

A New *Agrilinus* of the Genus *Aphodius* (Coleoptera,  
Scarabaeidae) from Japan

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**Abstract** A new species belonging to the subgenus *Agrilinus* of the genus *Aphodius* is described from Japan, under the name of *Aphodius (Agrilinus) ishidai*.

Eleven species belonging to the subgenus *Agrilinus* of the genus *Aphodius* have been known to occur in Japan. One of them has not been described up to now though its occurrence was noted by one of the authors (K. M.) in the second volume of the "Coleoptera of Japan in Color" (1985). He has had the opportunity of examining the type material of its allied species in the British Museum (Nat. Hist.), London, and has concluded that this is new to science. It will be described in this paper.

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*Aphodius (Agrilinus) ishidai* sp. nov.

(Figs. 1-2, 5-6)

*Aphodius (Agrilinus)* sp.: MASUMOTO, 1985, *Coleopt. Japan Col.*, Osaka, 2, p. 372.

Black, with outer margins of head and pronotum, mouth parts, antennal funicles, tarsi, etc. more or less reddish brown, hairs on antennal clavolae pale yellow; dorsal surface strongly shining and ventral surface moderately so. Rather elongate and fairly robust, subparallel-sided and strongly, rather longitudinally convex above.

*Male.* Head gently convex, rather closely and finely punctate, alutaceous in the middle and feebly rugose apically, armed with three rather transverse tubercles on the frontal suture, of which the middle one is more prominent, and also with an obsolete carina between frontal suture and apical margin, which is arcuate forwards;

apical margin feebly, rather broadly emarginate, with each side obtusely angulate and slightly reflexed; lateral margins oblique and finely rimmed; genae obtusely produced laterad.

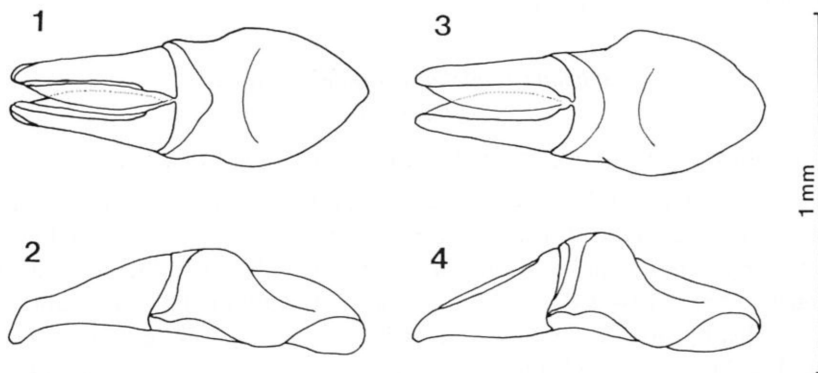
Pronotum a little less than 1.4 times as wide as long, widest at base, gently narrowed in basal half and then rounded towards apex; apical margin weakly produced; base widely arcuate and slightly sinuous on each side, finely though clearly bordered; front angles narrowly rounded; hind angles obtuse with corners gently rounded; disc strongly convex above, scattered with small punctures, which are intermixed with large ones (four times as large as small punctures), both the kinds of punctures becoming closer and coarser in lateral portions. Scutellum rather linguiform with apex fairly acute, rather closely and finely punctate in basal portion.

Elytra about 1.3 times as long as wide, widest at the middle, roundly narrowed towards apices and subparallel-sided in basal halves though weakly indented at basal 1/3 laterally; dorsum strongly convex and thickest in basal 1/3; disc clearly punctate-striate, the punctures on the striae small and gently notching intervals, distance between punctures about 1.5–2 times their own diameter; intervals feebly convex and slightly microshagreened, scattered with microscopic punctures, which are arranged in 2–3 rows on each interval; 8th striae noticeably shortened in humeral portions and 9th barely reaching humeral corners; humeri not dentate.

Protibiae tridentate along outer margin of apical portion, with terminal spur moderately bent downwards and acutely pointed; apical bristles of meso- and metatibiae subequal in length; mesotibiae with upper end-thorn long and straight; ratio of lengths of metatarsomeres (from basal to apical): 1.0, 0.3, 0.3, 0.3, 0.7; upper terminal spur slightly shorter than 1st metatarsal segment.

Male genitalia as shown in Figs. 1 and 2.

*Female.* Head a little more closely and clearly punctate than in male, alutaceous and rugose in apical half, with three frontal tubercles more distinct and transverse; each side of apical margin and genae less strongly produced; pronotum more strongly



Figs. 1–4. Male genitalia. — 1–2, *Aphodius (Agrilinus) ishidai* sp. nov.; 3–4, *Aphodius (Agrilinus) brevisculus* (MOTSCHULSKY); 1, 3, dorsal view; 2, 4, lateral view.

