

## The Japanese Species Related to the Group of *Cis nitidus* (Coleoptera, Ciidae)

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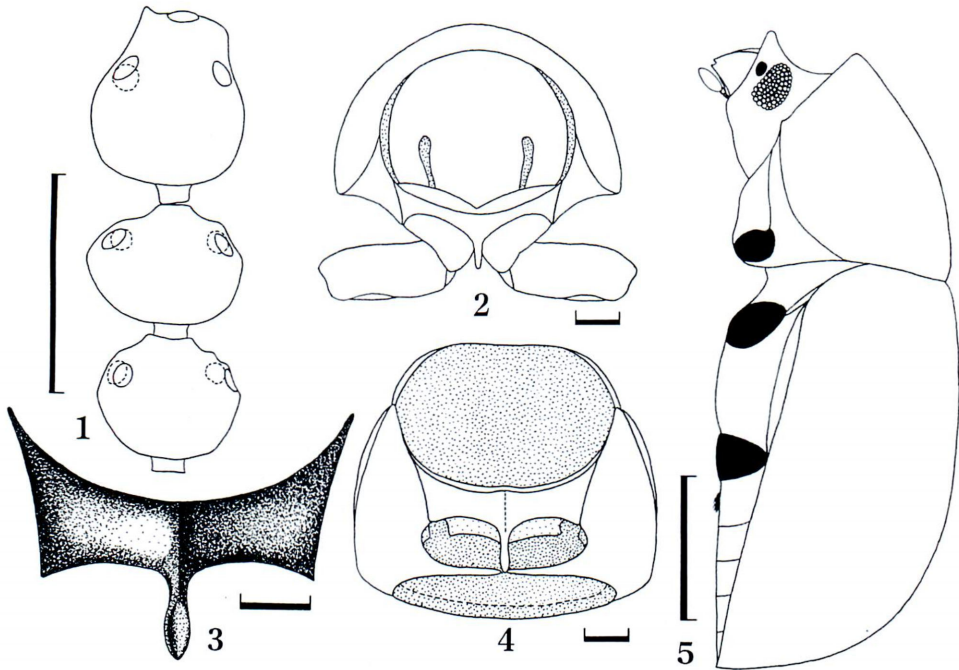
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**Abstract** The Japanese species of the group of *Cis nitidus* and its relatives are reviewed. They were previously regarded by Japanese entomologists as belonging to the subgenus *Eridaulus*, and are mainly characterized by the shining body and the carinated prosternum. On the basis of these common characteristics, eight species including three new ones are enumerated. The new names given are: *Cis laevigatus*, *C. yamamotoi* and *C. capricornis*. The lectotype is designated for *C. rufocastaneus* NAKANE et NOBUCHI, and a key to the species is given.

The genus *Cis* is the largest and most widespread in the family Ciidae, and contains various heterogeneous species. It includes a species-group currently placed in *Eridaulus* THOMSON. LAWRENCE (1965) considered it as a full genus, designated its type species (*Cis nitidus*), and gave detailed discussion on its systematic status and phylogenetic position. After that, he changed his opinion, reduced *Eridaulus* to a species-group of the genus *Cis*, and threw doubt on its distinctness and homogeneity (LAWRENCE, 1967). In his revision of the North American species of the Ciidae (LAWRENCE, 1971), *Eridaulus* was regarded as a group of the genus *Cis* and was divided into two species-groups (*C. nitidus* group and *C. pacificus* group). On the other hand, Japanese entomologists placed the *Cis* species with shining body in the subgenus *Eridaulus*. As the result, different species-groups were assembled in this subgenus merely because of this superficial character state. In Japan, there occur three species, *C. konoï* CHÛJÔ, *C. nikkoensis* NOBUCHI and *C. rufocastaneus* NAKANE et NOBUCHI, all doubtless belonging to the *C. nitidus* group, but such species as *C. eminenticollis* NOBUCHI and *C. morikawai* MIYATAKE are somewhat different. However, these five species share the shining body and the carinated prosternum, which clearly distinguish them from the other species of the genus *Cis*. In this paper, I am going to review the Japanese species previously placed in the subgenus *Eridaulus*, and to give some discussion on the five known species and three new ones to be described.

In the course of this study, I was given an opportunity to re-examine a syntype of *C. rufocastaneus*. It was designated as the lectotype of the species, and a red label with the word lectotype was attached to the specimen.

The abbreviations used herein are the same as those explained in previous papers of mine.



Figs. 1–5. *Cis laevigatus* sp. nov., male, from Omogokei. — 1, Antennal club; 2, prothorax, frontal view; 3, prosternum; 4, prothorax, ventral view; 5, body in profile. Scales for Figs. 1–4: 0.1 mm; for Fig. 5: 0.5 mm.

Before going further, I would like to express my sincere gratitude to the late Dr. A. NOBUCHI and Dr. M. MIYATAKE for their encouragement and advice. Deep gratitude is also due to Dr. S.-I. UÉNO, National Science Museum (Nat. Hist.), Tokyo, for critically reading the manuscript of this paper.

*Cis konoï* CHÛJÔ, 1940

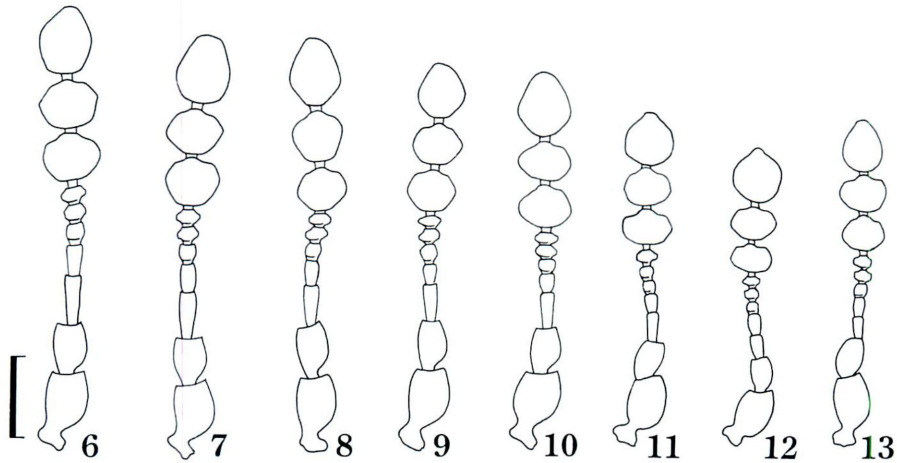
[Japanese name: Kôno-tsutsukinokomushi]

(Figs. 6, 18, 26, 36, 44 & 53)

*Cis (Eridaulus) konoï* Chûjô, 1940, *Ins. matsum.*, **14**: 132 (1 ♂, Horo, Saghalien).

Male. Body elongate and cylindrical, very strongly convex, very shiny on dorsum. Color dark reddish brown; antennae, palpi and legs somewhat paler. Punctures on dorsum each bearing a very short, fine and pale yellowish hair which is conspicuous under low magnification ( $\times 10$ ).

Head concealed, almost invisible from above, weakly convex, shallowly and ovally concave at the middle of vertex, slightly and transversely concave from side to side between eyes; rather sparsely and minutely punctate, finely shagreened; fronto-



Figs. 6-13. Antennae of *Cis* spp. — 6, *C. konoii* CHŪJŌ, from Kurodake to Sōunkyō; 7, *C. nikkoensis* NOBUCHI, from Chūzenji-kohan; 8, *C. rufocastaneus* NAKANE et NOBUCHI, from Mt. Daisen; 9, *C. laevigatus* sp. nov., paratype, from Omogokei; 10, *C. yamamotoi* sp. nov., paratype, from Odamiyama; 11, *C. eminenticollis* NOBUCHI, from Kibune; 12, *C. morikawai* MIYATAKE, from Omogokei; 13, *C. capricornis* sp. nov., paratype, from Nakamagawa-rindō. Scale: 0.1 mm.

clypeal ridge produced forward, reflexed above on each side, and forming two subtriangular plates, the outer margins of which are feebly emarginate at the basal two-thirds. Antennal 3rd segment 1.58 times as long as 4th.

Pronotum broader than long, widest at basal third or the middle, then slightly narrowed apicad; anterior margin rather strongly produced and weakly emarginate at the middle; anterior corners obtusely angulate in lateral view, forming an angle of about  $130^\circ$ ; lateral margins nearly arcuate, slightly reflexed and finely denticulate, barely visible from above; basal margin narrowly ridged, and nearly straight or somewhat arcuate; hind angles broadly rounded; dorsum irregularly, closely and conspicuously punctate; punctures uniform in size, small and deep, separated by a distance about 0.5 to 3 times their diameters; interstices between punctures minutely reticulate. Elytra subequal to pronotum in breadth at bases; sides subparallel though slightly divergent from base to the middle, then rather sharply convergent apicad; disc closely and irregularly punctate; punctures roughly dual in size, the larger ones shallow and umbiliform, somewhat larger than those on pronotum, the smaller ones very small and inconspicuous, each bearing a fine hair; interstices between punctures smooth or partially somewhat inconspicuously rugulose; suture narrowly margined.

