

Review of the Subgenus *Circopes* REITTER of Japan and Notes on Bionomics of the Genus *Aethina* ERICHSON (Coleoptera, Nitidulidae)

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Abstract Japanese species of the subgenus *Circopes* REITTER of the genus *Aethina* ERICHSON is revised. Two species are recognized: *A. (C.) suturalis* REITTER and *A. (C.) miniata* sp. nov. The latter is described and illustrated as new to science. Species list of the subgenus *Circopes* and bionomics of the genus *Aethina* are provided in appendices.

Introduction

Genus *Aethina* ERICHSON is a member of the *Aethina* complex of genera (KIREJTSHUK & LAWRENCE, 1999), to present five subgenera (see appendix 1) and ≤ 100 species have hitherto been known (KIREJTSHUK, 1986; KIREJTSHUK & LAWRENCE, 1999; S.-T. HISAMATSU unpub. catalogue). In the subgenera of the genus *Aethina*, retention of micetophagous habits occurs mainly in *Aethina*, the development of imaginal anthophagy with larval mycetophagy is the characteristic of *Circopes*, and complete anthophagy is known in *Circopes*, *Ithyra* and *Idaethina* (KIREJTSHUK, 1994; KIREJTSHUK & LAWRENCE, 1999) (see appendix 1).

Circopes was established by REITTER (1873) as a genus. Thereafter KIREJTSHUK (1986) reviewed the genus *Aethina* of the Oriental and the Palaearctic Regions and treated *Circopes* as a subgenus of *Aethina*. *Circopes* includes ≥ 40 species, and 17 are known from the Oriental while 14 from the Australian, eight are recorded from the Afrotropical, and five are distributed in the Palaearctic Regions (see appendix 2). In Japan, only one species, *A. (C.) suturalis* is known. In the following, the *Aethina* (*Circopes*) of Japan will be reviewed.

Materials and Methods

The present study is mainly based on specimens from the Ehime University Museum, Japan (EUMJ) and the author's private collection.

External structures were observed under a Leica[®] S8APO stereoscopic microscope with magnification 10 \times to 80 \times , and small body parts, such as male and female genitalia, legs and antenna were observed under an Olympus[®] BH-2 optical microscope with magnification 40 \times to 400 \times . For detailed observation, the whole body was placed in 10% KOH solution for approximately 24 hours, subsequently rinsed by water, placed in a drop of glycerin on slide glass, and then dissected and observed. Permanent preparations were made after the observation. Dorsal habitus images and prosternal process were acquired with a Nikon[®] Digital Sight DS-Fi1 CCD camera attached to a Leica[®] S8APO stereoscopic microscope. Other body parts, such as mouthparts, antennae or male and female genitalia were photographed by the CCD camera attached to an Olympus[®] BH-2 optical microscope. Post-acquisition images were combined with Helicon[®] Focus 4.80 Lite (Helicon Soft[®] Limited) auto-

montage software. Upon completion the images were arranged by Adobe ® Photoshop CS 6.

Total length was measured from the apex of mandible to the anterior margins of elytra. Exact label data are cited for the holotypes. Particular lines are separated by slash (/), whilst different labels by double slash (//).

Taxonomy

Subgenus *Circopes* REITTER, 1873

Type species: *Pocadius subquadratus* MOTSCHULSKY, 1858 (designated by JELÍNEK, 1980).

Circopes REITTER, 1873: 79.

Aethina (*Circopes*): KIREJTSHUK, 1986: 47; 1992: 189; KIREJTSHUK & LAWRENCE, 1999: 234; JELÍNEK & AUDISIO, 2007: 471.

Diagnosis. Body oval, strongly convex; length not greater than 4.0 mm; head and pronotum double punctated; subsutural lines present at least distal 1/2, rarely reaching near scutellum; disc usually with two kinds of longitudinal rows of setae; abdominal tergite VII with eight short arc-like impressions (Fig. 24) along base; claws simple, with small appendages.

Distribution. Palaearctic, E. Hemisphere (mostly in subtropical and tropical parts of Asia, Africa, Australia, New Guinea, the East Indies and Philippines) (KIREJTSHUK, 1986).

