Asian birds on the brink

N. J. Collar, chief editor of Threatened birds of Asia: the BirdLife International Red Data Book (review p.72) gives some background to the project and reflects on some of the things it reveals.

Since the early 1960s BirdLife International (formerly the International Council for Bird Preservation) has had the formal responsibility, conferred by IUCN—The World Conservation Union, for preparing and publishing the global Red Data Books which identify and document the world’s threatened birds (these then feed into the IUCN Red List, which evaluates all species against numerical criteria for endangerment). In April 1981, when I took up the job of compiler of the bird RDB, ICBP’s Executive Committee had decreed that the work should proceed geographically, beginning with Africa; and after Africa in 1985 it was decided to do the Americas, which took me through until 1992.

This was, of course, deeply unfair to Asia. My most immediate but admittedly token attempt to compensate was to pick what seemed to be Asia’s most threatened species and document it, in the hope that this might help matters. The result was the review paper on Gurney’s Pitta *Pitta gurneyi* in *Forktail* 1: 29-51, written with Phil Round and David Wells, which helped confirm Phil in his long-held suspicion that the mysterious creature was a level-lowland forest dweller. In this sense it did intensify the focus and accelerate the search, resulting as we all now know in the great rediscovery—not a moment too soon—of May 1986, a few weeks before the paper itself appeared. I continue to hold this up as evidence that Red Data Books can make a contribution to species conservation; but sadly the international bird RDB programme is the only one that survives today.

The second and more considered attempt to compensate Asia (and indeed the rest of the still undocumented threatened species of the world) was to write, with Paul Andrew, a stop-gap annotated ‘red list’. This book, *Birds to Watch*, which appeared in early 1988, greatly expanded the number of birds formally listed as at risk in Asia, and gave the still very young Oriental Bird Club a clear focus in its conservation giving and in its reporting of records. Where the late 1970s RDB, compiled by Warren King, had treated a mere 52 Asian species as threatened (18 of them pheasants!), ten years on *Birds to Watch* identified 286, five-and-a-half times as many. (One of the crucial immediate results of this was the establishment of the BirdLife Indonesia Programme, since Indonesia had suddenly leapt to the top of the table of countries with the most threatened birds, a position previously held by Brazil.) In 1994 *Birds to Watch* 2 repeated the analysis, and in 2000—with rather more detail and infinitely more pizzazz—*Threatened Birds of the World* carried the species and categorisations that had been determined by the editors of the then almost complete *Threatened Birds of Asia*.

Nevertheless, the deep review of each Asian threatened species remained a gap that badly needed filling. Detailed documentation greatly increases the confidence with which a team of compilers can determine whether a species is truly threatened or not. The nature of the problem can partly be gauged from Table 1. The figures there clearly suggest that the numbers of species in the region reckoned to be in danger have been stabilising over the past decade, and to a degree this is true, but internally there are still quite a number of adjustments taking place as species exit and enter the lists. Of the strigid owls, for example, 12 were listed in 1994 and nine in 2001, but only six of these are common to the two lists. Moreover, because the passerine totals for 1988 (113) and 2001 (114) are virtually identical, the species involved might also be assumed to be very similar; but in reality the lists are amazingly different, sharing between them as few as 70 species, which is a mere 45% of the 157 (70+43+44) present on both. It is not that the earlier analyses were substandard—rather it is that new descriptions, new taxonomic treatments, new circumstances and new information have combined down the years to create this retrospectively high degree of instability; but above all it has been the patient and exhaustive assembly and evaluation of all the information, from the literature, museum skins and personal witness, that has now, I believe, brought a new level of certainty to the current list.

To cope with species which just failed to qualify as threatened in the Africa RDB, Simon Stuart and I invented the category ‘Near Threatened’, and this has now been formally adopted by the IUCN Red List programme. The
great majority of the species that have, over the years, fallen out of the earlier lists are to be found in this category, which is perhaps further evidence that the earlier evaluations were not so very inaccurate. Threatened Birds of Asia provides paragraphs on 317 such species, and the addition of these and 23 Data Deficient plus one Conservation Department species to the 323 threatened species means that in total no fewer than 664 species of bird in Asia are now considered cause for global conservation concern. This is one quarter of the Asian avifauna. The global totals for threatened, Near Threatened and Data Deficient are 1,186,727 and 79 respectively; and on this basis Asia contains precisely one-third (664/1,992) of all bird species of global conservation concern.

