

The Japanese Species of the Genus *Brachida* (Coleoptera, Staphylinidae, Aleocharinae)

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Abstract The Japanese species of the aleocharine genus *Brachida* are reviewed. Two species previously known are redescribed, and a new species is described from the Ryukyu Archipelago. The new name given is *Brachida brachyptera*.

The aleocharine genus *Brachida* MULSANT et REY belongs to the subtribe Gyrophaenina of the tribe Homalotini. Its distributional range is restricted to the Old World, from Europe and Africa to Asia and Australia. Twenty-two species are known in Asia, mainly from tropical areas (BERNHAEUER & SCHEERPELTZ, 1926; CAMERON, 1940, 1941, 1950; PACE, 1985, 1986, 1989, 1990, 1993, 1998), which seems to indicate that the center of distribution of this genus was in Southeast Asia. The Japanese species delimit the northernmost periphery of generic distribution just like the European species. Up to the present, two *Brachida* species have been recorded from Japan, one described by WEISE (1877) and the other by BERNHAEUER (1938). In the course of my taxonomic study of the Japanese species of the Gyrophaenina, I found a new species collected on the Amami Islands of the Ryukyus. In this paper, I am going to describe the new species and to give detailed redescrptions of the two known species.

Genus *Brachida* MULSANT et REY, 1872

Brachida MULSANT et REY, 1872, 94 [type species: *Homalota notha* ERICHSON; fixed by MULSANT & REY, 1872, 94, by monotypy]. — GANGLBAUER, 1895, 305. — CASEY, 1906, 279. — REITTER, 1909, 86. — FENYES, 1918, 92. — CAMERON, 1939, 50. — ASHE, 1984, 254.

Body more or less robust, elongate-oval and subparallel-sided or robust and oval in dorsal aspect, with long silky pubescence. Head slightly transverse, oval, obliquely deflexed and densely covered with rather long pubescence; basal part concealed by anterior margin of pronotum. Infraorbital carina complete, well developed. Neck carina slightly developed. Antennae with segment 4 elongate to slightly transverse. Labrum with major setae well developed or indistinguishable from numerous accessory setae. Left mandible with bifid apex or not. Right mandible without bifid apex and with developed internal teeth. Maxillary lacinia obliquely truncate at the apex and with well developed spore brush; setae on the inner face of lacinia numerous to few, in single

row or scattered; inner face of lacinia devoid of teeth. Labium with ligula entire, produced as a broadly rounded lobe. Pronotum moderately transverse, convex, more or less oval in dorsal aspect, anterior angles and sides depressed; microsculpture reticulate or obsoletely reticulate; microsetae numerous, long to more or less short, densely arranged. Elytra similarly pubescent to pronotum. Tarsal formula 4-4-5. Abdomen elongate to oval in lateral aspect, robust to strongly robust.

Key to the Japanese Species of the Genus *Brachida*

- 1(2) Body parallel-sided; elytra longer than pronotum, hind wings present. *B. clara* (WEISE).
 2(1) Body robust and oval, elytra shorter than pronotum, hind wings absent.
 3(4) Pronotum with smooth surface; male 7th and 8th abdominal tergites with a knob at the middle of respective apical margins *B. brachyptera* sp. nov.
 4(3) Pronotum with reticulate microsculpture; male 7th and 8th abdominal tergites not modified. *B. brevipennis* BERNHAUER.

Brachida clara (WEISE, 1877)

(Figs. 1, 3, 6)

Homalota (Brachida) clara WEISE, 1877, 90 [type locality: Hagi].