Aethina (*Circopes*) *suturalis* REITTER, 1884

[Japanese name: Chibi-mukuge-keshikisui]

(Figs. 1, 3, 5–11)

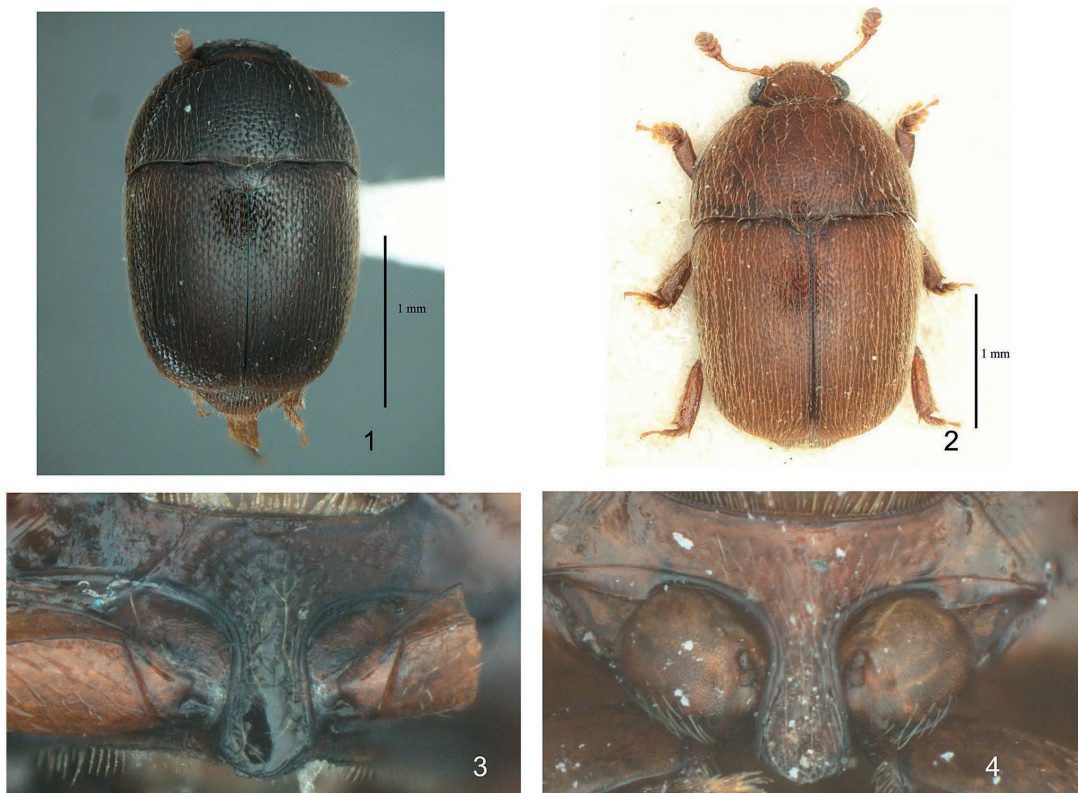
Aethina suturalis: REITTER, 1884: 266 [in key]. Type area: Japan.

Aethina suturalis: REITTER, 1885: 41 [description].

Circopes suturalis: HISAMATSU, 1985: 183, pl. 29, fig. 14 [note, photo].

Aethina (*Circopes*) *suturalis*: KIREJTSHUK, 1986: 75 [in key, note]; 1992: 189, pl. 90, figs. 18–22 [in key, figures]; JELÍNEK & AUDISIO, 2007: 471 [catalogue].

Material examined. [AKITA]: 1 ex., Lake Tazawa, 8–VI–1978, K. BABA & N. KATO leg. [NIIGATA] 1 ex., Kurokawa, 16–V–1973, K. BABA leg.; 1 ex., ditto, but 16–VI–1976; 1 ex., ditto, but 21–VI–1976; 1 ex., Tsugawa, 8–V–1976, ditto; 1 ex., Shinbo-san, 24–V–1976, ditto; 1 ex., Muroya, Kamikawa, 11–VII–1976, ditto. [SHIZUOKA] 1 ex., Kami Sagano-path, Kawazu-chô, Izu, 13–VI–2007, S. TSUYUKI leg. [HIROSHIMA] 2 exs., Oasa, Oasa-chô, 28–V–1994, K. AKITA leg.; 1 ex., Kisa, Kisa-chô, 7–V–1996, S. NAKAMURA leg.; 1 ex., Yokogô, Togôchi-chô, 15–VI–2001, S. TSUYUKI leg.; 5 exs., Sandan-kyô, 30–IV–1966, collector unknown. [TOKUSHIMA] 1 ex., Tsurugi-san, 2–VI–1957, S. HISAMATSU leg.; 1 ex., ditto, but 7–VI–1970. [KAGAWA] 1 ex., Tarobe, 21–V–1972, T. KINOSHITA leg. [EHIME] 3 exs., Odamiyama, 28–V to 4–VI–1994, benzyl acetate trap, collector unknown; 2 exs., ditto, but 6 to 13–VI–1994; 5 exs., ditto, but 14 to 20–VI–1994; 8 exs., ditto, but 21 to 27–VI–1994; 3 exs., ditto, but 5 to 12–VII–1994; 1 ex., ditto, but 13 to 19–VII–1994; 1 ex., ditto, but 7 to 16–X–1994; 1 ex., ditto, but 10 to 16–VIII–1994; 2 exs., Naose, Kuma-chô, 26–IV–1981, Y. SEIYAMA leg.; 2 exs., ditto, but 29–IV–1981; 1 ex., west ravine of Shiratsue, 10–V–1969, M. SAKAI leg.; 1 ex., Narabara-san, 19 to 20–V–1973, K. ITO leg.; 1 ex., Takanawa-san, 2–VI–1983, K. ISHIDA leg.; 1 ex., ditto, but 29–VI–1983, HONDA leg.; 1 ex., Jiyoshi-tôge, 26–IV–1976, A. ODA leg.; 1 ex., Ishizuchi-san, 28–VII–1955, S. UEDA leg.; 1 ex., Komenono, Matsuyama-shi, 10–VI–1974, M. SAKAI leg.; 1 ex., ditto, but 16–VII–1995, methyl phenylacetate trap, S. YOSHIMICHI leg.; 1 ex., ditto, but 15–IX–1995; 1 ex., ditto, but 6–X–1995; 2 exs., ditto, but 13–X–1995; 3 exs., ditto, but 3–VI–1996; 2

