

Eight species of birds are considered endangered in the Cape Verde islands. Two of these are endemic to the islands, i.e. the Cape Verde Cagarra or Cape Verde Shearwater *Calonectris edwardsii* (sometimes considered a subspecies of Cory's Shearwater *C. diomedea*, but sufficiently different to warrant specific status) and the peculiar Raso Lark *Alauda razae*. One non-endemic species, the Gon-gon or Fea's Soft-plumaged Petrel *Pterodroma feae*, has its main breeding grounds in the Cape Verde islands and only a very small population elsewhere, on the islet of Bugio off Madeira, which comprises only c. 30 pairs. The total world population does probably not exceed a few hundred pairs. Four of the other endangered species are more or less well-differentiated subspecies, all of which have small populations in Cape Verde. One of these, the Cape Verde Purple Heron *Ardea purpurea bournei*, has recently been proposed to be given specific status on the basis of its substantially different morphology (and probably behavior as well) from the nominate race (de Naurois 1988). Moreover, it is completely separated reproductively from its congeners in Europe and mainland Africa. The Magnificent Frigatebird *Fregata magnificens* is the only species to be dealt with here in which subspecific separation of the Cape Verde population is not feasible, but it is outstanding in that Cape Verde is the only breeding locality of the species in the eastern Atlantic.

The most urgent action to be taken now is the protection by law of all birds and their eggs and nests in the whole of the territory of the República de Cape Verde. More directed efforts must be made to improve the conservation of particular species. The Cagarra, Magnificent Frigatebird and Raso Lark will benefit from the designation as National Parks of the islets on which they breed. Action is currently taken and it is expected that laws declaring the islets of Raso and Branco as the first National Parks in Cape Verde will come into effect in 1990. Hopefully, some other areas (e.g. the ilhéus Rombos, Curral Velho and Baluarte) will follow soon.

REMARKS ON SPECIES

The Gon-gon *P. feae* breeds in the high parts of Santo Antão, Fogo, São Nicolau and probably Santiago. Originally, the birds may have bred in burrows on the floor of the native scrub-woodland. With the destruction of this habitat, starting soon after the arrival of man in the 15th century, its breeding sites are now restricted to the more inaccessible ledges in the mountainous parts of the islands. The breed-

ing season is from December to February and it is not known where the species spends the non-breeding period, although it is likely that it migrates into the south Atlantic. Threats at the Cape Verde breeding grounds include cats, rats and monkeys (all of which are introduced by man) which take eggs and young from the nests. Man himself considers the birds' fat a remedy against rheumatism on Fogo and collects its eggs on São Nicolau. The introduction of modern medicines and spread of more rational ideas about medical care could help to stop persecution on Fogo. This has, however, already been advocated more than 25 years ago (de Naurois 1964), seemingly without much effect so far. Collecting of eggs and birds can probably only be stopped through education and information, making inhabitants aware of the rarity of the species. Little is known about its current status on Santiago and Santo Antão, partly because of its nocturnal habits but probably also because of its rarity there.

The Cape Verde Cagarra *C. edwardsii* breeds in the mountains and cliffs of Brava, Santiago, Santo Antão and São Nicolau. Its largest and most important breeding colonies are, however, on the islets of Raso and Branco. Its breeding season lasts from April to October. In October, local fishermen, mainly from Santo Antão, visit these islets several times to collect thousands of near-fledged young. A number of 4-5,000 was mentioned to me by fishermen from Synagoga on Santo Antão. In the early 1980s, Schleich (1982) witnessed the slaughtering of 1400 young in three days. When I visited Raso in early Oct 1988, I could find only very few nests with young whereas hundreds of nests were empty and supposedly recently robbed. Tools for excavating young from the nests were laying around as silent witnesses. Considering that the total population of the Cagarra probably does not exceed 5-6,000 pairs and that the bird only lays one egg in a year, it is easy to see that collection on such a scale will have disastrous effects. Of course, chick collecting has been practiced for generations but nowadays, with motorboats readily available, visiting the colonies has become all too easy. A total ban on collecting is urgently needed to allow numbers to restore and to prevent total extermination of the species, a fate that has already hit the unique Giant Skink *Macrosclincus coctei*, a reptile that only occurred on Raso and Branco and which was completely wiped out through overexploitation (Schleich 1982). Still, one can encounter considerable flocks of Cagarra at sea which may give local people the impression that there are plenty. However, considering its low rate of reproduction, it must primarily be because of the longevity of adult birds that the species is still around in any quantity nowadays. Raso and Branco must be declared protected

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areas and the collecting of birds or their eggs must be forbidden immediately. Education of future generation should have a high priority.

The situation of the **Magnificent Frigatebird** *F. magnificens* is a most precarious one, with less than 10 pairs remaining in Cape Verde and therefore in the whole of Africa. Breeding is restricted to two small islets off Boavista, Ilhéu do Curral Velho and Ilhéu Baluarte. Here the species breeds in the colonies of the Brown Booby *Sula leucogaster*. It is hardly necessary to say that such a small population should receive all protection possible. In the past, the eggs and young of the boobies (and probably those of frigatebirds as well) were collected by local fishermen. During recent visits to Boavista I was told that this is hardly practiced nowadays on a significant scale. Having the only breeding sites of this species in the whole of Africa within its boundaries, places a great responsibility on Cape Verde authorities. Complete protection of the species, including its nests, eggs and breeding sites, is urgently needed in order to save it from extinction in Africa. This implies that the booby colonies must be protected as well, as it is impossible to visit these without disturbing the frigatebirds at the same time.

