

EDITORIAL

As reported in our last issue [IZN 52 (3), p. 157], it has been suggested that the California condor recovery programme may have inadvertently caused the extinction of two species of louse. But I suspect that this news, however distressing to louse specialists, has not caused any loss of sleep to the rest of us. We may at times pay lip service to the belief that all species are equally precious, but in practice few people would dispute that some species are a great deal more precious than others. To take an extreme example, how many conservationists would mourn the passing of the plague bacillus?

It follows from this that every decision to put money and effort into conserving an animal species involves a value judgement of some kind. But the factors involved in making such decisions are surprisingly seldom discussed. Choosing between a condor and a louse is fairly easy: but what if the choice is between two equally attractive animals? Birds, being arguably the most popular and probably overall the best documented group, present the problem in its most clear-cut form. The book *Threatened Birds of the World* (Lynx Edicions and BirdLife International, 2000) lists 1,186 species, each allocated equal page-space and each with recommendations for its conservation. At least one of these birds, the po'o-uli [see IZN 52 (3), 162], has become extinct since the book was published. Although the extinction of any bird species is a tragedy, I would argue that there are quite a number of the remaining 1,185 species whose loss would have been easier to bear. This opinion is based on one – perhaps the only – objective criterion for assessing the 'value' of a species – namely, its degree of 'taxonomic distinctness'. The po'o-uli was the sole representative of its genus, *Melamprosops*. This, to my mind, is a powerful reason to argue that it was intrinsically more valuable than the threatened species of, for example, *Anas* (ten spp. out of a total of c. 37 in the genus), *Columba* (12 spp. out of c. 50) or *Corvus* (six out of c. 40).

Since some of my readers are probably involved in the captive-breeding programmes for certain *Anas*, *Columba* and *Corvus* species, this may seem a rather provocative comment. But I did say I was using an *objective* criterion: it can reasonably be argued that there are other relevant criteria – political, economic, cultural, aesthetic, historical, even sentimental – on which, e.g., the Madagascar teal, pink pigeon and Hawaiian crow deserve the special treatment they are receiving. The highest claim I would make for the taxonomic distinctness test is that conservationists should be aware of it and should always bear it in mind when making their decisions. This idea is not a new one: it is about 15 years since the scientist Robert M. May (now Lord May of Oxford) coined the phrase 'calculus of biodiversity' to describe the process by which conservationists could make choices so as to maximize not simply the number of species, but rather the amount of 'independent evolutionary history' we try to save for future generations. In rough terms, this would make the value of a species inversely proportional to the closeness of its genetic relationship to other living species. The theory has since been discussed from time to time by academic biologists, but does not seem to have had much impact on practical decision-making, least of all in the zoo community.

The recent recognition of another tiger subspecies [see IZN 52 (2), 104–5] presents a case in point. Many taxonomists have already questioned the

validity of the 'traditional' eight subspecies [see, e.g., Andrew Kitchener in *Riding the Tiger* (eds. J. Seidensticker, S. Christie and P. Jackson, Cambridge U.P., 1999), pp. 19–39], though each of the surviving five is currently treated as a discrete population for *in* and *ex situ* conservation purposes. Splitting one of these five subspecies into two will further complicate efforts which were arguably too fragmented already. To put it bluntly, are six tiger subspecies a luxury we can't afford?

