THE AZORES

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GENERAL INTRODUCTION

The Azores archipelago (36°–39°N, 25°–31°W) lies c.1,450 km west of mainland Portugal, and has a land surface area of 2,333 km². It comprises nine volcanic islands, forming three groups (western, central and eastern) along a tectonic zone running west-north-west–east-south-east for c.600 km. The c.700 km long coastline is rocky with boulder shores, and the cliffs frequently reach 500 m in height. Within 1 km of the main islands lie 26 small islets (0.1–10 ha) and stacks.

The Azores is an integral part of Portugal but has its own autonomous government. The islands were first colonized by people over a period of several decades at the end of the 15th century. The human population has now stabilized at around 240,000 inhabitants.

The Azores has 15 Important Bird Areas (IBAs) with a total area of 12,805 ha, equivalent to 5.5% of the land area of the archipelago (Table 1, Map 1). These IBAs are evenly distributed across the main islands, the total by island varying between one and four. Seven IBAs were identified in 1989 (Grimmett and Jones 1996). Map 1. Location, area and criteria category of Important Bird Areas in the Azores.
1989), with a total area of 2,844 ha. Former sites QQ003 and QQ004 have been merged into present site 007. Recent seabird surveys have resulted in the identification of a further nine IBAs and the overall IBA area has been enlarged by 9,961 ha.

**ORNITHOLOGICAL IMPORTANCE**

Table 1 presents the criteria on which each IBA is qualifying. 'East of São Miguel' (IBA 013) extends to a vast mountainous sector that includes the entire restricted breeding range of *Pyrhula marina*, endemic to the island and a proposed species of global conservation concern (BirdLife International, in prep.). Overall, the following sites are especially important due to the high number of species of European conservation concern (SPECs) and size of populations they hold: Coast of Flores (001), Coast of Corvo (002), Coast and islets of Graciosa (007) and Vila islet (014).

All 15 IBAs hold important breeding congregations of waterbirds and seabirds (qualifying under criteria A4, B1 and B2). Of particular significance is that the Azores holds the largest breeding population of *Sterna dougallii* in the world, the *Calonectris diomedea* and two temporally distinct (hot- and cool-season) and genetically divergent breeding populations of *Oceanodroma castro* (Monteiro and Furness 1998). This importance is reflected in 14 IBAs which hold at least 1% of the global (or in the case of *Sterna dougallii* 1% of the European) breeding population of one or more of these three species (criterion A4, Table 2). Some of these 14 IBAs also hold at least 1% of distinct breeding populations of *Bulweria bulwerii* and *Puffinus assimilis baroli*. The remaining IBA (Vila Franca islet, 012) qualifies under criterion B1ii because it holds more than 1% of the European population of breeding *Calonectris diomedea*.

Seventeen SPECs breed in the Azores. Nine of these have an unfavourable conservation status, of which six are seabirds (Tucker and Heath 1994). Several of these species are covered well by the IBA network (Table 3).

The Azorean subspecies of *Columba palumbus azorica*, presumed to be declining and listed on Annex I of the EC Birds Directive, and other distinct forest bird subspecies are not well covered by the IBA network. This is due to a lack of information on their status and distribution.

**HABITATS**

The vegetation cover of the Azores has been considerably altered since humans first colonized the archipelago. Clearance of the native broadleaved evergreen forest (dominated by *Laurus azorica* and *Juniperus brevifolia*) took place at a fast rate. Later introductions of invasive alien plant species (for example, *Pittosporum undulatum*, *Hedychium gardneranum*, *Arundo donax*, and *Clethra arborea*) caused further major changes in the vegetation (Sjögren 1973). Native forest now covers less than 5% of the islands' surface area, and more than half of the vascular plant species have been introduced.
comprise the distribution of characteristic bird species. Coastal heathland is an important component of the IBA network due to a lack of information on the status and abundance of some species. Under-representation of forest and other terrestrial habitats within the IBA network is due to a lack of information on the status and abundance of some species. An exception is ‘East of São Miguel’ (013), which includes the coastal areas of the islets and most of the islets. Forest, sea cliffs, rocky shores, rock stacks and islets, and in 80% of sites, are the most vulnerable. As a result of predation, only residual colonies of the smaller shearwaters and petrels (Procellariidae) now remain on the main Azorean islands (Monteiro et al. 1996).

