

Adoretus Dejean, 1833

Taxonomy

Sub family: Rutelinae / Tribe: Adoretini / Genus: *Adoretus*

Distinguishing Features

Small elongate oval beetles, body length 10-12mm. Body colour brown, covered with numerous white/cream setae that are sometimes missing in worn specimens. Clypeus broad, circular with a reflexed margin. Labrum vertically produced under the clypeus, with a median apical projection overhanging the mentum. Antennae with 9-10 segments and a 3-segmented club. Foretibia bi or tridentate. Pronotum without apical membrane, instead with a thickened setose border. Elytra irregularly coarsely punctated, disc usually with 2-3 raised longitudinal lines, sometimes with none. Elytra lacking membrane around the lateral margin. Hind tibia apex truncate with 2 apical spurs situated close together. Carina present externally. Mid and hind claws simple, unequal.

Related and Similar Species

Adoretus is a very large genus with around 460 known species. Adults are extremely similar morphologically, and require examination of the male genitalia for identification. There has been no major work done on the group though, so even examination of genitalia may not lead to an accurate species level identification for all but a handful of known pest species.

Adoretus are members of the tribe Adoretini which can be distinguished by their labrum that is fused to the clypeus and vertically produced, with a median projection overhanging the mentum.

An updated key to the Australian Rutelinae is provided by Weir et.al. (2019).

Their small size, brown setae covered body, and unique labrum separates *Adoretus* from other beetles in the key.

Biological Data

The genus *Adoretus*, or rose beetles, contains a number of significant pest species. Some are extremely polyphagous such as *A. sinicus* (the chinese rose beetle) which is known to feed on over 250 species of plants, and *A. tenuimaculatus* (the brown chafer) known from 186 plant species. Others such as *A. versutus* are pests of Cacao, coffee, rose and numerous vegetables.

Adults are nocturnal, emerging to feed on the leaves, inflicting a characteristic mottled hole damage. High numbers on a plant can lead to significant damage. Larvae feed on decaying organic matter and are not considered pests.

Distribution

Species in the genus are widely distributed around the globe, from Europe, Africa, Asia, South East Asia and Australasia/ Oceanic regions. McQuate and Jameson (2011) provide a table to the biosecurity pest species known distribution.

The pest species *A. sinicus* is native to Japan and Taiwan, and present across China, Hong Kong, as well as most of South East Asia. It is also a longstanding introduced species to Hawaii.

A single species, *Adoretus melvillensis* Lea, has been described from Melville Island, NT.

Useful Links

Adoretus sinicus fact sheet (Hawaiian Scarab ID):

<http://idtools.org/id/beetles/scarab/factsheet.php?name=15165>

Adoretus compressus fact sheet (Hawaiian Scarab ID):

<http://idtools.org/id/beetles/scarab/factsheet.php?name=15164>

Adoretus versutus PaDIL image set: <http://www.padil.gov.au/pests-and-diseases/pest/main/135985>

Adoretus sp. PaDIL MAF image set, with diagnostic features: <http://www.padil.gov.au/maf-border/pest/main/140400>



Adoretus compressus dorsal view

Photographer:

Pia Scanlon



Adoretus compressus lateral view

Photographer:

Pia Scanlon



Adoretus compressus lateral elytral margin

Photographer:

Pia Scanlon



Adoretus compressus ventral view

Photographer:

Pia Scanlon



Adoretus compressus clypeus

Photographer:

Pia Scanlon



Adoretus compressus foretibia

Photographer:

Pia Scanlon



Adoretus compressus mentum

Photographer:

Pia Scanlon

References

- McQuate, G., Jameson, M. 2011. Sex determination in the Chinese rose beetle, *Adoretus sinicus*, and overview of *Adoretus* species of biosecurity concern. *Journal of Insect Science* 64: 1-18
- Weir, T.A., Lawrence, J.F., Lemann, C., Gunter, N.L. 2019. Chapter 32. Scarabaeidae: Rutelinae Macleay, 1919, pp. 508-515. In: Slipinksi, A. & Lawrence, J.F. (eds) *Australian Beetles, Volume 2, Archostemata, Myxophaga, Adepaga, Polyphaga (part)*. CSIRO Publishing, Clayton South, Vic. 784 pp.

Copyright © 2020. All rights reserved.



Department of
**Primary Industries and
Regional Development**



Web edition hosted at https://keys.lucidcentral.org/keys/v3/exotic_scarab_pests/