

Species are becoming more threatened

The Red List Index for birds shows that the world's birds have become more threatened since 1988, with more species slipping closer to extinction. Seabirds and Asian forest birds have shown particularly severe declines. We cannot yet determine global trends for other groups of organisms in this way, but similar declines are expected.

Birds provide unique information for assessing global biodiversity trends

The threat status of all of the world's birds has been comprehensively assessed four times between 1988 and 2004, using the categories and criteria of the IUCN Red List (see pp.14–15). By examining the number of species moving between Red List categories as a result of genuine improvement or deterioration, it has been possible to develop Red List Indices which quantify the overall change in threat status of the world's birds over the last 16 years (see **box 1**). This information is unique: for no other group of organisms can we yet chart global trends in this way.



p. 16: Blue-throated Macaw © JOE TOBIAS
Negros Bleeding-heart © EBERHARD CURIO/PESCP
p. 17: Houbara Bustard © NATIONAL AVIAN RESEARCH CENTER
Black-browed Albatross © RICHARD THOMAS/BIRDLIFE



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1 The world's birds are getting more threatened

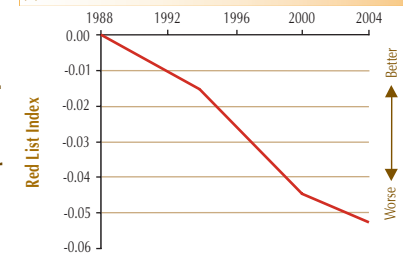
The Red List Index for birds shows that there has been a steady and continuing deterioration in the threat status of the world's birds, as measured by their IUCN Red List category, between 1988 (when the first comprehensive global assessment was carried out for IUCN by BirdLife International) and 2004 (see figure a)¹⁻⁶. The index is based on the number of species that moved between categories as a result of genuine changes in threat status (it excludes moves resulting from improved knowledge or taxonomic changes). For each assessment, the total number of species in each category is multiplied by a score, increasing stepwise from one for Near Threatened to six for Extinct. The index is then calculated from the proportional change in this value between assessments, with the baseline in 1988 set to zero⁵.

One strength of this index is that it illustrates the overall change in the status of birds in a clear and easily understood fashion, summing together the combined genuine changes in threat status of 60 species during 1988–1994, 146 species during 1994–2000 and 43 species during 2000–2004. It is based on complete assessments of *all* the world's birds (c.10,000 species), not—as with many population-based indices—a potentially biased subset.

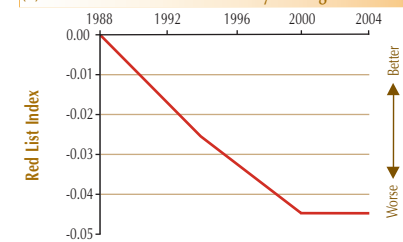
In the Red List Index, shifts between any two adjacent categories count the same. For example, a species moving from Least Concern to Near Threatened contributes as much to the overall index trend as one moving from Endangered to Critically Endangered. The former may represent very significant losses of biodiversity in terms of numbers of individuals, even if the latter represents a greater increase in a species's risk of extinction. However, to illustrate overall trends for the most threatened species, the Red List Index can also be calculated for just the highest categories: Critically Endangered and above (Possibly Extinct, Extinct in the Wild, and Extinct; see figure b). For these species the rate of deterioration appeared to level out during 2000–2004. During this period, two Critically Endangered species became Extinct (or Possibly Extinct) in the Wild, and five Endangered species became Critically Endangered, but this was offset by seven species that improved in status as a result of conservation efforts.

SOURCES 1. Collar & Andrew (1988) *Birds to watch: the ICBP world check-list of threatened birds*. Cambridge, UK: International Council for Bird Preservation. 2. Collar *et al.* (1994) *Birds to watch 2: the world list of threatened birds*. Cambridge, UK: BirdLife International. 3. BirdLife International (2000) *Threatened birds of the world*. Barcelona and Cambridge, UK: Lynx Edicions and BirdLife International. 4. BirdLife International (2004) *Threatened birds of the world 2004*. CD-ROM. Cambridge, UK: BirdLife International. 5. Butchart *et al.* (submitted) Measuring trends in the status of global biodiversity: Red List indicators for birds. 6. Analysis of data held in BirdLife's World Bird Database. **ACKNOWLEDGEMENT** Methodology developed in conjunction with the IUCN Red List programme.

