



Seabed meets Horizon



Nationalpark
Wattenmeer

SCHLESWIG-HOLSTEIN



Seabed meets Horizon

The tidal flats between Den Helder in the Netherlands and Esbjerg in Denmark are the largest continuous tidal flats in the world and one of the last areas in Europe where nature can still develop to a great extent without human influence. So that this can continue, the German coastal states established three national parks: in 1985 the Schleswig-Holstein Wadden Sea, in 1986 Lower Saxony Wadden Sea and in 1990 the Hamburg Wadden Sea. The Wadden Sea was also placed on the UNESCO World Heritage List.

National Parks are symbols of untouched nature. Here nature may develop freely, without human intervention. The idea came from the USA. There the first National Park in the world was established in 1872 - Yellowstone, a mountain landscape with geysers and sulphur springs. In Germany there are 16 of these special protected areas.

'Let nature be nature' is the objective of all National Parks. All of nature should be maintained – not just the animals and plants, but the scenery in its totality, with mountains and lakes or, in our case, tidal flats and tidal creeks, dunes and salt meadows. So that present and future generations can be inspired by nature in the Wadden Sea region, visitors are welcome. Research is also carried out there in order to ensure its better protection.



Of the three Wadden Sea National Parks, Schleswig-Holstein has (with 30 kilometres) the widest tidal flat belt between mainland and open sea.



The Halligen are unique to the Wadden Sea in Schleswig-Holstein. They have mostly low dykes and therefore flood during storms. Then only the artificial mounds („Warften“), on which the houses stand, remain above water.

Certified tidal flats

Schleswig-Holstein Wadden Sea is more than just a National Park. It fulfils different international criteria for protected areas and was established as a

- *UNESCO World Natural Heritage Site*
- *United Nations Biosphere Reserve which also includes the Halligen.*
- *EU Birds Directive and Flora and Fauna Habitats Directive site (incl. the Halligen)*
- *Wetland of International Importance under the Ramsar Convention (incl. the Halligen)*
- *Particularly Sensitive Sea Area of the International Maritime Organization.*

Between Land and Sea

From the salt marshes to the tidal creeks, from the dunes to the sand banks - the tidal flats form the meeting point between land and sea. The tidal flats are flooded twice a day at high tide. The tidal range is three metres. The tidal creeks, which wind like rivers through sand and silt, form the connection with the open sea.



Feathered Guests

Twice a day the seabed meets the horizon: low tide exposes tidal flats full of worms, mussels and snails – a feast for birds. In late summer and autumn four million birds use the tidal flats, salt marshes and sands of the National Park as a feeding place or to rest.

On the long journey between the breeding areas in Scandinavia, north Siberia and north-east Canada and the over-wintering sites in Western Europe and West Africa, the food rich tidal flats are a vital stopover for about 40 species of migratory birds. 30 coastal bird species, with 100,000 pairs in total, breed in the Schleswig-Holstein National Park. During breeding season the most important nesting sites on beaches, in salt marshes or dunes



For the Common Shelduck the southern part of the National Park is an important moulting place. From July onwards 160,000 of these white, russet and black ducks, more than 50 percent of the European population arrive there from France, England, Scandinavia and the Baltic states to moult. They are flightless for four weeks. On foot or swimming, they can find plenty of food in the undisturbed tidal creeks around Trischen to fulfil the high energy needs of replacing their feathers.



Brent Geese breed in northern Siberia and boost their energy reserves for the long flight ahead by feeding on plants from the salt marshes. Especially the Halligen are important for Brent Geese where in spring up to 40,000 birds are present in total; many of them can be observed during the Brent Goose Days at close range. (www.ringelganstage.de)

are closed to the public. National Park Rangers and the employees of nature conservation organisations provide information and make sure that these sites are well protected.

Breeding and resting bird numbers in the Schleswig-Holstein Wadden Sea				
Bird species	Maximum number per year (2014 - 2018)	Period with maximum number	Amount of Western European population (%)	Breeding numbers (pairs in 2017)
Barnacle Goose	200.000	Autumn	20	600
Brent Goose	80.000	Spring	30	0
Common Shelduck	160.000	Summer	60	2.200
Eurasian Wigeon	200.000	Autumn	13	25
Common Eider	46.000	Autumn	6	500
Eurasian Oystercatcher	80.000	Autumn	9	9.500
Pied Avocet	4.000	Spring	10	2.500
Grey Plover	32.000	Spring	16	0
Red Knot	140.000	Spring	19	0
Dunlin	200.000	Spring	16	5
Bar-tailed Godwit	70.000	Spring	11	0
Eurasian Curlew	40.000	Autumn	6	5
Common Redshank	14.000	Autumn	7	4.800
Black-headed Gull	90.000	Autumn	3	32.000
Herring Gull	22.000	Autumn	2	7.200

Seals and Porpoises

In the Schleswig-Holstein Wadden Sea there are about 13,000 Common Seals and 200 Grey Seals. The male Grey, at more than two metres body length, is half a metre bigger than the Common Seal. Both seal species are Germany's biggest predators.