Male genitalia in a specimen from Kurodake to Sōunkyō, Hokkaido:— Eighth abdominal sternite with the apical margin deeply emarginate at the middle, armed with long and straight hairs at the lateral corners. Tegmen rather stout, nearly parallel-sided though slightly divergent apicad, apical corners bilobed and truncate with ovally pigmented areas which are crenulate, about 0.44 times as long as the combined length of visible abdominal sternite.

Female. Fronto-clypeal ridge slightly reflexed and forming a small lamella on each side; anterior margin of pronotum broadly rounded, not emarginate at the middle; first abdominal sternite devoid of pubescent fovea.

*Variation in the specimens from Yamada-onsen, Kutchan-chô, Hokkaido.*

Male (n=15)	Female (n=15)
TL (mm): 1.77–2.07 (1.92±0.1)	TL (mm): 1.63–2.02 (1.89±0.1)
EW (mm): 0.78–0.94 (0.89±0.05)	EW (mm): 0.76–0.94 (0.89±0.05)
TL/EW: 2.08–2.29 (2.16±0.06)	TL/EW: 2.08–2.27 (2.14±0.05)
PL/PW: 0.8–0.88 (0.83±0.02)	PL/PW: 0.77–0.89 (0.83±0.03)
EL/EW: 1.34–1.48 (1.41±0.04)	EL/EW: 1.36–1.46 (1.4±0.03)
EL/PL: 1.79–2.0 (1.88±0.05)	EL/PL: 1.8–2.03 (1.91±0.07)

*Specimens examined.* [Hokkaido] 144 exs., Kurodake–Sôunkyô, 24–VII–1956, M. MIYATAKE leg.; 4 exs., Sôunkyô, 18–VII–1970, M. SAKAI leg.; 3 exs., same locality, 5–VII–1990, M. KAWANABE leg.; 95 exs., Yamada-onsen, 2–X–1968, M. MIYATAKE leg.; 7 exs., Tomuraushi Spa, 29–VII–1970, M. SAKAI leg.; 1 ex., Aizankei, 5~9–IX–1977, A. ODA leg.; 1 ex. Hôraisawa, Mt. Muine-yama, Sapporo-shi, 14–VI–1986, K. HAGA leg.; 88 exs., Meakan Spa, Akan-chô, 11–VII–1990, M. KAWANABE leg. [Honshu] (Tochigi Pref.) 3 exs., Nasu, 29–VII–1956, S. HISAMATSU leg.; 1 ex., Irohazaka, Nikkô-shi, 5–IV–1992, M. KAWANABE leg.

*Distribution.* Hokkaido, Honshu; Sakhalin.

*Host fungi.* *Fomes fomentarius* (L.: FR.) FR. [Tsuriganetake in Japanese] and *Fomitopsis pinicola* (SWARTZ: FR.) KARST. [Tsuga-sarunokoshikake in Japanese].

*Comparative notes.* This species is closely allied to *C. rufocastaneus* and *C. nikkoensis* in general features. In the latter two species, however, the hairs on the dorsum are indistinct, and not visible under low magnification (×10).

### *Cis nikkoensis* NOBUCHI, 1960

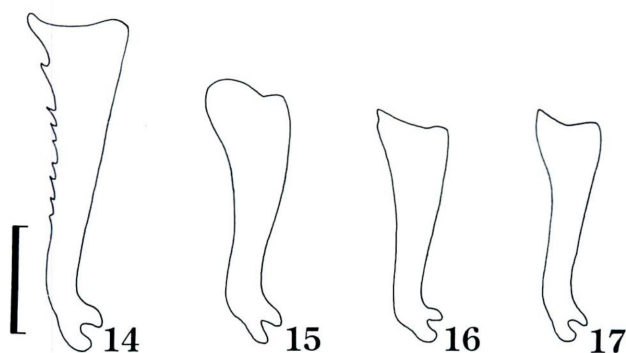
[Japanese name: Nikkô-tsutsukinokomushi]

(Figs. 7, 19, 27, 37, 45 & 54)

*Cis (Eridaulus) nikkoensis* NOBUCHI, 1960, Akitu, Kyoto, **9**: 65, fig. (1 ♂, Nikko, Tochigi Pref., in T. NAKANE'S collection).

Male. Body oblong, stout, very strongly convex, very shiny on dorsum. Color dark reddish brown; antennal clubs, mandibles and legs reddish brown; antennal funicles, palpi and tarsi yellowish brown. Punctures on dorsum each bearing a very short, fine and pale yellowish hair which is inconspicuous and hardly visible under low magnification (×10).

Head concealed, almost invisible from above, weakly convex, rather flattened on vertex, weakly and ovably impressed at the posterior middle of frons; rather sparsely and minutely punctate, finely shagreened; fronto-clypeal ridge produced forward, reflexed above on each side, and forming two subtriangular plates, the outer margins of which are feebly emarginate at the basal two-thirds. Antennal 3rd segment 1.64 times



Figs. 14–17. Protibiae of *Cis* spp. — 14, *C. laevigatus* sp. nov., paratype, from Omogokei; 15, *C. eminenticollis* NOBUCHI, from Kibune; 16, *C. morikawai* MIYATAKE, from Omogokei; 17, *C. capricornis* sp. nov., paratype, from Nakamagawa-rindô. Scale: 0.1 mm.

as long as 4th.

Pronotum including apical projections distinctly broader than long, widest at basal third, then slightly narrowed apicad; anterior margin gently rounded, rather strongly produced, weakly emarginate or truncate at the middle, sometimes forming two small projections which are more or less carinate, somewhat remote from each other; anterior corners obtusely angulate in lateral view, forming an angle of about  $130^\circ$ ; lateral margins slightly reflexed and finely denticulate, barely visible from above; sides nearly arcuate; basal margin narrowly ridged, and nearly straight or somewhat sinuate; hind angles broadly rounded; dorsum irregularly, closely and conspicuously punctate; punctures uniform in size, small and somewhat deep, separated by a distance about 1 to 4 times their diameters; interstices between punctures minutely reticulate or shagreened. Elytra with bases slightly narrower than base of pronotum; sides subparallel though slightly divergent from base to the middle, then gradually convergent apicad; disc sparsely and irregularly punctate, sparsely covered with short and inconspicuous hairs; punctures uniform in size, shallow and umbiliform, larger than those on pronotum; interstices between punctures smooth or partially somewhat inconspicuously rugulose; suture narrowly margined.

Male genitalia in a specimen from Chûzenji-kohan, Nikkô-shi:—Eighth abdominal sternite with the apical margin weakly emarginate, armed with relatively long and curled hairs at the lateral corners. Tegmen rather stout, nearly parallel-sided though slightly divergent apicad, apical corners bilobed and truncate with ovally pigmented areas which are crenulate, about 0.48 times as long as the combined length of visible abdominal sternite.

Female. Fronto-clypeal ridge slightly reflexed and forming a small lamella on each side; anterior margin of pronotum broadly rounded, not emarginate at the middle; first abdominal sternite devoid of pubescent fovea.

