# Notes on the Bembidiinae (Carabidae) of Japan IX. Five New Species of the Subgenus *Plataphus*

#### Seiji MORITA

Motoazabu 1-3-28-405, Minato-ku, Tokyo, 106 Japan

Abstract Five new carabid species belonging to the bembidiine subgenus *Plata-phus* are described from West and South Japan. Three of them, named *Ocydromus yoshikawai*, *O. shikokuensis* and *O. ohtsukai*, are related to *O. shilenkovi*. The remaining two species, named *O. hiranoi* and *O. kishimotoi*, are related to *O. takasagonis*. Key words: Coleoptera; Carabidae; *Ocydromus*; *Plataphus*.

After the species belonging to the subgenus *Plataphus* from the Far East were studied by myself (1989), additional species have come to attention. They were obtained by friends of mine and by myself in West and South Japan. They will be described in this paper as new.

The abbreviations used herein are as follows: HW-greatest width of head; PW-greatest width of pronotum; PL-length of pronotum, measured along the median line; PA-width of pronotal apex; PB-width of pronotal base; EW-greatest width of elytra; EL-greatest length of elytra; TL-length of hind tarsus; M-arithmetic mean.

All the holotypes and allotypes of new species described here are deposited in the National Science Museum (Nat. Hist.), Tokyo. The paratypes are preserved in my private collection.

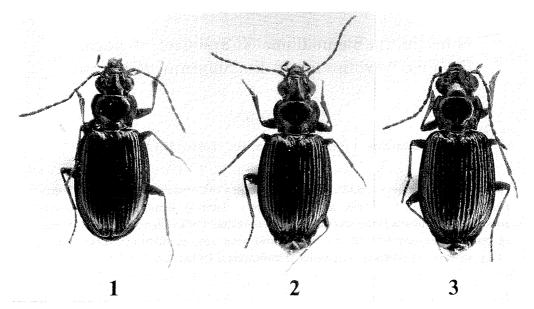
I am deeply indebted to Dr. Shun-Ichi Uéno for reading the original manuscript of this paper and for drawing my attention to bembidiine carabid beetles. Thanks are also due to Messrs. Hideto Aramaki, Hirofumi Hayakawa, Yukihiko Hirano, Yoshiyuki Itô, Masaaki Kimura, Toshio Kishimoto, Takuya Kurita, Tsutomu Matsuda, Isao Ohtsuka, Shôtarô Tanaka, Yûji Tomishima, and Masahiko Yoshikawa for their kind help. But for their invaluable support, this paper could never have been completed.

### Ocydromus (Plataphus) yoshikawai MORITA, sp. nov.

(Figs. 1, 4, 7; Table 1)

Length: 3.33-4.21 mm (from apical margin of clypeus to apices of elytra). Relatively small species; body flat and wide.

Black with dark bluish lustre, rarely greenish or brownish lustre on elytra; palpi, most part of mandibles, antennae and legs brown; labrum dark brown;



Figs. 1-3. — 1, Ocydromus (Plataphus) yoshikawai MORITA, sp. nov. — 2, O. (P.) shiko-kuensis MORITA, sp. nov. — 3, O. (P.) ohtsukai MORITA, sp. nov.

ventral side blackish brown.

Head as in *O. shilenkovi* (MORITA, 1989, p. 28), but the eyes are larger and the frontal furrows are shallower and divergent posteriad; microsculpture sharply impressed, consisting of isodiametric meshes, rarely partially consisting of wide ones; relative lengths of antennal segments as follows: I:II:III:IV:V:VI:XI = 1:0.70:0.96:0.98:0.97:0.97:1.23.

Pronotum transverse, widest at apical third; apex slightly emarginate, narrower than base; apical angles a little produced; sides moderately arcuate in front and slightly sinuate before hind angles; reflexed lateral borders very narrow; base nearly straight at middle, usually slightly oblique on each side; hind angles nearly rectangular, and with carinae close to lateral borders; a small rounded fovea usually present on each side before middle; median line impressed, though reaching neither apex nor base; anterior transverse impression shallow; basal foveae large and deep, with vague wrinkles; anterior pair of marginal setae situated at about 1/3 from apex, posterior one situated a little before hind angles; microsculpture clearly impressed, consisting of wide or isodiametric meshes.

