

REGIONS IDENTIFIED FOR CONSIDERATION AS PROTECTED AREAS

R. L. Miller *

Resumo: Um considerável número de regiões em Cabo Verde foram identificadas como sendo áreas a serem consideradas protegidas, pois elas constituem os ecossistemas típicos das ilhas ou os habitats das espécies raras e/ou em perigo de extinção. Essas áreas, assinaladas no mapa em anexo, foram identificadas na sequência de estudos e recomendações feitos por investigadores nacionais e estrangeiros. As espécies mais importantes em cada uma dessas regiões são apresentadas. As populações de muitas dessas espécies têm diminuído, e a sua sobrevivência está seriamente ameaçada pelo homem. Urge, portanto, que medidas sejam tomadas, quer pelo Governo, quer pelos cidadãos, visando uma protecção imediata dessas espécies e dos seus habitats.

* Biologist, National Parks and Protected Areas Project, Instituto Nacional de Investigação Agrária, C. P. 84, Praia, Cabo Verde.

A number of regions in the Cape Verde Islands have been identified for consideration as protected areas as they comprise ecosystems typical of the islands or are the habitat of rare and/or endemic species. Areas were selected based on the recommendations of researchers working in Cape Verde. These areas are shown on the accompanying map. Species of primary concern in each region are presented. Many of these species now have reduced populations and their survival is threatened by human impacts.

Direct action is needed by regional and national government authorities and local citizens to establish protection policies for these species and their habitats.

1. ISLAND OF S. ANTÃO

Although specific areas have been designated on the Island of S. Antao, there are species of flora and fauna which are in need of protective status.

Plants: 48 endemic taxa are found on the island of which more than six are island specific (Brochmann and Rustan 1987). In the Ribeira Grande and the *Planalto Leste* areas occur *Lauanaea picridioides*, *Echiun stenosphon*, and *Tornabenea* sp. (Cardoso de Matos and Vera-Cruz, 1988) and from the *Tope da Coroa* (above 1700 m.) an arid zone, occur *Euphorbia tuckyana* and *Artemisia gorgonun* both threatened by wood collection (Beryl and Mies, 1989).

Birds: The higher elevations of the island are important nesting areas for the Soft Plumaged Petrel (*Gon-gon*) *Pterodroma feae* a seabird which breeds inland in highcountry only (Hazevoet 1988). The *Gon-gon* is one of 5 endemic species of birds in Cape Verde. Local Cape Verdeans attribute pseudo-medicinal qualities to the body fat of the *Gon-gon* (Bannerman 1968) which may have contributed to the decline of this species in Cape Verde.

Other birds of S. Antao to consider are the endemic Cape Verde Shearwater (*Cagarra*) *Calonectris edwardsii* and endemic subspecies of Red Kite (*Milhafre*) *Nilvus nilvus fasciicauda*, Buzzard

(*Asa-curta*) *Buteo buteo bannernani* and Peregrine Falcon (*Soutador*) *Falco peregrinus nadens*.

2. & 3. ILHEUS BRANCO AND RAZO:

Both of these small islands should be considered as nature reserves to protect various species of reptiles and important bird colonies. Several species of endemic plants typical of Cape Verde's arid climate occur on the *ilheus* (Lobin 1986) and evidence of seaturtles nesting on Ilheu Branco was noted by Schleich (1987).

Land Reptiles: *Nabuya s. stangeri*, and the endemic gecko *Tarentola gigas brancoensis* (Schleich 1987) are found on Ilheu Branco. Ilheu Razo is inhabited by two endemic species *Tarentola caboverdiana raziana* and *Henidactylus bouvieri razoensis* (Schleich 1987). The famous endemic giant skink (*Chinel*) *Macroscolecus coctei* formerly inhabited both *ilheus* but is now believed extinct (Schleich 1987).

