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THE *DYTISCIDAE* OF JAPAN

Part II

(*HYDROPORINAE*)

By

MOTOMU TAKIZAWA

Subfamily **Hydroporinae**

Key to the Tribes

- 1''' Apices of the hind coxal processes divided into three pieces by two elongate excisions. Prosternal process nearly triangular in shape, its posterior margin forming the base of the triangle. *Hydrovatini*
- 1'' Hind coxal process short, adpressed to the level of the ventral segment, with no outer angle (or rudimentary lobe), so that the base of the trochanter being not protected by the coxal process.
- 2'' Claws of the hind leg unequal. Hind tibia with nearly the same breadth from the base to the apex. *Hyphhydrini*
- 2' Claws of the hind leg equal. Hind tibia with a slender basal portion, but from the middle to the apex gradually dilated. *Bidessini*
- 1' Apex of the hind coxal process more or less projected above the ventral segment, and its outer angle projecting over the base of the trochanter. *Hydroporini*

Tribe **Hydrovatini**

Hydrovatini SHARP, On Aquat. Carn. Col., p. 320, 924 (1880-82).

Hydrovatina JAKOBSON, Käf. Russl., p. 415 (1908).

Genus **Hydrovatus** MOTSCHULSKY

Hydrovatus MOTSCHULSKY, Etud. Ent., IV, p. 82 (1855).

Oxyoptilus SCHAUUM, Nat. Ins. Deutschl., I, 2, p. 28 (1868).

Hydatonychus KOLBE, Arch. Naturgesch., XLIX, p. 402 (1883).

The species belong to the genus are of small size, and broad, convex form. Prosternal process broad and short, nearly triangular in shape. Middle coxae rather widely separated by a metasternal process. Hind coxae large, their upper border subparallel with the lower one; each coxal process with an oval excision; coxal lines very fine, but a good deal divergent in their anterior parts. Head broad; labrum visibly exerted. Wing-case more or less acuminate behind.

Key to the Species

- 1'' Longer than 2.6 mm.
- 2'' Head and pronotum bright brownish yellow, wing-case dark brown. Pronotum with minute punctures. 2.7 mm. *adachii* KAMIYA

- 2' Upper surface concolorously reddish brown. Punctations on the pronotum coarser, nearly the same with those on the wing-case. Clypeus with a distinct raised front-margin. 2.6 mm. *japonicus* TAKIZAWA
- 1' Shorter than 2.3 mm. Clypeus with no raised front-margin. Upper and under surfaces concolorously yellowish brown, smaller in size and narrower in form. Pronotum and wing-case sparingly and finely punctated. 2.1-2.3 mm. *acuminatus* MOTSCHULSKY

12. *Hydrovatus acuminatus* MOTSCHULSKY

Hydrovatus acuminatus MOTSCHULSKY, Etud. Ent., VIII, p. 42 (1859).

Hydrovatus badius CLARK, Trans. Ent. Soc. Lond., (3), I, p. 424 (1863).

Hydrovatus malaccae CLARK, Trans. Ent. Soc. Lond., (3), I, p. 425 (1863).

Hydrovatus consanguineus RÉGIMBART, Notes Leyden Mus., II, p. 212 (1880).

Usually this species has the wing-case with a concolorous castaneous shade, while in some specimens some obscure oblique markings could be found near the shoulder or a little behind the middle of the wing-case.

Hab.—Honshu (Nagano), Kyushu (Izumimura, Kumamoto), Formosa (Koshun).

Gen. Distr.—Borneo, Burma, China, Celebes, Formosa, India, Japan, Java, Malacca, Philippines, Siam, Sumatra.

J. N.: *Ko-maru-gengoro*.

13. *Hydrovatus adachii* KAMIYA

Hydrovatus adachii KAMIYA, Mushi, V, p. 4 (1932).

This species is unknown to me.

Hab.—Honshu (Tokyo, after KAMIYA).

Gen. Distr.—Japan.

J. N.: *Maru-gengoro*.

14. *Hydrovatus japonicus* sp. nov.

♀. Upper surface dark indian red, with no marking, but more or less fuscous at the base of the pronotum. Under surface reddish brown, legs and antenna more or less yellowish.

Body broad oval, sufficiently convex, slightly acuminated at the extremity. Upper surface quite finely but uniformly reticulated. Head with quite fine punctures especially on the face; clypeus with a distinct front-margin. Pronotum and wing-case distinctly and densely punctated, the punctures much larger than that of the head. Antenna rather short, each joint (excepting the terminal one) a little broader than long. Prosternal process broad and short, nearly triangular in shape, and coarsely punctated. Metasternum and hind coxae distinctly punctured, the punctation much larger and more strongly impressed than that on the wing-case. Length 2.6: width 1.8 mm.

