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FIRST RECORD OF THE NORTH AMERICAN PADDLEFISH (POLYODON SPATHULA WALBAUM, 1792) IN THE SERBIAN PART OF THE DANUBE RIVER. Mirjana Lenhardt¹, A. Hegediš², B. Mićković², Željka Višnjić Jeftić², Marija Smederevac², I. Jarić², G. Cvijanović², and Z. Gačić². ¹Siniša Stanković Institute for Biological Research, 11060 Belgrade, Serbia and ²Center for Multidisciplinary Studies, University of Belgrade, 11000 Belgrade, Serbia

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The North American paddlefish, *Polyodon spathula*, is one of two living species of paddlefishes, the other being the Chinese paddlefish, *Psephurus gladius*. Although *P. spathula* was once abundant throughout the Mississippi River basin, since the beginning of the 20th century populations have declined dramatically in most areas (G r a h a m, 1997). *Polyodon spathula* is successfully reared in aquaculture, and, like sturgeon, is highly valued for its grayish-black roe (which is processed into caviar) and for its boneless firm white meat (M i m s, 2001).

Polyodon spathula is classified as vulnerable (VU) on the IUCN Red List, and its international trade is restricted under Appendix II of the CITES (since 11 June 1992).

Introduction of the North American paddlefish in Europe began in 1974, when 5000 hatched larvae, originating from Missouri (USA), were imported into the former USSR for rearing in aquaculture. In 1978, one hundred specimens were exported from the experimental hatchery in Goreachi Cluch (US-SR) to Moldavia, with successful reproduction of three females in 1988 and 1989. From Moldavia, juvenile paddlefish were exported for aquaculture to Romania and Hungary. The Nucet Research Station in Romania also imported *P. spathula* from the USA (from 1992 to 1994, around 2000 specimens annually) (V e d r a s c o *et al.*, 2001). *Polyodon spathula* is being reared in Germany and Austria (B o g u t s k a y a and N a s e k a, 2006), the Czech Republic (P r o k e š *et al.*, 2000), and the Plovdiv and Vidin regions in Bulgaria (H u b e n o v a *et al.,* 2005).

In May 2006, a specimen of *P. spathula* was caught by professional fishermen near Prahovo in the Serbian part of the Danube River (river km 861). According to them, more specimens of different size and weight were caught at that time. The specimens were caught with a floating drift net ($100 \times 4.5 \text{ m}$) with mesh size of 3.25 cm. They were identified according to P a g e and B u r r (1991). One specimen (Fig. 1) was deposited in the collection of the Natural History Museum in Belgrade (Cat. No. 160/06) as voucher specimen. It had a length of 112 cm, fork length of 103 cm, standard length of 100 cm, snout length of 29 cm, and body weight of 6.65 kg.

This finding is the first record of *P. spathula* in the Serbian part of the Danube River. It is still not clear whether these specimens escaped from Romanian fish ponds during recent floods, or whether they were previously introduced in early life stages and developed in nature. According to K u t s a r o v (2005), one specimen (L_T =50 cm) was caught on 23 July 2000 near Pogarevo (river km 426) in Bulgaria. Since paddlefish specimens introduced in Russian rivers have probably already established natural populations (E l v i r a , 2000), monitoring of the occurrence of *P. spathula* should be closely watched.



Fig. 1. North American paddlefish (Polyodon spathula Walbaum, 1792) caught near Prahovo (river km 861) in the Serbian part of the Danube River.

References: Bogutskaya, N. G., and Naseka A. M. (2006). http://www.zin.ru/projects/caspdiv/caspian_fishes.html - Elvira, B. (2000). Identification of non-native freshwater fishes established in Europe and assessment of their potential threats to biological diversity. Document on the 21st Meeting of the Standing Committee of the Convention on Conservation of European Wildlife and Natural Habitats, T-PVS (2001) **6**, 1-35. - Graham, K. (1997). *Environ. Biol. Fish.* **48**, 279-289. - Hubenova, T., Zaikov, A., and Vasileva, P. (2005). Growth and survival of paddlefish (*Polyodon spathula*) in the first year raised on natural and artificial diets. New Challenges in Pond Aquaculture, April 26-28, 2005, České Budejovice, Czech Republic. Book of Abstracts, 1, 46. - Kutsarov, Y. (2005). http://64.95.130.5/FishWatcher/Record.cfm?autoctr=1148 - Mims, S. D. (2001). Aquat. Living Resour. 14, 391-398. - Page, L. M., and Burr, B. M. (1991). A Field Guide to Freshwater Fishes of North America North of Mexico. Houghton Mifflin Company, Boston, 1-432. - Prokeš, M., Baruš, V., and Peňáz, M. (2000). Akvakulturní chov jeseterů v České Republice. IV. Česka Ichtyologicka Konferenca, May 10-12, 2000, Vodňany, Czech Republic. Conference proceedings, 1, 140-143 [in Czech]. - Vedrasco, A., Lobchenko, V., and Billard, R. (2001). Aquat. Living Resour. 14, 383-390.