Discounting the 1970s analysis, which obviously under-researched and under-represented the situation in Asia, the proportion of threatened non-passerines in the Asian avifauna has been growing over time (60% in 1988, 61% in 1994, 65% in 2001). This begins to tell us something interesting, because if we look at the situation outside Asia we find there are 421 non-passerines out of a total of 863 bird species, which is fractionally under 50% and far closer to expected, given that non-passerines form 40% of the global avifauna. A reasonable explanation of this is that the larger, more widespread birds (as the ‘non-near-passerines’ in particular tend to be) are significantly more at risk in Asia than elsewhere, a circumstance attributable to two pressures: exploitation, and landscape conversion on such a scale that even relatively well distributed and extensive habitats (particularly lowland forest and both inland and coastal wetlands) are no longer sanctuary to the largest and widest-ranging species. Indeed, perhaps the most telling statistic is that Asia possesses over 60% of globally threatened species with ranges greater than 50,000 km². This to me is a clear message that it simply does not pay to be a large bird in a region which holds over 50% of the world’s human population.

And so it is that we find two pelicans, four herons, five storks, three ibises, one spoonbill, 11 waterfowl and six cranes in the book, representing high proportions of the region’s big, wide-ranging wetland animals. Typically these are species which, in primordial times (by which I mean before man had worked out how to shoot an arrow), must have occurred in enormous numbers, but which have steadily been depleted to their current levels of a few hundreds or a few thousands, both by relentless hunting pressure and by ever-intensifying habitat erosion. We also, for the same reasons, find three large open-country eagles with enormous ranges (Pallas’s Fish-eagle Haliaeetus leucocephalus, Great Spotted Eagle Aquila clanga and Imperial Eagle Aquila imperialis) and the heavyweight Great Bustard Otis tarda, whose world record for the threatened bird with the broadest longitudinal span has proved no guarantee against the ubiquitous iniquities of mankind.

And we even find a suite of extreme lowland tropical forest birds, wide-ranging in the Sundaic region—which extends from southernmost Burma to Java—but most sensitive to habitat disturbance and least capable of surviving on the marginally more secure lower forested slopes: Wallace’s Hawk-eagle Spizaetus owstoni, Black Partridge Melanoperdix nigra, Crestless Fireback Lophura erythrophthalma, Large Green-pigeon Treron capellei, Short-toed Coucal Centropus rectunguis, Sunda Nightjar Caprimulgus concretus and Blue-banded Kingfisher Alcedo euryzona. These species, none of them particularly large, seem to be sharply at risk from the intense fragmentation and isolation of their habitat—and of course it is only in the past few years that we have woken up to the extent of the deforestation crisis in the Sundaic lowlands (see, e.g., ‘7,000 hornbills a day’ in the previous Bulletin’s Chairman’s Letter). By contrast, the (fewer) threatened passerines that share this habitat are almost all confined to either Borneo or Sumatra rather than being spread through most of the biome.

This bias towards non-passerines in what one might call the taxonomy of endangerment is also revealed in the breakdown of species by degree of threat. There are three categories; in order of increasing intensity they are Vulnerable, in which non-passerines outnumber passerines 135 to 82, Endangered, where the proportions are 43 to 22, and Critically Endangered, 31 to 10, so that the non-passerine percentage for each respective category is 62%, 66% and 76%. Again this reinforces the point that the possession of a large body is a liability uncompensated by the possession of a large range.

Range size is, however, a critical element in determining conservation status. Looking again at the list of Critical species it is immediately striking how many of them are confined to relatively small islands: 21 of the 41 are scattered between Okinawa, Amami, Mindoro, Negros, Panay, Cebu, Tawitawi, Sangihe, Siao, Buru,
1 Green Peafowl *Pavo muticus*. Photo: Pete Morris
2 White-winged Duck *Cairina scutulata*. Photo: Pete Morris
3 Straw-headed Bulbul *Pycnonotus zeylanicus*. Photo: Christian Artuso
4 Swinhoe’s Rail *Coturnicops exquisitus*. Photo: Peter Los
5 Siberian Crane *Grus leucogeranus* and Swan Goose *Anser cygnoides*. Photo: Peter Los
6 Spot-billed Pelican *Pelecanus philippensis*. Photo: Tim Loseby
7 Imperial Eagle *Aquila heliaca*. Photo: Tim Loseby
8 Cheer Pheasant *Catreus wallichii*. Photo: Tim Loseby

