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NEW DRAGONFLIES FROM JAPAN (Odonata)

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Among Japanese Odonata the following 4 species and 5 subspecies are considered as new. Leaving a more detailed systematic discussion in the nearest future I will describe them briefly here.

1. **Gomphus (Trigomphus) melampus bifasciatus** subsp. nov. (Pl. 2, Fig. 1)

Gomphus melampus RISE (partim), Suppl. Ent. 5, p. 52 (1916).

Gomphus melampus OGUMA, Ins. Mats., 1, p. 92 (1926).

Gomphus melampus OGUMA, Icon. Ins. Jap., 1907 (1932).

This subspecies is separated from *G. melampus melampus* SELYS, as follows :

1. The black stripe on the first lateral suture complete, often disconnected at the spiracle and very rarely abbreviated as *Gomphus melampus melampus*.
2. ♂. The apical claw of the hamuli posteriores curved more externally.
3. ♀. Abdominal segment 10 much longer than wide.
4. ♀. Valvula vulvae divided in its distal half, the tips relatively converging. (Pl. 2, Fig. 1, c).
5. Distribution confined to western Japan (West-Honsyu, Kyusyu, Sikoku).

Holotype : 1♂, Mutobe, Hukutiyama, 13. V. 1947 (ASAHINA leg.).

Allotype : 1♀, Mutobe, Hukutiyama, 14. V. 1947 (ASAHINA leg.).

Paratypes : 4♂, 1♀, Mutobe, Hukutiyama, 14. V. 1947 (ASAHINA leg.).

1♂, 3♀, Hakozaiki, Hukuoka, 12. IV. 1946 (SHIROUZU leg.).

4♂, 1♀, Harumachi, Hukuoka, 14. V. 1946 (SHIROUZU leg.).

5♂, 4♀, Tukaguti, Osaka, 28. IV. 1946 (ASAHINA leg.).

2. **Gomphus (Trigomphus) citimus tabei** subsp. nov. (Pl. 2, Fig. 2)

This new subspecies differs from *Gomphus citimus citimus* NEEDHAM from Manchuria in the following respects :

1. ♂. The inferior subapical angle of superior appendages situated slightly distad. (Pl. 2, Fig. 2, c).
2. ♀. The tips of the divided valvula vulvae slightly pointed at the outer angle (Pl. 2, Fig. 2, a).
3. Distribution restricted to West Japan (Western Honsyu, Kyusyu).

Holotype : 1♂, Hirao, Hukuoka, 29. IV. 1946 (SHIROUZU leg.).

Allotype : 1♀, Harumati, Hukuoka, 14. V. 1946 (SHIROUZU leg.).

Paratypes : 1♂, Miyakonozyo, 10. IV. 1936 (Tabe leg.); 1♂, Kyoto, 2. V. 1942. (SUZUKI leg.); 3♂, Hiraō, Hukuoka, 29. IV. 1946 (SHIROUZU leg.); 2♂, 1♀, Mutobe, Hukutiyama, 13. V. 1947 (ASAHIINA leg.).

3. *Gomphus (Trigomphus) ogumai* sp. nov. (Fig. 1)

This species is very closely allied to *Gomphus (Trigomphus) melampus melampus* SELYS as well as the preceding species, but can be distinguished from the former in the following structures :

1. ♂. Superior appendages with one or two prominent dorsal teeth. (In *melampus* there is one indistinct projection). (Fig. 1. a).

2. ♀. Valvula vulvae divided deeply (nearly from its base). (Fig. 1. c).

3. The 7-mark on the front of pterothorax much broadly marked, the superior end of which is generally confluent with the antehumeral yellow spot.

4. Body larger : Abd. ♂ 34—35, ♀ 33—34; hind wing ♂ 26—27, ♀ 27—28.

Holotype : 1♂ Tukaguti, Osaka, 28. IV. 1946 (ASAHIINA leg.).

