

Finland

Land of Islands and Waters





“ There can be no more beloved shore than this, our Northern homeland.”
Johan Ludvig Runeberg

Dear Reader

Finland has more bodies of water than any other country in the world, and more islands than most European nations. We boast 76,000 islands with an area of 0.5 ha or more, 56,000 lakes over 1 ha, 647 rivers and 314,000 km of coastline. Every Finnish municipality has waters, and most contain islands. Every island, lake and river has its place in the hearts of Finns. This brochure describes these unique riches.

Its multitude of islands and waters makes the Finnish landscape fragmented, creating extra costs for the economy, the State and local councils, but it is also an incomparable resource. Our islands, seas, lakes, rivers and shores are excellent regional assets in a world that thrives increasingly on producing unique experiences.

Holiday homes (belonging to around 2 million people), boating (700,000 boats), fishing (1.8 million recreational fishers), nature pursuits and tourism ensure that the development of our islands and waters touches upon the entire nation. Finland is one of Europe's top boating and recreational fishing sites.

Many public authorities operate in the islands and waterways, including the Defence Forces, the Border Guard, the Police Force, regional rescue departments, the Maritime Administration (commuter traffic, piloting, shipping lanes, ports, charting, winter navigation assistance), the Road Administration (ferries and roads), the environmental authorities, the Game and Fisheries Research Institute, other fisheries authorities and the National Board of Antiquities.

Finland's islands policy compensates for some of the drawbacks of the fragmented land area, and maximises the benefits of islands and waters as a regional development asset. The Island Development Act is an important tool in these efforts. Consideration for biodiversity as well as cultural and landscape factors forms an essential part of the islands policy.

The Government aims to develop island and water tourism into a European attraction, and to turn our holiday home customs into a foundation for rural development. We have excellent conditions for this. Finland offers citizens and foreign visitors a safe environment in which to experience the warmth of summer, the russet colours of autumn, the snow and ice of winter and the brightness of spring, on its numerous islands and in its vast marine and freshwater areas.

Happy reading!

The Island Committee
Ministry of Employment and the Economy



JOUNI KLINGA



MIKKO HAKANEN/KUVALITTEI



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Which European country is the richest in islands and lakes?

Let's start by looking at islands. Greece has approximately 1,400 islands and Denmark around 500. Although well-known for their islands, these states are dwarfed by the three Nordic "continental" states of Norway, Sweden and Finland. Finland has 76,000 islands measuring at least half a hectare in size, and a total of 178,947 with an area of 100 m² or over. Although smaller in size, Finland surpasses Sweden in its number of large islands and lakes. Norway also has a wealth of islands, but their steep cliffs make many of them unsuitable for tourism and recreation. The world's most island-rich country is Canada.

Finland also clearly outstrips certain well-known island states in terms of its number of

inhabited islands. Although many islands are linked to the mainland by bridges, Finland still has 430 islands with year-round habitation, with no permanent road connections. Greece has just over 200 such islands and Denmark around 100. More than 200,000 Finns live on islands with bridge connections, including nearly 50,000 in the capital, Helsinki.

Nearly 100,000 or more than half of Finland's islands are located in freshwater, ranking Finland close to the top in the quantity of inland islands. They include more than 150 islands with year-round habitation but with no bridge connections.

The Sulkava Rowing Race is the biggest rowing event in the world. The route around the island of Partalansaari extends over 60 km and in recent years there have been some 10,000 participants. The church boat race for teams is particularly popular, but there are always plenty of entries for the singles and doubles races too.

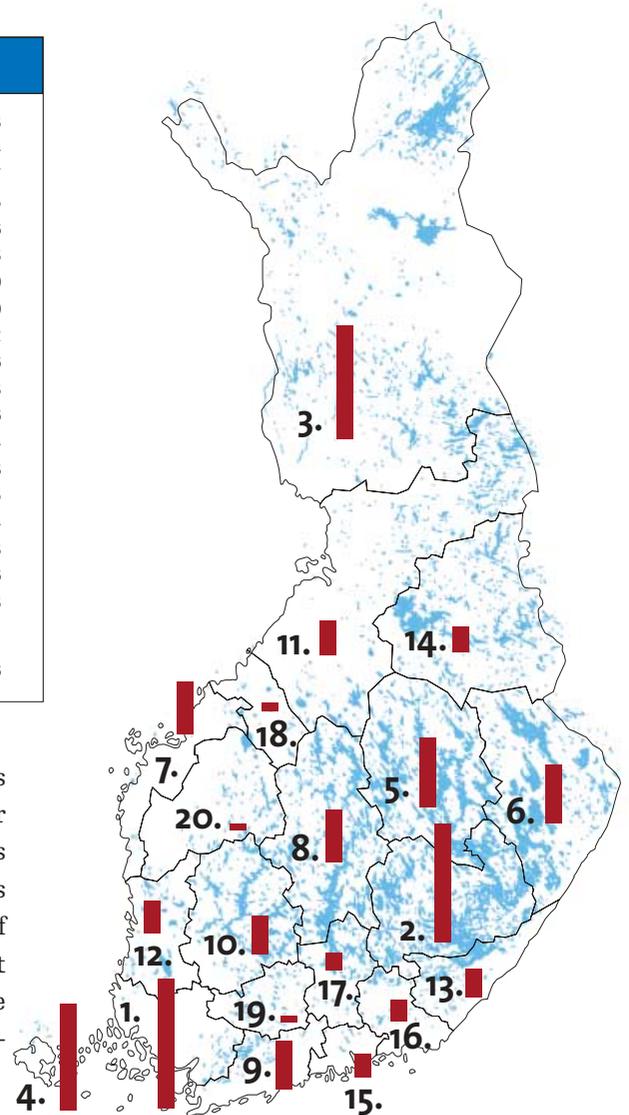


SEPPÖ PELKONEN/KUVALITTERI

Finnish islands by region

	0,5 ha- 1 km ²	1 – 10 km ²	Over 10 km ²	Total
1. Southwest Finland	9,687	145	21	9,853
2. South Savo	8,918	101	5	9,024
3. Lapland	8,594	60	3	8,657
4. Åland Islands	8,014	77	14	8,105
5. North Savo	5,229	46	1	5,276
6. North Karelia	4,386	42	5	4,433
7. Ostrobothnia	4,187	51	11	4,010
8. Central Finland	3,971	37	2	4,010
9. Uusimaa	3,665	23	3	3,692
10. Pirkanmaa	2,897	9		2,906
11. Northern Ostrobothnia	2,570	12	1	2,583
12. Satakunta	2,493	12	1	2,506
13. South Karelia	2,151	29	4	2,184
14. Kainuu	1,933	14	1	1,948
15. Eastern Uusimaa	1,783	20	3	1,805
16. Kymenlaakso	1,618	16		1,634
17. Päijät-Häme	1,318	14	1	1,333
18. Central Ostrobothnia	623	3		626
19. Häme	512	1		513
20. South Ostrobothnia	480	1		481
Total	75,029	713	76	75,818

Finland is also the country with the most bodies of water in the world. Its freshwater areas cover 33,000 km², accounting for one tenth of Finland's surface area. The country's area also encompasses 82,000 km² of sea and 647 rivers. The length of the Finnish shoreline is 314,000 km - equivalent to a distance of an amazing eight times around the Earth. The coastline of most other European countries is only a fraction of this.



Timber-floating is still important in the Vuoksi waterways. Raw wood is also transported on barges, whose use may increase significantly if bioenergy transports begin at local power plants. An extension of the Saimaa Canal lease period could also lead to new growth in freight transport on Eastern Finland's waters.



JUHA METSÖ/KUVALITTERI



HANNU HUHTUKUVALITERI

Many islands close to the coast are connected to the mainland by a causeway or bridge. Island of Alanne in Lake Kiantajärvi, Suomussalmi.

59 metres of shore per inhabitant

■ **Finland's shoreline is fragmented** and comprises many islands. Its lakes are full of capes, bays and islands; its rivers are winding. All of this means that the shoreline is much longer than you might expect.

The type and shape of the coastline are important factors for both human and natural life. No detailed classifications have been made of Finland's entire shoreline, but the seashore has been inventoried. Most of the shore (approx. 43%) consists of moraine, which is most common on the shores and islands of the Gulf of Bothnia. A similar proportion (42%) is composed of rocky shores, which are found particularly in the Archipelago Sea and the Gulf of Finland. Loam, clay and soft-soil shores account for 10%, and gravel and sand for 5%. Only just over 1% (approx. 550 km) consists of man-made shore; this includes diverse embankments, harbours, bridges and dams.

Largest maritime islands in Finland

Order	Name	Municipality	Area (km ²)
1.	Mainland Åland	7 municipalities	685
2.	Kimito	Kimitoön, Salo	524
3.	Hailuoto	Hailuoto	195
4.	Replot	Korsholm	160
5.	Aasla/Otava	Naantali	105
6.	Lemland	Lemland	92
7.	Eckerö	Eckerö	91
8.	Öja	Kokkola, Luoto	90
9.	Storlandet	Väståboland	72
10.	Ålön	Väståboland	70
11.	Kyrklandet	Väståboland	64
12.	Kivimaa	Kustavi	57
13.	Pyhämaa	Uusikaupunki	53
14.	Vessölandet	Porvoo	52
15.	Kirjalaön	Väståboland	49
16.	Oxkungar-Tengmo-Kvimo	Vörå-Maxmo, Oravais	46
17.	Lillandet	Väståboland	38
18.	Stortervolandet	Väståboland	37
19.	Luoto	Luoto	37
20.	Kaurissalo	Kustavi	36

Largest freshwater islands in Finland

Order	Name	Municipality	Area (km ²)
1.	Soisalo	Heinävesi, Kuopio, Leppävirta, Varkaus	1,638
2.	Kerimäensaari	Enonkoski, Kerimäki, Savonlinna	1,069
3.	Hurissalo	Mikkeli, Puumala	174
4.	Partalansaari	Puumala, Sulkava	170
5.	Viljakansaari	Puumala	115
6.	Manamansalo	Vaala	76
7.	Äitsaari	Ruokolahti	74
8.	Moinniensaari	Savonlinna	53
9.	Oravisalo	Rääkkylä	49
10.	Kirkkosaari	Taipalsaari	47
11.	Väisälänsaari	Hirvensalmi, Mikkeli	35
12.	Virmaila	Padasjoki	35
13.	Kuivainen	Savitaipale	33
14.	Pyylinnsaari	Heinävesi	28
15.	Varpasalo	Rääkkylä	27
16.	Paalasmaa	Juuka	27
17.	Salosaari	Ruokolahti	26
18.	Judinsalo	Luhanka	25
19.	Lintusalo	Puumala	25
20.	Kyläniemi	Taipalsaari	23



JARI KOSIET

In terms of recreational value, flat, firm shores with an inclination of less than 10 degrees are considered the most valuable. Ideally, such shores should also have unrestricted access, scant aquatic vegetation and medium-depth water. These top-quality shores account for just a few per cent of the entire shoreline.

Variations in water level also affect usability. Under one tenth of Finland's shoreline is such that the tidal level change is less than one metre, measured over a long period of time – all of this is on lakeshores. Around one half of the total shoreline has tidal changes exceeding two metres, including the entire marine coast. Level changes of more than five metres particularly appear on the Ounasjoki and Tornionjoki (Torne) rivers, and in some regulated lakes.

