



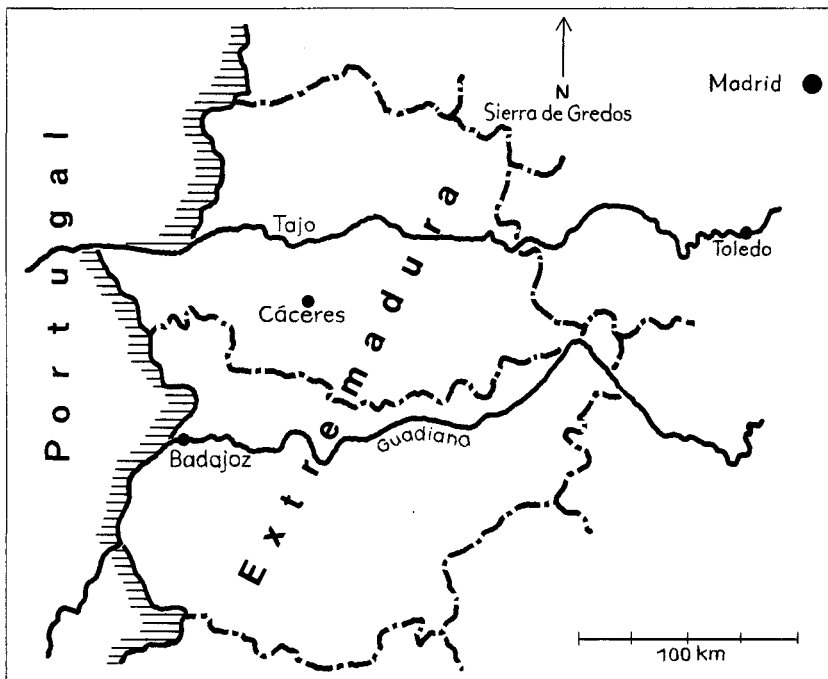
## Spanish Refuge for Europe's Birds of Prey

*Bernd-Ulrich Meyburg and Christiane Meyburg*

**In western Spain, especially in Extremadura, the typical Mediterranean flora and fauna are more abundant, both in species and numbers, than almost anywhere else in the Mediterranean region. For Europe's birds of prey it is a key area. But all, especially the birds of prey, are gravely threatened, despite excellent protection laws, by reafforestation (with eucalyptus and pines) and industrial development destroying their habitats. The authors, who spent a total of ten months between 1970 and 1977 studying the birds of prey in the region, stress the urgent need to protect at least some of this superb country, which includes primeval cork oak forests and natural vegetation undisturbed by man.**

The most important refuges for Europe's most threatened birds of prey are in remote areas of western Spain, in particular Extremadura and the adjoining provinces. Here, in an area roughly the size of Switzerland, with mountains rising to 2400 metres (7800 ft), there are still areas of original vegetation virtually untouched by man, particularly in Cáceres province. The hillsides are still clothed with primeval cork woods, where many birds of prey breed, interspersed with Lusitanian and chestnut oaks and dense, sometimes impenetrable, undergrowth. Characteristic of the higher ground are the 'dehesas', thinly covered with cork trees and evergreen chestnut oaks, the acorns of which are used to fatten pigs. The grasslands between the trees, used primarily as meadow-land but ploughed and sown with corn every 10-12 years, are an important hunting ground for the raptors, and for some a breeding

*Above: Female black vulture shading her chick on the nest*



ground—notably kite, buzzard, short-toed eagle, booted eagle, goshawk and sparrowhawk.

Between 1970 and 1977 we spent ten months in eleven visits between mid-February and the end of September—studying the birds of prey, especially the Spanish imperial eagle *Aquila heliaca adalberti* and the black vulture *Aegypius monachus*. Sometimes we were accompanied by Jesús Garzón, who has probably done more than anyone else in recent years to protect the wildlife in central Spain, since 1974 on a WWF Project.

Unfortunately, no density studies for all birds of prey in sample areas have yet been made in Extremadura, or elsewhere in Spain, so in the spring of 1971, we started counting the birds of prey we saw when driving by car. In Cáceres, travelling at an average speed of 50 km per hour along a stretch of 1842 km, a raptor was seen, on average, every 2.4 km, or every three minutes.<sup>4</sup> This may seem high, but a comparison with previous records shows that there must have been a large decrease especially among the larger species. Until they were protected in 1966, all birds of prey were hunted ruthlessly, and in 1953 the campaign against them had been intensified by government order. Even today, despite protection, illegal shooting is still common.

