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On the *Stenus* LATREILLE 1797 from Taiwan with spotted elytra including remarks on the *S. gestroi*-group (Coleoptera, Staphylinidae)
(316th Contribution to the Knowledge of Steninae)

V. PUTHZ

A b s t r a c t : 15 new species of the genus *Stenus* LATREILLE are described from Taiwan: *S. bigemmatus* nov.sp., *S. bigemmosus* nov.sp., *S. biluminatus* nov.sp., *S. bilunatior* nov.sp., *S. bilunatoides* nov.sp., *S. bistigmosus* nov.sp., *S. electrigemmatus* nov.sp., *S. electrigemmeus* nov.sp., *S. electristigma* nov.sp., *S. mithracifer* nov.sp., *S. shibatai* nov.sp., *S. shibataianus* nov.sp., *S. shibataiellus* nov.sp., *S. stigmifer* nov.sp. and *S. stigmosus* nov.sp., 5 taxa are synonymized: *S. callifrons* L. BENICK 1926 nov.syn. = *S. gestroi* FAUVEL 1895; *S. grandiculus* L. BENICK 1926 nov.syn. = *S. gestroi* FAUVEL 1895; *S. ridiculus* SCHEERPELTZ 1933 nov.syn. = *S. gestroi* FAUVEL 1895; *S. stigmatipennis* L. BENICK, 1929 nov.syn. = *S. gestroi* FAUVEL 1895; *S. takara* NAKANE 1963 nov.syn. = *S. gestroi* FAUVEL 1895, and two changes of status are proposed: *S. submaculatus* BERNHAUER, 1915 = *S. gestroi submaculatus* BERNHAUER 1915 nov.stat.; *S. lacertosus* L. BENICK 1917, spec.propr. A new definition of the *S. gestroi*-group and a preliminary definition of the *S. tenuimago*-group are proposed.A key to the spotted *Stenus* species from Taiwan is provided.

K e y w o r d s : Coleoptera, Staphylinidae, Taiwan, Oriental region, taxonomy, *Stenus*, new group definitions, new species.

Introduction

Our knowledge of the Stenine fauna of Taiwan has been substantially increased by the collections of Aleš Smetana. In several articles I treated a large portion of this material, but some groups remained unpublished. In this article I proceed with the analysis of unpublished materials with the spotted species including the rich collection of Yasutoshi Shibata (Tokyo). This includes a revision of the hitherto published data and revisional remarks on the group of *Stenus gestroi* FAUVEL, which here is defined anew. Also a preliminary definition of the *S. tenuimargo*-group is given, since several species of that group occur in Taiwan.

Some species groups are highly differentiated in Taiwan (*S. coronatus*-complex of the *S. abdominalis*-group, *S. tenuimargo*-group; this has been already known from the *S. cirrus*-group: PUTHZ 2009), other species represent widely distributed Oriental elements. As in my contributions 300ff the traditional subgenera are neglected in this contribution, new species are attributed to (more or less) monophyletic groups (e.g. PUTHZ 2008).

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Material and methods

The material referred to below is deposited in the following public institutions and private collections:

PBM.....Bernice P. Bishop Museum, Homolulu
cN .....coll. Naomi (Chiba)
cP .....private collection V. Puthz, Schlitz
cR.....private collection G. de Rougemont (London)
cSh .....coll. Shibata (holotypes to be deposited in the Entomology collection of the Tokyo University of Agriculture)
cS .....coll. Smetana (to be deposited in the Muséum d'Histoire Naturelle, Genève)
FMCh.....Field Museum of Natural History, Chicago
MHNG.....Muséum d'histoire naturelle, Geneva
NHMB .....Naturhistorisches Museum Basel
NHML .....The Natural History Museum, London
NHMW.....Naturhistorisches Museum Wien
TMB .....Természettudományi Múzeum, Budapest
USNM .....U.S. National Museum, Washington, D.C.
ZMB .....Museum für Naturkunde, Berlin

The morphological studies were carried out using a stereoscopic mcroscope (Leitz) and a Carl Zeiss compound microscope. A digital camera (Nikon Coolpix 995) was used for the photographs. The REM-photos were provided by Prof. O. Betz and his crew (University of Tübingen). Measurements have been taken through the binocular (1 unit = 0.025 mm). The genitalia are embedded in Euparal (soluble in alc. abs.).

The following acronyms are used: DE= average distance between eyes; EL= greatest length of elytra; EW= greatest width of elytra; HT= holotype; HW= head width; PL= pronotal length; PM = proportional measurements (1 unit = 0,025 mm); PT/T = paratype/s; wEl = greatest width of elytra; PW= pronotal width; SL= sutural length of elytra; SpL= spot length of elytra.

Taxonomic results

Stenus gestroi FAUVEL 1895 (Figs 1, 2, 5, 8, 11-15, 46-54, 56)

Stenus gestroi FAUVEL 1895: 212; PUTHZ 1969: 36 figs.
Stenus gestroi ssp.; ROUGEMONT 1987: 711.
Stenus callifrons L.BENICK 1926: 276, syn.nov.
Stenus grandiculus L. BENICK 1926: 277, syn.nov.
Stenus simulans CAMERON 1930 (not L. BENICK 1929).
Stenus stigmatipennis L. BENICK 1929: 90, syn.nov.
Stenus ridiculus SCHEERPELTZ 1933: 1196 syn.nov.
Stenus chinkiangensis BERNHAUER 1938: 32.
Stenus takara NAKANE 1963: 21 syn.nov.
Stenus submaculatus taiwanensis PUTHZ 1968: 47 figs.