Elytra oval, flat and widest at about middle; shoulders rounded; sides gently arcuate, and with very shallow preapical emargination; apex of each elytron rounded, forming a small re-entrant angle at suture; striae almost entire, usually indistinctly crenulate, and becoming shallower towards apices; striae 6 and 7 free at the posterior ends; scutellar striole long; apical striole deep, moderately curved, and joining stria 5; apical carina distinct; two dorsal pores situated at 7/20 and 7/10 from base, respectively; microsculpture consisting of irregular lines,

Table 1.	Standard ratios of body parts in Ocydromus (Plataphus) yoshikawai MORITA,
	sp. nov.

	PW/HW	PW/PL	PW/PA	PW/PB	PA/PB	EW/PW	EL/EW
Mt. Ohdaigahara-	1.16-1.21	1.42-1.45	1.34-1.40	1.19-1.29	0.88-0.93	1.56-1.63	1.38-1.42
zan 577	M 1.18	M 1.43	M 1.37	M 1.23	M 0.90	M 1.59	M 1.39
Same locality	1.15-1.23	1.40-1.45	1.32-1.37	1.22-1.25	0.90-0.94	1.55-1.62	1.39-1.44
<b>4</b> ♀ ♀	M 1.18	M 1.42	M 1.35	M 1.24	M 0.92	M 1.59	M 1.42
Dorogawa	1.18-1.21	1.44-1.46	1.38 - 1.44	1.24-1.27	0.88-0.90	1.56-1.61	1.37-1.41
30707	M 1.20	M 1.45	M 1.40	M 1.25	M 0.89	M 1.58	M 1.39
Same locality	1.71-1.20	1.40-1.44	1.38-1.42	1.23-1.29	0.88-0.91	1.59-1.65	1.37-1.39
3♀♀	M 1.19	M 1.42	M 1.40	M 1.25	M 0.89	M 1.61	M 1.38

but partially obliterated.

In  $\stackrel{\circ}{+}$ , anal sternite with two pair of setae which are on a shallow arc open anteriorly. TL/HW  $\stackrel{:}{=}$  0.78.

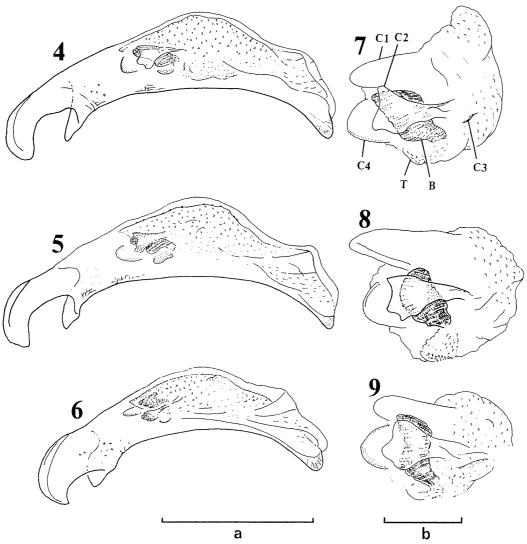
Male genital organ similar in basic structure to that of *O. shilenkovi*. Aedeagus about 2/5 as long as elytra; apical part with deep constriction just behind ostium flag in lateral view; apical lobe simply rounded in lateral view. Inner sac covered with very poorly sclerotized scales, but devoid of hairs at the proximal end of apical orifice, and armed with a dorso-proximal plate (C1) (cf. Morita, 1989, p. 22, fig. 3), three copulatory pieces (C2–C4), a teeth-patch (T) and a bundle of fibres (B); dorso-proximal plate very poorly sclerotized; middle copulatory piece (C2) heavily sclerotized, and with an additional copulatory piece (C3); remaining copulatory piece (C4) transparent, though the proximal part is poorly sclerotized; bundle of fibres (B) large and situated at the right side of middle copulatory piece; teeth-patch situated at the ventral position of middle copulatory piece; ostium flag narrow. Left style with two long setae at apex, right one with a long seta and two short setae at apex and with a long seta at apical part.

