# STATUS AND CONSERVATION PROBLEMS OF BIRDS OF PREY IN GREECE

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### **ABSTRACT**

Twenty-six species of raptors still breed in Greece; ten have been recorded as passage migrants or winter visitors, and four of the latter might occasionally have bred in the past. The main causes of population declines are loss of habitat and shooting.

#### INTRODUCTION

Few countries in Europe can boast of such a variety of birds of prey as Greece. Of the 38 species of diurnal raptors occurring in Europe, 26 still breed in Greece; 10 more species have been recorded as passage migrants or winter visitors, and 4 of the latter might occasionally breed or have bred in the past.

From surveys in 1980 and especially in 1981, in the framework of a joint conservation project of the Ministry of Co-ordination and the IUCN, we have been able to assess the present breeding status, distribution and habitat preferences of the different species, and their conservation needs. This national inventory was preceded by a similar project in the Evros region, where we have been monitoring an outstanding population of birds of prey for 12 years. The experiences of the Evros project greatly helped our insight into the whereabouts of the birds, their habits and their reactions to human interference, as well as the ways in which their conservation could be achieved.

Although Greece possesses a great diversity of species, populations are mostly small in comparison with those in Spain, but still substantial compared with those in the neighbouring Balkan countries, so far as is known. The numbers (Table 1) are tentative, and minimal for many species. Only the northern half of the country, together with several renowned areas elsewhere, have been surveyed fairly systematically, and extrapolation of the numbers for lesser-known areas was undertaken only for the more common species. The situation on the islands and the Peleponnesus is still little known, but a few quick surveys gave promising results, for instance for Bonelli's Eagle (Hieraaetus fasciatus) and the large falcons.

Unlike other European countries, Greece has very few ornithologists, and published information on birds of prey is scanty, mostly coming from foreign bird-watchers on holiday. To judge from these and other sources of information,

Table 1: Estimated numbers of breeding pairs of various raptors in Greece.

1 Species in danger of extinction:	
Haliaeetus albicilla	4- 8
Aegypius monachus	9–15
Aquila heliaca	2- 6
Circus pygargus	10-20
II Species with vulnerably small populate	ions:
Milvus migrans	70
Gypaetus barbatus	35
Buteo rufinus	60
Aquila pomarina	80
Hieraaetus fasciatus	60
Falco biarmicus	30
Falco subbuteo	100
III Other species with probably declining	g populations:
Pernis apivorus	200+
Neophron percnopterus	200+
Gyps fulvus	400
Circaetus gallicus	300+
Circus aeruginosus	130
Aquila chrysaetos	220
Hieraaetus pennatus	200+
Falco peregrinus	150
IV Species with unknown population tre	nd:
Accipiter gentilis	500
Accipiter nisus	3,000+
Accipiter brevipes	1,000 +
Buteo buteo	5,000
Falco naumanni	2,000
Falco tinnunculus	3,000
Falco eleonorae	2,500

including our own observations during the last ten years, the populations of many species still seem to be on the decline. Decreases in the frequency of sightings are not only obvious in the better-studied areas like the Evros province, but in many other regions as well. One has only to mention the 25–30 pairs of Imperial Eagles (Aquila heliaca) and 5 pairs of Sea Eagles (Haliaeetus albicilla) that nested in the vicinity of Thessaloniki some 40 years ago (Makatsch 1950) and that have since all disappeared, to understand how depleted the present populations are.

## STATUS OF PARTICULAR SPECIES

Four species have reached critically low numbers and are on the verge of extinction. No more than seven or eight pairs of the White-tailed Sea Eagle (Haliaeetus albicilla) appear to have survived in the remoter parts of the largest wetlands. The Imperial Eagle (Aquila h. heliaca) might be even more critically endangered: after the very recent decline in the Evros area, maybe only four pairs remain, although the species may still occur on the Peloponnesus. Except for a solitary nesting pair in Thessaly, the only viable colony of Black Vultures (Aegypius monachus) is in the Evros province. In 1981, 12 nesting pairs produced at least 9 offspring, which was the best breeding success in many years. A serious threat to the survival of this species may have been averted when, in 1980, the government decided to protect the nesting area, the remnant of an old pine forest,

from further exploitation. But the colony is still not protected against disturbance, shooting and forestry activities, and there is concern about declining food supplies. The proposals for protective measures, and the decisions of the government, are still unheeded. Road constructions and other activities inconsistent with the reserve status of the area have not yet halted. Only a few Black Vultures have been sighted elsewhere on the mainland, but without sign of reproduction.

The population of the Montagu's Harrier (*Circus pygargus*), a vulnerable species that breeds in cornfields in two upland areas in West Macedonia and Thrace, does not exceed 20 pairs.

Six more species have populations smaller than 100 pairs and are in danger of extinction as well. The Lesser Spotted Eagle (Aquila pomarina), the Bonelli's Eagle (Hieraaetus fasciatus) and the Black Kite (Milvus migrans) have clearly shown recent declines at known nesting places in the north. The Lesser Spotted Eagle seems not only particularly sensitive to the draining and loss of small wetlands upon which it depends for prey, but also to forestry activity in its nesting areas. The Bearded Vulture (Gypaetus barbatus) breeds very locally on the mainland but a good population holds its own on the island of Crete. A total of 35 pairs might survive in Greece. The Long-legged Buzzard (Buteo rufinus) occupies varied habitats from open cultivated areas to well forested ones, provided that a small, insignificant precipice is available as a nest site; yet the population does not exceed 60 pairs and is thinly distributed throughout northern Greece. Lanner Falcons (Falco biarmicus) might well be more numerous than the 30 pairs now estimated, as the species is extremely elusive.

