THE EFFECTS OF ARTIFICIAL FEEDING ON GRIFFON, BEARDED AND EGYPTIAN VULTURES IN THE PYRENEES

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INTRODUCTION

The populations of the Griffon Vulture (*Gyps fulvus*), Bearded Vulture (*Gypaetus barbatus*) and Egyptian Vulture (*Neophron percnopterus*) on the northern slopes of the Pyrenees were not seriously studied until the 1960s.

The nesting of these three species in the French Pyrenees was not rediscovered until 1962, after 50 years of oblivion. During the decade 1965–75 a decline was discernible in certain Griffon Vulture colonies. It was then that the idea of establishing 'restaurants' for vultures was first conceived, both to mitigate a potential decline in food supply resulting from the rapidly changing local pastoralism, and to avoid the risks of poisoning by strychnine, banned by law but still practised illicitly in the Pyrenees.

The first of these feeding centres was established in 1969 by the Pyrenees National Park, in a valley harbouring the most eastern and threatened colony of vultures. This colony, consisting of 12 pairs at the time of its discovery in 1961, had dwindled to 6 pairs during 1970–75, but had recovered to 12 pairs in 1981, 18 in 1982, and 30 in 1983/84.

From 1974, at the instigation of the FIR, several other feeding centres were installed at various points along the mountain chain. These centres operated with the approval of the veterinary services and the assistance of the Office National de la Chasse. Police helicopters are sometimes used to transport the carcasses. In 1982 five feeding stations were kept regularly supplied.

Each year, feeding begins on 15 November, at the close of the hunting season and when the flocks leave the mountains. It ceases in early May, when the flocks return. It thus enables breeding adults to find food during the initial part of the breeding cycle, i.e. incubation and the first six weeks of the nestling period. After May, food once again becomes abundant in the mountains.

RESULTS OF THE PROGRAMME

The effect of these operations has been three-fold: firstly, the value of such a food supply in a period of dearth is undeniable (over 15 tons consumed in 1981–82), ensuring the survival of an appreciable number of immature and sub-adult

individuals which winter locally, in addition to which, consumption increases sharply when the parent birds have chicks to feed, thus helping to ensure good survival rate of the young. Secondly, these regularly-supplied larders reduce the danger of illicit poisoning. And lastly, the educational role they play is considerable and some farmers have resumed the habit of spontaneously putting out the carcasses of their animals at the disposal of the vultures.

The Griffon Vulture population on the northern side of the mountains has without question benefited from these activities. There can also be no doubt that propaganda campaigns in favour of raptors have reduced the number of birds that have been deliberately killed. Between 1979 and 1982, the population increased by 15 percent per annum and has recolonized most of its former sites. Between 1976 and 1983 the Griffon Vultures of the northern slopes of the Pyrenees increased from 61 to 145 pairs. We hope now to encourage recolonization of abandoned sites in the central Pyrenees by establishing a 'restaurant' in this area from 1982 onwards.

For the other two species, the impact of the feeding operations is less clear. The Egyptian Vulture, with a population of about 35 pairs, has suffered a slight decline in the central Pyrenees and a drop in productivity. The feeding operations interest this species only at the time of its return from migration, i.e. from the end of March to the beginning of May, and not at all during the crucial period of the breeding cycle and rearing of young in June/July.

The Bearded Vulture population appears to have remained stable over the past decade, showing a slight improvement in recent years. This may also be due as much to greater public respect for raptor protection and to an increase in the stock of chamois (*Rupicapra rupicapra*), as to the supply of food which chiefly contributes to the survival of immatures and sub-adults. Both Bearded and Egyptian Vultures obtain a proportion of their food from the wild fauna, whereas the Griffon is apparently wholly dependent on human economy and a certain type of pastoralism. It is therefore for the maintenance of the Griffon that this experiment is proving so indispensable. The cost of these operations is extremely cheap, and other species, such as the Golden Eagle, Black and Red Kites and Raven, also benefit from the existence of the larders.