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New European wildlife legislation in draft

On 21 September 1988 the first formal step towards new European wildlife legislation was taken when a proposal was published in the *Official Journal of the European Communities* for a Council Directive on the protection of natural and semi-natural habitats of wild fauna and flora. It could be the most important piece of European Community wildlife legislation of recent years. It is a matter of some concern that, at a meeting of the Council of Environment Ministers in Brussels on 24 November, UK and Spain appeared to be opposed to it.

Officials at the UK Department of Environment say it would create a bureaucracy whose disadvantages would outweigh the benefits. British conservationists, however, say that it could close loopholes in the UK Wildlife and Countryside Act 1981, which at present allow legitimate farming and building operations to destroy habitats of protected species. More importantly, in Greece, Spain and Italy it could result in effective protection for the first time for many threatened species. The reasons for Spain's objections are not clear, but the problem seems to be from the Spanish Environment Minister, an engineer, rather than from the civil servants, who appear supportive.

The draft Directive has 28 Articles and 13 Annexes and, in brief, it aims to conserve natural and semi-natural habitats of wild fauna and flora, especially threatened species, in the European territories of the Member States. The major method to be employed is to establish a network of specially protected areas, to be called Natura 2000, which would also include areas classified under the 'Birds' Directive of 1979. The network would be composed of areas sufficient in number and size to ensure the maintenance of 1300 species listed in Annex I and more than 60 habitat types listed in Annex IV and should form a coherent whole. The Directive also envisages that Member States draw up management plans for these areas and avoid polluting them or allowing them to deteriorate. It also makes provisions for the re-establishment of destroyed or degraded habitats and for the creation of new ones.

This co-ordinated European approach to the
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protection of species, habitats and traditional landscape features important to wildlife is a most welcome one. It is hoped that the UK and Spain will have seen its wisdom before the next meeting of the Council of Ministers in May or June 1989.

Signy Island: an exceptional flora threatened by a protected species

Signy Island in the South Orkneys is small, mountainous and of exceptional ecological and biogeographical importance. It has probably the most diverse terrestrial flora and fauna of any locality in the Antarctic. There is a complex continuum of moss and lichen communities, and the only two Antarctic flowering plants, Antarctic hair grass *Deschampsia antarctica* and Antarctic pearlwort *Colobanthus quitensis*, are widespread. There are rich microbial and invertebrate faunas and a series of freshwater lakes.

For these reasons Signy Island is the centre of the British Antarctic Survey's Terrestrial and Freshwater Ecology Research Programme and for the past 25 years scientists have carried out studies there on ecosystem dynamics and ecological and physiological processes. During the last decade, however, the scientists have viewed with some concern the progressive invasion of their natural laboratory by Antarctic fur seals *Arctocephalus gazella*. The first seal arrived in 1948 and since then more and more seals have spent the austral summer on Signy: from a few dozen in the 1950s and 1960s, to several hundred from 1969 to 1976, from 1600 to 3000 from 1977 to 1983, rising rapidly to over 11,700 in 1986 and 16,561 in 1988. Almost all are young males, but there has been an increasing number of cows and occasional pups are born; there were six pups born in 1988.

The impact of this has been devastating for the ecosystem. The highly mobile seals trample the vegetation and dislodge it; between 1984 and 1987, 30–40 per cent of the seal population occurred in the low undulating north-east part of the island where they destroyed, fully or partially, an estimated 75 per cent of the vegetation. An analogous situation exists on Bird Island, South Georgia, which is the breeding centre for

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the seal. There the dense tussock grass *Poa flabellata* is being eradicated over large areas and erosion is becoming a major problem. The seals may cause sufficient change to the island's environment to affect the distribution and breeding status of its huge and diverse bird populations.

The scientists see the long-term implications of the fur seal invasion as putting in jeopardy Signy's abundant, diverse and often unique biota. Even a tenfold decrease from current numbers would not radically improve the situation, and it is more likely that the problem will become more serious if a breeding population establishes, as has happened elsewhere in the South Orkneys and in the South Shetland Islands. Elsewhere non-breeding populations are becoming widespread, with substantial numbers occurring on several islands off the north-west Antarctic Peninsula, where they are not known to have occurred previously, even in the early 1800s.

