

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

Switzerland's Action on IAS

Description¹

Switzerland, officially the Swiss Confederation is a landlocked alpine country in Western Europe with an area of 41,285 km². Switzerland is bordered by Germany to the north, France to the west, Italy to the south and Austria and Liechtenstein to the east. The country has a long history of neutrality. Switzerland's sovereignty and neutrality have long been honored by the major European powers, and the country was not involved in either of the two World Wars. The political and economic integration of Europe over the past half century, as well as Switzerland's role in many UN and international organizations, has strengthened Switzerland's ties with its neighbors. However, the country did not officially become a UN member until 2002. The country hosts many international organizations, including the Red Cross, the World Trade Organization and one of the U.N.'s two European offices.

Switzerland is a federal republic consisting of 26 states, called cantons with roughly 7.7 million people. The terrain is mostly mountains (Alps in south, Jura in northwest) with a central plateau of rolling hills, plains, and large lakes, thus the climate is temperate, and varies with altitude. Switzerland's economy benefits from a highly developed service sector led by financial services and a manufacturing industry that specializes in high-technology, knowledge-based production. The Swiss in recent years have brought their economic practices largely into conformity with the EU's to enhance their international competitiveness. In addition to the Free Trade Agreement of 1972, the agreement on insurance (1989), bilateral agreements (1999) and Bilateral II (2004), more than [100 technical agreements](#) govern relations between Switzerland and the EU.⁶

Overview of Biodiversity

An estimated 30'000 animal species (of which 25'000 are arthropods), as well as 19'000 plant and fungi species, live in Switzerland. The largest group of animals is arthropods with 25'000 species, out of which 22'330 are insects. Other invertebrates, such as Annelidae and Molluscs, account for 4'470 species. A total of 557 (370) vertebrates are recorded (birds: 386 , breeding birds: 195 ; mammals: 82; fish and agnatha: 54; amphibians: 20; reptilian: 19). Further, 4'960 fungi species (macromycetes), 4'000 algae, 3'144 flowering plants and ferns, 787 lichens and 1'094 bryophytes were recorded.

- [CBD Country Profile](#)
- [Earth Trends Country Profile on Biodiversity and Protected Areas](#)

Legislation relating to IAS^{7&8}

- [Environmental Protection Act \(EPA\)](#) - in German
- [Ordinance on the Handling of Organisms in the Environment \(Release Ordinance, RO\)](#) - in German –in [French](#)
- [Nature and Cultural Heritage Protection Act \(NHG\) - German](#) - in German

- [Ordinance on Hunting and the Protection of Wild Mammals and Birds \(JSV\)](#) - (in German)
- [Ordinance concerning the Federal Act on Fisheries \(VBGF\)](#) - (in German)
- [Feedstuff Book Ordinance \(FMBV\)](#) - annex 10; in German
- [Ordinance on Plant Protection \(PSV\)](#) - in German
- [Law on Landscape and Nature Conservation](#) – in French

Government Agencies/Programs dealing with IAS

- [Department of the Environment, Transportation, Energy and Communications](#)
 - [Federal Office for the Environment](#)
- [Swiss Commission for Wild Plant Conservation \(CPS/SKEW\)](#) - links and information sheets on invasive alien plant species
- Federal Office for Agriculture FOAG
 - [Information on plant protection](#)
- Federal Veterinary Office (French/German)
 - [The import, export and transit of animals and products of animal](#)
- Federal Office of Public Health
 - [Health and Environment Action Plan \(APUG\)](#)
- [Cantonal officials responsible for nature and landscape protection \(KBNL\)](#)

Major Invasive Alien Species^{3&4}

Aedes albopictus (insect)	Oncorhynchus mykiss (fish)
Ailanthus altissima (plant)	Ophiostoma ulmi sensu lato (fungus)
Ambrosia artemisiifolia (herb)	Oxyura jamaicensis (bird)
Aphanomyces astaci (fungus)	Phytophthora cinnamomi (fungus)
Artemisia verlotiorum (plant)	Polygonum polystachyum (plant)
Buddleja davidii (tree)	Prunus laurocerasus (tree)
Cinara cupressi (insect)	Prunus serotina (tree)
Cryphonectria parasitica (fungus)	Pueraria lobata (vine)
Cyprinus carpio (fish)	Reynoutria japonica (plant)
Elaeagnus pungens (shrub)	Reynoutria sachalinensis + R. X bohemica (plant)
Elodea canadensis (aquatic plant)	Rhus typhina (shrub-tree)
Elodea nuttallii (aquatic plant)	Robinia pseudoacacia (tree)
Heracleum mantegazzianum (herb)	Rubus armeniacus (shrub)
Impatiens glandulifera (herb)	Salvelinus namaycush (fish)
Micropterus salmoides (fish)	Senecio inaequidens (plant)
Lonicera japonica (plant)	Solidago canadensis s.l. (plant)
Ludwigia grandiflora (plant)	Solidago gigantea (plant)
Lysichiton americanus (shrub)	

Native Species Exported/Introduced to Non-Native Environments³

Acer platanoides (tree)	Cotinus coggygria (tree, shrub)
Agrostis capillaris (grass)	Cytisus scoparius (shrub)
Camelina sativa (herb)	Didymosphenia geminata (algae)

[Frangula alnus](#) (shrub)

[Lotus corniculatus](#) (herb)

[Onopordum acanthium](#) (herb)

[Perca fluviatilis](#) (fish)

[Rhamnus cathartica](#) (tree)

Table 1 Action to prevent, detect and management invasive alien species based on three areas: biodiversity, human health, and economic

Note: Many actions including projects, publications and programs that fit into one area may also fit the dimensions of another; where available project links and funding (in brackets) is provided.

