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FOR 4 SEASONS

















Key to the icons used in the texts:

- Spring
- Summer
- Autumn
- Winter
- observation of sea and sky phenomena
- sky observation
- bird observation
- seal observation
- plant observation

FOR 4 SEASONS



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INVITATION TO NORTHERN KASHUBIA

The Baltic shores swept by bitter northern winds and the sunniest bay in Poland, Puck Bay. In summer, the longest days and the most beautiful beaches on the longest Polish peninsula; in winter, the longest nights, providing a chance to see the Northern Lights. Travelling birds herald seasonal changes here as each spring and autumn they stop on their way between the Arctic and warmer climes. Still young, geologically speaking, the coastal landscape is constantly changing: the sea devours some elevated places and gives us a glimpse into past chapters of the Earth's history; elsewhere, the waves, winds, and plants form dunes which are the youngest scraps of land. Plant species from the times when tundra grew in this region are preserved here. Even though it is not an area full of lakes, the cleanest Polish lakes are here. This unique region formed the identity of the Kashubians, who have been living by the sea for a dozen centuries. We call it Northern Kashubia; its residents simply call it Norda.

Let's discover these amazing landscapes, natural phenomena, plants, and animals that can't be found in other regions of Poland. Coming to Norda in summer is not enough to appreciate its diversity. Many natural peculiarities can only be seen in winter, autumn, or spring, when the nature changes more quickly.

To make your discoveries easier we have prepared a tourist guide that highlights where seasonal wonders of nature can be seen. The descriptive part of the guide focuses on the secrets of the animate and inanimate nature which make this land so exceptional: nature sanctuaries and protected areas, often unmatched in the whole of Poland, the educational paths that run across them, tourist trails for hikers, bikers, and drivers.

It is impossible to describe this part of Pomerania without talking about its natives – the Kashubians. Their culture and customs, as well as the regional folklore visible at their regular social events, are what the last part of the guide briefly outlines.

Enjoy getting back to nature with glee and gusto!

Spring





THE LAND

The common broom (p. 33–34) blooms in Chłapowski Gorge 1 and Strondowy Ravine 2 to the south of Jastrzębia Góra.



THE BEACH AND THE WATER

Under certain weather conditions, ice floes pile up on the coast of Puck Bay and at Rewa Cape 3, transforming into ice balls (p. 43).

The storm period ends and the summer beach reappears. The ebbs and flows of waves leave behind the strandline (p. 11), which sometimes hides pieces of amber.



THE AIR

III-V

On the dune in Kuźnica 4, near beach entrance No 33; on bright days you can see a dozen species of birds of prey as well as swans, ducks, and cranes (p. 18).

The forests of the Kashubian coast are just as good for birdwatching. In early spring finches and thrushes appear and are so numerous that they form moving blankets in glades and meadows (p. 18).

At night in Każa sanctuary **5** and in Bielawa reserve **6** you can try to spot long-eared owls (p. 19, 31).



THE SKY

On clear nights the aurora borealis can be seen over the Baltic (p. 14–15).

V From 9 May, 24-hour daylight starts, astronomically speaking, as the astronomical dusk changes into dawn (p. 15).





THE LAND

VI The common broom (p. 33–34) blooms in Chłapowski Gorge **1** and Strondowy Ravine **2** to the south of Jastrzebia Góra.

In Zielone reserve 3 you can feel like you're in Amazonia – the common honeysuckle twines around trees like lianas (p. 50).

VI-VII Lime Alley in bloom in Rzucewo **4** (p. 44).

VIII The heaths in Strondowy Ravine 5 (p. 34) and Bielawskie Błota marsh 6 are in bloom (p. 30–31).



THE BEACH AND THE WATER

VI-VII Choczewskie 7 and Czarne 8 lakes boast their Lobelian lake vegetation, including water lobelia (p. 44).

Water in the sea is at its warmest. In Puck Bay near Rewa Cape 9, underwater meadows are in bloom (p. 21–22).



THE AIR

VI-VIII In Beka reserve 10 (p. 19, 27) and Bielawskie Błota 11 (p. 30–31) you can see birds that nest and migrate.

VIII Crane congregations in Bielawskie Błota 11 (p. 20).



VI–VII The period of 24 astronomical daylight hours a day continues, the afterglow changes into the break of dawn. The clear midnight sky features night-shining clouds (p. 15).

VI From 13 to 28 June there are nautical white nights: the sun descends only a bit more than 6° under the line of the horizon. The phenomenon is most visible from the sea coast (p. 14–15).

Autumn





THE LAND

IX Common sea buckthorn (p. 33) bears yellow-orange fruit in Chłapowski Gorge 1.

X Beeches that grow in forests by the Bezimienna river 2 are adorned in beautiful autumn hues (p. 40).

XI The living cliffs of Chłapowo 3 and Jastrzębia Góra 4 are marked by fresh landslides (p. 10).



THE BEACH AND THE WATER

IX-XI Autumn is a great time to see grey seals at the tip of Hel Peninsula **5** (p. 16–17, 36).

X-XI The storm period begins and the summer beach is gone for some time. The ebbs and flows of waves leave behind the strandline (p. 11), which sometimes hides pieces of amber.

X-XI On dry and windy days the movement of sand dunes may be seen, for instance in Helskie Wydmy reserve **6** (p. 36) and on Lubiatowska Dune **7** (p. 39–40).



THE AIR

Crane congregations in Bielawskie Błota 8 (p. 20).

Autumn is the time of bird migrations (p. 17–21). To watch migratory birds, you should go to Beka reserve **9**, Każa sanctuary **10**, or perhaps Torfowe Klyle **11**.

X-XI During storms, skuas can be seen by the sea (p. 20).



THE SKY

XI On clear nights, the aurora borealis can be seen over the Baltic (p. 14–15).





THE LAND

XII-II The living cliffs of Chłapowo 1 and Jastrzębia Góra 2 are marked by fresh landslides (p. 10).



THE BEACH AND THE WATER

- XII-II On dry and windy days the movement of sand dunes may be seen, for instance in Helskie Wydmy reserve 3 (p. 36) and on Lubiatowska Dune 4 (p. 39–40).
- **XII-II** The storm period continues, and the summer beach is still gone. The ebbs and flows of waves leave behind the strandline (p. 11), which sometimes hides pieces of amber.
- I-II lce floes pile up on the coast of Puck Bay and at Rewa Cape 5, transforming into ice balls under certain weather conditions (p. 43).



THE AIR

- XII-II In Norda, birdwatching can be done in many places, including Beka reserve 6 (p. 27), by the open sea, in harbours (p. 21), and in Puck Bay, which is one of the main bird wintering grounds in Europe (p. 20). Here, birds appear in the biggest numbers at the estuaries of the Reda and the Zagórska Struga 7.
- **XII-II** Lake Żarnowieckie **8** is one of the largest Polish wintering grounds for the common coot, which is accompanied by whooper swans, smews, and grebes (p. 15, 21).
- I-II On sunny days, long-tailed ducks (a species of sea duck) start their courtship rituals (p. 21).



THE SKY

XII-II On clear nights, the aurora borealis can be seen over the Baltic (p. 21).



PLAN YOUR TRIP TO NORDA

When visiting Hel Peninsula, Puck Bay, or the beach in Dębki, which is one of the nicest on the Polish coast, you should carefully consider when you plan to visit. Over the summer months, those places are so crowded with people that local nature often suffers: coastal dunes are trampled while protected birds and sea mammals are often scared away from their habitats. Tourists leave lots of rubbish on the beaches and the noisy parties they throw there frighten animals away.

When you relax in the water, please don't forget the marine animals. For instance, instead of a deafening jet ski, choose a kayak so that you can watch protected birds or mammals without scaring them. If you wish to have fun windsurfing or kitesurfing, please avoid Ryf Mew (Seagull Sandbar) as this spot is a unique habitat on the Baltic coast. Dozens of bird species may be watched here, and resting seals might sometimes appear. If you want to angle, remember to purchase appropriate permits and check the relevant regulations concerning sea waters – they were issued so that we can fish responsibly.

Even choosing the right accommodation can help nature. If, instead of campsites by the bay, you choose lodgings in a populated area or a campsite far from a beach, you act to ease the pressure that humans are putting Puck Bay under. The reed beds growing by the shore, which are home to many protected bird and fish species, are being destroyed by artificial beaches.

The more we take conscious decisions, the better not only for nature, but also for us. To have the chance to relax in and with nature, it seems sensible to visit Northern Kashubia in spring, autumn, or winter. Each of these seasons is packed full of amazing natural attractions. Those who love warm days may find September to be a good period when nature returns to its proper rhythm after the clamour of the peak season: the evenings are still long, the sea is warmer than in June, and the weather is balmy.

Relax close to nature! Relax together with nature!





The northernmost stretch of Poland is a region of constant struggle between the sea and the land. In some spots the Baltic is winning as it swallows clay deposits from cliffs during winter storms; elsewhere rivers that flow into the sea and coastal currents are forming the youngest crumbs of the European continent. Wind and water exert a powerful force on the landscapes, flora, and fauna here, making them unique in the whole of Poland, with one group of organisms quickly superseded by

another. Severe and mild at the same time, the coastal climate not only makes it a good environment for plant and animal species that are typical of both warmer and colder parts of Europe, but also a place of rest for flocks of migratory birds which find respite here on their annual travels.



European herring gull, photo by M. Hadwiczak



Klif Chłapowski (Chłapowski Cliff), photo by M. Hadwiczak

The "ravenous" Baltic

The Polish shore of the Baltic recedes at about 0.7–0.9 m per year. In some places, sea waves can devour as much as 5–10 m of cliffs and dunes during a heavy storm.

CLIFFS, A COASTAL LANDSCAPE FOREVER YOUNG

A fifth of the Polish coast of the Baltic Sea (145 km) is in Northern Kashubia. The landscape is changing dynamically all the time where the sea touches the land. This process can best be seen around cliffs. A cliffed coast is created where sea waves crash against mounds of higher elevation (moraine plateaus). As water washes away the sediment from the foot of a rock exposure, wave-cut notches appear at the bottom bottom which cause landslides and slippages of sand or clay layers.

During winter storms, the changes in cliffs are extensive and easy to see: waves are then able to "swallow" a beach and to hit a precipice with full force. If the sea actually cuts a bit of land away each year, the cliff is called "living". The living cliffs worth seeing on the Baltic shore are near Chłapowo and Jastrzębia Góra (they are second in height only to the cliffs of Wolin Island). In the Puck Bay area, short sections of living cliffs are to the north of Osłonino and to the south of Mechelinki. Other cliff sections are "dead", which means that waves cannot reach them during storm surges. Among them, Swarzewski

Cliff, Pucki Cliff, Rzucewski Cliff, and the one in Cape Rozewie nature reserve may be mentioned.

HOW DID HEL PENINSULA FORM?

To understand how this narrow spit of land came to be, we need to think back to the time when the sea level was 30 m lower than it is now, and the mouth of the Vistula was to the east of the present-day Jurata resort. The level of the sea started to rise rapidly, and its waves kept flooding and destroying tracts of land, which became the source of the sediment that formed the beginning of this peninsula. The underwater shoal was (and is to this day) built by two currents flowing in from the hillocks of Kępa Swarzewska (Władysławowo) and Kępa Oksywska (Gdynia). The youngest part of this coastal spit has been forming for "only" 3 thousand years to the west of Jurata. The small Rewa headland (Mierzeja Rewska) is the same age.



Stronger waves or storm surges deposit plant and animal remains that form a sort of embankment overgrown with plants, called we kidzina in Polish (czidzena in Kashubian). This flotsam and jetsam is removed from the main swimming areas, but it is worth looking at in more remote places since the organic remains it contains say a lot about the organisms that live at the bottom of the littoral zone of the sea.

On the open Baltic coast in summer, it is easy to find the distinctive air bladders of bladderwrack (also called sea kelp), which is the largest Baltic algae from the brown algae class, as well as black carrageen (*Furcellaria lumbricalis*), a type of small red algae with fastigiated reddish or brownish fronds. Both species are now heavily depleted in the Polish part of the Baltic; the bladderwrack and red algae material that can be found on Polish beaches mostly comes from Danish and Swedish shores.

Strandline vegetation in the sand can also sometimes contain a considerable number of bivalve shells, with the Baltic clam being the most common among them. This species is one of the main food sources for flounders. The largest (6–8 cm) Baltic shells are those of sand gapers.



Rewa Headland, photo by K. Kazanowski

Cypel Rewski (Rewa headland, Kash. Szpërk)

To the south-west of Władysławowo, between Rewa and Kuźnica, what is taking place before our eyes is the formation process of a unique peninsula that is slowly closing off the inner part of Puck Bay. When the water level drops. a sandbank that is almost a kilometre long emerges from the Bay, formed by the same sea currents that build Hel Peninsula. The sandbar is part of a shoal called Mewia Rewa or Ryf Mew (Seagull Sandbank), which stretches underwater up to Kuźnica and in some places comes to the surface.



Strandline, photo by M. Hadwiczak



Bladderwrack, photo by M. Hadwiczak

Writing sand

Along with bright sand, darker sand can be found on the beaches which is mostly composed of dark minerals such as garnets and zircon. These are so-called heavy minerals whose density exceeds 3 g/cm³. Young women once used to collect it on Hel Peninsula and sell it. It was called "writing sand" and was used instead of blotting paper to help ink dry.

Singing sands

There are no real singing dunes on the Baltic coast. Yet, if the sand on the beach is well sorted (i.e. its grains have similar sizes) and dry, you can hear a similar sound: it's enough to tread in such a way that your heels drag on the surface, making the sand grains rub against one another and creak or squeak.

Unlike these two species, lagoon cockles have a densely ribbed shell surface.

After strong storm surges, pieces of amber can be found in the strand-line. This is Baltic gold, called jantar in Kashubian and bùrsztin in Hel Peninsula. It comes from the era about 35 million years ago, when immense coniferous forests grew in the region where the Baltic now is. Large amounts of resin would trickle down from the trees and its fossilized form would be carried southward by the Eridanos river and later on, during glacial periods, by ice streams. The pieces of resin submerged under the Baltic waters are to this very day dragged up by waves and swept ashore.

Sometimes small lagoons form on beaches. Apart from a small crustacean species called gammarids (or scuds), moon jelly (a sort of umbrella-shaped jellyfish) lives here. These cnidarians are 98% water and feed on plankton. They don't survive on land unless a big wave washes them back to the sea. Don't worry, even though moon jelly has cnidocytes (stinging tentacles), they can't hurt humans.

THE BIRTH OF A DUNE

Dunes are an indispensable element of a peninsular coast. Waves, which in summertime keep hitting the shore and retreating, leave behind a thin streak of sand. Thus, they form a sandbank that is parallel to the waterline. When its topmost part dries, strong winds are able to move grains of sand towards the land.

The first obstacle that wind-borne sand comes across is the plants which grow on winter beaches at the foot of the first dune bank. Among them, sea sandwort is notable as it has successfully adapted to being



repeatedly buried by sand. Interestingly, this plant is often pollinated by grains of sand, a rarity in the plant world. Sea sandwort is often accompanied by European sea rocket, a plant with fleshy leaves and pale layender flowers.

Plants such as marram grass, sea lyme grass, and red fescue play an important part in the creation of primary dunes (the first line of dunes, frontal dunes). Red fescue grows on the coastal side where the so-called foredune develops. Marram grass appears in clusters of up to one metre, which stabilise the ground and protect it from strong gusts of wind. Under this shield, new dunes form and old ones increase in size. Sand stopped by red fescue and marram grass is stabilised by sea lyme grass, which grows a number of criss-crossing underground stems. Its leaves are broad, stiff, and waxy – a feature which gives them a bluish hue.

Winter beaches and the line of white and grey dunes are the habitats of sea holly (ostropùs in Kashubian), a perennial which in Poland grows only on the shore. Its seeds may be submerged for over a month and still not lose their ability to sprout. Sea holly used to be avidly picked by holidaymakers, which has mostly caused the plant to disappear. Nowadays it is a strictly protected, critically endangered species. The biggest local clusters of sea holly can be found in Mechelińskie Łąki nature reserve.

Other rare plant species which bloom in the summer and are worth noting are *Linaria odora* (a type of toadflax) and beach pea (sea pea).

THE SUN AND WIND IN ABUNDANCE - THE NORTHERN KASHUBIA CLIMATE

The northernmost region of Poland is located along the path of low-pressure areas that advance eastward from the Atlantic and bring fickle weather. However, the climate here is to a great extent affected by the Baltic, a huge body of water that is slow to warm up and slow to cool down.

Spring takes its own precious time to reach Norda; on average it starts three weeks later than in central Poland, as is demonstrated by the different blooming season here. In summer, the days are the longest in the whole country and, as the sun blazes down, it gradually warms up the Baltic waters. Fans of sea bathing are advised to go to the beach between July and September asin June the water isn't as warm as in the following



Sand sedge, photo by M. Hadwiczak

Summer beach – drowned by winter storms, in summer the waves do not reach it **Winter beach** – remains out of reach for most storm surges

Sand dune formation

Foredune – the initial stage of white dune formation
White dune – the first stage of development; vegetation is sparse; the dune is not yet

or development; Vegetation is sparse; the dune is not yet stable and winds can have a strong impact on it

Grey dune – the result of a white dune changing due to soil formation processes;it is colonised by various plants and is mostly stable

Brown dune – fully stable, covered in thick vegetation: scrub or pine forest



European sea rocket, photo by M. Hadwiczak

Why can't we go to the beach any way we want?