Type series. Holotype:  $\checkmark$ , allotype: ♀, Mt. Ohdaigahara-zan, 29-VII-1957, M. Yoshikawa leg. Paratypes:  $5 \checkmark \checkmark$ , 3 ♀ ♀, Mt. Ohdaigahara-zan, 29-VII-1957, M. Yoshikawa leg.;  $1 \checkmark \checkmark$ , 1 ♀, same locality, 2-V-1975, T. Matsuda leg.;  $1 \checkmark \checkmark$ , 1 ♀, same locality, 17-VIII-1980, M. Yoshikawa leg.;  $6 \checkmark \checkmark \checkmark$ , 8 ♀ ♀, Dorogawa, 3-V-1985, T. Matsuda leg;  $2 \checkmark \checkmark \checkmark$ , 1 ♀, Ômata, 11-V-1985, T. Matsuda leg.

Localities. Mt. Ohdaigahara-zan (Wakayama, Mie and Nara Prefectures); Dorogawa (Tenkawa-mura, Nara Prefecture) and Ômata (Higashiyoshino-mura, Nara Prefecture).

Range. Kii Peninsula, Central Honshu, Japan.

Notes. There are some errors in the accounts of Ocydromus gebleri edai and O. shilenkovi (MORITA, 1989, pp. 25-34). The copulatory piece ("C1" in 1989, p. 23) was not accurately shown. It should have been described as a "dorso-



Figs. 4-9. Male genital organ, left lateral view; 4-6, aedeagus; 7-9, extracted inner sac (C1-C4: copulatory pieces, B: bundle of fibres, T: teeth-patch). —— 4, 7, Ocydromus (Plataphus) yoshikawai MORITA, sp. nov. —— 5, 8, O. (P.) shikokuensis MORITA, sp. nov. —— 6, 9, O. (P.) ohtsukai MORITA, sp. nov. (Scale, a: 0.4 mm; b: 0.1 mm.)

proximal plate". The apical piece ("C3" in 1989, p. 23) was also not accurately described: it is a teeth-patch and connective bundle of fibres which were regarded as a teeth-patch at that time. Besides, the presence of a short linear piece was overlooked. It is not easy to recognize it, since it is an extremely fine and poorly sclerotized copulatory piece and is wholly concealed by the membraneous walls.

Because of close similarity in the basic structure of male genital organ, this new species is doubtless closely related to O. (P.) shilenkovi MORITA. It is, however, easily distinguished from the latter by the following points: 1) coloration, especially of legs, 2) more clearly impressed microsculpture on the dorsal

side, and 3) robuster aedeagus.

This beetle is found under stones at the edges of streams. Japanese name. Kii-aomarugata-mizugiwa-gomimushi.

## Ocydromus (Plataphus) shikokuensis MORITA, sp. nov.

(Figs. 2, 5, 8; Table 2)

Length: 3.47–4.04 mm (from apical margin of clypeus to apices of elytra). Black usually with dark bluish lustre, rarely with greenish lustre; elytra usually with slightly iridescent lustre; labrum, mandibles, palpi, antennae and legs dark brown; coxae, basal parts of femora and metatrochanters usually brown; ventral side black.

Head more convex than that of *O. yoshikawai*, though structurally similar to the latter; microsculpture consisting of isodiametric meshes; antennae somewhat thicker; relative lengths of antennal segments as follows: I:II:III:IV:V:VI:XI = 1:0.70:0.95:0.91:0.97:0.97:1.15.

Pronotum similar to that of O. yoshikawai, with the exception of basal foveae which are somewhat deeper and larger; microsculpture consisting of isodiametric or wide meshes.

Elytra oval, flat and widest at about middle or a little behind the middle; shoulders rounded; sides gently arcuate or feebly divergent from behind shoulders to the widest part, then rounded to apices, and without preapical emargination; apex of each elytron rounded, forming a small re-entrant angle at suture;

Table 2. Standard ratios of body parts in Ocydromus (Plataphus) shikokuensis MORITA, sp. nov.