Although a longer period of time would be needed to judge the population trends of the more common species, available data have shown that the Egyptian Vulture (Neophron percnopterus), the Marsh Harrier (Circus aeruginosus), the Golden Eagle (Aquila chrysaetos) and maybe the Griffon Vulture (Gyps fulvus) are at least locally on the decline. For the vultures, the future looks better since campaigns to combat wolves have slowed down and the use of strychnine for that purpose has been prohibited. It remains to be seen how effective the control on poisoning of wolves and other predators will be in practice.

#### CAUSES OF DECLINES

Much has already been written about threats to birds of prey and about negative effects on the populations (Bijleveld 1974; Newton 1979). In Greece, two factors are mainly responsible for the present decline and are most obvious in the field. Foremost is the change or loss of habitat, which is affecting all wildlife, but more directly harms birds of prey because of their particular sensitivity to the disturbance which accompanies every human encroachment. Greece is in the process of a rapid economic development, and the expansion of human activity is, more than ever, making enormous claims on the natural and semi-natural environments. Although the large-scale alterations of habitat will inevitably lead to further huge losses of birds of prey, and to the complete disappearance of some species that are already close to extinction, the careless way in which various development plans are being carried out is causing much unnecessary destruction of habitat and loss of bird life.

Important raptor habitats which are much affected by the present wave of changes are particularly the wetlands and the low-altitude mature forests (or what is left of them). Wetlands and their vicinity provide not only nesting habitat for such endangered species as the White-tailed Sea Eagle, Imperial Eagle and Lesser

Spotted Eagle, but also important feeding areas for many other species, including passage migrants and winter visitors. The present situation with the Greek wetlands is sad, especially when one considers the huge numbers of nesting and wintering birds which they supported in the past. In spite of the protected status, indicated by Greece's adherence to various international conventions on the protection of wildlife and its habitat, including the Ramsar Convention, the drainage, infilling and other transformations serving agriculture, tourism or industry proceed unabated. Here again, development schemes are drawn up without any ecological impact assessment, and in the few cases such as the Evros delta, where clear guidelines for the harmonization of land-use and conservation exist, putting protection measures into practice has appeared extremely difficult.

Low-altitude forests such as the coastal pine forests, high maquis with evergreens, and riverine forest, have also held important numbers of birds of prey, especially where situated close to major wetlands. The threats to these habitats stem from forestry activities, especially the suddenly intensified exploitation of old forests that have been degenerated by grazing or fires but left out of logging until now; but also in some areas from the transformation of such woodlands into pine plantations. An important side-effect of forestry is the increased accessibility of previously undisturbed areas by the construction of roads. This facilitates more indiscriminate shooting.

Shooting is the second important threat to birds of prey in Greece. It contributes substantially to the decline of the rarest species: White-tailed Eagle, Imperial Eagle, the large vultures and especially those species which winter in wetlands, such as the Greater Spotted Eagle (Aquila clanga) and the harriers. No doubt the shooting of eagles wintering in Greece is adversely affecting the small remnant populations of other northern countries.

The majority of the 400,000 Greek hunters regard every bird as a quarry, and few would hesitate to fire at a bird of prey if the opportunity presented itself. Apart from the indiscriminate shooting for fun, there is a minority who collect large birds of prey for taxidermy and other commercial purposes, a problem that tends to increase. Although all birds of prey are protected by law, shooting is still allowed in game parks where these birds are considered harmful. Not only Goshawks, but also eagles are shot at such places. A politically powerful shooting-lobby has for many years prevented the hunting legislation from being improved and adapted to the quickly changing conditions: the opening of previously untouched areas for forestry or other purposes; the increased mobility of the hunters; the availability of more sophisticated shotguns; the rapidly growing number of shooters, and the consequent shortage of game, all put more pressure on other wildlife. In addition to the obsolete character of the hunting laws, there is little enforcement. Only the closed season is reasonably respected. Official control of hunting regulations is virtually absent.

Little information has been collected so far about other threats to birds of prey. The use of strychnine might now be under control. Poisoning intended for rodents, but also affecting raptors, has only once been documented. Toxic chemicals such as pesticides are admitted under governmental control. There are various reports about activities of egg collectors, and a 'black list' of notorious foreigners active in Greece and elsewhere is circulated among officials who control the borders. Supplementary feeding of vultures has still not been started in Greece, although it might help in the Evros region, in Boeotia, in Akarnania and, maybe, on Crete. Proposals to that purpose await enactment.

The progress of raptor conservation in Greece, as elsewhere, depends very much on the awareness and the attitude of the public towards these birds. Birdlife,

and nature in general, used to have significance for people only if it was useful. Greece has only a few small governmental and non-governmental organizations dealing with nature conservation. They are poorly staffed and short of funds in proportion to the immense problems they have to cope with. On top of this, for any conservation action, they have to face the indifferent and sometimes hostile attitude of the authorities, and a cumbersome bureaucracy where initiatives towards nature conservation rapidly break down. There is a clear and urgent need for a government agency responsible for nature conservation. This agency should have real legal power to act, and to co-ordinate measures for endangered-species-conservation with the activities of agencies dealing with land-use and development. Its tasks should be focussed primarily on the survival of species within Greek territory, and on informing the public about the need to protect their natural heritage.

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