Even small-scale destruction of vegetation on sandy coasts gives the wind room to work and carry sand which then covers more plants. This can cause dunes to become mobile as they are vulnerable to the destructive influence of waves in autumn and winter, when the beach periodically disappears due to storms. This is why we should only enter the beach through the marked entrances. Don't use illegal paths as they effectively destroy intermediate stages of dune formation and rare plant species. At the bases of dunes, it's easy to spot fences made of twigs and the willows, pines, grass, and beach rose planted there: all of this serves to safeguard the seashore and assist in dune development. Remember that dunes, cliffs, and the strandline are legally protected in Poland.



Beach in winter, photo by M. Hadwiczak

The legend of sea holly



Sea holly, photo by M. Hadwiczak

Once upon a time by the sea lived a boy named Sea Holly (in Polish this plant has a masculine name). Even though he was as pretty as a picture, all his shenanigans made life difficult for everyone in the neighbourhood. One day his mischief came to an end. The wife of Gosk, the god of the Baltic Sea, came to the shore with her companions to bask in the warm rays of sun. The boy hid their robes.

When Gosk heard his wife's story, he cast a spell that changed the boy into sea holly. He will remain enchanted until the summer comes when no one picks even the smallest piece of this flower.

months. The sea reaches its highest temperature in August and until late October it acts like a hot water bottle, mitigating the autumn chill. The shore enjoys the longest period of thermal autumn (around 60–70 days). From November to February, the days are cloudier and Atlantic lows bring sometimes ferocious storms. January and February are the snowiest months, yet it rarely snows on the beaches. It is easier to find snow in the elevated coastal moraines and the inland.

The wind makes the winter air in seaside towns the best in Poland, whereas in the growing season the amount of allergens is far smaller here, which brings relief to people who are allergic to pollen. Winds and waves crashing against the shore spray sea water salt into the air. Breathing it in has a positive impact on the respiratory system and provides important chemical elements, including first and foremost iodine, which people who suffer from hypothyroidism especially urgently need.

THE NORDA SKY - NORTHERN LIGHTS AND WHITE NIGHTS

In winter, the night sky above Northern Kashubia can in cloudless weather offer us an amazing spectacle. When the solar wind hits the atoms in the upper layers of the Earth's atmosphere, they start to glow, which is visible as patches, bands, arcs, and other shapes that tend to have various hues of green, red, blue, or violet. The open Baltic coast is the



best place to watch the aurora borealis and other astronomical phenomena since the northern part of the sky is not polluted with artificial light from the land.

The days quickly get longer as spring passes and, as early as 9 May, stronomical white nights start in Kashubia and last until late July. The sun remains less than 18° below the horizon and the afterglow stays in the sky all night long, imperceptibly transforming into morning twilight. White nights are sometimes accompanied by significantly in the second of around 76 to 85 km. They can cast an iridescent glow that reflects sunlight throughout the night. The details of their formation are not known for certain. Most likely, they form around fine particles left over when micrometeoroids whizz through the air and volcanoes explode, or around spaceship exhaust gases.

LAKE ZARNOWIECKIE

Even though the Northern Kashubian region is not a lakeland area, there are six big lakes near the coast, among them Lake Żarnowieckie, which is 14.32 km² in size and is ranked as the 20th biggest in Poland. This body of water is separated from the sea by dune banks and peatbogs. Until 1973,

Scorching heat on the beach and icy cold sea – upwelling

It is sometimes the case that on hot summer days the Baltic water is 10°C, but how? As the Earth rotates around its axis, the Coriolis force appears and deflects to the right the winds that blow on the northern hemisphere. This effect can be observed in the vortex that forms, for instance, when draining a sink or bathtub. When the wind over the Baltic blows from the east, the Coriolis force deflects it slightly to the north. This results in warm coastal water being pushed away from the shore. Colder water from the depths then flows in. We call this phenomenon upwelling. In Kashubia the effect occurs most often on Hel Peninsula on the seaward side and in the vicinity of Łeba.

The treasures of Northern Kashubian lakes

The three lakes of Choczewskie, Dabrze, and Czarne near Choczewo and Gniewino have preserved their character of Lobelian lakes, with water that is clean, translucent, and poor in nutrients. These are among the cleanest lakes in Poland. It is estimated there are about 150-170 such lakes countrywide, almost all of them being in Pomerania. The bottom of such a body of water still contains the remains of plant formations specific to this type of lake. These are mainly isoetopsida, called isoetales (lake quillwort and spiny quillwort, especially rare in Poland), and water lobelia, which blooms white over the water surface in spring and to which such lakes owe their name. The edges of Lobelian lakes tend to be sandy and are perfect as beaches, but care should be taken not to trample the plants that grow around them since they are often rare plant species such as marsh clubmoss.



Marine Station Seal Centre in Hel, photo by P. Kowalewski

when the construction of the Żarnowiec pumped-storage power station began near Czymanowo, during storm surges the seawater would actually reach up to here via the riverbed of Piaśnica – the river flowing through the lake. The lake is currently cut off from the sea by the weir situated at the river outlet. This ensures it is a freshwater lake. The bottom of the lake is 19.4–18 m below sea level in a cryptodepression, therefore it is the second deepest in Poland after Lake Miedwie in Western Pomerania.

At night, some of the water in Lake Żarnowieckie is pumped up to a reservoir located 126 m above. In the daytime it flows downwards. This way it drives power station turbines and produces electricity. All this causes the water level in the lake to change by about a metre each day. If a strong wind flows from the north, the surface is covered by high and dangerous waves. Broad expanses of underwater meadows in the lake contribute to the presence of various fish species, primarily roach, perch, bream, tench, and pike. This is anglers' paradise, the best fishery in northern Poland, known especially for pike specimens over a metre long, as well as sizeable perch.

SEALS AND HARBOUR PORPOISES - MARINE MAMMALS

The Gdańsk Bay and Puck Bay region is one of the most important for marine mammals which live in the southern Baltic: harbour porpoises and grey seals. With a bit of luck and perseverance we can see them, and we can definitely do our part to make sure coming generations have a chance to marvel at these animals.

The most mysterious of these species is the harbour porpoise (Kash. merswinia, mòrskô swinia). The only whale to inhabit the Baltic Sea, the harbour porpoise is a relative of dolphins, but unlike them it usually lives in small groups of two to three individuals. It tends to stay away from people but sometimes swims into port basins. It feeds both on pelagic fish such as herring or sprat and on demersal fish. The harbour porpoise is not keen to leap out of the water as dolphins do. To inhale, it sticks part of its head and its small, triangular dorsal fin out of the water for a second or two.

The biggest of the seals in the Baltic Sea is the grey seal (Kash. zélińt, mòrsczi pies). In the 1900s, its population stood at around 100,000 animals. In those days, they were considered pests and killing them was rewarded. In the 1940s, the species vanished from the southern Baltic,



mostly because of massive hunts. Later, environmental pollution by chemicals led to a further reduction in the grey seal population in the northern part of the sea. International protection of the mammal was then agreed and its population is now about a third of what it was a hundred years ago. Grey seals are migratory. They roam the Baltic waters in search of food and places to rest. On our coast they have so far found one spot: the sandy islets forming in Przekop Wisły, a canal near Stegna.

The colouration of individual grey seals may differ, but males are always darker with bright spots, while females are lighter with dark spots on their bellies. Seals can dive to a depth of 60 m and stay underwater for up to 30 min; they can also sleep underwater or on the surface. They sometimes come ashore for a rest, but they don't feel safe there as any potential threat easily scares them away. They spend more time on land in the pupping season and when moulting in late spring. Each year, grey seals are spotted several dozen times on the Kashubian coast; other seal species that live in the Baltic, the ringed seal and the common seal, are occasionally seen too. The gravest threats for them are now the lack of peace and quiet on land and the fishing nets in which they can become entangled.

NORDA BIRDS

For nature lovers the biggest highlight of Northern Kashubia is birdwatching. You can engage in it all year long, with spring and winter being the most promising times. This is a relatively unknown area that

What should you do when you come across a seal

WWF Poland guidelines: The seal is not a mascot. It's a wild animal that feels fear when it sees you. Your presence makes it impossible for it to rest and forces it to move elsewhere.

- Don't approach the seal. Under no circumstances touch it. The seal can leave a painful bite however nice and friendly it looks. It can also be a carrier of various diseases that are dangerous to humans.
- Don't pour water on the seal. It is both a marine animal and a land animal. It swims ashore to rest after a hunt or a long journey, or to give birth to its young and to rear its pups.
- 3. Leave it alone.
- Take care not to let other beachgoers disturb the seal: tell them why they should avoid coming closer.
- 5. Call the WWF Blue Patrol (tel.: 795536009) or the Marine Station in Hel (tel.: 601889940). The person you will reach will provide further instructions. Your call is very important because every such sighting helps protect Baltic seals better.



Mute swans wintering in Puck Bay waters, photo bu M. Hadwiczak



Young sparrowhawk, photo by B. Gawlak, courtesy of NPK



Cormorants, photo by M. Hadwiczak



Long-eared owl, photo by M. Hadwiczak



Goosander in Beka reserve, photo by R. Nanaszko

is among the most important birdwatching grounds in Poland and in all of Europe.

Why is this region so special? Bird migrations are the reason. The Polish coast of the Baltic is a significant "communication hub" for migratory birds. It is the only place in Europe where all three main routes on the continent cross: the Atlantic route leading from the north east to the south west along the coasts of the Baltic, the North Sea, and the Bay of Biscay to Spain and Morocco; the Alpine route starting in Finland and northern Russia, which turns south towards the Alps, northern Italy, and Tunisia; and the Balkan (or Middle East) route running from Sweden over the Black Sea, the Balkans, Greece, and Turkey, and from there to Egypt and the heart of Africa.

During spring migrations, the whole **coast of the Baltic** is teeming with various bird species, but it is in Northern Kashubia that they have a particular spot: Hel Peninsula. In this period the headland becomes a natural "trap" for birds which avoid flying over the open sea. These are mostly terrestrial species that travel during the day, such as birds of prey, cranes, titmice, finches, but also some nocturnal rovers, for example owls. As they fly to the north east, the flocks concentrate on a stretch of shore only a few kilometres wide. When they see Puck Bay to their right and wish to keep moving over the land, they land on Hel Peninsula. The headland is only 100 m wide at some points, hence the sheer density of birds is exceptional and encourages birdwatching. The dune near Kuźnica, at beach entrance No 33, is especially popular among birdwatchers. On a sunny day, you can see hundreds of birds of prey from over a dozen species, including sparrowhawks, buzzards, honey buzzards, harriers, kites, and kestrels as they fly up high or right above the tree canopy. In addition, there are large flocks of low-flying mute swans, whooper swans, numerous ducks, cormorants, geese, cranes, herons, with many other aquatic and wading bird species.

Birdwatching doesn't have to be done on the coast. Early summer forest walks are conducive to birding too, giving a chance to see a startled woodcock that has been resting before its night flight, to notice robins, blackbirds, and song thrushes flitting about on the ground and to spot flocks of goldcrests, finches, and titmice perching on branches. All these species can be found in other parts of Poland as well, but they are not nearly as numerous elsewhere; in Northern Kashubia in April finches and thrushes are known to form moving blankets of birds in the meadows and fields near forests. In March and April, when an army of redwings and bramblings is migrating from the north-east, the flocks, which sometimes number thousands, fill the forests with clamorous tweeting. Bird concertos in spring last from the middle of March to the



third week of May; the species we may watch and the intensity with which they come and go changes week by week.

Night-time is perfect for listening to the chirping of nocturnal birds. On cloudless April nights you can spot the shadow of a long-eared owl gliding through the air just above the coastal meadows, e.g. in **Uroczysko Każa**.

Late spring means the breeding season. Thousands of birds bustle about to raise their young. Around this time in Northern Kashubia you can see something unique in all of Europe: all the species of wagtails from the continent gather in the space of a dozen kilometres – grey, white, yellow, and citrine (the last being the latest addition to our avifauna). The last three species live together in the Beka nature reserve and its surroundings.

In summer and autumn, Kashubia again hosts bird migrants, as their autumn travels begin as early as July. At this time, you should look around to see fledglings, especially in the Beka reserve and a few spots in Hel Peninsula such as Turoczysko Każa and the meadows around Jastarnia. Many plovers, for instance sanderlings, dunlins, and ringed plovers, can also be found in the early morning on the beach and the shallows of Puck Bay.

In August and September, other species gradually start to migrate as well, but in general each autumn the birds travelling along the Atlantic trail tend to fly over to the south of Kashubia, hence their migration around this time is less spectacular than in spring. This is true for most diurnal birds and owls.

Bird ringing in Hel

The Hel Peninsula Bird Ringing Field Station is part of Operation Baltic, a bird migration research and monitoring project for the Baltic shore. The programme is currently run by the University of Gdańsk Bird Migration Research Station. Located a few hundred metres to the west of Kuźnica near beach entrance No 29, the Hel station is set up as a tent camp. It operates from around 25 March to the middle of May.

The station is dependent on voluntary efforts of people from all walks of life and of various ages who are united by the love for birds. All adults can become an Operation Baltic volunteer with no knowledge of birds necessary. If you find it interesting, love nature and wish to start, you can glean details from the project website at akbalt.ug.edu.pl.





European herring gulls, photo by M. Hadwiczak

Watch out for baskets!

Some birds, e.g. ringed plovers, are very fond of beaches. Their nests are just inconspicuous holes in the sand, while their eggs have a colouring that makes them almost invisible. On Polish beaches, WWF is now running the Sea Habitats project, which involves placing specials baskets over those nests. If you see such a type of protection or the nest itself, please stay away.

Autumn in Hel Peninsula is also the best time to watch birds which are rarely seen in Poland (largely from Siberia) that end up here because of stiff eastern winds. Many Polish ornithologists remember well the October of 2016, when the Siberian accentor, Asian stone-chat and desert wheatear could all be seen on the same day in the town of Hel. It is extremely rare to spot any of these species in our country. We should not forget to men-

We should not forget to mention the crane. Nowadays this is not a rare species in Poland as the breeding population has quickly

grown in recent years and pairs of birds strutting around the fields or meadows may be seen in almost every corner of Pomerania. It is one thing to see a pair or two, but another to watch flocks of over a thousand individuals which "dance" at dusk in the mist shot through with shafts of sunset light. Those who love their melancholic calls (called clanging) and the unforgettable spectacle of crane congregations cannot miss the Bielawskie Błota bogs in late August and in September.

Late autumn is the **time of storms** which force unexpected guests to come to us from the north and the west. It is the perfect period to watch skua. These birds feed on fish but don't catch them on their own, instead grabbing them from other hunters. After gale-force winds the odds of seeing gannets, storm petrels, and shearwaters increase, but these typically oceanic birds are seldom seen over the Baltic.

In winter Northern Kashubia again turns into a Mecca for ornithologists.
Puck Bay is among the most important European wintering grounds for aquatic birds. Mute swans have the unique distinction of congregating in flocks of many thousands, which comprise up to 2% of the birds that winter in all bodies of water in northern and western Europe. For this species the Bay of Puck is the most important wintering ground in Poland and only here do swans reach the number of a few thousand animals. They are joined by whooper swans, which also appear in pretty large numbers on Kashubian lakes. Apart from these, in winter the bay becomes home to thousands of tufted ducks, greater scaups, common goldeneyes, and common coots, among which less numerous common pochards and grebes flit around. The finest specimens of this bird population are three species of seaducks (Mergini of the duck subfamily),

with the elegant, black-and-white smew standing out; the other two are the goosander (a duck despite its name) and the red-breasted merganser, with its spiky Mohawk of a crest. White-tailed eagles wintering in these parts often fly over the water and cause panic among other birds, which take flight as soon as they see the threat.

On the seaward side, three species of seaducks can be seen: the common scoter and velvet scoter, both of which are black, along with the colourful long-tailed duck. On sunny days in January and Feb-

ruary, long-tailed ducks begin to honk and hoot. Exotic for us, the auks are another major attraction, best seen at the tip of Hel Peninsula. Other good birdwatching spots are the ports in Hel, Jastarnia, and Władysławowo, where many ducks, auks, and gulls look for food and shelter.

Another place to see during the winter is Lake Żarnowieckie, which is ensconced in the picturesque hills. There you can watch species not unlike those at Puck Bay, but with a strong presence of the common coot (this is one of the chief wintering areas for this species in Poland), whooper swan, smew, and grebe.

PUCK BAY -THE BALTIC GARDEN

When coastal currents and winds moulded the 40-kilometre sandspit of Hel Peninsula, they cut off part of Gdańsk Bay and created Puck Bay. Ryf Mew (also known as Rybitwia Mielizna or Mewia Rewa), the sandbank stretching from the village of Rewa to Kuźnica on the peninsula, divides Puck Bay into the outer part that lies to the east of the sandbank and the inner part, Zalew Pucki (Puck Lagoon), to the west. The latter is a unique area, the only place in the Polish waters of the Baltic where the remains of underwater meadows are so well preserved and so extensive. They form a sort of garden that shelters many forms of life.





Baltic garden on the floor of Puck Bay, photo by M. Bała

Seahorses in Puck Bay?

