

Pelodytes punctatus

Taxonomic Authority: (Daudin, 1802)

Synonyms:

Region: 10

Common Names:

Parsley Frog	English
pelodite punteggiato	Italian
Sapillo moteado común	Spanish

Order: Anura

Family: Pelodytidae

Notes on taxonomy: Populations in northern Portugal may belong to an undescribed species (Tejedo et al. 2004). Further systematic studies are required to more clearly determine the distribution of this species in Iberia.

General Information

Biome Terrestrial Freshwater Marine

Geographic Range of species:

This species is found in western Portugal, northern, central and eastern Spain, most of France, and in coastal northwestern Italy (only in Liguria and southern Piedmont). In Portugal there is limited information on the distribution of this species in relation to Pelodytes ibericus. It occurs from sea level up to 1,630m asl.

Habitat and Ecology Information:

Its preferred habitats are dry or damp stony areas (including drystone walls). It is also observed in dunes, flooded quarries and cultivated areas. It is often present in calcareous or sandy areas. Aquatic habitats, where it breeds, include shallow, sunny, open (often ephemeral or temporary) waters, small pools, ditches and slow, small streams with a sandy substrate. It can occur in traditionally farmed areas.

Conservation Measures:

This species is protected by national legislation throughout its range states (Gasc et al., 1997) and it is listed on Appendix III of the Berne Convention. The species is recorded several national and subnational Red Data Books and lists and it is present in a number of protected areas (including several NATURA 2000 sites). In some areas protection of temporary ponds is a conservation priority for the species.

Threats:

Threats include drainage of marshland and canalisation of rivers (Gasc et al., 1997). Loss of suitable freshwater breeding habitats and habitat fragmentation are also threats. Intensification of agriculture is threatening the species in Iberia. Desertification is a threat in parts of its range (southern Portugal). Predation of larvae and adults by exotic fish and Louisiana Crayfish (*Procamabrus clarkii*) introductions (especially in Iberia) is also a threat. Hydroelectric projects are leading to habitat loss in parts of Portugal.

Species population information:

It is generally locally abundant over much of its range. The species is generally scarce in Portugal, and it is threatened in Italy due to loss of breeding sites on the edge of its range. Populations in southern Spain and northern Portugal are highly threatened and fragmented.

Country Distribution

	Native - Presence Confirmed	Native - Presence Possible	Extinct	Reintroduced	Introduced	Vagrant
France	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Italy	<input checked="" 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"/>
Spain	<input checked="" 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
5.1 Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls)	1
5.2 Wetlands (inland) - Seasonal/Intermittent/Irregular Rivers/Streams/Creeks	1
5.7 Wetlands (inland) - Permanent Freshwater Marshes/Pools (under 8ha)	2
5.8 Wetlands (inland) - Seasonal/Intermittent Freshwater Marshes/Pools (under 8ha)	2
10.2 Coastline - Sand, Shingle or Pebble Shores (incl. sand bars, spits, sandy islets, dune systems)	2

Lower Level Habitat Preferences

	Score
Mediterranean Scrub	2

Major threats

Code **Description of threat** Past Present Future

Conservation Measures

Code **Conservation measures** In place Needed

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"/>	1.2.1.3	Sub-national level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.4	Infrastructure development	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.2.2	Implementation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.4.1	Industry	<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"/>
1.4.2	Human settlement	<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"/>
1.4.3	Tourism/recreation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.2.2.3	Sub-national level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.4.6	Dams	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	Research actions	<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"/>	3.1	Taxonomy	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.2	Predators	<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"/>
6	Pollution (affecting habitat and/or species)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.3	Biology and Ecology	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6.3	Water pollution	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.4	Habitat status	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6.3.1	Agriculture	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.5	Threats	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	Natural disasters	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.8	Conservation measures	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7.1	Drought	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.9	Trends/Monitoring	<input type="checkbox"/>	<input checked="" type="checkbox"/>
					4	Habitat and site-based actions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
					4.1	Maintenance/Conservation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
					4.2	Restoration	<input type="checkbox"/>	<input checked="" type="checkbox"/>
					4.4	Protected areas	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
					4.4.2	Establishment	<input checked="" type="checkbox"/>	<input type="checkbox"/>
					4.4.3	Management	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Utilisation of Species

Purpose/Type of Use	Subsistence	National	International	Other purpose:	
Primary forms removed from the wild	100%	>75%	51-75%	26-50% <25%	Other forms removed from the wild:
Source of specimens in commercial trade	100%	>75%	51-75%	26-50% <25%	Other source of specimens:

Trend in wild offtake/harvest in relation to total wild population numbers over last five years:

Trend in offtake/harvest produced through domestication/cultivation over last five years:

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, 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): Mathieu Denoël, Pedro Beja, Franco Andreone, Jaime Bosch, Claude Miaud, Miguel Tejedo, Miguel Lizana, Ifígo Martínez-Sola

Notes on Red listing: The possibly undescribed species from northern Portugal is likely to prove to be highly threatened (R. Marquez pers. comm.).