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M a t e r i a l studied from T a i w a n : Taipei Hsien: 1♂, 2♀♀: Wulai, 24.-30.IV.1972, A. Yoshii (cSh, cP); 1♂: Konden, 28.IV.1941, Y. Yano (cP); 2♂♂, 1♀: Sabiki-bansya near Kagi, 28.IV.1941, Y. Yano (cP, cR); Taoyuan Hsien: 1♀: Upper Palin, 1200 m, 18.IV.1990, A. Smetana (T 6) (cS); Taichung Hsien: 1♂: Wufeng, 100-120 m, 14.IV.1990, A. Smetana (T 1) (cS); Nantou Hsien: 3♂♂, 5♀♀: Nanshanchi (Nanzankei), 18.V.1977, 5.IV.1978, 29.VIII.1988, T. Niizato, S. Nomura (cN, cP); 6♂♂, 6♀♀: near Nanshanchi (830-850 m), 17.V.1971, 24.VIII.1973, 23.VII.1974, 26.V.1975, 25.VII.1976, 2.V.1978, 4.VIII.1978, Y. Shibata, K. Komiya, K. Matsuda, K. Sakai (cSh, cP); 8♂♂, 6♀♀: Lushan Wenchuan (1200 m), 28.V.1980, 28., 29.VII.1983, 3.VIII.1985, Y. Shibata, H. Makihara (cSh, cN, cP); 1♀: Lushan, 20.VI.1976, H. Makihara (cN); 7♂♂, 10♀♀: near Lushan (1200 m), 29.VII.1974, 24.VII., 26.VII.1976, 28.VII.1977, 26., 29.VII.1978, Y. Shibata, K. Matsuda (cSh, cP); 1♀: Lushan-Spa, 31.VII.1971, Y. Shibata (cSh); 1♂: Tungpu spa, 22.V.1981, T. Ito (cR); 3♂♂, 2♀♀: Koantanchi (650 m), 15.VIII.1970, 26., 27.VII.1973, Y. Shibata (cSh, cP); 2♂♂, 3♀♀: near Juisui Spa (400 m), 3.VIII.1974, 26.III.1980, Y. Shibata (cSh, cP); 1♀: Sun Moon Lake, 6.IV.1977, W. Suzuki (cSh); 1♂: near Wushe, 29.VI.1971, Y. Shibata (cSh); 1♂: Bukai-Musha [= Fatyu, Wuchieh-Wushe], 23.VII.1947, J.L. Gressitt (BPBM); 1♂: near Tungpu, 25.VIII.1987, Y. Shibata (cSh); 1♀: near Lienhuachi, 3.VIII.1977, Y. Shibata (cSh); 1♀: near Penpuchio, 13.V.1973, K. Matsuda (cSh); 6♂♂, 2♀♀: Jihyetan, 16.V.1977, T. Niizato (cN, cP); 2♂♂: Shishitou, 19.VII.1988, S. Nomura (cN); 3♂♂: Piluchi, 10.VI.1980, H. Makihara (cN, cP); 1♂: Hori [= Puli], 6.VI.1934, J. L. Gressitt (USNM); Chiai Hsien: 1♀: Shenmu, 21.V.1980, H. Makihara (cN); 1♀: Fenchihu, 23.V.1975, Y. Shibata (cSh); 1♀: Fenchihu 1500 m, 2.-3.VII.1982, N. Nishikawa (cP);1♀: Alishan Road 129 km 33.5 (env. Chashan), ca. 400 m, forest litter, 13.IV.2009, S. Vít (MHNG); 1♂: Karapin [= Chaolipihg] near Mt. Ari, 28.III.1938, Y. Yano (cP); Kaohsiung Hsien: 5♂♂, 5♀♀: Kosempo (= Jiashianpu), II.1908, Sauter (FMCh, NHML, NHMW, cP); 1♀: Liukuei, 2.VIII.1988, S. Nomura (cN); 1♂: Shenping Forest Recreation Area near Lukuei, swept, 19.-21.XI.2002, L. Ronkay & O. Merkl (TMB); Taitung Hsien: 4♂♂, 3♀♀: Peiyuan, 6., 7.VI.1968, Y. Watanabe (cWatanabe, cP); 3♀♀: Road no. 20 km 188.5 before Wulu, 750 m, mountainous forest litter, 8.IV.2007, S. Vit(MHNG, cP); 1♂: Road no. 9 Luyeh, 750 m, decaying wood, 10.IV.2007, S. Vit (cP); 1♀: Road 20, km 173, 1200 m, *Canacea* litter, 13.IV.2009, S. Vit (MHNG).

M a t e r i a l studied from o t h e r r e g i o n s / c o u n t r i e s : India (16), Nepal (64), Burma (60), Thailand (17), Vietnam (1), China (19), Malaysia (1), Indonesia-Sumatra (9).

The complex of *Stenus gestroi* is an intricate one as can be seen from the different taxa-names quoted above and from the different attributions of the taxa. The *S. gestroi*-group (PUTHZ 1973: 83) is well characterized by very large eyes, deeply concave frons, oval paraglossae, deeply bilobed tarsal segment 4, apicolaterally acute sternum 9, simple legs in the male and the genitalia: in the males the median lobe has small setae along its apical half laterally (fig. 17) [exceptions: *S. dentellus* L. BENICK, *S. nobilis* BERNHAUER, *S. kurbatovi* PUTHZ], parameres with setae along whole internal side like in many *Dianous*-species [exception: *S. dentellus* L. BENICK], most species have a small triangular expulsion-hook in the median lobe (fig. 13) [exceptions: *S. dentellus* L. BENICK, *S. cephalo* PUTHZ], in the females the spermatheca consists of a several times coiled spermathecal duct (figs 8, 9).

This group contains species with a distinctly but very narrowly margined abdomen. Most species have spotted elytra (*S. banghaasi* L. BENICK, *S. cephalo* PUTHZ, *S. circumflexus* FAUVEL, *S. crebriventris* PUTHZ, *S. gestroi* FAUVEL, *S. kurbatovi* PUTHZ, *S. masurianus* CAMERON, *S. nobilis* BERNHAUER, *S. tubiventris* PUTHZ, *S. tujuhmontis* PUTHZ) some uniformly blackish elytra (*S. boettcheri* L. BENICK, *S. dentellus* L. BENICK, *S. lacertosus* L. BENICK, *S. pernobilis* PUTHZ, *S. tenebricus* PUTHZ), some both (*S. cephalo* PUTHZ, *S. gestroi profundesulcatus* SCHEERPELTZ, *S. gestroi submaculatus* BERNHAUER).

Sister-group and very close by habitus is the *S. guttalis*-group (PUTHZ 1973: 83), in which some species have immargined other narrowly margined abdomen. In this group males have preapical metatibial spurs, and the median lobe has a comparatively large expulsion clasp. The spermatheca is of different shape (see fig. 10).

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Close to the *S. gestroi*-group are species of the complex of *S. feae* FAUVEL (*S. feae* FAUVEL, *S. tectifrons* ROUGEMONT, *S. ulcerosus* L. BENICK and *S. valens* L. BENICK) with apically serrate sternum 9 and different aedeagi.

Whereas most of the taxa are distinguished by distinct habitus- and/or aedeagus-characters, other exhibit different shapings of the elytral spot, different coarseness and density of abdominal punctuation, different sculpture of the pronotum (figs 11, 12) and different outlines of the median lobe.

When only single specimens are at hand, one could easily regard them as different species, as has been shown by L. BENICK 1926. The study of many specimens from different localities leads to the result, that *S. gestroi* is a very variable and widespread species. The ratio HW: EW varies between 0.95 and 1.06 (ø 0.997; N = 24), the ratio SpL: EL between 0.23 (Nepal: Annapurna Mts.) and 0.45 (Burma: type locality) (ø 0.33). In the Taiwan specimens, which formerly had been identified as *S. gestroi stigmatipennis* the same ratios are: HW: EW = 1.00- 1.12 (ø 1.06), SpL: EL = 0.22-0.39 (ø 0.30; N= 21). While in the specimens from Java, Bali, Lombok and Sumbawa, formerly identified as *S. submaculatus* BERNHAUER, these ratios are: HW: EW = 0.96- 1.05 (ø 0.987; N= 21), SpL: EL= 0.10-0.24 (ø 0.153; N= 21; 2 specimens spotless). Although the aedeagus of these Sunda-Island-specimens fits into the range of variability of *S. gestroi*, I propose to regard these specimens for the present as a subspecies: *Stenus gestroi submaculatus* BERNHAUER nov.stat.

The anterior portion the median lobe of *S. gestroi* is shown in figs 46-54, 56: the apex can be ± button-shaped and ± slender. In most of the Taiwanese males (which all have been dissected by me) the apical portion is slender (fig. 52), but both forms, the slender and the broader one (fig. 51) are found in specimens from the same locality, which are indistinguishable by characters of the exoskeleton. Most of the Taiwanese specimens have a comparative coarse and dense abdominal punctuation (fig. 14), but even this is not a stable character, there are also specimens with less coarse and less dense punctuation on the tergites (fig. 15). This range of variability is also found in specimens from Burma-Thailand-China. Also the length of parameres varies in the same series, f. e. from 14 males collected at Kalaw/Burma in 13 of them the parameres are slightly longer than the median lobe but in1 of them distinctly shorter.

Stenus patruelis L. BENICK from the Philippines also belongs to this complex. Since the available material is too short, a decision on the state of this taxon should remain open. It looks very similar to *S. gestroi submaculatus* and is probably a synonym of that subspecies.

