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THREATENED FISHES OF THE WORLD: *Ladigesocypris irideus* (Ladiges, 1960) (Cyprinidae)

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ABSTRACT

Anatolian ghizani *Ladigesocypris irideus* is a Cyprinid species, endemic only to some localities in Southwest Anatolia (Turkey). In recent years, population of this species exhibits tendencies to decline due to habitat degradation and water abstraction. Currently, the species is considered as Near Threatened (NT) in the IUCN Red List of Threatened Species.

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COMMON NAMES: Anatolian ghizani

CONSERVATION STATUS

Anatolian ghizani *Ladigesocypris irideus* (Fig. 1) was assessed as "critically endangered" in the Red List of threatened and declining species of Turkey (Fricke et al., 2007) but Near Threatened according to the IUCN Red List 2014 (Freyhof, 2014).

IDENTIFICATION

The body is slightly laterally compressed, covered in rather large scales regularly arranged on the body. Height of body 1/3.4-1/4.1 to the standard length. Large eyes, mouth is oblique and terminal. A flattened keel is present in front of the anal fin. Dorsal silver-dark and ventral silver-bright coloration with a purplish coloration along the flanks in living



Fig 1. *Ladigesocypris irideus* (photo by Fevzi Yılmaz) collected from the Akçapınar Stream

specimens. The dorsal, anal and caudal fins have dark points. The lateral line is incomplete (6-30), D III/8, A III/8, Standard length maximum: female 10.5 cm; male 7.3 cm (Yılmaz and Öğretmen, 2001).

DISTRIBUTION

The species is distributed in Southwest Anatolia in Turkey (from Bergama to Dalaman) (Froose and Pauly, 2014). Occurrences of the species are reported from the main watercourses of Western Anatolia, i.e. Küçük Menderes and Gediz rivers, Akçapınar, Balıklı, Yuvarlakçay and Tersakan streams and Köyceğiz Lake (Bogutskaya, 1997; Yılmaz et al., 2006, Fricke et al., 2007, Giannetto et al., 2015).

ABUNDANCE

Although no precise data on population trends are available in literature, the populations of this species are slowly declining due to negative effects of anthropological activities (water abstraction, water retention by dams and pollution). Currently its extent of occurrence (EOO) is estimated to be just 8 000 km² (Freyhof, 2014).

HABITAT AND ECOLOGY

Anatolian ghizani inhabits brackish waters and streams

mouths but mainly in slow running freshwaters in the marginal vegetation at depths not exceeding two meters (Balik, 1995; Yılmaz et al., 2000). In nature, it lives up to five years (Yılmaz and Öğretmen, 2001).

REPRODUCTION

Sexual maturity is reached in one year and spawning takes place in late spring and early summer (maximum GSI values 10, 17 in May) (Yılmaz and Öğretmen, 2001).

THREATS

Major threat for the survival of the species is represented by water abstraction and retention by dams. Habitat degradation, water pollution due to agricultural activities, discharge of domestic waste water and habitat degradation (sand extraction from the stream bed and consumption of some of the aquatic plants as food by local people) are other major threats for the species. The economic development and the growth of tourism industry in the Aegean area – exploiting large freshwater resources – worsen the condition. Water is locally polluted and several dams release too little water available below the dams.

CONSERVATION ACTIONS

Currently none conservation action is known to be in place.

CONSERVATION RECOMMENDATIONS

More information on biology and ecology of *L. irideus* is required. Moreover a detailed knowledge on current population status is needed and conservation measures for the protection of the local population are strongly suggested.

REMARKS

The species belong to the family of Cyprinidae and the genus *Ladigesocypris*. Some authors still consider this species as *Ladigesocypris ghigii* (Ladiges, 1960), formerly endemic to Rhodos island and Aegean Region of Turkey. The taxonomical classification of the genus *Ladigesocypris* was recently investigated and, according to Durand et al. (2002), the monotypic genus *Ladigesocypris* belongs to the *Leuciscus* subgenus *Squalius* clade. According to this hypothesis, the species *Ladigesocypris ghigii* should be considered *Squalius ghigii* (Gianferrari, 1927) restricted only to Rhodos Island, whereas the records from Turkey should refer to two different species: *Ladigesocypris irideus* (Ladiges, 1960) (or *Squalius irideus* (Ladiges, 1960)) restricted only to three localities from Bergama to Dalaman and *Ladigesocypris mermere* (Ladiges, 1960) distributed in Marmara lake (Froese & Pauly, 2014). A taxonomic review is needed to clarify the taxonomic position of the species. Monitoring studies and conservation policies must be developed and restorations of the habitats of this

species must be achieved immediately.

Sažetak

UGROŽENE VRSTE RIBA U SVIJETU: *Ladigesocypris irideus* (Ladiges, 1960) (Cyprinidae)

Anatolijski ciprinid, *Ladigesocypris irideus*, je endemska vrsta koja obitava samo na nekim mjestima u jugozapadnoj Anatoliji (Turska). Posljednjih nekoliko godina populacije ove vrste opadaju zbog degradacije staništa i iskorištavanja vode. Trenutno je vrsta kategorizirana kao gotovo ugrožena (NZ) u IUCN Crvenom popisu ugroženih vrsta.

Ključne riječi: *Ladigesocypris irideus*, endemska vrsta, zaštita, zapadna Anatolija

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