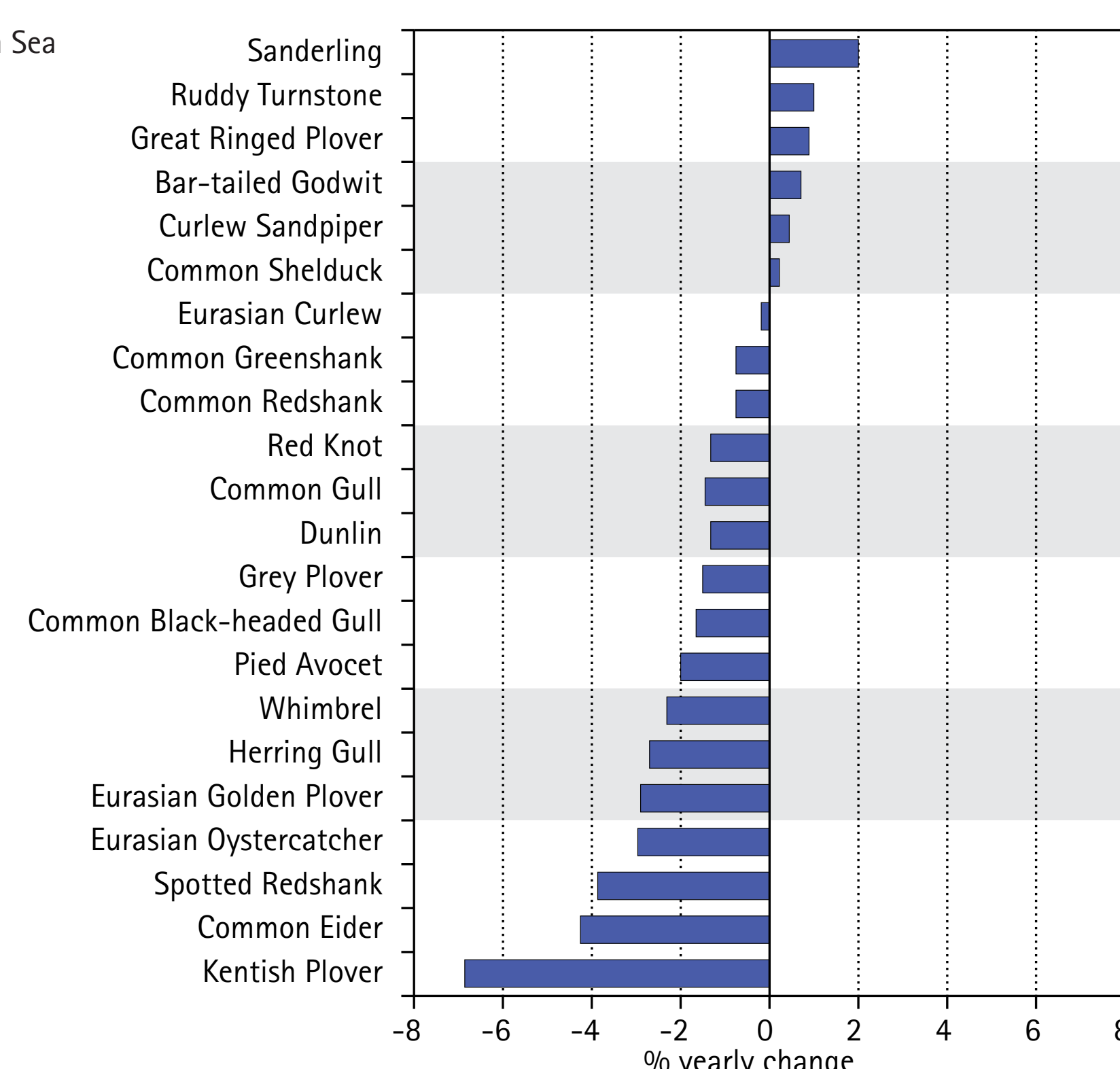
As part of a broader initiative to strengthen the conservation of migratory waterbirds, the Wadden Sea Flyway Initiative (in the framework of Wadden Sea World Heritage activities) and the Conservation of Migratory Birds project (BirdLife International and Wetlands International) are improving the monitoring of waterbirds in especially the coastal zone of West-Africa.