Distinctly different from *S. gestroi* is *S. lacertosus* L. BENICK, which has been regarded as a subspecies of *S. gestroi*. The shape of the aedeagus and the reduced internal expulsion hook (fig. 57) show that this taxon is a distinct species: *S. lacertosus* L. BENICK 1917, Ent. Bl. 13: 311 f. spec.propr.

Examination of the types of all other above quoted taxa leads to the result that they belong into the variability range of *S. gestroi* FAUVEL.

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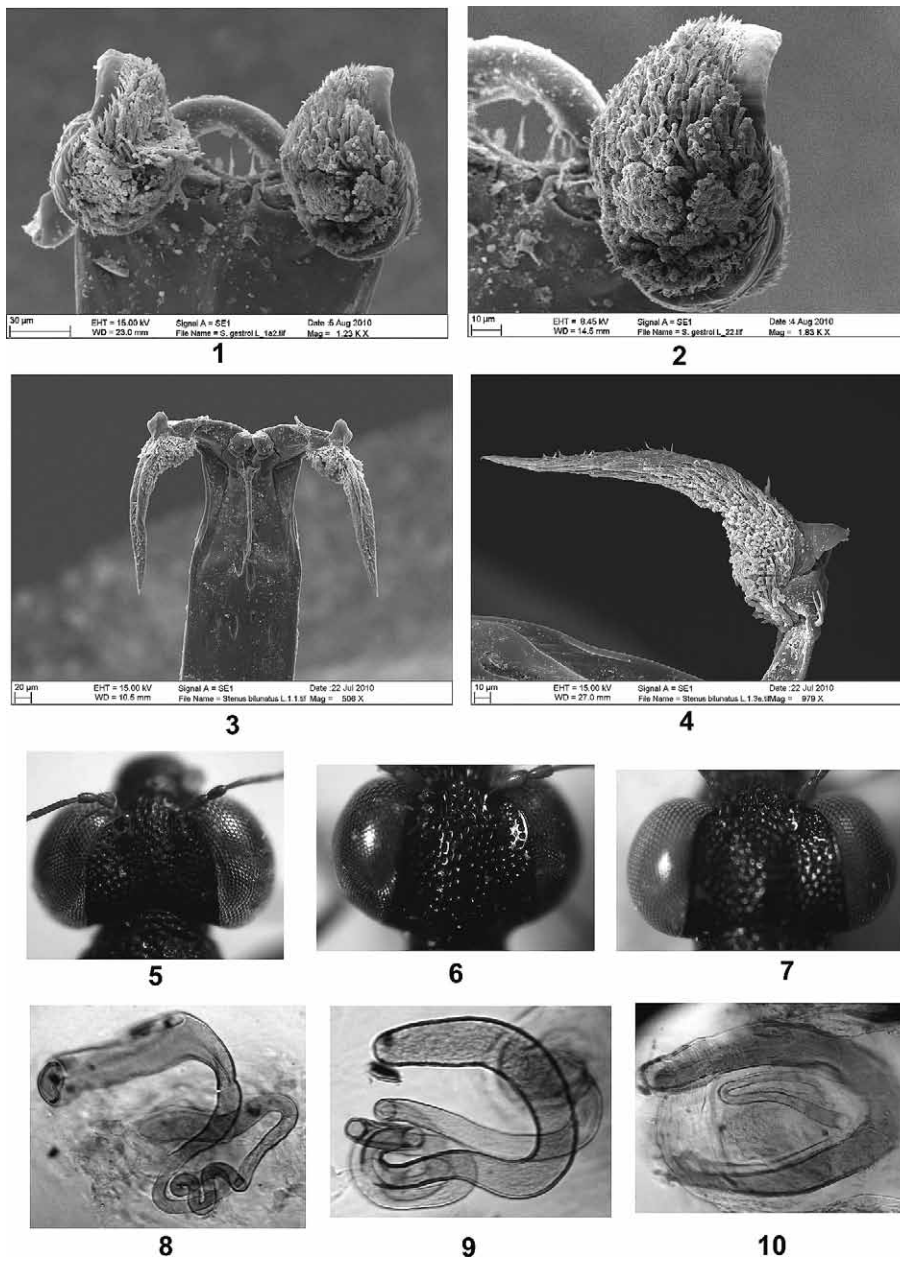

Figs 1-10: Paraglossae (**1-4**), head (**5-7**) and spermatheca (**8-10**) of *Stenus gestroi* FAUVEL (**1**, **2**, **5**, Wulu; 8, Alishan Rd. 129), *S. bilunatus* PUTHZ (**3**, **4**, near Litao), *S. habropus* PUTHZ (**6**), *S. bilunatoides* nov.sp. (**7**, PT), *S. cephalo* PUTHZ (**9**, Java, Tretes), *S. guttalis* FAUVEL (**10**, Tioman).

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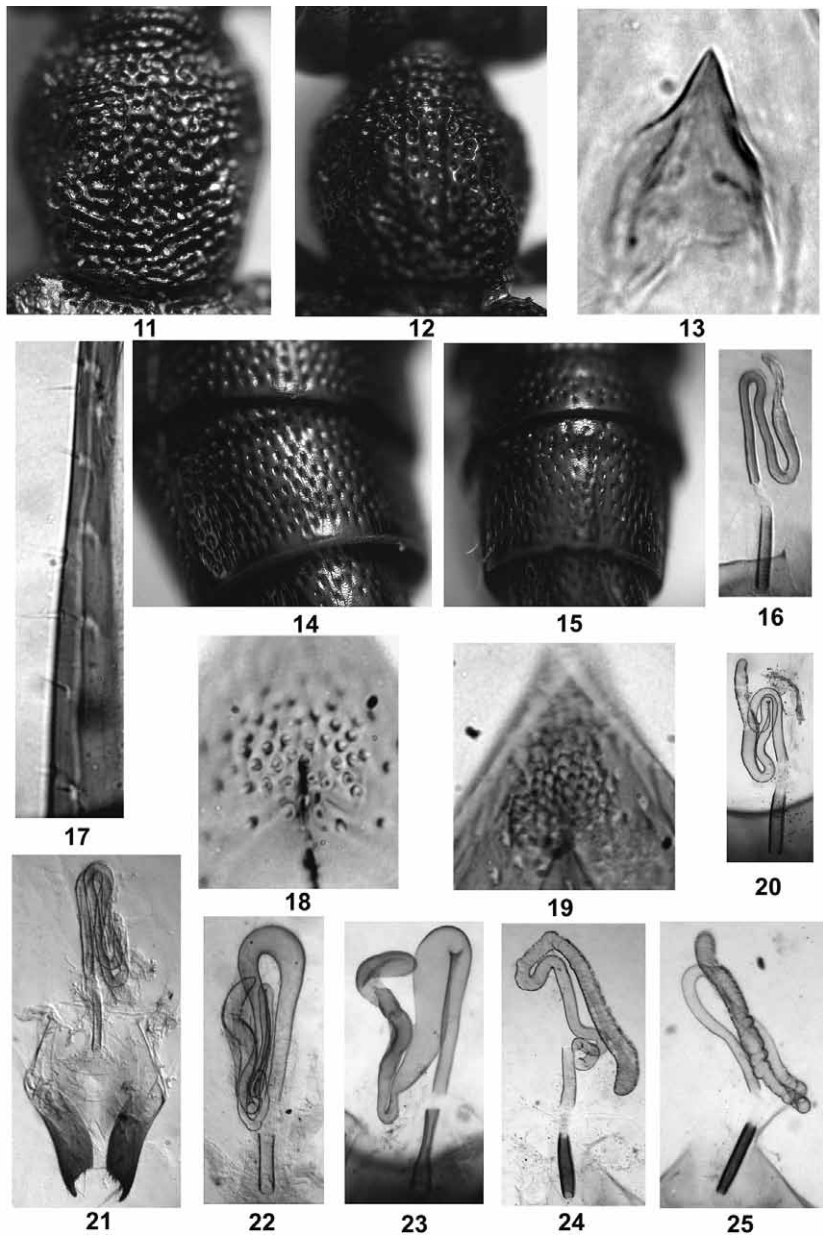