However, most of Finland's shores are highly appropriate for recreational use and construction, compared for instance to the steep cliffs of Norway and Greece. In France, Britain and Ireland, the tide may change by more than five metres in a single day. Also, tidal flats may be several kilometres in width in those areas.

Composition of shoreline

	km	%
Total seashore	46,198	15
– mainland coast	6,299	
– islands	39,675	
– lakes on islands	96	
– inland islands on islands	128	
Total lakeshore	214,896	68
– mainland shore	171,506	
– islands	39,443	
– lakes on islands	2,242	
– inland islands on islands	1,705	
Total riverbanks	53,510	17
– mainland shore	51,142	
– islands	2,368	
Total shoreline	314,604	100

Hailuoto is the third-largest sea island in Finland. Its population is on the increase: in 1980 it was 897 but by 2007 it was 987. The island also hosts 700 summer residents.



Sparkling blue gold

“Finland is called the Land of a Thousand Lakes, but that figure is not even close to the truth.”

Zacharias Topelius was right in his Book of Our Land (Maammekirja) in 1875. More than a century would pass before the exact number was calculated, and it was 187,888. The smallest ponds included in the count were only 500 m² in size, however; lakes and ponds exceeding one hectare in size numbered 56,012.

Topelius was not always right; in 1838 a Lapp man had told him a story according to which Lake Inari would not let anyone measure its depth. On the basis of this, Topelius wrote a poem that flatly states: “It is as deep as it is long.” A native Inari-dweller might well have said “Nuuvt kukke lii ko čienjâl-uv.”

An echo depth sounding of Inari was completed in 1961–62. The maximum depth found was 95 metres. A verifying measurement two decades later took off another three metres, meaning that Inari comes second to Lake Päijänne in depth.

European champions in large and small lakes

The European Union contains 93 lakes with an area exceeding 100 km². Forty-seven of these are in Finland, meaning we have more than all the other EU states put together. There are few statistics in which one country is so dominant.



MARKKU TAINO/KUVALITTEI

Most of Finland’s large lakes were formed during the Ice Age and shaped by the land uplift. Päijänne and some other major lakes were born from cracks in the bedrock formed hundreds of millions of years ago. Lappajärvi and Paasivesi have a heavenly origin, having been caused by meteorites.

In its number of ponds, Finland is fairly even with Sweden, both having more than 100,000 lakelets of less than one hectare. The rest of the EU can only wonder at its northern neighbours’ wealth of waters. More than half of Finland’s ponds are in the municipalities of Inari and Utsjoki. Since the central and eastern parts of the country are known as the Lake District, this might be termed the Pond District.

Water quality is good or excellent in over 80 per cent of Finland’s lakes, although many shallow lakes are eutrophic and require attention. Almost 1,000 rehabilitation projects have been completed in recent decades. The most common methods are removal of aquatic plants, improvement of food chains, and oxygenation. Another factor in improving water quality has been significant investments in the removal of nutrients from urban and industrial wastewaters.

The Water Framework Directive of the EU came into effect in 2000, with the aim of achieving a high ecological status for surface waters by 2015. Collaboration is closer between authorities and local residents in Finland than in most other coun-

Lake Pielinen contains 1,259 islands. Visible from the Koli quartzite peak, they have been immortalised in millions of photographs. The view is bewitching at any time of year.



HEIKKI KETOLA/KUVALITTEI



tries. Due to their love of local lakes and the scarcity of public funding, lakeshore residents have been inspired to start up lake protection groups and to work together in maintaining their lakes.

Diversity of forms

Finland's lakes differ in character from almost all of their European counterparts. It is difficult to determine where one lake ends and the next one begins. The most interesting is Great Saimaa, which can be viewed as either one or up to a hundred lakes. It is one lake in the sense that the water level is almost constant all the way from

Lappeenranta to Joensuu and Varkaus, with a few centimetres' difference in Savonlinna. However, according to the ice, temperature and flow conditions, the many pools of Saimaa could also be considered separate lakes.

In 1933, poet-geographer Aaro Hellaakoski proposed the names Satanen or Satajärvi (derived from the word sata, meaning "one hundred") for the lake, but these never caught on. Like Saimaa, many other pools in the Lake District form chains extending over hundreds of kilometres. These are broken up by short rivers or narrow passages where the water level can drop by several metres.

Many of our inland cities were originally built on a lakeshore. The water's power attracted several large industrial plants to the Tammerkoski rapids in the 19th century. Most heavy industry has now left the area, and the old factory buildings have been put to cultural use.



Canals and locks are often built at these points for boats. The rivers Vuoksi, Kymijoki and Kokemäenjoki contain a total of almost 40 locks and 30 open canals.

The most extensive network of boating routes is in the Vuoksi waters, reaching as far north as Nurmes and Iisalmi. This includes nearly 600 km of 4.2-metre deep-water channels, some 1,000 km of 2.4-metre channels and several hundred kilometres of 1.8-metre and 2.1-metre channels. It discharges into the sea at Vyborg, making this, the EU's largest lake network, important to Eastern Finland's economy. New connections have also been planned between the Kymijoki and the sea, and between the waterways of Kymijoki and Vuoksi.

Casting an eye over a map of Finland, one sees the blue colour of the Lake District forming an extensive labyrinth, in which individual lakes are difficult to discern. Further north, the eye is drawn to the two large lakes of Inari and Oulujärvi, and then to Western Europe's largest artificial lakes, Lokka and Porttipahta. The region of Kuusamo also has plenty of blue-tinged areas, and southern Lapland is split by a belt of medium-sized lakes. The most obvious waters in the west are Pyhäjärvi and Lappajärvi, and the eye-catcher in the south is Lohjanjärvi. Many of the smaller bodies of water along the coast contain no lakes, however.

If lakes were chosen to represent Finland's provinces, size might not be the main criterion; for instance in Uusimaa, Lake Tuusula could come into contention due to its cultural significance as the home of many artists and writers.

Research

High-level research on lakes is conducted in Finland. The freezing and thawing of Kallavesi and Näsijärvi have been recorded since the 1830s, longer than anywhere else in the world. The water level in Lake Saimaa has been recorded daily since 1847. On some lakes, surface water temperatures and ice thickness have been monitored for nearly a century.

Depth charts were being published on many lakes with boating lanes as early as the 19th century. For a long time, progress was slow and sounding points were difficult to pinpoint accurately on a map. A major revolution took place in the mid-1980s with the advent of tachymeters for positioning. Further progress was on the way: the first GPS applications appeared in the early 1990s. Today, all depth data is produced digitally.

Largest lakes in Finland

Lake	Region	Area (km ²)	Max. depth (m)
Suur-Saimaa	South Karelia, South Savo, North Karelia	4,380	86
Päijänne	Central Finland, Päijät-Häme	1,100	95
Inari	Lapland	1,060	92
Pielinen	North Karelia	960	60
Iso-Kalla	North Savo	900	90
Oulujärvi	Kainuu	890	35
Keitele	Central Finland	500	65
Lokka	Lapland	417	12
Längelmävesi	Pirkanmaa	410	73
Puulavesi	South Savo	325	60
Kitkajärvet	Lapland, Northern Ostrobothnia	305	34
Juojärvi	North Savo	297	67
Höytiäinen	North Karelia	293	54
Kemijärvi	Lapland	288	40
Pielavesi-Nilakka	North Savo	278	27
Näsijärvi	Pirkanmaa	265	63

The Finnish Environment Institute's lake database now has depth data for more than 6,000 lakes. As more data is charted, it is included on maps. Approximately 30,000 hectares can be charted in one year; at that rate, all lakes over the size of 50 ha will have depth maps within a decade.

Lakes have constant flows that are very important to their ecosystems. Today's technology can determine a lake's flow field in great detail from the surface to the bottom; this is another sector in which Finnish researchers are at the forefront.



Up to 50 cm of water can evaporate from Finland's lakes during the summer. This has been ascertained using triangular rafts, in use for instance on Lake Tuusula.

Also a land of rivers

Although known for its lakes, Finland also has plenty of rivers. They have always been important travel and transport routes, and the first chains of villages appeared on their banks. The best fields were on riversides, and mills were powered by rapids. They were used for fishing and for driving timber to sawmills. Historically, rivers have provided employment for many Finns.

If a river is defined as a stream with an average flow of 1.0 m³/s or a catchment area of 100 km², then Finland has around 650. Of these, 90 are major rivers that run into the sea or across national borders; the rest are tributaries. The larg-

est tributaries surpass many of the main rivers; Ounasjoki, for example, covers the same area as the three largest rivers in Ostrobothnia (Kyrönjoki, Siikajoki and Kalajoki) put together.

Finland's major riverine area is Lapland, which has many of the country's largest streams. The catchment area of the Kemijoki covers more than half of Lapland, with a total of 10,000 km of river. It has the largest floods in all of Finland. Its power stations provide nearly 40% of the hydro-power generated in Finland, and, besides being a prolific salmon-fishing river, it used to be the main artery for log-floating.

Beginning in Lake Päijänne, the Kymijoki river discharges the waters of more than 12,000 lakes into the sea. Downstream, there are cultural heritage sites punctuated by fields.





KEIJO PENTTINEN/KUVALITTERI

A rubber dinghy in the Kuusankoski rapids in Central Finland. Whitewater adventures are offered by dozens of tourism businesses around the country.

Fluvial power

“Let not the waters flow in vain.” This was a clause contained in the laws of Sweden-Finland in 1649. By then, rivers had been in use for diverse purposes for a long time.

The first mill rights had been granted to Bishop Hemming at the Halistenkoski rapids in the river Aurajoki in 1352. Water-driven sawmills had been in use since the late 16th century, and the first ironworks with a tilt hammer were built in Mustio, on the Karjaanjoki river, in 1616.

In the mid-nineteenth century, Finland had around 4,000 water mills and nearly 200 water-driven sawmills. The father of Finland’s paper industry, Fredrik Idestam, opened the first pulp factory in Alakoski, Tampere, in 1865. Tampere also saw the lighting of Finland’s first light bulb in 1882.

When the first turbines of the Imatra water-power plant were switched on in 1929, people were sceptical: “Can Finland ever need such an amount of electricity?” Its power output was 56 MW, while today’s electricity consumption peaks at nearly 15,000 MW. Imatra remains Finland’s largest hydropower plant, with a maximum output of approx. 180 MW.

Although Finland’s rapids now only produce around one sixth of the country’s electricity, hydropower is highly valued due to its swift adjustability. The corporate tax paid by power plants is an important source of income for some regions, particularly in northern Finland.

There has been much debate recently over whether to build more hydropower capacity. In techno-economical terms, there is potential to extend it by 900 MW, of which one half could be built by 2020. Some people disagree with the proposal, however. Any foray into such a project

Largest rivers in Finland, by region

Region	River	Area (km ²)	Average flow (m ³ /s)
Lapland	Kemijoki	50,910	538
	Tornionjoki	39,820	378
	Paatsjoki	14,570	146
	Tenojoki	13,780	165
Northern Ostrobothnia	Oulujoki	22,920	254
	Iijoki	14,320	173
	Siikajoki	4,440	40
Kainuu	Kiehimäjoki	8,700	102
Central Ostrobothnia	Perhonjoki	2,690	20
South Ostrobothnia	Kyrönjoki	4,900	45
	Lapuanjoki	4,110	32
North Karelia	Pielisjoki	21,770	240
	Lieksanjoki	8,260	94
South Karelia	Vuoksi	61,560	554
Satakunta, Pirkanmaa	Kokemäenjoki	27,100	216
Southwest Finland	Paimionjoki	1,090	9
Uusimaa	Karjaanjoki	2,010	18
Eastern Uusimaa	Porvoonjoki	1,260	13
Kymenlaakso	Kymijoki	37,230	304

must closely examine research by climate scientists, particularly in relation to changes in annual flow rhythms. Predicted increases in winter flow rates would be beneficial for power generation, but might increase the problems caused by frazil ice, for example.

