

Bioinvasion and Global Environmental Governance: The Transnational Policy Network on Invasive Alien Species

Finland's Actions on IAS

Description⁴

Finland is located in northern Europe, bordering the Baltic Sea, Gulf of Bothnia, and Gulf of Finland, and between Sweden and Russia. Formerly part of the Russian empire, Finland declared its independence on the 6th of December, 1917 some months after the Russian Revolution. Finland is presently a representative parliamentary democracy. It has a population of over 5 million people. The nation covers a land area of 338,145 sq km. There are a total of 2,654km of land boundaries that are shared with Norway, Sweden and Russia, as well as 1,250km of coastline. The country has a predominantly cold, temperate climate and mostly low terrain with rolling plains, with many lakes and low hills throughout.

Finland's economy is quite strong, due primarily to its exports of electronics (particularly mobile phones and telecommunications equipment) although pulp and paper and metal and engineering round up the top of the list. Its primary imports are various foodstuffs, petroleum, chemicals, transport equipment, iron and steel, and machinery. Its major trading partners are Germany, Sweden, Russia, and the Netherlands.

Overview of Biodiversity

Finland's total area, including territorial waters of the Baltic Sea, is some 420,000 km². The terrestrial surface covers 73% of the total area, whereas inland waters cover 8% and marine waters cover 19%. Most of Finland belongs to the boreal coniferous forest zone. There are approximately 44,000 known species that regularly occur in Finland.

- [CBD Country Profile](#)
- [Earth Trends Country Profile on Biodiversity and Protected Areas](#)
- [Finnish Biodiversity Research Programme](#) (ended December 2002)

Legislation relating to IAS⁹

- The Hunting Act (615/1993, 1268/1993) ([unofficial translation](#))
- [The Nature Conservation Act](#) (1096/1996)
- The National Action Plan for Biodiversity in Finland 2006-2016
- The Plant Protection Law (1203/1994)
- The Hunting Act (615/1993, and later change no. 1268/1993)

Government Agencies/Programs/Ministries dealing with IAS

- [Finland Ministry of Environment](#)
- [The Ministry of Agriculture and Forestry](#)
- Plant Production Inspection Centre

- [Finnish Environment Institute](#)
- Finland's Ministry of Transport and Communications¹
- The Land Use Department
- The Finnish Game and Fisheries Research Institute
- Animal Health and Welfare Unit of the [Finnish Food Safety Authority](#)

Major Invasive Alien Species⁵

Ambrosia artemisiifolia (herb)	Impatiens glandulifera (herb)
Aphanomyces astaci (fungus)	Mustela vison (mammal)
Castor canadensis (mammal)	Myocastor coypus (mammal)
Cyprinus carpio (fish)	Pacifastacus leniusculus (crustacean)
Elodea canadensis (aquatic plant)	Salmo trutta (fish)
Heracleum mantegazzianum (herb)	Senecio inaequidens (shrub)

Native Species Exported/Introduced to Non-Native Environments⁵

Acer platanoides (tree)	Hylastes ater (insect)
Columba livia (bird)	Leuciscus idus (fish)
Cynoglossum officinale (herb)	Lotus corniculatus (herb)
Didymosphenia geminata (algae)	Perca fluviatilis (fish)
Erodium cicutarium (herb)	Rhamnus cathartica (tree)
Frangula alnus (shrub)	Sirex noctilio (insect)
Hydrocharis morsus-ranae (aquatic plant)	Tomicus piniperda (insect)

Table 1 Actions to prevent, detect and manage IAS categorized into three themes: biodiversity, human health, and economic

Note: Actions (such as projects, publications and programs) are classified according to the most obvious theme but may also fit into the dimensions of another.

Theme	Action
Biodiversity	<ul style="list-style-type: none"> • Finland Ministry of Environment published a report in 2000 titled "Alien Species in Finland" listing case studies, the history of invasive species in Finland and their impacts.⁷ • Biodiversity has been most affected by introduced game animals which have established thriving populations such as the Canadian Beaver (<i>Castor Canadensis</i>), White-tailed deer (<i>Odocoileus virginianus</i>), Canada goose (<i>Branta Canadensis</i>) and muskrat (<i>Ondatra zibethica</i>).¹ • Populations of some invasive species, such as the White-tailed deer, are controlled though regulated hunting which is permitted by the Hunting Act.¹ • It has been decided to 'exterminate' Canadian beavers (<i>Castor fiber</i>) within the Lapland Game Management District to stop it from spreading into Norway and Sweden. In other regions