Fig.: East-Atlantic Flyway

Many key species in decline

Fig.: Trends in the Wadden Sea



The results of long-term monitoring in the Wadden Sea indicate a strong decline in 70% of the populations of migratory waterbirds depending on tidal mudflats. It is not clear to what extent these declines are related to specific conditions in the Wadden Sea or are caused by conditions in other parts of the flyway.

Current monitoring not enough

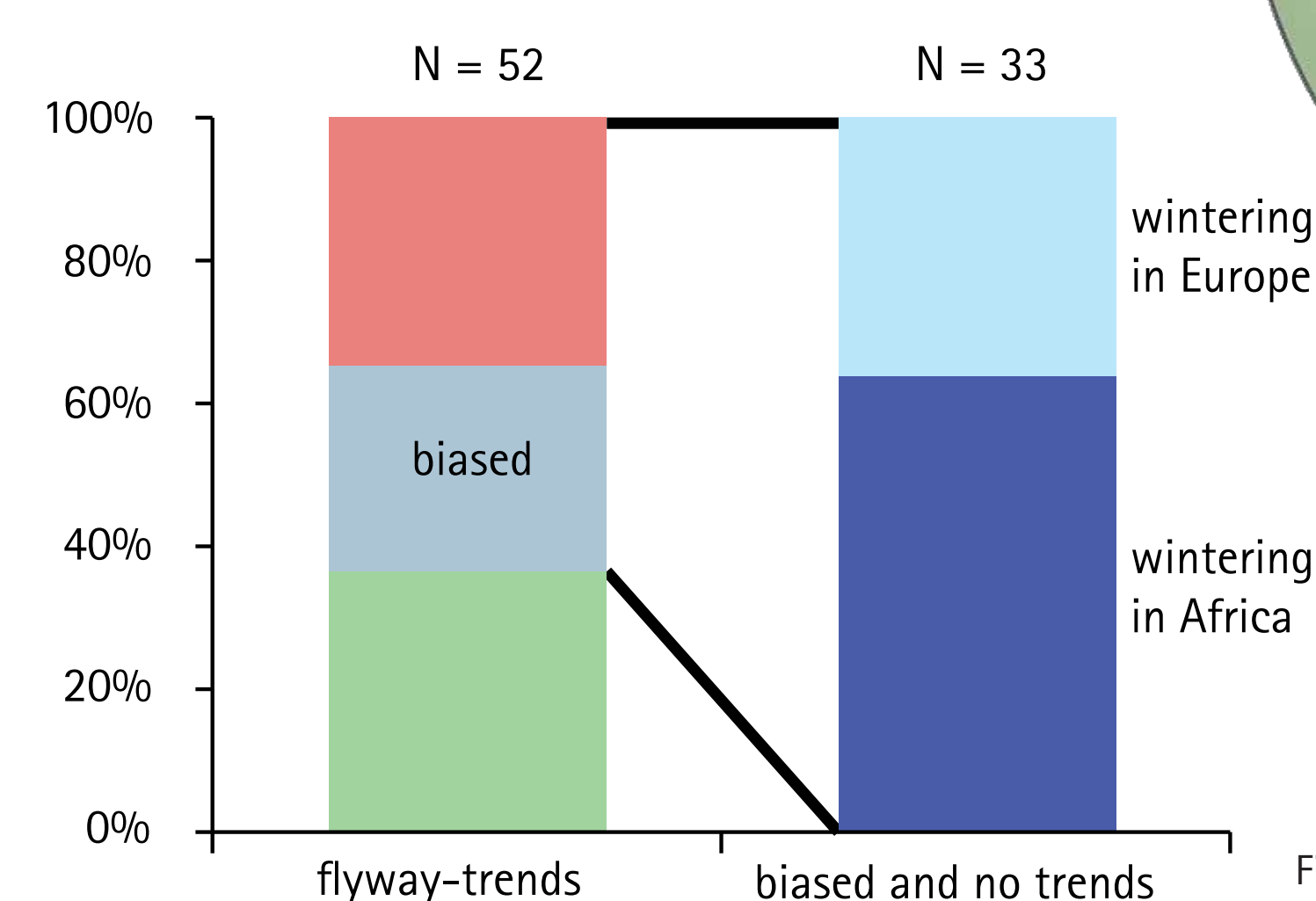


Fig.: Availability of flyway trends

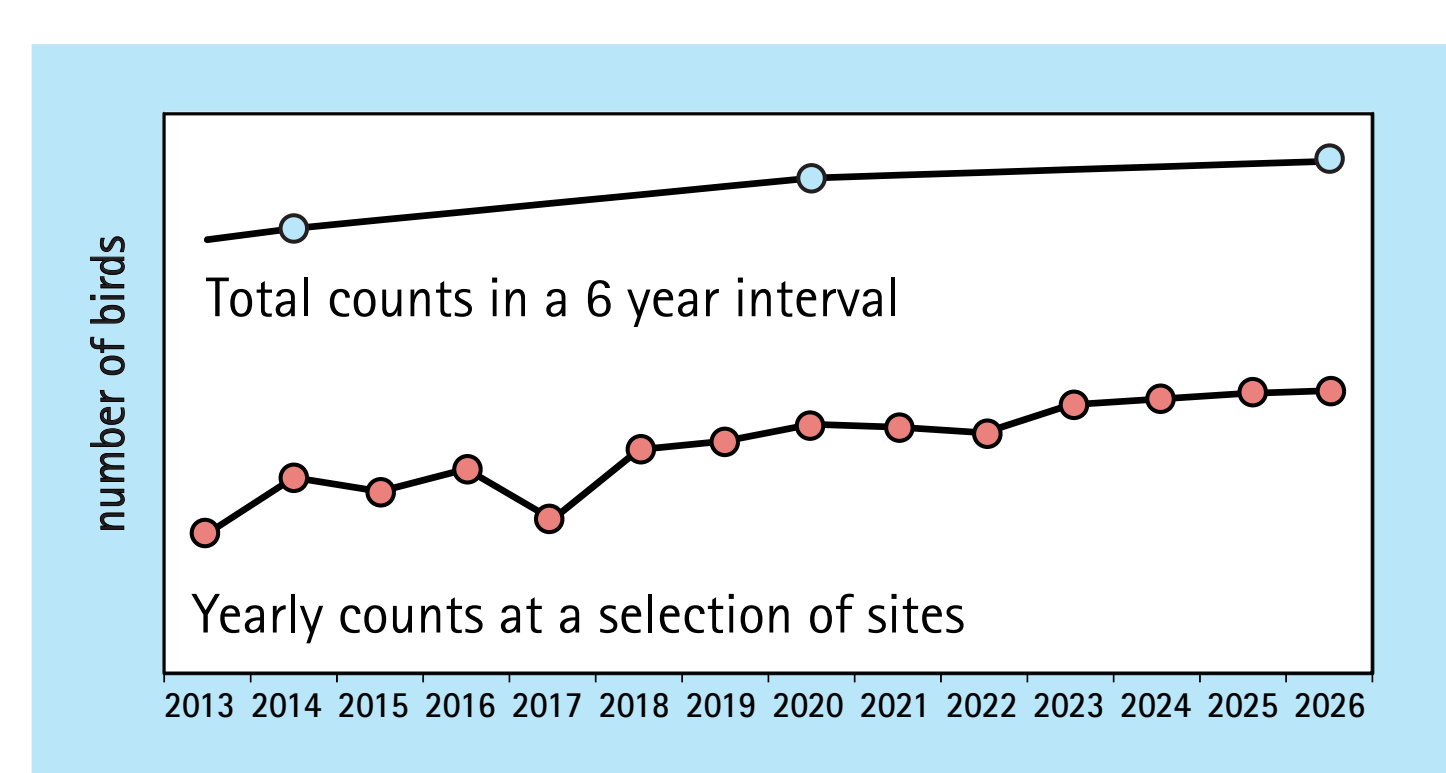
Monitoring data from the whole flyway is needed for targeted conservation action. In the Wadden Sea migratory birds are subject of monitoring since the 1980's. Despite this long-term effort good flyway trends are only available for 35% of the 52 migratory waterbird populations for which the Wadden Sea is a major stopover and/or wintering site. Increased monitoring in especially West-Africa would greatly improve the quality of flyway population estimates and trends. A further improvement is to collect data on reproduction and survival. These drivers of population change and its interactions with pressures and other environmental factors will increase our understanding of what the most important bottlenecks are for populations.

