

Salamandra algira

Taxonomic Authority: Bedriaga, 1883

Synonyms:

Region: 10

Common Names:

Algerischer Feuersalamander	German
North African Fire Salamander	English
Salamandra Norteafricana	Spanish
Salamandre Algire	French
Salamandre Tachetée	French

Order: Caudata

Family: Salamandridae

Notes on taxonomy: Recent morphological, ecological and genetic studies on *Salamandra algira* indicates that there are at least three differentiated phenotypes and genotypes with parapatric distribution. *Salamandra algira* must be considered a complex of more than one species; a taxonomical review of this complex is needed (Bogaerts and Donaire-Barroso 2003).

General Information

Biome Terrestrial Freshwater Marine

Geographic Range of species:

This species is restricted to northwest Africa, with a fragmented range in parts of northern Morocco (Rif and Moyen Atlas), Ceuta (Spain) and northern Algeria (coastal mountain ranges). There is an uncertain record (based on a museum voucher specimen) of this species from northern Tunisia; the presence of *Salamandra algira* in Tunisia requires further verification. The species has an altitudinal range of approximately 80 - 2,450m asl.

Conservation Measures:

The species is listed on Appendix III of the Berne Convention and is protected by national legislation in Spain. It is not known if this species occurs in any protected areas.

Habitat and Ecology Information:

It is generally restricted to humid montane forests where it is found under stones and beneath roots in Cedar (*Cedrus*) and Oak (*Quercus*) woodland. It has also been observed in caves in parts of its range. This salamander appears to be ovoviviparous over most of its distribution (8 to 50 eggs are produced), but viviparous in the Tangitana region of Morocco. In general, the females produce fifteen to sixteen larvae; the larvae may be deposited in either cisterns or small streams.

Threats:

The species occurs in small relict populations that are heavily threatened by deforestation, overgrazing by domestic livestock and channelisation of water sources for irrigation. The species is locally threatened by mortality on roads, and there is some collection of this species in small numbers for the international pet trade; further investigations are needed to determine the impact of trade on populations.

Species population information:

This is generally a very rare and relictary species, especially in Algeria. However, it is locally common in the central and western Rif Mountains in Morocco. It is possibly extinct on Beni Snassen Mountain in northeastern Morocco.

Country Distribution

	Native - Presence Confirmed	Native - Presence Possible	Extinct	Reintroduced	Introduced	Vagrant
Algeria	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Morocco	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spain	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tunisia	<input type="checkbox"/>	<input checked="" 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
1.4 Forest - Temperate	1
5.1 Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls)	1
7.1 Caves and Subterranean Habitats (non-aquatic) - Caves	1

Lower Level Habitat Preferences

	Score
Conifer Forest	1
Evergreen Broadleaf Forests	1
Evergreen Forest and Fields	1
Forest and Field	1
Mixed Forest	1
Moist Eucalyptus	1
Rain Green Tropical Forest	1
Seasonal Tropical Forest	1

Southern Hemisphere Mixed Forest	1
Tropical Degraded Forest	1
Tropical Rainforest	1
Wet Sclerophylic Forest	1
Wooded Wet Swamp	1

Major threats

Code	Description of threat	Past	Present	Future
1	Habitat Loss/Degradation (human induced)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.1	Agriculture	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.1.4	Livestock	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.1.4.2	Small-holder	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.1.4.3	Agro-industry	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.3	Extraction	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.3.3	Wood	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.3.3.1	Small-scale subsistence	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.3.3.2	Selective logging	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	Harvesting (hunting/gathering)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3.5	Cultural/scientific/leisure activities	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3.5.3	Regional/international trade	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Conservation Measures

Code	Conservation measures	In place	Needed
1	Policy-based actions	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2	Legislation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2.1	Development	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2.1.1	International level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2.1.2	National level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2.2	Implementation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2.2.1	International level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2.2.2	National level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Research actions	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.2	Population numbers and range	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.3	Biology and Ecology	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.4	Habitat status	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.5	Threats	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.8	Conservation measures	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Habitat and site-based actions	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.1	Maintenance/Conservation	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.4	Protected areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.4.1	Identification of new protected areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.4.2	Establishment	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>			
15. Sport hunting/specimen collecting	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Primary forms removed from the wild	100%	>75%	51-75%	26-50%	<25%	Other forms removed from the wild:
1. Whole animal/plant	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Source of specimens in commercial trade	100%	>75%	51-75%	26-50%	<25%	Other source of specimens:
						There are captive populations of this species and the ratio of wild captured to captive-bred specimens in trade requires further investigation.

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: Vulnerable (VU) Possibly Extinct

Red List Criteria: B1ab(iii)+2ab(iii)

Rationale for the Red List Assessment: Listed as Vulnerable, because its Extent of Occurrence is less than 20,000 km² and its Area of Occupancy is less than 2,000 km², its distribution is severely fragmented, and there is a continuing decline in the extent and quality of its forest habitat in Morocco and Algeria.

Current Population Trend: Decreasing

Date of Assessment: 12/17/2004

Assessor(s): David Donaire-Barroso, Iñigo Martínez-Solano, Alfredo Salvador, Mario García-Paris, Ernesto Recuero Gil, Slimani Tahar, El Ha

Notes on Red listing:

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