Allotype : 1♀, Tukaguti, Osaka, 28. IV. 1946, (ASAHIINA leg.).

Paratypes : 10♂, 3♀, Tukaguti, Osaka, 28. IV. 1946, (ASAHIINA leg.); 1♂, Kyoto, 29. IV. 1933 (MINOURA leg.); 1♀, Miyazaki, 16. V. 1936 (SHIROUZU leg.).

4. *Gomphus oculatus* sp. nov. (Pl. 2. Fig. 3)

Gomphus occultus OGUMA (nec SELYS), Ins. Mats., 1, p. 95 (1926) "Riukiu."

Gomphus occultus et *oculatus* (sic!) MATSUMURA, Illustr. Comm. Ins. Jap., 5, p. 57, 83, Tab. 18, fig. 4 (1933) [Kiushu (Kumamoto)].

Platygomphus occultus MATSUMURA, 6000 Illustr. Ins. Jap., p. 1451 (1931) [Kyusyu (Kumamoto)].

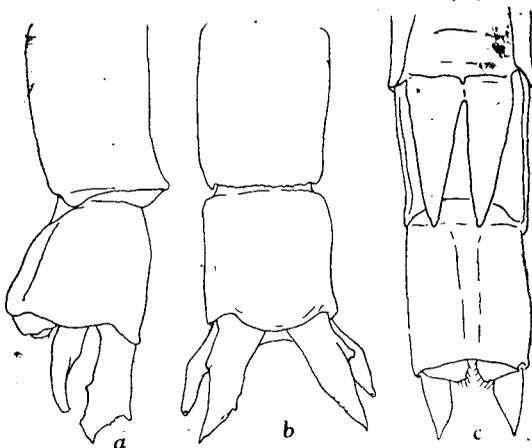


Fig. 1. *Gomphus (Trigomphus) ogumai* sp. nov.

- a. Caudal appendages (♂), lateral view.
 b. The same (♂), dorsal view.
 c. Genital plate (♀), ventral view.

Gomphus occultus OKUMURA (partim), Nat. Sci. and Museum, 9, p. 9 (1938) "Ōkuma-mura, Miyagi-ken; Ueno, Tokyo; Kyusyu (South)."

This new species is allied to *Gomphus occultus* SELYS from North China, but quite easily distinguished by the following points :

1. Size much larger, ♂ abd. + app. 46, h. w. 33—35, ♀ abd. + app. 46—47, h. w. 36—38.
2. ♂. Caudal appendages very similar to that of *occultus* SELYS, but stouter, and relatively shorter and equal to the length of 10. (Pl. 2, Fig. 3, c, d).
3. ♂. Hamuli posteriores blackish in colour, tips ending in a curved claw, (Pl. 2, Fig. 3, b).
4. ♀. Valvula vulvae divided into two triangular lobes. (Pl. 2, Fig. 3, a).
5. A greater part of postclypeus, and occiput, black.
6. Thorax with a complete black stripe on the first lateral suture.
7. Distribution limited to Japan.

Holotype: 1♂, Ōkuma-mura, Miyagiken, VIII. 1934 (KATO leg.).

Allotype: 1♀, Tokyo, IX. 1931 (ASAHINA leg.).