You might associate seahorses mostly with tropical waters and aquariums. You won't see them in the Baltic but pipefish, their relatives, have settled in Puck Bay. Broadnosed and straightnose pipefish have elongated, very thin bodies up to 30 cm long. They are able to swim vertically and imitate plant leaves.



The inner Puck Bay is shielded from strong waves by both Hel Peninsula and the Seagull Sandbank. The water in this area is shallow and its average depth does not exceed 3 m. Only in two deeps, Jama Kuźnicka and Jama Rzucewska, is the bottom more than 5 m below the surface. The bottom is mostly composed of sand with varying amounts of silt, which makes it unstable and not fit for sedentary species. Light reaches nearly all of the sea floor, so flowering plants and algae with intricate thalli can thrive.



Garfish, photo by K.E. Skóra



Perch, photo courtesy of the Marine Station in Hel

At a depth of one metre, the first clusters of horned pondweed can be found, along with so-called stonewort meadows with three species of *Charales* – green algae that resemble horsetail plants and reach two feet in height.

Eelgrass meadows grow more than two metres under the surface; this plant, *Zostera marina*, is also known as seawrack (Kash. swidrzëna). Its belt-like leaves can grow up to a metre in length. On the bottom, black carrageen, a species of red algae, accompanies eelgrass. Both species are critically endangered.

Horned pondweed, stoneworts, and eelgrass are crucial for the Inner Puck Bay ecosystem. Their roots and rhizomes stabilise the bottom and transport oxygen to the sediment that covers it; this creates an inviting place to settle for many animal species which live above, on, and underneath the bottom, including various invertebrates.

One of them is the ragworm (*Hediste diversicolor*); it has coloured stripes, is about 10 cm long, and is a distant relative of the earthworm we all know. To move around and swim, it uses lateral protrusions called parapodia. In dense underwater meadows Baltic prawns also hide, growing up to 6 cm. Another decapod, the brown (or common) shrimp, prefers places with no vegetation and a layer of sand, in which it burrows to protect itself from demersal fish. *Saduria entomon*, the largest native crustacean species, is even bigger, growing up to 8 cm. It tends to scavenge (feed on dead organisms), thus removing them and keeping the bottom clean. It is a relic of the last glaciation, which means it has managed to survive in the cooler Baltic waters despite the fact that the climate is getting warmer.

About 40 fish species live in Puck Bay. Broadnosed pipefish and straightnose pipefish, both closely related to exotic seahorses, are particularly interesting. Gobies (the *Gobiidae* family) also deserve a mention: their heads and pectoral fins are relatively large, whereas their pelvic fins fuse to form a sort of suction cup that helps them attach to the bottom or "climb" rigid objects such as port quays. In Puck Bay there are five species of *Gobiidae*, four of which enjoy legal protection.

The warm water and vegetated sea floor in the bay make this area quite attractive as a habitat and as spawning grounds to many fish of economic importance. In May and June, large numbers of garfish are present. This silvery fish with an elongated body has a long, slender "beak" which prompts some to call it the stork of the sea. Its bones have a unique green hue. The garfish comes to the bay especially in the spawning period, when it is a valuable catch for fishers and an attractive trophy for anglers. We should be prudent and not deplete its stocks.

The water in Puck Bay has low salt content that encourages the presence of freshwater fish that prefer such conditions. Freshwater species were once plentiful in the area; roaches, perches, eels, and pikes used to be caught on a large scale.

Since the 1970s both the species constituting the fauna and their number have changed considerably. A few factors are involved. Drainage and irrigation of meadows around Puck, near the mouths of Reda and Piaśnica rivers, made spawning grounds disappear, especially those of the local pike population. Commercial macroalgae foraging led to the degradation of some underwater meadows; as a result, the fish lost their shelters. Overfertilization of water by discharged sewage caused the thread algae population to expand greatly, which limited the amount of sunlight that penetrates the surface. Thread algae now often cover the area where other plants used to grow.

All this has contributed to dwindling underwater meadows and vanishing fish habitats, which – coupled with excessive fishing, often in breeding time – caused the depletion or disappearance of important species. In this changed environment, sticklebacks have gained a great advantage, especially the three-spined and nine-spined stickleback, so named due to their notable dorsal "needles".

Recent years have seen an improvement in environmental conditions and fish stocks are (slowly) being replenished. Restocking efforts in the bay are focused on the pike and eel. The introduction of rainbow trout has been attempted; this foreign species, which does not spawn in our sea, feeds on and was supposed to substantially reduce the number of sticklebacks.

Kashubian names for Puck Bay and the Baltic

Wiôldzé Mòrze, Bùtno, Bôlt – the Baltic (open sea) Wik, Pùckô Hôwinga, Pùcczé Mòrze, Môlé Mòrze, Bënno – Puck Bay ("inner" sea) Pùckô Plëta – a jocular term, literally "Puck puddle"; for fishers, Puck Bay was not a real sea



LOW-LYING SHORES AND COASTAL SALT MARSHES

Steep cliffs notwithstanding, there are places at Puck Bay where the land slopes gently to meet the sea and forms a low, peaty, marshy shore. It includes Słone Łąki (Salty Meadows) near Władysławowo, Mechelińskie Łąki near Rewa, and Moście Błota or Mostowe Błota (Bridge Mud) around the Read estuary. These are small coastline sections that are unchanged by people and have no coastal protection. High tides and storms can flood these areas and seawater can seep through. Therefore, the salt content in the soil remains high, which makes farming the land impossible. For centuries, the areas were used for cattle, horse, and sheep grazing, or as hay meadows. Nature reacted to this low-intensity resource use and created salt marsh meadows where halophytes (salt-tolerant species) flourish.

The flora here is halophilic, which literally means "salt-loving". They accumulate salt in vacuoles (special organelles in their cells) to survive in these circumstances. Many of them can only live in this distinctive salt marsh environment. Various species are endangered and have been included in the national and regional Red Lists of Vascular Plants. In the turf of salt marsh meadows, you can find sea plantain (or goose tongue), which has thin grass-like leaves, saltmeadow rush (or black needle rush), which also resembles grass, and prickly saltwort, which can tingle. Salt marsh meadows and (even more often) the Puck Bay coast or reed beds are also home to one of the most beautiful perennials in Norda: the seashore aster that blooms from summer to October. Lower-altitude wetlands tend to be colonised by semi-halophilic rushes, predominantly the Baltic rush and grey club-rush.



Dunlin, photo by R. Nanaszko



Coastal waters of the Baltic, photo by M. Hadwiczak

Coastal Landscape Park

The unique features of the nature, landscape, and culture on the Northern Kashubian coast were the crucial factors in the decision to create a landscape park here – the fourth in Polish history. Currently, it covers nearly the whole Baltic coast from Białogóra to Hel as well as Hel Peninsula, Inner Puck Bay and its vicinity from Hel to Mechelinki. In the park, all the types of coast in the Polish part of the Baltic can be seen and the varied lay of the land makes it a good habitat for various species of flora and fauna.

Over half of the park area is taken by Inner Puck Bay, whose bottom is a unique ecosystem (see pp. 21–23). One of the most important halophyte colonies in Poland is on its shore (see p. 24). The local dunes coexist with important plant colonies that live on sandy substrate (see p. 12–13), while in peatbogs among the dunes and on the bottoms of ice-marginal valleys we can see species which are typical of western Europe wetlands and for which this region is the eastern boundary of their distribution (see pp. 29–30). For birds, Hel Peninsula and the marshy areas in the park are an important stop on their spring and autumn journeys (see pp. 17–21).



Beka nature reserve

A reserve established in 1988 in the area where Reda river flows into Puck Bay. It is located within the Coastal Landscape Park and two Natura 2000 protected sites: a bird site (Puck Bay) and a habitat site (Puck Bay and Hel Peninsula).

Over the years, agricultural use of the land and regular flooding by salty seawater has led to a rare type of habitat being created here: a coastal salt marsh (mostly in the form of salt meadows), characterised by low, salt-tolerant plants and the continued presence of the fascinating bird species that come here to breed or make a stop on their journeys.

Coastal salt marshes have a semi--natural character, that is they came to be and continue to exist due to

extensive (low-intensity, not involving machinery) agricultural use. If these meadows are not mowed and animals are not allowed to graze, these environmentally important areas become covered with reed, which leads to the loss of bird habitats. Such a sequence of events happened in the 1990s, when agricultural activities stopped after Beka reserve was created. This led to a decline in the population of some bird species, for instance the dunlin, whose breeding colony decreased from 50 pairs in the 1980s to one or two in 1999, and currently there is no proof it nests in the reserve at all. In relation to the habitat changes that had occurred, in 1999 the Polish Society for the Protection of Birds took on the task of active nature protection; this is still ongoing and mostly consists of mowing grasslands and reeds as well as grazing farm animals.

The specific location of

the reserve and its characteristic habitats make it a place where a number of bird species can be found throughout the year. In winter they especially congregate near

Puck Bay. In the mouths of two rivers,
Reda and Zagórska Struga, mires which do not freeze provide wintering waterfowl with shelter and offer them access to food. In the Reda estuary, large flocks





Beka reserve landscape, photo by M. Hadwiczak



Swans wintering in the warmer part of a mire, photo by M. Hadwiczak

Flying "citron"

In Beka reserve, a remarkable species is the citrine wagtail, colloquially called "a little lemon" by Polish ornithologists because of its yellow colouration. It nests in north-western and central Siberia, but since the 1980s its expansion into Europe has been observed and the western boundary of its range has extended. In Poland, the first location in which it hatched eggs was found in 1994 in Mechelińskie Łąki. Currently, Beka reserve is one of the few places in Poland where citrine wagtails nest regularly.

The mysterious name of the reserve comes from the name of a village which stood by Puck Bay until the middle of the 20th century. Floods during storms and the fire which damaged the hamlet in the late 1960s made it a deserted place. While walking along the educational trail, you can see the traces of the village in the form of stone foundations and a wooden cross.

In Kashubian, the word "beka" meant a hook that the local residents used in seal hunting.

of ducks can be seen, including the tufted duck, common goldeneye, goosander, or ordinary mallard. They are often in the company of common coots, cormorants, and swans (both mute swans and much rarer whooper swans).

What seems particularly interesting here is the period of bird migrations. Thanks to its location on many migration paths, Beka reserve is a significant stopping point for various species. Here, birds can rest and regain their energy before travelling further. Waders such as the dunlin, the most common species during migrations, are frequent guests in the reserve. Lapwings, plovers, godwits, redshanks, wood sandpipers, ruffs, common snipes, and jack snipes also arrive.

Likewise, the Beka reserve landscape is accentuated by cranes and geese, including the greylag goose, the most common during migrations, but a truly unique feature is the breeding birds. The flora of meadows and pastures, so characteristic of Beka reserve, creates a perfect environment for the nests that waders such as lapwings, redshanks, or common snipes build. They lay eggs here every year, as did the dunlin until recently: now, because of overgrown grassland, its nests are no longer spotted. One can only hope that, thanks to active conservation efforts by the Polish Society for the Protection of Birds, this bird will start hatching eggs again in the reserve.

Other breeding species that are typical of meadows and pastures include the citrine wagtail, which you can see sitting on fence posts, the meadow pipit, which in spring chirps while making its distinctive mating flights overhead, and the western marsh harrier, a bird of prey which build its nests in reed beds.

In Beka reserve, ducks that lead their young can be seen on a regular basis, such as the common shelduck, which tends to nest in burrows, or the goosander (a duck nevertheless), which lays eggs in tree hollows. As for larger birds, the greylag goose and cranes nest here and can also be seen outside the breeding season. You can also encounter kingfishers, bearded reedlings, penduline tits, common reed buntings, yellowhammers, common rosefinches, starlings, shrikes, garden warblers, blackcaps, robins, or blackbirds.

While speaking of animal life in Beka reserve, we cannot overlook its fish population. The area of the reserve includes the downstream part and the mouths of the Reda and Zagórska Strugarivers. Due to the dual environment character of the place (freshwater and seawater), fish which move for a time from salt water to freshwater (and vice versa) can be found here. In the rivers, sea trout, salmon, eel, lamprey, and common whitefish live: these are vulnerable species which need a nutrient-rich sea and clean, navigable rivers to prosper.

The nature trail runs through the reserve; it is 6 km long and takes approximately two hours. The trail starts in the southern part of the reserve near the bridge over Zagórska Struga. From there, you should go north over the dyke, turn right at the foot of the moraine hill called Kępa Pucka, and go along the Mrzeziński Canal to where it meets the sea. The route then takes you south along the Puck Bay coast down to the cross on the beach – a trace of the ghost village. There it takes a turn again and follows the Beka Canal. The trail is marked well and flanked with small fences. Ten information boards along the trail show descriptions of local natural attractions, especially the birds which live here, and detailed maps that make hiking easier. The educational trail lets you discover the highlights of this outstanding place. You should follow the marked routes at all times so as not to scare away the local animals, especially birds that lay eggs or rest during migration.

As you go for a walk to Beka reserve, definitely consider taking your binoculars or telescope as this will allow you to spy on the wildlife – first and foremost on the birds. Watching our winged friends is especially well worth the effort in the early mornings in the breeding season, when various species can be spotted and their beautiful concerts can be heard. During the day birds are less active.

Beka reserve is about 9 km from Gdynia. The closest villages – Mrzezino (1.5 km), Osłonino (1 km), and Rewa (2 km) – are in the Puck commune. Cycling is a good option. The western edge of the reserve was set on top of the dyke between Osłonino and Rewa. Two cycle routes follow the floodbank: the coastal Hanseatic trail (international Baltic Sea

Cycle Route EuroVelo 10, see p. 66) as well as the Ring of Puck Bay from Gdynia to Hel. If cycling, please bear in mind that not all sections of the educational path can be reached by bike. Drivers and public transport users should head towards Mrzezino.

Bielawa reserve

This reserve, unique in all of Poland, was established to protect a Baltic-type raised bog which is the home of many rare bird species. There used to be three smaller reserves here (Bielawa, Moroszka



The cross which commemorates the former Beka village, photo by K. Rosińska



Panorama of Bielawskie Błota from the viewing tower, photo by K. Kazanowski







Panorama of Bielawskie Błota, photo by K. Kazanowski

Bielawskiego Błota, and Woskownica Bielawskiego Błota) which in 2005 were merged into one protected area.

Bielawa reserve owes its name to two species of cottongrass: common and hare's-tail, whose hair-like infructescences transform mires into shimmering white fields (in Polish "biel-" is the root word for "white"). The reserve is in the buffer zone of the Coastal Landscape Park and on the grounds of a large marsh known as Bielawskie Błota. Two Natura 2000 protected sites are designated within a bird site (Bielawskie Błota) and a habitat site (Bielawa and Bory Bażynowe).

Typically, raised bogs are dome-shaped, which is visible as an elevated part of the landscape. The particular climate of the Baltic Sea is conducive to the growth of peat-forming plants and to a slowdown in the activity of soil-forming organisms; this results in the ground in these areas being arched upward.

Industrial-scale peat extraction in this region has unfortunately caused drainage and, consequently, degradation of this incomparable area. Peatbogs have started to become covered with trees, mostly birches and pines. Peat fires add to the problem as they lead to significant damage in the mires and to a loss of their original character.

Nowadays, to eliminate potential threats, active protection efforts are ongoing; for instance, mowing heathlands, removing trees from peatbogs, and counteracting the drainage.

The particular conditions of the Bielawa reserve habitat make it a sanctuary for wetland fowl, especially migratory birds that stop here on their journeys. The most distinctive among them, the crane, can be seen for most of the year, and in fact over a dozen pairs come to the reserve to hatch their eggs on a regular basis. During spring and autumn congregations, even more than a thousand cranes can arrive here. The reserve is also regularly visited by herons, both the grey heron and the less common great white egret.

✓ ✓ ✓ Bielawa is among the few places in Poland where you can see the wood sandpiper in the breeding season (one or two pairs are irregularly observed). They are far more numerous in the migration period. The place is also well suited to raptor observation: you can see such birds of prey on the prowl as the white-tailed eagle (throughout the year), the red kite (in spring and summer), and the golden eagle (during spring migrations).

The short-eared owl used to come to A Bielawa to breed, but currently we can only see this species during spring and autumn migrations. Short-eared owls are not afraid to fly long distances and, curiously, are active by day as well. Meanwhile, the nightjar is a decidedly night-time resident of Bielawa – a mysterious bird with patterned, camouflaging plumage. The nightjar is easy to hear but difficult to see: its modulated trill sometimes fills June and July nights. Many species of passerines, such as orioles, barred warblers,



"Ameryka" viewing platform in Bielawa reserve, photo bu K. Rosińska





Słone Łąki reserve, photo by M. Hadwiczak



Chłapowski Cliff, photo by K. Kazanowski

red-backed shrikes, and common rosefinches, flit around the trees and shrubs of the reserve.

Bielawskie Błota also gives shelter to mammals, for instance roe deer, red deer, fallow deer, or boar, whose trails can be seen on the way to the viewing tower. Lately, wolves have been observed in the reserve. Reptiles and amphibians are also not uncommon, as are various species of invertebrates, including spiders, dragonflies, and butterflies.

Entering the reserve itself is forbidden. Nature lovers can use the viewing platform on the Ameryka tower, which will let them see most of the area. A pair of binoculars or a telescope is perfect for the occasion. To reach the tower, it's best to take province road No 213 and turn into the village of Sulicice.