(a) The Red List Index for birds⁵



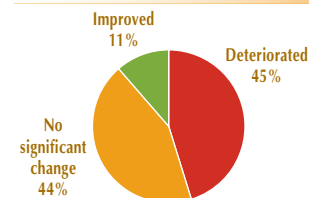
(b) The Red List Index for Critically Endangered birds⁵



2 Most threatened birds are deteriorating in status

The Red List Index measures movement between categories of the IUCN Red List. However, these categories are relatively broad: species often have to undergo fairly significant changes in population size, population trend or range size in order to cross the thresholds between categories. To determine qualitative trends between 2000¹ and 2004 in the status of all Globally Threatened Birds (GTBs), not just those moving between Red List categories, a world-wide network of over 100 experts was consulted. They were asked to judge from their detailed knowledge whether the status of each species had improved, stayed the same, or deteriorated during the period. Assessments were obtained for 72% of GTBs (859 species). Of these, only 11% were judged to have improved in status, 44% had remained the same and 45% had deteriorated in status since 2000 (see figure)². Similar proportions were found for the subset of Critically Endangered species: 14% were judged to have improved in status, 40% had stayed the same, and 46% had deteriorated in status. Of the species for which the experts scored 'unknown' status changes or for which no assessment could be obtained, many were also likely to have been declining. In combination with declining trends shown by the Red List Index, this 'snapshot' survey indicated that threatened birds are in serious trouble, and that the problem is getting worse.

Species experts judge that almost half of GTBs have declined in status during 2000–2004, and only 11% have improved²



SOURCES 1. BirdLife International (2000) *Threatened birds of the world*. Barcelona and Cambridge, UK: Lynx Edicions and BirdLife International. 2. Analysis of data held in BirdLife's World Bird Database. **ACKNOWLEDGEMENT** Status assessments kindly supplied by >100 experts.



characteristic of different habitats how that, at a global level, birds in all major natural habitats are suffering (**box 4**). Comparisons of different species-groups highlight the particularly dramatic declines in the threat status of seabirds, linked with the recent expansion of commercial longline fisheries (**box 5**) in addition to pressures at nesting colonies. Trends for other groups of organisms cannot yet be quantified in a similar way, but they are likely to mirror the deterioration shown by birds.

Trends in some regions and habitats are of particular concern

Deterioration in the threat status of the world's birds has not occurred evenly across the world. A regional breakdown of the Red List Index shows that Asia's birds have undergone the sharpest declines since 1988. This is largely due to the rapid forest destruction in the lowlands of Borneo and Sumatra through the 1990s (**box 3**). However, Red List Indices for species

Critically Endangered birds, although there has been a recent levelling out in the rate of deterioration (**box 1**, figure b). Species that do not move between categories on the IUCN Red List for genuine reasons (and therefore do not affect the index) are not necessarily stable. For the period 2000–2004, nearly half of threatened species (45% of 859) were judged by species experts to have deteriorated in terms of population or range size (**box 2**).

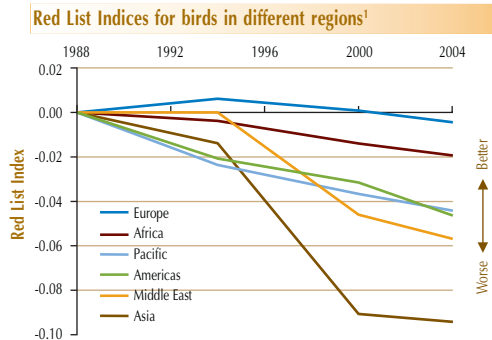
More species are slipping closer to extinction

Despite the conservation efforts of governments and non-governmental organisations across the world, birds as a group are becoming more threatened (see **box 1**, figure a). Some species have improved in status during 1988–2004, but many more have deteriorated. More species are slipping closer to extinction, as shown by the Red List Index for