Area	Action
Biodiversity	<ul style="list-style-type: none"> • Federal Office for the Environment states that Federal responsibilities include: giving concrete form to regulations concerning the management of invasive alien species, and for coordinating management efforts at the intercantonal, federal and international level. Invasive species management is a task shared between the federal and cantonal authorities. The federal authorities are responsible for raising awareness, providing information and promoting cantonal enforcement. They also support research - e.g. the development of new criteria and methods to facilitate enforcement in the areas of early detection, monitoring, control and outcome evaluation. • Federal Office for the Environment's Invasive Plant Web Page states: Alien species account for about 10% of Switzerland's flora, and only one in ten of these is considered to be invasive. But as they can cause substantial damage, the spread of invasive species needs to be stopped. The web page lists legal foundations, publications and information about individual species. • Federal Office for the Environment's Invasive Animal Web Page states: that many invasives have been imported by animal lovers, and that have been able to escape from captivity or spread spontaneously. Certain invasive species, such as the grey squirrel or Asian clam, can threaten native fauna – transmitting pathogens and parasites, and displacing or hybridizing with indigenous species. The web page lists legal foundations, publications and information about individual species. • Stratégie Canton de Berne 2008 "Lutte contre les organismes nuisibles, pathogènes ou envahissants" The strategy regulates the prevention and fight against harmful invasive species and pathogens. These organisms can be animals species, exotic species, as well as harmful indigenous organisms: Stratégie cantonale (French PDF, 3 Mo) • Forum Biodiversité Suisse Press release for the International Day on Biological Diversity 22 May 2009 "Les espèces exotiques envahissantes menacent notre Biodiversité" summarizes the threats of invasives that Switzerland faces, the work of the forum and

	<p>briefly discusses two examples (Japanese knot-grass and American crayfish).</p> <ul style="list-style-type: none"> • The Republic and Canton of Genève has conducted a Study of Invasive Vegetation within the Canton. Principal results include the following: <ul style="list-style-type: none"> - 97 species were found; signifying poor biodiversity; - 19 species were determined as threatened according to the 2002 Red List; and - 6 species were exotic invaders. • The Republic and Canton of Genève has an eradication program for American crayfish as native species have been carried to the edge of extinction.⁵ (programme de renaturation) • The Department of Interior, agriculture and the environment of the Republic and Canton of Genève released a guide for land owners on the conservation of rivers. The guide contains provisions on exotic species. (Vivre nos rivières) • The Law on Landscape and Nature Conservation includes:⁹ <ul style="list-style-type: none"> - Protection of the indigenous flora (art. 20 para 1); - List of protected plant species (annex 2), - List of plant species to be protected on cantonal level (annex 4) - Protection the fauna (art. 20 para 1); - List of protected animal species (annex 3); - List of animal species to be protected on cantonal level (annex 4)
Human health	<ul style="list-style-type: none"> • Article 12 of the Ordinance on the Handling of Organisms in the Environment (French) states the “Protection of human beings, animals, environment and biological diversity against pathogenic organisms is required of their use.”
Economic	<ul style="list-style-type: none"> • An inventory of alien species and their threat to biodiversity and economy in Switzerland (pdf, 4474 kb) - Rüdiger Wittenberg (ed.), CABI Bioscience Switzerland Centre report, 2005.²

Table 2 Action on IAS in cooperation with other countries

Bilateral agreement/ Organization	Countries/ Member	Action
Convention on the protection of the Alps (Alpine Convention) Protocol on the implementation of the Alpine Convention of 1991 in the field of soil conservation and the Protocol to the Convention for the Protection of the Alps on Conservation of	European Community, Austria, France, Germany, Italy, Liechtenstein, Monaco, Slovenia, Switzerland	Pursuant to Article 2(2) and (3) of the Alpine Convention, concrete measures to achieve these goals are laid down in different Protocols. The Alpine Convention’s Protocol on Soil protection gives a number of strong indications on soil protection in line with the Commission’s reflections on the strategy for soil protection and the European Parliament’s resolution on it. The Protocol help to implement appropriate measures at national and regional level as any approach to soil protection must take account of the considerable diversity of regional and local conditions that exist

<p>nature and the countryside</p>		<p>in the Alpine region. (Invasive species not mentioned)</p> <p>The aim pursued by this protocol to the Alpine Convention is the conservation of the natural environment and of the landscape, with a view to guaranteeing the preservation of animal and plant species and their natural habitats and to ensuring the reproduction of natural resources. The Parties undertake to enhance the international cooperation to attain such objectives. (Invasive species not specifically mentioned)</p>
<p>Convention on the conservation of European wildlife and natural habitats (No 104, Council of Europe)</p>	<p>European Economic Community, Albania, Andorra, Austria, Azerbaijan, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Monaco, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom</p>	<p>To conserve wild flora and fauna and their natural habitats, especially those species and habitats whose conservation requires the cooperation of several States, with particular emphasis on endangered and vulnerable species. To cooperate in planning and development policies and in measures against pollution. To promote education and disseminate information on the conservation of the natural wild heritage. (Invasive species not specifically mentioned)</p>

Agreement between the European Community and the Swiss Confederation concerning the participation of Switzerland in the European Environment Agency and the European Environment Information and Observation Network	Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hungarian, Italian, Latvian, Lithuanian, Polish, Portuguese, Slovakian, Slovenian, Spanish, Swedish	This agreement requires Switzerland to establish the appropriate infrastructure for providing uniform environmental data on the state of the environment in its territory, and also gives it the right to participate, without the right to vote, in the Agency's management board. Switzerland will also be entitled to equal treatment in terms of the provision of environmental data and analyses, staffing provisions, contracts with third parties and the identification of and participation in topic centres. (Invasive species not mentioned directly)
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References

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