

Gyraulus parvus (Mollusca: Gastropoda) in the Czech Republic

Luboš BERAN¹⁾ & Michal HORSÁK²⁾

¹⁾ Kokořínsko Protected Landscape Area Administration, Česká 149, CZ–276 01 Mělník;
e-mail: kokorinsko@proactive.cz, Czech Republic

²⁾ Department of Zoology and Ecology, Faculty of Science, Masaryk University, Kotlářská 2, CZ–611 37
Brno; e-mail: horsak@sci.muni.cz, Czech Republic

Received April 12, 2001; accepted October 16, 2001
Published June 28, 2002

Abstract. Next non-native species of aquatic gastropod *Gyraulus parvus* (Say, 1817) is recorded from the Czech Republic for the first time. Distribution of the species is documented from 12 localities in Bohemia (9) and Moravia (3).

Distribution, Mollusca, Gastropoda, *Gyraulus parvus*, Palearctic region

INTRODUCTION

Gyraulus parvus (Say, 1817) is species native in North America. In Europe this species was found first time in 1973 in Germany (Glöer & Meier-Brook 1998). Recently, only in eastern part of Germany exist about 15 localities of this species (Glöer & Meier-Brook 1998). The species is very similar to native *Gyraulus laevis* (Alder, 1813). They are sibling species according to Meier-Brook (1983). The main diagnostic characters separating *G. parvus* from *G. laevis* are as follows (Figs 2, 3): elevated penultimate whorl, marked widening of the distal half of the vas deferens as compared with that of the proximal half, distal portion of the spermoviduct is not wider than the widest portion of the sperm duct, and euroekous character of life strategy (Meier-Brook 1983).

RESULTS

First specimens were identified by the senior author in the sample from the sandpit near Lahošť (the sandpit on the right side of the road Lahošť – Teplice, Northern Bohemia, code of mapping square 5348 [cf. Buchar 1982], November 11, 1999, lgt. L. Beran) and from Barbora (a large water reservoir or sandpit ? near Teplice, Northern Bohemia, 5348, November 11, 1999, lgt. L. Beran). Material of conchs of “*Gyraulus laevis*” from similar localities (sandpits) in collections of both authors was revised, and after it some localities were visited again and other suitable places were investigated. Other 10 localities with occurrence of *Gyraulus parvus* resulted from this activity. These localities are as follows – Horka nad Moravou, the sand-pit Poděbrady, Central Moravia, 6369, April 25, 2000, lgt. L. Beran; Chomoutov, a big sand-pit in the Chomoutovské jezero Nature Reserve, Central Moravia, 6369, April 25, 2000, lgt. L. Beran; Ostrá, a sandpit on the right side of the road Ostrá – Kostomlaty nad Labem, Central Bohemia, 5855, May 7, 2000, lgt. L. Beran; Ostrožská Nová Ves, northern part of the biggest sandpit near Ostrožská Nová Ves, Southern Moravia, 6970, May 7, 2000, lgt. M. Horsák (in Beran & Horsák 1998 determined as *G. laevis*); Horní Jiřetín, water reservoir at former Dolní Jiřetín village, Northern Bohemia, 5447, October 17, 2000, lgt. L. Beran; Louka u Litvínova, a pond between road and railway at northern border of Louka u Litvínova, Northern Bohemia, 5447, October 18, 2000, lgt. L. Beran; Mariánské Radčice, a water reservoir to