*Variation in the specimens from Chūzenji-kohan, Nikkō-shi, Tochigi Pref., Honshu.*

Male (n=8)

TL (mm): 1.56–1.89 (1.76±0.1)  
 EW (mm): 0.74–0.9 (0.83±0.05)  
 TL/EW: 2.08–2.15 (2.12±0.02)  
 PL/PW: 0.82–0.88 (0.85±0.02)  
 EL/EW: 1.32–1.38 (1.35±0.02)  
 EL/PL: 1.7–1.83 (1.75±0.05)

Female (n=13)

TL (mm): 1.7–2.0 (1.83±0.09)  
 EW (mm): 0.78–0.94 (0.85±0.04)  
 TL/EW: 2.11–2.18 (2.15±0.03)  
 PL/PW: 0.82–0.86 (0.84±0.01)  
 EL/EW: 1.35–1.42 (1.39±0.02)  
 EL/PL: 1.76–1.89 (1.81±0.04)

*Specimens examined.* [Hokkaido] 18 exs., Iwaobetsu, Shari-chō, 8–VII–1990, M. KAWANABE leg.; 4 exs., Mt. Rausu, 24–VII–1970, M. SAKAI leg.; 2 exs., Tomuraushi Spa, 31–VII–1970, M. SAKAI leg.; 2 exs., Nukabira Spa, Kamishihoro-chō, 12–VII–1990, M. KAWANABE leg.; 80 exs., Akankohan Spa, Akan-chō, 11–VII–1990, M. KAWANABE leg.; 7 exs., Jōzankei, Sapporo-shi, 4–VII–1990, M. KAWANABE leg.; 76 exs., Sōunkyō, Kamikawa-chō, 5–VII–1990, M. KAWANABE leg.; 1 ex., same locality, 18–VII–1979, M. SAKAI leg.; 5 exs., Yukomanbetsu–Mt. Kurodake, 2–VII–1958, M. MIYATAKE leg.; 5 exs., Kurodake–Sōunkyō, 24–VII–1956, M. MIYATAKE leg.; 1 ex., Aizankei, 31–VII–1955, K. MORIMOTO leg.; 1 ex., same locality, 5–9–IX–1977, A. ODA leg.; 2 exs., wayside pond nr. Shiretoko-goko, 22–VIII–1990, M. SAKAI leg.; 2 exs., Kawayu, 21–22–VII–1970, M. SAKAI leg.; 4 exs., Mt. Moiwa, Sapporo-shi, 30–VIII–1974, Y. FURUKI leg.; 46 exs., Mt. Rausu, 3–VII–1989, K. TOMOOKA leg. [Honshu] (Aomori Pref.) 8 exs., Mt. Iwaki, alt. 800 m, 29–IX–1992, M. SAKAI leg. (Tochigi Pref.) 11 exs., Irohazaka, Nikkō-shi, 5–IV–1992, M. KAWANABE leg.; 11 exs., Chūzenji-kohan, Nikkō-shi, 28–VII–1993, M. KAWANABE leg. (Kanagawa Pref.) 3 exs., Dōdaira, Tanzawa, 1 & 16–VI–1993, Y. HIRANO leg. (Gifu Pref.) 3 exs., Mt. Nōgō-hakusan, Neo-mura, 6–VI–1993, K. SETSUDA leg. (Nara Pref.) 3 exs., Mt. Ōminesan, 7–9–VIII–1989, M. KAWANABE leg. [Shikoku] (Ehime Pref.) 3 exs., Mt. Omogosan, 3–VII–1955, Y. WAKE leg.; 2 exs., same locality, 23–VII–1989, M. KAWANABE leg.; 1 ex., Kanayamadani, ca. 1,350 m alt., Omogo, 11–VII–1988, M. SAKAI leg. (Tokushima Pref.) 2 exs., Mt. Tsurugisan, 3–VI–1957, M. MIYATAKE leg. [Kyushu] (Ōita Pref.) 18 exs., Mt. Sobosan, 18–19–VII–1989, M. KAWANABE leg.

*Distribution.* Hokkaido, Honshu, Shikoku, Kyushu.

*Host fungi.* *Fomes fomentarius* (L.: FR.) FR. [Tsuriganetake in Japanese], *Fomitopsis rosea* (A. et S.: FR.) KARST. [Barairo-sarunokoshikake in Japanese] and *Fomitopsis pinicola* (Swartz: FR.) KARST. [Tsuga-sarunokoshikake in Japanese].

*Cis rufocastaneus* NAKANE et NOBUCHI, 1955

[Japanese name: Kuriiro-tsutsukinokomushi]

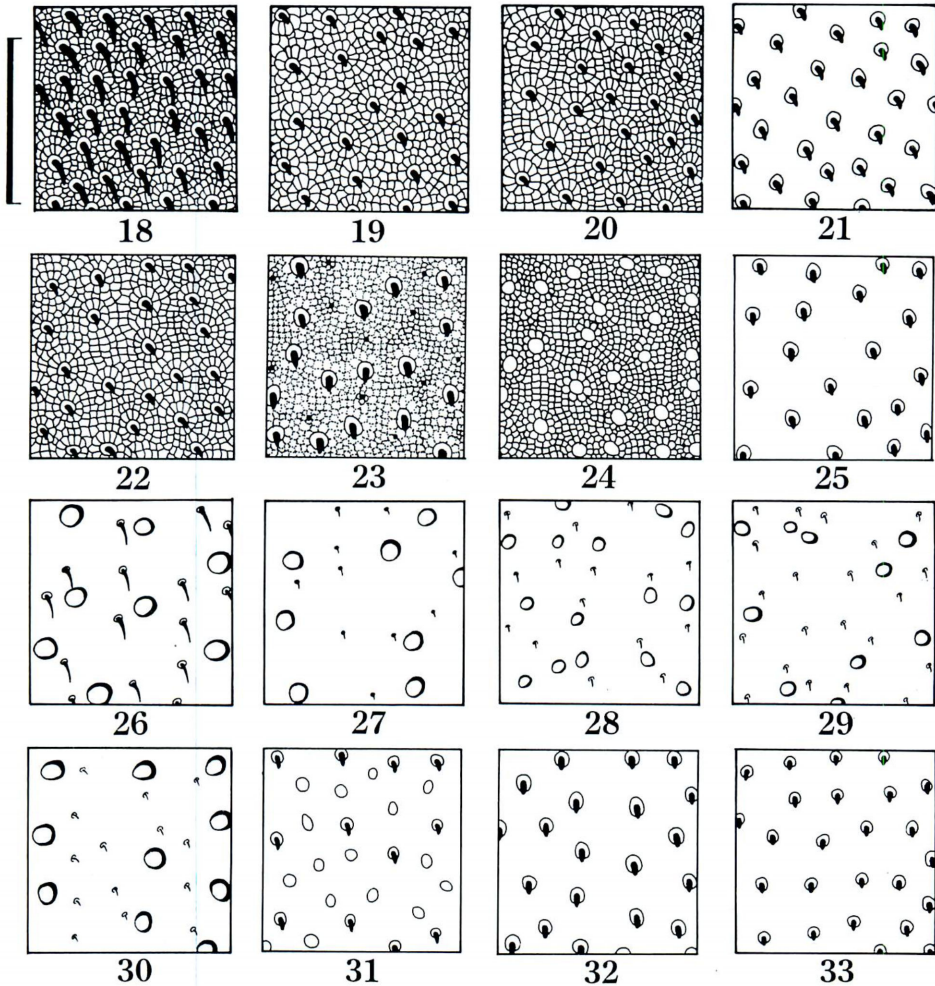
(Figs. 8, 20, 28, 38, 46 &amp; 55)

*Cis (Eridaulus) rufocastaneus* NAKANE et NOBUCHI, 1955, Scient. Rept. Saikyo Univ., **2A**: 48 (2♂♂, 1♀, Mitsumine, Chichibu).

*Cis konoii*: MIYATAKE, 1985, Coleopt. Japan Col., Osaka, **3**: 282, pl. 46, fig. 19.

Male (lectotype). Body length (excluding head): 1.93 mm; greatest breadth of elytra: 0.97 mm.

Body oblong, 2.0 times as long as elytral breadth, very strongly convex, very shiny on dorsum. Color dark reddish brown; antennae, palpi and legs somewhat paler. Punctures on dorsum each bearing a very short, fine and pale yellowish hair which is inconspicuous and hardly visible under low magnification ( $\times 10$ ).



Figs. 18–33. Surface of pronotum and elytra of *Cis* spp., male; 18–25, pronotum; 26–33, elytra. — 18, 26, *C. konoii* CHŪJŌ, from Kurodake to Sōunkyō; 19, 27, *C. nikkoensis* NOBUCHI, from Chūzenjikoan; 20, 28, *C. rufocastaneus* NAKANE et NOBUCHI, lectotype, from Mitsumine; 21, 29, *C. laevigatus* sp. nov., holotype, from Omogokei; 22, 30, *C. yamamotoi* sp. nov., holotype, from Omogokei; 23, 31, *C. eminenticollis* NOBUCHI, from Kibune; 24, 32, *C. morikawai* MIYATAKE, from Omogokei; 25, 33, *C. capricornis* sp. nov., holotype, from Nakamagawa-rindō. Scale: 0.1 mm.

Head concealed, almost invisible from above, weakly convex, rather flattened at vertex, weakly impressed at the posterior middle of frons; rather sparsely and minutely punctate, finely shagreened; fronto-clypeal ridge produced forward, reflexed above on each side, and forming two subtriangular plates, the outer margins of which are feebly emarginate at the basal two-thirds. Antennal 3rd segment 1.51 times as long as 4th.

