

# BERLENGAS BIOSPHERE RESERVE



Photo: F. Piqueiro - Foto Engenho



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Berlenga



Farilhões



Estelas

## Berlengas archipelago

The Berlengas archipelago is located on the Portuguese continental shelf at 5.7 miles of Cabo Carvoeiro (Peniche). It consists of a group of small islands and coastal reefs distributed into three groups: Berlenga Island, Estelas and Farilhões-Forcadas. The larger islands rise to approximately 90 m, whilst the remaining islets and rocks are small, at times only just visible above the surface of the sea.

The importance of the Berlengas as an island ecosystem, the biological value of the surrounding marine area, its great botanical interest, its role as a nesting habitat and stopping place on marine avifauna migratory routes and the presence of an underwater archaeological heritage all combined to ensure that in September 1981 the archipelago was classified as a Nature Reserve.

In 1998, the Berlenga Nature Reserve was reclassified, taking the new legal framework for protected areas into account (Decree-Law no 19/93 of 23 January). It became known as the Reserva Natural das Berlengas, which consisted of the entire Berlengas archipelago and a marine reserve area.

Reserva Natural das Berlengas (RNB) encompasses all the immersed area of the group of small islands and islets and the adjacent sea, to a maximum depth of 520 m. The total area of the RNB is 9541 ha; the land area is 99 ha and the marine area is 9442 ha.

The value and importance of this area for the conservation of biodiversity at European level were subsequently recognised when it was classified as a Special Protection Zone (ZPE) for Wild Birds (Directive 79/409/EEC) and became part of the Natura Network 2000 (Habitats Directive 92/43/EEC).



Forte de S. João Baptista



Bairro dos Pescadores



Praia do Carreiro do Mosteiro



Farol

## Places of interest

- **Forte de S. João Baptista:** a fort dating from the 17<sup>th</sup> century, built on an islet linked to the island by a stone bridge with arcades and a small anchorage on its north side.
- **Bairro dos Pescadores / Comandante Andrade e Silva:** built in 1941 on the site of a former sixteenth century monastery belong to the Hieronymite Order to provide shelter for the fishing community based on Berlenga Island, this residential area nowadays consists of around three dozen houses.
- **Castelinho:** a building located in Carreiro do Mosteiro which nowadays functions as a small commercial establishment, incorporating the remains of a former sixteenth century watchtower overlooking the old anchorage.
- **Farol do Duque de Bragança:** a lighthouse built on the top of the island in 1841, consisting of a quadrangular tower that rises approximately 112 meters above sea level, projecting its beam roughly 52 miles into the distance.
- **Geological features:** the Berlenga island has a number of interesting caves and geological features namely: Gruta da Flandres; Greta da Inês; Gruta Azul; Furado Grande; Cova do Sono; Gruta da Muxinga; Gruta da Lagosteira; Gruta do Brandal; Carreiro dos Cações; Carreiro da Inês; Carreiro do Mosteiro; Cabeça de Elefante.
- **Praia do Carreiro do Mosteiro:** a small beach with very transparent waters located on Carreiro do Mosteiro.
- **Dive Sites:** Berlengas archipelago is well known for its transparent waters with abundant underwater life and large number of sunken treasures, being one of the best spot for diving in Portugal. For additional information, please contact local dive operators.

## PEDESTRIAN TRACKS

### 1 - Berlenga Trail

Length: 3 km

Approximate duration: 3h00m

Degree of difficulty: Moderate; very high slope (access to the plateau)

Route type: Linear

Point of departure / arrival: Bairro dos Pescadores / Forte de S. João Baptista

Support: Route flagged (plate, tables, signs)

Points of interest: Lighthouse, Forte de S. João Baptista, Visit to the caves.