Figs 11-25: Pronotum (**11**, **12**), expulsion hook (**13**), dorsal aspect of abdominal segments 6 and 7 (**14**, **15**), spermatheca (**16**, **20-25**), lateral portion of median lobe (**17**), ventral aspect of a detail of the anterior portion of median lobe (**18**, **19**) of *Stenus gestroi* FAUVEL (**11**, Carin Cheba; **12**, Arni Gad; **13**, **17**, Tokara Is.; **14**, Nanshanchi; **15**, Peiyuan), *S. electrigemmeus* nov.sp. (**16**, PT 152; 18, HT), *S. electrigemmatus* nov.sp. (**19**, HT), *S. mithracifer* nov.sp. (**20**, PT), *S. miwai* BERNHAUER (**21**, Mt. Karapin), *S. virgula* FAUVEL (22, Lebong), *S. bicolon posticus* FAUVEL (**23**, Malaysia: Bringchang), *S. stigmosus* nov.sp. (**24**, PT, T 3) and *S. stigmifer* nov.sp. (**25**, PT, Kaolin).

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Figs 26-45: Elytra (**26**, **28**, **30**, **31**, **33-43**), dorsal and lateral aspect of abdominal segments (**27**, **29**, **32**, **44**) and ventral aspect of abdominal segments 6 and 7 (**45**) of *Stenus mithracifer* nov.sp. (**26**, HT; **27**, PT), *S. electrigemmeus* nov.sp. (**28**, HT; **29**, PT), *S. electrigemmatus* nov.sp. (**30**, HT), *S. electristigma* nov.sp. (**31**, HT; **32**, PT), *S. shibatai* nov.sp. (**33**, HT), *S. shibataiellus* nov.sp. (34, HT), *S. shibataianus* nov.sp. (**35**, HT), *S. stigmifer* nov.sp. (**36**, HT; **37**, PT, T **24**), *S. bilunatus* PUTHZ (**38**, T **86**), *S. bigemmatus* nov.sp. (**39**, HT), *S. bigemmosus* nov.sp. (**40**, HT), *S. bilunatior* nov.sp. (**41**, PT, T 127), *S. bilunatoides* nov.sp. (**42**, PT, T 155), *S. bistigmosus* nov.sp. (**43**, HT), *S. miwai* BERNHAUER (**44**, Henglou), *S. bicolon* SHARP (45, Tengchih).

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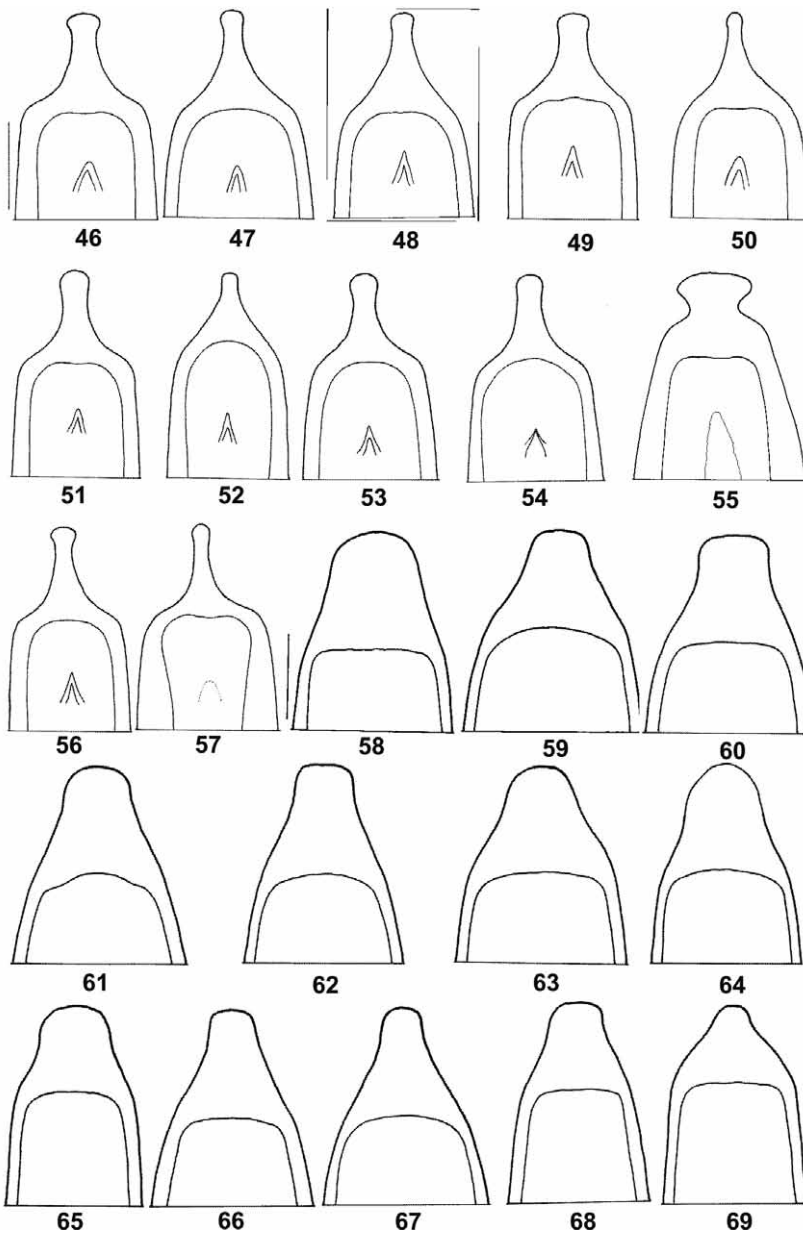

Figs 46-69: Ventral aspect of the anterior portion of median lobe of *Stenus gestroi* FAUVEL (**46**, lectotype; **47**, Carin Cheba; **48**, Cameron Hills; **49**, Arni Gad; **50**, Doi Pui; **51**, Shishitou 1; **52**, Shishitou 2; **53**, Luyeh; **54**, Tokara Is.; **56**, Wuyi Mts.), *S. cephalo* PUTHZ (**55**, Sumatra), *S. lacertosus* L. BENICK (**57**, Java), *S. bilunatus* PUTHZ (**58**, HT; 59, Piluchi; **60**, Arisan; **61**, T 28; **62**, T 48; **63**, T 149), *S. bigemmosus* nov.sp. (**64**, HT), *S. bigemmatus* nov.sp. (**65**, HT), *S. bilunatior* nov.sp. (PTT, **66**, T 43 a; **67**, T 43 b), *S. biluminatus* nov.sp. (**68**, HT), *S. bistigmosus* nov.sp. (**69**, HT). Scale bar = 0.1 mm.