This species is allied to *H. acuminatus* MOTSCHULSKY, from which it is readily distinguished by much coarser, closer punctation on the elytra, and by the presence of the anterior raised margin on the clypeus as well as by the larger and broader form and different colouration.

Hab.—Shikoku (Iyo, 1 ♀. 17/VII, 1916, S. MATSUMURA).

J. N.: *O-maru-gengoro*.

The type specimen is preserved in the Entomological Museum of the Hokkaido Imperial University.

Genus *Hyphydrus* ILLIGER

Hyphydrus ILLIGER, Mag. Ins., VI, p. 349 (1807).

Hydrachna FABRICIUS, Syst. Eleuth., I, p. 255 (1801).

Pachytes MONTROUZIER, Ann. Soc. Ent. Franc., (3), VIII, p. 244 (1860).

Body broad, upper and under surfaces sufficiently convex. Clypeus broad and margined. Terminal joint of the maxillary palpus as long as the three succeeding ones taken together; terminal joint of the labial palpus as long as the second. Prosternal process short, not truncate behind. Hind coxal process adpressed, its outer terminal angle obtuse or rounded. Swimming legs rather slender; tibiae and tarsi rather strongly ciliate, terminated by a rather stout, little curved claw, and with an excessively short and indistinct second claw. Humeral area of the epipleura limited triangularly by a well marked raised line.

Key to the Species

- 1'' Body rather oblong oval. Punctures on the wing-case dense and uniform size. 1st ventral segment of the male with an oblique short spine at the middle; the terminal depressed semiquadrately, and with 2 short denticles along the hind margin. Upper and under surfaces reddish yellow, with no microsculpture. Pronotum with two flecks at the hind-margin. Wing-case with black markings. 4.0-4.5 mm. *lyratus* SWARTZ
- 1' Body short oval. Punctures on the wing-case apparently larger but less denser, and distinctly divided into large and small. 1st ventral segment of the male with no spine; the terminal segment not impressed at the middle, with no denticle along the hind margin. Upper and under surfaces reddish yellow, head with two fuscous markings near the hind margin. Pronotum with two large markings along the base. Wing-case with black markings. 3.6-4.7 mm. *orientalis* CLARK

15. *Hyphydrus lyratus* SWARTZ

Hyphydrus lyratus SWARTZ, Syn. Ins., II, p. 29 (1808).

Hyphydrus bisulcatus CLARK, Trans. Ent. Soc. Lond., (3), I, p. 442 (1863).

Hyphydrus nigronotatus CLARK, l. c., p. 421.

Hydroporus fossulipennis MACLEAY, Trans. Ent. Soc. N. S. Wales, II, p. 122 (1871).

The marking on the wing-case seems to be rather variable. The male of the species shiny, and with no microsculpture; the 1st ventral segment with a

short oblique projection on the middle; the terminal ventral segment depressed at the middle and has 2 denticles along the hind margin.

The female with distinct microsculpture, and the wing-case with a rather deep longitudinal groove at the inner third.

Hab.—Okinawa, Formosa (Koshun, Taichu).

Gen. Distr.—Australia, Annam, China, Formosa, India, Japan, Java, New Guinea, Sumatra, Sumbawa, Philippines, Timor.

J. N.: *Taiwan-keshi-gengoro*.

16. *Hyphydrus orientalis* CLARK

Hyphydrus orientalis CLARK, Trans. Ent. Soc. Lond., (3), I, p. 419 (1863).

Hyphydrus pulchellus CLARK, l. c., p. 420.

Hyphydrus eximius CLARK, l. c., p. 421.

Hyphydrus japonicus SHARP, Trans. Ent. Soc. Lond., p. 54 (1873).

Hyphydrus laeviventris SHARP, On Aquat. Carn. Col., p. 381 (1880-82).

Hyphydrus frontalis SHARP, l. c., p. 381.

This species is very variable in the markings and degree of darkness of the wing-case.

Male with no microsculpture; the 1st joint of the frontal tarsi much dilated than the other; antenna long and slender, each joint nearly twice as long as the breadth. The 1st ventral segment usually with no spine-like projection, but in some specimens a rudiment of it is recognizable.

In the female the wing-case with a distinct microsculpture and the punctations rather finer and denser. The antenna shorter and stouter, each segment scarcely longer than broad.

There is no character of sufficient value to establish SHARP'S *H. japonicus* and *H. laeviventris* as a distinct species. The differences are based upon the characters which display considerable variation as in the punctuation on the wing-case and in the form of the 3rd tarsal joint of the hind-leg. Therefore, in the present paper I have treated them as a synonyms of *H. orientalis* CLARK.

