

Salamandra salamandra

Taxonomic Authority: (Linnaeus, 1758)

Synonyms:

Salamandra maculosa Laurenti, 1768

Order: Caudata

Notes on taxonomy: This account follows the suggested Salamandra monophyletic Group distribution presented in Steinfartz, et al. (2000). Old locality records for Turkey need to be reconfirmed, and are not included here.

Region: 10

Common Names:

Common Fire Salamander	English
Obyknovennaya Salamandra	Russian
Salamandra Común	Spanish
salamandra pezzata	Italian
Salamandra Plamista	Polish
Fire Salamander	English

Family: Salamandridae

General Information

Biome

Terrestrial

Freshwater

Marine

Geographic Range of species:

This species is present across much of central, eastern and southern Europe. In the former Soviet Union, it is known only from the mountains and foothills of the Ukrainian Carpathians. The populations of this species in Iberia are very fragmented (there is a small Area of Occupancy within the wider Extent of Occurrence). The populations of Salamandra species reported from western Anatolia, Turkey, require further investigation into the species involved and are not evaluated in this account. It may occur from lowland areas up to 2,500m asl (in central Spain).

Habitat and Ecology Information:

It is associated with wet cool deciduous, mixed, or rarely, coniferous forests with well shaded brooks and small rivers. Within the mountain forest belt, the species can be found in woodlands, glades and forest edges, rocky slopes, dense bush, and herbaceous vegetation. It is possible, that the occurrence of *S. salamandra* on woodless mountain pastures and within hayfields indicates the past existence of forests. In the Iberian Peninsula the species may be found in upland Mediterranean type forest and associated habitats. The species prefers microhabitats covered with dense leaf litter and moss. In general, the female gives birth to well-developed larvae, that complete metamorphosis in streams, ponds and still waters. However, the subspecies, *Salamandra s. bernardezi* and *S.s. fastusa* may give birth to two to eight fully metamorphosed young on land. The species does tolerate some habitat modification, and has even been found in gardens.

Conservation Measures:

This species is listed on Appendix III of the Berne Convention and is protected by national legislation over much of its range. It occurs in many protected areas, and is listed in a number of national and sub-national Red Data Books and Lists. Some populations of this salamander are being monitored (e.g., Zlote Mountains [southwestern Poland, East Sudety Mountains]). Further research into the impacts of chytridiomycosis on this salamander is urgently needed.

Threats:

The principal threats include localised general habitat destruction, unsympathetic forest management, and pollution of breeding sites by agrochemicals, collection for commercial purposes (i.e., the pet trade), introduction of predatory species (salmonids and crayfish (*Procambarus clarkii*)) and population fragmentation. The mortality of adults on roads is a localised threat in some parts of its range. The presence of chytridiomycosis has been reported in some Spanish populations.

Species population information:

A number of large, stable populations of this salamander exist in Central Europe. Some local populations declines have been observed over parts of its range (e.g., through habitat loss, introduced predatory fish, and increased aridity in Spain). Some local populations have disappeared, and its population density has also been reduced in parts of Spain.

Macedonia, the former Yugoslav Republ	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Netherlands	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poland	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Portugal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Spain	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Turkey	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Ukraine	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Serbia and Montenegro	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

FAO Marine Habitats	Native - Presence Confirmed	Native - Presence Possible	Extinct	Reintroduced	Introduced
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Major Lakes