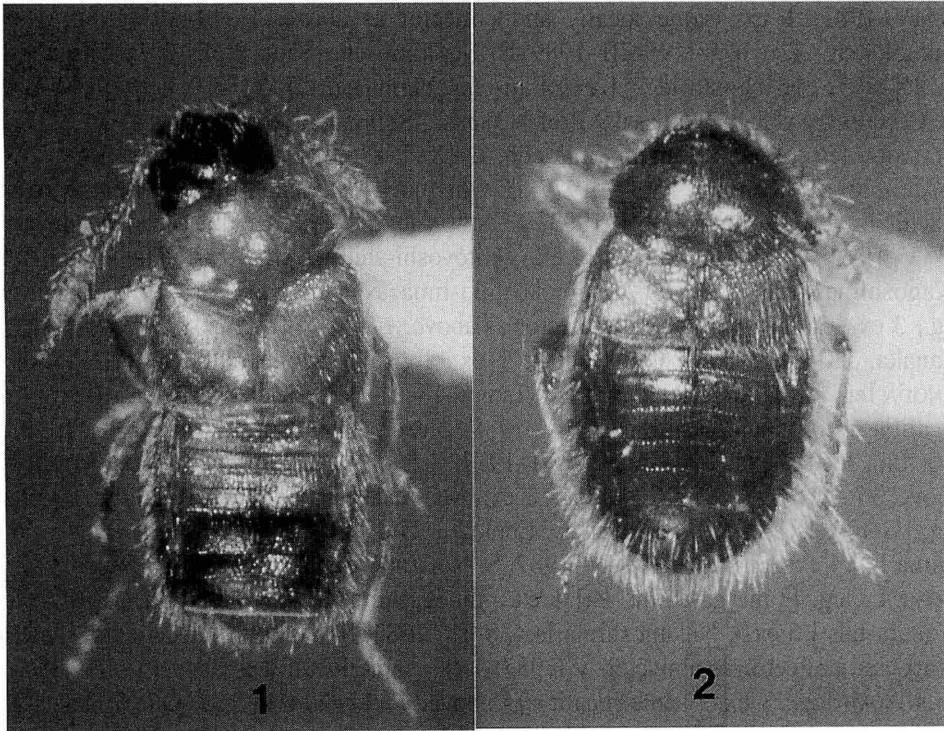
Brachida clara: BERNHAUER & SCHEERPELTZ, 1926, 525.

Body length: 1.5–2.0 mm (from front margin of head to anal end); 0.8–1.0 mm (from front margin of head to apices of elytra).

Body broad and thick, somewhat convex above; reddish brown, head and apical part of abdomen dark reddish brown.

Head convex, slightly transverse (width/length=1.17), somewhat deflexed obliquely, frontal area flattened; surface densely covered with short and silky microsetae and moderately covered with fine punctures; a pair of macrosetae present on vertex. Antennae rather short and stout, extending to posterior margin of pronotum; 4th segment slightly elongate, 5th to 10th transverse and gradually thickened apicad. Pronotum oval, convex, strongly transverse (width/length=1.78) and broader than head (pronotum/head=1.41); surface densely covered with short microsetae and moderately covered with fine punctures. Elytra short, convex, wider than long (width/length=1.62), broader than (elytra/pronotum=1.19) and longer than (elytra/pronotum=1.30) pronotum, postero-lateral angles slightly sinuate; surface densely covered with microsetae and moderately covered with fine punctures. Hind wings present. Abdomen broad and thick, subparallel-sided; 8th sternite shallowly emarginate at middle in male. Median lobe of male genitalia as shown in Fig. 3. Spermatheca as shown in Fig. 6.

Specimens examined. [Tochigi Pref.] 1 ex., Tanuma-chô, Tonara, 17-V-1993, T. KISHIMOTO leg. [Saitama Pref.] 1 ex., Naguri-mura, Shiraiwa, 21-III-1998, S. ARAI leg. [Chiba Pref.] 9 exs., Kimitsu-shi, Fudago, Mt. Kiyosumi, 18-VII-1991, S. NAOMI



Figs. 1-2. Habitus of *Brachida* spp. — 1, *B. clara* (WEISE); 2, *B. brachyptera* sp. nov.