Pronotum 0.81 times as long as broad, widest at basal third, then slightly narrowed apicad; anterior margin rather strongly produced and weakly emarginate at the middle; anterior corners obtusely angulate in lateral view, forming an angle of about  $110^\circ$ ; lateral margins slightly reflexed and finely denticulate, barely visible from above; sides nearly arcuate; basal margin narrowly ridged, and nearly straight or somewhat arcuate; hind angles broadly rounded; dorsum irregularly, closely and conspicuously punctate; punctures uniform in size, small and deep, separated by a distance equal to about 1 to 2 times their diameters; interstices between punctures minutely reticulate or shagreened. Scutellum subtriangular, glabrous, with some small punctures. Elytra 1.31 times as long as broad, and 1.9 times as long as pronotum; sides subparallel though slightly divergent from base to the middle, then gradually convergent apicad; disc closely and irregularly punctate; punctures roughly dual in size, the larger ones shallow and umbiliform, more or less larger than those on pronotum, the smaller ones very small and inconspicuous, each bearing a fine hair; interstices between punctures smooth or partially somewhat inconspicuously rugulose; suture narrowly margined.

Male genitalia in a specimen from Mt. Daisen:—Eighth abdominal sternite with the apical margin broadly and deeply emarginate at the middle, armed with long and somewhat winding hairs at the lateral corners. Tegmen rather stout, nearly parallel-sided though slightly divergent apicad, apical corners truncate with ovally pigmented areas which are crenulate, about 0.52 times as long as the combined length of visible abdominal sternite.

Female. Fronto-clypeal ridge slightly reflexed and forming a small lamella on each side; anterior margin of pronotum broadly rounded, not emarginate at the middle; first abdominal sternite devoid of pubescent fovea.

*Variation in the lectotype and specimens from Mt. Daisen, Tottori Pref., Honshu, and Mt. Saragamine, Ehime Pref., Shikoku.*

Male (n=6)	Female (n=9)
TL (mm): 1.63–1.93 ( $1.75 \pm 0.11$ )	TL (mm): 1.45–1.96 ( $1.73 \pm 0.16$ )
EW (mm): 0.78–0.97 ( $0.84 \pm 0.06$ )	EW (mm): 0.67–0.9 ( $0.81 \pm 0.07$ )
TL/EW: 2.0–2.18 ( $2.08 \pm 0.06$ )	TL/EW: 2.03–2.18 ( $2.13 \pm 0.05$ )
PL/PW: 0.78–0.87 ( $0.81 \pm 0.03$ )	PL/PW: 0.79–0.85 ( $0.82 \pm 0.02$ )
EL/EW: 1.31–1.39 ( $1.34 \pm 0.03$ )	EL/EW: 1.29–1.44 ( $1.38 \pm 0.04$ )
EL/PL: 1.74–1.9 ( $1.83 \pm 0.06$ )	EL/PL: 1.76–1.93 ( $1.85 \pm 0.05$ )

*Lectotype designation.* Lectotype: ♂ (somewhat teneral), by present designation, Mitsumine, Chichibu, 23–IX–1940, T. NAKANE leg. The lectotype is preserved in the collection of the National Institute of Agro-environmental Sciences, Tsukuba.

*Further specimens examined.* [Honshu] <Kanagawa Pref.> 2 exs., Miyanoshita,



Hakone, 20–IV–1974, Y. HIRANO leg. (Tottori Pref.) 4 exs., Mt. Daisen, 26–27–VII–1989, M. KAWANABE leg. [Shikoku] (Ehime Pref.) 12 exs., Mt. Saragamine, 25–IV–1953, M. MIYATAKE leg.

*Distribution.* Honshu, Shikoku.

*Host fungi.* *Fomes fomentarius* (L.: FR.) FR. [Tsuriganetake in Japanese], *Fomes pinicola* (SWARTZ: FR.) KARST. [Tsuga-sarunokoshikake in Japanese] and *Fomitopsis rosea* (A. et S.: FR.) KARST. [Barairo-sarunokoshikake in Japanese].

*Cis laevigatus* M. KAWANABE, sp. nov.

[Japanese name: Tsuyamune-tsukinokomushi]

(Figs. 1–5, 9, 14, 21, 29, 34, 39, 47 & 56)

Male (Holotype). Body length (excluding head): 1.75 mm; greatest breadth of elytra: 0.83 mm.

Body elongate and cylindrical, 2.11 times as long as elytral breadth, very strongly convex, very shiny on dorsum. Color dark reddish brown; antennal clubs, mandibles and legs reddish brown; antennal funicles, palpi and tarsi yellowish brown. Punctures on dorsum each bearing a very short, fine and pale yellowish hair which is inconspicuous and hardly visible under low magnification ( $\times 10$ ).

Head relatively exposed from pronotum, weakly convex; rather sparsely and minutely punctate, nearly smooth or finely shagreened; fronto-clypeal ridge produced forward, reflexed above on each side, and forming two subtriangular plates, the outer margins of which are conspicuously arcuate and feebly emarginate at the basal two-thirds; margin between the plates shallowly and arcuately emarginate. Antennae 10-segmented; 3rd segment 1.75 times as long as 4th; 8th to 10th forming a loose club.

Pronotum 0.82 times as long as broad, widest at the middle; anterior margin gently rounded, rather strongly produced; anterior corners obtusely angulate in lateral view, forming an angle of about  $135^\circ$ ; lateral margins slightly reflexed and finely denticulate, barely visible from above; sides nearly arcuate; basal margin narrowly ridged, and nearly straight; hind angles broadly rounded; dorsum irregularly, closely and conspicuously punctate; punctures uniform in size, small and somewhat deep though relatively shallow at basal portion, separated by a distance equal to about 1 to 3 times their diameters; interstices between punctures smooth though somewhat shagreened at lateral portions. Scutellum subtriangular, rugulose, with some small punctures. Elytra 1.33 times as long as broad, and 1.71 times as long as pronotum; sides subparallel though slightly divergent from base to the middle, then gradually convergent apicad; disc rather closely and irregularly punctate; punctures dual in size, the larger ones small, shallow and umbiliform, nearly of the same size as those on pronotum, the smaller ones very small, inconspicuous, each bearing a short and inconspicuous hair; interstices between punctures smooth or partially somewhat inconspicuously rugulose; suture narrowly margined.

Prosternal disc in front of coxae medio-longitudinally carinate, transversely and

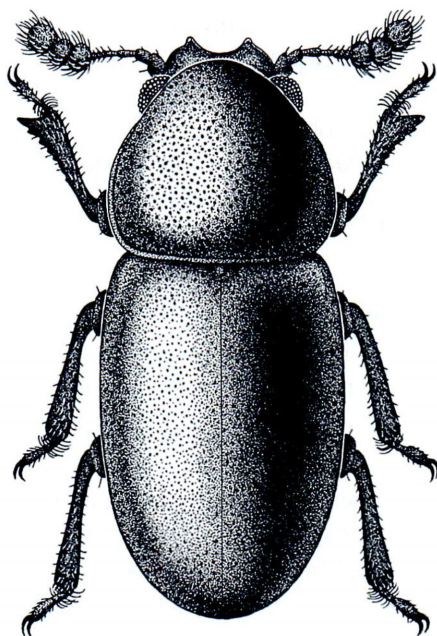


Fig. 34. *Cis laevigatus* sp. nov., holotype, from Omogokei.

somewhat deeply depressed just before each coxa; prosternal process rather narrow, subparallel-sided, somewhat broadened near apex, slightly upheaved to the level of the base of prosternum. First abdominal sternite with a somewhat small, circular and marginally pubescent fovea at the middle.

Male genitalia in a paratype:— Eighth abdominal sternite with the apical margin deeply and arcuately emarginate at the middle, armed with mixed long and short hairs at the lateral corners. Tegmen rather stout, nearly parallel-sided though slightly divergent apicad, apical corners truncate with ovals pigmented areas which are crenulate, about 0.52 times as long as the combined length of visible abdominal sternite.

Female. Fronto-clypeal ridge slightly reflexed and forming a small lamella on each side; first abdominal sternite devoid of pubescent fovea.

*Variation in the type series.*

Male (n=19)

TL (mm): 1.47–1.75 (1.57±0.07)  
 EW (mm): 0.69–0.83 (0.73±0.04)  
 TL/EW: 2.06–2.23 (2.16±0.05)  
 PL/PW: 0.81–0.88 (0.85±0.02)  
 EL/EW: 1.31–1.42 (1.36±0.04)  
 EL/PL: 1.62–1.83 (1.73±0.05)

Female (n=13)

TL (mm): 1.56–1.84 (1.69±0.08)  
 EW (mm): 0.71–0.83 (0.77±0.04)  
 TL/EW: 2.12–2.25 (2.19±0.04)  
 PL/PW: 0.83–0.88 (0.85±0.02)  
 EL/EW: 1.33–1.44 (1.38±0.03)  
 EL/PL: 1.66–1.77 (1.72±0.03)

*Type series.* Holotype: ♂, Omogokei, Ehime Pref., 26~27-V-1989, M. KAWANABE leg. Paratypes: 5 ♂♂, 7 ♀♀, same data as holotype; 15 ♂♂, 21 ♀♀, Hontani,

Odamiyama, Ehime Pref., 2–IV–1989, E. YAMAMOTO leg.; 1 ♂, 3 ♀♀, Mt. Saragamine, Ehime Pref., 13–V–1984, M. SAKAI leg.; 13 ♂♂, 1 ♀, Mt. Shōsanji, Tokushima Pref., 9–VII–1976, M. MIYATAKE leg. All the type specimens are preserved in the collection of the Entomological Laboratory, College of Agriculture, Ehime University, Matsuyama.

