

The distribution of *Bembidion (Lymnaeum) nigropiceum* (Marsham, 1802) including the first recordings from Greece
(Coleoptera: Carabidae)

Jürgen TRAUTNER

Abstract: The distribution of the ground beetle *Bembidion (Lymnaeum) nigropiceum* (Marsham, 1802) is described and the first recordings from Greece (islands of Lefkada, Crete, Skiathos) are presented. Short comments are given to the habitat of the species, which is strictly confined to the tidal zone along parts of the coasts of the Atlantic, the Mediterranean and the Black Sea/Azov Sea.

Zusammenfassung: Die Verbreitung des Laufkäfers *Bembidion (Lymnaeum) nigropiceum* (Marsham, 1802) wird dargestellt und dieser neu für Griechenland (Inseln Lefkada, Kreta, Skiathos) belegt. Der Lebensraum der Art, die auf die Tidezone in Küstenabschnitten des Atlantiks, des Mittelmeeres sowie des Schwarzen Meeres/Azowschen Meeres beschränkt ist, wird kurz besprochen.

Key words: Coleoptera, Carabidae, *Bembidion nigropiceum*, Greece, faunistic, new records.

Introduction

During a 3-week visit to the Greek Ionian island of Lefkada in April 1999 it was possible to collect and identify several individuals of *B. nigropiceum* on the perimeter of a former salt-works near Kariotes. The species, and the find-location, are shown in Figs. 1 and 2. The beetles were detected through the turning-over of large rocks where they were found along with numerous amphipods. On discovery the beetles at-

tempted to hide quickly in the substratum, which consisted of silt and very fine gravel.

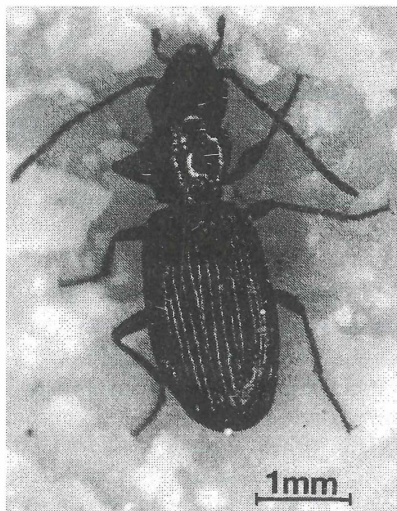


Fig. 1: *Bembidion (Lymnaeum) nigropiceum* (Marsh.) from Lefkada. (photographs by the author)

According to the available literature *B. nigropiceum* has not yet been recorded for Greece. This has prompted the author to compile data on the distribution of the species.

Further investigation brought to light the fact that the species had already been found on Lefkada by J. RIETZE (1 ind., April 1997, Ponti-Vassiliki beach in fine gravel) as well as on Crete and on Skiathos by Dr. H. SCHMALFUSS (1 ind., April 1982, Sitia, Crete; 1 ind., May 1979, Skiathos; BAEHR in lit.). These recordings had not yet been published.

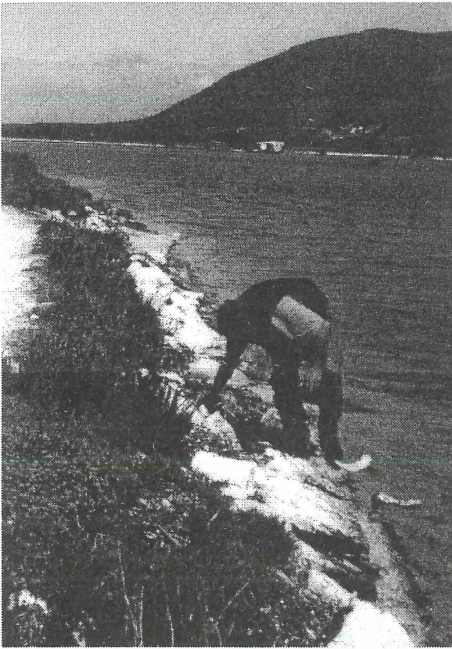
Distribution

NETOLITZKY (1941) noted the following distribution for the species: English Channel (loc. class.), Brittany, Sardinia, Istria, the Dalmatian Coast, and the Crimea. Based on this, and especially on other more recent faunistic works, the distribution of *B. nigropiceum* could be characterized as Atlantic-north Mediterranean (Fig. 3).

There are no records for Northern and Central Europe. For Fenno-skandia and Denmark LINDROTH (1985) does not mention it. HORION (1941) noted (transl.): "Not in Germany, neither on the North Sea coast nor on the Friesian Islands". The old statement for Norderney has never been proved and should be rejected, as has been suggested by HORION (1941).

In Western Europe it is known from Britain and France. In the UK it is mostly confined to southern England with a single recent record from South Wales (LUFF 1998). In France find-locations include the Channel

and parts of the Atlantic coast, and southwards as far as the Charentes (BONADONA 1971, JEANNEL 1941). There are no records for Belgium (DESENDER 1986) and the Netherlands (TURIN et al. 1977, TURIN in lit.).



