

## Birds provide unique information for assessing global biodiversity trends

Are we on track to achieve the target endorsed by the World Summit on Sustainable Development (WSSD) for reducing the rate of biodiversity loss by 2010, or the Millennium Development Goal (MDG 7) of ensuring environmental sustainability by 2015? It is difficult to tell. We have no global system for monitoring biodiversity, and setting one up involves many challenges.

Such a system will have to rely on sampling, since measuring everything everywhere is unfeasible. Bird populations are relatively easy to monitor, and a global network of birdwatchers and ornithologists continues to provide a huge amount of information about birds. Birds can thus make a major contribution to a global monitoring scheme.

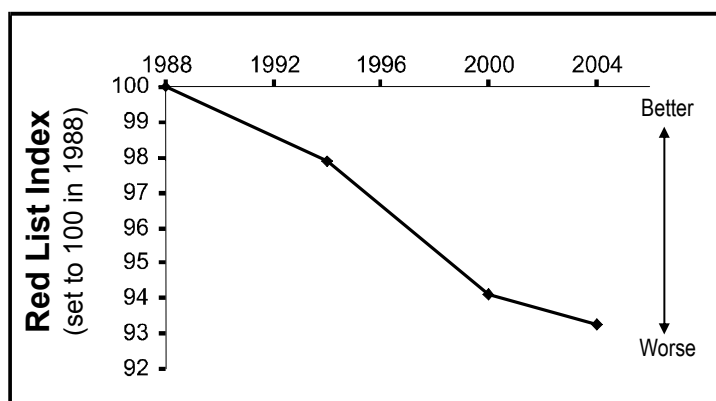
A suite of relevant bird indicators is now taking shape. BirdLife's indicator and monitoring framework encompasses Globally Threatened Birds, Important Bird Areas (IBAs) and representative common bird species.

### The Red List Index for birds

BirdLife and the other partners in the Red List Consortium have developed Red List Indices based on the IUCN Red List (the most authoritative and objective system for classifying species in terms of their risk of extinction). The Red List Index (RLI) illustrates the relative rate at which species in a particular group change in overall threat status (i.e. projected relative extinction risk), as quantified by Red List categories, over periods of around five years. The RLI for birds is the first to be published.

**Relevance:** The Convention on Biological Diversity (CBD) 2010 target indicator, 'Change in status of threatened species'.

**Methods:** The RLI can be calculated for any representative group of species that has been fully assessed at least twice. It is based on the number of species in each Red List category, and the number changing categories between assessments as a result of genuine improvement or deterioration in status. The RLI shows a fairly coarse level of resolution, compared to population-based indices, but it is uniquely representative, being based on information from all species in a taxonomic group worldwide.



*Red List Index for birds, 1988–2004*

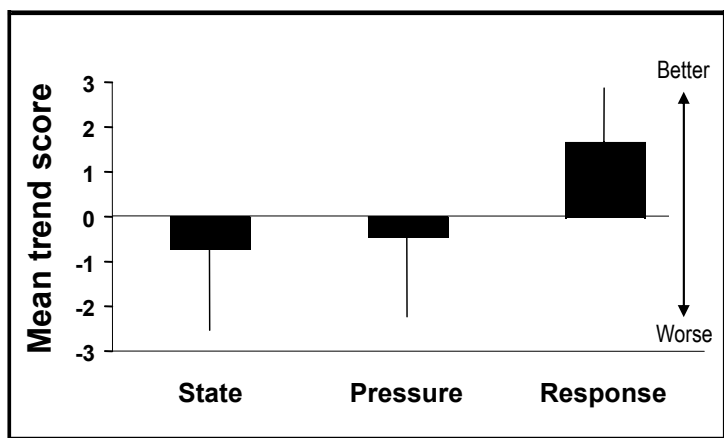
**Results:** The RLI for the world's birds shows that their threat status has deteriorated steadily during 1988–2004. Disaggregated RLIs show that the threat status of birds in the Indomalayan realm has deteriorated particularly severely during the 1990s, a consequence of the recent rapid intensification of forest loss in the Sundaic lowlands. The RLI for albatrosses and petrels highlights the rapid deterioration of this group owing to expanding commercial long-line fisheries.

### Important Bird Area Indices

Important Bird Areas (IBAs) form a global network of sites crucial for maintaining species' overall ranges and populations. IBAs are a major part of the larger network of key biodiversity areas – the most important sites for biodiversity conservation worldwide. BirdLife is developing indices to show trends in measures of state, pressure and response at IBAs around the world. This will allow coverage and effectiveness of Protected Areas to be assessed against the priority set of target sites.