Mechelińskie Łąki reserve

By Puck Bay, between Rewa and Mechelinki, there is an area of waterlogged rushes and grasslands, separated from the sea by a low bank of dunes. Water trickling and sometimes flowing in has made it a habitat for salt-tolerant vegetation. The low, windswept dunes are quite often covered with sea holly and sea sandwort. Here, ringed plovers lay eggs



that are barely visible against the sand. Attention: the reserve is not open for tourists. It can be approached from the beach.

Słone Łąki reserve

Even though the wetlands and halophytic rushes between Władysławowo and Swarzewo are similar to other such places by Puck Bay, a community of seaside brookweed – a very rare salt-tolerant species, the only one in Eastern Pomerania – makes it unique; another species that is rare in Poland, sea plantain, also grows here. In the reserve, you can be awed by nature on the educational walkway which starts in Władysławowo at the junction of Łąkowa and Bohaterów Kaszubskich and goes right to the shore of Puck Bay.

Cliffs and coastal gorges from Chłapowo to Jastrzębia Góra

The high, steep coast between Władysławowo and Jastrzębia Góra boasts the highest cliffs in Poland (apart from those on Wolin Island). The landscape is sculpted here by the destructive power of storms. Kępa Swarzewska, a moraine upland landform slashed through with four gorges, meets the Baltic on an eight-kilometre stretch of coast. Long sections of this living cliff let you see how dynamic the changes in its vegetation can be.

Looking from Władysławowo, the first precipice is the 25 m Chłapowski Cliff. It is the only place in Kashubia where rocks from before the glacial period (i.e., pre-Pleistocene) are exposed. In the lower part of the cliff you can see sand separated by brown-coal layers which date back around 15 million years. Above, clay and gravel from subsequent glacial periods are layered. Sandy landslides (debris slides or flows) create spaces where the first pioneer plants take root; they include the coltsfoot and the seaside variety of kidney vetch.

Further up towards Rozewie, there is the opening of Chłapowski Gorge, also known as Rudnik or Rudnikowy Żłób. It cuts inland into Kępa Swarzewska for about a kilometre. In 1859–1860, a browncoal mine operated here. Later the area was used for grazing. Today the gorge is protected as part of the Dolina Chłapowska (Chłapowska Valley) reserve. In the grounds and in the vicinity you can see yellow fields of common broom, which blooms in late spring, and shrubs of common sea buckthorn, which in autumn produces yellow-to-orange berries.



The obelisk which marks the place where Sigismund III Vasa landed, photo courtesy of LOT Kaszuby Północne

The history of Lisi Jar

When the Swedish king John III died in 1592, his son Sigismund III Vasa, the king of Poland, replaced him. Most Swedes opposed him, however. In 1598, Sigismund III Vasa travelled to Sweden to fight the rebellion, but his attempt ended in defeat and he had to return. The crew of the king's ship, exhausted by the autumn storm, decided to come ashore near Lisi Jar on 2 November of that year. In 1626 and 1655, Swedish troops also anchored near Lisi Jar during Swedish wars.



Lisi Jar, photo by M. Hadwiczak

The closer you are to Rozewie, the thicker the bush cover is, and willows, roses, and rowans appear among it; this goes to show that the cliff is becoming more stable. Behind beach entrance No 16 is the opening of another gorge, Łebski Żleb. Here by the sea, more abundant forests with two maple species, the Norway maple and sycamore, grow; they resemble mountain woodlands.

The area of Przylądek Rozewski (Cape Rozewie) natural reserve starts behind Łebski Żleb. Constructed here since the interwar period, artificial soil reinforcements have made it possible for a thick beech forest to grow in the upper parts of the stabilised precipice and for a deciduous oak-and-hornbeam forest to grow in the more fertile and wetter stretches. Beech and oak-and-hornbeam formations are the last stages of cliff vegetation succession – the transformation of plant communities from pioneers to mature forests.

The beech woodland of Cape Rozewie reserve contains, for example, three species of orchids: the common spotted orchid, the common twayblade, and the bird's-nest orchid. You can also see the Swedish whitebeam – a relative of rowan (or quickbeam) – an endangered and protected species which naturally grows in Poland solely by the Baltic between Kołobrzeg and Gdynia. It is, however, frequently planted in urban green spaces and, thanks to the birds that spread its seeds, it has started to grow in Pomeranian forests again.

Lisi Jar, another picturesque gorge overgrown with beech forest, is situated further west. Behind this site is the village of Jastrzębia Góra (Kash. Pilëce). The cliff may fail to amaze as it has been buttressed with rock rubble. Right here, between beach entrances number 23 and 24, lies the northernmost point of Polish territory, called the North Star; according to measurement from the 2000s, it "overtook" Cape Rozewie. Landslides have occurred here in the last 20 years, destroying structures built near the cliff edge. This danger is still present, hence – apart from gabions (baskets tightly filled with stones) placed here – in late spring a strip of sand that forms a beach is poured here to replace the beach that the sea has swallowed. This protects the shore from abrasion and allows beachgoers to stroll safely by the sea.

Between Jastrzębia Góra and Tupadły, in Strondowy Jar, we come across more thermophilic vegetation, similar to that of Dolina Chłapowska. The ravine used to serve as cattle pasture. When agricultural use stopped, the area was overgrown with the shrubs of common broom, which blooms attractively in late May and early June. Impressive bushes of the common juniper grow beside it, while heathers flower in late summer. Such a community of shrubs and grasses that prefer warm temperatures only lasts a while before the abandoned field turns into a forest.



Linaria odora, photo by M. Hadwiczak



Sea lyme grass, photo by M. Hadwiczak



Near Rozewie, an educational trail is marked on the cliffed coast. The route is about 4.5 km; it starts and ends at the lighthouse, and the stops on the route are described on special boards you will find from time to time.

You can also look at the cliffed coast between Władysławowo and Jastrzębia Góra if you stroll by the sea for about 7–8 km. The picturesque Chłapowski Gorge and Lisi Jar can be reached from road No 215. Beach entrances numbered 12–25 lead to the cliffs.

Hel Peninsula

From a bird's-eye view, between Jurata and Hel this headland slightly resembles a fingerprint with visible lines or a cut tree trunk with rings. The fragment nicely shows how this spit of land has grown over time due to the formation of parallel dune banks. They arise from coastal banks – from long foredunes, that is incipient dunes formed by wind-blown sand carried from the beach. This process has "only" been going on for about 5,500 years, thus this part of the peninsula is one of the youngest scraps of Polish territory. It is worth noting that the headland assumed the shape similar to the one it has now only about 1,000 years ago. In addition, the headland keeps changing month by month, and its tip keeps growing: it is built up by sand which flows in due to two coastal currents.



Cross-leaved heath, photo by M. Hadwiczak

This is a hugely interesting phenomenon, especially if we think about the fact that a kilometre away from shore the sea is already 60 m deep.

On Hel Peninsula, the edge of the beach gives us a chance to see how vegetation itself stabilises sand and gives rise to foredunes. To protect the area and make it accessible to tourists, there is a raised walkway among the dunes, flanked by information boards.

Until the beginning of this century, attempts were made to strengthen the dunes by transporting fertile soil here and planting species which are foreign not only to the local flora but also to all of Europe, namely the Japanese rose and Siberian violet-willow, but they both invaded the habitats of native plants. Fortunately, they have been largely eliminated and native grasses resistant to burial by sand have been planted here, such as sea lyme grass and marram grass. They form a barrier for windborne sand and thus allow dunes to form.

In spring and autumn, www the tip of Hel Peninsula is a good spot for watching various species of migratory birds and grey seals which are looking for a place to rest, while during winter storms you can feel the true power of the sea which surrounds the headland from almost every side.

Apart from the coastal area, there are no major limitations to getting into or around the tip of Hel Peninsula. The shortest route from the town of Hel to the end of the headland follows the streets Wiejska and Kuracyjna first, then there is a walkway among the dunes to the Mound of Kashubians and across the port area to ulica Maszopów.



The landscape of Równina Błot Przymorskich, photo by M. Hadwiczak



Nature in Białogóra reserve, photo by M. Hadwiczak



Common heather in Białogóra reserve, photo by M. Hadwiczak

Helskie Wydmy (Hel Dunes) nature reserve

The truly untamed peninsula landscape is retained to the north of Hel town, in the Hel Dunes reserve. In the area there are mostly parabolic dunes, which have a central part that moves more rapidly than their arms. Some dunes are non-fixed, meaning they are only held in some places by plants such as marram grass. Linaria odora (a toadflax) is quite widespread here; in July and August, its yellow flowers emit an odour similar to vanilla. It is endemic – a species typical of the southern shore of the Baltic. It can only be found in this region on dunes from the Bay of Riga to Poland. In Poland it is critically endangered. Another species that faces extinction is the halophilic prickly saltwort, an annual plant with needle-like leaves that accumulate a lot of mineral salts. It is often accompanied by sea holly.

The white, grey, and brown dunes in the reserve area are a habitat for an amazing microcosm. The lichens growing here are the hosts of the globally unique lichenicolous fungi. Among the grey dunes and shrubs,

two species of orchids which bloom in summer can be found: the creeping lady's-tresses and the dark-red helleborine.

To visit Hel Dunes, you need to go from Bór – a former village and currently a hamlet between Jurata and Hel – along the military area towards the railway, which marks the edge of the reserve. An educational trail runs across it as it goes towards the beach. It is about 8 km from there to the so-called Big Beach in Hel and over 4.5 km to the Międzymorze boulevard in Jurata. It is a great place for a stroll, especially since the place is rather secluded.

Białogóra reserve

An area that is unique in all of Poland stretches to the north-west of Białogóra. The climate here is quite mild, which is why sub-Atlantic plant species – present in the zone where the Atlantic climate stretches deep into the continent – have colonised the area. The local shallow peatbogs look similar to those of the coastal regions in western Europe. They have never been exploited and are the richest habitats of Atlantic peatland plants in Poland in terms of the number of species. The easternmost communities of plants are here.

The most interesting ecosystems that occur here are mossy raised bogs – wet areas overgrown with bryophytes, *Cyperaceae* (sedges), prostrate shrubs, and only single trees. These are the most important parts of



Marram grass, photo by P. Boszke



Helskie Wydmy reserve, photo courtesy of LOT Kaszuby Północne





How a dune flooded Lubiatowo

Most likely, beech and oak forests used to grow on Lubiatowska Dune as they still do in Babnica. However, in 1795 a glassworks was built here and it exploited nearby forests for their energy-rich wood. Now the small village of Osieczki, also called Szklana Huta (Glassworks), marks where the facilities used to be. Human interference probably caused the dune to start moving. Its sand poured into rivulets that flowed seaward; this is how the lake which began to flood Lubiatowo formed. The residents moved further south to where the village currently is. Before the war, during drainage works around Lake Lubiatowskie Małe, which no longer exists, the remains of house foundations and of wooden walls were found.

peatbogs. The cross-leaved heath (a strictly protected species) dominates here and blooms pink in July.

Over time, mossy raised bogs change into swamp forests. A harbinger of this conversion – one of the first shrubs to enter a peatbog – is the bog-myrtle (also called sweetgale), an endangered and protected species. Its leaves slightly resemble laurel (sweet bay), and due to their aroma they used to be used as a seasoning in Quebec and in beer production in England. The thick wax-like substance that covers its fruit was gathered for candle making.

On relatively small dunes in the reserve you can admire coastal pine forests, considered among the most beautiful on this seashore. The details of their underbrush and ground cover change according to how moist the soil is.

In the shallow water of the small peaty lakes of the reserve, shoreweed (an endangered species) grows, with leaves that look like long fleshy thorns. It is related to the seaside plantain we discussed previously, and it is also often present in Lobelian lakes. Wet places and the shores of bodies of water are the habitats of the *Cyperaceae* family (sedges); these are particularly rare in Poland and resemble grass. One of them, the many-stalked spike-rush, has only six communities in Poland, including this one in Kashubia. Apart from sedges, notable insectivores grow in the peatbogs: sundews (*Drosera*) and bladderworts (*Utricularia*). In the waterlogged vicinity of Białogóra, cranes have found one of their main nesting sites in Northern Kashubia.

Two paths go across the reserve, with the first being a seaward extension of ulica Plażowa in Białogóra. As you go along ulica Morska, behind the car park and near the forest entrance, the other starts; it is a 1.3 km nature trail and forest pathway. Once you reach the beach (entrance No 32), you can go back through entrance No 33 or keep walking over 2 km to the east and continue your trip on the horse-riding path or the Nordic-walking trail near entrance No 30. Habitats similar to those in Białogóra reserve are also to be found to the left of the pathway from Białogóra centre to beach entrance No 33. They are protected and known as Białogórskie Torfowisko (Białogóra Peatbog) local protected area.

Wydma Lubiatowska (Lubiatowska Dune) and Rezerwat Babnica (Babnica Reserve)

The Baltic coast between Łeba and Białogóra is a region far from major tourist destinations. It is also difficult to reach from the land. A flat ice-marginal valley, Równina Błot Przymorskich (Coastal Muds Plain) separates the coast from the moraine upland to the south. Lakes and swamps used to be quite common here. The landscape we can take in nowadays has not changed much over the centuries.

Less than 1.5 km to the west of Białogóra, a large parabolic dune stretches its arms. Its slip face turns east and is 25 m high, with the highest points, Złamana Wieża and Białogarda, reaching up to 40 m. The northern arm of the dune, protected as part of Babnica Nature Reserve, is covered with a remarkable beech and oak forest of the Pomeranian variety. The oldest local trees are almost 150 years old and are relics of an older woodland. Similar forests once grew over numerous coastal dunes in Pomerania, but they were very gradually superseded by pines which were planted by people and transformed over time into pine forests. Tree roots stabilise the ground and this has helped the local dunes to remain steep.

As you visit the reserve, please note the lichens on old beech and oak trunks: at least 79 species are present here, half of them listed in the red book of vulnerable and endangered lichen species. Many are green and have a bush-like appearance, for instance the *Usnea* genus.

As you walk on, you encounter the Bezimienna (literally Nameless) river, winding its way picturesquely through the coastal forests. To the west of its mouth, there is a stretch of dunes over 4 km long and 600 m wide called **Wydma Lubiatowska**. Even before the war, most of the area was covered by travelling black dunes. At the moment, only the almost one-kilometre-long dune in the eastern part is non-fixed; it

Ecological site

An area that is important for retaining biodiversity in a given region; it is smaller and has fewer natural attractions than a nature reserve, and it is protected under a commune council decision.



Ecological site in Białogóra, photo courtesy of LOT Kaszuby Północne



Babnica reserve, photo by K. Tylmann



Bog blueberry, photo by M. Hadwiczak



moves about 2–4 m per year. After WWII, the Forest Research Institute conducted experiments on dune afforestation here – the thickets of dwarf mountain pine in the western part are the remnants of this research. They are surrounded by bunkers, which are the remains of former military areas. The woodland on the dunes between Babnica and the Bezimienna river is well worth seeing. Dozens of beech trees grow here, adorned in autumn with beautiful colours, first golden and orange, later red and brown.

Babnica reserve is located to the west of Białogóra. To reach it from the village centre you should go along ulica Lubiatowska and turn right into a forest path behind the campsite. The EuroVelo R-10 cycle route (see p. 66) and the red Coastal Hiking Trail also lead to the dunes (they run close to Lake Babnica). Only one path accessible to tourists runs right through the protected area; it is a 5 km loop that can be taken on foot, by bike, or on a horse. You can continue your trip if you walk west, parallel to the shore, between beach entrances No 35 and 36, until you get to the Bezimienna river. From there, tourists can reach the travelling dune of Wydma Lubiatowska via forest paths away from the shoreline. Forest roads to the north of Osieki Lęborskie and ulica Spacerowa from Lubiatowo (inaccessible to cars in the last part) also lead to this area.

Piaśnickie Łąki reserve and river Piaśnica

There remain few places on the Polish coast where you may go kayaking from a river out into the sea because most river estuaries have been developed into seaports. One of such unique places is the mouth of Piaśnica. Kayaking on the river is a great chance to reach the sea and commune with nature in spots which are hard to reach from the land.

The source of Piaśnica river is in Darżlubska Forest. It then flows through Lake Żarnowieckie and the peatland of Równina Błot Przymorskich, where it becomes much wider. Wet meadows almost untouched by human hand used to grow in this region and were resplendent in all the colours of blooming plants in summer. Today, merely fragments remain, mostly in the protected area of Piaśnickie Łąki reserve, which is situated on the right-hand side of Piaśnica river. The reserve is not accessible to tourists and the vegetation can only be seen from a kayak.

Piaśnickie Łąki are the best-preserved Kashubian purple moor-grass meadows, or *Molinia* meadows, a type of fen meadows whose name comes from a fairly tall bunch grass, *Molinia caerulea*. They are characterised by high biodiversity and form a refugium of very rare plant species. In May and June, the Siberian iris blooms in blue here and the Piaśnica area is one of its few natural habitats Eastern Pomerania. A common name for its genus is "flags", which are popular garden flowers. Apart from irises, *Gladiolus imbricatus* grows in *Molinia* meadows, which is similar to pink gladioli. The plant is endangered all over the world.

