
Communications

New records of *Cercopagis pengoi* (Ostroumov 1891) in the southern Baltic

OCEANOLOGIA, 48 (2), 2006.
pp. 319–321.

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KEYWORDS

Cercopagis pengoi
New records
Southern Baltic
Invasive species

ANNA OLSZEWSKA

Institute of Meteorology and Water Management,
Maritime Branch,
Waszyngtona 42, PL–81–342 Gdynia, Poland;

e-mail: Anna.Olszewska@imgw.pl;
present address: aniao@iopan.gda.pl

Received 30 January 2006, revised 10 April 2006, accepted 27 April 2006.

Abstract

New records of *Cercopagis pengoi* (Cladocera, Crustacea) are reported for the first time from the central and western part of the Polish zone of the Baltic Sea.

About 100 exotic species have been recorded in the Baltic Sea (Leppäköski et al. 2002). One of the most recent non-indigenous species in the Baltic Sea is the fishhook water-flea *Cercopagis pengoi*, a predatory cladoceran native to the Ponto-Caspian region (Mordukhai-Boltovskoi & Rivier 1987). The invasion history of *C. pengoi* dates back to the early 1990s. Recorded for the first time in the Baltic Sea in the Gulf of Riga and in the open Gulf of Finland in 1992 (Ojaveer & Lumberg 1995, Krylov et al. 1999), the fishhook water-flea subsequently expanded its distribution to other areas of the Baltic Sea (Avinski 1997, Gorokhova et al. 2000). In 1999 it was found in Polish waters: the Vistula Lagoon (Hornatkiewicz-Żbik 1999) and the Gulf of Gdańsk (Żmudziński 1998, Bielecka et al. 2000, Duriš et al. 2000).

In 2002 this author noted the presence of *C. pengoi* in the zooplankton community at new localities along the Polish Baltic coast; these were situated west of the hitherto known records.

The complete text of the paper is available at <http://www.iopan.gda.pl/oceanologia/>

The materials were collected by vertical hauls of a WP-2 net and an Apstein net (100 μm mesh size) in the Polish zone of the Baltic Sea between March and October 2002. This research was carried out by the Institute of Meteorology and Water Management as part of the HELCOM monitoring programme (COMBINE).

Individual fishhook water-fleas were found at four shallow-water stations: two on the central Polish coast in September 2002, one in the Pomeranian Bay and another in the Szczecin Lagoon in June 2002 (Fig. 1). *C. pengoi* was reported from depths of 0 m to 18 m. It varied in abundance from 0.1 individuals m^{-3} near Żarnowiec (station Z) to 38 indiv. m^{-3} near Łeba (station Ł7), 72 indiv. m^{-3} in the Pomeranian Bay (station SW3) and to 285 indiv. m^{-3} in the Szczecin Lagoon (station O6). *C. pengoi* was represented by individuals in different developmental stages – embryos, males, and both parthenogenetic and gamogenetic females.