	PW/HW	PW/PL	PW/PA	PW/PB	PA/PB	EW/PW	EL/EW
Mt. Ishizuchi-san 4♂♂	1.19-1.22 M 1.20	1.43-1.50 M 1.46	1.38-1.42 M 1.40	1.25-1.28 M 1.27	0.89-0.93 M 0.91	1.54-1.60 M 1.58	1.34-1.42 M 1.39
Same locality $2 \stackrel{\circ}{\cdot} \stackrel{\circ}{\cdot}$	1.19, 1.19	1.42, 1.44	1.38, 1.40	1.22, 1.26	0.87, 0.92	1.56, 1.63	1.41, 1.43
Mt. Tsurugi-san 1♂	1.18	1.45	1.41	1.29	0.91	1.55	1.44
Jiruzawa 2♂♂	1.15, 1.17	1.40, 1.44	1.35, 1.39	1.22, 1.22	0.88, 0.90	1.58, 1.59	1.45, 1.47
Same locality 1 ♀	1.17	1.44	1.34	1.27	0.95	1.61	1.44
Mt. Ôzare-yama 2♀♀	1.17, 1.21	1.41, 1.46	1.33, 1.38	1.25, 1.25	0.91, 0.94	1.58, 1.60	1.43, 1.45
Mt. Takanosu- yama 1♀	1.22	1.42	1.40	1.28	0.91	1.60	1.42
Mt. Befu-yama 1♀	1.18	1.49	1.41	1.24	0.88	1.54	1.40

260

striae almost entire, usually weakly crenulate, and becoming shallower towards apices; striae 6 and 7 free at the posterior ends; scutellar striole long; apical carina distinct; two dorsal pores situated at 7/20–2/5 and 7/10–4/5 from base, respectively; microsculpture consisting of irregular lines, but partially obliterated.

In  $\,^{\circ}$ , anal sternite with two pair of setae which are on a shallow arc open anteriorly. TL/HW $\,\stackrel{.}{=}\,0.75$ .

Male genital organ similar in basic structure to that of O. yoshikawai, though the apical lobe of aedeagus is obviously narrower and a little shorter than in O. yoshikawai; dorso-proximal plate very poorly sclerotized. Left style with a long seta and one or three short seta(e) at apex, and sometimes with two short setae at apical part; right one with a long seta and two or three short setae at apex, and sometimes with a short seta at apical part.

Type series. Holotype:  $\checkmark$ , allotype: ♀, Tsuchigoya, Mt. Ishizuchi-san, 4–7-IX-1980, S. Morita leg. Paratypes:  $3 \checkmark \checkmark$ , 2 ♀ ♀, Tsuchigoya, Mt. Ishizuchi-san, 4–7-IX-1980, S. Morita leg.;  $2 \checkmark \checkmark$ , 1 ♀, Mt. Tsurugi-san, 29-VIII–1-IX-1979, S. Morita leg.;  $1 \checkmark$ , 2 ♀ ♀, Mt. Befu-yama, 10-V-1986, Y. Itô leg.;  $2 \checkmark \checkmark$ , 1 ♀, Jiruzawa-dani, 18-VI-1989, Y. Itô leg.;  $1 \checkmark$ , Mt. Tsutsujô-zan, 5-VII-1989, Y. Itô leg.;  $1 \checkmark$ , 2 ♀ ♀, Mt. Ôzare-yama, 25-VI-1982, Y. Itô leg.; 1 ♀, Mt. Takanosu-yama, 21-VIII-1986, Y. Itô leg.; 1 ♀, same locality, 15-VIII-1988, S. Tanaka leg.; 1 ♀, Mt. Iwaguro-yama, 23-VII-1989, Y. Itô leg.

Localities. Tsuchigoya and Mt. Iwaguro-yama (Ehime Prefrecture); Mt. Befu-yama, 1,500–1,600 m in altitude, and Jiruzawa-dani (Monobe-mura, Kôchi Prefecture); Mt. Tsutsujô-zan and Mt. Takanosu-yama, Hongawa-mura and Mt. Ôzare-yama, Ôkawa-mura (Kôchi Prefecture); Mt. Tsurugi-san (Tokushima Prefecture).

Range. West Japan, Shikoku (Tokushima Pref., Kôchi Pref., and Ehime Pref.).

Notes. Evidently, this new species is closely related to O. yoshikawai. It is, however, distinguished from the latter by the following points: 1) coloration, especially of legs, 2) deeper and larger basal foveae, and 3) narrower and shorter apical lobe of aedeagus.

If there were not such clear external differences as noted above, this new species could be regarded as a subspecies of *O. yoshikawai*.

Japanese name. Shikoku-aomarugata-mizugiwa-gomimushi.

#### Ocydromus (Plataphus) ohtsukai MORITA, sp. nov.

(Figs. 3, 6, 9)

Length: 3.65–4.09 mm (from apical margin of clypeus to apices of elytra). Body black with bluish green lustre; ventral side blackish brown; appendages brown, sometimes antennal segment 1 light brown.