The situation of the **Cape Verde Purple Heron** *A. (p) bournei* is in a way comparable to that of the Magnificent Frigatebird, as it is also very restricted in its distribution. Not more than one breeding site is known, a huge Silk-Cotton Tree *Ceiba pentandra* at Boa Entrada on Santiago. Former breeding colonies at São Domingos, on the same island, have disappeared after the nesting-trees were cut down. Today, not more than c.10 pairs remain. It is clear that conservation measures should be taken immediately to prevent any cutting or logging of the nesting tree. Furthermore, any form of disturbance should be forbidden. The local people at Boa Entrada must be informed about the rarity of the bird. The species feeds largely on locusts and it also takes mice and rats, making it useful to agriculture. The Cape Verde Purple Heron is unique because it feeds on the dry hill-slopes, whereas the species is a typical marshbird elsewhere. It seems probable that in the past the species also bred in stands of reeds and low trees or shrub. Today, with the current high human population density, this is impossible because of the vulnerability of such sites. High trees, such as that at Boa Entrada, can be considered refuges which are comparable to the ledges to which the Gon-gon has moved in order to survive.

The case of the **Cape Verde Red Kite** *Milvus fasciicauda* is somewhat different. It seems that it has mainly suffered from competition with the Black Kite *M. migrans*, a scavenger which has probably profited from

the changing environment due to human colonization. At some point in the past, the population of the Red Kite became very small and interbreeding with the Black Kite started to occur. Today, it is extremely difficult to find any genuine Red Kite in Cape Verde. Many recent reports of these have eventually proved to refer to either hybrids or even to Black Kites, which can sometimes look surprisingly reddish in bright sunlight. During my visits to Cape Verde in 1986-90, I only once saw a bird that I thought to be a real Red Kite, at Tarrafal do Monte Trigo on Santo Antão, together with supposed hybrids and Black Kites. The only other bird showing features of Red Kite (but also of Black Kite) that I ever saw was near Rui Vaz on Santiago. On São Nicolau and São Vicente, from which islands both species have been reported in the past, I never saw a kite of either species. Shooting may have added to its disappearance, although fire-arms are rare among the population. Nest robbery by youngsters is another possibility, as we know that this often happens to the Cape Verde Barn Owl *Tyto alba detorta* and has nearly wiped out the local Buzzard *Buteo bannermani*. I suggest a special study in order to clarify the present status of the Red Kite, especially on Santo Antão, seemingly its last resort. Full protection of the species is a prime objective.

The **Cape Verde Buzzard** *B.b. bannermani* is a very rare bird in the islands. It has been reported from Santiago, São Vicente, Santo Antão, São Nicolau, Fogo, Brava and Boavista, but from the last three islands only once. During my stays in Cape Verde in 1986-90, I saw it on Santiago and Santo Antão, but only in very limited numbers. The exact reason for its decline are not clear but it is thought that excessive shooting in the past and nest robbery are important causes. It is not known if pesticides have also played a role, but this may well be the case as infertile and abnormal small eggs were found during the 1960s and the population was then reported to be at a dangerously low level, perhaps less than 30 pairs (de Naurois 1973). The situation seems to have become even worse since and numbers are alarmingly low. It is almost certain that today it is only found on Santiago and Santo Antão, the total population being perhaps less than 20 pairs. It is now only able to produce offspring by choosing the most inaccessible rock ledges. Education and information of the local people appears to be the main tool to improve the situation for the Buzzard. Instead of robbing nests, the youth should be made feel responsible for the species' welfare.

Little is known about the status of the **Cape Verde Peregrine** *Falco peregrinus madens*, except that it is extremely rare. The only breeding location ever reported was on Cima, one of the Rombos islets, during the 1960s. There

was hearsay evidence of its breeding on Brava and its occurrence on Santo Antão. There are sight records from Santiago, where I saw one on the cliffs near Praia harbour, and other observers saw it near Tarrafal. The population size is unknown but likely does not exceed a mere 10 pairs. With such a small population, any disturbance of breeding sites should be avoided. The designation of the Rombos islets as a protected area will, apart from the many seabirds that breed there, also help the Cape Verde Peregrine to survive.

The **Raso Lark** *Alauda razae* is without doubt the most famous endemic species in Cape Verde. Confined to the uninhabited islet of Raso (7 km²), its total population was estimated at 200-250 birds in 1988 and 1990. As a ground breeder, it is particularly vulnerable to the (accidental) introduction of mice, rats and cats to Raso. This can easily happen with fishermen continuously visiting the islet to collect Cagarras. Little is yet known about the lark's ecology and behaviour and more detailed studies are required to define its conservation needs. The presence of this unique species alone is sufficient reason to establish strict regulations for visitors to Raso.

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