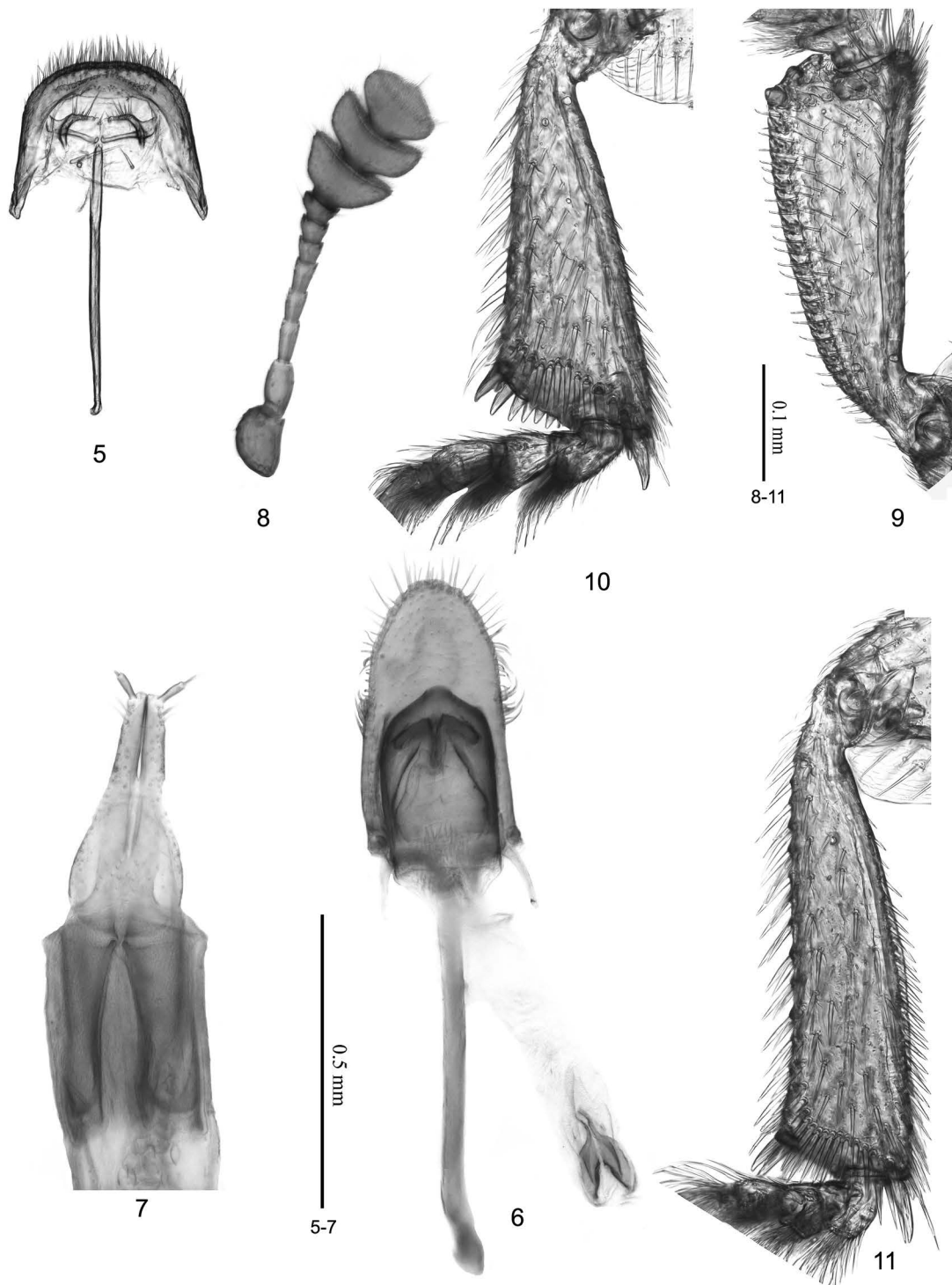


Figs. 1–4. Dorsal habitus (1–2) and prosternal process (3–4) of *Aethina* spp. — 1, 3, *Aethina (Circopes) suturalis* (female); 2, 4, *A. (C.) miniata* sp. nov. (holotype).

exs., ditto, but 11–VI–1996; 1 ex., ditto, but 19–VI–1996; 1 ex., ditto, but 27–VI–1996; 1 ex., ditto, but 4–VII–1996; 1 ex., ditto, but 23–V–1997, T. KONISHI leg.; 1 ♂, Karakaino-taki, 6–VI–1976, collected the cradle of *Byctiscus* sp. (Coleoptera, Rhynchitidae), (leaves of *Acer rufinerve* SIEBOLD et ZUCC. (Aceraceae)), emerged on 28–VI–1976, A. ODA leg.; 1 ♀, Matsuyama-shi, 23–V–1965, S. NOMOTO leg. [NAGASAKI] 1 ex., Meboro, Tsushima, 7–V–1978, M. SAKAI leg.; 1 ex., Hirado-shi, 5 to 9–XI–1975, A. ODA leg.

Diagnosis. Body (Fig. 1) dark-reddish brown, head and pronotum usually somewhat darker than elytra; antennal segment twelve (Fig. 8) narrower than maximal width of antennal segment eleven; elytral disc with suberect setae, which are forming longitudinal rows, interspaces between these rows with two longitudinal rows of recumbent setae; subsutural line on each elytron 0.73 times as long as maximal length of elytron ($n=1$); disc of prosternal process (Fig. 3) with unpunctated and glabrous apical area; femoral line less than 1/2 length of sternite III; apical margin of tegmen (Fig. 6) widely rounded in ventral view; apical margin of median lobe (Fig. 6) prominent and widely truncate.

Bionomics. HISAMATSU and ODA (1977) reported some adult specimens of *A. (C.) suturalis* emerged from the cradles of *Byctiscus* sp. (Coleoptera, Rhynchitidae). Larvae of the species may eat leaves and/or hyphae of the leaves. In addition, some adult specimens were collected by benzyl acetate or methyl phenylacetate trap targeting at flower visiting insects (MIZOTA & IMASAKA, 1997), based on which the flower visiting behaviour of the adults could be inferred.



Figs. 5–11. *Aethina (Circopes) suturalis*. — 5, Anal sclerite, ventral plate and spiculum gastrale, ventral view; 6, male genitalia; 7, ovipositor; 8, right antenna; 9, left protibia; 10, left mesotibia; 11, left metatibia.

Distribution. Japan (Honshu, Shikoku and Kyushu), Russian Far East and China (Fukien) (JELÍNEK & AUDISIO, 2007).

Aethina (Circopes) miniata sp. nov.

[Japanese name: Aka-mukuge-keshikisui]

(Figs. 2, 4, 12–25)

