

ZIEMUPE

ZIEMUPE SEACOAST

The village of Ziemupe is situated at the Baltic Sea, 17 km north of Liepāja. We are very proud of our area, and would like to welcome visitors to our village, where we can offer a range of guest houses for those wishing to see our beautiful landscape and habitats of international conservational interest as well as interesting cultural objects. On entering Ziemupe you will find information and guesthouses well signposted.

Beach

The characteristic beach habitat for Ziemupe is sandy/gravel with pebbles. It is quite high in parts, occasionally forming small beach bars. The beach is rather narrow and it is periodically influenced by strong waves.

There are few plant species on the beach. Sea Rocket *Cakile maritima* and Prickly Saltwort *Salsola kali* have adapted to this harsh environment. Both are salt-tolerant - halophytes. Sea Rocket is an annual, with alternate succulent leaves and pink/purple aromatic flowers. Prickly Saltwort is also an annual, often found growing alongside Sea Rocket. It also has succulent leaves, which terminate in a thorn. The flowers are very small, found near the leaf axes and are only visible on close inspection.

Washed off coasts

The coast at Ziemupe is very unusual, being the only example of its kind in Latvia. The coast is subject to varying degrees of erosion. Where it is most prominent, as in the area near Ziemupe church, erosion is severe, with around 10 m of the coast having disappeared in recent years. The height of the steep coast ranges from 5 to 12 metres. Landslides still occur in some places.

In areas of little erosion, such as the area north of the Tenkši Ditch, the ground becomes covered in lime-loving plants, such as: Bird's-eye Primrose *Primula farinosa* which flowers in May, Common Butterwort *Pinguicula vulgaris* an abundance of Orchid species which are to be seen flowering in June. In Latvia such plant communities are very rare on the seashore. It is because of specific growth conditions: fresh-water springs flow from the slope between the blue clay sub-soil and overlying gravel, providing a humid, nutrient-rich environment and an alkaline soil, unusual for the coast.

Towards the Žožupe Creek, the coast is regularly disturbed, covered with species such as Coltsfoot *Tussilago farfara*, as well as many dune and meadow plants. Steeper slopes are colonised by Sand Martins *Riparia riparia*.

Dunes

In the middle part between the Žožupe and Laiku Creeks washing off coast reduces and primary dunes start to develop. They form when the wind blown sand stops against the plants or other barriers. At the beginning small sand "hillocks" - embryonic dunes are created. With the increase of embryonic dunes shifting dunes or white dunes develop.

Marram grass *Ammophila arenaria* is the most significant grass species responsible for the stabilisation of the dunes. It actually needs the accumulation of sand around it in order to thrive. In several places, the Butterbur *Petasites spurius* grows thickly in the shifting dunes. They look like Coltsfoot but differences are clearly seen on closer inspection: the lower side of *Petasites spurius* leaves is velvety white, densely covered with hair and the leaves are slightly in-rolled to protect them from the sun. The flowers are arranged in a yellow spike, appearing before the leaves appear.

Marram grass and Sea Pea *Lathyrus maritimus* are plant species that grow only on the seashore. This means that their habitats are very restricted. In total, there are about 50 such coastal plant species in Latvia. The Ziemupe coast therefore provides a significant habitat and it is essential that we play our part in the preservation of these plants.

Over time and with more stable conditions, the white dunes may develop into grey dunes. A wide variety of grey dunes have developed between Ziemupe and Akmeņrags. They are to be found above the steep coast as well as between the shifting dunes and the forest. Older dunes in this area are characterised by a

mixture of mosses, lichens and plants of lowland meadows and dunes such as: Mountain Everlasting *Antennaria dioica*, *Anthyllis maritime*, Sand Pink species *Dianthus arenarius* and Moonwort *Botrychium lunaria*. More dominant species are *Festuca sabulosa*, Glaucous Hair-grass *Koeleria glauca*, and Breckland Thyme *Thymus serpyllum* which are found where the grey dunes are exposed to periodical covering by sand. One can often find oneself walking over the home of the Ant-lion *Murmeleon formicarius*, which is a funnel-like hole where it hides, waiting for its prey. The grey dunes are also the habitat of the Tawny Pipit *Anthus campestris* - a protected bird species.

The open dunes border onto forest, mostly dry pine forest. The pines are mainly 40 to 80 years old, but some are 120-160 years old. There are few remaining old pine forests. Pine stands frequently exchange with birch-stands. One can see a larger variety of forest types alongside small river banks. Black alders, for example, grow on the banks of the River Grīguļupe. Soil is much more fertile there, special microclimate and higher humidity encourage bushes and caulescent plants to grow. Deciduous trees within the pine forest are very valuable as they increase the variety of habitats, thus promoting diversity of plant and animal species. Heading inland you come across pine forest on poor, wet, sandy soil.

The Ziemupe area of the coast is famous for its picturesque sights. One can see different colours and patterns at eroded coasts, in the dunes and in the sand. Grey dunes are most colourful in June and July, and shifting dunes and forests become more colourful after the autumn frosts. Leaves of birch-trees and aspens fall off, but dune grasses remain yellow all over the winter.



Sea-Rocket
Cakile baltica



Bird's-eye Primroses
Primula farinosa



Washed off coast



Lyme-grass
Leymus arenarius in embryonic dunes



Petasites spurius



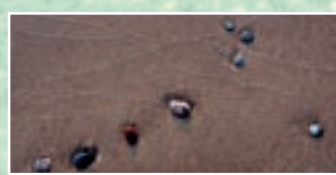
Grey dune with lichens



Larva of Ant-lion
Murmeleon formicarius



Old pine forests are habitats for rare species



Sandy gravel beach with pebbles



Prickly Saltwort
Salsola kali



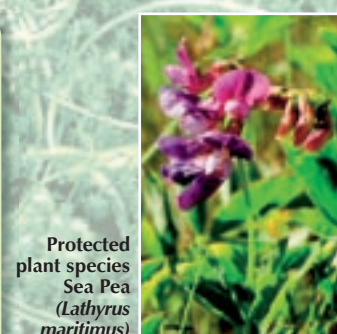
Washed off coast with vegetation



Early Marsh-orchid
Dactylorhiza incarnata



Sand Martins *Riparia riparia* have settled into the steep coast



Protected plant species
Sea Pea
(*Lathyrus maritimus*)



Road through the forest in autumn



Pillow-like vegetation on grey dunes



Glaucous Hair-grass
Koeleria glauca



Mountain Everlasting
Antennaria dioica



Thyme
Thymus



Sand Pink
Dianthus arenarius



Biting Stonecrop
Sedum acre