### 2 - Old Island Trail

Length: 1.5 km

Approximate length: 1h30m

Degree of difficulty: easy, medium slope

Route type: Circular

Point of departure / arrival: Bairro dos Pescadores

Support: Route flagged (plate, tables, signs)

Points of interest: Horns, Black Stone, Carreiro dos Cações

## SEA JOURNEY

### 1 - Caves Trail

Length: 2 km

Approximate length: 1h00m

Route type: Circular

Point of departure / arrival: Berlenga Pier (Carreiro do Mosteiro)

Support: board (platforms), table (Forte de S. João Baptista)

Points of interest: Carreiro da Inês, Flandres, Forte de S. João Baptista, Gruta Azul, Furado Grande, Cova do Sono.



Furado Grande



Carreiro dos Cações



Gruta Azul

## Geomorphology

The Berlengas Archipelago is the last remaining evidence of a structure, the Berlengas horst, associated with the Mesozoic evolution of the Lusitanian Basin and with the opening up of the North Atlantic. The archipelago forms part of the Hesperic Massif, included in the Variscan Chain which was formed during the Devonian and Carboniferous eras after the collision of the two large continents that existed at the time (Gondwana and Laurasia). In general, the Hesperic Massif consists of highly metamorphosed and folded Precambrian and Palaeozoic rock, interspersed with granitoid batholiths.

## Terrestrial flora

Its unique characteristics, namely its geography and climate, have led to the speciation of three floristic endemisms. Therefore, from amongst a floristic array of 135 *taxa* present on the archipelago, *Armeria berlengensis*, *Herniaria lusitanica* subsp. *berlengiana* and *Pulicaria microcephala*. Stand out in terms of their enormous conservation value, the first two species appear in Annex II of the Habitats Directive.

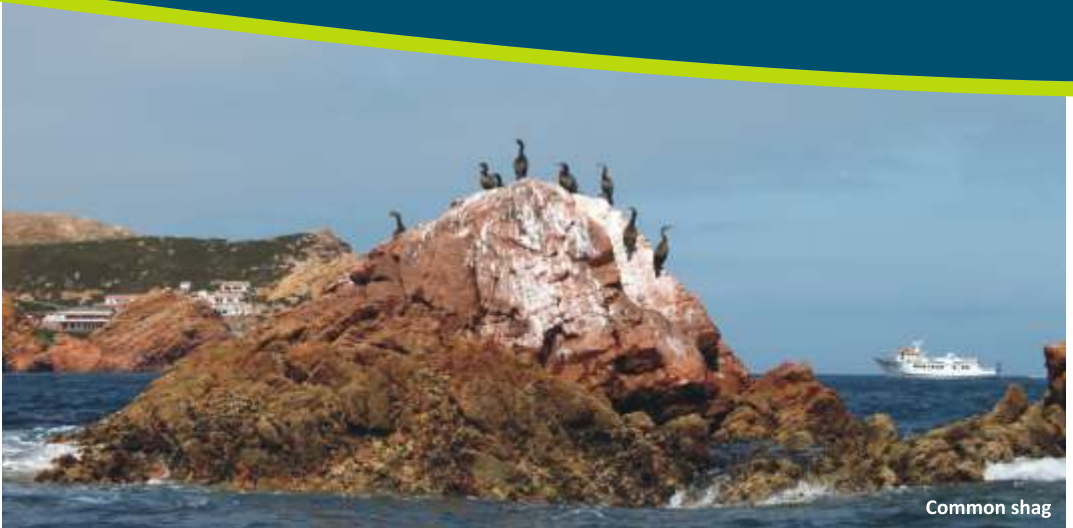


## Avifauna

The fact that the archipelago lies in a biogeographic transition area is especially relevant since some species that nest here are either at the southernmost or northernmost limits of their distribution area.