Type series. Holotype: ♂, “Kurotaki~ / Komenono / Ehime Pref. / V. 1. 1966, M. Iga // CONI- / 8482 // ♂ // HOLOTYPE / *Aethina (Circopes) / miniata* S-T. Hisamatsu, 2014 //”. Paratypes: [TOKYO] 1 ex., Takao-san, 3–IX–1977, S. HISAMATSU leg. [KANAGAWA] 1 ex., Nishitanzawa, 5–VI–1983, Y. NOTSU leg. [NIIGATA] 1 ex., Kinpoku-san, Sado, 11–IX–1969, S. HISAMATSU leg.; 4 exs., Muroya, Kamikawa, 11–VII–1976, K. BABA leg.; 1 ex., Kurokawa, 17–VI–1973, K. BABA leg.; 1 ex., Shinbo-san, 24–V–1976, K. BABA leg. [MIE] 2 exs., Mie Univ. Forest, 25–VI–1956, M. SATÔ leg. [TOTTORI] 1 ex., Asakawa, 30–V–1948, D. MATSUSHITA leg. [HIROSHIMA] 1 ex., Oasa, Oasa-chô, 28–V–1994, K. AKITA leg. [TOKUSHIMA] 1 ex., Nagoro, 30–VII–1949, M. CHÛJÔ leg.; 1 ex., Mt. Kootsu, 26–VIII–1965, M. YOSHIDA leg. [KAGAWA] 1 ex., Gogokei, 30–VIII–1975, A. ODA leg. [EHIME] 8 exs., Komenono, Matsuyama-shi, 23–V–1965, Y. HORI leg.; 1 ex., ditto, but 29–IV–1966, K. HATTA leg.; 2 exs., ditto, but 6–X–1995, methyl phenylacetate trap, S. YOSHIMICHI leg.; 1 