leg.; 1 ex., Chikura-chô, 26-VI-1994, S. NAOMI leg.; 1 ex., Ichihara-shi, Yôrô-keikoku, 20-V-1990, T. TAKEDA leg.; 1 ex., Kimitsu-shi, 4-IV-1990, T. TAKEDA leg.; 1 ex., Kimitsu-shi, Mt. Takago-yama, 7-II-1999, T. KISHIMOTO *et al.* leg.; 1 ex., Amatsu-kominato-chô, Mt. Kiyosumi-yama, 15-IV-1990, T. TAKEDA leg.; 1 ex., same locality and collector as above, 13-V-1990; 1 ex., same locality and collector as above, 14-VII-1990. [Tokyo Pref.] 1 ex., Machida-shi, Oyamada-chô, 19-V-1992, T. KISHIMOTO leg.; 1 ex., Akikawa-shi, Riv. Hirai-gawa, 5~7-VIII-1992, K. MATSUMOTO leg. [Kanagawa Pref.] 1 ex., Hadano, Shibusawa-kyûryô, 20-IV-1999, T. WATANABE leg. [Aichi Pref.] 1 ex., Nisshin, 25-XII-1985, T. KATO leg. [Mie Pref.] 1 ex., Kii-nagashima, 29-III-1981, K. OGATA leg.; 2 exs., Daiô-chô, Hanakoshi, 21-V-1994, H. YOKOZEKI leg.; 2 exs., Shima-chô, Goza, 5-I-1994, H. YOKOZEKI leg.; Nantou-chô, Tanahashigama, 4-II-1994, H. YOKOZEKI leg.; 2 exs., Ise-shi, Kouraibiro, 10-I-1998, H. YOKOZEKI leg.; 1 ex., Owase-shi, Mikizaki, 1-IV-1995, H. YOKOZEKI leg. [Tokushima Pref.] 3 exs., Tsuda, 11~18-IX-1965, M. SAKAI leg.; 1 ex., Mt. Kôtsu, 31-XI-1965, M. SAKAI leg.; 1 ex., Ishii, Takabatake, 26-VIII-1992, M. SAKAI leg. [Kôchi Pref.] 1 ex., Yusuhara, Mt. Takatori-yama, 18-VIII-1994, T. DEJIMA leg. [Fukuoka Pref.] 2 exs., Mt. Tachibana, 3-VI-1978, K. YAMAGISHI leg.; 2 exs., same locality as above, 7-V-1980, S. NAOMI leg.; 1 ex., same locality and collector as above,

17-IV-1981; 1 ex., same locality and collector as above, 1~14-VII-1986; 1 ex., Fukuoka-shi, Tsuyazaki, 19-III-1989, S. NOMURA leg. [Saga Pref.] 2 exs., Imari-shi, 15-IX-1976, H. OHISHI leg.; 1 ex., Fuji-chô, Yunoharu, 27-V~3-VI-1979, K. BABA & C. OHKUMA leg. [Nagasaki Pref.] 3 exs., Shimabara, Kueyama, 4-X-1977, S. IMASAKA leg.; 1 ex., Minamiarima-chô, 6-IX-1981, S. IMASAKA leg.; 15 exs., Nagasaki-shi, Mt. Konpira, 15-IX-1977, H. OHISHI leg. [Kumamoto Pref.] 1 ex., Misumimachi, Is. Tobase-jima, 30-V-1993, T. ISHIDA leg.; 1 ex., Amakusa-chô, Kadoyama, 23-V-1993, T. ISHIDA leg.; 1 ex., Hitoyoshi-shi, 16-X-1977, H. OHISHI leg. [Kagoshima Pref.] 3 exs., Is. Shimokoshiki-jima, Nagahama, 16-X-1976, H. OHISHI leg.; 3 exs., same locality and collector as above, 17-X-1976; 2 exs., Hiwaki-chô, Yamanaka, 23-V-1993, S. ONODA leg.; 1 ex., Ibusuki, Sengendaira, 8-VIII-1993, S. ONODA leg. [Tsushima Is.] 2 exs., Mt. Tatera, 18-X-1983, S. NOMURA leg.; 1 ex., same locality and collector as above, 3-V-1988; 2 exs., Izuhara-chô, Himi, 6-V-1990, S. NOMURA leg.; 2 exs., Izuhara, 15-VII-1977, S. IMASAKA leg.; 8 exs., same locality as above, 17-VII-1977, H. OHISHI leg.; 1 ex., Mt. Ariake-yama, 16-VII-1977, H. OHISHI leg. [Gotô Isls.] 1 ex., Nakadôri Is., Enokizu, 27-IV-1972, S. KINOSHITA leg. [Yakushima Is.] 4 exs., Hirauchi, 10-V-1987, S. NOMURA leg.; 4 exs., Kurio, 10-V-1987, S. NOMURA leg. [Tane-ga-shima Is.] 1 ex., Tanegashima Is., 15-XI-1986, MOROTO leg. [Tokara Isls.] 6 exs., Nakanoshima Is., 28-IV-1987, S. NOMURA leg.; 4 exs., same locality and collector as above, 2-V-1987; 1 ex., same locality as above, 9-III-1994, T. KUROZUMI leg.; 3 exs., same locality as above, 7~12-XI-1995, S. ONODA leg. [Okinawa-hontô Is.] 1 ex., foot of Mt. Awa, Motobu, Gajanokobanta, 24-X-1987, M. SAKAI leg. [Ishigaki-jima Is.] 2 exs., Mt. Omoto-dake, 9-IV-1984, S. NOMURA leg.; 4 exs., same locality and collector as above, 22-III-1984; 2 exs., same locality as above, 20-III-1978, S. NAOMI leg.; 3 exs., same locality as above, 14-X-1988, M. SAKAI leg.; 2 exs., Ishigaki-jima, 27-III~13-VI-1996, K. TAKAHASHI leg.

