

Aphanius anatoliae

Taxonomic Authority: Leidenfrost, 1912

Synonyms:

Region: 1

Common Names:

Order: Cyprinodontiformes

Family: Cyprinodontidae

Notes on taxonomy: Recent genetic investigations showed that there are four clades of this species that could represent possibly real species (see Hrbek et al. 2002): *A. anatoliae*, *A. burdicus*, *A. splendens*, *A. transgadiens*. There is more evidence for the validity of *A. burdicus* (in this list as *A. sureyanus*), but more evidence is needed to validate *A. splendens* and *A. transgadiens*.

General Information

Biome Terrestrial Freshwater Marine

Geographic Range of species:

The species is restricted to the Tuzgözü basin, to the Büyük-Menderes catchment, to the lake district region in Central Anatolia (Lake Egirdir) and to the southwestern region according to Hrbek et al (2002).

Habitat and Ecology Information:

Lives in clear, well-oxygenated running freshwater and springs.

Conservation Measures:

None known to be in place. Further taxonomic research is needed.

Threats:

Water pollution and water extraction are the main threats to the species. Introduction of predatory species (such as *Gambusia* species) is a potential threat. No utilization of the species is known at present, but collection for the aquarium trade may be a future threat.

Species population information:

No population information available.

Country Distribution

	Native - Presence Confirmed	Native - Presence Possible	Extinct	Reintroduced	Introduced	Vagrant
Turkey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Upper Level Habitat Preferences

Score

5.1	Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls)	1
5.5	Wetlands (inland) - Permanent Freshwater Lakes (over 8ha)	1
5.9	Wetlands (inland) - Freshwater Springs and Oases	1

Lower Level Habitat Preferences

Score

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 checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2	Invasive alien species (directly affecting the species)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.2	Predators	<input type="checkbox"/>	<input 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"/>
6	Pollution (affecting habitat and/or species)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6.3	Water pollution	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6.3.1	Agriculture	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6.3.2	Domestic	<input checked="" type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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"/>
3.6	Uses and harvest levels	<input type="checkbox"/>	<input checked="" 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%	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: Data Deficient (DD) Possibly Extinct

Red List Criteria:

Rationale for the Red List Assessment:

The taxonomy of *A. anatoliae* needs further investigation. The species is likely to be split into four separate species (*A. anatoliae*, *A. burdicus*, *A. splendens*, *A. transgradiens*). Currently assessed as Data deficient at the species level pending further taxonomic work.

Current Population Trend: Unknown

Date of Assessment: 14/12/2004

Assessor(s): A.J. Crivelli

Evaluator: A. Karataş, F. Erk'akan, N. Bogutskaya & M. Goren

Notes on Red listing: Previous Red List assessment: EN A2ce, B1+2abcd (Kottelat 1996). Reason for change - taxonomic uncertainty.

Bibliography

Balik, S., 1995, Freshwater fish in Anatolia, Turkey., *Biological Conservation*, , 72, 213-223, ,

Hrbek, T., Küçük, F., Frickey, T., Stölting, K.N., Wildekamp, R.H. & Meyer, A., 2002, Molecular phylogeny and historical biogeography of the *Aphanius* (Pisces, Cyprinodontiformes) species complex of central Anatolia, Turkey., *Molecular Phylogenetics and Evolution*, , 25, 125-137, ,