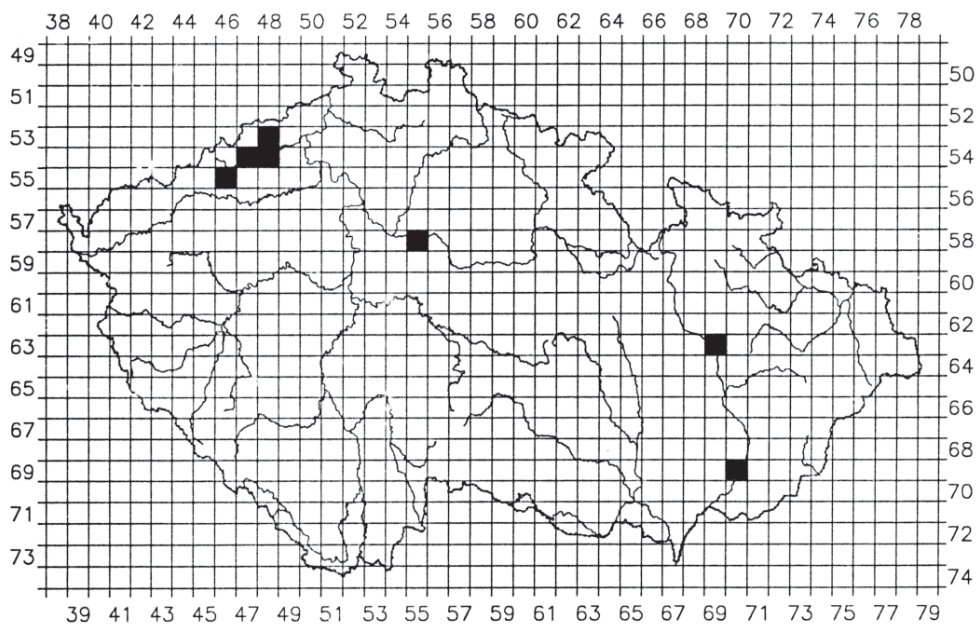


Fig. 1. Map of the Czech Republic with mapping squares of known distribution of *Gyraulus parvus* (Say).



Fig. 2. A conch of *Gyraulus parvus* (Say), Ostrožská Nová Ves, 30×, 4.9×1.6 mm. Photo M. Horsák.

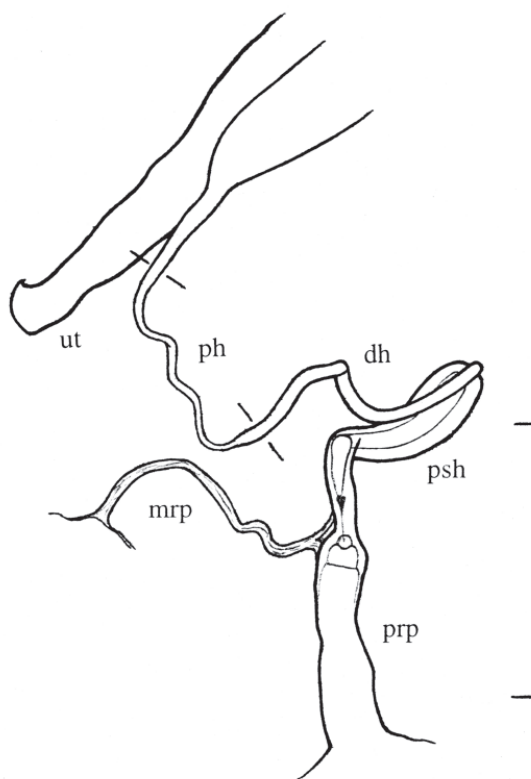


Fig. 3. *Gyraulus parvus* (Say), mrp – penis retractor muscle, prp – preaputium, psh – penis sheath, dh – distal half of vas deferens, ph – proximal half of vas deferens, ut – uterus. Scale = 1 mm. Orig. M. Horsák.

the south from Mariánské Radčice, Northern Bohemia, 5447, October 18, 2000, lgt. L. Beran; Mariánské Radčice, a small pond at left side of the road Mariánské Radčice – Braňany to the east from Mariánské Radčice, Northern Bohemia, 5448, October, 18, 2000, lgt. L. Beran; Chomutov, a water reservoir between Spořice and Droužkovice (nearest to Droužkovice), Northern Bohemia, 5546, October 20, 2000, lgt. L. Beran; Chomutov, small elongated water reservoir between Spořice and Droužkovice (third from Spořice), Northern Bohemia, 5546, October 20, 2000, lgt. L. Beran (see also the map on Fig. 1).

Very abundant occurrence (at least 100 individuals per square meter) were documented at localities Lahošp, Horka nad Moravou and Louka u Litvínova, at other localities were documented only scattered (less than 10 specimens per square meter) or solitary (less than 1 specimen per square meter) occurrence of this species. This North-American species probably inhabits more especially artificial (sandpits, water reservoir at reclaimed land) localities on the territory of the Czech Republic, but because of its similarity with *Gyraulus laevis* it is possible that this species is confuse with this native species by most of malacozoologists especially in case, when determination is based only on conchs.

REFERENCES

- BERAN L. & HORSÁK M. 1998: Aquatic molluscs (Gastropoda, Bivalvia) of the Dolnomoravský úval lowland, Czech Republic. *Acta Soc. Zool. Bohem.* **62**: 7–23.
- BUCHAR J. 1982: Publication of faunistic data from Czechoslovakia. *Věst. Čs. Společ. Zool.* **46**: 317–318.
- GLÖER P. & MEIER-BROOK C. 1998: *Süßwassermollusken (Ein Bestimmungsschlüssel für die Bundesrepublik Deutschland) 12. Auflage*. Hamburg: Deutscher Jugendbund für Naturbeobachtung, 136 pp.
- MEIER-BROOK C. 1983: Taxonomic studies on Gyraulus (Gastropoda: Planorbidae). *Malacologia* **24**(1–2): 1–113.