In the National Park there are some 1,000 Harbour Porpoises, a 1.5 metre long relative of the dolphin. Many female Harbour Porpoises with their young are regularly sighted off the west coast of Sylt and Amrum. Therefore, a cetacean protection area was established there as a part of the National Park.

Common Seals, Grey Seals and Harbour Porpoises are the top of the food chain in the Wadden Sea. Here one can observe them in large numbers, in contrast to the mainland where these top predators like brown bear or wolf are absent.



Common Seals live on fish which they catch on long hunts far out in the North Sea. Afterwards they rest on the sand banks of the National Park. The young (pups) are also born and nursed on the sandbanks, where they shouldn't be disturbed.



The Lugworm lives in a U-shaped burrow 25 centimetres deep in the ground. It eats sand, digests the bacteria and algae living in it and excretes typical worm casts made of cleaned fine sand.

Worms and Molluscs

An enormous variety of invertebrate animals inhabit the Wadden Sea. Especially the salt marshes have a diverse invertebrate fauna. The tidal flats contain a higher animal biomass than the rain forest. Beside crabs, mussels and snails there is a microcosm of tiny creatures. They live in the spaces between the sand grains.

At the beginning of the food chain are bacteria and single cell algae. On the surface of the tidal flats they can be clearly recognized as a red-brown layer, crossed by fine stripes: these are the food tracks of the tiny (few millimetres long) Mudsnaill, with up to 120,000 individuals per square metre.

The branched tidal creeks, the water veins of the tidal flats, are a nursery for a number of fish species: possibly half of the plaices, herrings and soles which occur in the North Sea have grown up here. In addition there are many small crustaceans. These shrimps and small fish are food for gulls and terns and also for seals and porpoises.

The National Park at a Glance

The Schleswig-Holstein Wadden Sea is the largest national park to be found between the North Cape and Sicily. Its border lies 150 metres seawards of the dykes and dunes. The inhabited islands and Halligen are not included in the National Park area.

National Park area:

4,410 km² = 441,000 ha,
99,9% owned by the State of Schleswig-Holstein

Protection Zone 1:

1,579 km², of which 126 km²
is completely free of human
utilisation

Protection Zone 2:

2,801 km², of which 1,235 km²
is a cetacean protection area

Legislation:

National Park Law 1985,
amended 1999

Inhabitants:

3 permanent residents (Hallig Süderoog), about 2,300 plant species and 4,200 animal species

High and low points:

+8 m (Warft on Süderoog),
to -27 m to the south of Amrum



Marshes by the Sea

Salt marshes lie only slightly above sea level; some are flooded more than 100 times a year. As a result about 40 highly specialised plant species grow here which are adapted to the water and saline conditions. The purple flowered Common Sea Lavender or the fragrant Sea Wormwood can grow where they are not grazed by sheep. The grass and herbs of the salt marshes are a home to about 1,800 insect and spider species of which 250 are only found there, for example *Pseudaplemonus limonii*, a weevil living only on Sea Lavender.



25 insect species live on the Sea Aster.



Until the beginning of the 1990s, most of the 70 square kilometres of salt marshes in the National Park were used intensively for sheep grazing. The short-grazed marshes were very poor in species. Today there is a mosaic of salt-marsh types from the completely ungrazed salt marshes on which the Common Sea Lavender flowers again to the lightly and heavily grazed areas.

People in the National Park

Around 299,000 people live in the districts of Nordfriesland and Dithmarschen which border the National Park, 25,000 of them on the islands of Sylt, Amrum, Föhr and Pellworm, 270 on the Halligen. 78 shrimp boats and 7 mussel-dredgers operate in the National Park, 42 farmers are allowed to graze sheep on the salt marshes.



The Multimar Wattforum in Tönning is the largest information centre in the National Park. 180.000 visitors experience the aquariums, the 18 metre long sperm whale skeleton and many interactive exhibits each year.

The most important economic factor for residents in the National Park region is tourism. It contributes to 35 per cent of people's income on the Schleswig-Holstein North Sea coast. 2 million overnight visitors are registered each year in the National Park region and 13 million people visit the area as day-trippers.

Nature conservation organisations, National Park tidal flat guides and National Park rangers offer over 5,000 trips and tidal flat tours for about 140,000 participants. In addition, there are boat tours with wildlife watching, birding excursions and similar activities. Numerous information boards, leaflets and web sites provide up-to-date information.

National Park Regulations

The regulations effective in the National Park are determined by the National Park Law of 1985 (amended 1999). The National Park is split into protected zones: Protection Zone 1 is largely free of human use and nature can take its course, while Protection Zone 2 can allow for limited use.