Salmon: more excitement than nutrition

Salmon was one of the major causes for early settlements along rivers, particularly those running into the Bay of Bothnia. The economic significance of this pink-fleshed migrant was understood early by the Crown, which declared salmon-fishing the exclusive right of the State. In practice this meant levying a tax on anyone fishing salmon.

After the Second World War, conflicts arose between Finland’s electric power industry and the centuries-old privileges enjoyed by Finland’s

In some provinces, the largest river is by no means the most famous one. The river Vantaa is famous as the Helsinki region’s main artery, while Aurajoki is the heart and symbol of Turku.

Verla mill village was appointed a UNESCO World Heritage site in 1996. The first pulp factory was built in the area in 1872. Beautifully restored, the old buildings now house a museum.



MATTI YLÄTUURA/KUVALITTERI

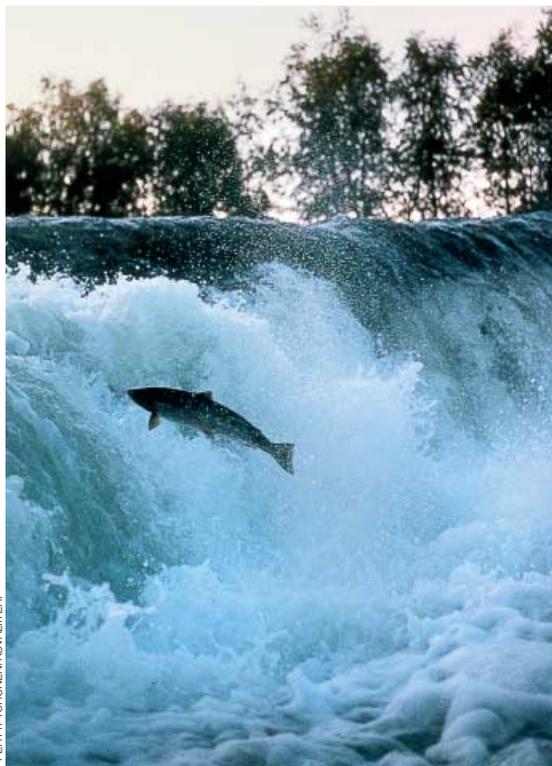


Kitkajoki in Kuusamo

is known for its wilderness areas and numerous rapids. The river is challenging for canoeists and also popular for recreational fishing.

Salmon leaping in Näätäjäjoki river. Finland's only natural and original salmon populations exist here and in the rivers Teno, Tornionjoki and Simojoki.

river fishers. They particularly centred around the Oulujoki and Kemijoki rivers. In 1951, a new water law decreed that fish passes no longer had to be built when a waterway was dammed; instead, the dam builder must cover the cost of a certain amount of fish farming.



PERTTI TURJUNEN/KOVALIITERI

Today's salmon fishing is a varying combination of sea, coastal and river fishing. The Tornionjoki river supplies 20-40 tonnes of salmon annually, while on the Teno, the average catch is 130 tonnes. Fishing tourism is a major source of income for entrepreneurs along these rivers. Tourism operators in the Tornionjoki and Simojoki areas are worried about their future, as are professional fishers in the Gulf of Bothnia, who consider their ancient profession to be in peril. This is an international issue; salmon-related decisions are made in all Baltic Sea nations, as well as in Brussels.

Projects are underway in many Finnish rivers to restore migrant fish populations: these include the Kymijoki, Vantaa and Aurajoki rivers, as well as the three greats of the north: the Oulujoki, Kemijoki and Iijoki. Since 1993, salmon have accessed the downstream Kemijoki along the Isohaara fish pass, while the Oulujoki sea rapids' pass was completed in 2003. Many more passes and a lot of hard work is still needed before most salmon spawning grounds have been restored.

Salmon play a central part in the attraction of river waters to tourists. The value of recreational fishing lies not just in the value of the catch. "Salmon is more about excitement than nutrition," says "fish professor", Hannu Lehtonen.



SEPPÖ KERÄNEN

Islands and waters matter to Finns

A lake or river can be found near most Finnish villages and built-up areas. Around 80 municipalities are located by the sea. Holiday homes, boating, canoeing, cruises, recreational fishing, bird-watching and other nature pursuits, diving, cross-country skiing on ice, tour skating and traditional skating, kicksledding and snowmobiling are activities that have made many Finns familiar with the archipelagos.

Almost all Finns visit an island at least once a year, although they may not always realise it: few visitors to Savonlinna, Kotka or Pargas, for example, are aware that the main parts of these towns are built on islands.

Many of Finland's most popular tourist attractions are islands. Every year, 1.6 million tourists visit Åland, 700,000 visit Suomenlinna, 500,000 Korkeasaari zoo, nearly 300,000 the "Moomin Islands" of Naantali, and 60,000 Manamansalo in Lake Oulujärvi. Built in the 15th century on a tiny islet off Savonlinna, Olavinlinna Castle draws 200,000 visitors a year, one third of them during the annual Opera Festival. Even the Bengtskär Lighthouse, with its remote outer sea location, attracts 15,000 visitors.

Excluding permanent island residents, the Finns with the deepest relationship with islands are those who have a holiday home on one. In

There are 400 visitors' marinas in our sea areas and more than 700 in freshwater areas. The respective numbers of fishing ports are 24 and 15, and cargo ports serving freight traffic total 23 and five. Excluding the winter months, the Saimaa Canal connects the waterways of eastern Finland to the sea.



late 2007, there were around 478,000 recreational residences in Finland, of which 85% were on the coast. People spend an average of 80-100 days at their holiday home each year, and the number is growing. In many island municipalities, the number of summer residents exceeds that of permanent residents: Kustavi tops the chart with a ratio of four to one; when you include people other than the owners of holiday homes, the figure can be ten to one.

Around EUR 4 billion is spent on recreational homes in Finland each year. In fact, this has become one of the main development factors in rural Finland. Summer residents help maintain shops and other services in small municipalities, and their wide-ranging competencies and contacts can be even more important assets. Therefore, efforts are being made to include holiday-makers in municipal and village functions. Developing such participatory mechanisms is an important challenge.

More and more people are converting holiday homes into second homes without changing their place of residence. Recreational properties are increasingly spacious and well-equipped. Developments in ICT have allowed for an increase in telecommuting, and people are keen to convert holiday homes into permanent dwellings.

The environmental impact of recreational residences has been studied in recent years, and has been found to be reasonable. Travel to and from holiday homes amounts to 7% of all car traffic in Finland. Summer houses account for less than 1% of phosphorus and nitrogen discharges into waters, and this is further decreased by new legislation concerning wastewater from households in sparsely populated areas. Year-round heating is increasingly common in holiday homes and its



JYRKI HEINONEN

Enjoying a first summer in the archipelago.

energy consumption is being reduced with new technology, including frost-resistant water pipes, heat pumps and insulation. Coastal construction does have an impact on local natural conditions, including the waters, coastal ecology and landscapes. Recreational residences currently take up one tenth of the total Finnish coastline, but this ratio is considerably higher in the most popular areas.

On the other hand, spending time at a holiday home provides a great environmental education for many Finns, with positive effects on attitudes toward environmental protection and a simple, natural lifestyle. From the viewpoint of sustainable social development, these recreational residences constitute a key form of urban-rural interaction, promoting the maintenance of a vital and diverse countryside.

Millions of passengers feast their eyes on the islands of Uusimaa, Southwest Finland and Åland while travelling on the ferries between Finland and Sweden, which usually call in at Åland. The island province of Åland receives 1.6 million tourists every year.



JARI KOSTET

Traditional and new industries side by side



Winter seine net fishing of vendace in Lake Kostonjärvi, Taivalkoski. In recent decades, technological advances have made winter fishing less strenuous and considerably more efficient, but the number of seine cooperatives has declined.

Island life continues to be bustling and diverse in Finland. Statistics show that the economic structure of islands clearly diverges from the national average.

While the service industry does already employ almost half of our island population, this is below the national average. The development of tourism and recreational services is a critical issue for the future of our islands. There are excellent development opportunities. Islands, lakes and rivers can be turned into tourist attractions. Entrepreneurial training, intensified marketing efforts and networking all play a key role. It would be particularly important to extend the tourism season: the islands have a lot to offer at any time of the year.

Government activities have a major impact on employment and well-being in the archipelagos. The Defence administration, the Maritime Administration, the Border Guard and the Road Administration employ many people in the island municipalities. The most significant research sector employer is the Finnish Game and Fisheries Research Institute. In recent years, state jobs have



THE COAST GUARD IN THE GULF OF FINLAND

been on the decrease, particularly in the Border Guard and Defence Forces, which is highly taxing on certain insular municipalities.

The marine cluster employs island residents on ferry traffic, in the Maritime Administration, in

Search and rescue exercise by the Coast Guard in the Gulf of Finland. Other authorities and NGOs also contribute to maritime safety.

Hot baths and cold plunges at the SaimaaHoliday nature tourism centre in Rantasalmi. Plenty of high-quality accommodation, catering and activity services have sprung up on our islands and coasts. In fact, developing island and lake tourism into a European attraction is one of the objectives of the Finnish government.



SAMI VASKOLA/POINTLEVEL

HEIKKI KETOLAJUKUVALITERI



Finland has top-level expertise in boatbuilding. The sector has many enterprises, and exports account for more than two thirds of revenue. Seppo Suurnäkki is building a wooden fishing boat in Hamina.



MUNICIPALITY OF VAALA

Kassu Halonen Taidetalo, a centre for courses, popular music concerts and fine art, was opened in a former school on the island of Manamansalo in Lake Oulujärvi in summer 2000.

international shipping, at boat harbours, in boatbuilding and maintenance, and on docks.

Agriculture and forestry account for some 15% of the jobs in island and part-island municipalities, while the corresponding national rate is less than 5%. Islands enjoy the benefit of a strong image of purity and reliability, which can be utilised in marketing local specialities. The growth season is also longer in the southwestern archipelago than in the rest of the country. On the other hand, it is difficult to create the relatively large units favoured by modern farming, as fields are small and fragmented. Specialised farming is therefore a prime asset. Farming has decreased on the smaller and outer islands, although new forms, including sheep farming, have emerged on a smaller scale.

There are only around 1,000 full-time fishers left in Finland; two thirds of them fish at sea. In



LOHIMAA

Lohimaa in Äyskoski, Tervo, is the biggest fishing destination in Finland. In all, there are almost 100 businesses specialised in fishing tourism, and thousands offer fishing as an ancillary service.

In addition, there are some 2,000 part-time professional fishers. In 2007, their catch totalled around 130 million kilograms. In the sea, the main attraction is Baltic herring, whereas in fresh waters it is vendace. The number of professional fishers has halved in two decades, and their average age is high. What remains, however, is the most efficient and most professional part of the industry, which has a major employment impact in the fields of trade, food processing and equipment production. Challenges for fish farming include cheap imported salmon and emissions from fisheries. There are still around 600 jobs in the sector in Finland, most of them in island areas.