Just why the seal populations have recovered so explosively, having been brought to the brink of extinction by commercial sealing, is not known, although Smith (1988) suggests a combination of the implementation of conservation measures and the dramatic reduction of whaling with consequent increases in the availability of krill. There is negligible evidence that the South Orkneys were an important source of these animals in the sealing years, but if there was a large population of seals on Signy in the past it would suggest that the terrestrial environment would have been rather different from the one the scientists have been studying in recent decades. It would also suggest that much of today's lowland vegetation has developed since the 1820s, which would imply much faster rates of plant colonization and community development than has previously been suspected. A search for fur seal hairs in radio-carbon dated peat would clarify this situation.

Meanwhile the scientists are taking no measures to reduce the seal numbers, but some small experimental plots have been fenced in representative stands of the principle plant communities. In addition, trials using electrified fences to deter the advances of seals have

proved reasonably successful; by maintaining their battery charge with solar panels it is proposed to deploy them over much larger areas in the future in an attempt to afford some degree of protection to the terrestrial ecosystems.

The situation on Signy poses an interesting problem for conservationists. Should the seals be afforded maximum protection as a Specially Protected Species in accordance with the Antarctic Treaty Agreed Measures on the Conservation of Antarctic Fauna and Flora even if this means it is at the expense of exceptional and fragile ecosystems? The problem on Signy has been highlighted by a similar one on Lynch Island, 2.5 km to the north. The Specially Protected Area of Lynch Island (designated under the Antarctic Treaty because of its exceptional *Deschampsia antarctica* stands and abundance of *Colobanthus quitensis*) was extensively damaged in 1988 by the presence of 213 fur seals.

Reference

- Smith, R.I. Lewis. 1988. Destruction of Antarctic terrestrial ecosystems by a rapidly increasing fur seal population. *Biol. Conserv.*, **45**, 55–72.

Pampas deer on the ranch

A 30,000-ha estancia in central San Luis province in Argentina contains not only one of the few remnants of dry pampas left, but also half the world's wild stock of the Argentinian subspecies of pampas deer *Ozotoceros bezoarticus celer*. About 150 deer survive on the estancia, which stocks cattle at a low density. Two researchers who conducted diet analysis showed that the deer were competing for food with other herbivores present—cattle, horses, introduced brown hares *Lepus capense* and a native rodent, vizcacha *Lagostomus maximus*—but the low cattle density reduced the impact of this, although competition would intensify in dry years. The scientists were able to suggest measures to improve the grazing regime for the deer compatible with the existing working estancia. The deer's future appears intimately linked with the current estancia management policy, which has remained in force for 40 years. Economic pressures or a change in ownership could enforce changes such as have occurred in neighbouring properties, where fields have been

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Fur seals, which were brought to the point of extinction by commercial sealing, are recovering so well that they are now recolonizing places like Signy Island, where they have been absent for more than 100 years. This colony was photographed on New Island in the Falklands (*Ian Strange*).

subdivided, cattle stocking density increased and the natural range impoverished.

No reserve exists for the true pampas ecosystems, which once extended over 430,000 sq km. Now little remains except for a few tracts on the extreme western limit; they are all subject to cattle ranching and none are gazetted as reserves. The estancia contains one of the last remnants of the ancestral dry pampas and gazetted a reserve here would be the last opportunity to conserve not only one of the world's rarest

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deer, but also a representative tract of this once vast temperate grassland biome. The proposal has been discussed with the estancia owners and the relevant departments of the provincial and national governments.

Source

Jackson, J.E. and Giulietti, J.D. 1988. The food habits of pampas deer *Ozotoceros bezoarticus celer* in relation to its conservation in a relict natural grassland in Argentina, *Biol. Conserv.* **45**, 1–10.