Budapest slug *Tandonia budapestensis*

The Budapest slug is a pest of root crops such as potatoes and other commodities in Europe. It burrows underground and often occurs in man-made habitats such as greenhouses, gardens and farmlands. Horticulture and floriculture facilities may be at risk of infestation if the slug is introduced into Michigan.

Michigan risk maps for exotic plant pests.

Other common name:

keel slug

Systematic position

Mollusca > Gastropoda > Pulmonata > Milacidae > *Tandonia budapestensis* Hazay

Global distribution

Native to Central Europe, the slug has spread its range in Europe including Austria, British Isles, Bulgaria, Czech Republic, Hungary, Iceland, Netherlands, Poland, Romania, Slovakia, and Turkey; and New Zealand.

Quarantine status

This slug has been found in Washington D.C. and a suburb of Philadelphia in the late 1990s. It is possibly more widely present in the United States than these records indicate (Reise et al. 2006).

Plant hosts

The Budapest slug is a pest of potatoes, other root crops, cereals, and some ornamental flowers in Western Europe.

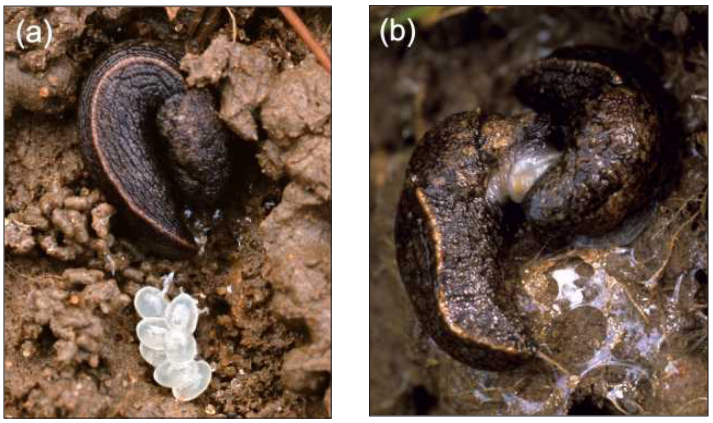
Habitats

Burrowing specialist, the Budapest slug inhabits underground. The slug is also found in humid places such as under wood and stones. In Europe, the slug is commonly associated with man-made habitats such as cemeteries, greenhouses, gardens, roadsides, ruins, waste ground, and farmland (especially where potatoes or other root crops are frequently grown). In the United States, the slug has been found in woodland and parkland urban areas.

Biology

Mature slugs mate and lay eggs on soil in moist and concealed locations. Eggs are oval (2.8-3.5mm) and opaque, laid in batches of up to 30 (Runham and Hunter 1970). In England, the slugs mate in late autumn and winter, and the eggs hatch in spring and summer (Reise et al. 2006). The slug survives drought and frost by burrowing deep in the soil. The slug feeds on leaves, bulbs, tubers and decaying vegetable matter.

Budapest slug. (Photo: M. Maňas, BioLib.cz)



A. Budapest slug in its typical C-shape resting position within a soil cavity. The eggs could well be from this specimen. B. A pair of mating Budapest slugs. Note the prominent keel (the line running the length of the back). (Photo from Reise et al. 2005)

Identification

- The slug is a relatively large and slender species up to 70 mm long when crawling.
- Dark, brownish grey in color with a yellow/orange stripe along the keel (a ridge that runs the length of the back behind the mantle).
- The slug typically curls into a "C" shape when resting.
- Dissection of a slug specimen is usually required to identify the species.

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Signs of infestation

- Presence of a slug with a prominent yellow/orange keel in moist locations.
- A hole in the surface of tubers and bulbs that leads to a chamber hollowed out beneath.

Economic significance in Michigan

Because gardens and greenhouses often provide favorable conditions for the Budapest slug in Europe, horticulture and floriculture facilities in Michigan may be at risk of infestation if the slug is introduced. Once established and spread, the slug is difficult to control because it occurs in various man-made habitats and it burrows into the soil. The slug may cause economic losses to potatoes and cereals when it becomes numerous (Symondson 1997).

Likely pathways of entry to Michigan

Enter as hitchhikers on or in cargo containers from Europe.

If you find something suspicious on a susceptible host plant, please contact MSU Diagnostic Services (517-355-4536), your county extension office, or the Michigan Department of Agriculture (1-800-292-3939).

References

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