This is one of the most common species in our country.

Hab.—Hokkaido (Sapporo), Honshu (Akashi, Gifu, Hokke, Iwate, Jiono, Maiko, Misaki, Nagano, Nakano, Sekishi, Takasago), Shikoku (Koyadaira), Kyushu (Kumamoto), Formosa (Koshun), Korea (Eitoho).

Gen. Distr.—China, Formosa, Japan, Korea.

J. N.: *Keshi-gengoro*.

Tribe **Bidessini**

Bidessini SHARP, On Aquat. Carn. Col., p. 336, 926 (1880-82).

Genus *Bidessus* SHARP*Bidessus* SHARP, On Aquat. Carn. Col., p. 344, 852 (1880-82).

This is generally of a minute size and long-oval in form. Pronotum with a plica or longitudinal fold on the basal portion, this fold often continued to the basal portion of the wing-case. Prosternal process moderately long, rather narrow, and acuminate. Hind coxae very large; the coxal process rather narrow and adpressed to the level of the ventral segment. Humeral area of the epipleura not limited triangularly by a raised line. Front and middle tarsi pseudotetramer, and the 3rd joint bilobed.

Key to the Subgenera

- 1'' Clypeus with a raised front-margin. *Clypeodytes* RÉGIMBART
 1' Clypeus with no definite front-margin. *Bidessus* ZIMMERMANN

Subgenus *Clypeodytes* RÉGIMBART*Clypeodytes* RÉGIMBART, Ann. Soc. Ent. Franc., 63, p. 230 (1894).17. *Bidessus* (*Clypeodytes*) *frontalis* SHARP*Bidessus frontalis* SHARP, Trans. Ent. Soc. Lond., p. 440 (1884).

Body convex, rather broad oval. Entirely ferruginous; the apical portion of the antenna, the ventral segments and the wing-case more or less fuscous. Head and pronotum with fine punctures, the latter with a distinct plica on each side. The punctation on the wing-case very rough, and the basal plica about the same length with that on the pronotum. 1.5-1.7 mm.

Hab.—Honshu (Osaka).

Gen. Distr.—Japan.

J. N.: *Chibi-gengoro*.Subgenus *Bidessus* ZIMMERMANN*Bidessus* ZIMMERMANN, Arch. f. Naturgesch., 83, A. 12, p. 137 (1917).

Key to the Species

- 1'' Each wing-case provided with a sutural stria.
 2'' Basal plica on the pronotum deep, and continued to the wing-case, the part that on the wing-case longer than that on the pronotum.
 3'' Body larger and broader. Plicae on the pronotum and wing-case deeper; punctations rather strongly impressed. Pronotum yellowish brown but infuscated between the plicae. Wing-case yellow but much marked with black. 1.8-2.2 mm. *japonicus* SHARP
 3' Body smaller and narrower. Plicae on the pronotum and wing-case shallower; punctations rather weakly impressed. 1.8 mm. *yoshimurai* KAMIYA
 2' Basal plica shallow, not extending to the wing-case beyond the base. *antennatus* RÉGIMBART

- 1' Wing-case with no sutural stria.
 4'' Abdominal segments reddish-yellow, 3.0-3.3 mm.... .. *megacephalus* GSCHWENDTNER
 4' Abdominal segments black. 3.0-3.2 mm.... .. *tokunagai* KAMIYA

18. *Bidessus (Bidessus) antennatus* RÉGIMBART

Bidessus antennatus RÉGIMBART, Ann. Soc. Ent. Belg., XXXVI, p. 118 (1892).

This species is not present in the Entomological Museum of the Hokkaido Imperial University, and is also unknown to me.

Hab.—Formosa (Anping, after Zimmermann, Ent. Mitteil., VIII, p. 75 1919).

Gen. Distr.—Ceylon, Formosa, India, Tonkin.

J. N.: *Anpin-chibi-gengoro*.

19. *Bidessus (Bidessus) japonicus* SHARP

Hydroporus japonicus SHARP, Trans. Ent. Soc. Lond., p. 54 (1873).

Though this species yet not found in Saghalien, but it is one of the most common species in our country.

Hab.—Hokkaido (Sapporo, Urakawa), Honshu (Gifu, Hokke, Komaba, Kyoto, Misaki, Miye, Nagano, Nakano, Nojiri, Sekishi, Shizuoka), Kyushu (Kumamoto), Shikoku (Koyadaira), Formosa (Tarowan), Korea (Eitoho, Suigen).

Gen. Distr.—China, Formosa, Japan, Korea.

J. N.: *Kisuji-chibi-gengoro*.

20. *Bidessus (Bidessus) megacephalus* GSCHWENDTNER.

