

Cottus petiti

Taxonomic Authority: Bacescu & Bacescu-Mester, 1964

Synonyms:

Region: 1

Common Names:

Order: Scorpaeniformes

Family: Cottidae

Notes on taxonomy:

General Information

Biome Terrestrial Freshwater Marine

Geographic Range of species:

It is restricted to a 3 km stretch of the Lez River from the spring to the Lirou tributary in southern France north of the town of Montpellier.

Habitat and Ecology Information:

The Lez River is fed by a large resurgence draining a karstic plateau. Substrate is gravel and stony beds, temperature rarely exceed 20°C. Discharge is very regular.

Conservation Measures:

It is listed in the Annex II of the Habitat Directive of EU.

Threats:

Water pollution, drying out of River Lez, and introduction of Cottus gobio is a major threat. Water extraction for drinking water for the Montpellier town.

Species population information:

No data.

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"/>

Upper Level Habitat Preferences		Score	Lower Level Habitat Preferences		Score
5.1	Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls)	1			
5.9	Wetlands (inland) - Freshwater Springs and Oases	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"/>
1.3	Extraction	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.3.6	Groundwater extraction	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Invasive alien species (directly affecting the species)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Pollution (affecting habitat and/or species)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6.3	Water pollution	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	Natural disasters	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
7.1	Drought	<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"/>
9.1	Limited dispersal	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9.9	Restricted range	<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"/>
1.2.2	Implementation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2.2.1	International level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Research actions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3.1	Taxonomy	<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 checked="" type="checkbox"/>	<input type="checkbox"/>
3.4	Habitat status	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3.5	Threats	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3.8	Conservation measures	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.9	Trends/Monitoring	<input 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% None
Source of specimens in commercial trade	100%	>75%	51-75%	26-50% <25% Other forms removed from the wild: 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:

Red Listing

Red List Assessment: Vulnerable (VU) Possibly Extinct

Red List Criteria: D2

Rationale for the Red List Assessment: C. petiti occurs in one small restricted location (3 km stretch of the Lez River) with an AOO<20km2. Future introduction of C. gobio could cause the extinction of the species. Recent genetic work (Epepe et al., 1999) showed that this species is not different than any Cottus gobio populations. Consequently, its taxonomy might be wrong and further investigations on a large geographical scale is needed.

Current Population Trend: Stable

Date of Assessment: 31/10/2004

Assessor(s): A.J. Crivelli

Evaluator: J. Freyhof

Bibliography

- Persat, H., Beaudou, D. & Freyhof, J., 1996, The sculpin of the Lez spring (South France), *Cottus petiti* (Bacescu and Bacescu-Mester, 1964), one of the most threatened fish species in Europe., , *Cobseruation of Endangered Freshwater Fish in Europe*, Kirchhofer, A. & Hefti, D., , 321-328, Birkhäuser Verlag, Basel, Switzerland
- Eppe, R., Persat, H., Beaudou, D. & Berrebi, P., 1999, Genetic variability in sculpin (Genus *Cottus*) from southern France, with reference to the taxonomic status of an endemic species, *C. petiti*., *Heredity*, , , 83, 533-540, ,