*Further specimens examined.* [Honshu] (Tottori Pref.) 19 ♂♂, 25 ♀♀, Mt. Daisen, 26–27–VII–1989, M. KAWANABE leg. [Kyushu] (Ōita Pref.) 13 ♂♂, 3 ♀♀, Mt. Sobo, 18–19–VII–1989, M. KAWANABE leg.; 13 ♂♂, 18 ♀♀, Mt. Kurodake, Shōnai-chō, 26–IX–1993, M. TSUNEOKA leg. (Kagoshima Pref.) 5 ♂♂, 2 ♀♀, Hanayamahodō-iriguchi, Yaku-shima Is., 23–IX–1989, M. KAWANABE leg.

*Distribution.* Honshu, Shikoku, Kyushu, Nansei Isls. (Yaku-shima Is.).

*Host fungi.* *Fomes fomentarius* (L.: FR.) FR. [Tsuriganetake in Japanese] and *Trametes* sp.

*Comparative notes.* *Cis laevigatus* sp. nov. is allied to *C. konoii*, *C. nikkoensis* and *C. rufocastaneus*. In the latter three species, however, the ground surface of pronotum is reticulate and the anterior margin of male pronotum is more or less emarginate in the middle. The elytral punctures of this species are nearly as large as those of *C. rufocastaneus* and *C. konoii*, and are much smaller than those of *C. nikkoensis*. In *C. konoii*, the hairs on dorsum are very distinct, while in *C. rufocastaneus*, the punctuation on the dorsum is much sparser.

***Cis yamamotoi* M. KAWANABE, sp. nov.**

[Japanese name: Arahada-tsutsukinokomushi]

(Figs. 10, 22, 30, 35, 40, 48 & 57)

Male (Holotype). Body length (excluding head): 1.52 mm; greatest breadth of elytra: 0.71 mm.

Body oblong, 2.13 times as long as elytral breadth, strongly convex, shiny on dorsum. Color reddish black though the anterior and lateral margins of pronotum and elytra are paler; antennae, palpi and legs yellowish brown. Punctures on dorsum each bearing a very short fine hair.

Head relatively exposed from pronotum, rather convex, finely and closely punctate, inconspicuously reticulate; fronto-clypeal ridge weakly produced forward, reflexed above on each side, and forming two small arcuate lamellae. Antennae 10-segmented; 3rd segment 2.0 times as long as 4th; 8th to 10th forming a loose club.

Pronotum 0.89 times as long as broad, nearly arcuate-sided; anterior margin not ridged, broadly rounded; anterior corners obtusely angulate in lateral view, forming an angle of about 135° and barely visible from above; lateral margins narrowly ridged, barely visible from above; basal margin narrowly ridged, and slightly arcuate; hind angles broadly rounded; dorsum opaque, irregularly, somewhat closely and conspicuously punctate; punctures uniform in size, rather small and deep, separated by a distance equal to about 1.5 to 5 times their diameters; interstices between punctures retic-

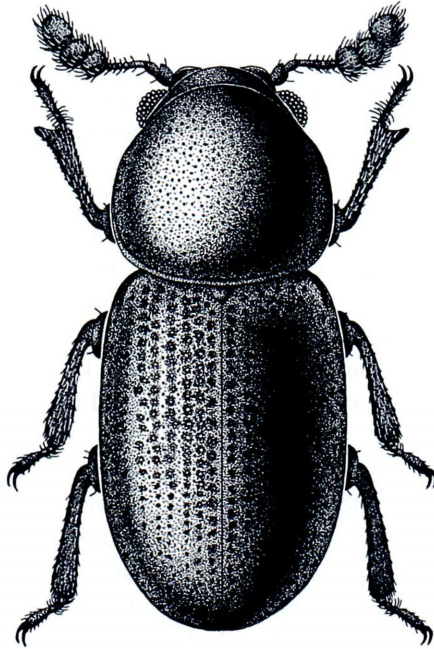


Fig. 35. *Cis yamamotoi* sp. nov., holotype, from Omogokei.

ulate. Scutellum subtriangular, covered with some small punctures. Elytra 1.32 times as long as broad, and 1.64 times as long as pronotum; sides almost subparallel though slightly divergent from base to basal two-thirds, then rather sharply convergent apicad; disc strongly shiny, irregularly and somewhat inconspicuously punctate; punctures almost dual in size, the larger ones shallow, obscure in outline, seriate and longitudinally fused with one another in some places, the smaller ones very shallow and inconspicuous; interstices between punctures smooth; suture not margined.

Prosternal disc in front of coxae medio-longitudinally carinate, transversely and weakly depressed just before each coxa; prosternal process broad, subparallel-sided, on the same level as the base of prosternum. First abdominal sternite with a small, circular and somewhat inconspicuous pubescent fovea in the middle.

Male genitalia in a paratype:—Eighth abdominal sternite somewhat wider than long, with the apical margin deeply emarginate at the middle, armed with mixed long and short hairs on the lateral corners. Tegmen somewhat stout, parallel-sided, bilobed at apex and weakly emarginate on the outer margin of each lobe, about 0.48 times as long as the combined length of visible abdominal sternite.

Female. First abdominal sternite devoid of pubescent fovea.

*Variation in the type series.*

Male (n=12)  
 TL (mm): 1.31–1.54 (1.45±0.06)  
 EW (mm): 0.58–0.71 (0.66±0.03)

Female (n=9)  
 TL (mm): 1.47–1.61 (1.54±0.05)  
 EW (mm): 0.69–0.74 (0.71±0.02)

TL/EW: 2.13–2.28 (2.19±0.05)

PL/PW: 0.85–0.92 (0.89±0.02)

EL/EW: 1.32–1.44 (1.38±0.04)

EL/PL: 1.64–1.77 (1.7±0.04)

TL/EW: 2.1–2.23 (2.17±0.05)

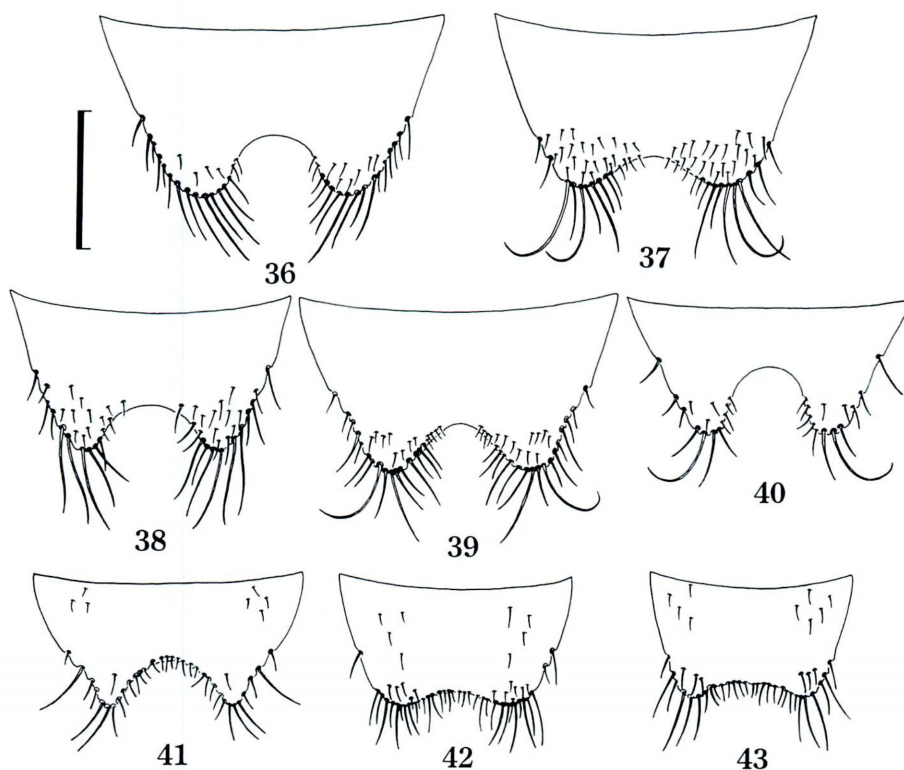
PL/PW: 0.86–0.92 (0.89±0.02)

EL/EW: 1.32–1.42 (1.37±0.04)

EL/PL: 1.65–1.76 (1.7±0.03)

*Type series.* Holotype: ♂, Omogokei, Ehime Pref., 23–VII–1989, M. KAWANABE leg. Paratypes: 5 ♂♂, 1 ♀, same data as holotype; 3 ♂♂, 4 ♀♀, Hontani, Odamiyama, Ehime Pref., 2–IV–1989, E. YAMAMOTO leg.; 8 ♂♂, 8 ♀♀, same locality, 27–28–IV–1989, M. KAWANABE leg. All the type specimens are preserved in the collection of the Entomological Laboratory, College of Agriculture, Ehime University, Matsuyama.