Bidessus megacephalus GSCHWENDTNER, Ent. Anzeig., No. 1, p. 21 (1931).

This is unknown to me, being not present in the collection of our Entomological Museum.

Hab.—Formosa (Kotosho, after GSCHWENDTNER).

Gen. Distr.—Formosa.

J. N.: *Koto-chibi-gengoro*.

21. *Bidessus (Bidessus) tokunagai* KAMIYA

Bidessus tokunagai KAMIYA, Mushi, V, p. 5 (1932).

This species is unknown to me.

Hab.—Honshu (Seto, after KAMIYA).

Gen. Distr.—Japan.

J. N.: *Tokunaga-chibi-gengoro*.

22. *Bidessus (Bidessus) yoshimurai* KAMIYA

Bidessus yoshimurai KAMIYA, Mushi, V, p. 4 (1932).

This species is also unknown to me.

Hab.—Kyushu (Munakata near Fukuoka, after KAMIYA).

Gen. Distr.—Japan.

J. N.: *Yoshimura-chibi-gengoro*.

Tribe **Hydroporini**

Hydroporini SHARP, On Aquat. Carn. Col., p. 389, 858 (1880-82).

Key to the Genera

- 1'' Humeral area of the epipleura limited triangularly by a well marked raised line.
 2'' Clypeus not bordered with a raised margin. *Coelambus* THOMSON
 2' Clypeus bordered with a distinct raised margin. Anterior margin of the head weakly rounded ...
 *Hyphoporus* SHARP
 1' Humeral area of the epipleura not limited triangularly by a raised line.
 3'' Hind coxal process not scooped out triangularly at the extremity, so that the mesial line being not
 abbreviated, nearly equal or a little longer than the coxal line. *Hydroporus* CLAIRVILLE
 3' Hind coxal process scooped out triangularly at the extremity, so that the mesial line abbreviated,
 a little shorter than the coxal line.
 4'' Under surface shiny and finely shagreened. Pronotum with a short longitudinal stria on each side,
 but with no transverse impression along the base. Usually the wing-case with yellow markings.
 *Graptodytes* SEIDLITZ
 4' Under surface opaque, densely punctated. Anterior margin of the head truncated or slightly emer-
 ginated. Pronotum with a transverse impression along the base, but with no longitudinal stria
 (in the subgenus *Oreodytes*, under surface more or less shiny and longitudinal stria present on the
 pronotum). *Deronectes* SHARP

Genus **Coelambus** THOMSON

Coelambus THOMSON, Skand. Col., II, p. 13 (1860).

Key to the Species

- 1'' ♂ Under surface and the anterior half of the head with fine microsculpture, therefore less shiny.
 Body long oval. Upper surface reddish brown. Antenna and legs reddish, distal portion of the
 former more or less fuscous. Wing-case with four or five indistinct longitudinal black stripes.
 Pronotum with the sides slightly rounded, finely and sparingly punctated, the punctures near
 the base much stronger and larger. Punctuation on the wing-case large and strongly impressed, in
 the anterior half the punctuation much coarser and mixed with a finer one; three punctate-striae
 distinct, but they fade away behind the middle of the posterior half. 3.8-5 mm.
 *impressopunctatus* SCHALLER
 1' ♂ Head and under surface shiny, lacking the microsculpture, the punctuation on the wing-case more
 or less scanty. Colouration and structure nearly the same with the preceding species. 4.5-5 mm.
 *vittatus* SHARP

23. **Coelambus impressopunctatus** SCHALLER

Dytiscus impressopunctatus SCHALLER, Abh. Nat. Ges. Halle, I, p. 312 (1783).

Hydroporus picipes FABRICIUS, Mant. Ins., I, p. 192 (1787).

Dytiscus flavicans MÜLLER, Zool. Dan. Prodr., p. 74 (1776).

Dytiscus ovalis THUNBERG, Nova. Acta Upsala, IV, p. 19 (1784).

Dytiscus punctatus MARSHAM, Ent. Brit., I, p. 426 (1802).

Hydroporus similis KIRBY, Fn. Bor.-Am., IV, p. 68 (1837).

Hydroporus alternans KUNZE, Neue Schrift. Nat. Ges. Halle, II, 4, p. 62 (1818).

Hydroporus decimlineatus MANNERHEIM, Bull. Moscou, XXVI, III, p. 161 (1853).

Hydroporus picatus KIRBY, Fn. Bor.-Am., IV, p. 68 (1837).

This is the first record from our faunal region.

According to A. ZIMMERMANN (Col. Rundsch., Bd. 17, p. 66, 1930) the female of this species dimorphous. In the first form the upper surface is shiny and sculptured as in the male. In the second form the upper surface entirely shagreened; the wing-case with fine and uniform sized punctures densely, and nearly lacking the punctate-striae. All the female specimens under my disposal show the characters of the second.

