

Lethenteron zanandreai

Taxonomic Authority: (Vladykov, 1955)

Synonyms:

Order: Petromyzontiformes

Notes on taxonomy:

Region: 1

Common Names:

Lombardy lamprey English

Family: Petromyzontidae

General Information

Biome Terrestrial Freshwater Marine

Geographic Range of species:

Restricted to the upper adriatic river drainages, including those in Switzerland, northern Italy, the Adriatic basin of Slovenia and Croatia (Neretva and Matica rivers). Two sub-populations have been found also in Central Italy in the Esino and Potenza river basins.

Habitat and Ecology Information:

Lives in cold water brooks near springs. It is a non-parasitic lamprey as adult does not feed. It requires a gravel substrate. The larvae remain hidden in the gravel for 3-5 years then the adult emerges and spawns over a one month period in summer. IT is important to conduct surveys at times when the adults have emerged in the summer.

Conservation Measures:

Listed in Annexes II and V of the Habitats Directive of EU, and in Appendix III and II of the Bern Convention. In Slovenia the species has been effectively protected since the mid-1990s.

Threats:

Water extraction, pollution and drought.

Species population information:

Extensive survey in Italy has found many sub-populations in restricted areas.

Country Distribution

	Native - Presence Confirmed	Native - Presence Possible	Extinct	Reintroduced	Introduced	Vagrant
Croatia	<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"/>
Slovenia	<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

Conservation Measures

Code	Description of threat	Past	Present	Future	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 checked="" type="checkbox"/>
1.3	Extraction	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.2	Legislation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.3.6	Groundwater extraction	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.2.1	Development	<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"/>	1.2.1.1	International level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.3	Water pollution	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.2.2	Implementation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.3.1	Agriculture	<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"/>
6.3.2	Domestic	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3	Research actions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6.3.3	Commercial/Industrial	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.1	Taxonomy	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.3.7	Sediment	<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"/>
6.3.8	Sewage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.3	Biology and Ecology	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7	Natural disasters	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.4	Habitat status	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7.1	Drought	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.5	Threats	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	Intrinsic factors	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.8	Conservation measures	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9.1	Limited dispersal	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3.9	Trends/Monitoring	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9.5	Low densities	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4	Habitat and site-based actions	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9.8	Population fluctuations	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4.1	Maintenance/Conservation	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9.9	Restricted range	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4.2	Restoration	<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"/>
					4.4.3	Management	<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%	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:

Red Listing

Red List Assessment: Least Concern (LC)

Possibly Extinct

Red List Criteria:

Rationale for the Red List Assessment: The species is assessed as Least Concern as it has a relatively wide distribution (estimated EOO > 20,000 km²) and is found in more than 10 locations. In Slovenia there have, however, been major declines in range.

Current Population Trend: Unknown

Date of Assessment: 31/10/2004

Assessor(s): A.J. Crivelli

Evaluator: Bianco, G. & Povz, M.

Notes on Red listing:

Bibliography

Holcik, J. & Mrakovic, M., 1997, First record of *Lethenteron zanandrei* (Cyclostoma, Petromyzontidae) in the Adriatic basin of the Balkan peninsula and its zoogeographic consequences., *Folia Zoologica*, , , 46, 263-271, ,

Bianco, P.G., 1992, Zoogeographical implications of a first record of *Lethenteron zanandrei* (Cyclostomata: Petromyzontidae)., *Ichtyol. Explor. Freshwat.*, , , 3, 183-186, ,

Bianco, P.G., 1986, *Lethenteron zanandrei*, , *The Freshwater Fishes of Europe*, J. Holcik, 1, 237-246, Aula-Verlag, Wiesbaden, Germany