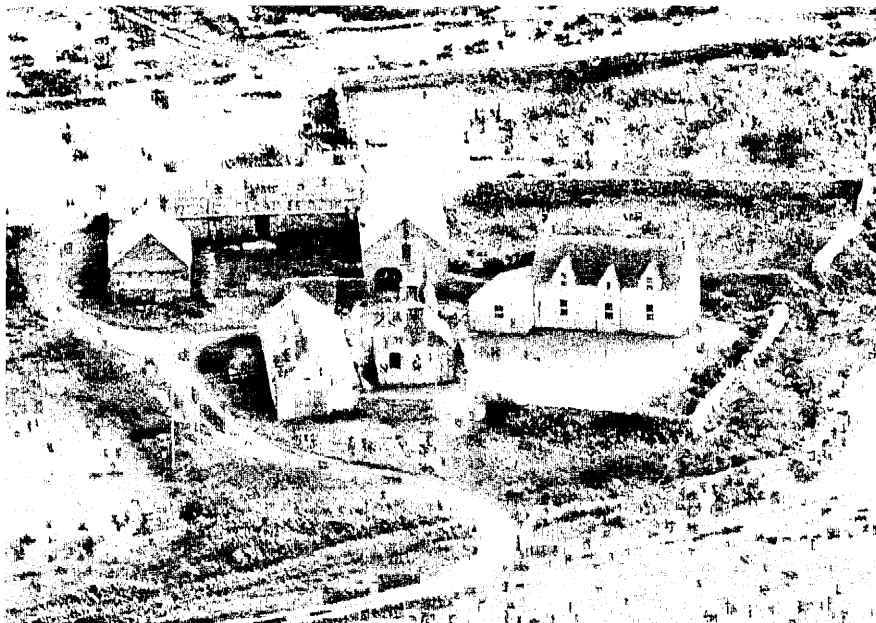
The latest news on the precarious state of the northern white rhino's wild population [see below, pp. 236–237] raises a similar question. It is true that, historically, white rhinos have proved to be capable of dramatic recovery from near-extinction; but the latest *in situ* figures for *C. s. cottoni*, coupled with its depressing captive-breeding record [see IZN 51 (3), 186–7], suggest that the point of no return may finally have been reached. An objective triage process would surely recommend that the primary target for rhino conservation should be the endangered but still salvageable Sumatran species; if safe, stable conditions ever return to the northern Democratic Republic of Congo and southern Sudan, the establishment there of an introduced *C. s. simum* population would be some compensation for the loss of the local subspecies, and should offend no one except the most diehard taxonomic purists.

I mentioned above that the calculus of biodiversity should never be more than one among several criteria in choosing what taxa to conserve. I'll end with one contrasting example where it seems totally irrelevant. The haplochromine cichlids of Lake Victoria are widely recognised as a priority for – largely *ex situ* – conservation. This group includes – or included until recently – more than 300 species presenting an extraordinary variety of size, coloration and lifestyle, seemingly an object-lesson in biodiversity. Yet this entire assemblage has arisen from possibly a single ancestral species in less – some scientists believe *much* less – than a million years. Consequently, all Lake Victoria cichlids are closely related and, by the 'calculus', undeserving of special attention. Yet the group is uniquely precious as an illustration of rapid evolutionary divergence. More 'valuable' than tigers? I'd rather not answer that – there comes a point where personal preferences override any attempts at an objective judgement.

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IZN's address is changing. As some readers already know, for over ten years my wife Fiona and I have owned a 19th-century farmhouse on the Orkney island of Rousay. From the beginning of August this year it will be becoming our full-time home. As the photo overleaf shows, the property includes a cluster of farm buildings, and we have had the cartshed and barn converted into an office and library.

Our house, Fealquoy, stands about 30 metres above sea level on the side of a hill, looking out over farmland to the sea. ('Fealquoy' – like most Orkney place-names – is Old Norse in origin, and means 'hill enclosure'.) Rousay has great natural beauty, and although – like most small islands – it has a rather limited range of fauna and flora, there is plenty to keep a naturalist happy, including an endemic vole subspecies (*Microtus arvalis rousaiensis*), one of the rarest British wild flowers (*Primula scotica*), and significant breeding populations of some interesting sea and moorland birds. I'm looking forward to turning our hectare of rough grassland into a garden: despite lying on a latitude not far south of Stockholm and St Petersburg, Orkney has an equable climate, with



IZN's future home on the island of Rousay. The editorial office will be in the central building with the arched doorway.

winter temperatures seldom dropping much below freezing, and some frost-tender shrubs survive there as well as in southern England.

The process of moving from one end of Britain to the other will be a complicated one, but I shall do my best to minimise disruption to *IZN's* production schedule. In the longer term, the change should benefit the magazine. I have become increasingly cramped in my tiny Chichester office, and will have three times the space in my new one (about 24 square metres instead of eight). So in future I'll have one less excuse for any inefficiency.