Hab.—Saghalien (Toyohara, 1 ♂, 1 ♀, 29/VII, 1914, J. ADACHI and S. ISSIKI; Ikusagawa, 1 ♀, 25/VIII, 1914, J. ADACHI, and S. ISSIKI).

Gen. Distr.—Europe, Japan, North America (Alaska, New England), Siberia.

J. N.: *Karafuto-shima-keshi-gengoro*.

24. *Coelambus vittatus* SHARP

Coelambus vittatus SHARP, Trans. Ent. Soc. Lond., p. 441 (1884).

This species seems to be rather rare in our faunal region, and we have only five specimens in our Entomological Museum.

Hab.—Hokkaido (Sapporo), Honshu (Tokyo after SHARP).

Gen. Distr.—Japan.

J. N.: *Shima-keshi-gengoro*.

Genus *Hyphoporus* SHARP

Hyphoporus SHARP, On Aquat. Carn. Col., p. 390, 859 (1880-82).

Under this genus about fourteen species are known in the world, among them only one is known as occurring in Formosa.

25. *Hyphoporus rotundatus* GSCHWENDTNER

Hyphoporus rotundatus GSCHWENDTNER, Zool. Anzeig., XI, No. 1, p. 21 (1931).

Though this species was recently described from Formosa (Kotosho) by L. GSCHWENDTNER, but I have not seen it yet.

Hab.—Formosa (Kotosho, after GSCHWENDTNER).

Gen. Distr.—Formosa.

J. N.: *Ko tama-gengoro*.

Genus *Hydroporus* CLAIRVILLE*Hydroporus* CLAIRVILLE, Ent. Helv., II, p. 182 (1806).

Though hitherto no member of the genus has yet reported from our faunal region, I have found three *Hydroporus*-species among the collection of the Entomological Museum of the Hokkaido Imperial University.

Key to the Species

- 1'' Lateral margin of the wing-case (in the lateral view) distinctly curved upwards near the base towards the hind angle of the pronotum. Head and antenna reddish yellow; the latter infuscated distad. Pronotum black, at the sides reddish, with no distinct lateral margins. Wing-case brown, the basal portion and the sides more or less paler. Upper surface shagreened and with rather long yellow pubescence. Under surface also shagreened. Metasternum, hind coxa and two basal ventral segments rather strongly punctated. Prosternal process with no short semicircular projection between the anterior coxae. *umbrosus* GYLLENHAL
- 1' Lateral margin of the wing-case (in the lateral view) nearly straight or slightly curved upwards towards the hind angle of the pronotum.
- 2'' Wing-case pitchy brown, at the sides more or less paler. Pronotum black, at the sides reddish, with distinct lateral margins. *saghalienis* TAKIZAWA
- 2' Head, pronotum and wing-case concolorously black. Pronotum rather finely margined at the sides. *watanabei* TAKIZAWA

26. *Hydroporus saghalienis* sp. nov.

Head dark pitchy brown, at the posterior margin more or less reddish. Pronotum black, at the sides reddish. Wing-case dark brown, the lateral portion more or less paler. Under surface black. Antenna reddish yellow, at the apical portion fuscous. Prosternal process, legs and the basal part of the epipleura reddish yellow. Four apical ventral segments more or less reddish along the lateral margins.

Body long oval, rather depressed, subparallel, the surface being not shiny. Head with a small impression on each side along the eyes; finely but distinctly reticulated; punctation extremely fine and sparse. Pronotum rather broad, broadest at the base, at the sides a little rounded and distinctly margined; the punctation and reticulation nearly the same with that on the head, but the punctation at the marginal portion apparently larger and denser, accompanying some extremely fine hair. Wing-case shagreened, finely but densely punctated and finely pubescent. Prosternal process narrow, more or less distinctly carinated along the middle, and with a small semicircular projection between the front coxae. Hind coxa, first two ventral segments and the lateral portions of the metasternum strongly but rather sparingly punctated. The punctation on the rest ventral segment much finer and denser. Hind coxa a little longer ex-

ternally than along the mesial line; coxal process truncated behind. Length 3.9: width 2.0 mm.

In form and colouration this species seems to be rather nearly allied to *H. fuscipennis* SCHAUM and *H. pubescens* GYLL., but it will easily be distinguished from the former by a larger size and entirely shagreened upper surface. From *pubescens* GYLL. it will be distinguished by the absence of the series of large punctures on the wing-case.

Hab.—Saghalien (Ikusagawa, 1 ♀, 25/VIII, 1914, J. ADACHI and S. ISSIKI).