Recreational fishing is an essential part of island culture. In 2006, Finland had 1.8 million recreational fishers, and the value of their annual catch amounted to EUR 56 million. Services related to fishing increase the economic significance of this pastime four to sixfold. Fishing is an essential part of Finnishness, and it is promoted by our country's richness in waters and our extensive fishing rights.

There is little industrial employment in the deepest archipelago, but many municipalities with good sea ports do host some of the country's major industrial plants.



MARJA VEIKKAKAVALITERI

October's Baltic Herring Fair is Helsinki's oldest traditional event, bringing fishers and entrepreneurs from the islands to central Helsinki. It dates back to a royal edict by King Frederick I of Sweden in 1743: "Let the miserable town of Helsinki be enlivened by a new fair at Michaelmas."



FINNISH ROAD ENTERPRISE, FERRY SHIPPING

State jobs and services are important for islanders. Today public roads have more than 40 ferry crossings. The ferries carry around ten million people and five million vehicles annually. There are also 19 commuter ferries operated by the Finnish Maritime Administration and 21 cable ferries on private roads, most of them in Lake Pihlajavesi.

Growing demand for genuine island and lake culture

Rising tourism is increasing demand for a genuine island culture. The culture of our islands and waters consists of history, tradition, nature and the environment. Culture is all the things that islanders do and appreciate; it encompasses architecture, food, clothes, language, thoughts, beliefs... Fortunately, it is impossible to precisely define island culture.

It is no coincidence that the Savonlinna Opera Festival, perhaps the best-known Finnish cultural event, takes place on an island. Other insular attractions include Moominworld and the Seurasaari Open-Air Museum, which displays Finland's architectural heritage. The historic Suomenlinna fortress island is one of the country's major tourist sites.

Our islands boast many buildings and structures that cannot be found elsewhere in Finland. These include lighthouses, pilot posts, historical navigation marks and also our underwater heritage. Military history is strongly present on sea



islands: ancient fortresses include Suomenlinna in Helsinki, Bomarsund in Åland, Gustafsvärn in Hanko and the Kotka fortresses.

The first impressions visitors have of an island usually relate to the village community spread around a harbour. One's eye may be caught by a

The popular and influential 19th-century authors Johan Ludvig Runeberg and Zacharias Topelius inspired a special love for the country among Finns, particularly through the stunning waterways. Golden-age painters who delighted in watery themes included Albert Edelfelt, Akseli Gallen-Kallela and Eero Järnefelt. Many artists also retreated to live at the lake or seaside, and our great composer Jean Sibelius drew inspiration from the Finnish waterscape.

Loggers' games have remained popular, especially in the eastern and northern parts of the country. The tradition began on the river Lieksanjoki in the 1930s. Typical events include poling, rolling, the logger's oath and riding rapids on a log.



lighthouse on a rock, an old windmill or the harmonious beauty of rows of red wooden houses. The lifestyle and sparse living of the islands have helped to preserve old settlements more commonly than elsewhere. In freshwater areas the villages are often located toward the island's interior, so the visitor may not have such a strong sense of human habitation and activity as by the seaside.

Even the smallest of island municipalities often have a museum of local history and culture, showing old objects and buildings. The Maritime Museum of Finland, which transferred from Helsinki to Kotka in 2008, is responsible for archiving our maritime heritage. It is located in the Maritime Centre Vellamo, which is also home to the Museum of Kymenlaakso. Other maritime and seafaring museums can be found in Mariehamn, Turku, Rauma, Kristinestad and Raabe. The Museum of Finnish Recreational Fishing is located in Asikkala, and Kerimäki has a Lake Fishing Museum.

Our sea and freshwater areas boast plenty of prehistoric remains: stone labyrinths, rock paintings, ancient settlements and harbours. Island culture features extensively in literature, fine arts, drama, music, song and film. The waters have a strong presence in the Finnish national epic, the Kalevala, and composer Jean Sibelius was also inspired by them.

The cultural heritage of our freshwater areas and islands is kept alive by timber floating muse-



MUNICIPALITY OF KOTKA

ums, loggers' games, old canals, fishing ports and fish markets, as well as marinas and old steamboats. By the seaside, the number of volunteers participating in the painstaking task of building and restoring traditional sailing ships is a telltale sign of love for the old archipelago culture.

The living culture of our islands and waters is upheld by permanent and holiday residents, boaters, professional and recreational fishers, tourists and many others. Despite the strong tradition, it is also important to build a new culture on the basis of the old heritage; this has been achieved in many of the fine cultural events organised on the Finnish islands in the summer.

Postal traffic across the Quark – the threshold between Finland and Sweden – began in 1617 and continued for almost two centuries. Today, this tradition is honoured by an annual rowing event for old-style boats. The starting point alternates annually between Replot, Finland, and Holmö, Sweden.



KORPPOO JAZZ

Korppoo Jazz represents modern island culture that is largely a result of the expertise of recreational residents.



PETRI ASIKAINEN/GORILLA

Sixty years of island policy

The Islands Policy is the oldest systematic regional policy in Finland. In March 1949, the Council of State set up a committee to investigate living conditions on the islands and to make development proposals. The main reason for this related to problems in the fishing industry. Although growth was still healthy in other rural areas, the population of island areas had taken a downturn.

The Island Committee was established in its current form by government decree in 1961. In 1981 it proposed new legislation to promote the development of the islands. In the Island Development Act, the concept of “island” covers sea and freshwater islands without permanent road access, as well as other islands and mainland regions with otherwise insular conditions. The Act obliges the State and municipalities to safeguard the development of islands by providing support in diverse political areas, especially in developing sources of livelihood, maintaining state employment, funding basic services and building transport and other infrastructure. The islands’ nature and environment must also be protected.

In early 2009, Finland had eight island municipalities and 40 part-island municipalities. The related decree expires at the end of 2011.

Our island municipalities are Enonkoski, Hailuoto, Kimitoön, Kustavi, Väståboland, Malax, Puumala and Sulkava.

The part-island municipalities are Asikkala, Helsinki, Hirvensalmi, Ingå, Joutsa, Juuka, Jyväskylä, Kaarina, Kesälahti, Kivijärvi, Korsholm, Kotka, Kuhmoinen, Kuopio, Lieksa, Liperi, Luhanka, Luoto, Masku, Mikkeli, Naantali, Närpiö, Oravais, Parikkala, Pernå, Porvoo, Pyhtää, Raseborg, Ruokolahti, Ruotsinpyhtää, Rääkkylä, Salo, Savonlinna, Sipoo, Taipalsaari, Taivassalo, Tervo, Uusikaupunki, Vaala and Vörå-Maxmo.

Five of the island municipalities are on the sea-shore and three are inland, while the part-island municipalities are distributed evenly. Before the current wave of municipal mergers, there were 13 island municipalities, but the number fell due to amalgamations, particularly in southwestern Finland. The part-island municipalities contain 13 cities, Helsinki being the largest.

The old Island Committee’s final report in 1957 emphasised the significance of a geographically widespread policy on coastal and water areas. This has remained the approach in the government’s islands projects and decisions-in-principle in the 1990s and beyond.

The Island Committee is a permanent statutory advisory body that operates in connection with the Department for Regional Development of the Ministry of Employment and the Economy. The Committee participates in the development of island areas jointly with municipalities, regions, State authorities and other parties.

An estimated half a million Finns have jobs suited to teleworking. It is particularly beneficial for island and rural municipalities to invest in improving their facilities for telecommuting from summer homes.

Seminars on islands and waters have been held around the country since 1990. This annual event takes place in an island or part-island municipality. In 2005, it was hosted by Uusikaupunki.

Successes and regrets

The islands policy has produced results. Ferries, rafts, hydrocopters, private roads, public roads and bridges have been put in place for island traffic. Some businesses have received higher subsidies from the state and the EU than their mainland counterparts. The provision of municipal social services is facilitated by island supplements in the municipalities' state grants.

Electrification spread swiftly in the archipelagos in the 1950s and 60s, and phone lines were laid around the same time with support from the State. Finland's government is committed to bringing today's fast data communications out to the islands. Many archipelagos have national parks and conservation areas, which form treasure-troves of the ecosystem and are essential for tourism. Landowners receive appropriate compensation for this.

Nationwide island development projects have focused on promoting tourism, fishing, small-scale processing and telecommuting. Island municipalities aim to enhance their image as tourist destinations and permanent residence areas, sometimes with shared marketing campaigns. The number of recreational residences has been increased with research and development projects aiming for more flexible town planning and exceptional permit policies, building and repairing holiday homes, and utilising summer residents' purchasing power and competence.

The number of State jobs in the archipelagos remained high and even grew between the 1950s and 70s; since then, it has fallen, proving a challenge to the fulfilment of the Island Development Act.

Pilot stations have been closed down by the Maritime Administration, coastguard stations by

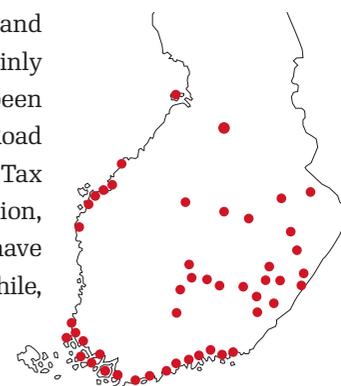
the Border Guard, and the coastal artillery and some Navy units by the Defence Forces, mainly due to technological advances. Ferries have been replaced by bridges, reducing the number of Road Administration jobs. Since the 1980s, the Tax Administration, the Employment Administration, the Police Force and regional State offices have cut their staff in island municipalities. Meanwhile, Post Office operations have been privatised.

International context

Finland's accession to the European Union in 1995 had an impact on the country's island policy. Fishing and agriculture, which are crucial in the archipelagos, and to an extent also regional politics, are now led from Brussels. In regional policies, the number of islands is not a criterion for the EU's structural fund agenda. In practice, however, island-based regions have often been granted a better status than their socioeconomic figures might have entitled them to. A fairly good level of EU funding has been provided, which is important for the islands. This is in line with the European Charter of Fundamental Social Rights, which recognises the fact that insular regions have special characteristics that must be addressed.

From 2010, the Finnish government will make regular decisions-in-principle on island policy, replacing the earlier islands programme. This is now the main national vehicle for island policy-making.

The island policy is also linked to the EU's policies on the use and maintenance of coastal and maritime areas. The Island Committee maintains contact with other European island regions, for instance through the Conference of Peripheral Maritime Regions.



Island and part-island municipalities.



Finland: born of an island

When Finland rose from the sea after the last Ice Age, it started as an island. No one knows precisely where that embryo of Finland was located. It might have been the top of Tiirismaa, the highest point of today's southern Finland (222 m). Some 12,000 years have since elapsed.

In addition to water, the first island may have been fringed by the edge of the continental glacier receding northwest. A millennium after the first glimpse, Finland already consisted of hundreds of

islands. The mainland gradually began to emerge at today's eastern border. Finland was no longer wholly insular.

