Parasite fauna of invasive fish species Pseudorasbora parva (Temminck & Schlegel, 1846) from Wardynka creek (West Pomerania, Poland)

Angelika Anna Linowska, Ewa Sobecka, Przemysław Czerniejewski, Agnieszka Rybczyk

First record of stone moroko (*Pseudorasbora parva* (Temminck & Schlegel, 1846)) in Poland was described in the 1980s. This small, invasive cyprinid fish naturally occur in Japan, China and Korea. Its extension in Europe was accidental – fishes were a part of stocking material introduced to ponds. Nowadays stone moroko have colonized a lot of European (including Polish) waters, and he became significant problem in aquaculture.

The aim of study was to determine parasite fauna of stone moroko from West Pomerania. The second goal was also indication, will *P. parva* can be a host of new parasites potential threats to endemic fish species. The study was conducted in 2015–2016, in this time 111 individuals from Wardynka creek were caught. The fishes were 3.1–8.6 cm length and 0.10–8.23 g weight. Detailed parasitological examination was focused on skin, vitreous humor, eye lens, mouth and nasal cavities, gills, heart, gonads, gastrointestinal tract, kidneys, gallbladder and peritoneum.

Studies have reviled 8 species of stone's moroko parasites, but only three of them were common to both study seasons. Protista were represented by *Chilodonella piscicola* (Zacharias, 1894; Jankowski, 1980) and *Trichodinella subtilis* Lom, 1959. In Metazoa group they were Apatemon gracilis (Rudolphi, 1819) Szidat, 1928 (Digenea), Diplozoon paradoxum von Nordman, 1832 (Monogenea), *Caryophyllaeus laticeps* (Pallas, 1871) (Cestoda) and three species of Nematode – *Cystidicola farionis* Fischer, 1798, *Pseudocapillaria tomentosa* (Dujardin, 1843) and *Rhabdochona ergensi* Moravec, 1968. Four of parasite species (*T. subtilis, Apatemon gracilis, D. paradoxum, Caryophyllaeus laticeps*) were noted for the first time in this host in Poland. The highest prevalence was observed in 2015 (51.35% in comparison to 28.38% in 2016). Intensity range of parasite was the same in both seasons (0–9), and mean intensity of infection was slightly higher in 2015 (3.56 according to 2.17 in 2016). The most abundant parasite species in both samples was nematode *P. tomentosa* with prevalene 19.82%.

All of the collected stone's moroko parasites are common fish parasites in Poland. There were no alien species which could be potentially dangerous to local ichthyofauna. Nevertheless, stone moroko turned out to be a new host for local parasites, especially for *C. farionis*, which is typical to salmonid fishes.