J. N.: *Naga-keshi-gengoro*.

The type specimen is preserved in the Entomological Museum of the Hokkaido Imperial University.

27. *Hydroporus umbrosus* GYLLENHAL

Hyphydrus umbrosus GYLLENHAL, Ins. Suec., I, p. 538 (1808).

Hyphydrus striola ZETTERSTEDT, Ins. Lapp., p. 139 (1840).

This is the first record of *H. umbrosus* GYLLENHAL from our faunal region.

Hab.—Hokkaido (Sapporo, 1 ♂, 11/V, 1904, S. MATSUMURA).

Gen. Distr.—Europe, Japan, Kamtschatka, Siberia.

J. N.: *Cha-naga-keshi-gengoro*.

28. *Hydroporus watanabei* sp. nov.

♀. Head black, the posterior margin more or less reddish. Pronotum and wing-case black, the latter more or less paler along the lateral margins. Uder surface black, anetna, palpi, epipleura and legs dark reddish brown.

Body long oval, subparallel, broadest at the middle of the wing-case. Head a little shorter than the pronotum, finely but distinctly shagreened, nearly impunctated, with a shallow impression on each side near the inner margin of the eye. Pronotum broad, more than twice of its length, but not strongly narrowed anteriorly, finely shagreened; at the sides slightly rounded, finely margined, with an obtuse hind angle; punctuation larger and denser at the lateral and basal portions where some fine hair is sparingly recognizable; a transverse series of fine punctures along the anterior margin, and a linear oblique impression near the hind angle. Wing-case finely and sparingly pubescent, shagreened, the punctuation more or less finer than that on the basal portion of the pronotum, the interstices of the each puncture nearly twice as the diameter of the puncture; lateral margins (in the lateral view) slightly curved upwards towards the hind angle of the pronotum. Prosternal process rather flat, being not carinated, but suddenly turned upwards anteriorly between the front coxae.

Hind coxa a little longer externally than along the mesial line; coxal process truncated behind. Under surface distinctly reticulated, hind coxa and basal two ventral segments distinctly and strongly punctated, the punctures much larger than those on the wing-case, with extremely fine setae; apical four ventral segments with extremely fine and dense punctures and fine pubescence. The 2nd and 4th joints of the front tarsus nearly of the same length, the 1st a little longer, and the 3rd nearly twice as long as the 2nd; two claws of nearly equal length a little shorter than the terminal tarsal joint. Length 3.4: width 1.6 mm.

Though I have not seen *H. nigrita* FABRICIUS, but after ZIMMERMANN'S description this species seems rather allied to my species. In *H. watanabei* the body distinctly larger; pronotum not so strongly margined; wing-case entirely lacking the trace of stria; palpi, legs, and the basal portion of the antenna pitchy brown.

Only one specimen was captured by C. WATANABE in the pond on the summit of Mt. Tomuraushi about 2000 meter high.

Hab.—Hokkaido (Mt. Tomuraushi, 1 ♀, 27/VIII, 1932, C. WATANABE).

J. N.: *Watanabe-naga-keshi-gengoro*.

The type specimen is preserved in the Entomological Museum of the Hokkaido Imperial University.

Genus *Graptodytes* SEIDLITZ

Graptodytes SEIDLITZ, Verh. Nat. Ver. Brünn., XXV, p. 57, 59 (1887).

Under this genus we have only one following species:

29. *Graptodytes natrix* SHARP

Hydroporus natrix SHARP, Trans. Ent. Soc. Lond., p. 443 (1884).

Body round oval, rather depressed, with no pubescence. Upper and under surfaces black, not shiny. Head with a large round spot in the middle; thorax with a indefinite transverse dark-yellow fascia across the middle; wing-case with six yellow round spots, two of them placed along the base, a second transverse series of two spots at the middle, one other spot behind these, and a small one at the extremity. Length 3.0–3.5 mm.

Hab.—Hokkaido (Sapporo), Honshu, (Chuzenji, Tamagawa).

Gen. Distr.—Japan.

J. N.: *Gomadara-gengoro*.

Genus *Deronectes* SHARP

Deronectes SHARP, On Aquat. Carn. Col., p. 418, 865 (1880–82).

Key to the Subgenera

- 1'' Pronotum with a short longitudinal stria on each side. *Oreodytes* SEIDLITZ
 1' Pronotum with no longitudinal stria. *Potamodytes* ZIMMERMANN

Subgenus *Potamodytes* ZIMMERMANN

Potamodytes ZIMMERMANN, Arch. f. Naturgesch., 83, A. 12, p. 184 (1917).