**Relevance:** CBD 2010 target indicators, 'Coverage of protected areas', also 'Trends in extent of selected biomes, ecosystems and habitats', 'Trends in abundance and distribution of selected species', 'Area under sustainable management'. MDG indicator 26 'Land area protected to maintain biological diversity'.

**Methods:** BirdLife's IBA monitoring framework uses a two-tier system to obtain both breadth (coverage of the entire IBA network) and depth (more intensive effort at a sample of sites). Basic IBA monitoring involves regular assessment, usually once per year, of every IBA against indicators of state, pressure and response. The data required are simple and mainly qualitative. They can be collected on site by management authority staff, Site Support Groups (SSGs), members of the BirdLife Partner or other volunteers. Remotely sensed data can also be used. Data are compiled and assessed to give an overall rating for each site. Detailed IBA monitoring takes place at a sub-set of priority sites, where capacity permits. The monitoring design varies but is tightly linked to site conservation objectives.



Important Bird Areas in Kenya, 1999–2003 (n=51)

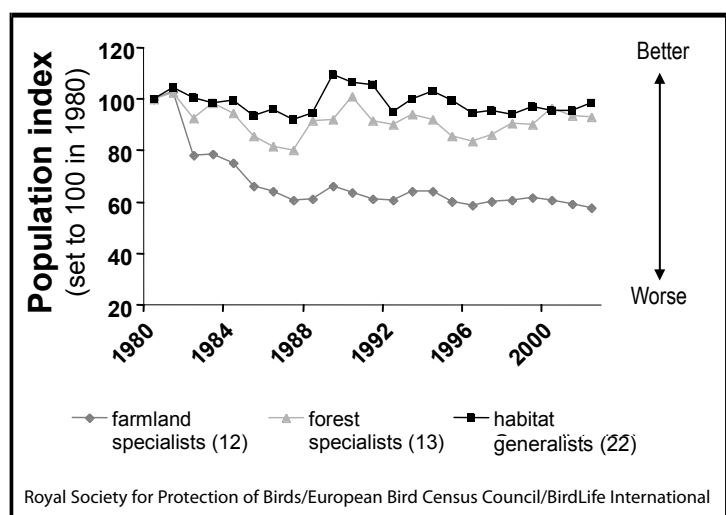
**Results:** The IBA monitoring framework is being implemented by the BirdLife Partnership in Africa and Europe, with plans to expand globally. A pilot project in Kenya shows that overall the condition of the country's IBAs has continued to decline (despite improvements at some sites) since the IBA directory was published in 1999. Overall pressures have also increased. However, there has been a substantial stepping up of the conservation response, which may show a positive impact on state and pressure in the future.

## Bird Population Indices

Bird populations are a good indicator of overall environmental sustainability. The Royal Society for the Protection of Birds (RSPB), BirdLife International and the European Bird Census Council (EBCC) have developed a biodiversity indicator based on the population trends of representative species of 'common' (not globally threatened) birds.

**Relevance:** CBD 2010 target indicators, 'Trends in abundance and distribution of selected species', 'Area under sustainable management'; MDG Goal 7 'Ensure environmental sustainability'; EU Lisbon and Gothenburg processes.

**Methods:** Trends are derived from annually operated national breeding bird surveys spanning different periods (currently from 18 European countries), obtained through the Pan-European Common Bird Monitoring Scheme. This scheme collates national data in a harmonised way from a European network of ornithologists.



Common bird indicators in Europe, 1980–2002

**Results:** On average, populations of generalist birds in Europe have remained stable over the last 20 years, with fluctuations in response to winter conditions. Common specialist birds of forest have declined a little. Populations of farmland birds, however, have declined sharply, especially in the 1980s, and the downward trend continues though more slowly. This reflects deterioration in farmland habitat quality, affecting both birds and other elements of biodiversity.

The BirdLife Partnership is also developing innovative citizen science approaches, such as the web-based 'Project Kagu', to allow expansion of wild bird indicators worldwide.

These three indicators will provide a set of global biodiversity indicators which can sit beside other robust indicators of economic and social progress to help ensure sustainable development.

BirdLife International is a partnership of people for birds and the environment. Together we are the leading authority on the status of birds and their habitats. Over ten million people support the BirdLife Partnership of national non-governmental conservation organisations and local networks. Partners work together on shared priorities, programmes, and policies, learning from each other to achieve real conservation results. The BirdLife Partnership promotes sustainable living as a means of conserving birds and other forms of biodiversity. For further information on BirdLife's work on indicators please contact: Melanie Heath, BirdLife International, Wellbrook Court, Girton Road, Cambridge CB3 0NA, UK. Tel: +44 (0) 1223 277318. Fax +44 (0) 1223 277200. Email [birdlife@birdlife.org](mailto:birdlife@birdlife.org) Internet: [www.birdlife.org](http://www.birdlife.org)