Boano and Bali, plus Christmas Island and a curious handful of West Sumatran/West Bornean islets; another six are on the wider Philippines, Sumatra, Java and the Lesser Sundas; two are coastal; and 12 are continental (of which no fewer than six are predominantly or exclusively Indian, and two—the White-eyed River-martin *Eurystomus philippinus* and Gurney’s Pitta—are the bafflingly ungraspable jewels in the crown of Thailand). Altogether 183 (57%) of all threatened birds in Asia have ranges of less than 50,000 km², BirdLife's threshold value for identifying the restricted-range species which make up Endemic Bird Areas; but more interestingly as many as 62 of them occupy ranges of as little as 100-5,000 km², with 51 in the range 5,000–20,000 km².
Table 1. The changing status of threatened birds in Asia.

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Birds with what are essentially linear habitats, at least for large parts of their life cycles, represent a significant and increasing problem. Species like the Indian Skimmer Rynchops albicollis, Masked Finfoot Heliopais personata and some of the kingfishers (Blue-banded) which ply up and down rivers, and shore- and seabirds like Chinese Egret Egre1ta eulophotes, Spotted Greenshank Tringa guttifer, Spoon-billed Sandpiper Euuryorhynchus pygmeus and Saunders's Gull Larus saundersi, which forage in relatively narrow littoral areas, may appear on a map to occupy huge areas, but are in reality compressed into miniscule one-dimensional ranges. Human disruption of these ranges—the manifold dams, the fishing disturbance, the massive reclamation of mudflats all down the Chinese seaboard—carries a heavier price for such species than we sometimes recognise.

But the pressures are everywhere. Threatened birds occur in every political unit in Asia, even the Maldives. Habitat loss or degradation affects almost every species to some degree, and it has a strong impact on 191 (59%) of them. Exploitation, whether for trade or for food, affects well over half the species, and has a strong impact on 85 (26%). It makes for a heady mix, especially with the inclusion of less encompassing but locally often very serious problems such as pollution, disturbance and invasive aliens. Small wonder that this two-part but essentially single-volume book—3,000 pages, 1.5 million words, 1,000 data contributors, 7,000 references—is possibly the biggest book ever written on birds, or indeed in the entire sphere of conservation.

The reason for such size is simply this: even more important than facilitating an assessment of the threat status of a species, the detailed assembly and analysis of all the information relevant to its conservation directly helps determine the best possible and most appropriate conservation measures. Time and again you hear of management decisions being taken for species on the basis of utterly inadequate information—predictably resulting in huge wastage of time, money and human resources. Red Data Books exist, at least in part, to diminish the chances of precipitate and ill-considered responses to species crises: they are there to provide the entire constituency of concerned individuals—government officials, NGO workers, academics, members of civil society—for access to the best available evidence. Of course, researchers might be expected to do their own research, but they rarely if ever do, typically lacking the languages or access to the resources or simply the understanding of the value and relevance of any information more than 10 years old. If the team that set off a few years ago to search for the Pink-headed Duck Rhodonessa caryophyllacea on a high-altitude lake in northern Myanmar had simply read all the sources (and certainly if they had had the account assembled in Threatened birds of Asia), they could have saved themselves a lot of money and effort and heartbeat (they found a Mallard Anas platyrhynchos).

The biggest innovation in this new book, and one reason for its size, is the use of maps to illustrate the ranges of the threatened birds. This was a major undertaking by Rudyanto and Mike Crosby (who in their non-BirdLife lives are OBC rep for Indonesia and an OBC Conservation Committee member respectively). So far as I know this is the first time a significant body of species from any class of animal has ever been mapped by virtue of fully referenced point localities. The British Museum's wonderful atlases of speciation in African birds used point localities but did not reference the dots (nor did they go for full coverage of the records). Point-locality maps are the most accurate basis for identifying distributions, since they simply express the known sites of each species (the problem of species mapping was highlit in Bulletin 32: 46-47). Basically, you get a skeleton or a foundation: you know there must be (or must have been) connectivity between the dots, but you don't know exactly what form it takes or took, or what discontinuities exist today—but you do have the best basis for the dangerous business of extrapolation (for just how dangerous, see Bulletin 32: 50-52), and the least misleading body of evidence from which to begin. You also have a chart by which field investigations can be oriented: knowing for certain where a bird was once found is a major incentive to going and looking again.

