Opole Scientific Society Nature Journal No 44 – 2011: 132-134

## CONFIRMATION OF THE PRESENCE OF *OTIORHYNCHUS ARMADILLO* (ROSSI, 1792) (COLEOPTERA: CURCULIONIDAE: ENTIMINAE) IN POLAND

MIŁOSZ A. MAZUR<sup>1</sup>, TOMASZ MOKRZYCKI<sup>2</sup>

<sup>1</sup>Center for Biodiversity Studies, Department of Biosystematics, Opole University;

Oleska 22; 45-052 Opole; Poland; e-mail: milosz@uni.opole.pl

<sup>2</sup>Department of Forest Protection and Ecology, Warsaw University of Life Sciences,

Nowoursynowska 159, 02-776 Warszawa, Poland; e-mail: tomasz\_mokrzycki@sggw.pl

**ABSTRACT:** Authors present the first confirmed locality of *Otiorhynchus armadillo* (Rossi, 1792) in Poland. Information about occurrence this species in Poland exist in polish literature since 1913, but later researches subjected this data in doubt. Locality from Warsaw is first and probably single nowadays in Poland.

**KEY WORDS**: *Otiorhynchus armadillo*, Curculionidae, Entiminae, first locality, faunistic, Poland

*Otiorhynchus armadillo* is a species which until recently was encountered only in North-West Balkans and mountainous regions of several countries located in Central Europe [Italy, the Alps, the Vosges Mountains, the Sredinny Range and southern part of Rheinland) (Burakowski et al. 1993)], where it reached up to the subalpine zone (Muster and Krause 2002).

In the recent years a strong expansion of this species in the northerly direction has been observed. Since 1998 it has been reported from the British Isles (Lane 2009). In 2008 it was first recorded in the Netherlands (Heijerman and Hellingman 2008), in 1995 in Sweden, and in 2010 in Norway (Staverløkk 2010).

In Poland, the presence of this species has not been unambiguously confirmed so far. Tenenbaum (1913) reported its presence in Roztocze and claimed to encounter numerous individuals in the surroundings of Warsaw, however, it was afterwards commented that the information was "certainly false" (Mroczkowski and Stefańska 1992). In the collection of M. Rybiński there was one individual apparently found in Zakopane, however, Smreczyński did not include the species in question in the fauna of Poland, even

though it was featured in his key for identification of snout beetles (Smreczyński 1966). The above pieces of information were later confirmed by the authors of the Catalogue of the Fauna of Poland (Burakowski et al. 1993).

The biology of O. armadillo has been studied quite extensively because locally it has the status of a pest. The species is polyphagous. Imagines have been observed to feed on leaves of various species of trees and shrubs representing such families as: Asteraceae, Araliaceae. Aquifoliaceae, Betulaceae, Caprifoliaceae, Celastraceae. Ericaceae. Hydrangeaceae, Lamiaceae, Lauraceae, Liliaceae, Oleaceae, Polygonaceae, Ranunculaceae, Rosaceae, Saxifragaceae; larvae feed on the roots (Staverløkk 2010). In some countries the impact of its presence on economy is significant enough to attempt eradication of the species both chemically and biologically (Grassi et al. 2003).

In Poland the species in question has been recorded in the city of Warsaw.

Mazowsze Lowland: Warsaw-Ursynów (EC07), 27.05.2005, 1♂, on the pavement, on the premises of the historical part of the SGGW campus, leg. et coll. T. Mokrzycki.

A living specimen was collected near Skarpa Ursynowska Nature Reserve. The origin of the specimen is unknown; it is not certain whether it had been transferred to Warsaw with soil or with plants, as had frequently taken place in other countries (Staverløkk 2010). A search for this species in the surrounding area should be conducted, in order to learn whether a permanent population is living there or whether the encountered specimen was just a result of an accidental transfer.

In external appearance the species is very similar to *Otiorhynchus apenninus* Stierlin, 1883 (= *O. salicicola* Heyden, 1907), which is closely related to it and for which it is often mistaken. This species is also considered invasive and, similarly to *O. armadillo*, in the recent years it has been encountered in a growing number of countries in Central Europe (it has already been reported from the British Isles, the Netherlands and Germany). Thus, its presence in Poland may soon become a fact, also due to its biology, which is similar to that of *O. armadillo* and implies that the species might be transferred in a similar way. A detailed characteristics of both species together with their distribution can be found in the study by Heijerman and Hellingman (2008).

## **Bibliography**

- Burakowski B., Mroczkowski M., Stefańska J. 1993. Chrząszcze Coleoptera, Ryjkowce – Curculionidae, cz. 1. Kat. Fauny Pol. Część XXIII, tom 19. 324 pp.
- Grassi A., Maines R., Zini M.. 2003. Field application and effectiveness of commercial entomopathogenic nematode formulations against Otiorhynchus armadillo subsp. obsitus Gyllenhal (Coleoptera: Curculionidae) larvae on raspberry. Integrated Plant Protection in Orchards – Soft Fruits. IOBC/wprs Bull., Vol. 26(2): 51-54.
- Heijerman Th., Hellingman S. 2008. Otiorhynchus armadillo, een invasieve snuitkever, gevestigd in nederland (Coleoptera: Curculionidae). Nederlandse faunistische mededelingen, 29: 37-49.

- Lane S. 2009. Otiorhynchus armadillo (Rossi) in Coventry, Warwickshire (VC38). Beetle News 1(3): 3.
- Mroczkowski M., J. Stefańska. 1992. Coleoptera Chrząszcze. In: J. Razowski (eds.), Wykaz zwierząt Polski: Tom III, 7-197. Krakowskie Wydawnictwo Zoologiczne. Kraków.
- Muster Ch., Krause R. 2002. Verbreitungsmuster von Rüsselkäfern (Coleoptera: Apionidae, Curculionidae) am Nordalpenrand. Entomologica Austriaca, 6: 12-13.
- Smreczyński S. 1966. Ryjkowce Curculionidae: Podrodziny Otiorhynchinae, Brachyderinae. Klucze do oznaczania owadów Polski, XIX, 98b. Warszawa, 130 pp.
- Staverløkk A. 2010. Otiorhynchus armadillo (Rossi, 1792) (Coleoptera, Curculioidae), a weevil new to Norway. Norwegian Journal of Entomology, 57: 9-11.
- Tenenbaum Sz. 1913. Chrząszcze (Coleoptera) zebrane w Ordynacyi Zamojskiej w gub. Lubelskiej. Pam. Fizyogr., Warszawa, 21(3), 72 pp.