

Tomarus gibbosus DeGeer, 1774

Taxonomy

Sub family: Dynastinae / Tribe: Pentodontini / Genus: *Tomarus*

Distinguishing Features

Small beetles, body length 11.5-16.5mm. Body colouration reddish brown, rarely shiny black. Clypeus truncate, with two denticles on apex corners. Antennae 10-segmented, with a 3-segmented club. Mandibles visible dorsally and with 3 teeth on the outer edge. Mentum with apex truncated. Frontoclypeal suture with a transverse carina (ridge). Pronotum punctate, with a small median tubercle close to the anterior margin. Shallow fovea present behind the tubercle. Foretibia tridentate. Propygidium without stridulatory bands. Tarsal claws simple.

Related and Similar Species

The genus *Tomarus* contains around 30 species. It is a member of the tribe Pentodontini which share the following characteristics:

Sexual dimorphism usually not well pronounced. Mentum not broad, and not covering basal joint of palpi. Legs shorter and stouter than those of Cyclocephalini. Anterior tibia of males not longer than females. Apex of metatibia truncated, straight, with bristles present. Elytra more or less convex, usually with double rows. Propygidium with or without stridulatory area.

The most recent key to the species of *Tomarus* (as *Ligyris*) can be found in Endrödi (1985), covering 26 species. Male genitalia is used for species identification, which are extremely fragile and often break when removing from the abdomen.

The combination of the clypeal shape, the punctate pronotum with median tubercle and small fovea, and lack of stridulatory bands on the propygidium should separate the species from others in the key.

Biological Data

Tomarus gibbosus, the carrot beetle, is considered a pest of a number of cultivated crops such as sugar beets, carrots, potatoes, corn, cotton and sunflowers. Damage to golf course turf has also been reported. Larvae feed on root systems, and adult beetles chew on roots and stems slightly below the soil surface. The beetle has a one year lifecycle. Adult beetles overwinter in the soil and emerge in the Northern Hemisphere spring. Adults are nocturnal and attracted to lights.

Distribution

The genus is present throughout the American continents, from Canada to Argentina, including the West Indies. *Tomarus gibbosus* is native and widespread across the United States.

Useful Links

Carrot beetle damage to golf courses reported: <https://www.gcsaa.org/gcm/2016/september/first-report-of-carrot-beetle-damage>

References

Ratcliffe, B.C., Paulsen, M.J. 2008. The Scarab Beetles of Nebraska. Bulletin of the University of Nebraska, Vol. 22. 570pp.
Ratcliffe B.C., Cave R.D. 2015 Dynastinae Scarab Beetles of the West Indies. Bulletin of the University of Nebraska, Vol. 28. 346pp.

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Tomarus gibbosus dorsal view

Photographer:

Pia Scanlon



Tomarus gibbosus lateral view

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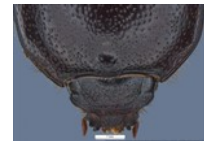
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Tomarus gibbosus ventral view

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Tomarus gibbosus clypeus

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Tomarus gibbosus head front

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