Wadden Sea Flyway Initiative & Conservation of Migratory Birds (CMB) project

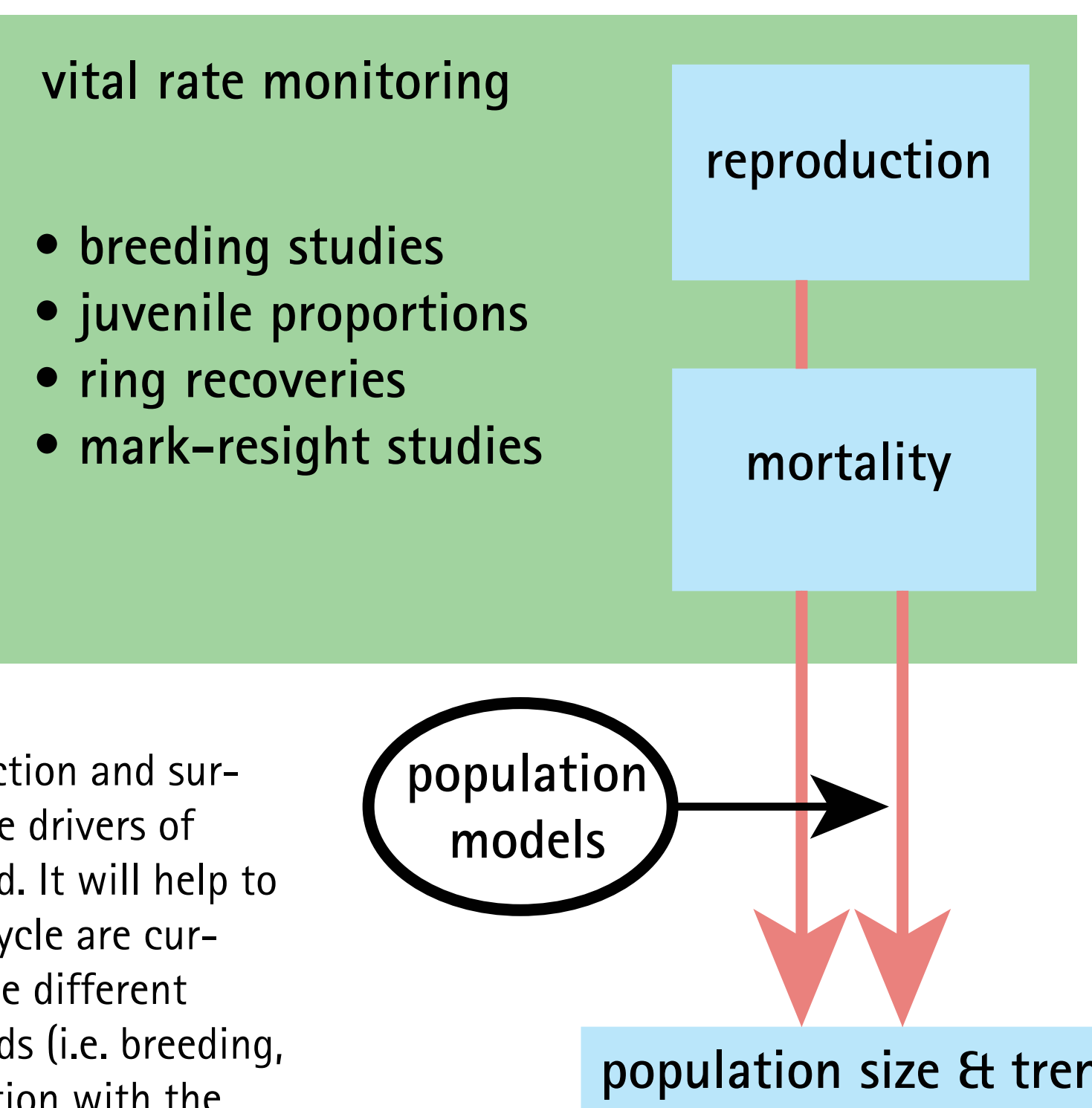
Monitoring Strategy in Coastal West-Africa