Major Rivers

Upper Level Habitat Preferences		Score	Lower Level Habitat Preferences		Score
1.4	Forest - Temperate	1	Broadleaf Forest		1
5.1	Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls)	1	Conifer Forest		1
5.2	Wetlands (inland) - Seasonal/Intermittent/Irrregular Rivers/Streams/Creeks	2	Cool Broadleaf Forest		1
5.4	Wetlands (inland) - Bogs, Marshes, Swamps, Fens, Peatlands	2	Cool Conifer Forest		2
5.7	Wetlands (inland) - Permanent Freshwater Marshes/Pools (under 8ha)	2	Cool Crops and Towns		1
5.8	Wetlands (inland) - Seasonal/Intermittent Freshwater Marshes/Pools (under 8ha)	2	Cool Fields and Woods		2
11.1	Artificial/Terrestrial - Arable Land	2	Deciduous Broadleaf Wood		1
11.2	Artificial/Terrestrial - Pastureland	2	Grass Crops		3
11.3	Artificial/Terrestrial - Plantations	2	Mixed Forest		1
11.4	Artificial/Terrestrial - Rural Gardens	2	Urban		2
11.5	Artificial/Terrestrial - Urban Areas	2			

Major threats

Code	Description of threat	Past	Present	Future	Conservation Measures		In place	Needed
					Code	Conservation measures		
1	Habitat Loss/Degradation (human induced)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	Policy-based actions	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.1	Agriculture	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.2	Legislation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.1.1	Crops	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.2.1	Development	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.1.1.3	Agro-industry farming	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.2.1.1	International level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.1.4	Livestock	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.2.1.2	National level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.1.4.3	Agro-industry	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.2.2	Implementation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.3	Extraction	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.2.2.1	International level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.3.3	Wood	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.2.2.2	National level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.3.3.3	Clear-cutting	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	Research actions	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.4	Infrastructure development	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.1	Taxonomy	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.4.1	Industry	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.2	Population numbers and range	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.4.2	Human settlement	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.3	Biology and Ecology	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Invasive alien species (directly affecting the species)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.4	Habitat status	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.2	Predators	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.5	Threats	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.4	Pathogens/parasites	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.6	Uses and harvest levels	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Harvesting (hunting/gathering)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.8	Conservation measures	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.5	Cultural/scientific/leisure activities	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.9	Trends/Monitoring	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.5.2	Sub-national/national trade	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4	Habitat and site-based actions	<input checked="" type="checkbox"/>	<input type="checkbox"/>
					4.1	Maintenance/Conservation	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.5.3	Regional/international trade	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4.4	Protected areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	Pollution (affecting habitat and/or species)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4.4.2	Establishment	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.2	Land pollution	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4.4.3	Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.2.1	Agriculture	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5	Species-based actions	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6.3	Water pollution	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5.3	Sustainable use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6.3.1	Agriculture	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5.3.1	Harvest management	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	Changes in native species dynamics	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5.5	Disease, pathogen, parasite management	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8.5	Pathogens/parasites	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
9	Intrinsic factors	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
9.2	Poor recruitment/reproduction/regeneration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				

Utilisation of Species

Purpose/Type of Use	Subsistence	National	International	Other purpose:
13. Pets/display animals, horticulture	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Primary forms removed from the wild	100%	>75%	51-75%	26-50%
1. Whole animal/plant	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Source of specimens in commercial trade	100%	>75%	51-75%	26-50%
Wild	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trend in wild offtake/harvest in relation to total wild population numbers over last five years:				Unknown
Trend in offtake/harvest produced through domestication/cultivation over last five years:				Unknown
CITES:	Not listed			

Red Listing

Red List Assessment: Least Concern (LC) Possibly Extinct

Red List Criteria:

Rationale for the Red List Assessment: Listed as Least Concern in view of its wide distribution, tolerance of a degree of habitat modification, presumed large population, and because it is unlikely to be declining fast enough to qualify for listing in a more threatened category.

Current Population Trend: Decreasing

Date of Assessment: 12/17/2004

Assessor(s): Sergius Kuzmin, Theodore Papenfuss, Max Sparreboom, Ismail Ugurtas, Steven Anderson, Trevor Beebee, Mathieu Denoël, Fra

Notes on Red listing: A number of subspecies of Salamandra salamandra are restricted in range and may be considered to be threatened, in particular: S.s. longirostris in southern Spain (listed as Vulnerable in Spain), and S.s. bejarai-almanzoris in the mountains of north-central Spain (listed as Vulnerable in Spain).

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