Birds: Among other seabirds, these *ilheus* are important nesting areas for endemic (sub) species of *Gon-gon*; *Cagarra*; Little Shearwater (*Pedreiro* or *Batitu*) *Puffinus assimilis boydi*; and White-faced Storm Petrel (*Pedreiro-azul*) *Pelagodroma narina eadesi* (Hazevoet and Haafkens 1989). Other species considered to have diminishing populations (Le Grand 1986) on the small *ilheus* are Red-billed Tropicbird *Rabo de Junco* (*Phaethon aethereus*) and Brown Booby (*Alcatraz*) *Sula leucogaster*.

Also notable is the rare endemic Razo Lark (*Calhandra do Ilheu Razo*) *Alauda razae* whose world population numbers only 250 pairs approximately (Hazevoet 1988) and is found only on Ilheu Razo.

4. ISLAND OF S. NICOLAU:

More than 43 species of endemic plants occur on S. Nicolau such as *Bubonin snithii* only occurring on Monte Gordo (Brochmann & Rustan 1987). Recommendations by Beyhl and Mies (1989) include protecting the northern slope of Monte Gordo including the crater nearby which

contains a rich biotope of *Euphorbia tuckeyana*, *Odontospermum*, etc. unique for the Cape Verde Islands but threatened by road constructions and cultivation. Included also are steeper parts of the northern slope of the Monte Gordo between Fajã de Cirna and Praia Branco with biotopes of wild *Dracaena drago*.

Rare endemic subspecies of Red Kite (*Milvinae*) *Nilvus nilvus* and Buzzard (*Asa-curta*) *Buteo buteo* are still believed to live at the higher elevations of the island (Hazevoet 1988) and among other land reptiles, the endemic subspecies of skink (*Lagartixa*) *Nabuya fogoensis nicolauensis* is endemic to the island (Schleich 1987).

5. ISLAND OF SAL:

A proposal has been developed by Mr. Ray Almeida of the business DIVE CAPE VERDE to the *Direcção Geral do Turismo* of Cape Verde to develop a marine park on the Island of Sal that would include protected beaches important to nesting sea turtles. The area identified as most frequented by sea turtles is between Ponta Leme Velho and Serra Negra on the south-east side of the island. Mr. Almeida believes the only species continuing to nest on Sal is the Loggerhead (*Tartaruga*) *Caretta caretta*.

6. AREA AROUND SAL-REI, ISLAND OF BOAVISTA:

Located approximately 4 kms. south of the town of Sal Rei, the *Ribeira do Rabil* a riverbed seasonally filled with water and bordered by large sand dunes at its mouth where it meets the sea is a delightful area for birdwatching. The area is mainly important for wintering Palearctic migrants, particular waders (Scolopacidae) and herons (Ardeidae) (Hazevoet, personal communication). The Spoonbill (*Colheireiro*) *Platalea leucorodia* is also seen as well as breeding species such as Little Egret (*Garça branca*) *Egretta garzetta* found in trees edging the riverbed.

It has been suggested that the vegetation which helps to secure the dunes north of the town of Sal Rei be conserved under protective measures: *Frankenia ericifolia* and *Tanarix canariensis* (Cardoso de Matos in Vera-Cruz 1988).

7. NORTHERN COAST OF THE ISLAND OF BOAVISTA:

The beaches on the north of the island are frequented by various species of nesting sea turtles and should be explored as potential protected areas.

8 & 9. ILHEUS BALUARTE AND CURAL VELHO, ISLAND OF BOAVISTA:

Both of these islands maintain colonies of *Alcatraz* and Magnificent Frigatebird (*Rabil*) *Fregata magnificens* whose only nesting area in the western Atlantic Ocean are these small islands

(Hazevoet 1987).

The coastal beaches facing the small islands are frequented heavily by nesting sea turtles *Caretta c.*, and possibly Green turtle (*tartaruga*) *Chelonia mydas*. Other species captured in Boavista, but much more rarely, are Leatherback (*tartaruga preta or negra*) *Dermochelys coriacea* and Hawksbill (*cagadu*) *Eretmochelys imbricata*.