Between Lake Żarnowieckie and the Baltic, the Piaśnica has created many oxbow lakes – U-shaped lakes formed when meanders are cut off from the river. It flows into the Baltic on a beach. Despite the work done to reinforce its edges, the struggle between storms, the river current, and loose beach sand keeps moving its mouth back and forth. The direct contact between the river and the sea also allows marine fish, including herrings and flounders, to swim into the Piaśnica.

The bay plains of Hel Peninsula: Torfowe Kłyle, Każa, and fertile Jurata forests

Nature was able to create various types of habitats other than the pine forests, dunes, and beaches which are usually associated with Hel Peninsula. Unfortunately, the vast majority of the old woodland has disappeared, replaced with forests and meadows that people put in place and look after. Today, only remnants, which differ from their surroundings in



Siberian iris in Piaśnickie Łąki reserve, photo by M. Hadwiczak



The mouth of the Piaśnica, photo courtesy of LOT Kaszuby Północne

Torfowe Kłyle

The Kashubian name of this place, Torfòwé Kùle, means "peat pits" (Kash. torfkùla – harvested peatbog). Nowadays, these pits are filled with water.

For hundreds of years, local inhabitants used to extract peat here. It served as fuel not only on the peninsula but also in other parts of Kashubia. Here, however, on a poor and difficult to reach stretch of land, the lack of wood was felt keenly. Houses were even constructed out of wood recovered from sunken ships whose remains were cast ashore by the sea.

terms of species, still exist. The leftovers of the former vegetation can be seen near the town of Jastarnia on the largest Hel Peninsula bay plain, whose western part is under protection as Torfowe Kłyle ecological site (Kash. Torfòwé Kùle). The plain's landscape of marshes and swamps stands in sharp contrast to the coastal dunes and bay vegetation.

The area is especially worth seeing in autumn and spring, when many birds stop here. There is an educational trail in Torfowe Klyle that is almost 2 km long. It begins opposite Jastarnia-Wczasy railway station and follows the path between a discount shop and the petrol station, through shrubs, and to the shore of Puck Bay. The trail ends in ulica Polna, near the centre of Jastarnia.

Każa is a somewhat smaller, less diverse bay plain. Located between Chałupy and Kuźnica, it is also part of Hel Peninsula. Vegetation typical of beaches, low dunes, and waterlogged depressions it well preserved here, including heathland that is now being overgrown with pine, rowan, blackberry, dewberry, and wild black cherry. In its eastern part, there is a small body of water surrounded by rushes and environmentally important salt-tolerant plants.



The path running through the Każa sanctuary is 1.1 km long and is suitable for hikers (parts of it are also good for biking). It begins less than a kilometre on the road from Chałupy to Hel, where the cycle route diverges from the road. The first stop is at the cross, then the trail goes along the shore of Puck Bay and returns to the cycle route. The stroll from Chałupy to Każa and back is around 4.5 km.

To the north-west of Jurata you can also see a special coastal variety of acidophilous oak forest, a so-called Pomeranian birch and oak forest that only grows in Poland by the Baltic. In addition to these two species, Scots pine can be found here, and the ground cover includes common bracken, the most widespread fern in the world. An educational trail entitled "Fertile Jurata forests with bracken", about 700 m long, goes through this section of the woods. The walk from the centre of Jurata to this place is over 2 km.

Rewa Cape and Ryf Mew

Not far from the village of Rewa, an unusual sandbar juts into Puck Bay; it is called Szpërk or Cypel Rewski (Rewa Cape). It is the work of the same coastal current that is still building Hel Peninsula. Szpërk starts right behind the Sea Cross, a large structure which commemorates those lost at sea. The thin spit of land is surrounded on both sides by bay waters and stretches for about 500 m; its further part is hidden under the surface and goes on for more than 11 km, all the way to Kuźnica.

This whole underwater sandbar is called Seagull Sandbar or Tern Shallow (Ryf Mew, Rewa Mew, Rybitwia Mielizna). It separates Inner and Outer Puck Bay. As the shoal complicated access to the port of Puck, it was deepened with larger ships in mind. A deeper spot, Depka or Głębinka, is about 1.5 km away from the end of the cape. Behind it, the shoal is only 10 cm under the surface in some places, while in others it is already above water. A few hundred metres away from Kuźnica, there is another deeper area.

When the winds blow from the west and north for a long time, Seagull Sandbar becomes solid land. In days of yore, seals used to rest in this place, and they were hunted. Today, in addition to seals, hundreds of birds (mostly gulls) make a stop on their journeys.

Szpërk Cape is at its finest in winter, when Puck Bay freezes over partly or completely. West winds cause ice floes to pile up into heaps and stacks a few metres high. With a bit of luck, you can see the very moment when pieces of ice cover move on top of one another. Without a doubt, it is the best place to watch for this phenomenon in all of Puck Bay.

The "battle" of Seagull Sandhar

The shoal was the site of summer picnics and even dance parties before WWII. In the summer of 2009, three Gdynia residents spent three days and two nights on the sandbar; this officially entitled them to incorporate this area into Gdynia, and their island was henceforth to be called Radzia. In early September, enraged Rëbôcë from Jastarnia and Kuźnica and tourists swam to the islet to the rescue. They drove a pole into the ground with the inscription that explains once and for all that the place belongs to the Kashubians from the peninsula.



Każa sanctuary, photo by M. Hadwiczak

Szpërk from the water and the land

The central exposed part of Seagull Sandbar is subject to sailing prohibition from 1 July to 31 October. Still, tourists can use Szpërk Cape throughout the year, except for the service strip by the coast near the Sea Cross. Each year in summer, usually in August, 100 daredevils chosen by lot trek along the Seagull Sandbar in an event known as the herring march. The organizers accept online submissions at www.marszsledzia.pl.



Lake Choczewskie, photo by K. Tylmann

Lakes Choczewskie and Czarne

The lakes of the Kashubian coastal region are the youngest in Poland. They started to form around 14,000–12,000 years ago, which is the blink of an eye in the history of the Earth. Geologically speaking, the lakes changed into land very quickly: they became full of sediment and their edges become overgrown. Human activities often accelerate this process by allowing sewage or pollutants from arable land and meadows to end up in lakes.

Lakes Choczewskie and Czarne are some of the northernmost Lobelian lakes. To a large extent, they have kept their original purity: their water is nutrient-poor and contains only small amounts of microscopic suspended algae. Therefore, sunlight is able to reach the depths of these lakes. Yet, a small change in the environment would be enough to cause a reduction in water transparency and the disappearance of the remarkable plant species which grow on the bottom. This is why it is so vital to protect the whole surrounding ecosystem (especially the watershed) and not just the water.

In both lakes you can find various species that Lobelian lakes are known for. Quillworts from the ancient *Lycopodium* family of clubmosses grow here; instead of producing flowers, they spread their spores in water. Two species of quillworts are present in Poland: lake quillwort and the particularly rare spiny quillwort (grows in only eight habitats, one of which is Lake Czarne). Sadly, water lobelia is gradually disappearing; its presence proves that water is clean. In Lake Choczewskie, underwater *Charales* algae are also worth noting.

The number of Lobelian lakes in Poland is estimated at 173; nearly all (171) can be found in Pomerania. The surroundings of the Choczewskie lakes are very picturesque and seem perfect for camping, hiking, and cycling. There are bathing areas at Lake Choczewskie.

Aleja Lipowa (Lime Alley) in Rzucewo

In Northern Kashubia, there remain a number of manor houses and palaces which used to be owned by noble families who were much richer than those in the central and southern parts of the region. Apart from the buildings, there are still interesting instances of landscaping, parks, and alleys. Aleja Lipowa in Rzucewo is considered the most beautiful in Norda. It connects the two estates in Osłonino and in Rzucewo, which in the late 17th century were the property of King John III Sobieski, who is credited with commissioning the alley. Among over 300 monumental trees, limes predominate, but Norway maples,



oaks, and horse chestnuts grow here too. In some places, a second row of trees can be seen as the alley originally had four rows. The circumference of the thickest tree is 8 m (at breast height, i.e. 1.3 m). Many protected and endangered lichen species grow on the bark of these venerable specimens.

Mechowska Cave (Kash. Mechòwsczé Grotë)

That there are caves in Kashubia often astounds tourists, and yet Eastern Pomerania from the Lower Vistula Valley to Puck has more of them than any other region except for the highlands and mountains. The 61 m cave in Mechowo is the longest among them.

If you look at the cavern from afar, you can see an array of sandstone columns with entrances to underground corridors in between. Where do such extravagant forms come from? Ice streams that flowed during the Ice Age left two layers of clay here and sands and gravels carried by glacial water were deposited between them. Once the ice retreated, cracks formed in the clay layer above the sands. When the frozen ground thawed after many years, the groundwater started to flow, washing calcium carbonate away from the clay and transporting it through these cracks to the sands below. Where the carbonate precipitated, grains



Mechowska Cave, photo by K. Kazanowski

of sand and gravel became cemented into columns, slabs, and other sandstone formations. Later a stream that flowed nearby, today called Kanał Młyński, cut into the ground and created quite a deep valley. On its slope, sands that were bonded with the lime cement slowly became exposed. Water washed off the bulk of loose silt and sand and dissolved the lime cement, thus creating the cave.

The cavern was discovered by accident in 1818 during a land survey, and as early as 1910 the Prussian government opened it to tourists. Its ceiling has collapsed many times, the last time being in 1981. Currently, the longest tunnel in the cave, which goes under a road, is closed for safety reasons.

If you decide to drive to visit Mechowska Cave, it is best to park before you reach the village in a car park on the right-hand side of the road (about 250 m from the cave). The place is open from March to November. The Culture, Sports, and Tourism Centre in Puck offers detailed information (tel.: 58 6739002).

Oil and gas mine in Dębki

Few people who sojourn in the small village of Dębki or Żarnowiec are aware that crude oil and natural gas deposits, the largest in Kashubia and the only ones in Pomerania Province, are under their feet. They are extracted by PGNiG, a Polish oil and gas company.

These fossil fuels are very old. They started to accumulate about 500 million years ago in the Cambrian period. Then, sand and silt de-

posits, along with dead bacteria, algae, and other organic remains, began to form a layer on the bottom of a shallow sea. Over millions of years, younger deposits hundreds of metres thick collected on top of them. Sand morphed into hard sandstone, silt into mudstone. Influenced by bacteria and chemical reactions, organic substances in the latter changed into petroleum and gas, which crept into the porous sandstones. Today, they are about 3,000 metres below ground.

The oil field was found in 1972, yet for over 20 years only its petroleum was commercially used, while

Underground worlds of Mechowo

A tunnel in Mechowska Cave, supposedly the longest and now blind, once led to the Benedictine convent in Żarnowiec, located 15 km to the north. Allegedly, it was connected to the monastery in Mechowo. No one managed to check if the underground tunnel is passable as it was guarded by a ghost who blew out candles with an icy gust of air. It is true, though, that the strikingly pretty church in Mechowo was founded by Cistercians from Oliwa, the owners of the village for a few hundred years.



its gas was burned. From 1994 to 2022 the gas has been put to use in Dębki; it was also fuels the Puck County gas grid system. Oil flows here to the surface on its own, slightly assisted by maintaining the appropriate pressure in the extraction pipes. Transported by tankers, it mainly was going to Gdańsk Refinery. Nearly 50,000 t of petroleum and 40,000,000 m3 of natural gas have been extracted here. The oil extraction facilities are at the end of ulica Spacerowa in Dębki. Admittance is with PGNiG permission only.



Osłoniński Cliff

Between Osłonino and Rzucewo, a cliffed coast stretches for over 1.5 km. Highly recommended as it is one of the least tamed cliffs in Northern Kashubia, rising up to 16 m in height. The dramatic changes that typically occur on such a type of coast can be easily seen here, especially in the aftermath of winter storms. In some spots, notches form at the foot of the cliff and eat away at its base. Over time, above these notches blocks of clay fall to the shore. From a distance, the diverse layers of exposed rock reflect the history of the ice streams that encroached inexorably from Scandinavia. Grey clay is visible up to a metre above the beach; the yellow-brown upper clay layer which formed during the last glaciation – known as the Weichselian or Vistula glaciation – is up to 6 m thick and is more visible. Both clay layers were deposited here by the ice sheet. Between them are sand deposits, sometimes with silt admixture, which were carried by water from the thawing ice. Water washed many erratic boulders out of the clay layer and today they lie at the foot of the cliff.

Pucki Cliff and the erratics of the Twelve Apostles

When you go for a stroll from the centre of Puck towards Rzucewo, you can take a closer look at the living fragment of Pucki Cliff that stretches from Płutnica Valley to the mouth of Błądzikowski Potok. As was the case with Osłoniński Cliff, yellow-brown clay deposited by the ice sheet which reached here during the last glacial period is noticeable in the upper part.

The sleeping knights of Osłoniński Cliff

Local residents still remember the story of the Pomeranian warriors who were saved from an army that was advancing from the north. When the attackers surrounded them, the precipice parted and revealed the entrance to a concealed town. Some say it was the Mother of God, worshipped in the Swarzewo sanctuary nearby, who saved the Pomeranians from the Teutonic order. Even a few decades ago some people would still see shapes of warriors exiting the cliff when there was mist, a storm, or a blizzard.

Below, sands, gravels, and silts are visible, and at the very bottom grey clay can be seen in some places. The narrow beach gives you an chance to see a number of boulders which water washed out of the cliff's upper part and neither waves nor currents could carry away.

The largest boulders are 1.5 km away from the Puck pier and collectively bear the name of the Twelve Apostles. Their circumferences are 3 to 4 m on average, although a few have a seven-metre girth. The giants are made of crystalline rocks only, which are highly weather resistant. They've come a long way and date back to 1.8–1.9 billion years ago. The vast majority are crumbs of primeval Svecofennian mountains, which were created in large tracts of today's Sweden and southern Finland when microcontinents clashed – events which mark the beginning of the formation of the European continent.

To see Pucki Cliff, take blue hiking trail "The Edge of Kępa Pucka" that runs from Puck to Wejherowo.

Vista from Kashubian Eye to the Żarnowiec power station artificial lake, photo by K. Kazanowski

Kashubian Eye – a viewing tower in Gniewino

Its name comes from its shape, which resembles an eye when seen from above. But here you may also, pun intended, cast an eye on the landscape as you can nowhere else in Northern Kashubia. The viewing tower is in Kępa Gniewińska, an area which is 113 m above sea level in some places. Climb the 212 stairs or use the lift and find yourself 36 m above the ground.

From there, when looking to the south, you can first see an artificial lake constructed where the village of Kolkowo used to be. It is part of the Żarnowiec pumped-storage power station. To the north-east and north you can see the trough valley of Lake Żarnowieckie. Its slopes shoot up almost 100 m, giving the area a semblance of a highland landscape. From





this vantage point you can clearly see that this region was a bay about 5,000 years ago: the lower-elevation lake surroundings open towards the sea and the plain of Równina Błot Przymorskich is even closer to the Baltic, with only a thin ridge of dunes separating the two.

The viewing tower is open from April to October.

Devil's Stone in Odargowo (also called Stojący, Pogański Kamień)

The largest boulder in Eastern Pomerania is in the forests which stretch to the north-east of Odargowo. As early as in 1277, it appears in historical records as a boundary stone. Made of crystalline rock – more precisely granite gneiss – it is over 20 m in circumference, 7 m in length, and 3.5 m in height.

To walk to Devil's Stone, you need to follow the green hiking trail to the east of Odargowo. This boulder, much like other monumental objects of this type, is covered in rare lichens, therefore you should neither climb nor even touch it.

Near the stone is Zielone reserve – a place that you could mistake for Amazonia; it looks splendid in photos thanks to the liana-like vines

Devil's Stone in Odargowo

The boulder has marks that, according to legend, were left by apùrtk (a devil or mischievous, foolish spirit). Some say he tried to trounce a stolem (a giant from the Kashubian mythology). He lifted the boulder, but it fell when he tried to hurl it. Another version mentions a devil who carried the stone to destroy the monastery in Żarnowiec. When he heard the cock crowing at dawn, his strength left him, the stone fell out of his hands, and came to a stop in the woods.

Deviľs Stone near Połchówko

When Christianity was just beginning to spread in the region, local residents would supposedly hear sermons delivered by an angel. Apparently, the preaching fell on deaf ears as no one came to be christened at the appointed time. But, when the angel stamped his foot, the ground shook and the "missionary" left a permanent mark on the boulder, thus convincing the locals that God was stronger than their idols.

Another legend has it that Devil's Stone in Połchówko was left there by a devil who could not stand the powerful sound of bells from the Cistercian church in Mechowo. He tried, but failed, to carry this large boulder to where he wanted it before the cock crowed at dawn.

of the common honeysuckle that twist around the trees. An educational trail runs through the reserve and there is an observation point with an information board.

Devil's Stone and God's Foot near Połchówko

Another devil's stone is within an interesting cluster of glacial erratics in the northern part of Darżlubska Forest. The boulders were transported from Scandinavia by the last Pleistocene ice sheet; their presence in this place has to do with a small terminal moraine which extended south of Świecino and Połchówko.