Major changes in coastal and cliff vegetation have taken place following invasion by densely rooted exotics, such as Arundo donax. Under-representation of forest and other terrestrial habitats within the IBA network is due to a lack of information on the status and distribution of characteristic bird species. Coastal heathland comprises Erica scoparia azorica, with Myrica faya and exotics such as Arundo donax and Pittosporum undulatum, and is present at IBAs 002, 003, 004, 005, 007, 008, 009, 010, 012 and 013.

**IMPACTS ON IBAs – LAND-USE AND THREATS**

Forty-seven percent of Azorean IBAs are not utilized over more than 50% of their area (Figure 2). Agricultural activity takes place in 80% of IBAs, and virtually all the coastal fringes and islets, and most of the accessible islets are used as pasture for cattle. Tourism and recreation is present at 67% of IBAs, with coastal fringes, and increasing pressure from activities including fishing, boating, scuba-diving, crab and limpet collecting, and picnicking. Nature conservation and research activities take place at 60% of IBAs, but coverage is less than 50% at most of these. Forestry is restricted to ‘East of São Miguel’ (013), and consists mainly of plantations of introduced Cryptomeria japonica.

The majority of the IBAs are privately owned, including coastal sectors and islets, except for the forests of Vila Franca islet (012) and ‘East of São Miguel’ (013), which are state owned. The local government is purchasing some islets and important coastal habitats.

Animal and plant introductions pose a widespread threat, affecting over 90% of IBAs, and having a high impact in 60% of IBAs (Figure 3). Colonization resulted in the introduction of bird predators (for example, black rat Rattus rattus, brown rat Rattus norvegicus, weasel Mustela nivalis, ferret Mustela furo, and cat Felis catus), which were widely spread by the 16th century (Fructuoso 1561). Introduced carnivores are a major threat to seabirds, and those burrow-nesting species that are at colonies for long periods are the most vulnerable. As a result of predation, only residual colonies of the smaller shearwaters and petrels (Procellariidae) now remain on the main Azorean islands (Monteiro et al. 1996).

Major changes in coastal and cliff vegetation have taken place following invasion by densely rooted exotics, such as Arundo donax. This is thought to have resulted in losses of suitable burrowing ground for breeding shearwaters and petrels (Monteiro et al. 1996).

Recreation/tourism and disturbance to birds are the second most common threats, each affecting 53% of Azorean IBAs, and having a high impact in 33% of IBAs (Figure 3). Tern colonies along the Coast of Flores (001), Coast and islands of Graciosa (007), Coast of Faial (003) and South-east coast of Terceira (009) are most vulnerable to these threats, which have led to colony desertion and low productivity. Recreation is a serious problem at Vila Franca islet (012), where losses of Calonectris diomedea nest-sites due to trampling by tourists have been observed during the summer. Human exploitation of adults and young of the same species for fishing bait and food occurs in the most accessible areas of some IBAs (Monteiro et al. 1996).

The pressure on the littoral zone has increased in recent years, in the form of dumping of solid wastes, fisheries, recreation, infrastructure (for example, harbours and roads) and tourist developments (Santos et al. 1995).

**PROTECTION STATUS**

Table 4 and Figures 4 and 5 summarize the national and international protection status of all Azorean IBAs.

**National protection**

Two independent networks of protected areas coexist in the Azores, and are administered by the Regional Government through either the Environment Department or the Forestry Department. Those protected areas designated by the Environment Department are Nature Reserves (Strict or Partial), Natural Parks and Protected Landscapes. The Forestry Department is responsible for designating Strict Forest Nature Reserves, Partial Forest Nature Reserves and Recreational Forest Nature Reserves. Protected areas are not necessarily owned by the state and some are privately owned.