10. ISLAND OF MAIO:

The north-west corner of Maio *Terras Salgadas* maintains a unique and fragile vegetative cover which could be considered a reserve area (Cardoso de Matos, 1987). However recent government plans for development of pastures in the old salinas appears to be already underway.

11. ISLAND OF SANTIAGO:

Occurring in the higher elevations in the *Serras do Pico de Antonia* and *Malgueta* are the species *Verbascus capitatus viridi*, *Sideroxylon narnulana*, *Heteropogon contortus* (Ledant, 1988). The floras of these areas are rich in endemics (Diniz and Matos in Ledant, 1988).

These high elevations are also breeding areas for the endemic birds *Gon-gon* and *Cagarra*.

12. BOA ENTRADA, ISLAND OF SANTIAGO:

A small colony of the Purple Heron (*Garça Purpurea*) *Ardea purpurea bounei*, a rare endemic sub-species of Cape Verde, is known to nest in Cape Verde only in the Silk cotton tree (*Poilão*) *Ceiba pentandra*. Protection is needed for this species as well as the tree in which it nests.

13. BAÍA DE SANTA CLARA, ISLAND OF SANTIAGO:

A breeding colony of the *Alcatraz* which has a reduced population in Cape Verde (Le Grande, 1986) is found on the high cliffs of the bay. Also nesting in the area is Rabo de Junco (Le Grande, 1986).

14. ISLAND OF FOGO:

Many recommendations have been made for designating the volcano and surrounding region of Fogo a protected area. As proposed by Cardoso de Matos and presented by Vera-Cruz (1988) at the *1as Jornadas Atlânticas de Protecção do Meio Ambiente* in the Azores, the areas including the outer crater wall, known as *Cintura do Ricino*, the inner crater *Chã das Caldeiras* and the volcano peak should be considered a reserve or natural monument. Encompassing more than 25 km², the reserve would include almost all endemic plants on the island. Within the reserve, an area with strict protection is proposed — *Reserva Integral de Cova Tina*. This protected area would include both sides of the south-west portion of the outer crater *bordeira*. Species in this

area include a number of endemic plants found only on Fogo including *Echiun vulcanorun* and *Erysinun caboverdanun*.

This area is also one of the few remaining places in the arquipelago where the endemic Gon-gon is found. The species nests in the high cliff walls of the old volcano crater.