Head rather large with prominent eyes; frontal furrows linear and divergent posteriad; microsculpture strongly impressed in  $\nearrow$  and  $\circlearrowleft$ , and consisting of isodiametric meshes; antennae submoniliform; relative lengths of antennal segments as follows: I:II:III:IV:V:VI:XI = 1:0.73:0.93:0.93:0.95:0.98:1.20.

Pronotum transverse; PW/HW 1.14–1.18 (M 1.16) in  $10 \nearrow \nearrow$ , 1.14–1.19 (M 1.16) in 10 ? ?; PW/PL 1.44–1.54 (M 1.50) in  $10 \nearrow \nearrow$ , 1.44–1.50 (M 1.47) in 10 ? ?; PW/PA 1.30–1.38 (M 1.35) in  $10 \nearrow \nearrow$ , 1.32–1.37 (M 1.35) in 10 ? ?, PW/PB 1.26–1.29 (M 1.27) in  $10 \nearrow \nearrow$ , 1.22–1.29 (M 1.26) in 10 ? ?; apex usually a little narrower than base, PA/PB 0.92–1.05 (M 0.95) in 10 ? ?, 0.89–0.97 (M 0.93) in 10 ? ?; apical angles a little produced; sides moderately arcuate in front and slightly sinuate before hind angles; reflexed lateral borders very narrow; base nearly straight at middle, usually slightly oblique on each side; hind angles nearly rectangular, and with carinae close to lateral borders; a small rounded fovea rarely present on each side before middle; median line clearly impressed, and usually reaching near base; basal foveae large and deep, linear at the bottom, and with vague wrinkles; anterior pair of marginal setae situated at about 1/4–3/10 from apex, posterior one situated a little before hind angles; microsculpture clearly impressed, consisting of wide or isodiametric meshes.

Elytra oval, flat and widest at about middle; EW/PW 1.36–1.45 (M 1.40) in  $10 \nearrow \nearrow$ , 1.54–1.61 (M 1.57) in 10 ? ?; EL/EW 1.36–1.45 (M 1.44) in  $10 \nearrow \nearrow$ , 1.38–1.44 (M 1.42) in 10 ? ?; shoulders rounded; sides gently arcuate, and with very shallow preapical emargination; apex of each elytron rounded, forming a small re-entrant angle at suture; striae almost entire, indistinctly crenulate, and becoming shallower towards apices; striae 6 and 7 free at the posterior ends; scutellar striole long; apical striole moderately deep, curved, and joining stria 5; apical carina distinct; two dorsal pores situated at 7/20 and 7/10 from base, respectively; microsculpture consisting of irregular lines, but partially obliterated.

In  $\,^{\circ}$ , anal sternite with two pair of setae which are on a straight transverse line, or rarely on a very shallow arc open anteriorly. TL/HW  $\stackrel{.}{=}$  0.78.

Male genital organ similar in basic structure to that of *O. yoshikawai* and *O. shikokuensis*. Aedeagus small and elongate; apical part with a very shallow constriction just behind ostium flag in lateral view; viewed laterally, apical lobe rounded at the extremity; ostium flag narrow. Left style with a long seta and three short setae at apex, right one with a long seta and two short setae at apex.

Type series. Holotype:  $\checkmark$ , allotype: ♀, 12-VI-1993, S. Morita leg. Paratypes:  $22 \checkmark \checkmark$ , 15 ♀ ♀, 12-13-IX-1992, S. Morita leg.;  $2 \checkmark \checkmark$ , 1 ♀, 14-IX-1992, T. Kurita leg.;  $13 \checkmark \checkmark$ , 6 ♀ ♀, 27-IX-1992, Y. Tomishima leg.;  $13 \checkmark \checkmark$ , 9 ♀ ♀, 12-VI-1993, S. Morita leg.;  $4 \checkmark \checkmark$ , 6 ♀ ♀, 31-VIII-1993, T. Kurita leg.

Type locality. Mt. Yamaingiri, 1,400 m in altitude, Izumi-mura, Kumamoto Prefecture.

262

Seiji Morita

Range. West Japan, Kyushu (Kumamoto Prefecture).

