



photo 1: © Rusne Fund for Nature



Lithuania Land of Storks

Roughly the size of Ireland, Lithuania is the largest of the Baltic countries. The country lies on the western fringe of the eastern plain that stretches across Byelorussia and part of Russia. Glaciers of the last Ice Age have scraped the land and left thick terminal deposits known as moraines. As a result, Lithuania is largely flat, rising gradually to the east and interspersed with hilly uplands. The highest point, at **Juozapines**, rises to a less than dizzying height of 294 meters above sea level.

Natural fortress

Thick forests and **bogs** once covered the territory now occupied by Lithuania. They formed a natural stronghold that enabled the Lithuanian tribes living in them to first withstand the onslaught of crusading knights from Germany and eventually team up with the Poles to form a twin duchy and kingdom that stretched from the Baltic to the Black Sea.



photo 2: © Zymantas Morkvenas

Much of the forest has been felled and the bogs drained since then. Today, almost a third (31%, or 2 million ha) of Lithuania is covered by forests. Most of this is coniferous (61%); spruce (24%) as well as birch. Lithuania straddles the junction between boreal coniferous and broad-leaved forests. Within a comparatively small area, the taiga and temperate biomes converge. Broad-leaf and coniferous forests are being degraded as a result of intensive economic activities. In the central and south-western part of Lithuania, small areas of Central European deciduous forests have survived.

The forests and wetlands are home to **moose** (*Alces alces*), **wolves** (*Canis lupus*) and **lynx** (*Lynx lynx*), and **beavers** (*Castor fiber*). The rare **mountain hare** (*Lepus timidus*) can be found in marshy boglands. The country also has about 2000 otters. Birds of prey include the **white-tailed eagle** (*Haliaeetus albicilla*), **osprey** (*Pandion haliaetus*), **honey buzzard** (*Pernis apivorus*), **lesser-spotted eagle** (*Aquila pomarina*) and others.

Lithuania's glacial past is reflected in the rivers, lakes, and other wetlands that cover the country's surface. The country is laced by 816 rivers of more than 10 kilometres in length. The largest of these, the Nemunas, which has its headwaters in Byelorussia, is 937 km long. Of a total of 63,700 km of natural rivers, less than a third (~17,000 km) have not been straightened. Those that have survived are in a fairly good state. Zones of protection have helped in protecting rivers,

but privatisation now poses a threat to the smallest rivulets since their legal protection has not been regulated.

Lithuania is also speckled with over 3,000 lakes, covering 1.5% of the country's territory. **Lake Zuvintas**, in the south, is an important breeding ground and migration halt for waterbirds. The largest wetland area in the

Area: 65,300 km² (approximately the size of Ireland).

Terrain: alternating lowlands and highlands, many scattered small lakes, Baltic coast (99 km).

Elevation extremes: lowest point: Baltic Sea 0m, highest point: Juozapines/Kalnas 293.6m.

Land use: arable land – 39%, permanent crops – 9%, permanent pastures – 6%, forests and woodland – 31% (mainly pine, spruce, birch), other – 15% (2001).

Protected areas: 4 strict nature reserves and 1 biosphere reserve (24 004); 5 national parks (152,728 ha); 30 regional parks (436,000 ha); 258 state nature reserves (150,299 ha); 101 municipal nature reserves (11,112 ha). Total of protected areas is 774.273 ha (11,9% of the country's territory).

Population: 3,610,535 (July 2001 est.).

Capital: Vilnius – population 600,000.



photo 3: © Zymantas Morkvenas

country (6.847 ha, about two-thirds of them raised bogs and 40% fens) has an abundance of birds – some 256 species, with large numbers of **great crested grebe** (*Podiceps cristatus*), **black tern** (*Chlidonias niger*), and **coot** (*Fulica atra*). Zuvintas is one of the few breeding sites in Europe for globally threatened species such as the **aquatic warbler** (*Acrocephalus paludicola*) and **ferruginous duck** (*Aythya nyroca*).

Most of Lithuania's wetlands – about 70% – have been lost. The country's wetland flora and fauna have suffered from a zealous drainage of land, mainly for agriculture, that started in the 17th century and has accelerated over the past half century. Those wetland areas that remain are seriously affected by eutrophication, especially from mineral fertilisers washed from agricultural fields into the water. About 40% of those bogs that have survived are now protected. Wetlands restoration is a priority for some protected areas, especially the Zuvintas Biosphere Reserve.

The largest of the Baltic countries has the shortest stretch of Baltic coastline 99 km. Most of the coast is taken up by the **Curonian Spit**, a thin thread of sand composed of dunes and lush pine forests that separates the **Kursiu Marios** (German: Kurisches Haff; English: Courland or Curonian Lagoon) from the Baltic. The long lagoon connects to the sea only along a 2 km outlet near **Klaipeda** (formerly Memel).



There are five national parks in Lithuania and a number of nature reserves. **Kursiu Nerija National Park**, located along the Baltic, is certainly one of the highlights, with a mixture of seacoasts, beaches, a lagoon, high dunes, and pine forests. A series of especially valuable wetland areas, including the Lake Zuvintas area, enjoy strict protection and are the focus of special conservation efforts under a project supported by the United Nations Development Programme.

Chernobyl II

The legacy of Soviet rule in Lithuania has, from an environmental point of view, left some positive features, including relatively limited pressure from development; but it has also left a string of serious environmental problems. Chief among these is the **Ignalina nuclear power plant**, the world's largest RMBK reactor plant – the same type of plant, and liability, as that at Chernobyl. Lithuania has agreed to de-commission the plant by 2009 as part of its terms of accession to join the EU. Despite support for this from the EU, this will be easier said than done, as the plant's two reactors produce 75% of the country's energy.

Other blights have been left by concentrations of chemical and other industries that discharge pollution into the air and water. Water quality remains a major problem, though significant progress has been made over the past decade. In 1990, over 27% of wastewater that was discharged into surface waters was untreated, and only 22% was treated to established standards. In 1999, the amount of untreated wastewater accounted for only 12%, and over 60% of discharged wastewater was treated to established standards.

photo 4: © Mindaugas Ryla.

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Useful links:

Lithuanian Ministry of Environment:

www.am.lt

Lithuanian Environmental Protection Agency:

<http://aaa.am.lt>

Lithuanian Fund for Nature:

www.glis.lt

Regional Environmental Center Lithuania:

www.rec.lt

Lithuanian Ornithological Society:

www.birdlife.lt

Lithuanian Natura 2000 network:

www.natura2000.lt

Curonian Spit national park:

www.nerija.lt

EU Accession

The accession process is helping Lithuania to focus on these and other environmental problems, one of the country's greatest challenges in joining the EU. Major investments will be needed. In order to fulfill and comply with the EU integration process, Lithuania will need to substantially increase its investment in the environment from ca. 2% of GDP in 2000 to ca 4.5% in 2005, and as much as 7.6% in 2010.

Photo 1: View of Rusne.

Photo 2: White Storks.

Photo 3: Birds in ornithological rezerve.

Photo 4: Forest in West Lithuania.