Of the 21 breeding birds of prey in Extremadura, three are particularly noteworthy: black vulture, Spanish imperial eagle and black-winged kite. Extremadura is the black vulture's most important refuge in Europe, and has the densest known breeding colonies. This is the only Spanish bird of prey for which the total population has been quite well recorded.<sup>1 3</sup> Fifteen breeding colonies are known on the Spanish mainland, mostly in Extremadura, although the term 'colony' hardly applies for the nests are widely dispersed.



*Above:* Part of the proposed protected area for birds of prey and also a refuge for lynx, wild cat and genet; the hills behind have already been cleared of forest.

*Below:* A cleared area where one small patch was left because it contained the eyrie of a Spanish imperial eagle. Not surprisingly, the birds have deserted it.



Because two of the three largest colonies were found only recently, the population counts of 1965 and 1973 produced virtually the same result: about 200 and 206 breeding pairs respectively. In the third about 45 pairs were found in 1965 but only 18 eight years later. As there was little disturbance in this colony the 60 per cent decrease is likely to have been exceeded in the others.

The black vulture is the only one of the four European vultures on the Spanish mainland which is not specifically protected, and for which there are no protected areas as there are for griffon and Egyptian vultures in the Guadarrama Mountains (Refugio de Rapaces de Montejo) and for the bearded vulture in the Pyrenees (Ordesa National Park); nor are there places for regular feeding, such as the other three have had for years in Navarra. The population is thus more endangered than any of the other three, even the bearded, which has now stabilised. The entire population probably does not exceed 250 pairs, and virtually all the colonies are directly threatened by habitat destruction through timber-felling; the other three species are rock breeders.

The imperial eagles—*Aquila heliaca* and *A. h. adalberti*—are undoubtedly the most threatened eagles in Europe, with an estimated total of not more than 80 pairs. The vast range of *A. heliaca*, reaching far into Asia, gives it a certain protection, but the Spanish bird is confined to a small area of south-west Spain; the populations in Morocco died out. According to the Red Data Book this beautiful raptor, with an estimated population of only 30-50 pairs, is the only European eagle whose world population is threatened. Until 1971 it was not known whether it survived in western Spain, but between 1971 and 1976 the nests of 14 pairs were found in Cáceres and the adjoining provinces; other pairs were observed but their eyries not found. A check on breeding success showed that, on average, these pairs hatch out and rear more young than do the birds in the Coto Doñana. In 1973, for instance, 13 eggs in 6 nests in Doñana hatched 4 chicks; the same number of nests in western Spain that year produced 16 chicks from 17 eggs. Successful broods of three chicks are not unusual and on one occasion four eagles left one nest. In Cáceres five pairs breed only a few kilometres from each other, making the density roughly as high as in Doñana; before myxomatosis it was apparently considerably higher.

The black-winged kite *Elanus caeruleus*, which has an outpost of its vast African distribution area in the south-west of the Iberian peninsula, appears to be the only raptor, apart from the booted eagle, that is increasing. The Iberian population is small, but in 1975 breeding was proved for the first time in Spain, and three occupied nests found. Other rare raptors characteristic of the area are the griffon and Egyptian vultures, golden, Bonelli's, booted, and short-toed eagles, peregrine, red kite and Montagu's harrier; also found are great bustard, black stork, eagle owl, wolf, pardel lynx, wild cat and genet.

### Current threats

By far the greatest threat to the birds of prey in Extremadura is the widespread destruction of biotopes in the course of so-called 're-afforestation' (repoblacion forestal) with eucalyptus and pine trees. This threatens not only the big tree breeders, but the whole range of typical Mediterranean flora and fauna—for which the Spanish National Institute for the Protection of Nature (ICONA) is responsible. Technicians and engineers, well intentioned but lacking any ecological education, aim to eliminate regional development differences and have declared Extremadura a priority industrialisation region. In the first phase 50,000 hectares of virgin chestnut oak and cork trees in Cáceres will be





Spanish imperial eagles whose only egg was infertile rearing the third-hatched nestling of another pair.

replaced by eucalyptus plantations, planted so closely that no vegetation can flourish between them. Carnivores such as lynx, wild cat and genet will inevitably disappear for lack of food and cover, and migratory birds such as the crane, which winter here, will be seriously affected. The lack of carcasses will affect especially black and griffon vultures. Myxomatosis has already led to a decrease in the three large eagles—golden, Spanish imperial and Bonelli's—for which rabbits were a staple food. For the imperial eagle J. Garzón estimated this reduction at 70 per cent.<sup>2</sup> Birds of prey suffer further losses through poisoned baits put out for foxes, the theft of chicks and eggs, disturbance by cork workers, photographers, etc., incendiarism, and through flying into high-voltage cables. Little is known about the effects of pesticides.

