

THREATENED FISHES OF THE WORLD: *Cobitis jadovaensis* (Mustafić & Mrakovčić, 2008) (Cyprinidae)

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SYNONYM

Cobitis jadovensis Mustafić & Mrakovčić, 2008

COMMON NAMES

Jadovski vijun (Cro)

CONSERVATION STATUS

IUCN Red list: critically endangered (Freyhof, 2013)

Croatia: no status, although it is proposed to be in the endangered category (Mrakovčić et al., 2008)

IDENTIFICATION

DII7; AII5(6); VI5-6; PI8-9; C16 (Mustafić et al., 2008). Head is short with eyes positioned closer to snout. Mouth arched with three pairs of barbels. Body covered with small but clearly visible scales. Coloration of body is dark yellowish with four Gambetta zones (Z1-Z4) on the flanks and one dark inclined spot positioned on the upper part of the

ABSTRACT

Cobitis jadovaensis is a stenoendemic freshwater fish species distributed only in the River Jadova, a small stream in the karst region of Lika in Croatia. Major threats for this fish species are: extremely limited distribution, water abstraction, introduction of alien fish species and increasing severity of droughts. Recommendations for conservation are: habitat protection, prevention of outspreading of alien species from the River Lika and bans on introduction of new alien fish species.

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caudal base (Mustafić et al., 2008; Buj, 2010). Very rarely there is a second oval and lighter spot beneath the first one (Buj, 2010; Buj et al., 2014). All four Gambetta zones well developed reaching bellow the dorsal base; zone Z1 with many irregular spots, narrower than Z2; zone Z2 with spots larger than pupil, as wide as Z3; zone Z3 with many irregular spots, on caudal peduncle fuses with Z2; zone Z4 with 11-14 roundish to oval blotches. Suborbital spine consists of two arms and usually is covered with skin (Mustafić et al., 2008; Buj, 2010; Buj et al., 2014). Sexual



Fig 1. *Cobitis jadovaensis* 84 mm TL (photo by Perica Mustafić, June 2008)

dimorphism is present – males have single triangular with roundish outer border Canestrini scale (*lamina circularis*) on the upper surface of the pectoral fin. Also, males have much longer pectoral fin compared to females (length of pectoral fin in males fits 5.35 times in SL, while in females fits 7.6 times in SL). Species *Cobitis jadovaensis* differs from other *Cobitis* species due to color pattern and narrower head (Mustafić et al., 2008). Size of females is up to 80 mm SL, and for males up to 77.9 mm SL (Buj, 2010).

DISTRIBUTION

Cobitis jadovaensis (Fig 1) is a stenoendemic fish species distributed in the Adriatic watershed. It inhabits only the River Jadova basin in the karst region of Lika, Croatia. This species has extent of occurrence of less than 100 km² (Mrakovčić et al., 2008; Mustafić et al., 2008; Buj, 2010; Freyhof, 2013).

ABUNDANCE

No data.

HABITAT AND ECOLOGY

This species inhabits soft bottoms in the River Jadova basin (J. Freyhof, personal communication). During summer, when the River Jadova completely dries out, this species survives in underground waters and small refuge ponds (Mustafić et al., 2008; Freyhof, 2013).

REPRODUCTION

No data.

THREATS

Cobitis jadovaensis has extremely limited distribution and any alteration in the environment could have negative impact on it. Major threats for this species are: spreading of invasive and translocated fish species (such as *Lepomis gibbosus* and *Squalius cephalus*) from the Lika River, water abstraction and increasing severity of droughts caused by climate change (Freyhof, 2013).

CONSERVATION ACTION

No actions.

CONSERVATION RECOMMENDATIONS

Habitat protection, bans on further introduction of alien fish species in the Lika River basin and prevention of outspreading of alien species from the Lika River are recommended to conserve this species (Mrakovčić et al., 2008; Buj, 2010).

Sažetak

UGROŽENE VRSTE RIBA U SVIJETU: *Cobitis jadovaensis* Mustafić & Mrakovčić, 2008 (Cyprinidae)

Jadovski vijun je stenoendemska slatkvodna riba rasprostranjena samo u rijeci Jadovi, maloj rijeci u Lici, u Hrvatskoj. Glavni uzroci ugroženosti ove vrste su izrazito usko područje rasprostranjenosti, ekstrakcija vode, česte suše uzrokovane klimatskim promjenama i unos alohtonih vrsta riba. Za očuvanje ove vrste predlaže se zaštita staništa, sprječavanje širenja invazivnih vrsta riba iz rijeke Like te zabrana unosa novih alohtonih vrsta riba.

Cljučne riječi: *Cobitis jadovaensis*, Cobitidae, rijeka Jadova, očuvanje

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