Distribution. Japan (Honshu, Kyushu, Shikoku, Tsushima Is., Gotô Isls., Yakushima Is., Tane-ga-shima Is., Tokara Isls., Okinawa-hontô Is., Ishigaki-jima Is.).

Brachida brevipennis BERNHAUER, 1939

(Figs. 4, 7)

Brachida brevipennis BERNHAUER, 1939, 103 [type locality: Unzen bei Shimabara]. — SAWADA, 1971, 292.

Body length: 1.3–1.6 mm (from front margin of head to anal end); 0.6–0.7 mm (from front margin of head to apices of elytra).

Body very robust, broadly oval; head and pronotum dark reddish brown, elytra reddish brown, antennae and legs pale reddish brown.

Head wide, weakly convex and transverse (width/length=1.41), somewhat deflexed obliquely, frontal area weakly flattened; surface moderately covered with short and silky microsetae and moderately covered with minute punctures. Antennae short and stout, extending to posterior margin of pronotum; segment 4 slightly elongate to

subquadrate, 5 to 10 transverse and gradually thickened apicad. Pronotum oval, convex, strongly transverse (width/length=1.78) and broader than head (pronotum/head=1.32), broadly rounded postero-laterad; surface reticulate, moderately covered with long recumbent microsetae and moderately covered with fine punctures. Elytra very short, strongly depressed above, constricted at base, strongly and roundly dilated posteriad, markedly broader than long (width/length=2.50), broader than (elytra/pronotum=1.22) and shorter than (elytra/pronotum=0.87) pronotum, postero-lateral corner slightly sinuate; surface moderately covered with long and silky microsetae and coarsely covered with distinct punctures. Hind wings absent. Abdomen thick and robust, about as wide as elytra, segment 3 the broadest, 3 to apex gradually and strongly narrowed; apical margin of 8th tergite in male not modified. Median lobe of male genitalia slender and constricted at the middle, as shown in Fig. 4. Spermatheca as shown in Fig. 8.