Notes. This new species is separable from O. shilenkovi and its relatives by having a combination of the following features: 1) eyes prominent, 2) black with bluish green lustre on dorsal side, 3) oval elytra, 4) aedeagus with very shallow constriction just behind ostium flag, and 5) apical part of aedeagus rounded in lateral view.

Japanese name. Ohtsuka-aomarugata-mizugiwagomimushi.

#### Ocydromus (Plataphus) hiranoi MORITA, sp. nov.

(Figs. 10-12)

Length: 4.12-4.66 mm (from apical margin of clypeus to apices of elytra). Body elongate. Black with slightly iridescent lustre; mandibles, palpi, antennal segment 1, mouth part and legs brown; ventral side and antennal segments 2-11 dark brown.

Head rather convex; frontal furrows deep and slightly divergent posteriad; eyes moderately convex; anterior supraorbital pores situated a little behind the mid-eye level; posterior supraorbital ones situated at the post-eye level; microsculpture consisting of isodiametric meshes, of wide ones on neck; antennae filiform; relative lengths of antennal segments as follows: I:II:III:IV:V:VI:XI = 1:0.72:1.05:1.12:1.11:1.12:1.27.

Pronotum transverse; PW/HW 1.27-1.33 (M 1.30) in  $4 \checkmark \checkmark$ , 1.21-1.23

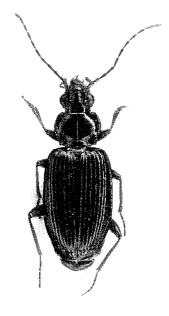
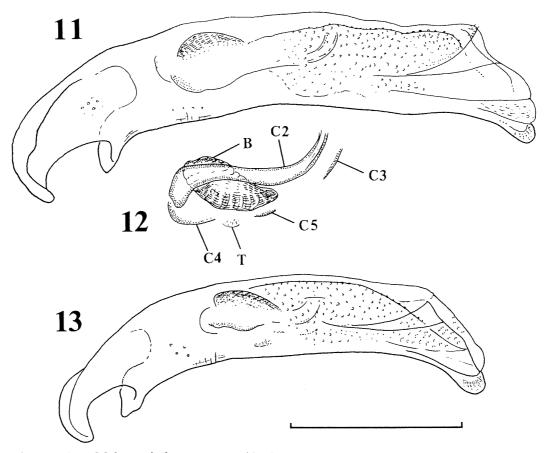


Fig. 10. Ocydromus (Plataphus) hiranoi Morita, sp. nov.

(M 1.22) in  $3 \stackrel{\circ}{+} \stackrel{\circ}{+}$ ; PW/PL 1.36–1.41 (M 1.37) in  $4 \stackrel{\circ}{\nearrow} \stackrel{\circ}{\nearrow}$ , 1.32–1.38 (M 1.35) in  $3 \stackrel{\circ}{+} \stackrel{\circ}{+}$ ; PW/PA 1.47–1.49 (M 1.48) in  $4 \stackrel{\circ}{\nearrow} \stackrel{\circ}{\nearrow}$ , 1.40–1.43 (M 1.42) in  $3 \stackrel{\circ}{+} \stackrel{\circ}{+}$ ; PW/PB 1.23–1.33 (M 1.27) in  $4 \stackrel{\circ}{\nearrow} \stackrel{\circ}{\nearrow}$ , 1.24–1.27 (M 1.26) in  $3 \stackrel{\circ}{+} \stackrel{\circ}{+}$ ; apex narrower than base, PA/PB 0.83–0.91 (M 0.86) in  $4 \stackrel{\circ}{\nearrow} \stackrel{\circ}{\nearrow}$ , 0.88–0.89 (M 0.89) in  $3 \stackrel{\circ}{+} \stackrel{\circ}{+}$ ; apical angles produced and rounded at the tips; sides moderately arcuate in front and slightly sinuate just before hind angles; reflexed lateral borders narrow, becoming wider towards hind angles; base nearly straight at middle, slightly oblique on each side; hind angles obtuse and with carinae which are obtuse or sometimes indistinct; median line clearly impressed, and reaching neither apex nor base; basal foveae large and deep, and with vague wrinkles; anterior pair of marginal setae situated a little before the widest part; posterior one situated a little before hind angles; microsculpture consisting of wide or isodiametric meshes on basal part and of wide or transverse meshes on disc.