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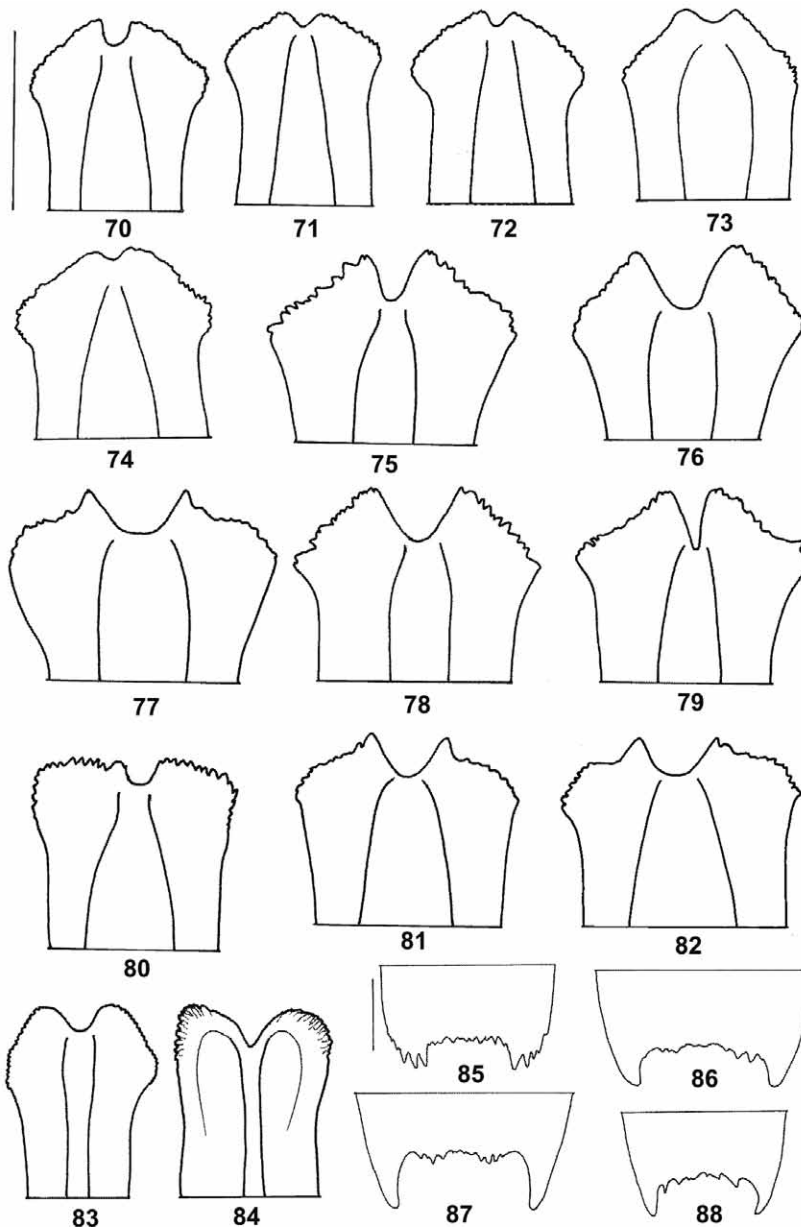

Figs 70-88: Anterior portion of the expulsion clasp of the aedeagus (**70-84**), posterior portion of sternite 9 (**85-88**) of *Stenus coronatus* L. BENICK (**70**, Yun Shan; **71**, 35 km N. Lijiang; **72**, Zhongdian Co.), *S. coronatus zipanguensis* PUTHZ (**73**, Mt. Kurofu; **74**, Shirane), *S. bilunatus* PUTHZ (**75**, T 48a; **76**, T 48b; **77**, Piluchi; **78**, T 110), *S. bigemmatus* nov.sp. (**79**, HT), *S. bigemmosus* nov.sp. (**80**, HT), *S. bilunatior* nov.sp. (PT, **81**, T 43a; **82**, **87**, T 43b), *S. biluminatus* nov.sp. (**83**, PT, T 116), *S. bistigmosus* nov.sp. (**84**, **86**, HT), *S. stigmosus* nov.sp. (PT, T 16), *S. electrigemmeus* nov.sp. (**88**, HT). Scale bar = 0.1 mm.

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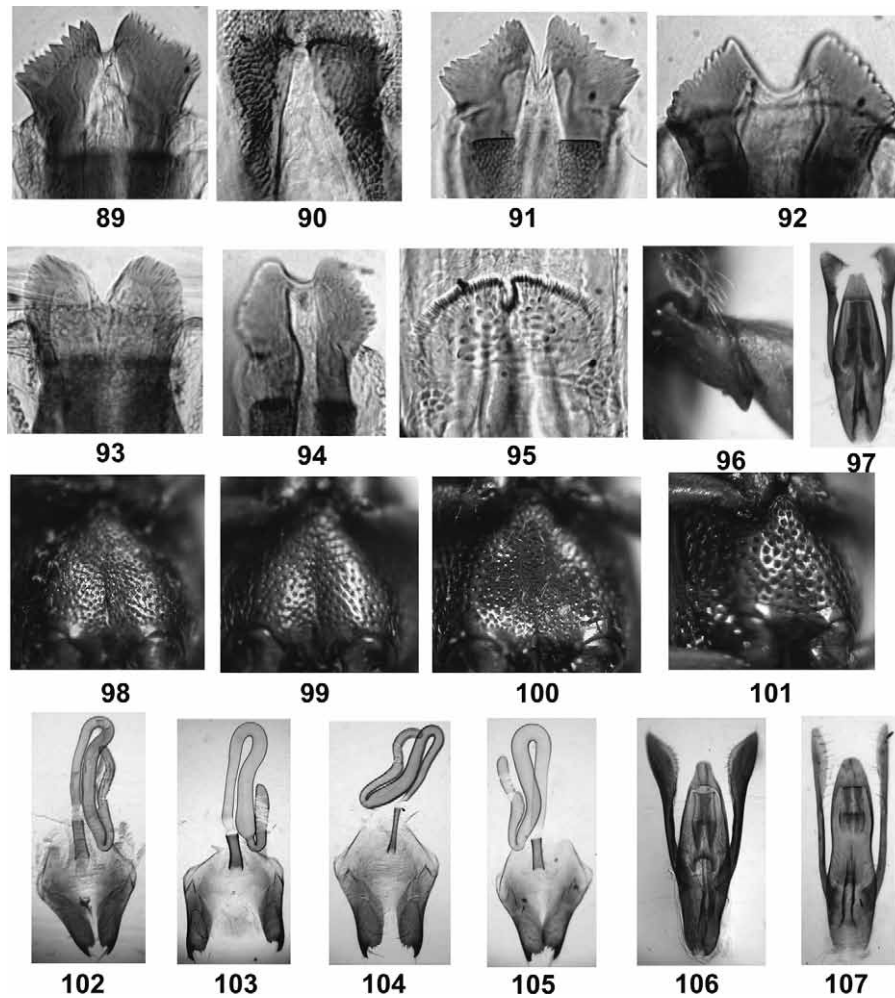

Figs 89-107: Anterior portion of the expulsion clasp of the aedeagus (**89-95**), trochanter of male (**96**), ventral aspect of aedeagus (**97**, **106**, **107**), metasternum of males (98-101), spermatheca and valvifera (102-105) of *Stenus bilunatus* PUTHZ (89, Chiayi Co.; **100**, T 110; **105**, Fenchihu; **106**, T 28), *S. bigemmosus* nov.sp. (**90**, PT, Wulai), *S. bigemmatus* nov.sp. (**91**, **96**, HT), *S. bilunatoides* nov.sp. (92, PT, T 22); *S. bistigmosus* nov.sp. (93, HT), *S. biluminatus* nov.sp. (94, T 11), *S. rougemonti* PUTHZ (**95**, HT), *S. arisanus* CAMERON (97, Alishan), *S. coronatus* L. BENICK (**98**, Yan Shan), *S. coronatus zipanguensis* PUTHZ (**99**, Mt. Kurofu), *S. shibataianus* nov.sp. (101, PT, Tengchih), *S. biluminatus* nov.sp. (**102**, PT, T 48), *S. bilunatior* nov.sp. (**103**, PT, T 133), *S. bilunatoides* nov.sp. (**104**, PT, T 71), *S. miwai* BERNHAUER (**107**, Keitou).