### **Protective Measures Needed**

The situation is critical, but not hopeless. Projects have been launched, and some await government approval. Relatively little damage has been done so far, but modern machinery destroys rapidly.

The most urgent task is to place the most interesting areas under protection immediately, in accordance with the new law on reserves and national parks (Boletín Oficial, 5 May 1975). No Spanish national park protects the typical Mediterranean flora and fauna although about five-sixths of the country is Mediterranean in character, and there are almost no protected areas in Extremadura. In 1974 J. Garzón prepared and submitted a detailed plan for protecting an area of 10,000-20,000 hectares which held 220 species of vertebrates, including 30-40 pairs of black vultures, five of Spanish imperial eagles, three of golden eagles, six of black storks and several hundred of griffon vultures, also black-winged kite, short-toed and booted eagles, peregrine falcon and eagle owl.

It would be of immense value if letters were sent to the National Institute for the Protection of Nature (ICONA, Gran Vía de San Francisco 35-41, Madrid)

or the appropriate diplomatic representative, supporting this proposal and emphasising its significance and urgency. In July 1977 4325 hectares were leased for six months for 3 million pesetas. About one-third of this money came from abroad, from the Fond d'Intervention pour les Rapaces and private individuals; the remainder came from Spanish organisations. ICONA is preparing to declare 20,000 hectares a national park, but until this is done money is needed to continue leasing the properties. Donations (endorsed Tajo Reserve, Project 987) can be sent to the International Council for Bird Preservation, c/o British Museum (Natural History), Cromwell Road, London SW7, or the World Wildlife Fund (Morges, Switzerland).

### References

1. BERNIS, F. 1966 El Buitre negro (*Aegypius monachus*) en Iberia. *Ardeola* 12: 45-99
2. GARZON HEYDT, J. 1974 Contribucion al estudio del status, alimentacion y proteccion de las Falconiformes en Espana Central. *Ardeola* 19: 279-330
3. HIRALDO, F. 1974 Colonias de cria y censo de los Buitres negros (*Aegypius monachus*) en Espana. *Naturalia Hispanica* 2: 5-31
4. MEYBURG, B. U. 1973 Observations sur l'abondance relative des rapaces (Falconiformes) dans le Nord et l'Ouest de L'Espagne. *Ardeola* 19: 129-150  
— 1975 On the biology of the Spanish Imperial Eagle (*Aquila heliaca adalberti*). *Ardeola* 21 Vol. Especial: 245-283
5. ORTUNO MEDINA, F. 1977 Spain's National Parks Policy. *Parks* 2: 12-14.
6. VIEDMA, M. G. de, LEON, F. & CORNADO, R. 1976 Nature Conservation in Spain: A brief account. *Biol. Conserv.* 9: 181-190

The senior author is a member of the co-ordinating committee of the ICBP World Working Group on Birds of Prey.

Dr. B-U. Meyburg, Freie University Berlin, Klinikum Westend, 1 Berlin 19, Spandauer Damm 130.

### How Scares Begin

In January 1978 large numbers of eagles were seen circling over a kindergarten school in Narvik in Norway, and a British newspaper, the *Sunday Express* headlined a story about them 'Hungry Eagles Terrorise Arctic School'. On investigation it was found that what the eagles were interested in was a rubbish dump near the school where there was abundant food. The Chairman of the Norwegian Section of ICBP has pointed out that in Norway 'there has never been any proof of eagles killing children. These birds are in fact so afraid of human beings that they do not even attack humans who rob their nests'. Norway has large numbers of eagles—in 1977 more than 400 pairs both of white-tailed eagles, about 80 per cent of the entire stock of western Europe, and of golden eagles.

### Attitudes to Hunting

A survey of attitudes to hunting, made by NOP Market Research Ltd for the League Against Cruel Sports, shows that 61 per cent of manual workers oppose hunting, compared with 48 per cent of people in A and B groups, but 73 per cent of 18-24-year-olds are opposed. When otter hunting was specifically selected 72 per cent of adults favoured a total ban (which came into force this year) and only 8 per cent disapproved of the ban.

### Junk from the Deep

Of 106 benthic trawls in the Bering Sea in 1976, 43 contained some kind of man-made debris. Metal appeared in 16, rope and twine in 11, glass in nine, plastic in seven, fishing gear in five, cloth in five, rubber in three, wood in three and paper in one. The 1976 survey was taken because of the large amount of rubbish reported after 1975 trawls, which are used to study life from the sea floor.