	<p>of Finland the beaver is being controlled to prevent it from spreading into areas still occupied by the native European beaver.¹</p> <ul style="list-style-type: none"> • Secondary legislation has provisions for import, monitoring, eradication, control and containment of these pests and diseases and is enforced by the central authority, the Plant Production Inspection Centre.¹ • As part of the Quark Environment Interreg Project, in 2001 a project began to trap mink in the outer island of the Quark Archipelago; trapping was later expanded to islands near the mainland and is continuing in the Quark, and islands of the Archipelago National Park of SW Finland.¹ • In 2002 a project was started to intensify the trapping of mink and raccoon dogs in the wetlands in the Helsinki region; over the two-year project a total of 300 raccoon dogs and 27 mink were caught; a related research project has been assessing the effects of this trapping on nesting birds' breeding success rate.¹ • 'Invasive Species in the Baltic Sea' a research project by the Finnish Environment Institute examined how invasive species are introduced into the Baltic and assessed their ecological significance, especially with regards to plankton communities, algal blooms and zoobenthic communities in the Gulf of Finland.¹ • Finland's Ministry of Transport and Communications participated in the Academy of Finland's Baltic Sea Research Programme during 2003-2004.¹ • Key NGOs involved are BirdLife Finland, WWF Finland, the Finnish Association for the Conservation of Nature and the Finnish Hunters Central Organization.⁶ • National legislation has provisions to prevent, reduce or control factors that are endangering or are likely to further endanger migratory species, including the introduction and spread of IAS.⁶
Human health	<ul style="list-style-type: none"> • The Plant Protection Law (1203/1994) contains provisions to prevent the introduction of pests and diseases of plants into Finland. Also, pests and pathogens that are present within Finland (both native and introduced) are to be controlled to prevent their further spread.¹
Economic	<ul style="list-style-type: none"> • Some IAS are very important economically such as the white-tailed deer which is the second most important game animal within Finland.¹ • Research and experimentation is being conducted to find alternative solutions to the problems of invasive species in ballast water since Finland became party to the IMO's ballast water convention in 2004. (During the 1990s, four new

	<p>marine species were introduced into Finnish waters through ballast water.)¹</p> <ul style="list-style-type: none"> • The Hunting Act requires permission of the The Ministry of Agriculture and Forestry prior to importing any wild bird or mammal species of foreign origin • Under The Fishing Act, Article 94, the importation of fish or crayfish species not occurring naturally in Finland or of their stock or gametes is only allowed with permission of the Ministry concerned and on the terms and conditions specified by the Ministry; Permission must be denied if the measure may cause significant harm to nature or to wild animals.⁸ • Passengers travelling into Finland are allowed to import small quantities of plants, parts thereof, and plant products (fruits, seeds, etc.) for personal use from EU member states, including the Azores and Madeira. One exception is the seed potato which can only be imported under certification with a ZP (protected zone) plant passport.² • Host plants of fire blight can only be imported from a buffer zone or protected zone under a ZP plant passport.² • The import of coniferous plants and timber products from Portugal is restricted. The import of potato, host plants of fire blight, soil (arable), compost and manure is also prohibited.² • Potted plants, plants for aquariums and nursery plants require a phytosanitary certificate issued by the plant protection authority of the country in question, as well as a plant inspection by Finnish Customs, prior to import.² • Quarantine restrictions on pet animals do not concern imports from Andorra, Iceland, Liechtenstein, Monaco, Norway, San Marino, Switzerland and the Vatican.² • Animals imported into Finland from outside the EU must enter through an approved place of arrival and must be presented to customs for inspection.² • All imported pets must have a pet certificate which includes an entry by a veterinarian on a valid rabies vaccination and echinococcus treatment.² • The import of birds face stricter requirements than for other pets; Birds may only be imported with an import license granted by the Animal Health and Welfare Unit of the Finnish Food Safety Authority Evira and by complying with the license conditions; the licensing conditions differ based on the country from which the bird is arriving.³
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Table 2 Actions on IAS in cooperation with other countries

Agreement/ Organization	Countries/ Member	Action
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<p>ROUND TABLE RESOLUTION</p> <p>Russian-Finnish-Estonian cooperation in the Gulf of Finland</p> <p>(Within the framework of the VIII International Environmental Forum “Baltic Sea Day”)</p>	<p>Russian-Finnish-Estonian (Helsinki Commission)</p>	<p>Biodiversity and invasive species management</p> <p>Another important environmental problem related to biodiversity is invasive species. There are significant changes in the biological diversity of the Gulf of Finland in the last period. Recently new invasive species were related mainly to invertebrate plankton and benthic species. Now in the Neva Bay 2 new invasive fish species belonging to the gobiid family were found, one of them <i>Proterorhinus marmoratus</i> was found in the Baltic Sea Region for the first time. Such changes have already led to redistribution of substance and energy flow and can be the reason of significant reorganization of the Gulf of Finland ecosystems. Considering an acuteness of the problem as it was specified in the resolution of the Round table of March 21st, 2006, realization of the international programme of monitoring of alien species is necessary as part European early warning system for sea alien species and creation of ballast water management system as part of ecological safety system for sea transport</p>
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