Specimens examined. [Saitama Pref.] 4 exs., Kodama-gun, Yanou, 10-VI-1994, O. NAKAMURA leg.; 1 ex., Kodama-gun, Oosato, 24-VIII-1993, O. NAKAMURA; 1 ex., Kodama-gun, Shirokidachi, 24-VIII-1993, O. NAKAMURA leg.; 2 exs., Ogawa-machi, Koshigoe, 2-VIII-1998, S. ARAI leg. [Tokyo Pref.] 1 ex., Okutama-chô, Mizunozawa, 6-V-1990, T. KISHIMOTO leg. [Shizuoka Pref.] 1 ex., Kanaya-chô, Kanaya, 8-V-1992, T. KISHIMOTO leg. [Mie Pref.] 1 ex., Misugi-mura, Hirakura, 28-V-1994, H. YOKOZEKI leg.; 1 ex., Owase-shi, Mikizaki, 17-XII-1994, H. YOKOZEKI leg. [Osaka Pref.] 3 exs., Mt. Mikusa-yama, 20-IX-1993, Y. SAWADA leg. [Nara Pref.] 7 exs., Mt. Yoshino, 27-V-1994, S. NOMURA leg. [Wakayama Pref.] 3 exs., Kozagawa, Hirai, 14-VII-1999, S. NOMURA & T. KISHIMOTO leg.; 1 ex., Tanabe, Kizetsu-kyô, 15-VII-1999, T. KISHIMOTO leg. [Okayama Pref.] 4 exs., Niimi, Ikura, 21-V-1985, S. NOMURA leg.; 5 exs., Mt. Gagyûzan, 28-VIII-1977, H. OHISHI leg. [Tokushima Pref.] 1 ex., Tokushima-shi, Nyûta, 6-XI-1993, M. SAKAI leg. [Kagawa Pref.] 6 exs., Kotohira, Mt. Konpira, 5-X-1998, Kei. MATSUMOTO leg. [Ehime Pref.] 2 exs., Matsuyama, Yuyama, 12-V-1971, S. KINOSHITA leg.; 2 exs., Hiromi, Narukawa, 5-V-1992, M. SAKAI leg.; 11 exs., Nomura-chô, Rakan-ana Cave, 11-X-1990, S. NOMURA leg. [Kôchi Pref.] 1 ex., Ashizuri-misaki, 12-X-1990, S. NOMURA leg.; 11 exs., Tosayamada-chô, Sakagawa, 8-X-1990, S. NOMURA leg.; 3 exs., Ino-chô, Kada, 7-X-1990, S. NOMURA leg.

Distribution. Japan (Honshu, Shikoku, Kyushu).

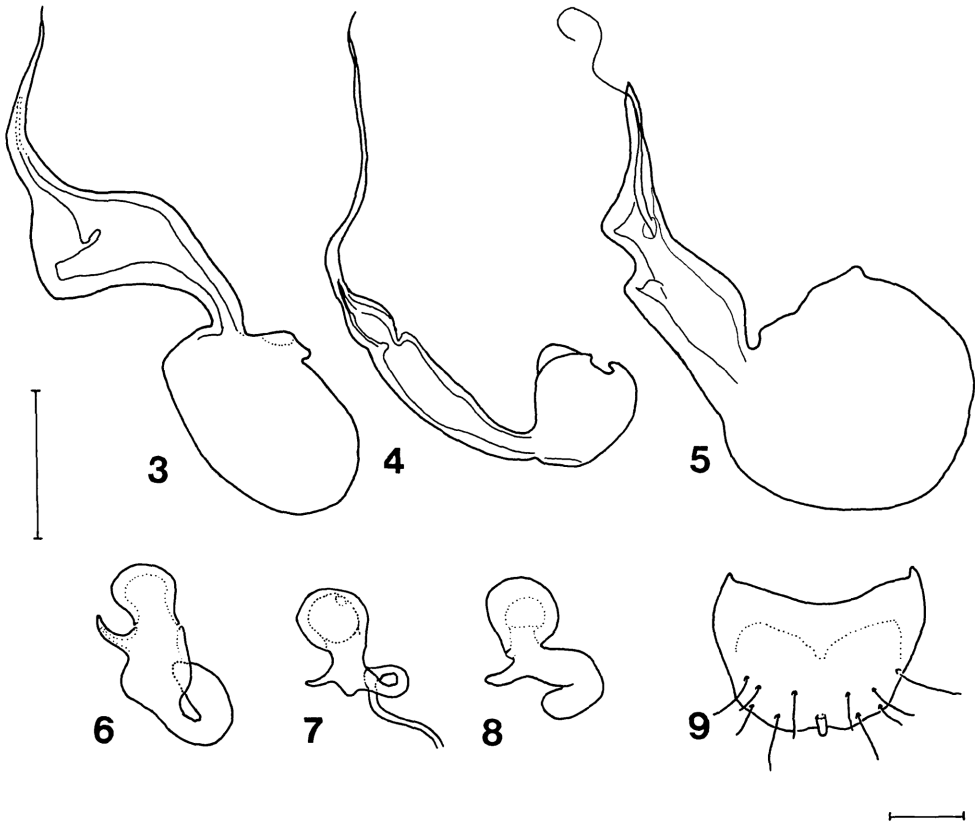
Remarks. This species is very similar to *B. brachyptera* sp. nov., but is distinguished from it by the following points: pronotum reticulate and male abdominal tergites 7-8 without remarkable secondary sexual characters.