The avifauna of Berlengas is important above all in terms of seabirds. In fact, in addition to the great diversity that can be observed in the surrounding waters, the archipelago is an important nesting area for these birds, with 7 species having been recorded as nesting in there:

- Yellow-legged gull (*Larus cachinnans*)
- Lesser black-backed gull (*Larus fuscus*)
- Black-legged kittiwake (*Rissa tridactyla*)
- Common shag (*Phalacrocorax aristotelis*)
- Cory's shearwater (*Calonectris diomedea*)
- Common guillemot (*Uria aalge*)
- Madeiran petrel (*Oceanodroma castro*)



Common shag



Photo: Paulo Cunha

Common guillemot



Photo: Pedro Geraldes

Madeiran petrel



Yellow-legged gull



Photo: Pedro Geraldes

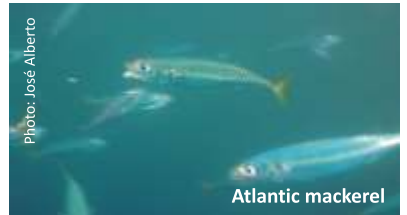
Cory's shearwater

## Marine ichthyofauna

Seventy six species of fish have been catalogued for the Reserva Natural das Berlengas area. This number includes the small pelagic Sardine (*Sardina pilchardus*), Atlantic mackerel (*Scomber scombrus*), Chub mackerel (*Scomber japonicus*) and Horse mackerel (*Trachurus trachurus*), which are the most important fish species caught with the seine nets mainly used by the coastal fishing fleet of Peniche

The largest family in terms of species is Sparidae, with 11 different species. This group includes commercially important species such as White seabream (*Diplodus* spp.), Common seabream (*Pagrus* spp.) and Gilthead seabream (*Sparus aurata*). It is, without doubt, the most sought-after group by anglers, a legal activity which takes place all year round in the protected marine area and particularly in the Estelas zone, considered the area richest in fish within the Reserve.

One of the conservation problems associated with this group of vertebrates is that the Dusky grouper (*Epinephelus marginatus*) is found in the Reserve area. This species belongs to the Serranidae family and is considered "At Risk" by the IUCN (International Union for Conservation of Nature and Natural Resources).



## Help to protect “Reserva Natural das Berlengas” following these rules:

- Circulate always on the trails;
- Do not throw garbage into the ground or the sea. Do you know that plastics are the main causes of death of marine organisms?
- Take your trash with you or put in the appropriate places;
- Do not take animals or plants;
- Camp in the defined area and do not make fires;
- For more information read the regulation of Reserva Natural das Berlengas (RCM n.º 180/2008, de 24 de Novembro)

[www.cm-peniche.pt](http://www.cm-peniche.pt) | [www.ipleiria.pt](http://www.ipleiria.pt) | [www.icnb.pt](http://www.icnb.pt)



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Photo: Filomena Sá Pinto | fotodigisub 2009

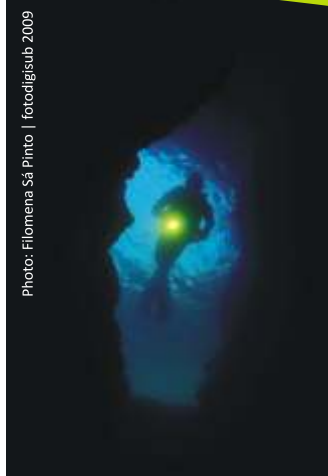


Photo: Rui Bernardo | fotodigisub 2009



Photo: Miguel Macedo | fotodigisub 2008



**Cagarra**  
Filipe Franco

## Helpful Advices

- The beach is the most popular sites for recreational activities, watch out for signs of danger;
- At the trails, please do not throw stones into the water, nor allow others to do so it may endanger someone who is navigating on a vessel;
- Avoid staying in dangerous places and unstable;
- Follow the signs;
- Protect yourself from sun exposure;
- Before bathing, respecting the time for digestion;
- Avoid long distances at times of greatest heat;
- Eat plenty of fluids, preferably water and fruit juices;
- Step up care, babies, children and the elderly;



### In case of emergency contact:

National Emergency Number 112

Via VHF - Channel 16 Band maritime “Estação Berlenga ”

“First aid services” are available on Bairro dos Pescadores.