Since the 13th century, Devil's Stone and the neighbouring God's Foot were both used as boundary stones. The latter is made of granite and is relatively small, with a girth of 2.66 m. A dark mark on the surface of the stone resembles a foot. At 2 m in height and 12.5 m in circumference, Devil's Stone is far larger. It is a piece of gneiss, a metamorphic rock transformed by high pressure and temperature, probably in an orogeny around 1.8–1.9 billion years ago. Numerous other stones are in the vicinity and form a sort of boulder area. Both of these rocks come from Sweden or southern Finland.

The hiking trail of Groty Mechowskie (Mechowskie Caves), marked in black, goes close by the stones. God's Foot is fenced off and marked. The area can also be reached by car and there is a forest car park near the smaller of the boulders.







Kaszubskie Oko viewing tower, photo by K. Tylmann



Coastal Bay Trail markings, photo by K. Tylmann



Fortifications on Hel beach, photo by N. Szymonowska

Marked tourist routes make traversing Northern Kashubia easy, including hiking, cycling, and themed tours such as the Trail of Manors and Palaces, the Military History Trail, the Lighthouse Trails, or Northern Kashubia Fisheries Trail. Plus, there are educational routes, marked out, for example, in nature reserves and protected areas. There is a pilgrimage route here too, in Kalwaria Wejherowska, which was created around the time when Kalwaria Zebrzydowska, famous all over Poland for its monastery, was established. Northern Kashubia can also be explored by water if you take out a boat, go on a cruise, or sail across the lakes of Puck Bay. In this chapter we describe the most interesting tourist routes and offer a few suggestions for trips in the Norda territory.

HIKING ROUTES

The best way to get to know the natural attractions of Northern Kashubia is to go on walking tours. There are several long-distance hiking routes that lead to the most interesting places in terms of landscape and nature. The Baltic Coastal Trail (red markings) passes along the shores of the open sea, often through remote and secluded places. The Coastal Bay Trail (blue markings) runs from Krokowa castle through the cliffs between Jastrzębia Góra and Chłapowo all the way to Hel Peninsula. Picturesque vistas of the ice-marginal valley of the river Reda and Puck Bay are afforded by the blue trail of Kępa Pucka Edge, which goes from Wejherowo to Puck. Two routes cut through the Darżlubska Forest: the green Darżlubska Forest Trail from Wejherowo and the black Mechowo Caves Trail from Puck merge in Krokowa. Also, along Puck Bay runs the yellow-marked Swarzewo Trail that joins Puck and Władysławowo.

THEMED ROUTES

Szlak Dworów i Pałaców (Trail of Manors and Palaces)

The route features 22 places of interest: Rzucewo and Krokowa castles, palaces in Wejherowo, Rekowo Górne, Sławutówko, Kłanino, Ciekocinko, Sasino, Zwartowo, Godętowo, Borkowo and Jackowo, manors in Rumia, Prusewo, Bychowo, Lisewo, Gościęcino, Gościcino, Salino, Mosty, Żarnowiec and Kurowo. By learning more about the history of these buildings and their



owners, you can also delve deeper into the history of the region. Some of them have been renovated and are well managed by new proprietors; a certain number contain hotels and restaurants. Wejherowo palace is now the seat of the Museum of Kashubian-Pomeranian Writings and Music (see p. 76).

Szlak Historii Militarnej (Military History Trail)

The route takes us to places steeped in Puck County's rich and turbulent history – from mediaeval times to today. It covers over 80 objects, including historic fortified buildings and remains, monuments, graves, and battle sites. Puck was once the sea port of Polish Commonwealth privateers (sailors given the right to plunder enemy ships during armed conflicts) and a fortress which survived the siege during the Swedish deluge. The trail includes such institutions as the Museum of Coastal Defence in Hel (see p. 75) and Open-Air Fortification in Jastarnia (see pp. 76–77). Sailors and motorboat enthusiasts can also reach the former torpedo testing area in Puck Bay by water.



Lighthouse at Cape Rozewie, photo by M. Hadwiczak

Szlak Latarni Morskich (Lighthouse Trail)

Four lighthouses are located on the Kashubian coast. The one in Hel, situated at the very tip of the peninsula, is the tallest of them, measuring 41.5 m. The current structure dates from 1942, yet the history of lighthouses here stretches back to the 17th and presumably even

Kalwaria Wejherowska

This calvary was created in the middle of the 17th century. Jakub Wejher, Malbork voivode, was the initiator and main sponsor. The chapels' locations were planned by a Cistercian monk in Oliwa abbey, Father Robert, who styled them after the Stations of the Cross in Jerusalem.

Kalwaria Wejherowska is on moraine hills. The pilgrimage route starts on the Mount of Olives; it is 5 km long and takes in 26 chapels.



Kalwaria Wejherowska, photo by M. Szafrański

In Mosty, making a detour to nearby Rewa is well worth it. The village is located where the singular Rewa Cape juts out into the sea (see p. 43). The distance from the fork in Mosty to the sea cross in Rewa is just 2.5 km. the 13th century. In turn, the lighthouse at Cape Rozewie, located 3 km from the centre of Jastrzębia Góra, is the oldest building of its kind on the Polish coast; it was constructed in 1822 and features in the cultural heritage list. It houses the Lighthouse Museum (see p. 76) and the Stefan Żeromski Memorial Room. Another building on the trail is the Stilo lighthouse near Osetnik settlement not far from Łeba. It was built in the 1900s, is 33 m tall, and has two viewing galleries at the top. The smallest lighthouse, merely 13 m tall, is located in Jastarnia was constructed in 1950. This structure is the only one that is closed to the public. The rest can be visited in the tourist season from May to September.

Szlak Rybacki Kaszub Północnych (Northern Kashubia Fisheries Trail)

The Northern Kashubia Fisheries Trail is part of the Northern Fisheries Trail, a cultural tourist route that incorporates fishing communities, artefacts, and themed events from Western Pomerania to Masuria. It includes places related to the history and tradition of both inland and sea fishing as well as to ecology and culinary art. It features history museums, folk museums with exhibitions dedicated to fishing, fish farms, fisheries where fresh catch can be bought and fishing expeditions can be admired, rural tourism farms with a focus on anglers, ecology education centres, and finally restaurants – fried fish joints and smokehouses that offer fish dishes. The MERK Centre in Władysławowo (see p. 74) is responsible for coordinating the activities and places of interest on the Kashubian section of the trail.

NORTHERN KASHUBIA TRIP SUGGESTIONS

From Gdynia to Władysławowo by bike

The route is brimming with scenic views and remarkable natural areas. **Length:** 45.2 km

Starting point: Dworzec PKP Gdynia Główna (Gdynia Główna Railway Station)

- 0 km Gdynia. Dworzec PKP Gdynia Główna
- 3.1 km A bicycle path starts in ulica Janka Wiśniewskiego (Wiśniewski Street) and goes through two road junctions in the vicinity of the port. Then we take ulica płk. Dąbka towards Kosakowo.



- 6.5 km We take the right turn into ulica Derdowskiego towards Kosakowo. We negotiate the uphill slope to Kępa Oksywska, which on the east ends in steep cliffs falling towards Puck Bay. We go past the large Gdynia Kosakowo airport, which is visible to the right. Since 2006, one of the best music festivals in Europe, Open'er, has been held here every July.
- 10.1 km Pierwoszyno. We turn right from province road No. 101. Passing along the streets Truskawkowa, Północna and Jałowcowa, we reach the edge of Kępa Oksywska moraine. Here the nearby hills, called Góry Grunwaldowe, stop abruptly at Puck Bay and form a cliff in Mechelinki. It is only partly living, meaning that seawater can only reach some parts of the cliff. The precipice is becoming overgrown with sea buckthorn, broom, and other shrubs. Over the edge you can admire the picturesque view of Hel Peninsula. Looking to the left, you can see Mechelinki pier and Szpërk (the Cape Rewa). To the right, near the shore, crumble the ruins of a torpedo station in Babie Doły, one of two such facilities built in this large WWII German military training area.
- 13.2 km Mechelinki. The Mechelińskie Łąki nature reserve (see p. 32) starts a few hundred metres north of the village. A riparian



Rewa sea cross, photo by P. Kowalewski





Seal Hunters Settlement, photo courtesy of LOT Kaszuby Północne

(marshy) alder forest, stretching from Mechelinki to Mosty, adjoins it. There is a colony of grey herons, a protected species, here. The birds are here from the end of February to the middle of June; later the adults and young birds fly to their feeding grounds on muddy areas.

- 1 15.8 km Mosty. Before reaching Rewa we take the right turn from the province road into ulica Wałowa. In front of us stretch broad swamps called Mostowe Błota. The lowlands are drained by numerous canals and by the estuaries of two rivers: Reda and Zagórska Struga. The land is protected from storm surges here by a dyke that serves as the next part of the route. Then we cycle for some time along the edge of an exceptionally valuable bird reserve – Beka (see pp. 27–29).
- 22.2 km We reach the foot of Kępa Rekowska. In the area there are gravel pits (private property). If the cliff has recently been eroded, the soil layer segmentation is worth noting: two strata of clay (grey lower down, brownish higher up) with sands and gravel deposited between them. The pattern is the result of the Riss glaciation (lower stratum of clay and sand sediments) and the last ice age, called Würm or Vistulian glaciation (see pp. 10–11).
- 23.7 km Osłonino. We ride past the small Gizdepka river and reach the Mrzezino–Osłonino road that goes through another moraine plateau, Kępa Pucka. The manor in Osłonino is the remaining part of a grange that used to be owned by the Carthusian order, King John III Sobieski, the von Below family, and others. It belonged to the estate

- in neighbouring Rzucewo. Aleja Lipowa, the valuable road which connects both villages, is still there (see pp. 44–45).
- 26.2 km Rzucewo. A gem here is the neo-Gothic palace that was erected according to the wishes of the von Below family, then the owner of the village. Construction of the palace was completed in 1845. The adjacent park is reminiscent of the times when it belonged to King John III Sobieski. Behind it, the route goes down towards Puck Bay.
- 27.2 km Seal Hunters Settlement. A culture park with an archaeology exhibition that shows the history of the settlement from 3000–2000 BCE whose remains were discovered at the end of the 19th century. In ancient times, a tribal group that survived as seal hunters settled near Rzucewo and on the fluvial terrace extending to the north of the village. Apart from the species which are still present in the Baltic, they also hunted harp seals, which now live in the Arctic (see p. 76).
- 28.9 km Having passed Rewa Cape and Błądzikowski Potok, we again go uphill to Kępa Pucka and Błądzikowo village.
- 34 km Puck. A bicycle path running near Puck Bay starts not far from the pier. The town, already known in the times of the Teutonic Order and chartered in 1348, is worth a visit for its many attractions:
 - Gothic parish church of St Peter and Paul the destination of the annual pilgrimages that take place from Hel Peninsula at the end of every June (see p. 72),



Fishers' sea pilgrimage, photo courtesy of LOT Kaszuby Północne



Kazimierzowo Fortress

In 1635, King Wladislaus IV Vasa ordered a fortress to be built where Syberia is located today. It was erected on a square plan with 150 m sides and artillery positions in the corner bastions. The truce with Sweden that concluded in the autumn of that year resulted in the plans to make navy stronger being abandoned, and in the mid-17th century the fortress crew left their stations.

- the pillar that commemorates Poland's symbolic wedding to the sea, conducted here by Gen. Józef Haller on 10 February 1920,
- Museum of the Puck Region (see p. 76),
- Museum of the Naval Air Squadron (see p. 75),
- historic main square,
- fishing port and marina.

Behind the town centre the path meanders among industrial buildings (the Naval Air Squadron that operated in Puck between the wars left visible traces here) towards the province road to Władysławowo and goes close to the mouth of the Płutnica river in the bay to a place called Kaczy Winkiel. In wintertime the water in the estuary rarely freezes, which is why a large number of birds can be found here.

- 37.5 km Leaving the Płutnica valley, we negotiate the last uphill slope before Władysławowo to enter Kępa Swarzewska. The cliffs in this area are living and are the hardest to reach.
- 40.1 km Swarzewo. While you are in the village, you should see:
 - the neo-Gothic church of the Birth of the Blessed Virgin Mary sanctuary of the Queen of the Polish Sea, with a Gothic sculpture of St Mary inside,
 - the 18th-century chapel by a miraculous spring at which a holy statue was found. Legend has it that the Protestant residents of Hel had thrown it away.

In Swarzewo there is a harbour with kayak, paddle boat and rowing boat rentals.

 43.3 km - Władysławowo - Szotland. Children's playground and the entrance to the pedestrian bridge over the Słone Łąki (Salty Meadows) reserve (see p. 33).





- 45.2 km Władysławowo bus and railway stations. The city highlights include:
 - The MERK Centre with its interactive exhibition illustrating fishers' work (see p. 74),
 - Hallerówka villas branch of the Museum of the Puck Region (see p. 76),
 - viewing tower of Dom Rybaka (Fisher House) offering views of Hel Peninsula and Kepa Swarzewska,
 - Sports Walk of Fame with stars in the pavement to honour the most distinguished sports people,
 - fishing port.

Cycling along Hel Peninsula

Bicycle is the best means of transport over this headland, especially in the summer months and at weekends, when roads and car parks become congested. The route is still very attractive in the spring and autumn as you can enjoy the peace and quiet and get to know the remarkable nature in this secluded part of Poland.

Length: 35 km

Starting point: Dworzec PKP (railway station) in Władysławowo

- 0 km Władysławowo (places you should see in Władysławowo see above).
- 8.1 km Chałupy. The trail skips the village centre and runs along Puck Bay.



Fortifications on Hel Peninsula, photo courtesy of LOT Kaszuby Północne



Sports Walk of Fame, photo courtesy of LOT Kaszuby Północne





Fisher Cottage Museum in Jastarnia, photo courtesy of LOT Kaszuby Północne

Libek and Lübeck from Lübeck

The dune's name, Libek, refers to the sailing ship Lübeck which, likely in the first half of the 17th century, ran aground in the Baltic shallows nearby. It is said to have been carrying a cargo of alcohol. Its captain managed to escape and went to Jastarnia to bring help. When he came back, he found the deckhands, who had drunk from the cargo, frozen to death.

- 9.7 km Uroczysko Każa eastern entrance. A hiking and biking trail begins near the iron cross that runs to the plain by the bay. The path through this wild nature sanctuary is about 1.1 km, after which the main cycle route continues at some distance from the highway. Along the road you may marvel at the view of Puck Bay.
- 12.8 km Car park at the edge of Puck Bay. Close by you can find the Bird Ringing Field Station of Operation Baltic (see p. 74). To reach it, you need to cross the railway and immediately turn left onto the blue hiking trail. The bird ringing camp is around 200 m further.
- 13.6 km Kuźnica. The village is entered near the railway station. The path again leads to the bay and goes by the fishing harbour. Every year on 29 June a sea pilgrimage of fishers sails from here to the church of St Peter and Paul in Puck (see p. 72). Here the sandbar of Ryf Mew (Seagull Sandbank) starts (or ends) and goes all the way to Rewa as it divides the waters of Inner and Outer Puck Bay (see p. 43).
- 15 km Syberia, Kuźnica colony. Once there were only meadows and arable fields owned by village residents here; house building was forbidden because seawater would often flood the peninsula in this place. However, in the interwar period a few local inhabitants gamely decided to construct the first houses around here.
- 15.9 km An unmarked path lets you cross to the other side of the railway (watch out - trains do run here!) to the blue hiking trail which leads to Mount Libek, Hel Peninsula's highest dune (12,5 m), which

ends abruptly right by the Baltic Sea. Since a ferocious storm in 1983, the authorities have adopted coast protection measures in this spot, and since the 1990s sand dug from the bottom of Puck Bay has been transported here. Thus, the thinnest part of the peninsula, as narrow as 130 m during storms, has been reinforced.

- 18 km Maszoperia camping. In this spot the headland is criss-crossed by the remains of fortifications built in 1939. Four army shelters and an exhibition about the military past of the peninsula may be visited (see pp. 76–77). Not much further along, you can find the Jastarnia airfield, which offers sightseeing flights and parachute jumps.
- 19.5 km Torfòwé Kùle western entrance. Past Jastarnia Wczasy railway station, between the petrol station and the supermarket, there is the entrance to a nature path that presents the diversity of plant life on the coastal plain (see p. 42). The path is about 2 km long.
- 21.1 km Jastarnia, the way to the pier. While you are in Jastarnia, the following are worth seeing:
 - Muzeum Chata Rybacka (Fisher Cottage Museum) (see p. 75),
 - church of the Visitation of the Blessed Virgin Mary, whose splendid interior is decorated with many fishing motifs,
 - a 1950s lighthouse (cannot be entered),
 - sea port from the interwar period.