***Brachida brachyptera* sp. nov.**

(Figs. 2, 5, 8-9)

Body length: 1.3-1.6 mm (from front margin of head to anal end); 0.6-0.7 mm (from front margin of head to apices of elytra).

Similar in body form, coloration, setation and punctuation to *B. brachyptera*.



Figs. 3-9. Genitalia and secondary sexual character of *Brachida* spp.; 3-5, median lobe of male genitalia in lateral view; 6-8, spermatheca; 9, male abdominal tergite 8. — 3, 6. *B. clara* (WEISE). — 4, 7. *B. brevipennis* BERNHAUER. — 5, 8-9. *B. brachyptera* sp. nov. Scale: 0.1 mm.

Head wide, weakly convex and transverse (width/length=1.54). Antennae short and stout, 4th segment subquadrate, 5th to 10th transverse and gradually thickened apically. Pronotum oval, convex and transverse (width/length=1.68) and broader than head (pronotum/head=1.46). Elytra very short, somewhat depressed above, constricted at base, strongly and roundly dilated apically, markedly broader than long (width/length=2.26), broader than pronotum (elytra/pronotum=1.26) and shorter than pronotum (elytra/pronotum=0.94), postero-lateral corner slightly sinuate. Hind wings absent. Abdomen thick and robust about as wide as elytra; segment 3 the broadest, 3 to apex gradually and strongly narrowed, tergites 7-8 in male each with a small distinct knob. Median lobe of male genitalia robust and globular, as shown in Fig. 5. Spermatheca as shown in Fig. 8.

Type series. Holotype: ♂, Is. Tokunoshima, Tete, 4-V-1988, S. NOMURA leg. Paratypes: [Tokuno-shima Is.] 5 exs., same date as for the holotype; 2 exs., Yonama,

4-V-1988, S. NOMURA leg.; 2 exs., Inutabudake, 5-V-1988, S. NOMURA leg.; 1 ex., Ôhara, 13-V-1996, S. ONODA leg. The holotype and some paratypes are deposited in the collection of the Laboratory of Entomology, Tokyo University of Agriculture.

Further specimens examined. [Amami-oshima Is.] 1 ex., Mt. Yui-dake, 10-VIII-1984, S. NOMURA leg.; 1 ex., Mt. Yuwan-dake, 5-V-1987, S. NOMURA leg.; 1 ex., same locality and collector as above, 11-V-1983.

Distribution. Japan (Amami Isls.).

Remarks. This species is closely similar in facies, coloration and size to *B. brevipennis*, but differing from it in the following points: pronotum with surface smooth; male 7th and 8th tergites with a small but distinct knob at the middle of each apical margin; median lobe more globular and thick. This and the preceding species are characterized by the absence of hind wings. Aptery is very rare in the subtribe Gyrophaenina, and has previously been reported only by PACE (1989) for *B. aptera* and by SAWADA (1971) for the preceding species. It is worth noting that *B. brevipennis* and *B. brachyptera* are similar to *B. aptera* of Nepal, the Himalayas, because they have become apterous and acquired a similar body form. This probably means that the aptery occurs only in the species distributed at the northern peripheral parts of the generic range.

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要 約

岸本年郎： *Brachida* 属ハネカクシの邦産種。—— ヒラタキノコハネカクシ亜族（新称）に属するチビハバビロハネカクシ属（新称）には、これまで日本から2種が知られていた。最近の研究で、琉球列島の徳之島と奄美大島には、後翅の退化した新種の生息することがわかったので、*B. brachyptera* KISHIMOTO アマミチビハバビロハネカクシと命名して記載した。あわせて既知の、*B. clara* チビハバビロハネカクシと *B. brevipennis* コバネチビハバビロハネカクシ（新称）の2種を再記載し、区別点を種の検索表に示した。

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