Some 10,200 years ago, the level of the Baltic glacial lake suddenly dropped by almost thirty metres and the Yoldia Sea was created. Many of the islands grew, the largest one being in today's southern Häme. A few centuries later, glimpses of Åland could be caught amid the waves. The last remnants of the continental glacier melted away

Ristisaari, Pyhtää. Ice and waves prevent vegetation from spreading onto the expanse of smooth rock.



from what is now Finland around 9,000 years ago. The Baltic was a lake, with its largest island stretching from Jämsä to Suomenselkä – its area was four times that of Zealand, which is now the largest island in the Baltic Sea.

Around 7,500 years ago, the Baltic became a sea again. Compared with today, the coast was further inland by 50–100 km at the Bay of Bothnia, 30–60 km at the Sea of Bothnia and 20–40 km at the Gulf of Finland. There were not many islands at that time, but tens of thousands of them were waiting to rise from the depths. With the continuing land uplift, they began to emerge over an extensive area. While the movement of the coastline merged former islands with the mainland, the largest of Finland’s archipelagos – the Archipelago Sea – was gradually formed in the southwest. Today it has almost 40,000 islands, which is more than in South Pacific Polynesia. These days the number of Finnish sea islands over 100 m² in area totals 80,897, with their coastline stretching over 39,803 km.

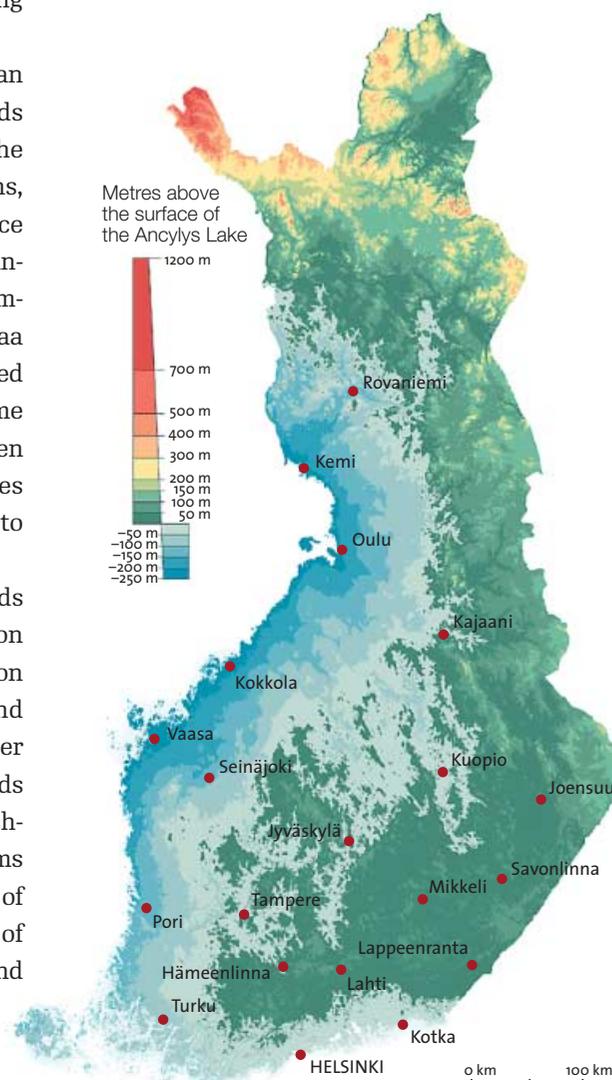
Some of our freshwater islands are older than their home waters: they were already islands before the lake separated from the sea. Over the millennia, the land uplift has tilted lake basins, resulting in the appearance and disappearance of islands. The creation of new discharge channels dramatically altered the size and island composition of many major lakes, including Saimaa and Päijänne. Small islands have been destroyed by ice and waves, and when lakes have become overgrown, their islands have naturally also been obliterated. Humans have drained many lakes or lowered their water levels, causing islands to emerge or fuse with the mainland.

Today the number of our freshwater islands is 98,050. Almost 1,000 of them are islands on islands, located in lakes that are themselves on islands. Such lakes-on-islands number around 2,000. The total island shoreline in freshwater areas stretches over 43,496 km, of which islands in rivers account for 2,368 km. Thus our freshwater areas just beat the marine areas in terms of both the number of islands and the length of coastline. The same applies to the total area of islands: inland islands cover about 7,200 km² and sea islands 5,800 km².



SEPPÖ LAAKSO

In 1873, the author Zacharias Topelius wrote that “every century the Baltic Sea donates to its daughter, Finland, enough land for a new principality.” According to current estimates, around 300 hectares of new land emerges on the coast of the Gulf of Bothnia every year.



The Finnish islands around 9,000 years ago. The Baltic Sea was then the freshwater Ancylus Lake, with its runoff outlet on the western side of today’s Lake Vänern in Sweden. The coastline was 60 metres above the current level in the south, and even over 200 metres in the Bay of Bothnia.

Source: Matti Tikkanen, University of Helsinki © National Land Survey of Finland 192/Mar/98



Island nature

Finnish sea islands are a veritable paradise for researchers. They are young and undergo constant growth and change. Land uplift is still pulling new islands from the sea. An islet born on the open sea often remains almost without vegetation for some three centuries, until it has risen high enough to provide a habitat for a few grasses, rushes and other herbaceous plants rooted in rock crevices.

As the island grows in height, seaweed washed in by waves is deposited in crevices and depressions. Increasing in density, the root layer binds composting matter underneath. This creates a miniature meadow with blooming plants including sea mayweed (*Tripleurospermum maritimum*), chives (*Allium schoenoprasum*) or biting stonecrop (*Sedum acre*). Purple loosestrife (*Lythrum salicaria*), yellow loosestrife (*Lysimachia vulgaris*)





JOUNI KLINGA

The oystercatcher (*Haematopus ostralegus*) is a wader with a loud, piping call. Today, around 4,000 pairs nest in Finland, and they can be spotted in urban parks and even nesting on roofs.

Sea mayweed (*Tripleurospermum maritimum*) and chives (*Allium schoenoprasum*) are common on the outer islets of the Archipelago Sea.



PETTERI TOIVANEN

Bird-watching on Hailuoto. The most abundant nesting waterfowl on the island is the tufted duck (*Aythya fuligula*), but teals (*Anas crecca*) and Eurasian wigeon (*Anas penelope*) are also common. Almost 20 species of waders nest on the island, with the most common ones being ruffs (*Philomachus pugnax*), common redshanks (*Tringa totanus*) and common snipes (*Gallinago gallinago*).

and meadowsweet (*Filipendula ulmaria*) thrive in damp depressions. These depressions can also become swampy and plants such as crowberry (*Empetrum nigrum*), bog bilberry (*Vaccinia uliginosum*), marsh cinquefoil (*Potentilla palustris*) and even cloudberry (*Rubus chamaemorus*) can rise from the mossy ground. The first immigrant trees are prostrate junipers, followed by rowans and twisted and knotted pines. Spruces carpet vast depressed areas.

Insects are the first representatives of the animal kingdom to arrive, although by no means voluntarily but blown in by winds. With more and more areas available for shelter, feeding and reproduction, insect diversity increases. Larger winged creatures also appear relatively early: gulls, waterfowl and wading birds efficiently fertilise the islets. The majority of island birdlife is only present in summer. An even larger group consists of passing migrating birds, which on peak days can flock in their tens of thousands. Larger birds, such as sea eagles, golden eagles and ospreys, are easy to spot.

Among the first mammal invaders are voles, which can at times decimate a young island's vegetation. An island is always a harsh environment for many species: reproduction is difficult and

habitats are destroyed by storms and ice. It takes persistence and luck to survive. The largest mammals, such as elks, enjoy spending time on large, forested inland and sea islands, sometimes even attracting bears in their wake.

Toward diversity

The larger an island grows, the greater its number of species and their genetic diversity. Often only around ten species of vascular plants can be found on small islands, while medium ones may have fifty and reasonably large ones over one hundred.

Not enough time has passed for endemic species to evolve on Finland's sea islands, as they have on other islands worldwide. The migration of our islands from the outer sea to the bosom of our inner archipelago, finally to merge with the mainland, has been too fast for the evolution of new species. A level of microevolution has, however, taken place: our sea islands have forty-odd species of vascular plants whose features differ clearly from those of their inland ancestors.

The homes of some of these subspecies are apparent in their scientific names: the common bird's foot trefoil native to Åland (*Lotus corniculatus* var. *alandicus*), the field mugwort of the Bay of Bothnia (*Artemisia campestris bottnica*) and the



JUHA LAAKSONEN

hair-grass of the Sea of Bothnia (*Deschampsia baltica*).

The impact of land uplift is particularly pronounced on the shores of the Gulf of Bothnia. These landscapes undergo dramatic transformations in just one century in areas such as the Quark. The geological structure of the islands changes, with moraine replacing rock. Plants growing near the waterline on rocky shores include sea aster (*Aster tripolium*), salt-marsh rush (*Juncus gerardii*) and creeping bent (*Agrostis stolonifera*), with purple loosestrife and the seashore subspecies of common valerian (*Valeriana sambucifolia s. salina*) further up. Sea buckthorn (*Hippophae rhamnoides*) is typical of many coastal stretches. Deciduous woods dominated by birch or aspen are common. The Quark's birdlife is characterised by black guillemots (*Cephus grylle*), razorbills (*Alca torda*), arctic terns (*Sterna paradisica*) and mew gulls (*Larus canus*). Even the stately white-tailed eagle is no longer a rare sight in the area.

In about 2,000 years, the land uplift at the Quark will have created a new land connection between Finland and Sweden. In 3,000 years there will also be a land connection from mainland Fin-

land to Åland across the Skiftet strait.

The largest island in the Bay of Bothnia and the third-largest in Finland's sea areas is Hailuoto. Despite now rising up to 30 metres above sea level, the island was only born a little under 2,000 years ago. The land uplift has not been quite that extreme: winds have piled sand onto the island. When Hailuoto was 100 years old, it covered only one square kilometre; by its first millennium it was approximately 50 km², and today, approaching its second millennium, the island covers 195 km². The Hailuoto landscape is characterised by vast lichen-rich pine heaths. Tar pines buried in sand and bottle logs sticking out of drifts are interesting local sights.

Our sea islands are usually divided into three zones. The outer archipelago is dominated by water, and most islands lack trees. Moreover, the middle archipelago is a balancing act between land and water, with barren islands dotted between forested ones. The inner archipelago is dominated by land, with meandering waters in the form of narrow straits and bays. Woodland constitutes the most barren areas. Former sea bays are most often farmed clay soil.

A long history of human activity has had its impact, especially on the state of the Gulf of Finland and the Archipelago Sea, but protection measures have succeeded in restoring the endangered white-tailed eagle (*Haliaeetus albicilla*) population: more than 200 young eagles hatch every year. Even the crayfish (*Astacus astacus*) is thriving, despite the poor state of the sea bottom in some places.



PEKKA TURUNEN



In reality the mosaic of our island areas is even more diverse than this. Every island is different – the local impacts of sea, sun, waves and wind determine the forms of life on each one. Nature and the landscape are shaped by limestone deposits, bird fertilisation, sand and gravel. This creates a 10,000-piece jigsaw puzzle where every piece is in place, although the human eye may fail to distinguish it.

Dialogue between man and nature

Our freshwater islands have a much more stable past than their maritime cousins. Land uplift, changes in the water balance and the human propensity for draining lakes have, however, altered their character and ecology. Floods have eroded the top ends of river islands and piled new soil downstream. New river branches have cut sections of mainland into islands.