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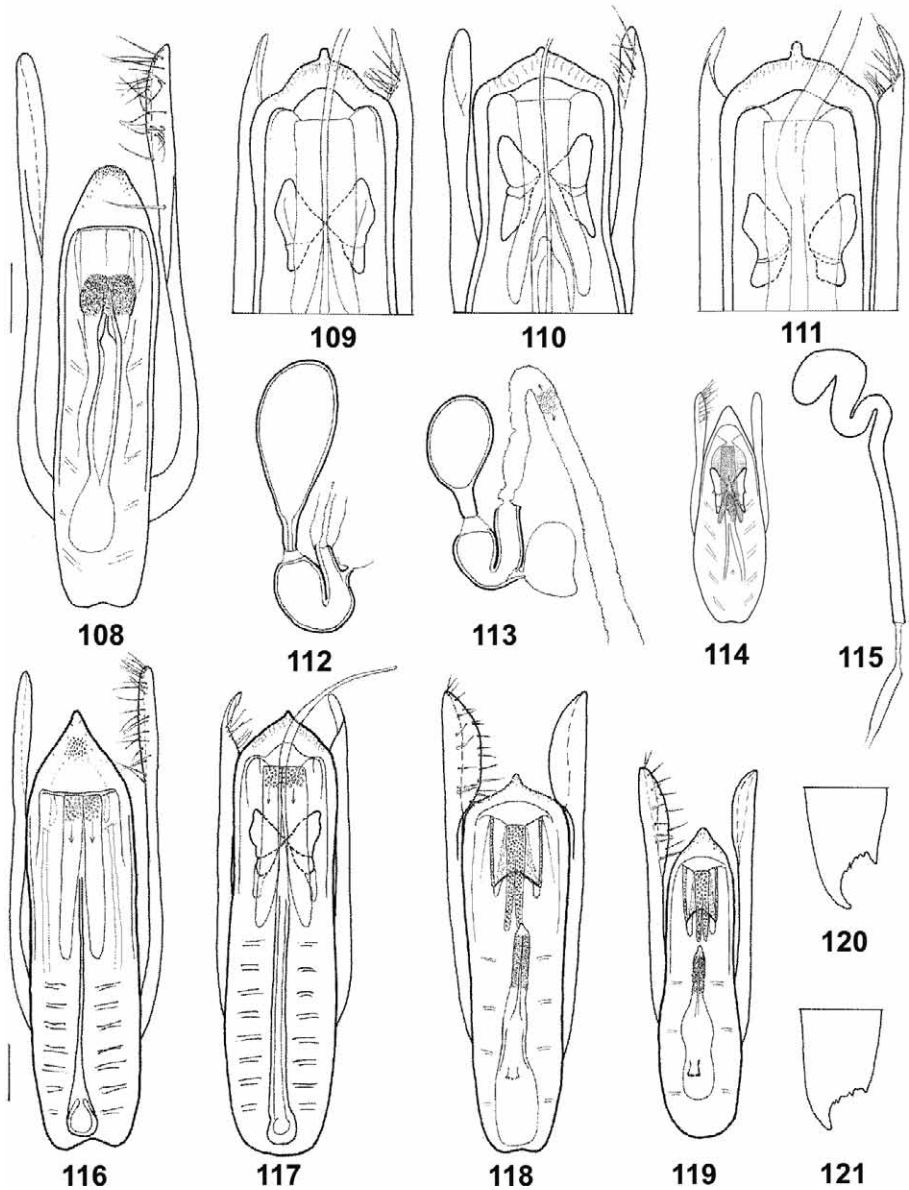

Figs 108-121: Ventral aspect of aedeagus/apical portion oft the median lobe (**108-111**, **114**, **116-119**), spermatheca (**112**, **113**, **15**), apical portion of valvifer (**120**, **121**) of *Stenus mithracifer* nov.sp. (108, HT), *S. shibatai* nov.sp. (**109**, PT), *S. shibataianus* nov.sp. (110, HT; 112, 120, PTT), S. *shibataiellus* nov sp. (**111**, HT), *S. electristigma* nov.sp. (**113**, **117**, **121**, PTT), *S. cirricinctus* PUTHZ (14, HT), *S. arisanus* CAMERON (115, Alishan), *S. electrigemmeus* nov.sp. (**116**, HT), *S. stigmosus* nov.sp. (**116**, PT), *S. stigmifer* nov.sp. (**119**, HT). Scale bar = 0.1 mm (108 = 109-115, 120, 121; 116 = 117-119).

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Stenus miwai BERNHAUER 1943 (Figs 21, 44, 107)

Stenus miwai BERNHAUER 1943: 174 f.; PUTHZ 1968: 50 figs; 1981: 121.

M a t e r i a l s t u d i e d : ♂-HT: TAIWAN: Chiai Hsien: Arisan, 2.-23.X.1918, J. Sonan, M. Yoshino (FMCh); 1♂, 1♀: ibidem, 2130 m, 17.-22.VIII.1947, J. L. Gressitt (BPBM); 1♀: Alishan, 7.VIII.1970, Y. Shibata (cSh); 1♂, 1♀: near Fenchihu, 29.-30.IV.1977, W. Suzuki (cSh); 1♂: Fenchihu, 1000 m, 2.-3.VII.1982, H. Nishikawa (cN); 5♂♂, 1♀: near Tadongshan, 1800 m, 14. VIII.1983, Y. Shibata (cSh, cP); 1♂, 2♀♀: Karapin [= Chaolipihg] near Mt. Ari, 29.III.1938, Y. Yano (NHML, MHNG, cP); Taipei Hsien: 1♂: Wulai, 24.-30.IV.1972, A. Yoshii (cSh); Miaoli Hsien: 4♂♂, 3♀♀: Henglou Wenchuan (550 m), 8.VIII.1983, Y. Shibata (cSh, cP); Hualien Hsien: 1♂, 2♀♀: Pilu-Shenmu (2400 m), 19.VIII.1978, Y. Shibata (cSh); 1♀: near Tzeen (2000 m), 11.VIII.1977, Y. Shibata (cSh); Nantou Hsien: 1♂: Nanzankei (= Nanshanchi), 18.V.1977, T. Niizato (cN)1♂, 2♀♀: Keitou [= Chitou], 31.III.1980, K. Sugiyama (cN, cP); 1♂: Lienhuachih, 21.III.1980, H. Nishikawa (cN); 8♀♀: near Lushan (1200 m), 29.VII.1973, 27.VII.1977, 29.VII.1978, 29.VII.1983, Y. Shibata (cSh, cP); 1♀: Lushan, 19.V.1974, K. Matsuda (cSh); 2♀♀: Lushan-Wenchuan (550 m), 8.VIII.1983, Y. Shibata (cSh, cP); Chiai Hsien: Fenchihu, 1500 m, 2.-8.VII.1982, H. Nishikawa (cN); 1♂, 1♀: near Fenchihu, 29.-30.IV.19777, W. Suzuki (cSh); 5♂♂, 1♀: near Tadongshan (1800 m), 14.VIII.1983, Y. Shibata (cSh, cP); 1♀: Alishan, 7.VIII.1970, Y. Shibata (cSh).