*Further specimens examined.* [Hokkaido] 1 ♀, Mt. Rausu, 3–VII–1989. K. TOMOOKA leg. [Honshu] (Tochigi Pref.) 1 ♂, 2 ♀♀, Irohazaka, Nikkô-shi, 5–IV–1992, M. KAWANABE leg. (Nara Pref.) 6 ♂♂, 13 ♀♀, Mt. Ômine, 7–9–VIII–1989, M. KAWANABE leg.



Figs. 36–43. Male 8th abdominal sternites of *Cis* spp.—36, *C. kono*i CHŪJŌ, from Kurodake to Sōunkyō; 37, *C. nikkoensis* NOBUCHI, from Chūzenji-kohan; 38, *C. rufocastaneus* NAKANE et NOBUCHI, from Mt. Daisen; 39, *C. laevigatus* sp. nov., paratype, from Omogokei; 40, *C. yamamotoi* sp. nov., paratype, from Odamiyama; 41, *C. eminenticollis* NOBUCHI, from Kibune; 42, *C. morikawai* MIYATAKE, from Omogokei; 43, *C. capricornis* sp. nov., paratype, from Nakamagawa-rindō. Scale: 0.01 mm.

*Distribution.* Hokkaido, Honshu, Shikoku.

*Host fungi.* *Elfvigia applanata* (PERK.) KARST. [Kofuki-sarunokoshikake in Japanese] and *Fomes fomentarius* (L.: FR.) FR. [Tsuriganetake in Japanese].

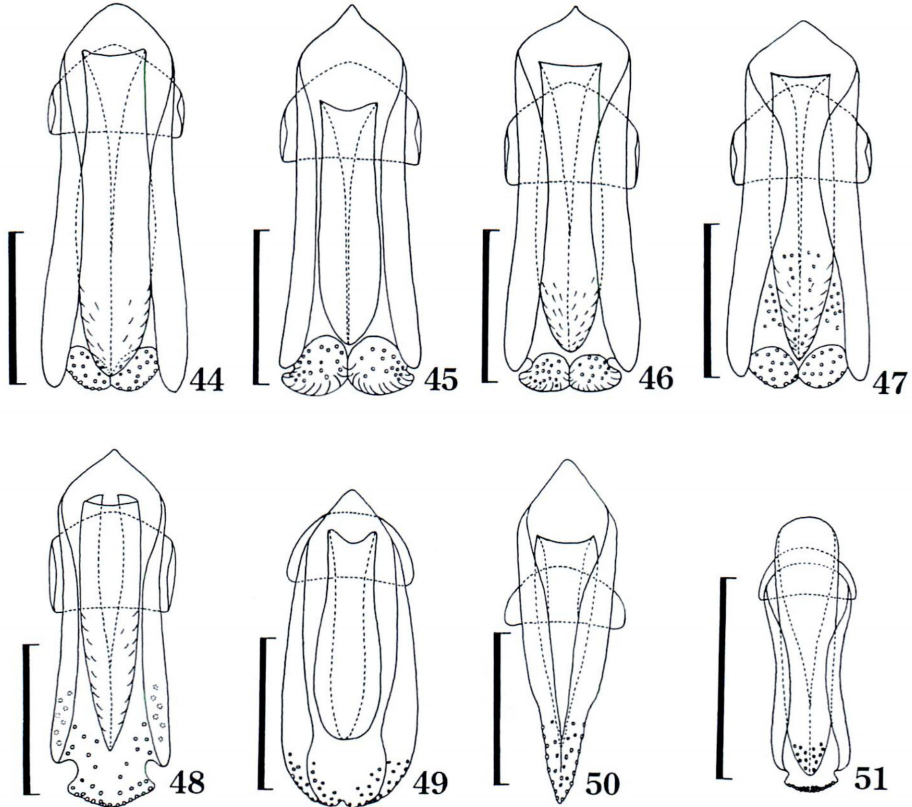
*Comparative notes.* This new species is somewhat allied to *C. morikawai* in the feature of the fronto-clypeal ridge which is not armed with distinct projections. In the latter species, however, the outer margin of protibia is not serrate and the elytra are devoid of longitudinal grooves and broadly rounded at the apices.

*Cis eminenticollis* NOBUCHI, 1955

[Japanese name: Kyoto-tsutukinokomushi]

(Figs. 11, 15, 23, 31, 41 & 49)

*Cis (Eridaulus) eminenticollis* NOBUCHI, 1955, Ent. Rev. Japan, 6: 56 (1 ♂, Kibune, Kyoto).



Figs. 44–51. Male genitalia of *Cis* spp. — 44, *C. konoii* CHŪJŌ, from Kurodake to Sōunkyō; 45, *C. nikkoensis* NOBUCHI, from Chūzenji-kohan; 46, *C. rufocastaneus* NAKANE et NOBUCHI, from Mt. Daisen; 47, *C. laevigatus* sp. nov., paratype, from Omogokei; 48, *C. yamamotoi* sp. nov., paratype, from Odamiyama; 49, *C. eminenticollis* NOBUCHI, from Kibune; 50, *C. morikawai* MIYATAKE, from Omogokei; 51, *C. capricornis* sp. nov., paratype, from Nakamagawa-rindō. Scale: 0.01 mm.

Male. Eighth abdominal sternite broadly and rather deeply emarginate at the middle, armed with relatively long hairs at the lateral corners and short hairs at the bottom of the emargination; lateral corners somewhat salient. Tegmen rather stout, oblong-oval, slightly divergent apicad, broadly rounded at apex, about 0.46 times as long as the combined length of visible abdominal sternite.

Female. Unknown.

*Variation in the holotype and a topotypical specimen from Kibune, Kyoto Pref., Honshu.*

Male (n=2)

TL (mm): 1.43–1.5 (1.46)	EW (mm): 0.65–0.71 (0.68)
TL/EW: 2.1–2.21 (2.16)	PL/PW: 0.8–0.83 (0.82)
EL/EW: 1.33–1.42 (1.38)	EL/PL: 1.75–1.8 (1.78)

*Specimens examined.* [Honshu] (Kyoto Pref.) 1 ♂, Kibune, 16–IV–1949, A. NOBUCHI leg.; 1 ♂, same locality, 1–V–1952, A. NOBUCHI leg. (holotype). The holotype is preserved in the collection of the National Institute of Agro-environmental Sciences, Tsukuba.

*Distribution.* Honshu.

*Host fungus.* Unknown.

### *Cis morikawai* MIYATAKE, 1954

[Japanese name: Ochiba-tsutsukinokomushi]

(Figs. 12, 16, 24, 32, 42 & 50)

*Cis (Eridaulus) morikawai* MIYATAKE, 1954, Sci. Rept. Matsuyama agric. Coll., (14): 50 (1 ♂, Omogokei, Iyo).

*Cis morikawai*: MIYATAKE, 1985, Coleopt. Japan Col., Osaka, 3: 282, pl. 46, fig. 20.

Male. Eighth abdominal sternite subtrapezoidal, with apical margin weakly emarginate at the middle, armed with relatively long hairs at the lateral corners and short hairs at the bottom of the emargination. Tegmen slender, angulate-obovate, gradually convergent apicad, about 0.55 times as long as the combined length of visible abdominal sternite.

Female. Fronto-clypeal ridge slightly reflexed and forming a small arcuate lamella on each side; first abdominal sternite devoid of pubescent fovea.