Elytra elongated ovate, flat and widest at about middle; EW/PW 1.45-1.55



Figs. 11–13. Male genital organ. —— 11, 13, Aedeagus, left lateral view; 12, extracted inner sac, slightly oblique left lateral view (C2–C5: copulatory pieces, B: bundle of fibres, T: teeth-patch). —— 11, 12, Ocydromus (Plataphus) hiranoi MORITA, sp. nov.; 13, O. (P.) kishimotoi MORITA, sp. nov. (Scale: 0.4 mm.)

(M 1.49) in  $4\nearrow \nearrow$ , 1.54–1.59 (M 1.57) in 3 + ?; EL/EW 1.53–1.61 (M 1.58) in  $4\nearrow \nearrow$ , 1.55–1.60 (M 1.57) in 3 + ?; shoulders rouded; sides slightly arcuate, and with very shallow preapical emargination; apex of each elytron rounded, forming a small re-entrant angle at suture; striae almost entire, smooth and becoming shallower towards apices; striae 6 and 7 usually free at the posterior ends, rarely joining together; scutellar striole long; apical striole deep, moderately curved, and joining stria 5; apical carina indistinct; two dorsal pores situated at 9/25-2/5 and 7/10-3/4 from base, respectively; microsculpture consisting of fine transverse lines, partially forming wide meshes.

In  $\stackrel{\circ}{+}$ , anal sternite with two pair of setae which are on a very shallow arc open anteriorly. TL/HW  $\stackrel{:}{=}$  0.83.

Aedeagus elongate, large and about 9/20 as long as elytra; viewed dorsally, apical part slightly inclined to the right; apical lobe short and rounded in lateral view; inner sac covered with poorly sclerotized scales, and armed with four copulatory pieces (C2–C5), bundle of fibres (B) and teeth-patch (T); bundle of fibres (B) large and elongate; dorso-proximal plate (C1) lacking; middle copulatory piece (C2) elongate, situated at the left side of bundle of fibres, heavily sclerotized at the ventro-proximal portion, becoming transparent towards dorsal side, and with fibred apical part; linear copulatory pieces (C3, C5) short and fine; proximal copulatory piece (C4) transparent. Left style with a long seta and two short setae at apex, right one with two long setae and a short seta at apex.

Type series. Holotype:  $\mathcal{A}$ , Henangawa, 15-VII-1993, M. KIMURA leg. Allotype:  $\mathcal{A}$ , same locality, 3-VIII-1993, M. KIMURA leg. Paratypes:  $2\mathcal{A}\mathcal{A}$  (teneral), Mt. Yonaha-dake, 21-V-1989, Y. HIRANO leg.;  $2\mathcal{A}\mathcal{A}$ , Henangawa, 15-VII-1993, M. KIMURA leg.;  $1\mathcal{A}$ , Henangawa, 3-VIII-1993, M. KIMURA leg.;  $2\mathcal{A}\mathcal{A}$ ,  $2\mathcal{A}\mathcal{A}$ ,  $2\mathcal{A}\mathcal{A}$ , Okuma, 8-11-XI-1994, M. KIMURA leg.;  $1\mathcal{A}$ , Yona, 27-III-1995, M. KIMURA leg.

Localities. Henangawa (Oogusu-son); Okuma and Mt. Yonaha-dake (Kunigami-son).

Range. South Japan (Island of Okinawa-hontô).

Notes. Probably, this new species is related to O. takasagonis (HABU, 1973, p. 114) of Taiwan, though the original description and the illustration of the aedeagal structure given by HABU are insufficient. It is, however, clearly different from the Taiwanese species in the following points: 1) pronotal sides slightly sinuate just before hind angles, 2) narrower elytra, and 3) shape of aedeagus.

Japanese name. Okinawa-hirata-mizugiwa-gomimushi.

# Ocydromus (Plataphus) kishimotoi MORITA, sp. nov.

(Fig. 13)

Length: 3.91–4.42 mm (from apical margin of clypeus to apices of elytra). Body elongate. Colour black; mandibles, palpi, antennal segment 1 and legs brown; ventral side, antennal segments 2–11, labrum and clypeus blackish brown.

Head rather convex; frontal furrows deep and slightly divergent posteriad; eyes moderately convex; anterior supraorbital pores situated a little behind the mid-eye level; posterior supraorbital ones situated a little behind the post-eye level; microsculpture consisting of isodiametric or wide meshes; antennae filiform; relative lengths of antennal segments as follows: I:II:III:IV:V:VI:XI = 1:0.73:1.03:1.06:1.10:1.16:1.26.

