Holotrichia Hope, 1837

Taxonomy

Sub family: Melolonthinae / Tribe: Melolonthini / Genus: Holotrichia

Distinguishing Features

Large cylindrical beetles, body length 15-30mm. Body colouration ranging from yellow/tan, brown to dark brown. Antennae 10 segmented, with a 3 segmented club that is enlarged in males. Clypeus usually broadly rounded, sometimes emarginate. Labrum located under clypeus, clearly separated and deeply incised medially, commonly with medially directed setae on each lobe. Pronotal lateral margins usually serrate. Pronotum lacking membraneous anterior margin. Elytra punctate. Foretibia tridentate. Metatibia with 2 apical spurs an a transverse ridge near its mid point. Mesometasternal process is absent. Metasternum setose. Propygidium with lateral sutures. Tarsal claws non-cleft, with a medial tooth. Many species posess stridulatory ridges along the elytral lateral edge (epipleura).

Related and Similar Species

There are presumed to be more than 240 species within the *Holotrichia* group. The genus is in much need of an overall revision, and it is in the process of being broken up into smaller genera.

It is placed within the tribe Melolonthini which share the following features:

Abdominal sternites at least partially fused, sutural lines present between sternites, even when fused. Meso and metatibia with 2 spurs. Tarsal claws usually equal. Antennae 9 or 10 segmented (rarely 8), Antennal lamellae 3-7 segmented. Labrum located below clypeus, distinct. 5th Abdominal sternite and propygidium separated by a suture. Protibia with apical spurs.

Diagnostic resources are scattered and confined to geographic areas.

The name <u>Phyllophaga</u> has been used historically for species of <u>Holotrichia</u>, owing to their closely shared morphology. In practice they are unable to be separated by external morphology. In the key, <u>Phyllophaga</u> and <u>Holotrichia</u> can be difficult to separate due to the lack of external morphological differences. Origin of a specimen will be the best indicator of separating the between the two: (Oriental region - <u>Holotrichia</u>, Nearctic/Neotropical - <u>Phyllophaga</u>).

Species confirmation generally requires male genitalia examination.

Biological Data

Larvae feed on roots, and can cause sgnificant damage to peanut, potato, sugarcane, maize and peas among others. Adults can also feed on foliage, causing damage to a wide range of fruit and orchard trees. Some adult beetles may or may not be attracted to lights at night.



Photographer:
Pia Scanlon



Holotrichia sp. lateral view Photographer: Pia Scanlon



<u>Holotrichia sp. ventral view</u> <u>Photographer:</u>

Pia Scanlon



Holotrichia sp. clypeus Photographer: Pia Scanlon



Holotrichia sp. head front Photographer: Pia scanlon

Distribution

The genus *Holotrichia* is absent from Australia. It is primarily Oriental in distribution, found across India, and through Asia into Japan. *H. bipunctata* has spread outside its native range (Phillipines) to Guam, thought to be from movement of the US military.

Useful Links

PaDIL species page for *Holotrichia kiotoensis*: http://www.padil.gov.au/pests-and-diseases/pest/main/135632 *Holotrichia bipunctata* species page (Hawaiian Scarab Website): http://idtools.org/id/beetles/scarab/factsheet.php?name=15191

References

Dunlap, J.B., Jameson, M.L., Engasser, E.L., Skelley, P.E., Redford, A.J. 2015. Scarab and Stag Beetles of Hawaii and the Pacific. USDA APHIS Identification Technology Program (ITP). Fort Collins, CO. http://idtools.org/id/beetles/scarab/ Matsumoto, T. 2010. Four new species of the *Holotrichia constricta group* (Scarabaeidae, Melolonthinae, Melolonthini) from the Philippines. Elytra, Tokyo, 38(1): 43-52





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