Fig.: Hypothetical trends based on yearly counts at a selection of sites and once in 6 year total count

A monitoring strategy for coastal West Africa has been developed. It consists of yearly counts at a selection of sites and a more or less total count of all key sites once in six years. Counting in January has the first priority followed by July and other months enabling the inclusion of the data in the International Waterbird Census of Wetlands International. The combination of these counts will enable the monitoring of abundance trends and estimation of population sizes on flyway and site level. Both government and NGO's of the countries along the coast of West-Africa will be organizing and carrying out these counts. During the total counts also monitoring experts from other parts of the flyway will be involved. The counts of a selection of sites will start in January 2013, the first total count under this initiative will be organized in January 2014.



Wide range of activities to measure reproduction and survival

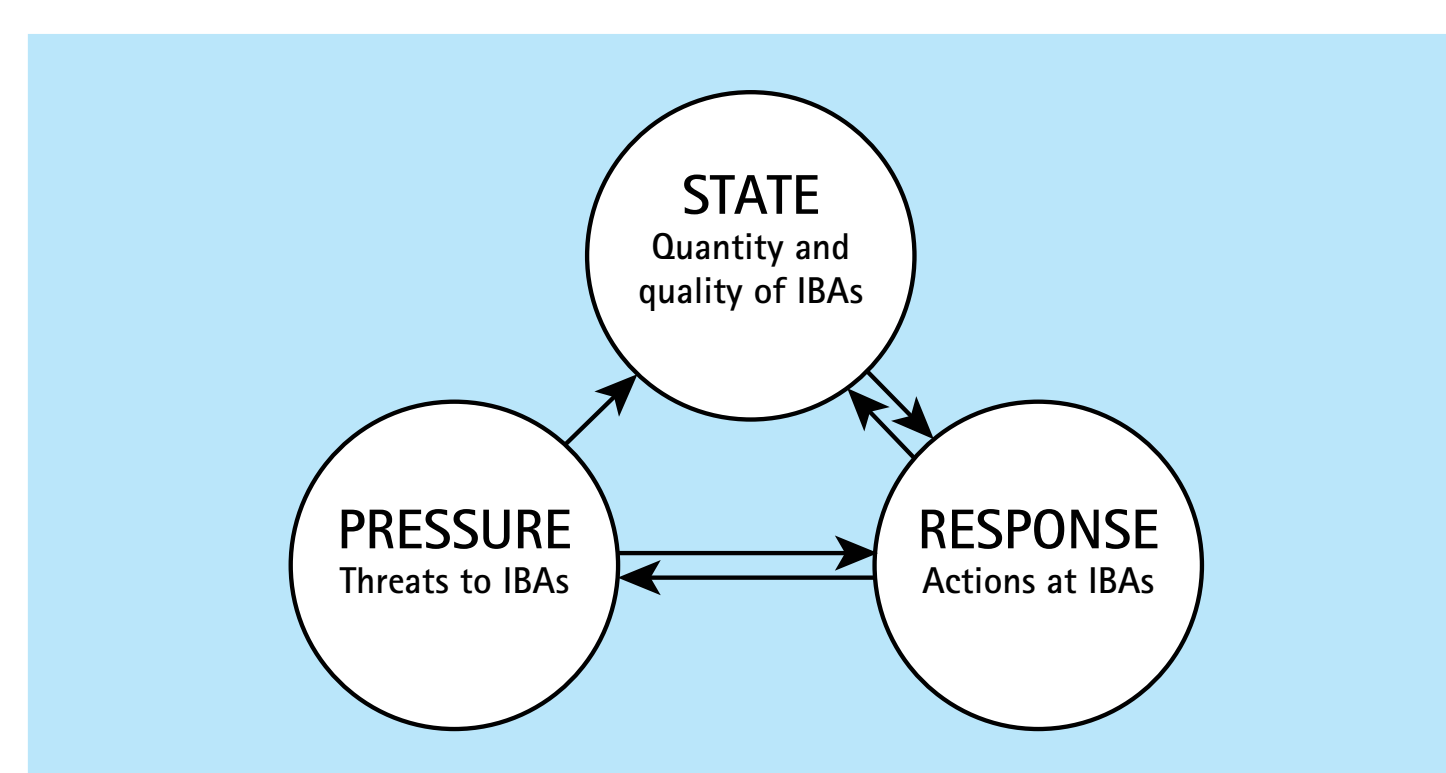


By studying the trends in reproduction and survival (mortality) for key species the drivers of population trends can be identified. It will help to find out which stages of the life cycle are currently the most problematic for the different populations of migratory waterbirds (i.e. breeding, migration, wintering). In combination with the registration of pressures and environmental factors, this will help to identify the causes of population trends and distinguish between natural and human induced causes. Many research groups along the flyway are studying specific populations. They apply a wide scale of methods to survey population