ex., ditto, but 13–X–1995; 2 exs., Komenono to Shiratsue, 10–V–1970, M. SAKAI leg.; 2 exs., Namerikawa, 16–V–1976, collected the cradles of *Rhynchitini* sp. (Coleoptera, Rhynchitidae), (plant name unknown), emerged on 28–VI–1976, A. ODA leg.; 1 ex., Tatsuno, Tobe-chô, 28–V–1973, K. ITO leg.; 2 exs., Nanaki-san, 27–V–1953, S. HISAMATSU leg.; 1 ex., Sugitate, Matsuyama-shi, 3–VI–1966, M. IGA leg.; 1 ex., ditto, but 2–VI–1968, S. HISAMATSU leg.; 1 ex., Masagoya, Odamiyama, 27–VII–1967, Y. HORI leg.; 3 exs., West ravine of Shiratsue, 10–V–1969, M. SAKAI leg.; 1 ex., Nishidani, Yanadani-mura, 15 to 16–VII–1994, K. AITA leg.; 1 ex., Furuiwaya, 12–IX–1982, from flower of *Fallopia japonica* (HOUTT.) RONSE DECR., S. HISAMATSU leg. [NAGASAKI] 1 ex., Mitake-san, Tsushima, 16–VII–1989, K. ANDO leg.

Type depository. The holotype and the paratypes are deposited in the EUMJ.

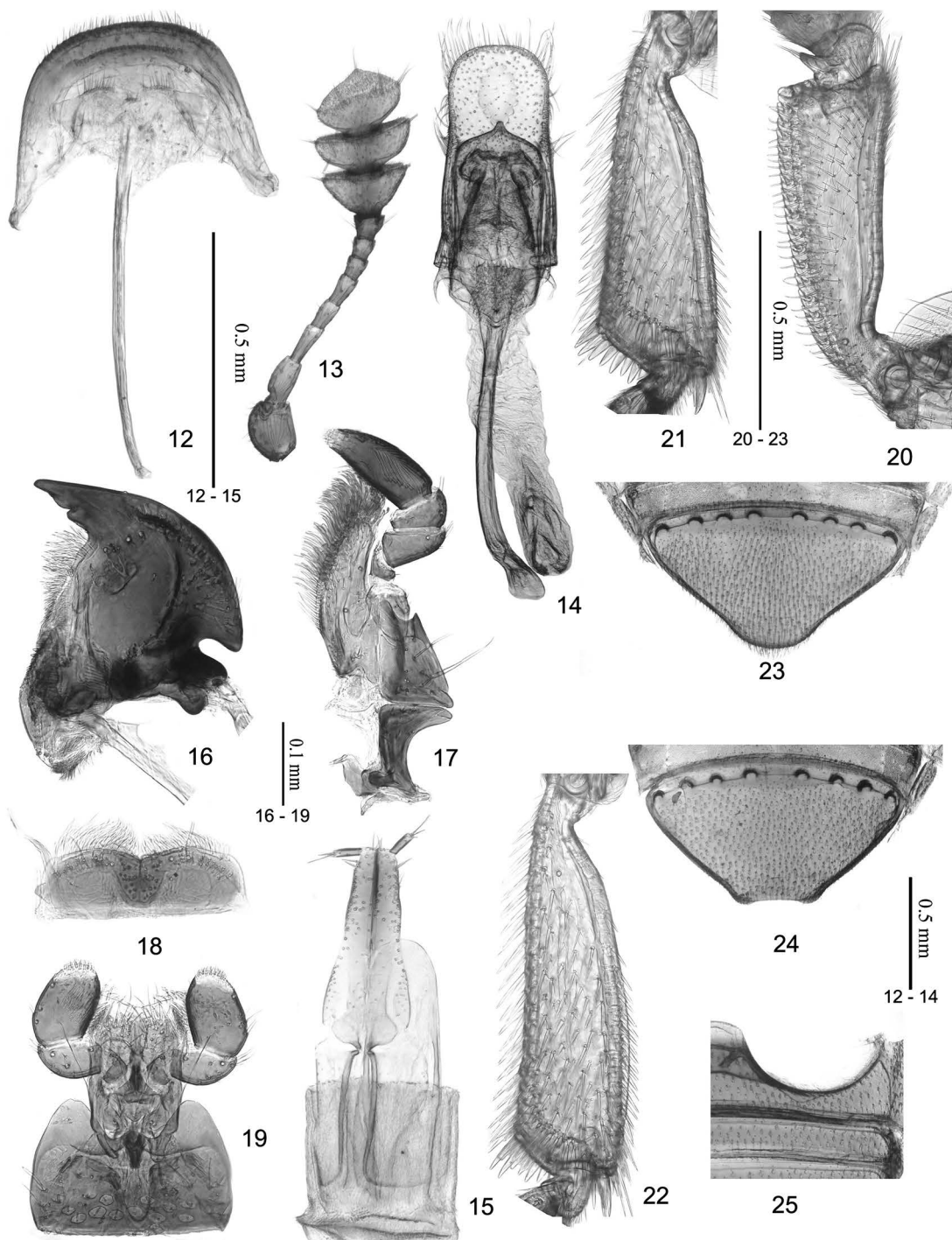
Etymology. The specific name of this new species refers to the reddish body coloration of this new species.