Walkway of the educational path in Słone Łąki reserve, photo courtesy of LOT Kaszuby Północne



The vista from Władysławowo towards Hel Peninsula, photo by K. Tylmann



- 24.4 km Jurata. A resort established before the war, featuring modernist architecture. Places worth seeing include:
 - Międzymorze a promenade that connects the beaches on both sides of the peninsula,
 - viewing tower (formerly a water tower).
- 29 km Bór. Currently part of the town of Hel. As you pass the military area, you can turn into the road that leads to Helskie Wydmy (Hel Dunes sanctuary), the most beautiful stretch of dunes on the peninsula (see pp. 36–37). It is over 600 m from the crossroads to the border of the reserve that lies behind the railway. The grounds are best walked on foot and the distance is around 2.2 km there and back.
- 33.5 km Museum of Coastal Defence. In 1936 the Polish state began to establish the Hel Fortified Area. A number of bunkers, artillery stations, a military port, a narrow-gauge railway, and many others were constructed, which were then used and slightly expanded by the occupying German army. The extensive Hel Museum Complex (see p. 75) presents their story and includes the Museum of Coastal Defence.
- 35 km Hel, the junction near the railway station and a supermarket. Signposts showing the way to the town's most interesting objects are here. To get to the very end of the headland, continue along ulica Admirała Steyera and then ulica Kuracyjna, which takes us near the beach. Further on it is only possible to walk. A special walkway goes



Kaszubskie Oko tourism and recreation centre, photo by K. Kazanowski



along and above the dune flora, which is being regrown (see pp. 35-36

- Cape Hel). In the town itself the following are worth seeing:
- University of Gdańsk Marine Station (see p. 74),
- Fisheries Muzeum in the old Gothic church of St Peter and Paul (see p. 75),
- Ulica Wiejska and its fishing-related architecture,
- a lighthouse from 1942.



A trip suggestion, especially for families with kids. The route travels along easily accessible and highly interesting places in Northern Kashubia. One day should be enough, but it makes sense to spread the trip over a whole weekend to savour the historic highlights along the way and to take in its natural attractions.

Length: 121 km

Starting point: Dworzec PKP (railway station) in Władysławowo

- 0 km Władysławowo (for places you should see in Władysławowo, see p. 59). As you leave Władysławowo for Puck, the Słone Łąki nature reserve is worth your time (see p. 33). There is a children's playground where ulica Łąkowa ends. An educational route in the reserve grounds starts on a wooden walkway behind the playground. As you walk along it, you can learn about the flora of this area. The viewing terrace at the end of the walkway offers a stunning view of Puck Bay.
- 4.2 km Swarzewo. This is where one of the two most important Marian sanctuaries in Kashubia is located: the church of Our Lady Queen of the Polish Sea (see p. 72).
- 7.8 km Kaczy Winkel. A car park and viewpoint over Puck, situated near the mouth of the Płutnica river. Since the estuary area seldom freezes, in wintertime large flocks of birds can be seen here.
- 10 km Puck (for a description of the town and its highlights see pp. 57-58).
- 17.5 km Rzucewo, car park behind the palace building. Nearby is the Seal Hunter Settlement, a culture park with an archaeology exhibition (see p. 76). To reach it, you should amble down from the car park to the bay shore (about 500 m). The neo-Gothic von Below family's 1840s palace (currently a hotel and restaurant) is well worth seeing, as is the particularly charming Aleja Lipowa, which leads from here to neighbouring Osłonino.
- 25.5 km Sławutówko, access road to road No. 216. Close by is the von Below family palace from the 1920s, which is stylised to look like a castle. Evolution Park can also be visited (see p. 74) and, just 3 km



Wąwóz Chłapowski, photo by M. Hadwiczak

Kartoszyno then and now

When construction of the Żarnowiec Nuclear Power Plant started in the 1980s, the village residents were resettled. This is all the more reason to remember that the place was one of the oldest settlements in Kashubia, with traces of habitation dating back to the early mediaeval period. Nowadays no one lives here, but several dozen companies operate within the Pomeranian Special Economic Zone.



Church in Mechowo, photo courtesy of LOT Kaszuby Północne



Stolem figure on the road to Gniewino, photo courtesy of LOT Kaszuby Północne

- from here in Sławutowo, there is the Slavic Settlement, a reconstruction of a mediaeval village from the 9th and 10th centuries (see p. 76).
- 35.5 km Mechowo, a car park where the village starts. Poland's largest cave (except for those in upland and mountainous areas), Grota Mechowska, is here (see pp. 45–46), as is the invaluable wooden church of St James and Nicholas, founded by Cistercian abbots from Oliwa. The temple features half-timbered walls and boasts a rich baroque interior.
- 56.2 km Kartoszyno. From the edge of Darżlubska Forest the trail goes towards Lake Żarnowieckie (see pp. 15–16) and the grounds of the Żarnowiec Nuclear Power Plant, whose construction started in the 1980s but was never completed. As you drive on towards Gniewino, you can see the panorama of the lake as well as edifices of the pumped-storage power station, currently the largest of its kind in Poland.
- 62.3 km Gniewino. In the village there is the Kaszubskie Oko tourism and recreation centre, with a viewing tower, playground, and full-size statues of dinosaurs and stolems – giants from Kashubian mythology.
- 66.4 km Nadole. The village used to be the sole enclave of the Polish state on this side of Lake Żarnowieckie before the war. An open-air museum, Zagroda Gburska i Rybacka, a branch of the Museum of the Puck Region, (see p. 76), is well worth seeing. The lake harbour offers a chance to rent water craft and take a leisurely cruise aboard the Nadolanin ship. By the new harbour, Stolemowa Grota, there is a cosy camping site with places for caravans and motorhomes, sanitary facilities, a playground, and a restaurant. A windsurfing school has recently been opened as well.
- 72.3 km Prusewo. A small village built around the splendid Neo-Baroque Fliessbach family mansion from 1910. Today it houses the Sześć Dębów hotel.
- 74 km Wierzchucino. The mill at Bychowska Struga in the village is over a hundred years old. A regional restaurant is now located inside and nearby there is an over 600-strong breeding colony of soprano pipistrelle, a species of small bats. At sunset the animals fly away to forage for food. Pipistrelles hunt for gnats and, by reducing their number, they improve the comfort of guests on the restaurant terrace.
- 80.8 km Białogóra a car park at the walk to the sea near ulica Morska. A nature path right behind the car park leads through one of the most precious protected areas on the Polish Baltic coast, the Białogóra reserve (see pp. 37–39).
- 93.3 km Żarnowiec. A well-preserved monastery complex of Benedictine nuns (Cistercian nuns lived here earlier), with one of Northern Kashubia's most prized churches, whose construction began in 1279.



- 98.7 km Krokowa. For many centuries, the family home of the Krokowskis, the family known today as von Krockow. A former castle, currently a palace, whose construction started perhaps as early as the 14th century can be seen. In the 18th century, it was revamped and a garden that underwent numerous changes over the following decades was laid out. Thanks to Karol Gustaw von Krockow, who also founded the neo-Gothic church in the village, the 17th-century Italian-style garden was enlarged two centuries later to include a naturalistic garden. Various exotic tree and bush species were planted in the garden and we can still admire them today. With the help of the von Krockow family, which resides in Germany now, repairs were carried out in the 1990s.
- 112.6 km Jastrzębia Góra. Via Promenada Światowida and adjacent streets you can get to the Gwiazda Północy (North Star), an obelisk marking the northernmost point of the Polish territory. While you are in Jastrzębia Góra, do not miss a walk along the shore to see the nearby cliffs (see pp. 10–11).
- 114.8 km Rozewie. The 1822 lighthouse, extended upwards in 1978, is notable. It boasts a fine view of the Kępa Swarzewska cliffs, including Klif Chłapowski.
- 121 km Władysławowo, end of the loop.



North Star obelisk in Jastrzębia Góra, photo courtesy of LOT Kaszuby Północne



Cycle route marking, photo by K. Rosińska

Other long-distance trails and cycle routes

Coastal Hanseatic Trail R-10

The trail, almost 8000 km long, runs around the Baltic Sea as part of the EuroVelo route network. In Northern Kashubia, it goes from Gdynia through Swarzewo, Sławoszyno, Karwieńskie Błota, Dębki, to Białogóra. It is not yet signposted everywhere, but you should be on the lookout for green signs with a bicycle icon and the letters R10. The trail follows the coast, which gives you ample opportunity to get to know the environmentally valuable areas of Białogóra, the cliffs between Jastrzębia Góra and Władysławowo, Hel Peninsula and the shores of Puck Bay.

Cycle route Swarzewo-Krokowa

The route was constructed where the 1903 railway track used to be, before it was dismantled in 2005. It is a convenient way to reach the vicinity of Krokowa, **Debki** and Lake Żarnowieckie. The route is around 17 km.

■ Trasa Szarych Mnichów (Grey Monks' Trail)

A blue cycle route running to the open Baltic from Wejherowo to Jastrzębia Góra, a long stretch of which cuts through Darżlubska Forest. Darżlubskie Buki, a nature reserve, and Grota Mechowska, a large cave (see pp. 45–46), are on the path, as are two Cistercian churches in Mechowo and Starzyno. The route is around 55 km.

Wejherowo-Białogóra route

A green cycle route leading through Darżlubska Forest, along the coast of Lake Żarnowieckie, then through Wierzchucino to Białogóra. Its length is around 34 km.

Northern Kashubia Cycle Route

A 115 km loop that goes through places attractive to tourists, including Gdynia, Puck, Krokowa, Dębki, Darżlubska Forest, Wejherowo. It mostly follows dirt roads and to a great extent overlaps with the R10 route. A 12 km section from Łebcz to Sławoszyno runs on an asphalt path.





History and culture



The Kashubians are the only indigenous Slavic ethnic group to have survived in Pomerania. Until the early 20th century, their language and the awareness that they are culturally distinct were only preserved in the eastern periphery of the region. After World War II, they became a "suspect" group in terms of nationality, and the opportunities they had to uphold their cultural tradition and language were severely curtailed. The fall of communism allowed their identity to burgeon. Now representatives of this community have seats in Polish parliament and Kashubian is the only official regional language in the state.



Sculpture by the path to Rozewie, Jastrzębia Góra, photo by N. Szymonowska

HISTORICAL OVERVIEW

Around the 5th century, the ancestors of the Kashubians may have travelled from their original homeland in the border region of Prussia, Podlachia and Mazovia. In mediaeval times their dwellings spread from the Oder, the Vistula and the Baltic Sea to the Noteć River forests and marshes. The neighbouring Danish, Saxon and Polish groups to the west and south achieved statehood earlier and were ruled by princes, kings, and emperors, while Pomeranian tribes were still being governed by elders.

The first rulers of Poland subjugated Pomerania, but not for long, as feudal fragmentation led to the creation of independent Pomeranian duchies. The House of Griffins ruled in the west but its dukes were very quick to succumb to the cultural influence of the Holy Roman Empire of the German Nation. Despite retaining knowledge of their origins, they let their country be dominated by the German administration, settlements, and language. The Western Pomeranian Duchy remained under German, Polish and Danish influence. The House of Griffins ruled until 1637, when it became part of Brandenburg and later Prussia.

Eastern Pomerania was ruled by the House of Sobiesław from the 12th century. Its last duke, Mestwin II, had no male heir, hence he arranged to transfer his lands to Przemysł II, who thus grew in importance and was crowned the first king of Poland after feudal fragmentation. In the early 14th century, the Teutonic order took control of Gdańsk Pomerania and

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kept it for nearly 160 years. After the Thirteen Years' War ended in 1466, Gdańsk Pomerania became Polish territory.

In 1772, the Kingdom of Prussia took over all the lands in which the Kashubians lived. On one hand, the Prussian authorities modernised the country; on the other hand, they started the Germanization process there.

In the mid-19th century, inspired by the Springtime of Nations, activists began to slowly forge a sense of identity among the Kashubians. Florian Ceynowa, father of Kashubian regionalism, penned the first Kashubian grammar guide and numerous literary works.

As the 20th century began, the area the Kashubians inhabited was similar to what it is today, but there were also Slovincians, an Evangelical community from the former West Pomeranian Duchy. After World War I, the Kashubians supported the Polish delegation in France, where the fate of European borders hung in the balance. The territory was divided. Part of it was attached to the Free City of Danzig and to the German state. Most of it, along with the Hel Peninsula, was incorporated into the Second Polish Republic, forming the "Corridor to the Sea". The Polish authorities considered native Pomeranians to be "nationally suspect" and brought in officials from other regions, which gave rise to conflicts.

In those times the Kashubian shore was the only stretch of coastline that Poland owned, which fostered the considerable economic development of modern-day Puck County. All the while, areas to the west of Lake Żarnowieckie, a periphery of the German Reich, were cut off from their old commercial contacts, and National Socialist sentiment among Germans who lived there kept growing.

The first months of World War II brought horrific mass executions, the so-called Intelligenzaktion. In Darżlubska Forest near Piaśnica, to the north of Weiherowo, at least 7,000 were murdered. Pomerania was an-

nexed by the Third Reich, and many Kashubians were forced to register in the third category of *Volksliste* as people of German descent. Many soldiers decided to desert and join the Polish II Corps led by Gen. Anders. The largest resistance group in terms of partisans was the Secret Military Organization "Pomeranian Griffin".

The arrival of Red Army forces in 1945 meant liberation from Nazi troops, but the soldiers did not



A Sulicice monument/tombstone to the Pomeranian Griffin resistance group, photo courtesy of LOT Kaszuby Północne

Sea characters in Kashubian mythology

Gòsk or Wòdin (read gwesk, wedin) – god of the sea, Kashubian equivalent of Neptune Klabaternik – kind spirit, guardian of fishermen and sailors Mòrzëca (read mwezhetsa) – sea maiden, nymph Nëczk (read nechk) – water spirit, sender of whirlpools Szólińc (read shilints) – water spirit, responsible for stormy winds and sea surges, Gòsk's servant



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distinguish Germans from Kashubs. The period between March and August 1945 is etched in local memory as a time of fear, looting, rape, and even murders that residents fell victim to. The so-called Recovered Territories (now part of Poland) to the west of Lake Żarnowieckie – that is, today's communes of Choczewo, Gniewino and Łęczyce – became the new home for a number of displaced people from the Eastern Borderlands and central Poland. Germans and almost all Slovincians

disappeared from the area of Lake Łebsko and Lake Gardno.

Until 1956 members of the community were treated as second-class citizens and suspected of pro-German sympathies. It was only in 1956 that the Kashubian Association was legally formed; today it is the largest of similar organizations and its current name is the Kashubian-Pomeranian Association (Kaszëbskò-Pòmòrsczé Zrzeszenié).

In 2005, Kashubian officially became a regional language, the only one in Poland. In some communes it can be used in official proceedings; it is also taught at all levels of education. Journals, books, and multimedia materials in Kashubian are being published, and the language is entering the world of radio and television. Yet, despite many promising initiatives, it is still an endangered language. In this global and digital age, many Kashubians find it easier to speak Polish or even English than their native tongue. The root of this problem stems from how intergenerational language transmission was disturbed in communist times. It is not known if this loss can still be overcome.



Piaśnica, photo by M. Szafrański

How many Kashubians are there?

In the 2011 national census, the Kashubians could for the first time almost fully describe their often complicated and ambiguous nationality and ethnicity. According to the results:

233,000 declared Kashubian as their first or second nationality; 108,000 used the Kashubian language at home.

In the school year 2017/18, around 20,000 students learned Kashubian in classes.

NORTHERN KASHUBIANS

Among the Kashubians who live in the northern region, a distinction could – and to an extent still can – be made between the Bëlôcë, who inhabit Kępa Oksywska, Pucka and Swarzewska, and the Rëbôcë, who live in the Hel Peninsula. The dialect of the latter is characterised by more numerous Old Kashubian words, variable word stress, and the "w" sound is replaced by "l". Its coast-related vocabulary is especially interesting, with a number of German, Dutch, English, or Scandinavian borrowings. This is testimony to contact between the Rëbôcë and other nations.

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While the Bëlôcë made their living by farming and, to a small degree, by fishing, in the Hel Peninsula as late as the beginning of the 20th century, nearly everyone worked as a fisher. For centuries the community members grouped together into 'maszoperie' (from Dutch maatschappij, a society) of a dozen or so people. One crew could fish in a predetermined coastal area marked by crosses on the shore and poles with flags planted on the beach. Each year the fishing zones



were chosen by lot so that no one would feel worse off. If a mashoperia fisher died tragically, their family received support from other group members.

Such an economic and social system helped people survive in especially trying conditions. The peninsula, barely visible at night, was a regular site of boat disasters. Fishers would help shipwrecked sailors; at the same time, objects and wood swept ashore were an additional source of income for the locals. Even today at Jastarnia or Hel you can see houses whose posts or rafters came from sunken ships.

Major developments in fishing since World War II have made traditional methods a thing of the past. Old traditions and social structures are fading away. Their memory is now preserved by, for instance, folk museums and local museums.

KASHUBIAN FESTIVITIES AND TRADITIONS

Some old fishers' holidays and the associated traditions are still alive. They are worth taking part in to get familiar with the living culture of the Northern Kashubians. Significant among them are:

Bãblowanié in Jastarnia (March / April) – On Easter Sunday, the banging of drums wakes Jastarnia residents all over the town as it announces Christ's resurrection and calls the faithful to attend mass.

Sobótki (June) – Especially festive at Jastarnia. Tradition dictates that a barrel filled with tar, sawdust and rags should be fastened to a specially felled pine tree and set on fire for the solstice evening. On that night,

Kashubian words related to the coast

sztrąd – beach

zôlój – part of beach flooded by waves rzma – cliff ùsëp – sandbank réwa – shallows rów (rzéka) – deeper area between sandbars sëché – first sandbank òsëch – second sandbank szorowôréwa – third sandbank from the shore, the last one before the deep szor – deep waters



Traditional baked goods, photo by K. Kazanowski

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Flag and coat of arms

The Kashubian coat of arms features a griffin, a mythical beast with an eagle's head and talons along with a lion's mane and legs, a creature from Middle Eastern religions. Dukes of Western Pomerania took part in the Crusades and this is most likely the reason the figure became their family symbol. Since the 15th century, a black griffin against a yellow background has been the coat of arms of the Kashubian Duchy in the united Western Pomeranian state. From there it was taken as the coat of arms for the region. The black and yellow flag (black on top) also comes from this symbol.

