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The presence of live specimens of *Monacha cartusiana* (O.F. Müller, 1774) and *Cernuella virgata* (Da Costa, 1778) (Mollusca, Gastropoda, Hygromiidae) has prevented the import of 23 tons of apples from France into Israel

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Résumé — La découverte de plusieurs spécimens vivants de *Monacha cartusiana* et de *Cernuella virgata* dans une cargaison de 23 tonnes de pommes en provenance de France vers Israël a provoqué le retour en France de la cargaison entière par les services sanitaires (Plant Protection & Inspection Services) du ministère de l'agriculture. La raison de cette décision a été motivée par le statut d'espèce invasive de *Cernuella virgata*.

Mots clés — Mollusca, Gastropoda, Hygromiidae, France, Israël, espèces invasives.

Abstract — The discovery of several living specimens of *Monacha cartusiana* and *Cernuella virgata* in a shipment of some 23 tons of hand apples from France to Israel resulted in a decision by the Plant Protection & Inspection Services of the Ministry of Agriculture in Israel to return the entire shipment to France. The reason for this decision was triggered by the status of *Cernuella virgata* as being a potentially pest species.

Key-words — Mollusca, Gastropoda, Hygromiidae, France, Israel, agricultural pests.

The Plant Protection & Inspection Services (PPIS) of the Ministry of Agriculture in Israel maintains permanent control posts at the places of entrance to Israel like international airports, harbours along the coast of the Mediterranean Sea and Gulf of Aqaba and land border crossings with Egypt and Jordan. At most places these posts are manned 24 hours a day and incoming merchandise is being inspected for the presence of potential pest species. Spot-checks of the luggage of some of the arriving passengers is also carried out. When suspected zoological or botanical specimens are being discovered then these items are forwarded to specialists for identification and interpretation of their potential pest status. In the meanwhile the suspected imports are being stored under conditions of quarantine until the opinions are being received from the specialists and decisions are being made by the heads of the different PPIS-subdivisions.

On 24th February 2010 a ship arrived in the Ashdod harbour with among others a commercial shipment of 23.360 kg of hand apples (*Malus domestica*) sent by an exporter in the south of France to a fruit dealer in Israel. In a few samples taken at random from among the 23 tons of apples some living snails were discovered hiding in the depression or notch where the stalk is connected to the apple.

These snails turned out to belong to *Monacha cartusiana* (Müller, 1774) and *Cernuella virgata* (Da Costa, 1778) belonging to the Hygromiidae. These snails were identified as having a characteristically Mediterranean-Atlantic distribution and are commonly encountered in the south of France (Falkner *et al.* 2002). They are not known to be native to Israel.

Monacha cartusiana has never been intercepted in Israel before. Yet in Western and Central Europe it is currently considered an invasive species (Benke & Renker 2005; Pech & Pechova 2009; Kurek & Najberek 2009; Mienis, personal observations), but nowhere it seems to have developed so far into a pest species in either horticulture or agriculture.

Cernuella virgata is another story. There is one record of Cernuella virgata from Israel. In 1994/5 remnants of a small colony of this exotic species were found in a garden of the Faculty of Agriculture of the Hebrew University in Rehovot (Mienis 1995). However, in later years additional specimens were not found anymore.

Since *Cernuella virgata* has the status of a serious pest species in agriculture in Australia (Baker 2008) and is considered of priority quarantine importance in the U.S.A. (Cowie *et al.* 2009) at least that species has the ability to turn also into an agricultural pest in Israel if it succeeds to establish fertile populations in suitable areas in the Mediterranean coastal plain. In the wake of that information the PPIS decided not to allow the entry of that shipment of apples and after long negotiations with the exporter the entire 23 tons were returned to France.

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