In one respect, Rousay may seem an unsuitable base from which to edit a zoo magazine. The nearest public animal collection (the Highland Wildlife Park) is 150 miles (240 km) away as the crow flies (and even more difficult to reach than that distance would suggest – 190 miles by road, plus two sea crossings). I hope, though, that some of the effort previously expended on keeping two houses going can be diverted into zoo visiting further afield. And, of course, any *IZN* readers who find themselves in the far north of Scotland will be sure of a warm welcome in Rousay!

Nicholas Gould

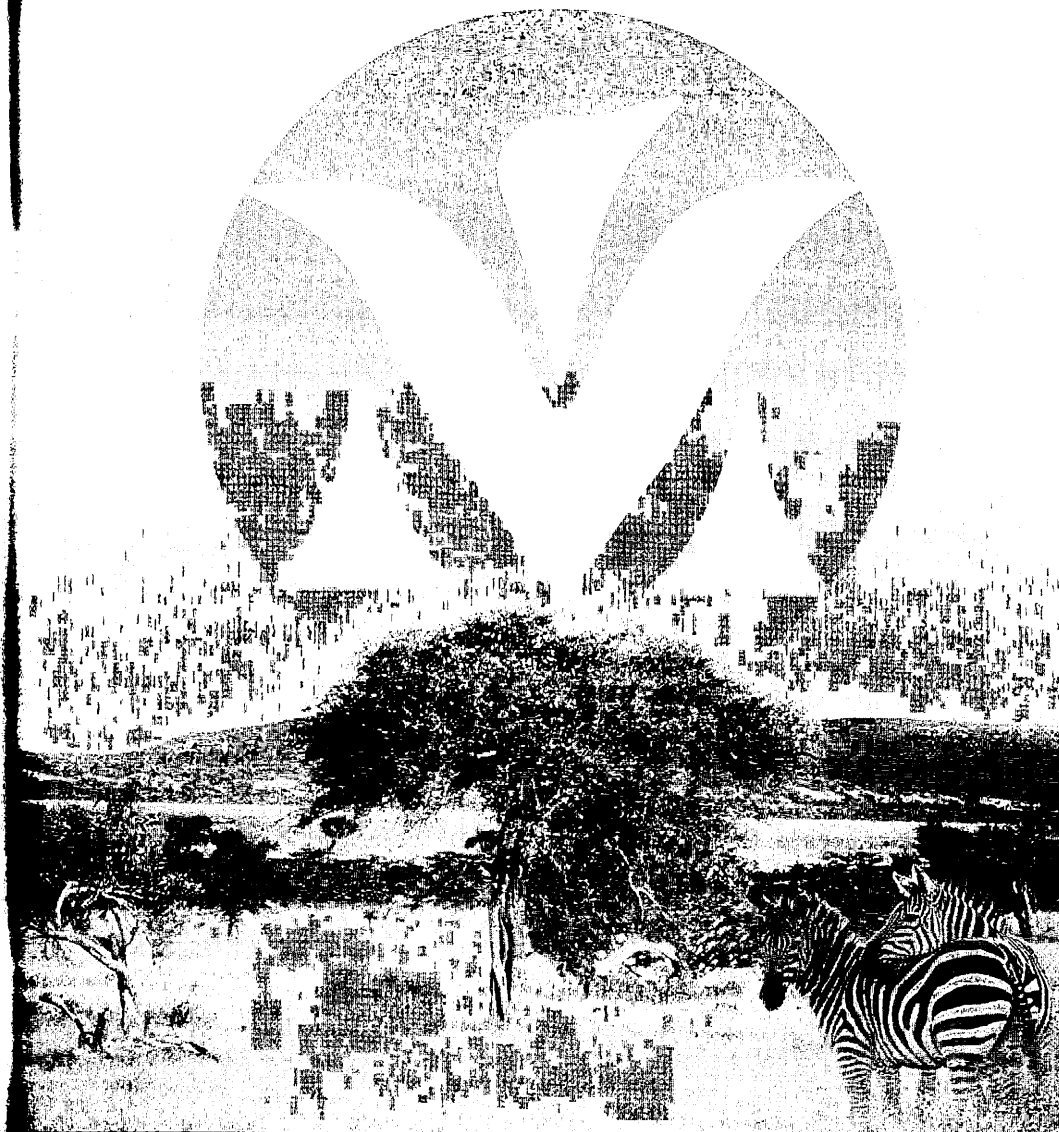
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