Bibliography

- Arnold, E.N., 2003, , Reptiles and amphibians of Europe, , 288, Princeton University Press,
- Ferrand de Almeida, N., Ferrand de Almeida, P., Gonçalves, H., Sequeira, F., Teixeira, J. and Ferrand de Almeida, F., 2001, , Guia FAPAS Anfíbios e Répteis de Portugal, , , FAPAS-Câmara Municipal de Porto, Porto
- Godinho, R., Teixeira, J., Rebelo, R., Segurado, P., Loureiro, A., Álvares, F., Gomes, N., Cardoso, P., Camilo-Alves, C. and Brito, J.C., 1999, Atlas of the continental Portuguese herpetofauna: an assemblage of published and new data, Revista Española de Herpetología, , , 13, 61-81, , 1997, , Atlas of Amphibians and Reptiles in Europe, Gasc, J.-P., , 494, Societas Europea Herpetologica & Museum National d'Histoire Naturelle, Paris
- Avilés, J.M., Parejo, D. and Lavado, F., 1999, Análisis mediante escuchas de la distribución de Pelodytes punctatus en la provincia de Badajoz, Boletín de la Asociación Herpetológica Española, , , 10, 14-16, ,
- Pleguezuelos, J.M., Márquez, R. and Lizana, M., 2002, , Atlas y Libro Rojo de los Anfíbios y Reptiles de España, , , pp 584, Dirección General de la Conservación de la naturaleza-Asociación Herpetológica Española, Madrid
- Toxopeus, A.G., Ohm M. and Arntzen, J.W., 1993, Reproductive biology of the parsley frog, Pelodytes punctatus, at the northernmost part of its range, Amphibia-Reptilia, , , 14(2), 131-148, ,
- Guyétant, R., Temmermans, W. and Avrillier, J.N., 1999, Phénologie de la reproduction chez Pelodytes punctatus Daudin, 1802 (Amphibia, Anura), Amphibia-Reptilia, , , 20, 149-160, ,
- Paulo, O., 1997, Amphibians in Portugal, FrogLog, , , 21, , ,
- Sindaco, R. and Andreone, F., 1988, Considerazioni sulla distribuzione di Pelodytes punctatus (Daudin, 1802) in territorio Italiano (Amphibia, Anura, Pelodytidae), Atti del Museo Civico di Scienze Naturali di Trieste (Trieste, Italy), , , 41(2), 161-167, ,

- García-París, M., Buchholtz, D. R. and Parra-Olea, G., 2003, Phylogenetic relationships of Pelobatoidea re-examined using mtDNA, *Molecular Phylogenetics and Evolution*, , , 28, 12-23, ,
- Joly, P., 1992, The amphibian fauna of the French Upper-Rhône floodplain. The Lavours marsh and Jons sector, *Alytes*, , , 10(4), 117-129, ,
- Pleguezuelos, J.M., 1997, , , Distribucion y Biogeografía de los Anfibios y Reptiles en España y Portugal, , , , Asociacion Herpetologica Española, Las Palmas de Gran Canarias
- Andreone, F. and Sindaco, R., 1999, *Pelodytes punctatus*, *Pelodite punteggiato*, , *Erpetologia del Piemonte e della Valle d'Aosta - Atlante degli Anfibi e dei Rettili*, Andreone, F. and Sindaco, R., , 172-173, Museo Regionale di Scienze Naturali (Torino), Monografie XXVI (1998), Torino, Italy
- Benavides, J., Viedma, A., Clivilles, J., Ortiz, A., and Gutiérrez, J.M., 2001, Cotas máximas para la península ibérica de siete especies de herpetos en la provincia de Granada, *Boletín de la Asociación Herpetológica Española*, , , 12(1), 10-11, ,
- Paillette, M., Oliveira, M.E., Rosa, H.D. and Crespo, E.G., 1992, Is there a dialect in *Pelodytes punctatus* from southern Portugal?, *Amphibia-Reptilia*, , , 13, 97-108, ,
- Balmori, A., 2000, *Pelodytes punctatus* (Sapillo Moteado): nuevas citas y hábitat en Valladolid y Palencia, *Boletín de la Asociación Herpetológica Española*, , , 11(1), 24, ,
- Martínez-Solano, I. and García-París, M., 2001, Distribución y estado de conservación de *Alytes obstetricans* y *Pelodytes punctatus* en el SE de Madrid, *Boletín de la Asociación Herpetológica Española*, , , 12(1), 37-41, ,
- Tejedo, M., Gasent, J.M., Márquez, R. and Crespo, E.G., 2004, Diferenciación genética del género *Pelodytes* (Anura, Pelodytidae) en la Península Ibérica., VIII Congreso Luso-Español de Herpetología. Universidad de Málaga, , , Conference Abstract., , ,
- Malkmus, R., 2004, , , *Amphibians and reptiles of Portugal, Madeira and the Azores-Archipelago*, , , 448p, A.R.G. Gantner Verlag K.G., Ruggel (Germany)