Kashubian Unity Day has been celebrated on 19 March since 2004 to commemorate the first mention of the Kashubians in the papal bull issued by Pope Gregory IX, in which Boguslaw I of Szczecin was named "Prince of Kashubia". World Kashubian Congress takes place every year in early July.



Traditional Kashubian embroidery, photo by K. Kazanowski

girls and boys of draft age paint their faces and take over Jastarnia. An important custom is "beheading the kite". The kite, a bird of prey, would be blamed for all wrongdoings in the village and sentenced to death. The custom is nowadays recreated in a gentler version with the bird replaced by its effigy.

Saint Peter and Paul Festival (late June) – Fishers' pilgrimage to Puck. First held again in 1981, it involves pilgrims from the Hel Peninsula and thereabouts taking a boat trip in adorned cutters.

Land and sea pilgrimage to the sanctuary of Our Lady at Swarzewo

– The Scapular of Our Lady indulgence feast, also called little indulgence (second Sunday in July). Pilgrims come to the sanctuary by sea and land from Puck Country, Wejherowo County and Gdynia.

Pilgrimage by land and water from Nadole to Żarnowiec (July) – It begins with a walk from St Augustine chapel in the village of Nadole to the harbour at Lake Żarnowieckie. Local community representatives take part dressed in traditional Kashubian attire. Then, the pilgrims head to Żarnowiec by water. *Nadolanin* is the ship that leads the way, followed by other festively decorated vessels, kayaks, and paddle boats.

Kaszebsczé bôtë pòd żôglamë / Kashubian boats under sail (July) – Festival at Chałupy that has been held for over 30 years. During the event, you can enjoy races of traditional fishing boats or get to know the Kashubian culture and fishers' handicraft. Regional folk bands and craftspeople demonstrate their skills. It is also a great chance to sample local specialities and Kashubian cuisine.

Our Lady of the Sowing indulgence feast – A so-called large indulgence at Swarzewo sanctuary of the Virgin Mary (first Sunday after 8 September).

Our Lady of the Rosary, called Our Lady of Eels at Jastarnia (7 October) – The culmination of eel catching and giving thanks for successful fishing.

All Saints' Day (1 November) – Processions in honour of the dead also take place on the shores of the Baltic Sea to remember in prayer those lost at sea.

Panëszczi or **Gwiżdże** (24 December) – Traditional Christmas Eve parade with people dressing up in costumes and going from door to door.

ORGANIZATIONS AND ASSOCIATIONS

Kashubian-Pomeranian Association

www.kaszubi.pl

Kaszëbskô Jednota Association

www.kaszebsko.com



Many attractions await those who visit Northern Kashubia and not only in the great outdoors. Kashubian nature can also be experienced in educational facilities: the Hel seal centre, Kuźnica bird ringing station, or Władysławowo MERK centre. Local history museums and folk museums bring visitors closer to the region's culture and olden days; they include institutions with a focus on history, ethnography, and the army. The town of Jastarnia offers a tour of fortifications, and Hel boasts a railway museum with a narrow-gauge railway that is open in summer. Active recreation opportunities abound both on land and at sea, and regional culture enthusiasts will certainly find something of interest in the varied programme of regular events. All details concerning regional highlights are available at the tourist information points listed at the end of this chapter.

NATURE CENTRES

Marine Station Seal Centre in Hel

ul. Morska 2, 84-150 Hel tel.: +48 58 6750836 www.fokarium.pl

In March 1992, at Jurata beach, the staff of Hel Marine Station (part of the University of Gdańsk's Oceanography Institute) found a grey seal (Kash. zélint, mòrsczi pies) which they called Balbina. She was wounded and had to be nursed back to health. When she recovered, visitors could admire up close an animal not



MERK Centre for Promotion and Education, photo courtesy of LOT Kaszuby Północne

seen on the Baltic shores for a long time as most seals had been culled in the 20th century.

In 1999, to develop the research facility, the seal centre was established as part of an international programme to restore the seal population in the southern Baltic and serve an educational role. Here, animals that need help – young, ill, or wounded in relation to fishing – are saved and reintroduced into their habitat. The station also monitors and carries out research into seals in the wild.

Seals are a major tourist attraction and each visitor receives some words of wisdom concerning them. In summer, especially come feeding time, the terraces around their pools are filled to capacity by throngs of tourists; however, the seals themselves are somewhat sluggish in the heat, so it is best to visit the place in the off season.

The case of the grey seal is a great jumping-off point to explore how vital it is to protect Puck Bay and whole Baltic ecosystem. Another station branch, the Harbour Porpoise House, offers a chance to learn about the secret life of this unique mammal (the only cetacean native to Poland), as well as to find out if dolphins and whales visit us. Prof. Krzysztof Skóra was the Marine Station creator and director for 39 years, and the institution bears his name.

MERK Northern Kashubia Fishing Trail Centre for Promotion and Education

ul. Portowa 15, 84-120 Władysławowo tel.: +48 58 7746890, 722224585 plgr.pl/centrum-merk/centrum-merk

Interactive exhibition illustrating the work of fishers – from boat building, through fishing methods, to fish cleaning and preparation.



Jastarnia lighthouse, photo by N. Szymonowska

Evolution Park

Sławutówko 14, 84-122 Żelistrzewo tel.: +48 783200400 www.parkewolucji.pl

Family theme park that focuses on the history of life on Earth.

Bird Ringing Field Station of Operation Baltic in Kuźnica

54°44'25"N, 18°33'49"E tel.: +48 781254374 http://operbalt.ug.edu.pl

Operation Baltic tent camp featuring a roofed work station. Volunteers may take part in ringing the birds.



Marine Station Seal Centre in Hel, photo by P. Kowalewski

MUSEUMS

Hel Museum Complex

ul. Helska 16, 84-150 Hel tel.: +48 697888583 www.muzeumhelu.pl

Hel Museum Complex is situated in a forest near the route from Jastarnia to Hel (near ulica Helska), outside the actual town. Signs by the road provide information on how to drive up to particular buildings.

Museum of Hel

The facility is located right by the road in a German concrete bunker. Apart from an ethnography and history exhibition dedicated to Hel, it presents the history of the Baltic and its nature in a display designed by the University of Gdańsk. A bird-related presentation is also on view.

Museum of Coastal Defence

Apart from the main element – the B-2 Bruno artillery unit which contains permanent and temporary exhibitions – the military part of Hel Museum Complex also features Heliodor Laskowski artillery battery at the tip of the peninsula and a fire control tower with a viewing platform at the top.

Hel Railway Museum

The exhibition on the history of Hel railway is located in a former bunker. An open-air railway carriage collection is nearby, and tourists can take the narrow-gauge train in summertime.

Museum of the Naval Air Squadron in Puck

ul. 10 lutego 36, 84-100 Puck tel.: +48 502335679 www.mdlot.pl

The museum is in the old naval air squadron radio station building. On view are structural components of aircraft and a multimedia presentation on the history of this coastal military unit. A replica of a World War II airplane is usually on display as well.

Fisher Cottage Museum in Jastarnia

ul. Rynkowa 10, 84-140 Jastarnia tel.: +48 58 6752097

This traditional fishers' hut was built in the late 19th century using wood salvaged from

shipwrecks. Its interior shows a collection of traditional household items, farm tools and fishing equipment.

Fisheries Museum in Hel

Bulwar Nadmorski 2, 84-150 Hel tel.: +48 58 6750552 www.en.nmm.pl/the-fisheries-museum

A branch of the National Maritime Museum in Gdańsk is located in the old Gothic Evangelical church of St Peter and Paul; in addition to seeing the permanent exhibition devoted to the history of Kashubian fisheries, you can also learn a lot about the ecology of the Baltic Sea.

Regional Museum in Krokowa

ul. Zamkowa 1, 84-110 Krokowa tel.: +48 58 7742111 www.zamekkrokowa.pl/en/muzeum

The museum is near the castle, in the former Prince Mestwin Inn. The exhibition includes an ethnographic collection and former castle owners' family heirlooms.

Florian Ceynowa Museum of the Puck Region

ul. Wałowa 11, 84-100 Puck tel.: +48 58 6732229 www.muzeumpuck.pl

The Museum of Puck Region comprises five branches. Szpitalik (the Hospital) at Wałowa 11, with its ethnography and history exhibition, Middle-class Tenement Houseat at Stary Rynek 28



Harbour Porpoise House in Hel, photo by N. Szymonowska



Seal Hunters Settlement in Rzucewo, photo courtesy of LOT Kaszuby Północne

(old Market Square) is in the town of Puck. The others are the open-air museum in Nadole (Zagroda Gburska and Zagroda Rybacka), Hallerówka (two villas of Józef Haller) in Władysławowo and Zagroda Kaszubska in Ostrowo with exhibition about beekeeping and nature in Bielawa reserve.

Lighthouse Museum

Rozewie, ul. Leona Wzorka 1, 84-104 Jastrzębia Góra tel.: +48 58 6749542

The museum is inside the old lighthouse at Cape Rozewie. Old lighthouse equipment can be seen, and a viewing platform can be enjoyed.

Museum of Kashubian-Pomeranian Writings and Music

ul. Zamkowa 2a, 84-200 Wejherowo tel.: +48 58 7361821, 58 6722956 www.muzeum.wejherowo.pl

The exhibition shows books, manuscripts, and memorabilia related to writers with ties to the region, along with old musical instruments and regional handicrafts, e.g. traditional Kashubian embroidery designs.

Slavic Settlement

ul. Wejherowska 76, 84-100 Sławutowo tel.: +48 604148233, 608762030 www.slawutowo.pl A reconstructed mediaeval settlement. Children can engage in educational activities here.

Seal Hunters Settlement Culture Park in Rzucewo

ul. Rzucewska 15, 84-122 Rzucewo tel.: +48 58 7424985 www.oksitpuck.pl/osada

In the late 19th century, the remains of Neolithic settlements were uncovered in Rzucewo. Now there is a small open-air museum here – a culture park and a building with an archaeology exhibition that shows the history of colonization in the 3rd and 2nd millennia BCF.

Open-Air Fortification in Jastarnia

ul. Mickiewicza, 84-140 Jastarnia tel.: +48 601923883, 509938389 www.fortyjastarnia.pl

The remains of the fortification system built in 1939 to defend Hel. The main attractions are four heavy army shelters: Sokół (Falcon), Saragossa, Sęp (Vulture) and the largest, Sabała, which houses a small display of military history on the peninsula.

Armored Museum in Kłanino

ul. Pałacowa 7, 84-107 Kłanino tel. + 48 662 108 595 www.muzeum.klanino.pl



Museum of Hel, photo by N. Szymonowska



Belonada in Puck, photo courtesy of Kaszuby24

REGULAR FVFNTS

April

Owl Night by Operation Baltic in Kuźnica

 With professional support from the University of Gdańsk, Fundacja Akcja Bałtycka (Operation Baltic Foundation) holds workshops and lectures under the stars and nightly owl counting (limited number of participants). Details at the Operation Baltic Facebook page and www.akbalt.ug.edu.pl or www.fundacja-ab.org.pl.

May

Jastarnia przódë lat / A long time ago in Jastarnia (first days of May) – An event that takes us closer to the life of fishers 100 years ago. Most importantly, it involves a demonstration of beach-seine fishing, that is catching salmon with a net that people haul out of the sea; however, it also involves re-enacting everyday life, playing music together, and tasting regional dishes.

World Migratory Bird Day in Kuźnica – Fundacja Akcja Bałtycka (with professional backing from the University of Gdańsk) holds a festival on the beach near the Hel Bird Ringing Station that includes birdwatching trips, children's games,

workshops, and lectures. Details at the Operation Baltic Facebook page and www.akbalt.ug.edu.pl or www.fundacja-ab.org.pl.

Nationwide Sea Boat Angling Competition Belonada in Puck – An angling contest coupled with an entertaining festival event and tasting of dishes made from garfish, the bones of which have a notable greenish tint. The event won the 2018 Mercurius Gedanensis award.

June

Polish Team Trolling Championship in Nadole – A competition that takes place at Lake Zarnowieckie. Trolling is a technique for catching

Vantage points

It is good to have a bird's eye view of the surroundings. With that in mind, reaching a vantage point is worth your while. The most interesting are:

- viewing tower of the Kaszubskie Oko (Kashubian Eye) complex in Gniewino
- viewing platform on the Museum of Coastal Defence fire control tower in Hel
- lighthouses in Hel, Osetnik (Stilo), and Cape Rozewie
- viewing tower of Dom Rybaka (Fisher House) in Władysławowo
- Rybaczówka viewing tower in Dębki
- viewing tower in Beka nature reserve in Osłonino

predatory fish from a boat using a rod.

July

Fish Day in Hel – A celebration organized by Hel Town Hall. It involves a series of events which spread knowledge about inland and sea water ecology and include games, shows, talks and competitions. Many of them are addressed to young people. Details at the Hel Marine Station Facebook page.

Krancbal in Nadole – Traditional Kashubian folklore festival related to harvest time, held in an open-air ethnography museum. At the event,



"Szpitalik" branch of Puck Region Museum in Puck, photo courtesy of LOT Kaszuby Północne



Products from Potato Day in Celbowo, 2017, photo courtesy of Kaszuby 24

craftspeople display their skills, handmade goods can be bought, and regional specialities can be tasted.

August

Coastal Picnics with the Park in Włady-sławowo – An event that teaches about the nature of Northern Kashubia, especially the sea coast. It is especially directed at children, for whom there are games, shows, competitions, and many stands showing plants, animals and fossils. Details on the organizers' (Błękitna Szkoła and Nadmorski Park Kraiobrazowy) website: npk.org.pl.

Eel Days in Jastarnia – During the event you can get familiar with fishing techniques and the lifestyle that local residents used to lead. The things that simply cannot be missed include catching eels barehanded, fighting on a bowsprit, driving a pole into the ground, and, last but not least, tasting eel dishes.

Day of Bread and Honey in Nadole – An event held on the premises of the open-air muse-um. It includes a fair showcasing baking and beekeeping goods, as well as presentations of old-time household items and artistic performances.

Bread Feast in Sławutowo – Part of Our Lady of the herbs day, on which people bring herbs and crops to have them blessed. It takes place in the square by the so-called garden oven, specially built for traditional bread baking. It also includes bread preparation and tasting.

September

Potato Day in Celbowo – The festival takes place in the "potato hotspot" near the office of a Pomeranian–Masurian potato company. It features a potato parade and displays of this starchy plant and the tools used to harvest it (from traditional methods to modern combine harvesters). Artistic performances and contests round things off.

Pickling at the open-air museum in Nadole — This event marks the end of the tourist season in the ethnographic museum near Lake Żarnowieckie. It includes communal cabbage pickling, bread baking, and merrymaking accompanied by music.

All year round

Guided nature walks, part of the Coastal Wildlife Expert Club project – Organized by Nadmorski Park Krajobrazowy (Coastal Landscape Park). Participation is free but signing up in advance is mandatory since the number of people is limited. More details can be found on the organizer's website: npk.

Fishing events – The Puck county division of the Polish Angling Association holds numerous competitions for anglers, including at Lake Dobre, Lake Orle, Krokowa castle pond, and in Osłonino at Puck Bay. Other activities involve surfcasting (fishing from the shore) in Dębki and trolling (rod fishing from a boat) in the form of commercial salmon fishing trips.



Fisher House in Władysławowo, photo by P. Kowalewski



World Migratory Bird Days in Kuźnica, photo by K. Stępniewska

YEAR-ROUND TOURIST INFORMATION POINTS

Jastarnia

ul. ks. Stefańskiego 5, 84-140 Jastarnia tel.: +48 58 6752340, 58 6752097 mail: promocja@jastarnia.pl

Kuźnica

ul. gen. Hallera 1a, 84-130 Kuźnica tel.: +48 58 6753698 mail: itkuznica@o2.pl

Swarzewo

ul. Morska 6, 84-100 Swarzewo (near OKSiT moorings) tel.: +48 58 6743616 mail: it@oksitpuck.pl

Władysławowo

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ACTIVE RECREATION

Northern Kashubia is an enormously appealing region for active leisure aficionados. An extensive list of companies which provide such services can be found at www.kaszuby-polnocne.pl:

- paddle boat and water sports equipment rental companies,
- diving, sailing, kitesurfing, and windsurfing schools,
- · kayak trip and pleasure cruise organizers,
- · fishing clubs,
- horse riding centres and sleigh ride organizers,
- · tennis and squash courts,
- · golf courses,
- · bowling alleys,
- swimming pools,
- · winter swimming,
- extreme sports.



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The Baltic shores swept by bitter northern winds and the sunniest bay in Poland, Puck Bay. A chance to marvel at the Northern Lights in winter. Birds travelling from afar herald seasonal changes here as each autumn and spring they stop on their way between the Arctic and warmer climes. Even though it is not a lakeland, the cleanest Polish lakes are here. This is Northern Kashubia, where you can discover amazing landscapes, natural phenomena, plants, and animals that you won't find in other regions of Poland.

www.kaszubypolnocne.pl