Key to the Species

- 1'' Wing-case with a short denticle near the extremity.
 2'' Series of the punctures along the suture of the wing-case distinctly striated, but those along the 3rd black stripe not striated and quite obscure. Claws of the anterior tarsi of the male strongly developed, nearly as long as all the tarsal joints taken together. Body long oval. Under surface dark reddish brown. Thorax rounded at the sides and narrowed behind. Head and pronotum yellowish brown, the latter black along the anterior and posterior margins. Wing-case dark yellow with six longitudinal black stripes, the 2nd and 3rd connected by two small markings; the 6th broken at the middle; besides these markings two or three indefinite markings are placed along the lateral margins. 4.8-5.5 mm. *anchoralis* SHARP
 2' Series of the punctures along the suture of the wing-case not striated, the 3rd and 5th black stripes distinctly striated at least on the basal half. Claws of the anterior tarsus of the male shorter, nearly as long as the basal two tarsal joints taken together. Wing-case yellowish brown, the black markings more conspicuous, but less extensive than in the preceding species. *nipponicus* TAKIZAWA
 1' Wing-case with no denticle near the extremity.
 3'' Lateral margins of the prothorax nearly straight; the posterior angle rectangular. Body long oval. Upper surface shiny, brownish yellow; pronotum nearly smooth at the disc, with two black markings along the base. Wing-case with confluent longitudinal black lines; punctuation excessively dense and fine, with a shallow punctate-striae at the middle; sutural series of the punctures obsolete. Under surface dark brown or pitchy black. 4.0-4.3 mm. *simplicipes* SHARP
 3' Lateral margins of the prothorax rounded; the posterior angles obtuse; black lines on the wing-case less extensive. 4.5 mm. *hostilis* SHARP

30. *Deronectes (Potamodytes) anchoralis* SHARP

Deronectes anchoralis SHARP, Trans. Ent. Soc. Lond., p. 442 (1884).

This species seems to be rather common in our faunal region.

The sexual character is very remarkable, the claws of the frontal tarsi of the male enormously developed, nearly as long as all the tarsal joints taken together. Degree of the darkness of the surface seems to be considerably variable in individual.

Hab.—Honshu (Shizuoka, Tamagawa, Towada).

Gen. Distr.—Japan.

J. N.: *Cha-shima-chibi-gengoro*.

31. *Deronectes (Potamodytes) hostilis* SHARP

Deronectes hostilis SHARP, Trans. Ent. Soc. Lond., p. 443 (1884).

This species unknown to me, being not present in the collection of our Entomological Museum.

Hab.—Kyushu (after SHARP).

Gen. Distr.—Japan.

J. N.: *Ko-shima-chibi-gengoro*.

32. *Deronectes (Potamodytes) nipponicus* sp. nov.

♂. Head and pronotum yellowish brown, the former fuscous along the hind margin, the latter more or less infuscated along the anterior and posterior margins. Pronotum with two semiquadrate black markings, connecting near at the middle of the base. Wing-case with five longitudinal black stripes, leaving the apex and base untouched, these lines (excepting the 5th) being confluent near the extremity by an oblique marking; the 2nd and 3rd connected by two transverse markings at the middle of the anterior and posterior halves; besides these, two ill-defined markings are visible along the lateral margins. Under surface black; antenna and legs yellowish brown.

Body long oval, rather opaque. Head finely reticulated, at the vertex sparingly and finely punctated. Pronotum moderately rounded at the sides, widest at the base, with an obtuse hind angle; finely reticulated and punctated as in the head, with a distinct transverse series of punctures along the anterior margin, and more or less larger and distinct punctures along the base. Wing-case with the punctures excessively dense and fine, their interstices nearly equal with the diameter of the punctures; series of the punctures along the suture scarcely striated, but those along the 3rd and 5th black stripes distinctly striated at least on the basal half. Under surface not reticulated except the hind margin where lacks the punctation; metasternum, hind coxa and two basal ventral segments densely and finely punctated, the punctures apparently larger and more strongly impressed than those on the wing-case. Prosternal process not very broad nor flat, finely carinated along the middle. The claws of the fore legs long, nearly equal with the 3rd and 4th tarsal joints taken together. Hind tibiae with their infero-external surface glabrous and shiny.

In the female the anterior tarsus much slenderer, the claws shorter, nearly equal with the terminal tarsal joint.

This is closely allied to *D. anchoralis* SHARP which has an almost identical pattern on the wing-case. But *D. anchoralis*, the anterior tarsi of the male enormously developed, nearly the same length with all the tarsal joints taken together; no punctate stria present on the wing-case besides the sutural one; the denticle near the postero-external angle of the wing-case rather larger, the colour of the upper surface darker and the under surface reddish brown.