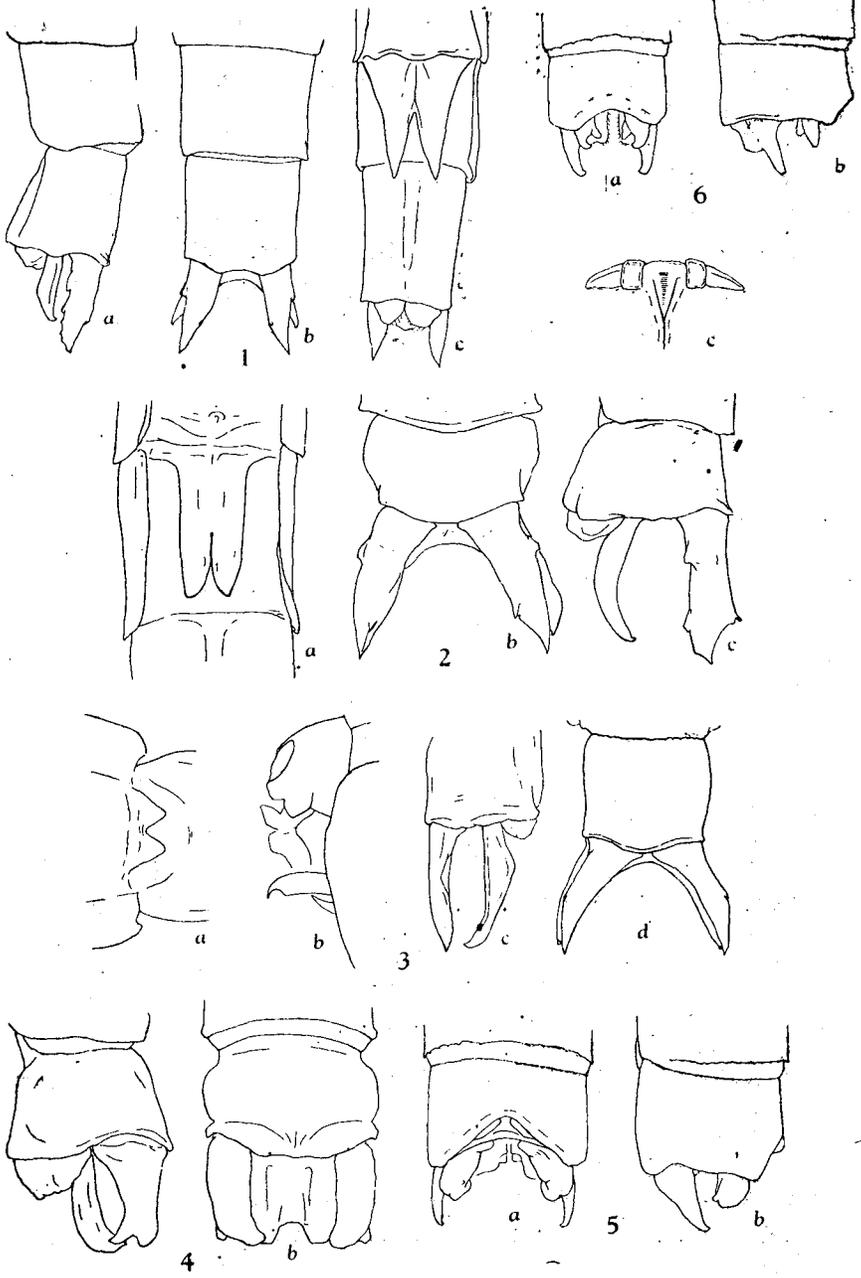
Paratypes: 1♂, 1♀, Otu, 1934 (TSUDA leg.).

5. *Chlorogomphus brunneus costalis* subsp. nov. (Pl. 2, Fig. 4)

This subspecies is separable from *brunneus brunneus* OGUMA in the

EXPLANATION OF PLATE 2

- Fig. 1. *Gomphus (Trigomphus) melampus bifasciatus* subsp. nov.
 a. Caudal appendages (♂), lateral view.
 b. The same (♂), ventral view.
 c. Genital plate (♀), ventral view.
- Fig. 2. *Gomphus (Trigomphus) citinus tabei* subsp. nov.
 a. Genital plate (♀), ventral view.
 b. Caudal appendages (♂), dorsal view.
 c. The same (♂), lateral view.
- Fig. 3. *Gomphus oculatus* sp. nov.
 a. Genital plate (♀), ventral view.
 b. Genital hamuli (♂), right-side view.
 c. Caudal appendages (♂), lateral view.
 d. The same (♂), dorsal view.
- Fig. 4. *Chlorogomphus brunneus costalis* subsp. nov.
 a. Caudal appendages (♂), lateral view.
 b. The same (♂), dorsal view.
- Fig. 5. *Enallagma deserti yezoensis* subsp. nov.
 a. Caudal appendages (♂), dorsal view.
 b. The same (♂), lateral view.
- Fig. 6. *Agrion terue* sp. nov.
 a. Caudal appendages (♂), dorsal view.
 b. The same (♂), lateral view.
 c. Mesostigmal plate (♀).



