

MOLLUSCS INTERCEPTED AT THE BORDERS OF ISRAEL IN 2016

By Svetlana Vaisman & Henk K. Mienis

Inspectors of the Plant Protection and Inspection Services (PPIS) of the Ministry of Agriculture stationed at the borders of Israel are the only agents who can avoid the entrance of allochthonous molluscs in Israel. Although their main function is to avoid the import of agricultural pests they prevent also the introduction of possible exotic faunal and floral elements which may endanger or alter the biodiversity of Israel. In this way it is an important tool in the conservation of the local mollusc fauna of Israel.

Inspectors of the PPIS stationed at Ben Gurion Airport near Lod, the Mediterranean harbours of Haifa and Ashdod and the border crossing with Gaza, Palestine, near Kerem Shalom have intercepted 24 samples of gastropods in 2016. All the intercepted snails and slugs turned out to be terrestrial species.

The material was handed over to Mrs. Svetlana Vaisman of the mollusc identification unit of the PPIS in Bet Dagan. She brought the samples for final verification and permanent storage to the Mollusc Collection of the Steinhardt Museum of Natural History – Israel National Center for Biodiversity Studies of the Tel Aviv University to Mr. Henk K. Mienis.

The 24 samples treated in this report arrived from five countries: Palestine (14), the Netherlands (7), Austria (1), France (1) and Great Britain (1). These samples contained ten different taxa of terrestrial snails (8) or slugs (2). All the molluscs were intercepted from agricultural or horticultural shipments. All these samples are enumerated in Table 1. Besides date of collection, species name and number of specimens, country of origin and type of merchandise from which the snails or slugs were intercepted, we have also mentioned the PPIS numbers of the mollusc samples. Behind the missing numbers samples are hiding which were collected within Israel.

Some notes on the terrestrial snails

Fourteen times snails were found on shipments of cabbage and tomatoes from the Gaza Strip, Palestine, at the border checkpoint near Kerem Shalom. The destination of the merchandise was not Israel, in fact the destination was the so-called West Bank, which is also governed by the Palestinian National Authority.

The discovery of *Prietocella barbara* on a shipment of Red cabbage means that this invasive species is also living in the Gaza Strip. The presence of that species in the Gaza Strip had remained so far unknown (Vaisman & Mienis, 2016b). Another invasive species found on Red cabbage from the Gaza Strip: *Novisuccinea ovalis*, had already been recorded from that area during the period that the Gaza Strip was occupied by Israel (1967-2005).

Three times specimens of the Orchid snail *Zonitoides arboreus*, a North-American species but now almost cosmopolitan in hothouses and nurseries, were discovered in shipments of Azalea *Rhododendron* species from the Netherlands. *Zonitoides arboreus* is already well established in Israel, not only in hothouses and nurseries but also in private gardens, public parks and even orchards. The same can be said of

Vallonia excentrica, it is an invasive species in Israel which is regularly encountered in urban environments.

Succinea putris is rarely encountered in/on merchandise arriving in Israel and so far it has never been encountered in Israel. Another Amber snail *Oxyloma elegans*, regularly encountered on shipments of hand apples *Malus pumila* from France (Vaisman & Mienis, 2016a), has to be considered an autochthonous species in Israel.

Some notes on the slugs

Interesting is the fact that five times *Deroceras reticulatum* was intercepted on imports from the Netherlands. Two times it was found on Red cabbage *Brassica oleracea* var. *capitata* forma *rubra* and one time each of Azalea *Rhododendron* species, Hortensia *Hydrangea* species and Peace lily *Spathiphyllum* species. This slug of palearctic origin is probably already established in hothouses and nurseries in Israel. It is not only a well known agricultural pest but it may endanger the native *Deroceras berytensis*.

Arion intermedius is here recorded for the first time on merchandise entering Israel. No species of *Arion* had ever before been intercepted at the borders or found alive in Israel.

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Vaisman, S. & Mienis, H.K. 2016a. Molluscs intercepted at the borders of Israel in 2014 (additional records) and 2015. *Tentacle*, 24: 16-17.

Vaisman, S. & Mienis, H.K. 2016b. Seven additions to the terrestrial molluscan fauna of the Gaza Strip, Palestine. *Triton*, 33: 18-22.

Svetlana Vaisman, Plant Protection & Inspection Services, Ministry of Agriculture, P.O.B. 78, IL-5025002 Bet Dagan, Israel. svetak@moag.gov.il

Henk K. Mienis, The Steinhardt Museum of Natural History and Israel National Center for Biodiversity Studies, Tel Aviv University, IL-6997801 Tel Aviv, Israel. mienis@netzer.org.il

Table 1. Molluscs intercepted at the borders of Israel in 2016

| Date | PPIS | Species intercepted (number of specimens) | Origin | Shipment |
|-------------|------|--|---------------|-----------------------------------|
| 3 January | 359 | <i>Theba pisana</i> (12) | Palestine | Red cabbage |
| 10 January | 360 | <i>Theba pisana</i> (9) | Palestine | Green cabbage |
| 10 January | 361 | <i>Theba pisana</i> (4) | Palestine | Red Cabbage |
| 21 January | 362 | <i>Theba pisana</i> (4) | Palestine | Cauliflower |
| 21 January | 363 | <i>Theba pisana</i> (9) <i>Monacha syriaca</i> (2) | Palestine | Cauliflower |
| 21 January | 364 | <i>Theba pisana</i> (2) <i>Prietocella barbara</i> (1) | Palestine | Red cabbage |
| 28 January | 365 | <i>Theba pisana</i> (6) | Palestine | Red cabbage |
| 28 January | 366 | <i>Theba pisana</i> (8) <i>Monacha syriaca</i> (2) | Palestine | Green cabbage |
| 28 January | 367 | <i>Theba pisana</i> (2) <i>Monacha syriaca</i> (3) | Palestine | Cauliflower |
| 10 March | 369 | <i>Novisuccinea ovalis</i> (1) | Palestine | Red cabbage |
| 24 March | 370 | <i>Vallonia excentrica</i> (1) | Austria | Horseradish |
| 22 March | 371 | <i>Theba pisana</i> (1) | Palestine | Tomatoes |
| 10 April | 373 | <i>Zonitoides arboreus</i> (2) <i>Deroceras reticulatum</i> (1) <i>Arion intermedius</i> (1) | Netherlands | Potted Azalea's |
| 3 April | 374 | <i>Theba pisana</i> (9) | Palestine | Tomatoes |
| 17 April | 375 | <i>Oxyloma elegans</i> (1) | France | Hand apples |
| 3 May | 376 | <i>Theba pisana</i> (7) | Palestine | Tomatoes |
| 11 May | 378 | <i>Monacha syriaca</i> (1) | Palestine | Tomatoes |
| 13 June | 379 | <i>Succinea putris</i> (1) <i>Deroceras reticulatum</i> (1) | Great Britain | <i>Vinca</i> cuttings |
| 19 June | 380 | <i>Zonitoides arboreus</i> (6) | Netherlands | Potted Azalea's |
| 14 August | 381 | <i>Deroceras reticulatum</i> (1) | Netherlands | Potted <i>Hydrangea</i> |
| 25 August | 382 | <i>Deroceras reticulatum</i> (1) | Netherlands | Green cabbage |
| 10 November | 383 | <i>Deroceras reticulatum</i> (1) | Netherlands | Green cabbage |
| 17 November | 384 | <i>Deroceras reticulatum</i> (1) | Netherlands | Peace lilies <i>Spathiphyllum</i> |
| 17 November | 384 | <i>Zonitoides arboreus</i> (9) | Netherlands | Potted Azalea's |