Hab.—Honshu (Tamagawa, 2 ♂, 3 ♀, 25/X., 1913, H. TAKABAYASHI; Tamagawa, 1 ♂, 1/X., 1913, H. TAKABAYASHI; Tokyo 1 ♂, 1 ♀. VIII, 1903, S. MATSUMURA).

J. N.: *Hime-shima-chibi-gengoro*.

The type specimens preserved in the Entomological Museum of the Hokkaido Imperial University.

33. *Deronectes (Potamodytes) simplicipes* SHARP

Deronectes simplicipes SHARP, Trans. Ent. Soc. Lond., p. 442 (1884).

Hab.—Hokkaido (Sapporo), Korea (after T. MORI, Journ. Chosen, Nat. Hist. Soc., No. 14, p. 50, 1932).

Gen. Distr.—Japan.

J. N.: *Shima-chibi-gengoro*.

Genus *Oreodytes* SEIDLITZ

Oreodytes SEIDLITZ, Verh. Nat. Ver. Brünn, XXV. p. 57 (1887).

Hitherto only one species of this subgenus is known from our faunal region.

34. *Deronectes (Oreodytes) sanmarki* SAHLBERG

Hydroporus Sanmarki SAHLBERG, Ins. Fenn., I, p. 172 (1834).

Hyphydrus assimilis GYLLENHAL, Ins. Suec., I, p. 522 (1808).

Hydroporus obesus LECONTE, Proc. Acad. Philad. p. 365 (1866).

Hyphydrus rivalis GYLLENHAL, Ins. Suec. IV, p. 384. (1827).

Hygrotus fluviatilis STEPHENS, III. Brit. Ent. Mandib., II, p. 46 (1828).

Hydroporus alienus SHARP, Ann. Soc. Ent. Esp., I. p. 361 (1872).

This species seems to be rather rare, only a single specimen being preserved in the collection of our Museum.

Hab.—Hokkaido (Sapporo), Honshu (Aomori, after SHARP, Trans. Ent. Soc. Lond., p. 444, 1884).

Gen. Distr.—Europe, Japan, North America, Siberia.

J. N.: *Kuro-shima-chibi-gengoro*.

摘 要

本邦産龍蝨科の研究第二報として本文に取扱ひたるものは *Hydroporinae* 亞科に屬する二十三種にして、四新種並に二未記録種を包含す。今此等の學名及和名を記さば下の如し

12. *Hydrovatus acuminatus* MOTSCHULSKY コマルゲンゴロウ
13. *H. adachii* KAMIYA マルゲンゴロウ (改稱)
14. *H. japonicus* TAKIZAWA オホマルゲンゴロウ (新種、新稱)
15. *Hyphydrus lyratus* SWARZT タイソクケシゲンゴロウ
16. *H. orientalis* CLARK ケシゲンゴロウ
17. *Bidessus (Clypeodytes) frontalis* SHARP チビゲンゴロウ
18. *B. (Bidessus) antennatus* RÉGIMBART アンビンチビゲンゴロウ
19. *B. (B.) japonicus* SHARP キスヂチビゲンゴロウ
20. *B. (B.) megacephalus* GSCHWENDTNER コウトウチビゲンゴロウ
21. *B. (B.) tokunagai* KAMIYA トクナガチビゲンゴロウ
22. *B. (B.) yoshimurai* KAMIYA ヨシムラチビゲンゴロウ
23. *Coelambus impressopunctatus* SCHALLER カラフトシマケシゲンゴロウ (未記録種、新稱)
24. *C. vittatus* SHARP シマケシゲンゴロウ
25. *Hyphoporus rotundatus* GSCHWENDTNER コタマゲンゴロウ
26. *Hydroporus saghaiensis* TAKIZAWA ナガケシゲンゴロウ (新種、新稱)
27. *H. umbrosus* GYLLENHAL チャナガケシゲンゴロウ (未記録種、新稱)
28. *H. watanabei* TAKIZAWA ヲタナベナガケシゲンゴロウ (新種、新稱)
29. *Grafftodytes natrix* SHARP ゴマダラゲンゴロウ (改稱)
30. *Deronectes (Potamodytes) anchoralis* SHARP チャシマチビゲンゴロウ
31. *D. (P.) hostilis* SHARP コシマチビゲンゴロウ
32. *D. (P.) nipponicus* TAKIZAWA ヒメシマチビゲンゴロウ (新種、新稱)
33. *D. (P.) simplicipes* SHARP シマチビゲンゴロウ
34. *D. (Oreodytes) saumarki* SAHLBERG クロシマチビゲンゴロウ (改稱)

尙本文に於て *Hyphydrus japonicus* SHARP (1873) 及び *H. laeviventris* SHARP (1880-82) を *H. orientalis* CLARK (1863) の異名となせり。