following characters :

1. ♂. The latero-ventral spine of superior appendage situated almost at the end of the appendage. (Pl. 2, Fig. 4. a).
2. ♀. Wings brownish only along the costa; this marking becomes narrower in the individuals from northern localities.
3. Distribution : Amami-Ōsima, Yaku-sima, Kyusyu, and (probably) Sikoku.

Holotype : 1♂, Yakusima, 22. VII. 1935 (NOMURA leg.).

Allotype : 1♀, Yakusima, 20. VII. 1935 (NOMURA leg.).

Paratypes : 1♀, Amami-osima, 14. VII. 1933 (ESAKI et YASUMATSU leg.);
1♀, Ambo, Yakusima, 7. VII. 1929; 1♂, 1♀, Amami-osima, VII.
1927; 1♀, Amami-osima, 16. VII. 1937; 1♂, Toi-no-misaki, Kyusyu,
1935 (SHIROUZU leg.).

6. *Macromia tokyoensis* sp. nov. (Fig. 2)

This species is belonging to the *moorei*-group, (LIEFTINCK, 1929) and allied to *amphigena* SELYS as well as *clio* RIS. The distinguishing characters are as follows :

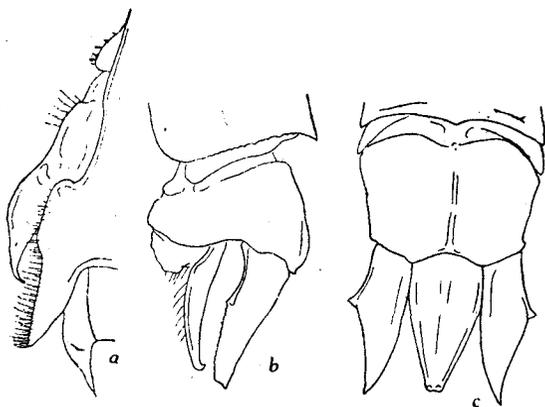


Fig. 2. *Macromia tokyoensis* sp. nov.

- a. Genital hamuli (♂), left-side view.
- b. Caudal appendages (♂), lateral view.
- c. The same (♂), dorsal view.

1. ♂. Hamuli posteriores unique, ending in a simply tapering process. (In *amphigena* they end in a hammer-like process.) (Fig. 2, a).
2. ♂. Caudal end of the genital lobe somewhat prolonged and rather pointed. (Fig. 2, a).
3. ♂. App. sup., seen from above, rather

straight and sharply pointed. (Fig. 2, c).

4. ♀. Abdomen almost naked.
5. ♀. Yellow markings on the sides of 2 and 3 separated in paired dorsal and ventral portions.
6. ♀. Dorsal yellow spots on 4, 5, 6, just in front of the transverse carina, occupying about $\frac{1}{4}$ length of the segment.
7. ♀. Yellow marking of 7 very conspicuous with a posterior pointed portion.

This species differs from *clio* RIS in the characters 6 and 7 mentioned

above.

Holotype : 1♂, Kyoto, 21. VI. 1936 (HUZIKAWA leg.).

Allotype : 1♀, Tokyo, 13. VI. 1934 (ASAHINA leg.).

Paratype : 1♂, Miyakonozyo, 12. VII. 1935 (TABE leg.).