*Variation in the holotype and specimens from Odamiyama, Ehime Pref., Shikoku.*

Male (n=3)

TL (mm): 1.19–1.4 (1.27 ± 0.11)	EW (mm): 0.58–0.66 (0.62 ± 0.03)
TL/EW: 2.0–2.12 (2.06 ± 0.05)	PL/PW: 0.82–0.83 (0.83 ± 0.05)
EL/EW: 1.29–1.35 (1.31 ± 0.03)	EL/PL: 1.71–1.75 (1.73 ± 0.02)

*Specimens examined.* [Honshu] (Hiroshima Pref.) 3 exs, Saijō, 21–VIII–1982, S. TANAKA leg. [Shikoku] (Ehime Pref.) 1 ♂, Omogokei, 9–V–1954, K. MORIKAWA leg. (holotype); 1 ♂, same locality, 21–X–1959, M. SATŌ leg.; 2 exs., Odamiyama, 27–V–1989, E. YAMAMOTO leg. The holotype is preserved in the collection of the Entomolog-

ical Laboratory, College of Agriculture, Ehime University, Matsuyama.

*Distribution.* Honshu, Shikoku, Kyushu.

*Host fungus.* Unknown. This species is extracted from litter by using Berlese's funnel.

*Cis capricornis* M. KAWANABE, sp. nov.

[Japanese name: Kuwagata-tsutsukinokomushi]

(Figs. 13, 17, 25, 33, 43, 51–52 & 58)

Male (Holotype). Body length (excluding head): 1.09 mm; greatest breadth of elytra: 0.51 mm.

Body oblong, 2.13 times as long as elytral breadth, strongly convex, shiny on dorsum. Color dark reddish brown; antennae, palpi and legs yellowish brown. Punctures on dorsum each bearing a very short fine hair.

Head relatively exposed from pronotum, rather concave, with oval and somewhat large concavity on each side of eyes, finely, sparsely and inconspicuously punctate; interstices between punctures smooth; fronto-clypeal ridge very strongly produced and reflexed above on each side, then forming two long horn-like projections, which are rounded at apices; emargination between the projections U-shaped. Antennae 10-segmented; 3rd segment 1.14 times as long as 4th; 8th to 10th forming a loose club.

Pronotum 0.8 times as long as broad, nearly arcuate-sided; anterior margin not

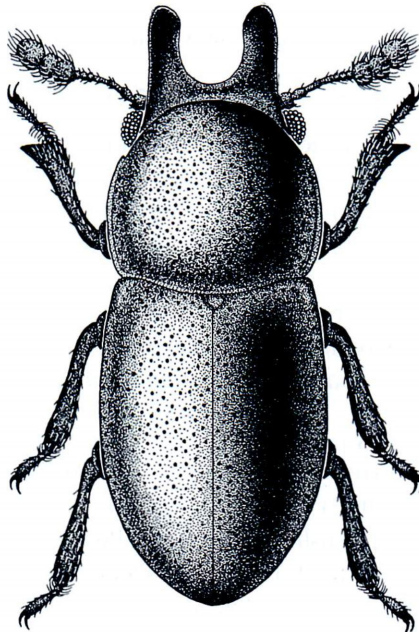


Fig. 52. *Cis capricornis* sp. nov., holotype, from Nakamagawa-rindô.



ridged, broadly rounded, not or faintly emarginate at the middle; anterior corners obtusely angulate in lateral view, forming an angle of about  $135^\circ$  and barely visible from above; lateral margins narrowly ridged; basal margin narrowly ridged, and faintly sinuate; hind angles broadly rounded or obtusely angulate; dorsum irregularly, somewhat closely and conspicuously punctate; punctures uniform in size, small and deep, separated by a distance equal to about 1.5 to 5 times their diameters; interstices between punctures smooth or somewhat rugulose. Scutellum pentagonal, covered with some small punctures. Elytra 1.33 times as long as broad, and 1.67 times as long as pronotum; sides almost subparallel though slightly divergent from base to the middle, then rather sharply convergent apicad; disc dull shiny, irregularly and somewhat inconspicuously punctate; punctures uniform in size, very small, somewhat smaller and shallower than those on pronotum; interstices between punctures somewhat rugulose; suture not margined.

Prosternal disc in front of coxae medio-longitudinally carinate, transversely and weakly depressed just before each coxa; prosternal process broad, subparallel-sided, on the same level as the base of prosternum. First abdominal sternite with a small, circular and somewhat inconspicuous pubescent fovea in the middle.

Male genitalia in a paratype:—Eighth abdominal sternite subtrapezoidal, with apical margin weakly emarginate at the middle, armed with relatively long hairs at the lateral corners and short hairs at the bottom of the emargination. Tegmen rather slender, nearly parallel-sided though slightly narrowed in apical two-thirds, apical corner semiovally convex dorsad, about 0.4 times as long as the combined length of visible abdominal sternite.

Female. Fronto-clypeal ridge slightly reflexed and forming a small arcuate lamella on each side; first abdominal sternite devoid of pubescent fovea.

*Variation in the type series.*

Male (n=6)	Female (n=13)
TL (mm): 1.24–1.34 (1.13±0.07)	TL (mm): 1.0–1.19 (1.12±0.06)
EW (mm): 0.49–0.56 (0.52±0.02)	EW (mm): 0.48–0.54 (0.52±0.02)
TL/EW: 2.1–2.21 (2.16±0.04)	TL/EW: 2.11–2.27 (2.17±0.04)
PL/PW: 0.8–0.85 (0.83±0.02)	PL/PW: 0.79–0.86 (0.82±0.02)
EL/EW: 1.31–1.36 (1.34±0.02)	EL/EW: 1.33–1.43 (1.38±0.03)
EL/PL: 1.61–1.67 (1.64±0.02)	EL/PL: 1.67–1.86 (1.78±0.05)

*Type series.* Holotype: ♂, Nakamagawa-rindô, Iriomote-jima Is., 27–IV–1994, M. KAWANABE leg. Paratypes: 1 ♂, 4 ♀♀, Shirahama-rindô, Iriomote-jima Is., 27–IV–1994, M. KAWANABE leg.; 3 ♀♀, Urauchi, Iriomote-jima Is., 26–IV–1994, M. KAWANABE leg.; 1 ♂, 3 ♀♀, Kanpira-taki Falls, Iriomote-jima Is., 28–IV–1994, M. KAWANABE leg.; 1 ♂, 2 ♀♀, Mt. Omoto-dake, Ishigaki-jima Is., 25–IV–1994, M. KAWANABE leg.; 2 ♂♂, 1 ♀, Hanayamahodô-iriguchi, Yaku-shima Is., 23–IX–1989, M. KAWANABE leg. All the type specimens are preserved in the collection of the Entomological Laboratory, College of Agriculture, Ehime University, Matsuyama.

*Distribution.* Nansei Isls. (Yaku-shima Is., Ishigaki-jima Is., Iriomote-jima Is.).

*Host fungi.* *Microporus vernicipes* (BERK.) O. KUNTZE [Tsuyauchiwatake in Japanese] and *Oxyporus* sp.

*Comparative notes.* This new species is very peculiar in the Japanese Ciidae and somewhat allied to the South American species *Cis testaceus* (PIC, 1916), *C. grandicornis* (PIC, 1917) and *C. testaceimembris* (PIC, 1916), and the North American species *C. cornelli* LAWRENCE, 1971. In the first two species, the body is much larger (TL more than 2 mm), and in the next two species, the fronto-clypeal horns in the male are broader and blunt. In *C. cornelli*, the elytra are much broader (EL/EW less than 1.25). The Australian species *Cis cervus* BLAIR, 1940, also resembles this species, but it is separated by conspicuous hairs on the dorsum. *Ceracis bifurcus* GORHAM, 1898, may be somewhat allied to this species in the feature of the fronto-clypeal horns in the male, but in the former the protibia is laterally serrate.

*Remarks.* *Cis laevigatus* belongs to the *Cis nitidus* group, and *C. yamamotoi* seems to be a relative of this group, while *C. capricornis* belongs to the *Cis taurus* group according to LAWRENCE (1971). However, the eight species dealt with in this paper seem to form a group within the genus *Cis* in view of the peculiarities of the body surface (without conspicuous seta on dorsum) and the prosternum (medio-longitudinally carinate). The genus *Cis* can be classified into 24 species-groups and may be poly- or paraphyletic, but the boundaries between those species-groups are not necessarily conspicuous. Though cosmopolitan in distribution, phylogeny of the *Cis* species is not satisfactorily studied except in Europe, North America and Japan, and to set up their natural classification is a very difficult task. For this reason, I provisionally regard the eight Japanese species as the members of the genus *Cis* according to LAWRENCE's opinion (1967, 1971).