Pronotum transverse; PW/HW 1.25, 1.27; PW/PL 1.37, 1.43; PW/PA 1.46, 1.47; PW/PB 1.24, 1.28; apex narrower than base, PA/PB 0.84, 0.88; apical angles produced and rounded at the tips; sides moderately arcuate in front and slightly sinuate just before hind angles; reflexed lateral borders narrow throughout, or becoming wider towards hind angles; base nearly straight at middle, slightly oblique on each side; hind angles rectangular and with short carinae; median line strongly impressed, and reaching neither apex nor base; basal foveae large and deep, and with vague wrinkles; anterior marginal pair of setae situated a little before the widest part; posterior one situated just before hind angles; microsculpture consisting of wide meshes.

Elytra elongated ovate, flat and widest at about middle; EW/PW 1.45, 1.47; EL/EW 1.58, 1.60; shoulders rounded; sides slightly arcuate, and with very shallow preapical emargination; apex of each elytron rounded, forming a small re-entrant angle at suture; striae almost entire and smooth; striae 6 and 7 free at the posterior ends; scutellar striole long; apical striole deep, moderately curved, and joining stria 5; apical carina indistinct; two dorsal pores situated at 7/20 and 7/10-3/4 from base, respectively; microsculpture consisting of fine transverse lines. TL/HW  $\rightleftharpoons 0.81$ .

Aedeagus small and elongate; viewed laterally, apical lobe curved ventrad and rounded at the extremity; viewed dorsally, apical part inclined to the right; ostium flag narrow and moderately sclerotized. Inner sac covered with poorly sclerotized scales, and armed with some copulatory pieces (C2, C3, etc.), bundle of fibres (B) and teeth-patch (T); dorso-proximal plate (C1) lacking; elongate copulatory piece (C2) heavily sclerotized, lying at the left side of bundle of fibres (B); several linear copulatory pieces present near the apical end of elongate copulatory piece; proximal copulatory piece (C4) transparent; teeth-patch (T) small and lying at the ventral side of bundle of fibres. Left style with a long seta and three short setae at apex; right one with a long seta and one or two short seta(e) at apex and a short seta at apical part.

Seiji MORITA

266

Type locality. Shinkogachi (Uken-son).

Range. South Japan (Island of Amami-Oshima).

Notes. Although it is not easy to confirm the aedeagal structure of this new species, it is doubtless closely related to the preceding species. It can be easily distinguished from the latter by the following points: 1) smaller body, 2) position of supraorbital pores, 3) slightly deeper sinuation of pronotal sides, and 4) shape of aedeagus.

Japanese name. Amami-hirata-mizugiwa-gomimushi.

#### References

- Andrewes, H. E., 1935. Coleoptera. Carabidae. II.-Harpalinae-I. Fauna of British India, including Ceylon and Burma. xvi+323 pp., 5 pls., 1 map. Taylor & Francis, London.
- HABU, A., 1973. Notes and descriptions of Formosan Carabidae taken by Dr. S.-I. UÉNO in 1961 (Coleoptera: Carabidae). III. Bembidion. Trans. Shikoku ent. Soc., 11: 107-116.
- JEDLIČKA, A., 1965. Monographie des Tribus Bembidiini aus Ostasien (Coleoptera, Carabidae). Ent. Abh. Mus. Tierk. Dresden, 32: 79–198, 1 col. pl.
- MORITA, S., 1989. *Bembidion gebleri* GEBLER (Coleoptera, Carabidae) and its new relative. *Elytra, Tokyo*, 17: 19–34.
- NETOLITZKY, F., 1942–'43. Bestimmungs-Tabellen europäischer Käfer. (9. Stück.). II. Fam. Carabidae. Subfam. Bembidiinae. 66. Gattung: *Bembidion* LATR. Bestimmungstabelle der *Bembidion*-Arten des paläarktischen Gebietes. (Mit Hinweisen auf holarktische, äthiopische und orientalische Arten.). *Koleopt. Rdsch., Wien*, 28: 29–124 (1942); 29: 1–70 (1943).

(Received September 27, 1995; Accepted November 27, 1995)