

## CONTRIBUTIONS TO THE MALACOLOGY OF MALTA, II: ON THE SECOND RECORD OF *OTALA PUNCTATA* (MÜLLER, 1774) (GASTROPODA: HELICIDAE) FROM MALTA

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**ABSTRACT:** *Otala punctata* is recorded for the second time in a locality different from that of the original record. Details of the snail's ecology and habits are given.

**KEYWORDS:** *Otala punctata*, Gastropoda, Helicidae, Alien Species, Malta.

The first Maltese record of the helcid *Otala punctata* (Müller, 1774), a species variously considered as being an Iberian (Martinez-Orti & Robles, 2001) or a west Mediterranean (Falkner, 1990) endemic, dates back to only a few years (Barbara & Schembri, 2008). This record was documented from an area close to a garden centre in Ta' Qali (35°53'58"N, 14°25'43"E), suggesting an introduction via the importation of plants of commercial interest. An earlier record from the same area by Mifsud *et al.* (2003) cited as being *Otala lactea* (Müller, 1774) may be a misidentification referring to *O. punctata*. Incidentally, *O. lactea* was also recorded by Feilden in 1879, possibly in error, on the basis of beached shells.

In April 2011, an empty juvenile shell and an aestivating adult of this species were found in a vineyard at Bahrija (35°53'28"N, 14°20'40"E), a small village in southwestern Malta about 7.5km west of Ta' Qali. Due to slight lip damage on the adult snail, the assigned identification was confirmed through dissection of the adult specimen by Dr. Giuseppe Manganeli (University of Siena)

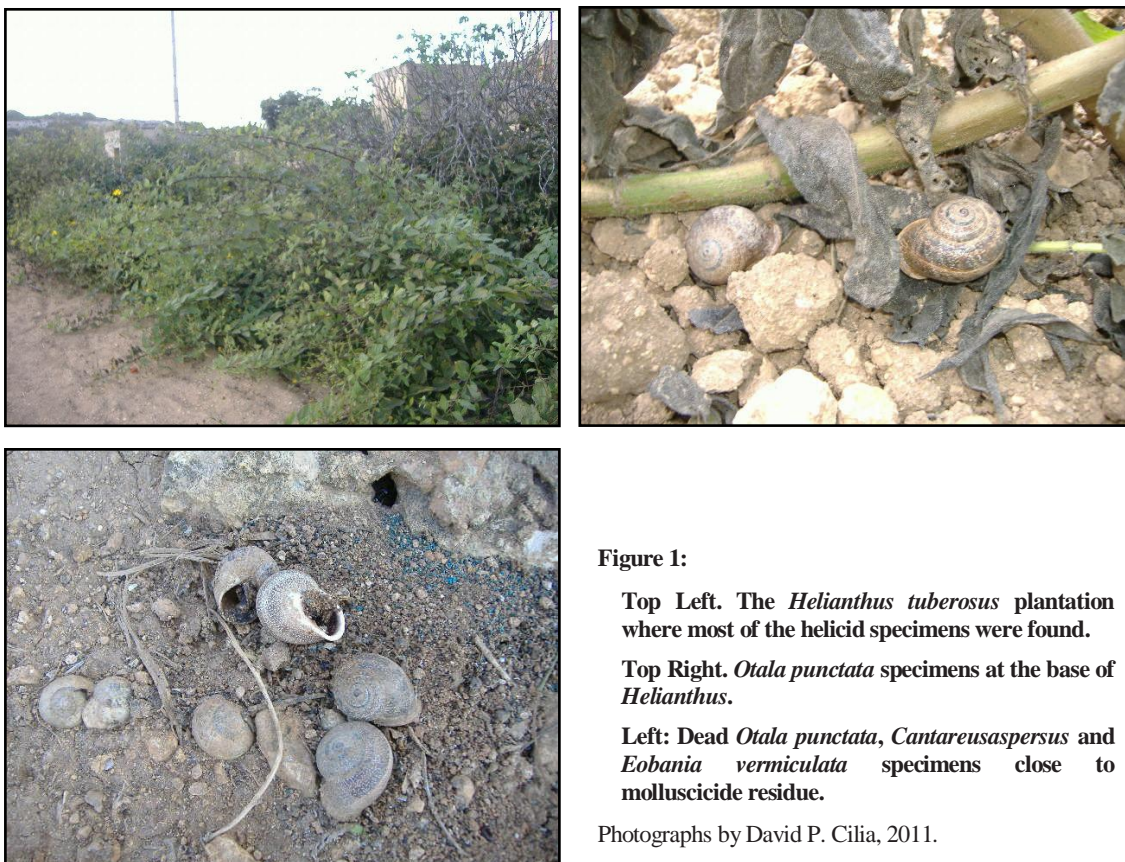


Figure 1:

Top Left. The *Helianthus tuberosus* plantation where most of the helcid specimens were found.

Top Right. *Otala punctata* specimens at the base of *Helianthus*.

Left: Dead *Otala punctata*, *Cantareus aspersus* and *Eobania vermiculata* specimens close to molluscicide residue.

Photographs by David P. Cilia, 2011.

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In October 2011, a search of the area where the first specimens were found was carried out by the author, resulting in the collection of 14 live adults and eight empty shells (seven adults and one juvenile). Two of the live snails were attached to the stems of two grapevines, *Vitis vinifera* L., in a vineyard of about 1450m<sup>2</sup>, with the rest being found in a plantation of Jerusalem artichoke, *Helianthus tuberosus* L., covering about 210m<sup>2</sup> (Figure 1a), thus with a preference ratio of 1:40 in favour of *Helianthus*. In a laboratory setting, it was observed that the collected snails do show a predilection for leaves of *Helianthus tuberosus* L., at least as a source of food.

In the field, they are generally found at the base of the plants (Figure 1b) and beneath associated irrigation pipes, suggesting that high soil surface temperatures of summer have prevented them from colonizing less sheltered areas such as relatively bare soil or even rubble walls where substantial populations of *Cantareus aspersus* (Müller, 1774) and *Eobania vermiculata* (Müller, 1774) may be found. Five of the dead specimens were found in close proximity to molluscicide residue on soil together with empty shells of *C. aspersus* and *E. vermiculata* (Figure 1c).

Since the two areas from which *O. punctata* is currently known are not continuous with each other, one can safely assume that introduction in each was a separate event. It is tempting to conclude that the snails or their eggs at Bahrija were introduced with *Helianthus* seedlings, plants or soil not too long before their discovery, perhaps even with material from the Ta' Qali garden centre (though *Vitis* as vectors are unlikely, due to the age of the shrubs involved and to the snails' disinclination for using their leaves as food). However, two juvenile snails, albeit dead, were found in the vineyard on the two separate occasions, therefore the notion that *O. punctata* is breeding in the area must not be completely overlooked.

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