Only five of the 15 IBAs are afforded some legal protection through the national protected-areas network; 91% of the total

**Figure 1. Habitats at Important Bird Areas in the Azores (see Appendix 3 for definitions of habitats).**

**Figure 2. Land-uses at Important Bird Areas in the Azores (see Appendix 3 for definitions of land-uses).**

**Figure 3. Threats at Important Bird Areas in the Azores (see Appendix 3 for definitions of threat types and impact categories).**
International protection

As part of the Portuguese State, the Azores is covered by various pieces of international legislation (Box 1). Fifteen Special Protection Areas (SPAs) have been designated under the EC Birds Directive, covering an area of 11,825 ha. These overlap partially or fully with nine of the 15 IBAs (Table 4, Figure 5), but cover only 28.3% of the total IBA area. Proper enforcement of protection measures within SPAs will not be achieved until national regulatory legislation is published in the near future.

CONSERVATION

- Scientific research and monitoring of Azorean birds began only recently. Annual monitoring of tern colonies started in 1989 (del Nevo et al. 1993) and extensive surveys of other seabird species in 1995. Monitoring and ecological studies of Pyrrhula marina were initiated in 1991 (Ramos 1993).
- Wardening at Sterna dougallii colonies vulnerable to disturbance began in 1993.
- A management plan exists for Praia islet (within 007), which has been subject to a restoration programme since 1995.
- A habitat restoration programme was also initiated in 1995 in East of São Miguel (013), which will benefit Pyrrhula marina.

ANALYTICAL METHODS

- Bird counts are given in pairs, except data for Larus cachinnans atlantis which are given as individuals.
- Bulveria bulwerii, Calonectris diomedea, Larus cachinnans, Sterna dougallii, Sterna hirundo and Pyrrhula marina counts are of good quality; most counts of Puffinus puffinus, Puffinus assimilis and Oceanodroma castro are less accurate.
- The method used for calculating Calonectris diomedea numbers is outlined in Monteiro et al. (1999).
- All bird data are from 1989 onwards.
- Threat and land-use estimates are based on information from the 1990s.

GLOSSARY

ACE a now superseded EU financial instrument for funding biotope projects.
EU European Union.
LIFE the EU’s all-encompassing fund for nature conservation.
SPA Special Protection Area (designated under Article 4 of the EC Birds Directive).

ACKNOWLEDGEMENTS

The information contained in this work was collected between 1989 and 1995 through research and conservation projects. These were funded by the European Commission (for example, Programme LIFE contract B4-3200/95/351), Junta Nacional de Investigação Científica (Lisbon, research contract STRDB/C/MAR/22892) and the Royal Society for the Protection of Birds (BirdLife International Partner in the United Kingdom). All those who gave valuable assistance in the field are acknowledged: J. A. Ramos, E. Sola, R. W. Furness, P. Monteiro, R. Feio, D. R. Thompson, S. Bearhop, N. Ratcliffe, J. Pereira, G. Hilton, L. Wilson, L. Hewitson, A. Tavares, M. Laranjo, M. P. Groz, V. Neves and K. Thompson.
SITE ACCOUNTS

Coast of Flores

Admin region Santa Cruz das Flores, Lages da Flores
Coordinates 39°27'N 11°12'W
Altitude 0–500 m Area 1,200 ha

Site description
The narrow, rocky coastal strip of the island of Flores, reaching from the shoreline to the cliff-tops (average width 250 m). There are numerous islets and stacks. Human activities include fishing, yachting, and tourism.

Habitats
Forest and woodland (55%; broadleaved evergreen forest), Rocky areas (100%; sea cliff/rocky shore; rock stacks/islets), Introduced/exotic vegetation (40%)

Land-use
Agriculture (20%), Nature conservation/research (30%), Not utilized (50%), Tourism/recreation (20%)

Conservation issues
Introduced ground predators (rats, mustelids, feral cats and dogs) possibly limit the breeding of most seabirds, especially of smaller shearwaters/petrels. Invasion by densely rooted exotic plants, such as cane grass, possibly limit the breeding of most seabirds, especially of smaller shearwaters/petrels. There is a management plan for Costa Nordeste, results in the loss of suitable burrowing ground for shearwaters/petrels. The numbers of terns have been monitored since 1989, and other seabirds since 1995, with EU funding (ACE and LIFE projects).