3 Birds have deteriorated in status faster in some regions than others

The Red List Index for birds (see box 1) can be broken down by region to compare trends in different parts of the world. The results show striking regional variations, with Asia and Europe showing clear differences from the general pattern of steady deterioration (see figure). The index for birds in Asia shows a dramatic decline, particularly between 1994 and 2000. This was a result of the intensifying destruction of forests in the Sundaic lowlands of Indonesia, which escalated particularly in the late 1990s and led to predictions of almost total loss of lowland forest in Sumatra by 2005 and in Kalimantan by 2010 (see p. 37, box 3). Such large-scale habitat loss has obvious implications for the extinction risk of the many bird species that are largely restricted to these forests¹. In Europe there are relatively few Globally Threatened Birds (GTBs), and the minor net improvement in the status of birds during 1988–1994 reflected population increases for just one species (Madeira Laurel Pigeon *Columba trocaz*). More recently, the trend in overall status of European birds has been driven downwards somewhat by declines in several species, such as Balearic Shearwater *Puffinus mauretanicus* and Spanish Imperial Eagle *Aquila adalberti*. The Middle East also has few GTBs, and the steeper deterioration during 1994–2000 reflects declines in just three species: Houbara Bustard *Chlamydotis undulata*, Basra Reed-warbler *Acrocephalus griseldis* and Syrian Serin *Serinus syriacus*. Africa, Pacific and the Americas, each with large numbers of GTBs and hence more robust indices, show broadly similar patterns, although the status of African birds seems to have deteriorated more slowly^{2,3}.

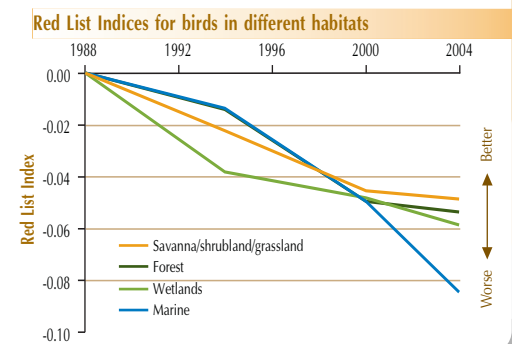
SOURCES 1. BirdLife International (2001) *Threatened birds of Asia: the BirdLife International Red Data Book*. Cambridge, UK: BirdLife International. 2. Butchart *et al.* (submitted) Measuring trends in the status of global biodiversity: Red List indicators for birds. 3. Analysis of data held in BirdLife's World Bird Database. **ACKNOWLEDGEMENT** Methodology developed in conjunction with the IUCN Red List programme.



4 Birds have deteriorated in status across all major habitat types

Most Globally Threatened Birds (GTBs) are restricted to just one or two broad habitat types. The Red List Index for birds (see box 1) can be broken down to show trends for four major habitat types. Species were assigned to each type only if status changes were driven by processes operating in the habitat, and if the habitat is of major or critical importance to the species (i.e. the species typically occurs in no other habitat, or just one other habitat at some point in its life-cycle). The index encompasses trends for 88% of all GTBs. It shows that species characteristic of forest (including a broad range of forest and woodland types), savanna/shrubland/grassland, wetlands and the marine environment have all deteriorated markedly in status since 1988 (see figure)^{1,2}.

SOURCES 1. Butchart *et al.* (submitted) Measuring trends in the status of global biodiversity: Red List indicators for birds. 2. Analysis of data held in BirdLife's World Bird Database. **ACKNOWLEDGEMENT** Methodology developed in conjunction with the IUCN Red List programme.



5 Seabirds have deteriorated dramatically compared to other groups

Some species-groups have been impacted particularly seriously by human activities and have an exceptionally high proportion of species listed as globally threatened (see p. 14, box 1). Breaking down the Red List Index for birds (see box 1) by particular species-groups shows that seabirds have deteriorated particularly severely since the first global assessment of the status of all birds in 1988 (see figure). This is closely linked to the expansion of commercial longline fisheries, which causes incidental mortality of albatrosses and other seabirds (see p. 11, box 3 and p. 43, box 4)^{1,2}.

SOURCES 1. Butchart *et al.* (submitted) Measuring trends in the status of global biodiversity: Red List indicators for birds. 2. Analysis of data held in BirdLife's World Bird Database. **ACKNOWLEDGEMENT** Methodology developed in conjunction with the IUCN Red List programme.