The maps may not always be very revealing, especially when the range of a species is small, but often they are striking. Moreover, by giving three kinds of dot to convey different time-periods, you can distinguish old from new
records, and the fate of species and populations can more easily be discerned. Thus the retreat of the Indian Skimmer from the eastern sectors of its range is strongly brought home, as is the tenuousness of the Graceful Pitta's *Pitta venusta* hold on life. The map of the Straw-headed Bulbul *Pycnonotus sinensis* evokes more eloquently than the 14 pages of accompanying text the staggering manner in which this remarkable songster has been trapped out of existence in its once-sprawling Indonesian range. The Green Peafowl *Pavo muticus* reveals three roughly north-south population centres which are rather neatly aped by the White-winged Duck *Cairina scutulata*, albeit with a several-degree shift westwards. The mysterious Swinhoe's Rail *Coturnicops exquisitus* presents a weird diaspora of records old and new. The enormous, empty range of the Pink-headed Duck, and the still more enormous and almost as empty range of the Crested Ibis *Nipponia nippon*, set your mind racing. Indeed these maps also offer many real challenges: the unevenness, for example, in the distribution of Bornean lowland forest birds is intriguing—why does the Short-toed Coucal have so many records focused in northern Sarawak and adjacent western Sabah and so few elsewhere, why are records of Large-billed Blue-flycatcher *Cyornis caerulea* all concentrated in the top half of the island, and why are there so few northern records of Black Partridge *Melanoperdix nigra*?

It would be wrong to imply that nothing is being done for the threatened birds of Asia; on the contrary, the RDB is full of details of the good work that is under way at all levels to promote the conservation of species in the region. But there is still so much to do. Back in 1994 we knew that, of the top five countries in the world for numbers of threatened birds, Asia had four (Indonesia, Philippines, China and India). We knew, too, that if you took all the countries in the world and ranked them by number of endemic threatened species in the higher categories of threat (Critically Endangered and Endangered, leaving out Vulnerable) the Philippines came way top of the list. But I like the idea that the Chinese word for crisis is also their word for opportunity, even if it isn't true. It is easy to be depressed by the situation, but you may as well get excited by it instead.

On the formal side of things, BirdLife is developing a *Strategy for threatened birds in Asia* to reinterpret all the detail of the RDB into a clear, simple plan of action. This will be taken forward by the BirdLife Asia Partnership, which commissioned the RDB, but also by the wider BirdLife family, particularly in its policy areas, and through the agendas of other global, national and local conservation organisations and even, with luck and advocacy, some government agencies and donor institutions. (Some of it, of course, is already being taken forward by the Oriental Bird Club, and when the *Strategy* appears there will be further opportunities for OBC engagement.) BirdLife's main conservation tool is its Important Bird Areas Programme, which is directly fed by the Red Data Book and will be greatly advanced by (and itself advance) the *Strategy*. Moreover, BirdLife has launched an Asia Bird Fund to help pay for some of the actions the *Strategy* identifies.

On the informal side, the list of things that birders can do to help is enormous. Our understanding of the distribution, abundance and ecology of so many threatened birds in Asia is still incredibly primitive. Of course birders do a lot just by keeping the wheels of local tourist-geared economies mildly oiled, but for those with the resources (and I appreciate this cannot mean everybody) getting beyond the stake-outs is ever more urgent. Looking for birds in new areas has got to be one of the big things birders can set themselves to do, even if it sometimes causes logistical nightmares. Trying to get a handle on numbers of birds in an area is, admittedly, more fraught because of demands of methodology, but even so birders can always record the number of encounters and the distance between them, log the altitude, make subjective assessments of habitat, watch how birds feed and what they take (photograph the food plant for someone else to identify), record their foraging height and position in the vegetation, look out for nests and simply record their voices (often the key to determining how abundant they are). All these things help build the profile of the species in question; and the *Strategy* proposes to establish a website on which birders can post all these observations.

**Acknowledgements**

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