Protection status
National None International High

Coast of Faial

Admin region Horta
Coordinates 38°36'N 28°43'W
Altitude 0–300 m Area 940 ha

Site description
The IBA extends along the coastline from Castelo Branco harbour to Ribeirinha harbour, encompassing a 250 m-wide band from the shoreline to the cliff-tops.

Habitats
Forest and woodland (30%; broadleaved evergreen forest), Scrub (15%; heathland), Rocky areas (100%; sea cliff/rocky shore; screes/ridges), Introduced/exotic vegetation (60%)

Land-use
Agriculture (15%), Nature conservation/research (10%), Not utilized (70%), Tourism/recreation (20%)

Conservation issues
Introduced ground predators (rats, mustelids, feral cats and dogs) possibly limit the breeding of most seabirds, especially of smaller shearwaters/petrels. Invasion by densely rooted exotic plants, such as cane grass, results in the loss of suitable burrowing ground for shearwaters/petrels. UnAuthorized recreational activities on Capelinhos volcano cause disturbance to breeding terns. Numbers of terns have been monitored since 1989 and other seabirds since 1995, with EU funding (ACE and LIFE projects).

Birds

Important mainly for breeding seabirds, including the largest concentration of breeding Sterna dougallii in the eastern Atlantic (concentrated mainly between Santa Cruz and Ponta Ruiva).

Common Tern B 1996 420 420 A C6
Canary R — 300 — — A2, B3

Calonectris diomedea
Puffinus assimilis
Sterna dougalli
Sterna hirundo
Serinus canaria

Protection status
National None International Partial

Coast of Corvo

Admin region Vila Nova do Corvo
Coordinates 39°42'N 31°06'W
Altitude 0–715 m Area 690 ha

Site description
The coastal strip (average width 250 m) with islets and sea cliffs, extending inland to the cliff-tops and to the slopes of the Caldeirão basin.

Habitats
Forest and woodland (30%; broadleaved evergreen forest), Scrub (20%; heathland), Rocky areas (100%; sea cliff/rocky shore; rock stacks/islets; screes/ridges), Introduced/exotic vegetation (10%)

Land-use
Agriculture (20%), Not utilized (80%)

Conservation issues
Introduced ground predators (rats, mustelids, feral cats and dogs) possibly limit the breeding of most seabirds, especially of smaller shearwaters/petrels. Invasion by densely rooted exotic plants, such as cane grass, results in the loss of suitable burrowing ground for shearwaters/petrels. UnAuthorized recreational activities on Capelinhos volcano cause disturbance to breeding terns. Numbers of terns have been monitored since 1989 and other seabirds since 1995, with EU funding (ACE and LIFE projects).

Birds

Important mainly for breeding seabirds, including the largest congregations of breeding Calonectris diomedea and Puffinus puffinus in the Azores.

Calonectris diomedea
Puffinus assimilis
Sterna dougalli
Sterna hirundo
Serinus canaria

Protection status
National None International Partial

Coastal Strip around Horta

Admin region Horta
Coordinates 38°36'N 28°43'W
Altitude 0–300 m Area 940 ha

Site description
The IBA extends along the coastline from Castelo Branco harbour to Ribeirinha harbour, encompassing a 250 m-wide band from the shoreline to the cliff-tops.

Habitats
Forest and woodland (30%; broadleaved evergreen forest), Scrub (15%; heathland), Rocky areas (100%; sea cliff/rocky shore; screes/ridges), Introduced/exotic vegetation (60%)

Land-use
Agriculture (15%), Nature conservation/research (10%), Not utilized (70%), Tourism/recreation (20%)

Conservation issues
Introduced ground predators (rats, mustelids, feral cats and dogs) possibly limit the breeding of most seabirds, especially of smaller shearwaters/petrels. Invasion by densely rooted exotic plants, such as cane grass, results in the loss of suitable burrowing ground for shearwaters/petrels. Numbers of terns have been monitored since 1989 and other seabirds since 1995, with EU funding (ACE and LIFE projects).

Birds

Important mainly for breeding seabirds.
Important mainly for breeding seabirds.