M a l e : Legs simple. Metasternum slightly impressed, finely and moderately sparsely punctate anteriorly, coarsely and densely punctate posteriorly. Sternite 8 apically with a triangular notch about one tenth as long as the sternite. Sternum 9 acute apicolaterally. Aedeagus (fig. 19, PUTHZ 1968 and fig. 107).

F e m a l e : Sternite 8 rounded posteriorly, indistinctly projecting the middle. Valvifer acute apicolaterally. Spermatheka (fig. 21).

C o m p a r a t i v e n o t e s : This species has the abdominal segments 4-8 line-like margined. Since a narrow lateral band near the dividing line of the segments is impunctate one can get the impression of paratergites, but there is no second limit of that area.

This species belongs to the "*S. tenuimargo*-group" (see below).

Stenus mithracifer nov.sp. (Figs 20, 26, 27, 108)

T y p e m a t e r i a l : Holotype (♂) and 2♀♀- paratypes: TAIWAN: Taoyuan-Taipei Hsien: near Mt. Lalashan, 24.VII.1978, Y. Shibata. Paratypes: 2♀♀: ibidem, W. Suzuki; 1♂, 1♀: ibidem, 25.VIII.1978, Y. Shibata; 2♀♀: Taoyuan Hsien: near Lalashan, 1., 2.VIII.1985, Y. Shibata; 1♀: ibidem, 5.V.1978, T. Kobayashi.- HT and PTT in coll. Shibata, PTT also in cP.

D e s c r i p t i o n : Micropterous, black with a faint brownish hue, each elytron with an oval orange spot in about posterolateral half (fig. 26), moderately shiny, forebody coarsely and densely punctate, abdomen moderately coarsely (anteriorly) to finely and moderately sparsely (posteriorly) punctate; pubescence short, recumbent. Antennae yellowish, club slightly infuscate. Maxillary palpi yelliowish, segment 3 slightly infuscate. Paraglossae oval. Legs reddish brown. Clypeus black, labrum dark brown, moderately densely pubescent.

Length: 5.0-6.0 mm (forebody: 2.4-2.7 mm).

PM of the HT: HW: 40; DE: 23; PW: 30; PL: 36; EW: 35; EL: 39; SL: 27; SpL: 13.

M a l e : Legs simple. Metatsternum slightly impressed medially, moderately coarsely and moderately densely punctate throughout. Anterior sternites simple, sternite 7 finely and densely punctate in posterior middle. Sternite apically 8 with a moderately broad notch about one twentieth as long as the sternite. Sternite 9 with an acute tooth apicola-

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terally. Tergite 10 broadly rounded. Aedeagus (fig. 108), apical portion of median lobe broadly rounded with an apical area of densely arranged short setae, a slightly stronger sclerotized help-mechanism for expulsion (no delimited expulsion clasp!) and a broad tubous internal sac; parameres very long, much exceeding the median lobe, with about 21 apical setae.

F e m a l e : Sternite 8 rounded apically with a slight but distinct median projection. Valvifer acute apicolaterally. Tergite 10 rounded apically. Spermatheca (fig. 20) with a long and narrow infundibulum.

Head broader than elytra, frons braod with two broad longitudinal furrows, median portion about as broad as each of the lateral portions, broadly elevated, nearly extending to the level of dorsal eye margins; punctuation coarse and, except on the median portion, very dense, diameter of punctures as large as largest cross section of antennal segment 3, interstices much smaller than half diameter of punctures becoming up to twice as large as punctures on the actual middle. Antennae very slender, about the last two segments extend beyond the posterior margin of the pronotum when reflexed, penultimate segments twice as long as broad. Pronotum distinctly longer than braod, broadest in about middle, straightly narrowed anteriorly, moderately concavely narrowed posteriorly; a broad transverse impression can be seen laterally; punctuation about as on frons, few very small impunctate areas (slightly larger than one puncture) in the middle. Elytra subtrapezoid, narrower than head, longer than broad, shoulders oblique, sides nearly straightly widened, restricted in posterior fifth, posterior margin deeply emarginated; sutural and humeral impressions shallow; punctuation still coarser than on pronotum, very dense, punctures about as large as apical cross section of antennal segment 2; orange spot about one third as long as one elytron. Abdomen cylindric, line-like margined (without paratergites), basal furrows of anterior segments very deep, tergite 7 with a distinct membranous fringe apically; punctures on tergite 4 as large or slightly larger than one eye facet near dorsal eye margin, interstices nearly twice as large as punctures; punctures on tergite 7 distinctly smaller than one dorsal eye facet, interstices three times and more as large as punctures; tergite 10 finely and sparsely punctate. Legs very slender, metatarsi more than two thirds as long as metatibiae (35: 50), segment 1 slightly shorter than the three following segments combined, twice as long as the last segment; segment 4 deeply bilobed. The whole body is distinctly reticulate.

C o m p a r a t i v e n o t e s : *S. mithracifer* nov.sp. belongs to the " *S. tenuimargo*-group" (s. b.), where it is the sister species of *S. miwai* BERNHAUER and may be distinguished by the abdominal punctuation, which is much finer and sparser, any by the sexual characters.

E t y m o l o g y : "*mithracifer*" (Lat.) = dressed with gems.

Stenus electrigemmeus nov.sp. (Figs 16, 18, 28, 29, 88, 116)

T y p e m a t e r i a l : Holotype ♂ and 1♀-paratype: TAIWAN: Kaohsiung Hsien: Kuanshan trail at Kuanshanchi River, 2400 m, 20.VIII.1993 (T 158). Paratypes: 1♀: Creek 2 km E Tien Chih, Hwy 20, 2400 m, 22.VII.1993 (T 161); Nantou Hsien: 1♀: Yushan N. P., Mun-Li Cliff, 2700 m, 18.V.1991 (T 86); 1♀: Piluchi, 18.VII.1988, leg. S. NOMURA; Chiai Hsien: 1♀: Yushan N. P.: Ta-Ta Ghia, 2750 m, 27.IV.1990 (T 27); Ilan Hsien: 1♀: Taipingshan, 1880 m, 14.VII.1993 (T 152): all leg. A. SMETANA.- HT and PTT in coll. SMETANA, PTT also in cP and in coll. NAOMI.

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D e s c r i p t i o n : Micropterous, black with a faint brownish hue, each elytron with a large, oval, orange spot (fig. 28), forebody moderately shiny, abdomen more distinctly shiny; forebody coarsely and very densely punctuate, abdomen coarsely and moderately densely punctuate anteriorly, finely and sparsely punctuate posteriorly; pubescence short, recumbent. Antennae reddish yellow, club infuscate. Maxillary palpi reddish yellow, segment 3 slightly darker. Paraglossa oval. Legs reddish yellow, tarsal segments infuscate. Clypeus black, labrum dark brown, sparsely pubescent.

Length: 5.5-6.5 mm forebody: 2.4-2.7 mm).

PM of the HT: HW: 40.5; DE: 24; PW: 30; PL: 35; EW: 37; EL: 39; SL: 28.

M a l e : Legs simple. Metasternum broadly shallowed, moderately coarsely and moderately densely punctuate, interstices of punctures about as large as diameter of punctures, shallowly reticulate. Anterior sternites simple, sternite 7 very slightly shallowed and denser punctate in posterior middle. Sternite 8 with a moderately broad apical emargination, about one eleventh as long as the sternite. Sternite 9 acute apicolaterally (fig. 88). Tergite 10 very broadly rounded apically. Aedeagus (fig. 116), apical portion of median lobe triangularly narrowed with a median area of moderately densely arranged short setae ventrally and two apical setae; no stronger sclerotized expulsion mechanism present but a tubous internal sac; parameres slender, much longer than the median lobe, with about 24 moderately long setae apically.