dynamics, ranging from counts to assess the proportion of juveniles in the population to schemes to assess survival through mark-resight studies. The current initiative aims to bring together all research projects to ensure that the results are widely shared and their implications applied to conservation and management. In addition, new research activities will be stimulated of both professional researchers as citizen scientists.

Monitoring pressure and response

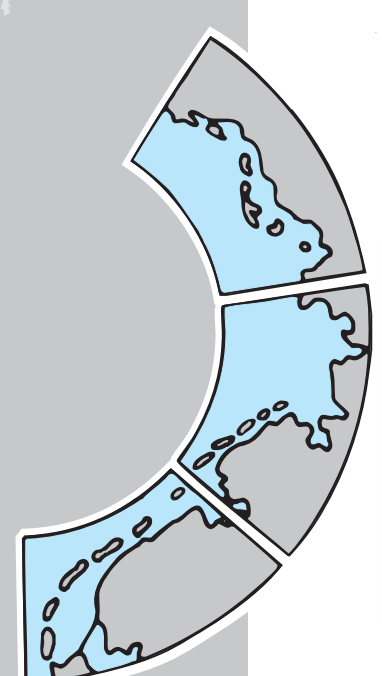
Fig.: IBA monitoring

While monitoring traditionally focuses on individuals per species, it is also important that information is collected on the threats that sites (or birds) are exposed to. In addition, it is important to know whether appropriate conservation actions are in place to counter these threats. These indicators allow a better understanding of the causes of detected population trends and are instrumental to designing appropriate conservation strategies. The monitoring methodology of status, pressure and response developed by BirdLife International (2006) will be used in the monitoring in West-Africa, and elsewhere along the flyway.



Collaboration is needed

A large scale initiative as this needs a lot of collaboration. The monitoring is initially organized in Mauritania, Senegal, Gambia, Guinea-Bissau, Guinea, Sierra Leone and Cape Verde. But we hope that other countries along the Atlantic coast of Africa will join as well. The ambition is to stimulate a truly East-Atlantic Flyway-scale cooperation waterbird monitoring. Everyone interested in more information about this exciting initiative can contact us at the addresses below.



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