Diagnosis. Body (Fig. 2) fully pale brown; antennal segment twelve about as wide as maximal width of antennal segment eleven; elytral disc with suberect setae, which are forming longitudinal rows, interspaces between these rows with two longitudinal rows of recumbent setae; subsutural line on each elytron 0.65 times as long as maximal length of elytron ($n=1$); disc of prosternal process (Fig. 4) simple, without unpunctated and glabrous apical area; femoral line (Fig. 25) less than 1/2 length of abdominal sternite III; apical margin of tegmen (Fig. 14) subtruncate in ventral view; apical margin of median lobe (Fig. 14) prominent at middle in ventral view, of which apical margin narrowly truncate.

Description. Length 2.47–2.83 (2.67) mm, width 1.60–1.70 (1.65) mm.

Male. Body (Fig. 2) oval, uniformly reddish brown; dorsal disc densely covered with long, recumbent and yellowish setae.

Head with dorsal disc densely double punctated, separated by $>$ their own diameter; interspaces smooth. Labrum feebly notched at middle. Antennae (Fig. 13) with club rather wide and compact, 1.66 times as long as wide ($n=1$); segment twelve 0.99 times as wide as maximal width of segment eleven ($n=1$); approximate ratio of each segment ($n=1$) is 3.86 : 2.80 : 2.80 : 1.67 : 2.00 : 1.00 : 1.24 : 1.25 : 2.29 : 2.20 : 4.16. Antennal grooves shallow and short.



Figs. 12–25. *Aethina (Circopes) miniata* sp. nov. — 12, Anal sclerite, ventral plate and spiculum gastrale, ventral view; 13, right antenna; 14, male genitalia; 15, ovipositor; 16, right mandible of male, ventral view; 17, right labial palpus; 18, labrum, dorsal view; 19, mentum and maxillary palpi; 20, left protibia; 21, left mesotibia; 22, right metatibia; 23, tergite VII of female; 24, tergite VII of male; 25, sternites III to V.

Pronotum strongly convex, transverse, 1.92–2.27 times as wide as long (n=10); lateral margins widest at basal 1/3 then strongly narrowed anteriorly and weakly so posteriorly; anterior margin moderately trapezium-likely emarginate; anterior angles moderately prominent, apices widely rounded; posterior angles rounded, moderately projecting backward; punctures on disc about as large as those on head at middle, densely double punctated, separated by > their own diameter; interspaces smooth.

Elytra conjointly 0.98–1.02 times as long as wide, 1.92–2.32 times as long as pronotal length (n=10); disc with suberect setae, which forming longitudinal rows; interspaces between these rows with two longitudinal rows of recumbent setae; subsutural line on each elytron 0.65 times as long as maximal length of elytron (n=1); lateral margins subparallel-sided; punctures on disc simple, not double punctated, separated by > their own diameter; interspaces smooth. Apical margins of elytra subtruncate. Apical margin of abdominal tergite VII (Fig. 24) arcuately emarginate.

Prosternum feebly convex along the middle; disc densely punctated, with long setae; prosternal process (Fig. 4) subparallel-sided, apical margin widely rounded. Metaventricle flattened; metathoracic discrimen absent; punctures on disc dense at middle, separated by > their own diameter, becoming denser laterally. Sternite III (Fig. 25) with femoral line not reaching 1/2 length of the sternite. Legs wide and flattened, abruptly narrowed near the base; protibia (Fig. 20) simple, slightly narrower than greatest width of antennal club; tarsal claws simple.

