

## BIOLOGICAL NOTES

Rapid communication

### NEW RECORD OF *TACHYURA PARVULA* (DEJEAN, 1831) (COLEOPTERA, CARABIDAE) FROM MIDDLE POMERANIA BALTIC SEA COAST (N POLAND)

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#### Abstract

A new record of rare ground beetle *Tachyura parvula* (Dejean, 1831) is presented from the Baltic Sea coast.

**Key words:** Coleoptera, Carabidae, new record, Baltic Sea coast, N Poland

#### INTRODUCTION

The genus *Tachyura* Motschulsky, 1862 includes 248 species, living mainly in subtropics and tropics (Lorenz 2005). In the Palaearctic region 72 species are known (Kopecky 2003).

In Europe, 19 species have been recorded so far, with 6 species known from Central Europe (Kopecky 2003, Müller-Motzfeld 2004). According to Pawłowski (1974), the Polish fauna contains four species: *T. (Sphaerotachys) hoemorrhoidalis* (Ponza, 1805), *T. (s.str.) diabrachys* Kolenati, 1845, *T. (s.str.) quadrisignata* Duftschmid, 1812 and *T. (s.str.) parvula* (Dejean, 1831).

All species are small (1.5-3 mm), and collected seldom and sporadically. Most records were old, from more than 40 years ago, from the South Poland mainly (Burakowski et al. 1973, Pawłowski 1974).

## MATERIAL EXAMINED

Baltic shore: Slovinski National Park, (UTM XA53) 54°43'12.50"N, 17°12'54.53"E, Baltic coast, under fragment of dead wood on the sea shore, 26/05/2005, 1 ex., by hand, O. Aleksandrowicz leg. et det.

The collected specimen has been deposited in the collection of the Zoology Chair of the Pomeranian University in Słupsk.

## RESULTS AND DISCUSSION

*T. parvula* is an Euro-Mediterranean species, introduced not far ago to Canada (La-Bonte and Nelson 1998). According to Kopecky (2003), it is known in West Europe (Ireland, Great Britain, Netherlands, Luxembourg, Belgium, France, Switzerland), South Europe (Portugal, Spain, Italy), Central Europe (Germany, Austria, Hungary, Poland, Slovakia), and South-East Europe (Bulgaria, Romania, Moldavia, Ukraine). It is distributed in North Africa (Morocco, Tunisia, Algeria, Egypt) and in West Asia only in Syria.

In North Europe it is only known in the south of Sweden (Kopecky 2003, Silfverberg 2004).

The nearest known coastal locality is in Mecklenburg, Germany (Schmidt 1988).

In the last decade, *T. parvula* was found in Lithuania (Ferenca 2003) in Kaunas vicinity.

According to Koch (1989), *T. parvula* is an eurytopic, hygrophilous and halotolerant species. It is found seldom and sporadically, usually collected in low frequencies and low densities from wet habitats: sandy and gravelly beaches on shores; brick-works and gravel-pits, saline lands. As extreme rare species *T. parvula* was included into the Red List of the threatened beetles in Brandenburg (Scheffler et al. 1999), Berlin (Kielhorn 2005) and Saxony (Gebert 2009).

In Poland, *T. parvula* is very rare too. Last time it was collected in lowland Poland in the period 1937-1942 in vicinity of Belinek ad Dębno, in Odra beach. The last records of Southern Poland are from 1973 (Burakowski et al. 1973).

Tamutis et al. (2011) wrote that last time findings of such Euro-Mediterranean species as *T. parvula* in Lithuania may be the result of climate changes or they are the relicts of the Atlantic Period.

It is very difficult to verify this hypothesis in case of *T. parvula* because the material is so poor. It is a small species, and maybe collected by hand only, never by traps. New dates are needed for establishing north-east border of *T. parvula* areal.

## REFERENCES

- Burakowski B., Mroczkowski M., Stefańska J., 1973. Chrząszcze – Coleoptera. Biegaczowate – Carabidae I. Katalog Fauny Polski. (Beetles – Coleoptera. Ground beetles – Carabidae I. A catalogue of the Polish fauna). PWN, Warszawa, 23, 2, 233, (in Polish).
- Ferenca R., 2003. New and rare for the Lithuanian fauna Coleoptera species collected in 1997-2002. New and rare for Lithuania insect species, 15, 32-36.