**Protection status**

National None International Partial

23 ha of IBA covered by Special Protection Area (Furnas de Santo António, 23 ha). 29 ha of IBA covered by Special Protection Area (Lajes do Pico, 29 ha). 150 ha of IBA covered by Special Protection Area (Ponta da Ilha, 342 ha).

**Conservation issues**

Recreation at Furnas de Santo António threatens the single colony of *Sterna dougallii* in the IBA. Introduced ground predators (rats, mustelids, feral cats and dogs) possibly limit the breeding of most seabirds, especially of smaller shearwaters/petrels. Invasion by densely rooted exotic plants, such as cane grass *Arundo donax*, results in the loss of suitable burrowing ground for shearwaters/petrels. Numbers of terns have been monitored since 1989, and other seabirds since 1995, with EU funding (ACE and LIFE projects).

**Site description**

The IBA extends along the coast from Morro do Lemos to Fajã João Dias, encompassing a 250 m-wide band from the shoreline to the cliff-tops.

**Habitats**

Forest and woodland (20%); broadleaved evergreen forest; Scrub (10%); heathland; Rocky areas (100%); sea cliff/rocky shore; rock stacks/islets; screes/boulders; Introduced/exotic vegetation (30%).

**Land-use**

Agriculture (10%), Not utilized (90%).

Important mainly for breeding seabirds.

**Protection status**

National None International None

**Conservation issues**

Cows and sheep are present on Topo islet and should be removed to avoid the trampling of burrows and tern nests. Within the coastal sector of the main island, introduced ground predators (rats, mustelids, feral cats and dogs) possibly limit the breeding of most seabirds, especially of small shearwaters/petrels. Invasion by densely rooted exotic plants, such as cane grass *Arundo donax*, has resulted in the loss of suitable burrowing ground for shearwaters/petrels. Numbers of terns have been monitored since 1989, and of other seabirds since 1995, with EU funding (ACE and LIFE projects).

**Site description**

The IBA extends along the coast from Fajã dos Cúberes (Cabeço da Vaca) to Ponta dos Monteiros (including Topo islet), encompassing a 250 m-wide band from the shoreline to the cliff-tops.

**Habitats**

Forest and woodland (30%); broadleaved evergreen forest; Rocky areas (100%); sea cliff/rocky shore; rock stacks/islets; screes/boulders; Introduced/exotic vegetation (40%).

**Land-use**

Agriculture (20%), Nature conservation/research (80%).

Important mainly for breeding seabirds.

**Protection status**

National Low International Partial

20 ha of IBA covered by Nature Reserve (Topo, 20 ha). 170 ha of IBA covered by Special Protection Area (Ilhéu do Topo e Costa Adjacente, 346 ha).

**Conservation issues**

Cows and sheep are present on Topo islet and should be removed to avoid the trampling of burrows and tern nests. Within the coastal sector of the main island, introduced ground predators (rats, mustelids, feral cats and dogs) possibly limit the breeding of most seabirds, especially of small shearwaters/petrels. Invasion by densely rooted exotic plants, such as cane grass *Arundo donax*, has resulted in the loss of suitable burrowing ground for shearwaters/petrels. Numbers of terns have been monitored since 1989, and of other seabirds since 1995, with EU funding (ACE and LIFE projects).

**Site description**

The coastal strip (average width 200 m) of Graciosa, extending inland to the cliff-tops, and including the islets of Praia and Baixo.
Important for breeding seabirds, especially Cory’s Shearwater, Madeiran Petrel and Roseate Tern. The IBA also supports many other seabirds, including Cory’s Shearwater, Madeiran Petrel, Roseate Tern and Common Tern, results in the loss of suitable burrowing ground for shearwaters/petrels. Introduced rabbits Oryctolagus cuniculus on Praia islet also have a detrimental effect on the burrows of shearwaters/petrels and accelerate soil-erosion due to overgrazing. Numbers of terns have been monitored since 1989 and other seabirds since 1995, with EU funding (ACE and LIFE projects). There is a management plan for Praia islet, where wadingbird and habitat restoration are in progress (LIFE project). The area forms part of an ongoing study of seabird ecology.

**Site description**

The IBA extends along the coast from Porto das Cinco to Ponta da Selvagem, comprising a band (average width 200 m) from the shoreline to the cliff-tops.

