

A record of import of the invasive snail *Theba pisana* (O. F. Müller, 1774) (Gastropoda: Helicidae) in Bulgaria

DILIAN GEORGIEV

Department of Ecology and Environmental Conservation, University of Plovdiv “Paisii Hilendarski”, Tsar Assen Street 24, 4000 Plovdiv, Bulgaria, diliangeorgiev@gmail.com

Abstract. This is a short communication of a discovery of the invasive Mediterranean snail species *Theba pisana* among food products in a market in Bulgaria imported from Spain. A single live juvenile specimen was found among lettuce leaves. Later it was alive kept in a terrarium.

Key words: gastropod, transportation, alien species.

Introduction

The native range of *Theba pisana* (O. F. Müller, 1774) (Gastropoda: Helicidae) is Mediterranean region and adjacent Atlantic coasts from central Morocco to Belgium, South-West England, South Wales, South-East Ireland and central Atlantic islands. It has been introduced in many areas with proper climate condition all over the world (Däumer *et al.* 2012). This species is considered to be an invasive pest, damaging many types of crops, native wild plants and animal species (Odendaal *et al.* 2008, Welter-Schultes 2012).

In this short communication a finding of this invasive Mediterranean snail species among food products in a market in Bulgaria which were imported from Spain is reported.

Material and Methods

On 19.04.2022 in the food market “Kaufland” in Stara Zagora city, Bulgaria (N42.432628, E25.638625) lettuce imported from Spain was bought. After unpacking it at home, a juvenile snail among the leaves was found (Fig. 1A). In order to identify and study this specimen, the author decided to grow it in a terrarium.

Results and Discussion

After a few months of growing it was already evident that this is the species *Theba pisana* (Fig. 1B).

In the process of growing it accepted following types of food: leaves: *Lactuca sativa*, *Taraxacum* sp., *Stellaria* sp., *Rumex crispus*, *Prunus sativa* (young leaves), *Plantago major* and fruits: *Cucumis sativus*. This information contributes and to the data on the diet of the species from the feeding experiments of Georgiev (2019).

In August this specimen was brought back to Mediterranean Spain (Fuengirola town) and released near the local river.



Fig. 1. The *Theba pisana* specimen found in a food market in Bulgaria: A – juvenile stage, B – adult stage.

This incidental find highlights the potential risk of invasive species being transported through imported food products. Vigilance and proper identification are crucial to preventing the unintentional introduction of invasive species into new environments.

References

- Däumer, C., Greve, C., Hutterer, R., Misof, B. & Haase, M. (2012) Phylogeography of an invasive land snail: natural range expansion versus anthropogenic dispersal in *Theba pisana pisana*. *Biological Invasions*, 14(8): 1665-1682.
- Georgiev, D. (2019) A few notes on the diet and the copulation of *Theba pisana* (Müller, 1774) snails: observations on terrarium kept animals. *ZooNotes*, 143: 1-3.
- Odendaal, L., Haupt, T. & Griffiths, Ch. (2008) The alien invasive land snail *Theba pisana* in the West Coast National Park: Is there cause of concern? *African Protected Area Conservation and Science*, 50(1): 93-98.
- Welter-Schultes F. (2012) *European non-marine molluscs, a guide for species identification*. Planet Poster Editions, Göttingen, 674 pp.