7. *Platynemis foliacea sasakii* subsp. nov. (Fig. 3)

This new subspecies is readily separated from Chinese *foliacea foliacea* SELYS in the following points :

1. Body larger, abd. 32—33, h. w. ♂ 22, ♀ 23. (In *foliacea foliacea*, abd. 26—27, h. w. ♂ 19, ♀ 22.).
2. Aged insects never pruinosed.
3. Black markings of the proximal segments of abdomen broader. (Fig. 3, a, b).
4. Distribution confined to Japan.

Holotype: 1♂, Inokasira,
Tokyo, 14. VI. 1930
(ASAHINA leg.).

Allotype : 1♀, Inokasira,
Tokyo, 14. VI. 1930
(ASAHINA leg.).

Paratypes : 8♂, 5♀, Ino-
kasira, Tokyo, 14. VI. 1930 (ASAHINA leg.).

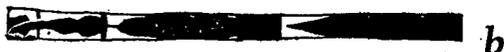


Fig. 3. *Platynemis foliacea sasakii* subsp. nov.
a. Abdominal markings, 1—4 segments (♀).
b. The same (♂).

8. *Agrion terue* sp. nov. (Pl. 2, Fig. 6)

Agrion sp. ASAHINA, Tenthredo, 2, p. 167 (1938) "1♂ Onuma, 29. VII. 1937; 4♂ 1♀, Onuma, 30. VII. 1937."

This is a slender damselfly probably belonging to the *ecornutum*-group of the genus *Agrion*, and distinguished from *Agrion ecornutum* SELYS in the following characters :

1. ♂. App. inf. black, its superior branch extending posteriorly. (In *ecornutum* it is almost yellowish white, and only notched at the tip.) (Pl. 2, Fig. 6, a, b).
2. ♂. Penis: Terminal lobe small; the third segment longer than wide; the terminal process twisted and very long, the tip reaching the distal $\frac{1}{4}$ of the first (shaft) segment.
3. ♂. Dorsum of abdomen 9 entirely pale blue.
4. ♀. The concave mesoprescutum broader; the rectangular portion of mesostigmal plate situated straight. (In *ecornutum* the mesoprescutum narrower; and the rectangular portion of mesostigmal plate obliquely situated. (Pl. 2, Fig. 6, c).

Holotype : 1♂, Ozegahara, 13. VII. 1935 (ASAHINA leg.).

Allotype : 1♀, Ozegahara, 13. VII. 1935 (ASAHINA leg.).

Paratypes: 8♂, 4♀, Ozegahara, 13. VII. 1935; 1♂, ditto, 14. VII. 1935; 2♀, ditto, 17. VII. 1937; 2♂, 4♀, ditto: 18. VII. 1937.

9. *Enallagma deserti yezoensis* subsp. nov. (Pl. 2, Fig. 5)

Enallagma sp. ASAHINA, Tenthredo, 2, p. 167 (1938) (Hokkaido).

This common *Enallagma* from Hokkaido is considered to be a local subspecific form of Algerian *Enallagma deserti* SELYS. It is separated as below:

1. ♂, ♀. Wing veins entirely black or blackish brown, while in *deserti deserti* they are pale brownish.
2. ♂. Dorsal carina black (in *deserti deserti* finely yellow), humeral stripe broader.
3. ♂. Vertex wholly black.
4. ♀. Dorsum of abdomen with a broad longitudinal black stripe, interrupted at the base of 3—7 respectively, and somewhat constricted at the base of 8.

Holotype: 1♂, KuttYRO-ko, Hokkaido, 11. VIII. 1937 (ASAHINA leg.).

Allotype: 1♀, KuttYRO-ko, Hokkaido, 11. VIII. 1937 (ASAHINA leg.).

Paratypes: 12♂, 7♀, KuttYRO-ko, Hokkaido, 11. VIII. 1937 (ASAHINA leg.).

Enallagma circulatatum SELYS described from Japan should be regarded as another subspecific form of *E. deserti* SELYS.