**Habitats**
- Forest and woodland (broadleaved evergreen forest), Scrub (heathland), Rocky areas (100%; sea cliff/rocky shore; rock stacks/islets), Introduced/exotic vegetation

**Land-use**
- Agriculture, Not utilized, Tourism/recreation

Important mainly for breeding seabirds.

**Protection status**

National None International Partial

28 ha of IBA covered by Special Protection Area (Ilhéus das Cabras, 28 ha). 93 ha of IBA covered by Special Protection Area (Ponta das Contendas, 93 ha).

**Conservation issues**

- Agricultural intensification/expansion (U), Consequences of animal/plant introductions (U), Disturbance to birds (A), Recreation/tourism (A)

**Threats**

- Agriculture, Nature conservation/research, Not utilized, Tourism/recreation

Vandalism and recreation cause disturbance to nesting birds, notably on the islets off Ponta das Contendas. Over 100 sheep were introduced in 1995 to the Cabras islets. There is a management plan for Ponta das Contendas SPA. Numbers of terns have been monitored since 1989, and other seabirds since 1995, with EU funding (ACE and LIFE projects). The islets off Ponta das Contendas have been wardened during the tern breeding season since 1994.

**Site description**

The IBA extends along the coast from Monte Brasil to Porto Novo, including the islets off Ponta das Contendas and Cabras, and encompasses a 200 m-wide band from the shoreline to the cliff-tops.

**Habitats**
- Forest and woodland (broadleaved evergreen forest), Scrub (heathland), Rocky areas (100%; sea cliff/rocky shore; rock stacks/islets), Introduced/exotic vegetation

**Land-use**
- Agriculture, Nature conservation/research, Not utilized, Tourism/recreation

Important mainly for breeding seabirds.

**Protection status**

National None International Partial

28 ha of IBA covered by Special Protection Area (Ilhéus das Cabras, 28 ha). 93 ha of IBA covered by Special Protection Area (Ponta das Contendas, 93 ha).

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**Site description**

The IBA extends along the coast from Porto das Cinco to Ponta da Selvagem, comprising a band (average width 200 m) from the shoreline to the cliff-tops.

**Habitats**
- Forest and woodland (broadleaved evergreen forest), Scrub (heathland), Rocky areas (100%; sea cliff/rocky shore; rock stacks/islets), Introduced/exotic vegetation

**Land-use**
- Agriculture, Not utilized, Tourism/recreation

Important mainly for breeding seabirds.

**Protection status**

National None International None

**Conservation issues**

- Agricultural intensification/expansion (U), Consequences of animal/plant introductions (U)

Introduced ground predators (rats, mustelids, feral cats and dogs) possibly limit the breeding of most seabirds, especially of smaller shearwaters/petrels. Invasion by densely rooted exotic plants, such as cane grass Arundo donax, results in the loss of suitable burrowing ground for shearwaters/petrels. Agricultural intensification and expansion may result in a loss of nesting habitat. Numbers of terns have been monitored since 1989, and other seabirds since 1995, with EU funding (ACE and LIFE projects).

**Site description**

The IBA extends along the coast from Monte Brasil to Porto Novo, including the islets off Ponta das Contendas and Cabras, and encompasses a 200 m-wide band from the shoreline to the cliff-tops.

**Habitats**
- Forest and woodland (broadleaved evergreen forest), Scrub (heathland), Rocky areas (100%; sea cliff/rocky shore; rock stacks/islets), Introduced/exotic vegetation

**Land-use**
- Agriculture, Not utilized, Tourism/recreation

Important mainly for breeding seabirds.
**Protection status**
National None International None

**Conservation issues**

**Threats** Consequences of animal/plant introductions (U)

Introduced ground predators (rats, mustelids, feral cats and dogs) possibly limit the breeding of most seabirds, especially of smaller shearwaters/petrels. Invasion by densely rooted exotic plants, such as cane grass *Arundo donax*, results in the loss of suitable burrowing ground for shearwaters/petrels. Numbers of terns have been monitored since 1989, and other seabirds since 1995, with EU funding (ACE and LIFE projects).