15. ILHEUS ROMBOS:

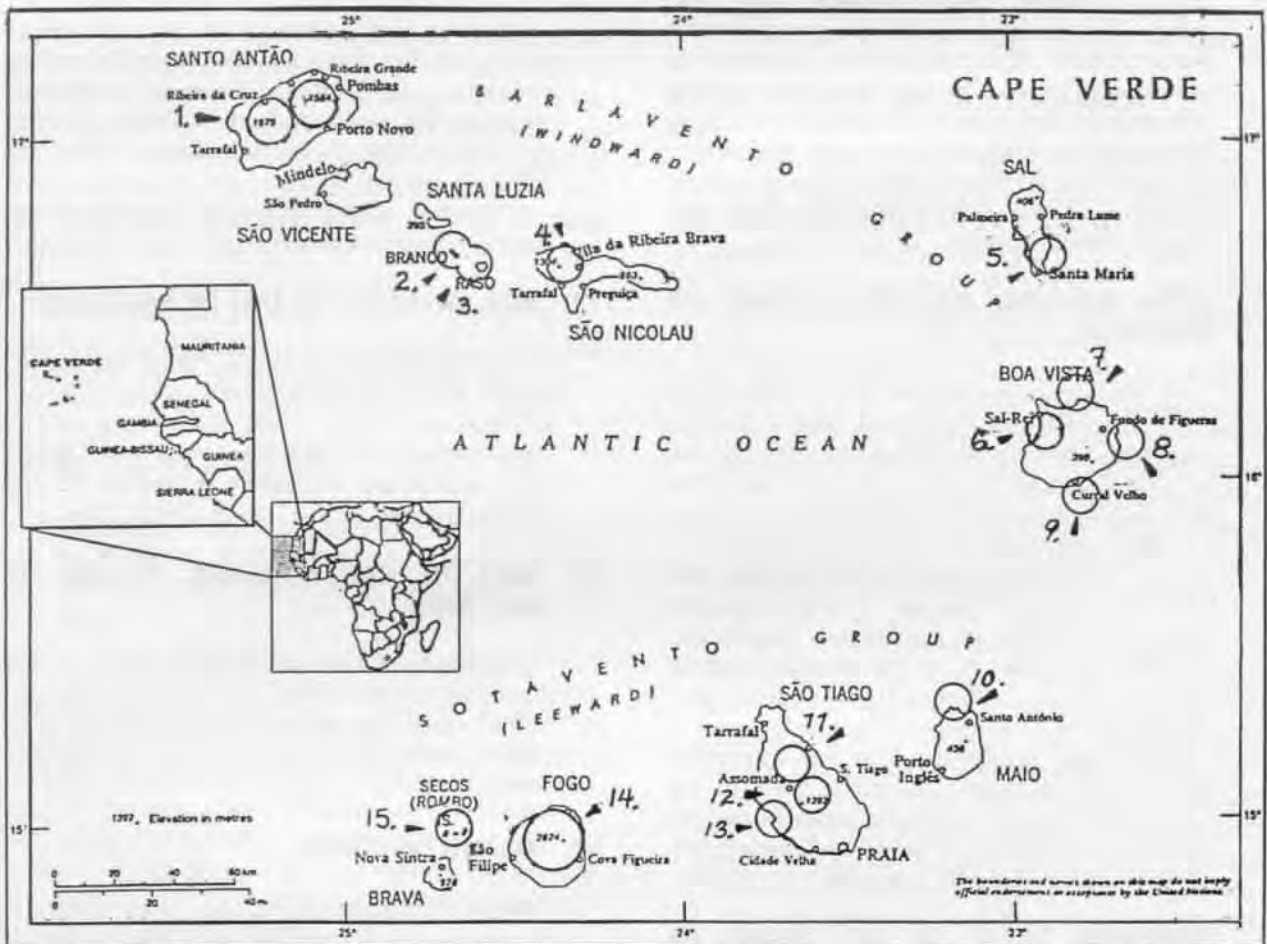
Located north of the Island of Brava, the Ilheus Rombos comprise two larger islands, Cima and Ilheu Grande (or Baixo) and a number of tiny islets.

These islands should be preserved in their entirety

as nature reserves. Breeding bird species include: Bulwer's Petrel (*João Preto*) *Bulweria bulwerii*; *Pedreiro-azul*; Madeiran Storm Petrel *Jaba-jaba* or *Pedreirinho* *Oceanodroma castro*; *Rabo de Junco*; and *Alcatraz*. The last two species have been greatly reduced due to human exploitation of eggs and chicks (Hazevoet & Haafekns 1989). The introduction of goats to Ilheu Grande (Hazevoet & Haafekns (1989) could account for the lower number of breeding birds on this small island as compared to Cima.

Sea turtles are known to nest on the *ilheus* and several endemic species of plants and land reptiles occur.

**REGIONS FOR CONSIDERATION AS PROTECTED AREAS
(REGIÕES PRELIMINARES A CONSIDERAR COMO ÁREAS PROTEGIDAS)
REPÚBLICA DE CABO VERDE**



Preparado por: L. Miller e I. Gomes, Projecto de Parques Nacionais e Áreas Protegidas, INIA, 1989

Adaptado do mapa das Nações Unidas 1984

Rubén Barone Tosco