The flora and fauna of freshwater islands do not differ greatly from the surrounding mainland. There are very few isolated open-water islands; the distance to the nearest island or headland is hardly ever more than one kilometre.

Nature is a culturally bound concept. Without humans, the island ecology would be a lot

poorer than it is today. Doubtless human activity has shrunk the habitats of some species, but at the same time entirely new biotopes have been created. These include wooded meadows created by traditional animal husbandry. Since grassland areas were limited on islands, leaf fodder was cut from trees to feed cattle in winter. The diversity of these meadows' flora and fauna is exceptional. The spring sees the bloom of anemones, the summer brings rare orchids and many members of the bellflower family. A multitude of mosses, lichens, shelf fungi and insects live on gnarled and decayed trees.

For the islanders, the environment is defined not just by the diversity of species but also by location-specific bonds and experiences, everyday chores and social relationships. Virgin nature may be regarded as ugly and unkempt; nature is part of our everyday territory that can and should be modified. Attempts have been made to embrace an extended concept in the Archipelago Sea Biosphere Reserve; in addition to nature, protection extends to continuous interaction between people and their environment.

Locals preserving a meadow on Mälhamn, Nagu. Many of the traditional island landscapes are threatened by forestation as they are no longer grazed by cattle. Therefore, regular mowing and removal of cuttings is necessary. Trees must also be thinned out.

National parks and conservation areas

■ **Finland does not have a single national park totally lacking in waters or islands.** Seven of our national parks were established specifically to conserve island nature; four of them are at sea and three in lake districts. The island parks cover around 2,500 islands and islets, and vast bodies of water.

The oldest of these national parks is Linnansaari, located at Haukivesi in Lake Saimaa, established in 1956. It is some 40 km long and 10 km wide. There are more than 130 islands with an area exceeding one hectare, as well as hundreds of smaller ones, but the park is still dominated by vast open waters. It is home to more than fifty extremely endangered Saimaa ringed seals (*Phoca hispida saimensis*), and its osprey (*Pandion haliaetus*) population is one of the densest in Finland. On the main island of Linnansaari you can learn about traditional landscape management, a restored croft and slash-and-burn farming. There are also many nature trails and 20 moorings for visitors arriving by boat.

The other national park in Lake Saimaa is Kolovesi, established in 1990. Although it only has forty islands, these include two of the largest islands in our national parks: Vaajasalo (1,210 ha) and Mäntysalo (740 ha). The park is characterised by long and narrow fjord-like inlets penetrating deep into the interiors of the main islands. The most majestic of granite rock faces rise almost vertically to heights of up to 40 metres, and plunge equally deep underwater. Commonly found species of fish are vendace (*Coregonus albula*), smelt (*Osmerus eperlanus*), perch (*Perca fluviatilis*), burbot (*Lota lota*), whitefish (*Coregonus lavaretus*) and ide (*Leuciscus idus*). Rarer species include brown trout (*Salmo trutta m. lacustris*), Arctic char (*Salvelinus alpinus*) and the spiky and bony fourhorn sculpin (*Myoxocephalus quadricornis*), a relict of the Ice Age.

Information on the Linnansaari and Kolovesi national parks is available, for instance from Linnansaari Visitor Centre Oskari in Rantasalmi, Saimaa Nature Centre Nestori in Savonlinna and the Kolovesi Nature Cabin in Enonkoski. Oskari and Nestori are open year-round.

Established in 1993, Päijänne National Park comprises around fifty undeveloped islands and islets, as well as parts of inhabited islands. The heart of the park is Kelvene, an esker island 8 km long and 50–800 metres wide. Its special features include long sandy beaches and sheltered lagoons. Rocky banks and terraces on the sides of the esker bear witness to ancient water levels.

Information on Päijänne National Park can be found, for example at Päijännetalo in Asikkala and on information boards in Pulkkilanharju.

The oldest of Finland's maritime national parks is the Eastern Gulf of Finland National Park, opened in 1982. Its bedrock is actually the youngest among our island parks: the reddish rapakivi granite is "only"



1.6 billion years old. The park's 20 forested islands and around 200 islets total 800 ha in area. The largest island is Ulko-Tammio. The Eastern Gulf of Finland is an important breeding area for seals, and it is also rich in sea birds. Besides natural attractions, the park has many military monuments, including a fortress, a torpedo boat station and a WWII military cave. The island villages of Kaunissaari, Haapasaari and Tammio are close to the park. Another national park is being planned on the Russian side of the border.

Information on the Eastern Gulf of Finland National Park is available at the Haapasaari and Kaunissaari nature cabins.

Established in 1989, the Ekenäs Archipelago National Park covers a total of 52,000 ha of sea, containing almost 500 islands and islets. It also includes the Pojoviken waters, often referred to as the only fjord in Finland. The park boasts a perfect succession of archipelago zones: outer, middle and inner, with a profound change in flora and fauna when moving from the open sea to the almost non-saline Pojoviken. Several glo-lakes that have separated from the sea, and fladas that are still undergoing separation provide valuable nesting and resting grounds for birds. The largest island, Älgö (700 ha), is also the largest in all of our maritime parks.

Information on the Ekenäs Archipelago National Park is available, for instance at the Ekenäs Visitor Centre and the Rödjan Nature Cabin.

The Archipelago Sea National Park is located in the outer archipelago in the municipalities of Kimitoön and Väståboland. The park has around 1,000 islands and islets. The landscape above sea level is characterised by outer islands with low trees, lush inner islands, glaciated rock and numerous islands of sand and pebbles (Jurmo, Sandskär, Sandö) belonging to the third Sal-

The spring sun has already melted the snow off the rocks of Linnansaari island, but skiing conditions are still splendid on the frozen lake. In winter, the national park also boasts a very long tour skating and kick-sledding track that crosses the park without disturbing wildlife.



SAMU WASKOLA/POINTLEVEL

pausselkä lateral moraine. Its underwater landscape is rather spectacular with clear lines of depressions and ruptures as well as the Gullkrona sunken valley.

The park has the richest biodiversity in the entire country. Approximately one tenth of the land area is managed to preserve old pasturage and wooded meadows. The park and its neighbouring areas form the Archipelago Sea Biosphere Reserve that belongs to the UNESCO network and which has a permanent population of 1,200. There are only two such reserves in Finland (the other is Patvinsuo in North Karelia).

Information on the park and biosphere reserve is available at Blåmusslan Visitor Centre in Dragsfjärd and the nature cabins on Berghamn (Nagu) and Jurmo (Korpo).

Located off the coasts of Kemi and Tornio, the Perämeri National Park is 15,700 ha in area, of which 250 ha is land. The park's islands and islets total around forty; most of them are in groups separated from each other by vast open seas. Visitors can observe the constantly changing sea environment created by land uplift, as well as traditional fishing bases and landscapes. Across the Swedish border is Haparanda National Park.

Information on the park is available, for instance at the national park's Nature Cabin in Kemi.

Many other Finnish national parks have islands and archipelago landscapes; these include Koli, Tiilikka and Isojärvi. There are also many largish conservation areas outside the network of national parks, connected to our island nature. These areas are part of national coastal, birdlife or esker protection programmes.



JARI KOSTIET

The Blåmusslan Visitor Centre in Dragsfjärd. The visitor centres run by the state forest enterprise and the Finnish Forest Research Institute host one million visitors every year. All of our national parks have bodies of water.

The latest international recognition received by Finland's islands was the appointment of the Quark archipelago as a UNESCO Natural Heritage site in 2006. It is the first such site for Finland, which previously had six UNESCO Cultural Heritage sites. The Quark mainly consists of moraine islands, with the highest point being only 20 metres above sea level. Particularly impressive are the washboard moraine fields shaped by the Ice Age. Land uplift is very strong here, with new islands rising, bays turning into lakes and boat channels becoming shallower, even within one generation.

Finland is rich in biodiversity, even underwater, but the future of this environment is currently under threat. The extensive Finnish Inventory Programme for the Underwater Marine Environment (VELMU), coordinated by the Environment Institute, is underway in marine areas.



ANU HIRONEN AND ILKKA LASTUMÄKI



PATRIK FRANZENKIERIKKI

Clay pottery was mastered in Finland at least 6,000 years ago. Most of the vessels were semi-egg-shaped, but pots that tapered towards the mouth were also made.



PATRIK FRANZENKIERIKKI

The most researched Stone Age dwelling in northern Finland is Kierikki, an island at the mouth of the River Iijoki from 5,000 years ago. The village culture flourished for almost two millennia. At first, the dwellings were partly underground and set apart from each other. The population of the village is believed to have peaked at around 150.

Islanders

At least 23 spiralling stone arrangements can be found in the Archipelago Sea area. The oldest ones date back to the Bronze Age; they were probably related to fertility rites. The most recent labyrinths are believed to be connected with the Viking raids and church rituals from Finland's Catholic era (1300–1500 AD).

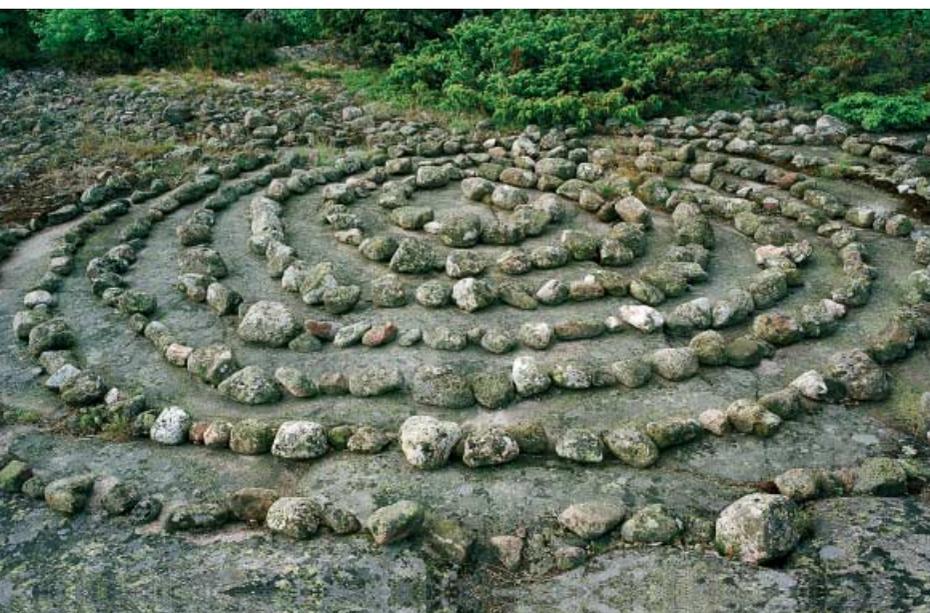
The first humans who set foot on the soil of what is now Finland found themselves on an island. We know this for certain, and we also know that the spot where they came ashore is now far inland. The new arrivals might have remarked: "This is one giant leap for Finland and not a small step for me, either." But they may well have stepped ashore quietly and cautiously. Where they came from is something we do not know. It is down to linguists to argue as to the ancient language in which they uttered their first words.

What happened to these pioneers? Likely, they found the conditions too harsh and made a hasty retreat. Perhaps they only intended to be the first-ever summer residents on our islands: to catch a few seals and wonder at the midnight sun. Other pioneers did, however, follow and the first year-round dwellings were probably built some 8,000 years ago. The first person born and bred in Finland saw the light of day in a humble abode.