Tegmen (Fig. 14) subparallel-sided in ventral view; apical margin subtruncate in ventral view. Median lobe (Fig. 14) prominent and narrowly truncate at middle in ventral view; sclerites of internal sac (Fig. 14) as figured.

F e m a l e. Apical margin of abdominal tergite VII (Fig. 23) widely rounded. Ovipositor (Fig. 15) as figured.

Bionomics. Some specimens emerged from the cradles (plant name unknown) of rhynchitid beetles (Coleoptera, Rhynchitidae), same as *A. (C.) suturalis* (see also 'Bionomics' of *A. (C.) suturalis*). Moreover, some adult specimens were collected from the flower of *Fallopia japonica* (HOUTT.) RONSE DECR. (1988) (Polygonaceae) and benzyl acetate or methyl phenylacetate trap.

Distribution. Japan (Honshu, Shikoku, and Kyushu (Tsushima)).

Note. This species is allied with *Aethina (Circopes) subquadrata* MOTSCHULSKY, which is distributed in the Oriental Region, but can be distinguished by larger body (2.47–2.83 mm in length); without unpunctated apical disc of prosternal process; longer tegmen and median lobe; and different shape of sclerites of internal sac. The new species is also similar to *A. (C.) suturalis*, but can be separated by pale-reddish brown body; about as wide as antennal segment eleven of antennal segment twelve; without glabrous and unpunctated apical disc of prosternal process; subtruncate apical margin of tegmen; with narrowly truncate apical margin of process of median lobe.

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要 約

久松定智：日本産 *Circopes* 亜属の再検討と *Aethina* 属の生態的知見 (コウチュウ目ケシキスイ科)。—— 日本産 *Aethina* 属 *Circopes* 亜属 (コウチュウ目ケシキスイ科) を再検討し、1新種を *A. (C.) miniata* として記載した。 *Circopes* 亜属の種リストを示し、また、 *Aethina* 属に所属する5亜属の生態的知見をまとめた。

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Appendix 1. Bionomics of the Subgenera of the Genus *Aethina* ERICHSON.

Subgenus	Bionomics	References
<i>Aethina</i> ERICHSON, 1843 [<i>A. (A.) aeneipennis</i> REITTER]	found from the gall of <i>Cinnamomum tenuifolium</i> (MAKINO) SUGIM. ex H. HARA (Lauraceae) caused by <i>Ustilago onumae</i> (SHIRAI) S. ITO (Ustilaginomycetes)	MIYATAKE, 1975
ditto [<i>A. (A.) tumida</i> MURRAY]	breed in the stores of pollen and honey in nests of honey bees, <i>Apis mellifera</i> facultative predators of young adult host workers, <i>Apis mellifera</i>	KIREJTSHUK, 1994; KIREJTSHUK & LAWRENCE, 1999 PIRK & NEUMANN, 2013
ditto [<i>A. (A.) inconspicua</i> NAKANE, 1967; <i>A. (A.) humeralis</i> (GROUVELLE, 1890)]	occur on flowers	KIREJTSHUK, 1994
<i>Circoptes</i> REITTER, 1873 [<i>A. (C.) australis</i> KIREJTSHUK, 1986]	developing on flowers of <i>Cordylina stricta</i> (Dracaceae) or developing in cones of Zamiaceae	KIREJTSHUK, 1994
ditto [<i>A. (C.) unguiculata</i> KIREJTSHUK, 1986]	adults and larvae were collected in male cones of <i>Macrozamia riedleri</i> (Zamiaceae)	KIREJTSHUK, 1994
<i>Cleidorura</i> KIREJTSHUK & LAWRENCE, 1999	unknown	
<i>Idaethina</i> KIREJTSHUK & LAWRENCE, 1999	both larvae and adults live in flowers of the Malvaceae (mainly <i>Hibiscus</i>)	KIREJTSHUK, 1994; KIREJTSHUK & LAWRENCE, 1999
ditto	feed and develop as larvae inside seed pods of <i>Brachychiton</i> (Sterculiaceae), and also are associated with seeds of Proteaceae	KIREJTSHUK, 1994
<i>Ithyra</i> REITTER, 1873	associated with flowers of Acanthaceae	KIREJTSHUK, 1994; KIREJTSHUK & LAWRENCE, 1999

Appendix 2. Species List of *Circopes* REITTER.

