

RECORDS OF AMUR SLEEPER *PERCCOTTUS GLENII* (ODONTOBUTIDAE) IN SERBIA AND ITS RECENT STATUS. P. Simonović, S. Marić, and Vera Nikolić. Faculty of Biology, University of Belgrade, 11000 Belgrade, Serbia and Montenegro

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The first finding of the Amur sleeper (Russian: rotan-golovjeshka; German: Amurgrunde; Serbian: amurski spavač) *Perccottus glenii* Dybowsky, 1877 in Serbia was reported by Gergely and Tucakov (2003) in November of 2001 from the Jazovo fish pond (Tisza River watershed, province of Vojvodina). Šipos *et al.* (2004) reported the catch of one individual of Amur sleeper in the Danube at the Vinci locality (r. km 1047, not r. km 1040 as given originally) in February of 2003, and Popović (2004) mentioned an Amur sleeper measuring 20 cm in length that was caught in the «middle of a swamp» at Baranda in the vicinity of Opovo in Banat, Vojvodina (the date of catching was not supplied). The next specimen of Amur sleeper recorded in Serbia and the second from the watershed of the Danube is the one we found on 20 October 2003 at the Vajuga locality (r. km 903) in the area of Iron Gate II Reservoir (Fig. 1). It was caught by electrofishing (220 V DC, 5 A) inshore at a depth of 1.0 – 1.5 m in a lentic habitat densely overgrown with submerged vegetation (*Myriophyllum* sp. and *Ceratophyllum* sp.) after a total fishing time of one hour on a catching surface of about 150 m². The specimen was stored in 70% ethanol until examination.

Identification was accomplished according to the key of Miller (2003). The Amur sleeper was a male with 86.6 mm SL and 101.6 mm TL. According to scales taken from the left flank at the level of the second dorsal fin, it has an age of 2+. Its meristic features were as follows: D₁ VII, D₂ I 10, A I 8, P 15, V I 5, C 21, number of complex gill rakers (Fig. 2) on the first gill arch seven. Forty-one lateral rows of scales were

counted along the body from the rear end of the gill cover to the end of the caudal peduncle. Values for the majority of characters were concordant with those given in Šipos *et al.* (2004). The only difference was in the number of hard rays in D₂, which was closer to the value reported by the Dvoran Institute of Marine Biology (Institut biologiji morya Dvoran, 2002-2003).

The stomach of the Amur sleeper was empty, and no comparison to published data on feeding (Bogutskaya and Naseka, 2002; Institut biologiji morya Dvoran, 2002-2003) was possible. The Amur sleeper was accompanied in the sample by five 0+ zander *Stizostedion lucioperca* (100 – 170 mm SL, 12 – 28 g), two 1+ perch (100 – 125 mm SL, 20 – 29 g), two 0+ racer goby *Neogobius gymnotrachelus*, one of each 1+ and one 2+ round goby *Neogobius melanostomus*, one brown bullhead *Ictalurus nebulosus* (180 mm SL, 95 g), 197 0+ Prussian carp *Carassius gibelio* (40 – 68 mm SL), one 0+ tench *Tinca tinca* (40 mm SL, 2 g), six top-mouth gudgeon *Pseudorasbora parva* (42 – 44 mm SL, 3.3 – 3.7 g), six short-nosed pipefish *Syngnathus abaster* (82 – 104 mm SL, 0.6 – 0.8 g), 25 0+ pumpkinseed *Lepomis gibbosus* (46 – 54 mm SL, 4.6 – 5.9 g), one spined loach *Cobitis taenia* (105 mm SL, 4 g), and 27 bleak *Alburnus alburnus*. The size of fish occurring in the community is in agreement with the report of Reshetnikov (2000) indicating elimination of all *Carassius carassius* individuals smaller than 40 mm by Amur sleeper, as well as with the assertion of Koščo *et al.* (2003) that Amur sleeper preys on its own species up to 40 mm and goldfish 45 mm in length. The low



Fig. 1. Male of Amur sleeper *Perccottus glenii* caught in the Danube River at Vajuga.

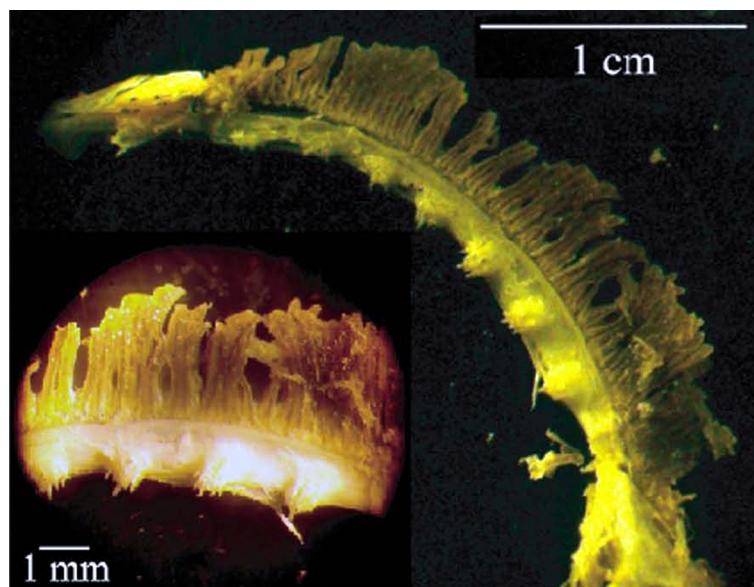


Fig. 2. First gill arch showing complex gill rakers grouped in seven bunches, each consisting of up to eight single transparent thorns.

CPUE from sampling is concordant with the statement of Bogutskaya and Naseka (2002), to the effect that in water bodies inhabited by many fish species including predators, the abundance of Amur sleeper is low, probably due to limited food resources.

The gradual downstream appearance of Amur sleeper in the Danube basin agrees with the assumption of Koščo *et al.* (2003) as to the manner of spreading of this species. However, despite an extensive sampling effort (about 10 hours in total) by electrofishing during realization of the fisheries management plan of the Đerdap National Park (r. km 1040 - 942) in the Iron Gate I Reservoir in early September and mid-October of 2005, we failed to record Amur sleeper in various kinds of inshore habitats, including reputedly (Bogutskaya and Naseka, 2002; Koščo, *et al.* 2003) and definitely (this paper) favorable ones. The absence of Amur sleeper about two years after its first recording in the watershed of the Danube in Serbia is contrary to predictions of its invading success made by Harka *et al.* (1999) and Koščo *et al.* (2003) for the watershed of the Tisza in Hungary and Eastern Slovakia, respectively. Nevertheless, the Central European invading range recorded so far (Antychowicz, 1994; Terlecki and Palka, 1999; Grabowska, pers. comm.; Harka, *et al.* 1999; Plikss, 2002; Koščo *et al.*, 2003; Gergely and Tucakov, 2003) and hardiness of Amur sleeper, (Kirpichnikov, 1945), together with plasticity of its life-history strategies and growth (Kirpichnikov, 1945; Reshetnikov, 2001), great reproduc-

tive potential (Bogutskaya and Naseka, 2002; Institut biologiyi morya Dvoran, 2002-2003), and the broad niche of its feeding on crustaceans, various insect larvae, juveniles of fish, and larvae of newts and green frogs, either shared by two life forms or passing through the body size-related succession (Kirpichnikov, 1945; Nikolsky, 1956; Bogutskaya and Naseka 2002), suggest a strong need for future monitoring of the distribution and abundance of this prolific species, which is obviously still going through the process of acclimatization in the Serbian stretch of the Danube.

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