In Italy MAGISTRETTI (1965) listed Veneto, Venice-Giulia, Marche, Lazio, and Sardinia as regions where *B. nigropiceum* has been found. In the checklist of VIGNA TAGLIANTI (1993), which does not include detailed information on find-localities or regions, the species is mentioned as being present in northern and southern parts of Italy and on Sardinia, but not on Sicily.

Fig. 2: Location of finds near Kariotes.

Finds on the Balkan Peninsula are not considered by APFELBECK (1904), but known to NETOLITZKY (1941) and others from Istria and the Dalmatian coast. DROVENIK & PEKS (1994) have no records for the coast of Montenegro. New records from Lefkada, Crete, and Skiathos (Greece) are presented in this publication. It may be supposed that there are more locations on the Greek islands or along the coast of the mainland populated by *B. nigropiceum*.

From the coasts of the Black Sea/Azov Sea, in addition to the long known presence of the species in the Crimea (see also KRYZHANSOVSKIJ et al. 1995: Crimea, Ukraine), it is recorded by HIEKE & WRASE (1988) as well as by GUÉORGUIEV & GUÉORGUIEV (1995) from the southern Black Sea coast (Vlas, Pomorie) in Bulgaria.

No findings are known from other countries along the Atlantic coast or around the Mediterranean Sea (e.g. ZABALLOS & JEANNE 1994 for the

Iberian Peninsula, ANTOINE 1955 for Morocco). The closely related species *B. abeillei* Bedel, 1879 is recorded for the Mediterranean coast of Spain and France as well as for Corsica.

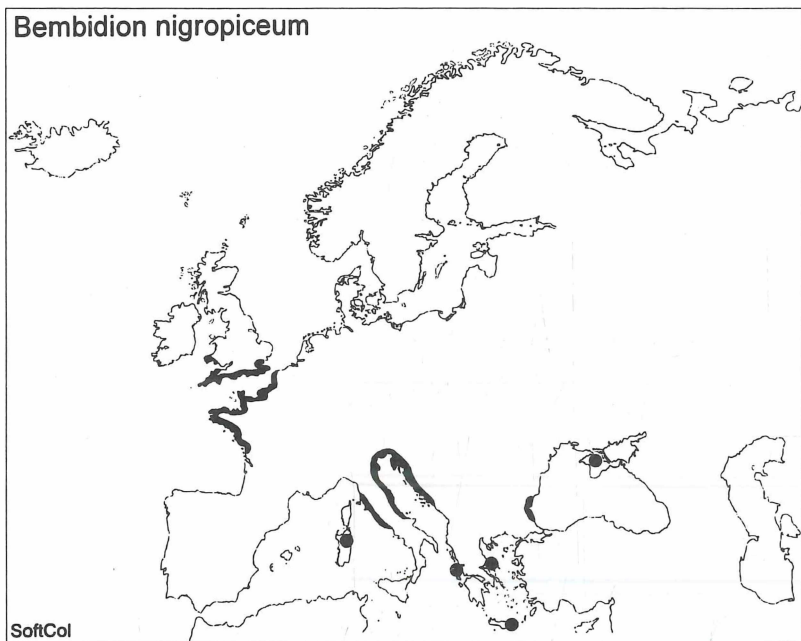


Fig. 3: Distribution of *Bembidion (Lymnaeum) nigropiceum* (Marsh.)

Habitat

Bembidion nigropiceum inhabits rocky coasts or shores with, as a rule, a high proportion of stones or gravel. Here it can be found beneath rocks or in crevices inundated during high tide (e.g. BONADONA 1971). It therefore belongs to a comparatively small ecological group of European carabid species restricted to the special habitats of the tidal zone (e. g. *Trechus fulvus*, *Cillenus lateralis*, *Aepus marinus*, *Aepopsis robini*, *Bembidion abeillei*).

The finds on the island of Lefkada indicate that it is not only such primary habitat that could be suitable for this species, at least for small

populations. Nevertheless, at this time "little is known of its ecology" (LUFF 1998), so that it is difficult to draw any concrete conclusions. The (probably permanently) wingless species (see JEANNEL 1941, LINDROTH 1974) should also be given special attention in nature conservation because of its small and isolated range. The situation in Britain (see LUFF 1998), for example, where only seven recent localities are known, may be interpreted as an indicator of at least regional endangerment. There the species is listed as "nationally scarce" (HYMAN & PARSONS 1992) and is given special attention with respect to the progress of the UK Biodiversity Action Plan.

Acknowledgements

I would like to thank Werner MARGGI (CH-Thun) and Hans TURIN (NL-Renkum) for indications regarding the distribution of *Bembidion nigropiceum* and Jörg RIETZE (D-Filderstadt) and Dr. Martin BAEHR (D-Munich) for the communication of finds on Lefkada, Crete, and Skiathos. Furthermore I would like to thank Dr. Mark MORGAN (D-Stuttgart) for the revision of my English text.