The earliest evidence of Stone Age dwellings was discovered some 30 metres above the current sea level. Life was not easy in an environment providing little shelter with its low trees. Approximately 6,000 years ago several permanent settlements had, however, appeared and, in the summer, traffic was active across the narrowing Gulf of Finland. In addition to objects, many rock paintings still remain from this Comb Ceramic era, depicting boats and the main source of livelihood, seal hunting. Indeed, it is presumed that efficient hunting was at least partly responsible for the extinction of the harp seal (*Phoca groenlandica*) from the Baltic.

Budding agriculture

A good 4,000 years ago, the southern and south-western coasts of Finland received their first relatively large wave of immigration. Battle-Axe



RITVA KOVALAINEN



people who used pointed shaft-hole axes arrived across the sea from Estonia. They initiated a revolution in livelihoods: agriculture and cattle-raising began to exist side by side with hunting. The northern Finnic and southern Estonian peoples interacted energetically, which is evidenced today by the similarities between the two languages.

Evidence of animal husbandry dating back four millennia has been found on the southwestern island of Nagu. The climate had already cooled considerably from the Atlantic climatic optimum reached some 5,000 years ago. Despite the growing significance of agriculture, the sea was an importance source of food. More saline than today, it was rich in cod and other fish. Ringed seals (*Phoca hispida*), grey seals (*Halichoerus grypus*) and harbour seals (*Phoca vitulina*) were hunted, as were many waterfowls that provided down.

During the Bronze Age (c. 1000 BC), the Baltic Sea had become a major connector between those living on its islands and shores. Seafaring and trading were important forms of sustenance. In the Iron Age (500 BC–1000 AD), settlements spread further out as the islands grew in area due to land uplift. Sheep grazed, even on the smallest islands.

The Vikings set up bases along their important eastern route in the sheltered coves of the Finnish archipelago. One of these used to be on Hitis-Rosala, where a Viking Centre is now open to visitors.

Swedish settlements were gaining ground in the Archipelago Sea area in the 12th century. By the mid-13th century they reached the area that is now Helsinki. The second migration wave from Sweden in the late 13th century was con-

Berghamn, Nagu, boasts one of the finest traditional landscapes on our islands, with its hardwood woodlands, forest pastures, woodland grazing areas and species-rich fields and meadows.

nected with the great kingdom's aspirations for expansion to the east. This is when the coast and islands of eastern Uusimaa became settled firmly and extensively by a population focusing on cattle farming, fishing and cultivation.

Wars and epidemics

The Black Death put an end to the flow of settlers from Sweden in the mid-14th century. The two centuries that followed did, however, see an increase in island populations, only to be followed by a sudden plunge in the late 1500s. This may have been caused by a decrease in the catches of fish, but there were also wars and epidemics which – particularly in the early 18th century – cast a shadow over archipelago life.

The islands of the Gulf of Bothnia emerged from the sea later than our more southern islands, so it is pointless looking for signs of early settlement there. The first permanent settlers may have arrived on the current islands of the Quark 1,000 years ago. Hailuoto was settled in the 12th century. In the 15th century there was a considerable increase in the island's population near sheltered harbours and arable land. Fishing and seal



MATTI YLÄTUPAKKVAJITERI

hunting remained more important means of livelihood in the Gulf of Bothnia than on the southern islands. Winter hunting trips could last up to two months; temporary stone dwellings have been discovered on many islands. The first wooden fishing huts were built in the 17th century.

Our freshwater islands have been inhabited for thousands of years: hundreds of Stone Age dwellings have been found, for instance on Lake Saimaa. Elk and wild reindeer from the forests, beavers from the ponds and fish from the lakes were all important prey. In Lake Saimaa, the ringed seal was a treasured catch. Slash-and-burn

Suomenlinna is one of Finland's primary tourist attractions, receiving 700,000 visitors a year. The fortress island is also the vibrant home of almost 1,000 residents, with services including a school, a library and a health centre.



Seal hunters with their catch. Seals were hunted for their meat, blubber and skins. The damage caused by seals to fish populations and fishing equipment also created pressure for hunting them.



farming probably started around the year 500 AD. Barley was the first crop to be farmed; the earliest signs of rye only date back to the 13th century.

Many of our sea islands have suffered from the effects of war. Reminders of this include the fortresses that can be found on coasts and islands, which have become popular tourist attractions. Our freshwater islands have not always enjoyed peace, either. For example, during the “Lesser Wrath” Russo-Swedish War in 1742, Cossacks led by General Villim Fermor crossed the ice to attack the Pihlajavesi islands, killing 43 locals.

Rise and fall – and new rise – of the islands

Life in almost all of Finland’s island areas grew stronger and more settled during the 19th century. Mid-century, the population of the Archipelago Sea began to spread onto the outer islands; almost 300 islands became populated over a few decades. A similar development could be seen elsewhere.

New fishing methods such as hook and drift nets no longer required a joint effort by the whole village, which enabled more scattered settlement.

At the same time, seafaring was developing strongly. The golden age of peasant seafaring in the 19th century increased the wealth of many island areas, including Åland and Tammio. Ships sailing the Baltic and Atlantic were built and equipped on the islands. Gradually, sailing ships were supplanted by steamers. Finland’s first lighthouse was built on the island of Utö in 1753, and the second one in Porkkala in 1800.

The economic boom and population growth continued in the archipelagos until the first decades of the 20th century. Life was bustling: many islands had their own churches with pastors, schools with teachers, and lots of shops and associations. Imports and exports had boosted seafaring and connections with both mainland Finland and neighbouring countries. Trade with Estonia flourished, fish was exported and agricul-

Our bodies of water also attract visitors in winter.

Finland’s largest tour skating event, the Finland Ice Marathon, was held on Kallavesi lake in Kuopio for the 25th time in 2009.



tural products were imported. Fish and, for example, stone for use at demanding construction sites were transported from the islands to St Petersburg. Stockholm was another major export destination for the southern and southwestern coast.

There was a wide range of activities on the islands. Good harbours promoted the founding of sawmills and shipyards. Reposaari island in Pori was a booming industrial site with shipyards, while Lamposaari in Lappeenranta flourished thanks to its sawmill. Vaajasalo in Kuopio had a large hospital, and the island of Sjalö in Nagu has its own grim history as a quarantined island hosting first a leper hospital and later a mental asylum.

But the world was changing. The industrialising mainland began to attract the islanders, as was the case in all rural areas. Land traffic began to displace water transport and, despite develop-

ing road connections, islands became peripheral areas. Not as many people could find subsistence on the islands. The population began to fall. People migrated, first to America, then to mainland Finland or Sweden.

Migration accelerated after the Second World War. During the war, almost 100,000 people still lived on sea or freshwater islands without a road or ferry connection. In 1970, the figure was 30,000 and today it is only 11,000, with more than 2,000 of these in Åland. The construction of bridges does account for a great proportion of this; the islands didn't disappear but merely continued their existence with permanent road connections.

There is another perspective to the population trend: more people live on islands today than ever before, because the number of part-time residents has increased faster than the drop in permanent residents. Improved data connections and tele-

Haapasaari is an outer island located 20 km south of the town of Kotka. The island has its own church, shop, meeting point, museum, passport control and electricity. Year-round living is on the increase. The island is connected to Kotka by a boat service.

commuting are enabling the growth of island living, as a result of which our islands are enjoying new growth.

For example, the Swedish-speaking Åboland region has around 10,000 recreational residences owned by outsiders. These are used regularly by some 40,000 people, while the local permanent population is approximately 22,000.

Similar developments can be seen on fresh-water islands. In 1950, the island of Paalasmaa in Juuka had 410 inhabitants; today's figure is only 120. The population of Viljakansaari in Puumala has dropped to a quarter of what it was fifty years ago; the same applies to the inhabited islands of Lake Pihlajavesi. Many smallish islands have lost even their last year-round residents.

Holiday homeowners, however, have generally replaced the drop in permanent population, at least in number. Thousands of new islands have also become populated by part-time islanders.



HANNU HUTTU/KOVALITERI

Holiday homes are a part of many Finns' lives: 1.9 million Finns visit them regularly. Year-round visits are also becoming more common, and recreational residents have become a cornerstone of rural development.



HANNU HUTTU/KOVALITERI

The water in Lake Hyrynjärvi, Hyrynsalmi, can surpass 20 °C in temperature in the middle of the summer. Abundant lakes and waterways are tourism assets for the Kainuu municipalities.



Waters at the heart of Finnish tourism

Imatra, Kyröskoski, Punkaharju, Puijo, Koli, Aavasaksa, Valamo, the sands of Terijoki, Suursaari, and our many other marine islands... Water was a crucial element in all of Finland's early tourist destinations. Even if the site itself consisted of dry land or rock, an aquatic view was a great attraction.

Much of Finland's tourism continues to be linked to waters. It could be claimed, however, that parts of this resource are as yet undiscovered.

Finland: the "Switzerland of Russia"

"The views in the Gulf of Finland are characterised by the usual pretty green islands typical of the North, which give the impression of a huge mainland having been splintered into small pieces and scattered as a garnish in the sea, for it has no other purpose."

Thus wrote the Briton William Laurie in 1861. His observations from a ship's deck might be shared by a modern traveller, even one approaching Finland by plane. First the eye catches a handful of small islets, small spots that are hardly dis-

cernible in the sea. Then the spots increase and grow; soon you can see thousands in the blink of an eye.

Even well-travelled visitors can be surprised, as Finland's southwestern archipelago is a fairly unique sight. Often, the birth of islands has been linked to the formation of mountain ranges; this happened in Greece, Indonesia and the Caribbean. Our southwestern archipelago, on the other hand, is a transitional zone that slants somewhat from the mainland toward the sea. The small irregularities in the zone form a labyrinth consisting of countless differently sized and shaped pieces.

Finland's lake landscapes had a deep impact on early travellers. The Frenchman Charles Saint-Julien visited the Saimaa region in 1833:

"At every moment there was a new view, a new perspective, new impressions, at times starkly majestic, at others sweetly quaint and graceful; always picturesque. Finland might be called the Switzerland of Russia."

At the time, Switzerland was Europe's leading tourist destination, so a comparison with it was truly flattering. A few years earlier, the Briton

"Romantic charm and elegance. Here the timeless allure of the East is combined with the comforts of Western civilisation." This was how Terijoki was marketed to tourists in the late 1920s.

Charles Elliott – known for being critical – had written: “Travel in Finland is more comfortable and cheaper than anywhere in the world.”

Not all comments were complimentary, however. Laurie described some of the people he met: “The Lapp is a strange animal, as is the Finn.” In 1804, his countryman John Carr had stated: “The inhabitants were nearly naked and looked like a breed of animal created by Heaven in a rage.” Accommodation was considered squalid, with cockroaches, fleas, mice and flies a constant nuisance. The author of a travel guide that made Finland more widely known, the Italian Giuseppe Acerbi, had to dine under a net in Lapland: “Despite all our precautions, we ended up swallowing some gnats with our dinner.”

Kings and emperors

Acerbi can be said to have put Finland on the map for Europeans. His two-part travel diary came out in 1802, a couple of years after his trip, and was translated into several languages.