**Site description**

The IBA extends along the coast from Calhau do Cabo to Ponta Formosa, comprising a 200 m-wide band from the shoreline to the cliff-tops.

**Habitats** Rocky areas (100%; sea cliff/rocky shore; rock stacks/isle/)
**Land-use** Agriculture, Not utilized, Unknown

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc Criteria</th>
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Important for breeding seabirds.

**Protection status**
National None International None

**Conservation issues**

**Threats** Consequences of animal/plant introductions (U)

Introduced ground predators (rats, mustelids, feral cats and dogs) possibly limit the breeding of most seabirds, especially of smaller shearwaters/petrels. Invasion by densely rooted exotic plants, such as cane grass *Arundo donax*, results in the loss of suitable burrowing ground for shearwaters/petrels. Numbers of terns have been monitored since 1989, and other seabirds since 1995, with EU funding (ACE and LIFE projects).

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Important for breeding seabirds.

**Protection status**
National None International None

**Conservation issues**

**Threats** Consequences of animal/plant introductions (U)

Introduced ground predators (rats, mustelids, feral cats and dogs) possibly limit the breeding of most seabirds, especially of smaller shearwaters/petrels. Invasion by densely rooted exotic plants, such as cane grass *Arundo donax*, results in the loss of suitable burrowing ground for shearwaters/petrels. Numbers of terns have been monitored since 1989, and other seabirds since 1995, with EU funding (ACE and LIFE projects).

**Site description**

The IBA extends along the coast from Calhau do Cabo to Ponta Formosa, comprising a 200 m-wide band from the shoreline to the cliff-tops.

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Important for breeding seabirds and native landbirds, including the only known population of *Pyrhrula murina* in the world.

**Protection status**
National Partial International Partial

6.5 ha of IBA covered by Nature Reserve (Graminhais, 6.5 ha). 875 ha of IBA covered by Nature Reserve (Pico da Vara, 875 ha). 1,982 ha of IBA covered by Special Protection Area (Pico da Vara/Ribeira do Guilherme, 1,982 ha).

**Conservation issues**

**Threats** Afforestation (A), Consequences of animal/plant introductions (A), Deforestation (commercial) (U)

The inland part of this site is severely encroached upon by commercial forestry and has been invaded by exotic plants. In the coastal sector, introduced ground predators (rats, mustelids, feral cats and dogs) possibly limit the breeding of most seabirds, especially of smaller shearwaters/petrels. Invasion by densely rooted exotic plants, such as cane grass *Arundo donax*, has resulted in the loss of suitable burrowing ground for shearwaters/petrels. There is a management plan for the inland part of the site. Restoration of the habitat of *Pyrhrula murina* is in progress, with EU funding (LIFE project).
**Site description**

A rocky islet of basalt, with steep slopes and cliffs. On top of the islet and on steep slopes the rock is overlaid with soil, which supports annual plants. The island is uninhabited, but is visited regularly by fishermen and occasionally by tourists. In the previous international IBA inventory (Grimmett and Jones 1989) this site also included the adjacent coastal sector but it is now limited to the islet only, as the adjacent coastal sector does not support sufficient numbers of birds for qualification under the revised IBA criteria. The site was used for grazing livestock until 1993.

**Habitats**

Grassland (30%), rocky areas (100%); rock stacks/islets

**Land-use**

Nature conservation/research (100%), Tourism/recreation (10%)}

Important for breeding seabirds, including the only known breeding site for Bulweria bulwerii in the Azores, the largest colony of Sterna Hirundo in the Azores, and the first and only known breeding locality for Sterna fuscata in Europe.

**Protection status**

National None International High

10 ha of IBA covered by Special Protection Area (Ilhéu da Vila e Costa Adjacente, 48 ha).

**Conservation issues**

Threats: Disturbance to birds (B), Recreation/tourism (B), Unsustainable exploitation (B)

Goats were eradicated in 1993. Chicks and adults of Calonectris diomedea are regularly harvested by fishermen. Recreation disturbs nesting birds. Numbers of terns have been monitored since 1989 and other seabirds since 1995, with EU funding (ACE and LIFE projects). The area forms part of an ongoing study of seabird ecology.

**REFERENCES**


