Extinction, Endangerment and Everything

June 1994 is a momentous month in the history of bird extinctions. N. J. Collar reflects.
On 3 June 1844, 150 years ago to the very day that was designated, by some rich irony, World Environment Day, the last pair of Great Auks, one of the most intriguing of the planet’s vanished birds (the original penguin, or ‘pin-wing’), was slaughtered, she still incubating an egg, at Eldery Rock off the coast of Iceland. In the same year the last specimen of the Tahitian Parakeet was collected. Fifty years later, in 1994, the Kona Finch on Mauna Loa, Hawaii, made its final appearance, and a lighthouse-keeper’s cat discovered and simultaneously disposed of the Stephen Island Wren. For good measure, in 1994 the last captive Pink-headed Duck departed this world, and the last Laysan Rail was seen alive.

Altogether, then, 1994 is a bad year for ornithological centenaries, half-centenaries and centenaries-and-a-half, much worse than any other in this last decade of the millennium. Perhaps, however, these sad conjunctions will make it a good year for the World Conference of an organization that claims global pre-eminence in the field of bird conservation. They are a timely bid by the dead for our attention and respect, a humble intimation that the disasters of the past, taken with the seriousness they deserve, offer real guidance and inspiration in our endeavours to make a success of the future, and most of all a firm reminder of what our work as conservationists is ultimately for.

Looked at full square, however, the future presents a landscape of despair, a patchwork of gardens called protected areas thinning back to a bare, birdless horizon; and everywhere within it empty spaces where species used to be. No-one really has a clear idea about the present rate of disappearance of species – the subject has become a rather grubby football in an academic backstreet kickabout – but everyone suspects that it is high, and everyone knows that it is accelerating.

The conservation world’s main response has been to recast its thinking at a larger scale: the very term ‘biodiversity’ was born of our inability to be, literally, specific about the extinction issue. It is a word to embrace everything alive, the known, the unknown and even (but perhaps most importantly) the unknowable, since the sheer variety of life on this planet cannot be documented in our or our children’s lifetimes, and so much of it is bound to be gone long before our children’s children have any notion of its identity.

Biodiversity the concept has thus been valuable to all parties concerned with conservation, struggling with increasing quantities of threatened species and desperately in need of some greater unifying idea and purer scientific, emotionally neutral framework in which to set their activities and involvement.

The trouble is, of course, that if biodiversity means everything, then it can be made to mean anything, as long as wildlife gets a mention; so panic, profiteering and pretence all find space to press through its overarching gate. You can sense it in the stampede to build databases at all costs, as if the most important protected areas in which biodiversity can find its ultimate sanctuary are pieces of software. You can smell it as the words of all-powerful politicians – and, like Humpty Dumpty, when they use words they mean just what they choose them to mean – distort and decompose under our very noses.

All the same, biodiversity the concept has retained a vigour and vitality that springs from the incorruptible roots of its genesis, the great motivating force of human feeling for the particularities of nature that, paradoxically, the term was expected to supplant or even (in some people’s hopes) supress. It was very striking, and not without irony, that when both media and politicians at the Rio summit had to find a shorthand expression for the function of the nascent Biodiversity Convention, they could only ever refer to it as the global convention for threatened species. Biodiversity, all of a sudden, was no longer everything; instead it was everything that is on the brink of becoming nothing. Biodiversity only really comes to life, it turns out, if it is made to stand for...
what we are about to put to death.

On reflection, there is every good reason that it should. If biodiversity stands for all life on earth, then obviously we ought to be most concerned for the those parts of it that we are most at risk of losing. The indissoluble link between the seemingly opposed concepts of biodiversity and extinction, everything and nothing, is threatened species. It may well be that much biodiversity will be lost before it is found, but we stand to lose far more if we also lose the courage of our convictions over the value of nature, and allow our most fundamental principles and commitments, which pit us firmly against extinction, to become the maidservants of short-term expediency. So our first obligations are not to panic, which gives priority to anything and everything that catches the eye or squeezes the heart; not to be seduced by the inviting power and security of buzzwords, and end up lost in a fog of meaning and recrimination over million dollar promises that never materialize; and most of all to be ready, whose chief and most unpretentious requisite is knowledge, solid, real and relevant.