In addition to Acerbi, interest in Finland must have increased thanks to visits by diverse countries’ rulers. The kings of Sweden and Russian emperors had to make these trips as a part of their “jobs”, but other high-ranking visitors also came from afar. Emperor Pedro II of Brazil admired the Imatra rapids in 1876.

A century before, in 1772, the Empress of Russia, Catherine the Great, had also visited Imatra; the destination had been popular among members of the Russian court. In 1819 Emperor Alexander I conducted a tour of Finland, stretching all the way to Tornio. He is said to have been particularly enthralled by the lakes and ridges of Kangasala. The visit is still commemorated by Keisarinharju, the “Emperor’s Ridge”, close to the Kaivanto canal.

There are at least three “King’s Springs” (Kuninkaanlähde) in Finland celebrating the visits of Swedish rulers: in Lieto (close to Turku) and in Satakunta’s Jämijärvi and Köyliö. The king after whom the first place was named is unknown; Jämijärvi was visited by Adolf Fredrik in 1752 and Köyliö by Gustav III at midsummer in 1775.

A loyal visitor to Finland was Russian Emperor Alexander III, who stayed on islands in the Gulf of Finland and the Archipelago Sea 21 times. His favourite place was Högsåra in Dragsfjärd, where he spent time almost every summer in 1885–1894.

He became friendly with the locals, chopped wood and cooked salmon soup with his spouse, Maria Feodorovna. Researchers have calculated that the emperor spent 213 days in the Finnish archipelago.

In 1909, Finland hosted two emperors, when Nicholas II and Germany’s Emperor Wilhelm II met in Virolahti. In 1985, Emperor Akihito of Japan cruised with his spouse on S/S Heinävesi from Punkaharju to Savonlinna. A couple of years earlier King Carl XVI Gustav and Queen Silvia of Sweden had taken the same voyage; they have also holidayed in Åland.

“The mother, grandmother and godmother of all lighthouses in Finland.” Bengtskär Lighthouse was built in 1906. It rises 46 metres above the rocky islet.





ANTTERO AALTONEN

Old bonfire traditions have been maintained at mid-summer celebrations on Seurasaari Island since 1954.

Early days of independence

The newly independent Finland wanted to make itself known after 1917 by profiling itself as a tourist destination. It was a good time for this. For years, Europeans had been tied to their homes and homelands; now everyone wanted to travel. Changes in the social status of women included them in tourist flows.

The role of waters as an attraction for travelers was emphasised in Finland. Our cities were not particularly interesting to foreigners and we had no ancient cultural sights. However, there were plenty of waters, islands, shores and rapids – and of course the midnight sun.

Many popular destinations of the time are no longer within Finnish borders; they include Terijoki, Suursaari, Valamo and Petsamo.

Terijoki became Finland's best-known summer holiday destination in the 1930s. In addition to its beautiful sandy beaches, "Finland's Riviera" attracted visitors to the river Rajajoki, the ruins of the Ino fortress, the Raivola larch forest and Lintula monastery. The number of summer visitors could rise as high as tens of thousands, while there were 8,000 year-round residents. Around 700 permanent residents were foreign, representing nearly 30 different nationalities. Many artists and writers lived or spent time in Terijoki.

Before the First World War, Terijoki was popular among visitors from St. Petersburg. Nearly 10,000 exquisite villas were built on its shores and pine-wooded ridges. Life there was luxurious, and plenty of builders, tradesmen, servants and other workers were needed. There was great demand for products from local farmers and fishermen.

Suursaari island contained two lively villages with a population of nearly 1,000 in the 1930s. It was connected by busy boat traffic to Kotka and Helsinki, and its beaches were full of weekend visitors. In 1937 the Tourist Association had a restaurant and a handsome pavilion, also housing a casino, built in Suurkylä. There were many private cafés and restaurants.

Valamo had been a popular pilgrimage destination for Russians until 1917. Now that it belonged to Finland, it offered mysterious eastern exoticism and a disappearing cultural heritage. The monastery could be reached from Sortavala on its own boat and with several other vessels. Visitors flocked there not only from Finland but also from Sweden. They were not bothered by the guide monks' stories of the frequent pillaging of the islands conducted by Swedish pagans.

The road from Ivalo to Petsamo was completed in 1933. It was beneficial not only for tourism but

The world-famous Savonlinna Opera Festival enjoys an island setting in Savonlinna, a town that is also rich in other islands.





SAVONLINNA TOURIST SERVICE

Emperor Akihito and Empress Michiko of Japan greeting islanders from S/S Heinävesi. A lake or sea voyage is often included in the tour programmes of prominent foreign visitors.

also for trade, as Finland now had a non-freezing – though distant – harbour. Visitors were attracted to the stark natural environment, traditional culture and eccentric populace. A handsome hotel was built in Liinahamari, but the Yläluostari inn remained a favourite among visitors. In November 1939, an airport was built in Petsamo, where Aero Oy managed to fly for about a year after the Winter War.

The Imatra rapids had been the number one tourist destination in Finland when it was a Grand Duchy of Russia. Its lustre had begun to fade when building work commenced on the power plant in the mid-1920s. The plant was inaugurated in May 1929. The first time the 6,000-year-old rapids were drained attracted a record number of visitors; Imatra had something unique to offer once again.

Koli became a popular destination as interest in Kalevala's heritage grew in the late 19th century. A new hostelry was built on Ukko-Koli in 1930, and soon the region had its own power plant and waterworks. The view from the quartzite peak of Koli toward Pielinen is perhaps the greatest in the land. Soon the benefits of the winter season were discovered, and a ski slope and signposted cross-country tracks were inaugurated in 1935.

Punkaharju is one of Finland's oldest tourist destinations, having offered accommodation since 1845. Hotel Finlandia, completed in 1914, was the pride and joy of the region, in addition to the fabulous lake environment. There were good connections to Savonlinna by boat. That insular town, on the other hand, attracted visitors thanks to its spa and, naturally, Olavinlinna Castle. Five opera festivals were held at the castle between 1912 and

1930, but that was followed by a break of nearly four decades. Since its revival in 1967, the festival has attracted some two million visitors.

Today's water tourism

Finland offers more than half a million attractive water-related tourist sites. This figure includes the holiday homes beloved of Finns, located on shores. Even without these, however, water tourism remains popular, and is used as an attraction for Finland within Europe.

The charm of water tourism is based on genuine elements: open space, clean air, and a lifestyle that respects nature and is conditioned by it. We must act on nature's terms to prevent tourism from having a negative environmental impact, for instance through land erosion or the disturbance of birds' nesting times.

Income from tourism can help to strengthen permanent habitation on islands, maintaining services and jobs. For example, the Archipelago Sea National Park calculated in 2005 that 60,000 visitors to the park brought in EUR 3.6 million to the region and created 29 man-years' worth of employment. The amount of money spent per person by foreign visitors was significantly higher than that of Finnish tourists.

Perhaps the most crucial factor in terms of tourism is accessibility. Ferry traffic in the archipelagos forms an important part of the kind of infrastructure for which state subsidies should be self-evident. A major challenge in the near future will be modernising these ferries and rafts.

The National Tourism Strategy published in 2006 has waters as one of its four main themes. The strategy places an emphasis on developing suitable, small-scale tourist centres and thematic products for the archipelagos. Extensive product development, sales channels and shared marketing can be created for islands, lakes, rivers and maritime areas. Operators in the island and water tourism sector have already begun networking.

Source of historical data: Sven Hirn & Erkki Markkanen, 1987. Tuhansien järvien maa. Finnish Tourist Board (MEK) & Finnish Travel Association, 384 p.



SAVONLINNA TOURIST SERVICE



Finnish island records

Kayaking off the shore of Kökar in Åland. Kökar is Finland's southernmost municipality and has some 300 residents. The Åland region comprises more than 8,000 islands.

Largest sea island: Mainland Åland (685 km²).

Largest lake island: Soisalo (1,638 km²). The second-largest lake island in the world, only beaten by Manitoulin Island in Lake Huron (2,766 km²).

Largest river island: Kiettare in Kokemäenjoki river (18 km²).

Westernmost island: Märket (Eckerö), 19° 08' 02". Also the westernmost point of Finland.

Easternmost island: An unnamed island in Lake Virmajärvi (Ilomantsi), 31° 35' 20". Also the easternmost point of Finland.

Southernmost island: Bogskär (Kökar), 59° 30' 10". Also the southernmost point of Finland.

Northernmost island: An unnamed island in Tenojoki river, west of Nuorgam, 70° 04' 06". Only 2.5 km south of the northernmost point of Finland.

Island at the highest altitude: There are several small lakes at altitudes exceeding 1 km on the fells of the northwestern tip of Lapland, but these have no islands. A small island can be found down at 808 metres in Lake Lossujärvi (Loassojavri).

Largest lake on an island: Kulkemus on Partalansaari, 583 ha.

Largest island in a lake on an island: There is a 76-ha island in Lake Saamajärvi on the island of Soisalo, but the island has no lakes; no Finnish islands in lakes on islands are known to have lakes.

Largest river on an island: The Vaahtovanjoki river on Soisalo island covers 118 km² with 45 lakes that contain around 50 islands. The entire island of Soisalo has over 700 lakes with some 200 islands on them.



Tetrimäki Furniture Vision is one of the businesses based on Finland's largest island, Soisalo, today part of the town of Kuopio. The company is known for its reproductions of furniture designed by the celebrated Finnish architect Eiel Saarinen.



MARKKU VAPJO/KUVALITERI

Most populated island without a permanent road connection: After Mainland Åland, the top of the league is fairly even: Hailuoto 987, Storlandet (Nagu) 910 and Suomenlinna 810.

Largest uninhabited island: Mahlatti in Lake Inari, 21 km².

The majestic Ukko is an ancient sacrificial island of Lapland's indigenous Sámi people in Lake Inari.

Highest-rising island: The highest peak of Mahlatti, the largest island in Lake Inari, rises 134 metres above the lake's surface. Paalasmaa, the largest island in Lake Pielinen, loses out by two metres, and Judinsalo in Lake Päijänne by nine metres. Orrdalsklint, the highest point of Mainland Åland, is 132 m above sea level, coming joint second: the top of the list is very even. The tallest island in the Baltic also used to belong to Finland: Lounatkorkea of Hogland rises to 158 metres.

Most island-rich lake: If Great Saimaa is regarded as one lake, it boasts a grand total of 13,710 islands. Lake Inari has 3,318, Päijänne 1,886. The number of islands in the 46 Finnish lakes with an area exceeding 100 km² is 37,952, i.e. almost 40% of all freshwater islands. Saimaa is not, however, the most island-rich lake in the world: Lake of the Woods on the US/Canadian border has 14,742 islands. Vänern, the largest lake in Sweden, has 12,285.

Most populated island: Mainland Åland with 21,600 inhabitants. The next two are urban islands in Helsinki: Lauttasaari with 19,500 and Laajasalo with 16,000. Soisalo has a population of approx. 12,000 – a little more than Kotkansaari, which forms the centre of the town of Kotka.

Finland's longest bridge connects the island of Replot to mainland Korsholm. The cable-stayed bridge is 1,045 m long, its pylons rise 82 m above sea level, and it has 64 cables. The bridge replaced the former ferry connection in 1997.



JOUNI KUNGA

The island of Ulkokalla off the municipality of Kalajoki in western Finland rose from the sea in the 15th century. It has been a lighthouse island since 1856, and fishermen lived on the island during the summers.

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