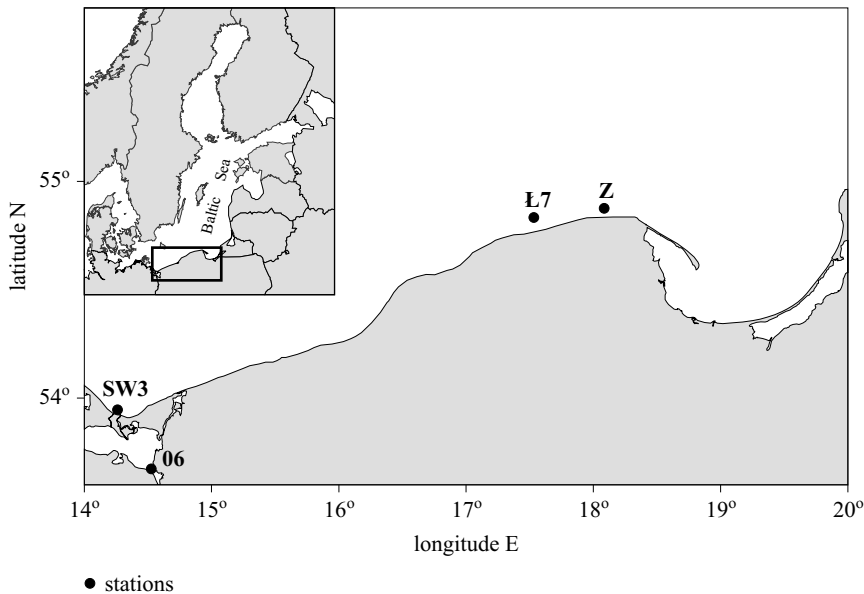


Fig. 1. Location of the new records of *Cercopagis pengoi* in the Polish zone of southern Baltic

Prior to these observations, *C. pengoi* had never before been reported in the waters of the central and western parts of the Polish zone of the Baltic Sea. These latest records of the species appear to confirm that it is tending to expand its Baltic Sea range in a westerly direction. Further records of the fishhook water-flea in the southern part of the Baltic Sea can therefore be expected.

References

- Avinski V. A., 1997, *Cercopagis pengoi* – a new species in the eastern Gulf of Finland ecosystem, [in:] *Proceedings of the final seminar of the Gulf of Finland year 1996*, J. Sarkkula (ed.), Finn. Environ. Inst., Helsinki, 247–256.
- Bielecka L., Żmijewska M. I., Szymborska A., 2000, A new predatory cladoceran *Cercopagis (Cercopagis) pengoi* (Ostroumov 1891) in the Gulf of Gdańsk, *Oceanologia*, 42 (3), 371–374.
- Duriš Z., Jurasz W., Kublákova M., Vařecha D., 2000, *Ponto-Caspian invading water-flea Cercopagis pengoi* in the Gulf of Gdańsk, Poland (Crustacea, Cladocera), *Acta Fac. Rerum Nat. Univ. Ostraviensis, Biol.-Ekol.*, 192 (6–7), 51–56.
- Gorokhova E., Aladin N., Dumont H. J., 2000, *Further expansion of the genus Cercopagis (Crustacea, Branchiopoda, Onychopoda) in the Baltic Sea, with notes on the taxa present and their ecology*, *Hydrobiologia*, 429 (1–3), 207–218.
- Hornatkiewicz-Żbik A., 1999, *Predatory cladocerans in the Vistula Lagoon*, *Kom. Ryb.*, 5, 10–11, (in Polish).
- Krylov P. I., Bychenkov D. E., Panov V. E., Rodionova N. V., Telesh I. V., 1999, *Distribution and seasonal dynamic of the Ponto-Caspian invader Cercopagis pengoi (Crustacea, Cladocera) in the Neva Estuary (Gulf of Finland)*, *Hydrobiologia*, 393 (1), 227–232.
- Leppäkoski E., Gollasch S., Gruszka P., Ojaveer H., Olenin S., Panov V., 2002, *The Baltic – a sea of invaders*, *Can. J. Fish. Aquat. Sci.*, 59 (7), 1175–1188.
- Mordukhai-Boltovskoi F. D., Rivier I. K., 1987, *Predatory cladocerans (Podonidae, Polyphemidae, Cercopagidae and Leptodoridae) of the world's fauna*, Nauka, Leningrad, 182 pp., (in Russian).
- Ojaveer H., Lumberg A., 1995, *On the role of Cercopagis (Cercopagis) pengoi (Ostroumov) in Parnu Bay and the NE part of the Gulf of Riga ecosystem*, *Proc. Estonian Acad. Sci. Ecol.*, 5 (1/2), 20–25.
- Żmudziński L., 1998, *Cercopagis pengoi (Cladocera) conquered the southern Baltic Sea*, *Baltic Coast. Zone*, 2, 95–96.