

SHORT NOTE

Swarming observation of *Odonteus armiger* (SCOPOLI, 1772) (Coleoptera: Geotrupidae)**DMITRY TELNOV**

Stopiņu novads, Dārza iela 10, LV-2130, Dzidriņas, Latvia; e-mail: anthicus@gmail.com

Odonteus armiger is the single representative of burrowers (Geotrupidae: Bolboceratinae) in eastern and northern Europe. These 6 to 10 mm long, strongly convex beetles are uncommon in the whole distribution area covering most of Europe (except polar latitudes), as well as Turkey (Král et al. 2006), and very little is known about their bionomy.

Most sources say this species is “possibly associated with subterranean fungi” and that “adults fly in daylight and at dusk” (Bunalski 1999, Reichholf 1993). Koch (1991) gives the following information on ecology of *O. armiger* in Central Europe: “Stenotopic, xerophilic, pholeophilic, subterranean and possible mycetophagous species. Habitats: Semi-dry and dry grasslands and forest edges, sandy flood-plains, quarries, parks and gardens. Occurs in leaf litter, weeds, in faeces, under

stones, possible in fruit bodies of Tuberales fungi (truffles), eventually on *Tuber aestivum*”. On British Islands (Scott & Scott 2008), this species occurs in grassland and heathland on chalky or sandy soils. They are subterranean and occasionally found in and around rabbit burrows, possibly feeding on subterranean fungi. *O. armiger* has been found under dry cow dung and sheep droppings. Adults recorded flying in the evening in hot weather and have been noted to fly in the afternoon in cooler weather. Adults have been observed from May to November, though most records are from June and July. A high proportion of records of this beetle are from light traps. In Latvia, two findings have been hitherto recorded (Spuris 1991, Telnov et al. 2005), one of them in a light trap.

At 11th and 25th of September 2011, an unusual and not yet registered observation on the biology and

behaviour of *O. armiger* was made by I. Salmane (The Entomological Society of Latvia, Rīga, LV). Several specimens were observed swarming in September (slowly flying ~30-40 cm over the low grass) in a garden in Ogre, Central Latvia (Ogre, Pārogre, Pagasta iela 8). Specimens were flying slowly on a sunny afternoon (between 14:00 and 16:00) with an average temperature ranging 17-18°C. A maximum of 4 beetles were seen flying at once and the specimens caught were all females. After landing, all beetles dug into typical sandy clay garden soil and disappeared into it within a few seconds (Fig. 1), leaving only small openings of their burrows.

To our knowledge, such swarming has not been recorded for *Odontaeus armiger*. Moreover, the observation of several of specimens of this rare species (considered solitary insects) seems highly interesting.

References

- Bunalski M. 1999. *Die Blatthornköfer Mitteleuropas. Coleoptera, Scarabaeoidea. Bestimmung – Verbreitung – Ökologie.* Bratislava: 80 pp.
- Koch K. 1991. *Die Käfer Mitteleuropas. Ökologie.* Volume 2. Krefeld, Goecke & Evers: 382 pp.
- Král D., Löbl I., Nikolajev G.V. 2006. Bolboceratidae: 82–84. In: Löbl I., Smetana A. (eds) *Catalogue of Palearctic Coleoptera, Volume 3. Scarabaeoidea – Scirtoidea – Dasciloidea – Buprestoidea – Byrrhoidea.* Stenstrup, Apollo Books: 690 pp.
- Reichholf J.H. 1993. Lichtfallenfunde des Klapphornkäfers *Odontaeus armiger* im niederbayerischen Inntal. – *Mitteilungen der Zoologischen Gesellschaft Braunau* 5, No. 17/19: 389-390.
- Scott D., Scott J. 2008. *Odontaeus armiger* (Scopoli 1772) [sic!] Coleoptera: Geotrupidae at Astley Burf. – *Worcestershire Records* 24: 11.
- Spuris Z. 1991. Catalogue of the Insects of Latvia. 9. The Family Scarabaeidae. – *Latvijas Entomologs* 34: 5-27 [in Latvian, English abstract].
- Telnov D., Gailis J., Kalniņš M., Napolov A., Piterāns U., Vilks K., Whitehead P.F. 2005. Contributions to the Knowledge of Latvian Coleoptera. 4. – *Latvijas Entomologs* 42: 18-47.

Received: November 20, 2011.



Figure 1a-d. Female specimen of *Odonteus armiger* (SCOPOLI, 1772) digging into the ground.