To do justice to nature as well as to people, there are many exceptions and special provisions for visitors and National Park users with local rights. Thus, shrimp fishing is permitted in Protection Zone 1. An absolutely untouched human use exclusion zone of 126 kms² exists between the islands of Sylt and Föhr. To the west of Sylt and Amrum is a cetacean protection area which is part of Protection Zone 2.

Voluntary arrangements exist with fishermen, boat owners, water sport associations and local authorities. For example during the Shelduck moulting season, from July to September, shrimp fishing boat owners and sports boat owners have agreed to avoid creeks and channels in the southern tidal flats in the county of Dithmarschen in order to reduce disturbance of the birds.

Angling, swimming or taking photos are permitted in areas where access is not restricted.



Permitted (+) and forbidden(-)

Activity	Protection Zone 1 human use exclusion zone (to the north of Föhr)	Protection Zone 1 all other zone 1 areas	Protection Zone 2
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Individuals

Travelling by boat	+ ¹	+ ¹	+ ¹
Access	-	- ²	+
Flying kites	-	- ²	+
Let dogs run free	-	-	-
Hunting	-	-	-
Collecting archaeological remains	-	-	-
Collecting mussels ^{3,4}	-	- ²	+
Collecting seashells	-	- ²	+
Picking plants	-	-	+ ⁵
Horse riding	-	- ⁶	- ⁶
Disturbing animals	-	-	-
Overnight camping	-	-	-
Walking on tidal flats	-	- ⁷	+
Digging worms ⁴	-	- ²	+

Commercial

Oil production	-	-	- ⁸
Collecting oysters ⁹	-	-	+
Fishing for shrimps and fish	-	+	+
Dredging for cockles	-	-	-
Dredging for mussels ⁹	-	-	+

¹ in certain areas designated on nautical charts it is not allowed to depart from the waterways during low tide
² permitted in the area up to approx. 1 km from the coast line (observe local signs)
³ Oysters and mussels for own consumption, max. 10 l/day
⁴ Fishing permit necessary
⁵ Small bunch, with the exception of specially protected species like Common Sea Lavender and Sea Thrift
⁶ only certain areas
⁷ only near to the coast (approx. 1 km) and on certain routes with tidal flat guides
⁸ only from the oil platform Mittelplate A
⁹ according to the mussel fishery program

Who Does What?

The National Park Administration in Tönning acts as a service provider bringing together the protection of nature and the interests of visitors, local farmers, shrimp fishermen, tidal flat guides, as well as yachtsmen, scientists and many others. It co-ordinates and approves research, projects and necessary maintenance and construction work. Together with the other Wadden Sea states, it organizes extensive environmental monitoring programmes in which, for instance, seals and birds are counted and biological phenomena are documented. The general public is kept informed by the rangers and information centres such as the National Park information centre Multimar Wattforum, as well as through the media. Attractive environmental education programmes are offered to schools and teachers.

National Park Partners

Tourism companies and authorities which are especially connected to the National Park can become National Park partners. They meet special high-quality criteria and inform guests and customers about the National Park and the region. Tidal flat guides, tour operators, rail companies, accommodation companies, shipping companies and others offer excursions, tours or lodgings with first class National Park experiences.

www.nationalpark-partner-sh.de

Partner

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Wattenmeer



Halligen Biosphere

Since 2004 the five inhabited Halligen Langeneß, Oland, Hooge, Nordstrandischmoor and Gröde have belonged to the development zone of the 'Biosphere Reserve Schleswig-Holstein Wadden Sea and Halligen'. Thereby they have become a part of a world-wide network of UNESCO model regions in which nature and humans live together. The objectives include the protection of nature, sustainable management, socially fair development, as well as education, research and environmental monitoring.

www.halligen.de

The National Park Administration is an authority of the Schleswig-Holstein Ministry of the Environment. Important decisions concerning the National Park are discussed by the National Park Committees of Nordfriesland and Dithmarschen. The National Park Administration is strongly supported by nature conservation associations. Some of them were operating for a long time before the National Park was established to preserve Wadden Sea. They warden National Park areas and run National Park information centres, support environmental monitoring and lead numerous excursions within the National Park.



The young people who perform voluntary ecological work in the nature conservation associations have something in common with the rangers: their enthusiasm for the National Park. Get inspired too!

Information

...about North Sea tourism:

North Sea Hotline +49 4841 89750

www.nordseetourismus.de

www.nordsee-naturerlebnis.de

...about the National Park and it's activities:

National Park Telephone +49 4861 96200

www.nationalpark-wattenmeer.de

www.multimar-wattforum.de

www.nationalpark-partner-sh.de

www.waddensea-worldheritage.org

LKN.SH/National Park Administration

Schlossgarten 1, D-25832 Tönning

www.nationalpark-wattenmeer.de

www.lkn.schleswig-holstein.de

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LKN.SH 

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United Nations
Educational, Scientific and
Cultural Organization



The Wadden Sea
World Heritage Site
since 2009

nordsee

Schleswig-Holstein
Der echte Norden

Nationale
Naturlandschaften