- Gebert J., 2009. Rote Liste Laufkäfer Sachsens. Naturschutz und Landschaftspflege. (A red list of ground beetles of Saxony. Nature and landscape protection). Hrsg. Sächs. Landesamt f. Umwelt, Landwirtschaft und Geologie, (in German).
- Kielhorn K.H., 2005. Rote Liste und Gesamtartenliste der Laufkäfer (Coleoptera: Carabidae) von Berlin. In: Der Landesbeauftragte für Naturschutz und Landschaftspflege / Senatsverwaltung für Stadtentwicklung (Hrsg.): Rote Listen der gefährdeten Pflanzen und Tiere von Berlin. (A Red List and a check list of ground beetles (Coleoptera: Carabidae) of Berlin). CD-ROM, (in German).
- Koch K., 1989. Die Käfer Mitteleuropas. Ökologie. (Beetles of Middle Europe. Ecology). Goecke & Evers Verlag, Krefeld, (in German).
- Kopecky T., 2003. Subtribe Tachyina Motschulsky, 1862. In: Catalogue of Palaearctic Coleoptera. (Eds) I. Löbl, A. Smetana, Apollo Books, Stenstrup, 1, 273-280.
- LaBonte J.R., Nelson R.E., 1998. North American distribution and habitat of *Elaphropus parvulus* (Dejean), an introduced, non-synanthropic carabid beetle (Coleoptera: Carabidae). *Coleopt. Bull.*, 52(1), 35-42.
- Lorenz W., 2005. A systematic list of extant ground beetles of the world (Insecta Coleoptera "Geodephaga": Trachypachidae and Carabidae incl. Paussinae, Cicindelinae, Rhysodinae). Published by the author, Tutzing.
- Müller-Motzfeld G., 2004. 13. Bembidiini. In: Die Käfer Mitteleuropas. Band 2, Adephaga 1, Carabidae (Laufkäfer). (13. Bembidiini. In: Beetles of Middle Europe. Vol. 2, Adephaga 1, Carabidae (Ground Beetles)). (Ed.) G. Müller-Motzfeld, Spektrum Akademischer Verlag, München, 150-205, (in German).
- Pawłowski J., 1974. Biegaczowate – *Carabidae*. Podrodziny *Bembidiinae*, *Trechinae*. Klucze do oznaczenia owadów Polski. Part 19: Chrząszcze – *Coleoptera*. (Ground beetles – *Carabidae*. Subfamily *Bembidiinae*, *Trechinae*. Handbook for identification of Polish insects. Part 19: Beetles – *Coleoptera*). PWN, Warszawa, Issue 3b, (in Polish).
- Scheffler I., Kielhorn K.-H., Wrase D.W., Korge H., Braasch D., 1999. Rote Liste und Artenliste der Laufkäfer des Landes Brandenburg (Coleoptera: Carabidae). (A red list and a check list of ground beetles of Brandenburg Land (Coleoptera: Carabidae)). *NundL*, 8 (4), 1-27, (in German).
- Schmidt J., 1988. *Tachys parvulus* (Dejean) und *Amara famelica* Zimmermann in Mecklenburg (Col., Carabidae). (*Tachys parvulus* (Dejean) and *Amara famelica* Zimmermann in Mecklenburg (Col., Carabidae)). *Ent. Nachr. Ber.*, 32(1), 43-44, (in German).
- Silfverberg H., 2004. Enumeratio nova Coleopterorum Fennoscandiae, Daniae et Baltiae. (A new check list of Coleoptera of Fennoscandia, Dania and Baltia). *Sahlbergia*, 9, 1-111.
- Tamutis V., Tamutė B., Ferenc R., 2011. A catalogue of Lithuanian beetles (Insecta, Coleoptera). *ZooKeys*, 121, 1-494.

NOWE DANE O WYSTĘPOWANIU  
*TACHYURA PARVULA* (DEJEAN, 1831) (COLEOPTERA, CARABIDAE)  
NA BRZEGU BAŁTYKU NA ŚRODKOWYM POMORZU

**Streszczenie**

Przedstawiono nowe dane o występowaniu rzadkiego gatunku *Tachyura parvula* (Dejean, 1831) z rodziny biegaczowatych (Carabidae) na brzegu Bałtyku, na plaży w okolicy Czolpina, na terenie Słowińskiego Parku Narodowego. Wcześniej obecność *T. parvula* została odnotowana w latach 40. XX wieku tylko na jednym stanowisku w Polsce niżowej.



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Voipio A., 1981. The Baltic Sea. Elsevier Scientific Publishing Company, Amsterdam.

Rajman J., Górz B., 1995. Tendencje demograficzne i osadnicze na terenach przygranicznych Polski Południowo-Wschodniej. W: Przemiany struktur społeczno-gospodarczych obszarów przygranicznych. (Demographic and settlement tendencies in boundary regions of South-East Poland. In: Transformations of social and economic structures of boundary regions). (Ed.), J. Kitowski, Z. Ziolo, Warszawa-Rzeszów, 329-347, (in Polish).

Nalewajko C., Lean D. R., 1980. Phosphorus. In: The physiological ecology of phytoplankton, I. Morris (Ed.), Blackwell Scientific Publishing, Oxford, 235-258.

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