Like doctors, we can draw such knowledge from consideration of the three interrelated conditions that concern us: death, sickness and health - extinction, endangerment and (for want of a better phrase) everything else. The extinct are yesterday's threatened species, and their study is essential. Conservation biologists are intensifying their research into the processes involved in species loss, mostly involving local events, which can be observed without the trauma of finality attendant upon global cases. More and more is being learnt about the significance of certain biological traits such as overall range size, patchiness, ecological specialization, population size, sensitivity to disturbance, dispersive ability, trophic level; the measurement of such things, and in particular the computation of their effects in various combinations, is becoming increasingly central to an understanding of individual species' susceptibility to extinction.

At the other end of the scale, biodiversity studies can certainly abet the cause of threatened species if they are sufficiently rigorous in concept and execution. BirdLife's own Putting biodiversity on the map, a practical guide to 221 terrestrial centres of endemism at the global level, resulted from the accumulation of thousands of records of species with ranges less than 50,000 km². Unsurprisingly, a very high proportion (77%) of these species are threatened, since range restriction itself - as island biogeographers have long since established - is a major indicator of susceptibility to extinction; but evidence of the richness and, more importantly, the uniqueness of particular areas - all logged in a database for instant access and analysis - can only enhance the claims of individual species that occur in them to conservation attention.

The danger of biodiversity databases, however, is that they are some-how expected to hold, and be the
answer to, everything; in truth, to have any ultimate value, it has to be crystal clear from the outset why they are wanted, what they are for. It cannot quite be said that today's commonplace creatures are tomorrow's threatened species, but some of them are, and the critical thing is to identify those candidates now, using the indicators of susceptibility we can derive from the study of extinctions (and indeed from our work on currently threatened forms). For databases to help this process they have to be planned with enormous care and foresight (incorporating key parameters to control the influence of the patently secure – to dampen, as it were, the background noise), and with complete understanding of the required outputs. The God of the Old Testament confounded man's ambitions to build a tower to heaven (which he evidently regarded as an attempt on, among other things, his omniscience) by causing the builders to speak in different languages, so that they could not understand one another: the result was Babel. We in turn confound our own ambitions to build biodiversity databases (the omni-science parallel hardly needs indication) by using different parameters and criteria, and giving no hard thought to their outputs or their ability to speak to each other: the result is datababel.

Meanwhile, between the dead and the dandy lie the diseased, the most pressing and central concern of every doctor. The basic requirement here is to know what it is that is likely to be lost, when, where and why; and at least for the higher vertebrates there is as yet no reason to retreat from the solid work needed to assemble all these facts. The latest evidence from the birds, published this year in Birds to watch 2: the world checklist of threatened birds (and using the most recently developed criteria for identifying such taxa), is that 1,100 species now qualify as at risk, with very approximately another thousand crowding on the fringes of endangerment (the greatest change being in the Philippines, which emerges as one of the three top countries in the world for threatened birds, and the single most important in terms of the imminence of their extinction).

The book is one of six that form the first in the new BirdLife Conservation Series, launched this year: one for each of the extinctions whose anniversaries fall in 1994. If these publications help energize and direct the bird conservation movement, the world may perhaps begin to atone for those losses. If we begin now with the 1,100 species, with the analysis of their key sites (the Important Bird Area concept, using high-resolution Red Data Book information), with Endemic Bird Areas from Putting biodiversity on the map, and with a redoubled commitment to still more documentation, of near-threatened species, regionally threatened species (as in the forthcoming Birds in Europe: their conservation status), globally threatened subspecies, and so on, building and building our data and reprocessing and repackaging them into national conservation strategies and other formats, something may yet be salvaged.

But it is as well to remember that, whatever is achieved, from now on there will be no happy endings. In twenty-first century conservation all the endings will either take the form of extinctions, which are not happy, or bed down into permanent holding operations, which are of course no endings at all.

Nigel Collar is Research Fellow at BirdLife International, and senior author of Threatened birds of Africa and related islands, Threatened birds of the Americas and the forthcoming Birds to watch 2.

Birds to watch 2: the world checklist of threatened birds (revised) will be published this autumn - see enclosed pamphlet for information on how to order.