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|-----------------------------------------------------------|-----------------------------------------------------|
| 1. <i>Aethina (Circopes) abdita</i> KIREJTSHUK, 1986 | Type locality: Vietnam. |
| 2. <i>A. (C.) adelopiformis</i> REITTER, 1880 | Type locality: Australia. |
| 3. <i>A. (C.) africana</i> (GROUVELLE, 1909) | Type locality: Kilimanjaro. |
| 4. <i>A. (C.) applanata</i> KIREJTSHUK, 1987 | Type locality: Papua New Guinea. |
| 5. <i>A. (C.) atratula</i> JELÍNEK & KIREJTSHUK, 1986 | Type locality: Bhutan. |
| 6. <i>A. (C.) australis</i> KIREJTSHUK, 1987 | Type locality: Australia. |
| 7. <i>A. (C.) baloghi</i> KIREJTSHUK, 1987 | Type locality: Papua New Guinea. |
| 8. <i>A. (C.) beccarii</i> (GROUVELLE, 1906) | Type locality: Celebes. |
| 9. <i>A. (C.) bimaculata</i> GROUVELLE, 1906 | Type locality: Madagascar. |
| 10. <i>A. (C.) boettcheri</i> KIREJTSHUK, 1986 | Type locality: Philippines. |
| 11. <i>A. (C.) brooksi</i> KIREJTSHUK, 1987 | Type locality: Australia. |
| 12. <i>A. (C.) decorata</i> KIREJTSHUK, 1986 | Type locality: Kalimantan. |
| 13. <i>A. (C.) decorsei</i> GROUVELLE, 1906 | Type locality: Madagascar. |
| 14. <i>A. (C.) imadatei</i> (CHÛJÔ & HISAMATSU, 1964) | Type locality: Thailand. |
| 15. <i>A. (C.) indica</i> MOTSCHULSKY, 1858 | Type locality: Australia. |
| 16. <i>A. (C.) jelineki</i> KIREJTSHUK, 1986 | Type locality: Nepal. |
| 17. <i>A. (C.) krikkeni</i> JELÍNEK & KIREJTSHUK, 1986 | Type locality: Java. |
| 18. <i>A. (C.) leai</i> KIREJTSHUK, 1987 | Type locality: Australia. |
| 19. <i>A. (C.) longicololis</i> KIREJTSHUK, 2001 | Type locality: Cameroon. |
| 20. <i>A. (C.) lucida</i> KIREJTSHUK, 1986 | Type locality: Vietnam. |
| 21. <i>A. (C.) marginata</i> (GROUVELLE, 1894) | Type locality: India. |
| 22. <i>A. (C.) micra</i> KIREJTSHUK, 1986 | Type locality: Java. |
| 23. <i>A. (C.) miniata</i> S-T. HISAMATSU sp. nov. | Type locality: Japan. |
| 24. <i>A. (C.) modiglianii</i> (GROUVELLE, 1910) | Type locality: Mentawai [=West Sumatra, Indonesia]. |
| 25. <i>A. (C.) novaguineensis</i> KIREJTSHUK, 1987 | Type locality: Papua New Guinea. |
| 26. <i>A. (C.) parvula</i> KIREJTSHUK, 2001 | Type locality: Gambia. |
| 27. <i>A. (C.) peringueyi</i> (GROUVELLE, 1908) | Type locality: Transvaal. |
| 28. <i>A. (C.) puncticollis</i> GROUVELLE, 1897 | Type locality: Tenasserim [=Southeastern Myanmar]. |
| 29. <i>A. (C.) rotundata</i> (GROUVELLE, 1896) | Type locality: Australia. |
| 30. <i>A. (C.) ruficollis</i> (GROUVELLE, 1897) | Type locality: Sumatra. |
| 31. <i>A. (C.) rufostigma</i> KIREJTSHUK, 1986 | Type locality: Zaire. |
| 32. <i>A. (C.) simulata</i> KIREJTSHUK, 1987 | Type locality: Papua New Guinea. |
| 33. <i>A. (C.) solomon</i> KIREJTSHUK, 1996 | Type locality: Solomon Islands. |
| 34. <i>A. (C.) subaenea</i> (BOHEMAN, 1851) | Type locality: South Africa. |
| 35. <i>A. (C.) subquadrata</i> (MOTSCHULSKY, 1858) | Type locality: India. |
| 36. <i>A. (C.) suturalis</i> REITTER, 1884 | Type locality: Japan. |
| 37. <i>A. (C.) szentivanyi</i> KIREJTSHUK, 1987 | Type locality: Papua New Guinea. |
| 38. <i>A. (C.) topali</i> KIREJTSHUK, 1986 | Type locality: India. |
| 39. <i>A. (C.) unguiculata</i> KIREJTSHUK, 1987 | Type locality: Australia. |
| 40. <i>A. (C.) vagans</i> (LEA, 1921) | Type locality: Australia. |
| 41. <i>A. (C.) vietnamica</i> KIREJTSHUK, 1986 | Type locality: Vietnam. |