Literature

- ANTOINE, M. (1955): Coléoptères Carabiques du Maroc. 1ère partie. - Mem. Soc. sc. nat. phy. Maroc, N. S., Zoologie 1:1-177.
- APFELBECK, V. (1904): Die Käferfauna der Balkanhalbinsel, mit Berücksichtigung Klein-Asiens und der Insel Kreta. Erster Band: Familienreihe Carab-oidea. - 422 pp.; R. Friedländer und Sohn, Berlin.
- BONADONA, P. (1971): Catalogue des Coléoptères Carabiques de France. - Nouv. Revue ent., Suppl.: 177 pp.; Toulouse.
- DESENDER, K. (1986): Distribution and Ecology of Carabid Beetles in Belgium (Coleoptera, Carabidae). Part 21. Species 81 - 152 (Bembidiini, Pogonini). - Studiendocumenten 27, 24 pp.
- DROVENIK, B. & PEKS, H. (1994): Catalogus Faunae: Carabiden der Balkanländer. - Coleoptera, Sonderheft I: 103 pp.; Schwanfeld.
- GUÉORGUIEV, V. B. & GUÉORGUIEV, B. V. (1995): Catalogue of the ground-beetles of Bulgaria (Coleoptera: Carabidae). - 279 pp.; Pensoft, Sofia.
- HIEKE, F. & WRASE, D. (1988): Faunistik der Laufkäfer Bulgariens. - Dt. ent. Z. 35(1-3):1-171.

- HORION, A. (1941): Faunistik der deutschen Käfer. Bd. I: Adephaga - Caraboidea. - 464 pp.; Goecke, Krefeld.
- HYMAN, P. S. & PARSONS, M. (1992): A review of the scarce and threatened Coleoptera of Great Britain. Part 1. - UK Nature Conservation, No. 3: 484 pp.; UK Joint Nature Conservation Committee, Peterborough.
- JEANNEL, R. (1941): Coléoptères Carabiques I. - Faune de France 39:1-572.
- KRYZHANOVSKIJ, O. L., BELOUSOV, I. A., KABAK, I. I., KATAEV, B. M., MAKAROV, K. V. & SHILENKOV, V. G. (1995): A Checklist of the Ground-Beetles of Russia and Adjacent Lands (Insecta, Coleoptera, Carabidae). - Pensoft Series Faunistica, 3: 271 pp.; Pensoft, Sofia, Moscow.
- LINDROTH, C. H. (1974): Coleoptera - Carabidae. - Handbooks for the identification of British insects 4(2):1-148.
- (1985/1986): The Carabidae (Coleoptera) of Fennoscandia and Denmark. - Fauna Entomologica Scandinavica 15(1):1-227 15(2):233-499; Brill, Leiden, Copenhagen.
- LUFF, M. L. (1998): Provisional atlas of the ground beetles (Coleoptera, Carabidae) of Britain. - 194 pp.; Biological Records Centre, Huntingdon.
- MAGISTRETTI, M. (1965): Fauna d'Italia. Coleoptera: Cicindelidae, Carabidae. Catalogo topografico. - 512 pp.; Calderini, Bologna.
- NETOLITZKY, (1941): Bestimmungstabelle der *Bembidion*-Arten des paläarktischen Gebietes (Bestimmungstabellen europ. Käfer). - Koleopt. Rdsch. 28: 29-124.
- TURIN, H., HAECK, J. & HENGEVELD, R. (1977): Atlas of the Carabid Beetles of the Netherlands. - Verh. Kon. Ned. Acad. Wet. Amsterdam 68:1-228.
- VIGNA TAGLIANTI, A. (1993): Coleoptera Archostemata, Adephaga 1 (Carabidae). - In: MINELLI, A., RUFFO, S. & LA POSTA, S. (eds.): Checklist delle specie della fauna italiana 44:51 pp.; Calderini, Bologna.
- ZABALLOS, J.P & JEANNE, C. (1994): Nuevo Catalogo de los Carabidos (Coleoptera) de la Peninsula Iberica. - Monografias S.E.A. 1:159 pp.; Sociedad Entomológica Aragonesa.

Adress of the author:

Jürgen TRAUTNER, Arbeitsgruppe für Tierökologie und Planung, Johann-Strauss-Strasse 22, D-70794 Filderstadt.

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Mitteilungen des Internationalen Entomologischen Vereins](#)

Jahr/Year: 2000

Band/Volume: [25_1-2_2000](#)

Autor(en)/Author(s): Trautner Jürgen

Artikel/Article: [The distribution of *Bembidion \(Lymnaeum\) nigropiceum* \(Marsham, 1802\) including the first recordings from Greece 35-40](#)