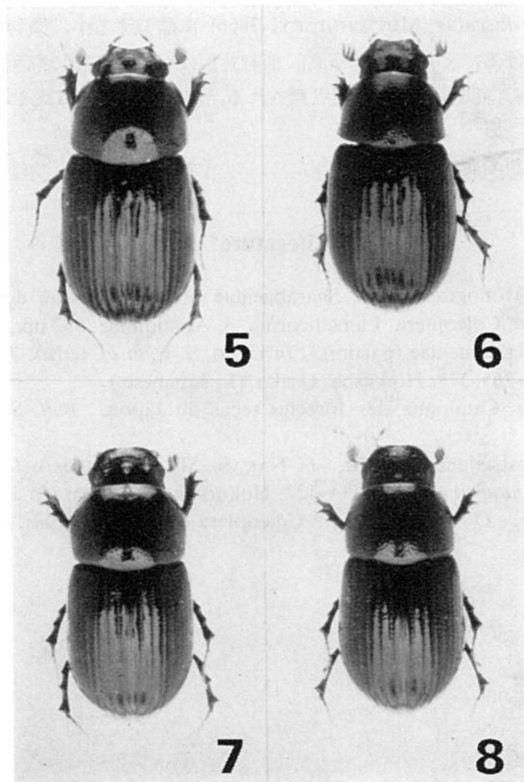
narrowed forwards, more closely and strongly punctate; elytra more noticeably punctate on intervals; protibiae less strongly tridentate with apical spur less acute.

Body length: 4.1–5.2 mm.

Holotype: ♂, Jigokudani, Shigakôgen, Nagano Pref., Central Japan, 2. V. 1982, M. KIUCHI leg. Paratypes: 7 exs., same data as the holotype; 3 exs., Jigokudani, Shigakôgen, Nagano Pref., 9. V. 1982, M. KIUCHI leg.; 3 exs., Jigokudani, Shigakôgen, Nagano Pref., 29. IV. 1983, M. KIUCHI leg.; 1 ex., Mt. Chôgatake, Minami-azumi-gun, Nagano Pref., 7. VII. 1979, M. KIUCHI leg.; 2 exs., Nippara, Okutama, Tokyo, 8. V. 1978, T. SYODA leg.; 1 ex., Okunikkô, Tochigi Pref., 12. V. 1985, T. YANAGIHASHI leg.; 9 exs., Jigokudani, Shigakôgen, Nagano Pref., 16. V. 1987, K. MASUMOTO leg.

The holotype is preserved in the collection of the National Science Museum (Nat. Hist.), Tokyo.

*Notes.* This new species closely resembles *A. (Agrilinus) brevisculus* (MOTSCHULSKY, 1866) from Japan, but can be distinguished from the latter by the comparatively slender fore body, the head with each side of the apical margin angulate,



Figs. 5–8. *Aphodius (Agrilinus)* spp. — 5, *Aphodius (Agrilinus) ishidai* sp. nov., ♂, holotype; 6, same, ♀, paratype; 7, *Aphodius (Agrilinus) brevisculus* (MOTSCHULSKY), ♂; 8, same, ♀.

the genae more strongly, angulately produced laterad, the frontal tubercles (especially the middle one) not conical but transverse, the pronotum narrower and longer with the disc a little more closely punctate (in comparison of males of respective species), the elytra with striae punctures less closely arranged, the elytral intervals more weakly punctate, the metatarsomeres with different ratio of the lengths (in the latter species, ratio of the lengths is as follows: 1.0, 0.38, 0.33, 0.29, 0.68), and the differently shaped male genitalia as shown in Figs. 1-2 and 3-4.

This species can be found in coexistence with *Aphodius (Agrilinus) brevisculus* (MOTSCHULSKY, 1866). The latter is widely distributed from Hokkaido to Kyushu at a wide range of altitude, and is also found in Korea, while the former is distributed in the montane zone of central Honshu.

The specimens can be obtained from excrement of wild Japanese monkeys and also of deer during late April to early July.

#### 摘 要

*Aphodius* 属 *Agrilinus* 亜属の1新種を記載した。本種は日本および朝鮮半島に広く分布する *Aphodius (Agrilinus) brevisculus* (MOTSCHULSKY, 1866) に酷似するが、頭胸部が比較的細い、頭楯前縁の切込みの両側は角ばる、前頭隆起は横位、前胸背板はいっそう密に点刻される、上翅の条溝内にやや密でなく点刻を配し、間室はやや弱く点刻される、後跗節の長さの比や雄交尾器の形状の相違、などの点で区別される。

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