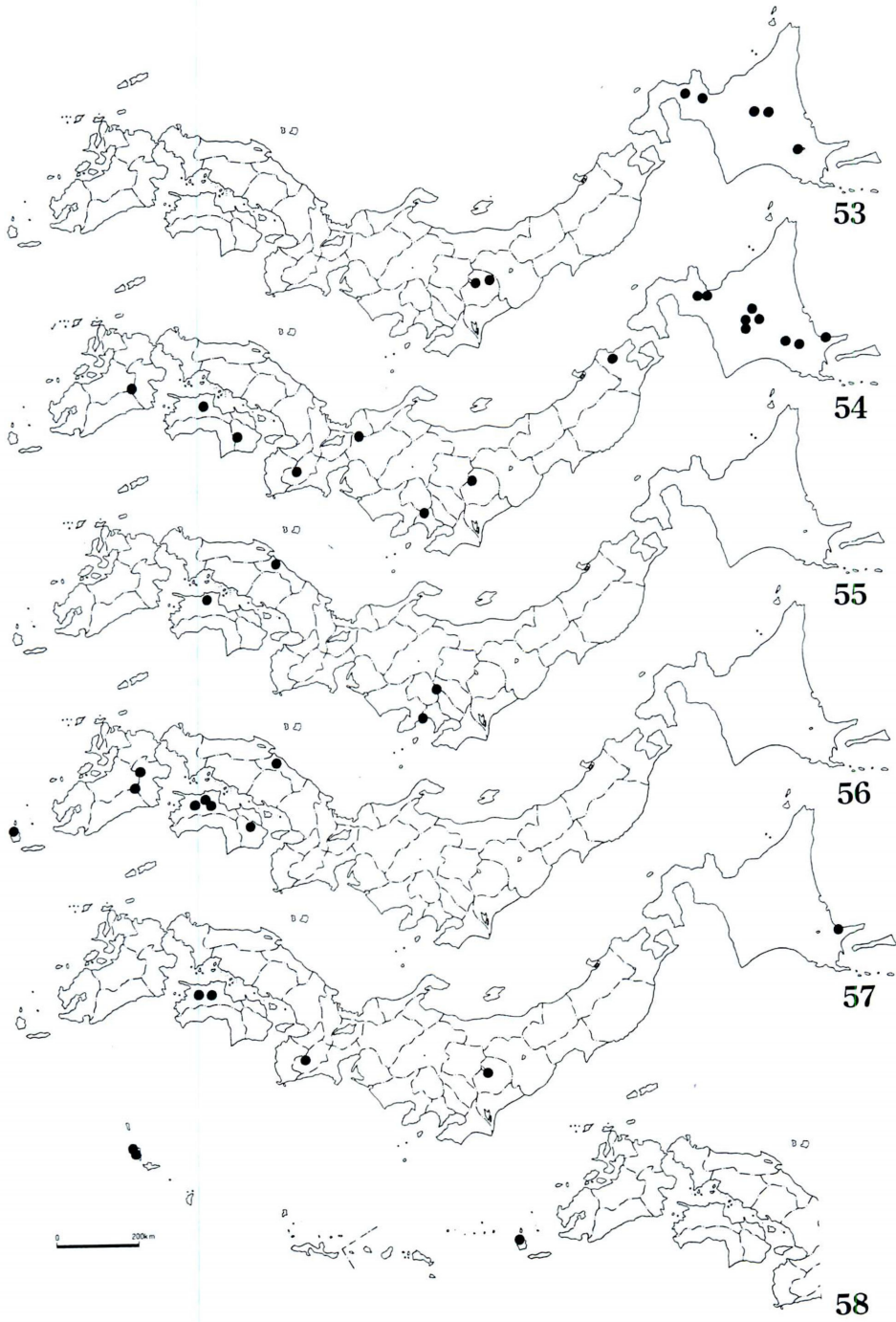
The species belonging to the *Cis nitidus* group and *C. yamamotoi* have some characteristics in common including the shining body surface and the carinate prosternum. The serration on the outer margin of the protibia, large mandibles and cylindrical body form seem to be the characters adaptive for boring into the ligneous fruiting body of the polyporaceous or ganodermataceous fungi such as *Fomitopsis*, *Fomes*, *Ganoderma*, etc.

### Key to the Japanese Species Related to the Group of *Cis nitidus*

1. Outer margin of protibia weakly and irregularly serrate at least partially; elytra broadly rounded at apices . . . . . 2.
- Outer margin of protibia simple, not serrate laterally; elytra narrowly rounded at apices . . . . . 6.
2. Elytra with shallow and obscure longitudinal grooves; fronto-clypeal ridge in male

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Figs. 53–58. Distribution of *Cis* spp. — 53, *C. konoi* CHŪJŌ; 54, *C. nikkoensis* NOBUCHI; 55, *C. rufocastaneus* NAKANE et NOBUCHI; 56, *C. laevigatus* sp. nov.; 57, *C. yamamotoi* sp. nov.; 58, *C. capricornis* sp. nov.



- simple, forming an arcuate lamella on each side but devoid of subtriangular plate  
 ..... *C. yamamotoi* sp. nov.
- Elytra without longitudinal grooves; fronto-clypeal ridge in male forming a subtriangular plate on each side ..... 3.
3. Elytral hairs longer, more than 0.2 times as long as the longitudinal length of scutellum, visible under 10× magnification ..... *C. konoi* CHÛJÔ.
- Elytral hairs shorter, less than 0.2 times as long as the longitudinal length of scutellum, not visible under 10× magnification ..... 4.
4. Interstices between pronotal punctures smooth. .... *C. laevigatus* sp. nov.
- Interstices between pronotal punctures reticulate or rugulose ..... 5.
5. Elytral macro-punctures much larger than eye facets and distinctly larger than micro-punctures, separated by a distance 0.5 to 6 times their diameters; anterior margin of male pronotum weakly but distinctly emarginate in the middle .....  
 ..... *C. nikkoensis* NOBUCHI.
- Elytral macro-punctures smaller than eye facets and slightly larger than micro-punctures, separated by a distance 1 to 5 times their diameters; anterior margin of male pronotum broadly rounded and truncate in the middle .....  
 ..... *C. rufocastaneus* NAKANE et NOBUCHI.
6. Body somewhat flattened; anterior margin of pronotum rather produced forward, and in male weakly reflexed and emarginate in the middle; elytral hairs partially seriate, short, stout and erect, visible under 10× magnification; fronto-clypeal ridge in male forming two subtriangular plates. .... *C. eminenticollis* NOBUCHI.
- Body strongly convex; anterior margin of pronotum broadly rounded, and in male not emarginate in the middle; elytral hairs not seriate, very short, fine, suberect or inclined, not visible under 10× magnification; fronto-clypeal ridge in male not forming two subtriangular plates. .... 7.
7. Interstices between pronotal punctures smooth; fronto-clypeal ridge in male armed with a long slender horn on each side; anterior corners of pronotum not produced forward ..... *C. capricornis* sp. nov.
- Interstices between pronotal punctures reticulate; fronto-clypeal ridge in male forming an arcuate lamella on each side; anterior corners of pronotum slightly produced forward ..... *C. morikawai* MIYATAKE.

## 要 約

川那部 真： *Cis nitidus* 種群と近縁邦産種に関する分類学的知見。—— 日本産の *Cis* 属のうち、*Cis nitidus* 種群とそれに近縁だと考えられる種について検討を行った。その結果、*Cis nitidus* 種群には、既知の *Cis konoi*, *C. nikkoensis*, *C. rufocastaneus* のほかに1新種が見いだされたので、*Cis laevigatus* と命名して記載した。本種は、前3種に酷似するものの、前胸背板の点刻のあいだが平滑であることにより容易に識別できる。また各地で得られた標本を詳しく検討した結果、*Cis nitidus* 種群に比較的近縁だと考えられる1新種、およびこれとは系統的に多少異なるものの、体背面に剛毛を欠き前胸背板が隆起するという点では共通した特徴をそなえる1新種

がそれぞれ見いだされたので、*Cis yamamotoi*および*Cis capricornis*と命名して記載した。*Cis yamamotoi*は、上翅に点刻列を有し、雄頭部に顕著な二次性徴を欠くことで、*Cis nitidus*種群の種とは区別ができる。また*Cis capricornis*は、雄頭部のU字形の突起により他種との区別が容易である。なお、*C. rufocastaneus*は、原記載で正基準標本の指定がなされていなかったのに、総基準標本のうちから秩父三峰産の1♂を後基準標本に指定して、詳しい再記載を行った。

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*Elytra, Tokyo*, **25** (2): 331–332, November 15, 1997

## A Record of *Wittmercantharis curtata* (Coleoptera, Cantharidae) from Shikoku, Japan

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*Wittmercantharis curtata* was originally described from Osaka, Honshu, Japan as a member of the genus *Cantharis* (KIESENWETTER, 1874). Later, SATÔ (1986) erected the genus *Wittmercantharis*, and transferred *Cantharis curtata* to it. *Wittmercantharis* is distinguished