F e m a l e : Sternite 8 broadly rounded at posterior margin, slightly projecting in the middle. Valvifer acute apicolaterally. Tergite 10 rounded apically. Spermatheca (e. g. fig. 16), infundibulum long, about two thirds as long as the uncoiled portion of the spermathecal duct.

Head broader than elytra, postocular region between eye and neck oblique (as in fig.. 6), frons broad with two distinct broad longitudinal furrows, median portion about as broad as each of the side portions, broadly elevate, extending to the level of dorsal eye margins; punctuation coarse, usually very dense, diameter of punctures about as large as maximum cross section of antennal segment 3 (or still larger), interstices distinctly smaller than half diameter of punctures, larger on median portion(where interstices can become larger than punctures) and (sometimes) on a small area near posterior eye margin. Antennae very slender, when reflexed the last segment extends beyond the posterior margin of pronotum, penultimate segments nearly twice as long as broad, segment 11 slightly longer than segment 10. Pronotum distinctly longer than broad, broadest in anterior half, sides convex anteriorly, moderately concave posteriorly; a broad transverse impression in about middle, a longitudinal median impression less distinct; punctuation about as coarse as on frons but less regularly delimited, in some specimens confluent. Elytra (fig. 28) longer than broad, trapezoid, shoulders oblique, posterior margin deeply emarginated; humeral impression distinct, sutural impression long and distinct; the orange spot, in the lateral half of each elytron, shorter ore slightly longer than half the length of the elytron (EL: SpL = 39: 18,5 (HT), 44: 18.5 (T 158); 43: 18 (T 161); 43: 17.5 (T 152); 44.5: 25.5 (T 27); 45: 23.5 (T 86); 43: 25.5 (Piluchi)) and distinctly separate from the posterior margin of elytron; punctuation coarse and dense, slightly coarser than on pronotum, preponderately well delimited, interstices on the average smaller than half diameter of punctures. Abdomen cylindrical, thread-like margined (fig. 29), basal furrows of anterior tergites deep, tergite 7 with a distinct membranous fringe apically; punctuation coarse and moderately dense anteriorly (on tergite 4 punctures can become as large as basal cross section

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of antennal segment 3, interstices somewhat smaller or larger than punctures), fine and sparse posteriorly (on tergite 7 punctures are smaller than one eye facet at dorsal eye margin, interstices distinctly to much larger than punctures), punctuation of tergite 10 fine and sparse. Legs very slender, metatarsi about five sevenths as long as metatibiae, segment 1 a little longer than the two following segments combined, about twice as long as the last segment;

C o m p a r a t i v e n o t e s : This new species belongs to a group which I name "*tenuimargo*-group" and which is preliminarily characterized as follows: tarsi bilobed, abdominal margination very narrow (line-like or with extremely narrow, indistinct paratergites), paraglossae oval, postocular region between eye and neck oblique (fig. 6), sternum 9 with long apicolateral teeth, antennae and legs very long. The following oriental species belong to this group: *Stenus electrigemmeus* nov.sp., *S. electrigemmatus* nov.sp., *S. grandimaculatus* L. BENICK, *S. habropus* PUTHZ, *S. marginifer* PUTHZ, *S. marginiventris* PUTHZ, *S. miwai* BERNHAUER, *S. mithracifer* nov.sp., *S. oculifer* PUTHZ, *S. opilionipes* PUTHZ, *S. pseudopictus* CAMERON, *S. semilineatus* PUTHZ, (*S. tridentipenis* PUTHZ ?), *S. tenuimargo* CAMERON, *S. unguliventris* PUTHZ and few undescribed species from China.

For identification amongst the Taiwanese species see key.

E t y m o l o g y : *electrigemmeus* (Lat.) = with amber gem.

***Stenus electrigemmatus* nov.sp. (Figs 19, 30)**

T y p e m a t e r i a l : Holotype ♂: TAIWAN: Kaohsiung Hsien: Peinantashan trail, 2500 m, 4.VII.1993, leg. A. SMETANA (T 136): in coll. SMETANA (Ottawa).

D e s c r i p t i o n : Micropterous, black with a faint brownish hue, elytra with very large, oval, orange spots (fig. 30), moderately shiny, forebody very coarsely and very densely punctate, abdomen coarsely and densely punctate anteriorly, moderately finely and moderately densely punctate posteriorly; pubescence short, recumbent. Antennae reddish, club infuscate. Maxillary plapi yellowish red, segment 3 infucate. Paraglossa oval. Legs reddish yellow, tarsal segments darker. Clypeus black, labrum dark brown, sparsely pubescent.

Length: 6.5 mm (extended) (forebody: 2.6 mm).

PM of the HT: HW: 44; DE:; 25; PW: 32; PL: 38; EW: 41; EL: 44; SL: 32.

M a l e : similar to *S. electrigemmeus* but the apical ermargination of sternite 8 a little narrower and deeper about one tenth as long as the sternite). Aedeagus similar to *S. electrigemmeus*, but the apicoventral area of short setae extremely dense (fig. 19), the apical setae longer and more numerous and the internal structures stronger sclerotized proximately.

F e m a l e : Unknown.

In most respects similar to *S. electrigemmeus*, but the median portion of frons only slightly elevated, not extending to the level of dorsal eye margins, and the punctuation somewhat coarser and very dense throughout. Pronotum and elytra very coarsely punctate, punctures as large as apical cross section of antennal segment 1, interstices smaller than half diameter of punctures. Elytral spot larger (EW; SL = 44: 31), extending to the posterior margin of each elytron. Punctation of the abdomen a little coarser and denser

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than in *S. electrigemmeus*: on tergite 4 punctures are as large as basal cross section of antennal segment 3, interstices on the average smaller than punctures; on tergite 7 punctures are about as large as eye facets near dorsal eye margin, interstices distinctly but not much larger than punctures.

C o m p a r a t i v e n o t e : Since the range of variability of *S. electrigemmeus* is unknown, the specimen described here has to be regarded as a distinct species because of differences in the aedeagus, of the coarser punctuation and of the larger elytral spot.

For identification amongst the Taiwanese species see key.

E t y m o l o g y : "*electrigemmatus*" (Lat.) = decorated with amber gems.

***Stenus electristigma* nov.sp. (Figs 31, 32, 113, 117, 121)**

T y p e m a t e r i a l : Holotype ♂ and 1♂, 1♀-paratypes: TAIWAN: Taichung Hsien: Hsiaohsue Shan 2650-2750 m, 1.V.1990, leg. A. SMETANA (T 34). Paratypes: 1♂: Hualien Hsien: Taroko N. P., Duodyatunshan 2650 m, 13.V.1990, leg. A. SMETANA (T 56); 1♀: Hualien Hsien: Tayulin, 21.VI.1996, leg. H. MAKIHARA. HT and 2 PTT in coll. A. SMETANA, 1 PT in coll. NAOMI and 1 PT in cP.

D e s c r i p t i o n : Micropterous, black with a faint brownish hue, each elytron with a slightly elevated oval yellowish spot (fig. 31), moderately shiny, coarsely and densely punctate; pubescence short, recumbent. Antennae yellowish, club infuscate. Maxillary palpi yellow, segment 3 slightly infuscate. Paraglossa oval. Legs reddish brown. Clypeus black, labrum dark brown, moderately densely pubescent.

Length: 4.0-5.4 mm (forebody: 2.0-2.2 mm).

PM of the HT: HW: 36; DE: 20; PW: 28; PL: 30; EW: 33; EL: 33; SL: 24.

M a l e : Legs simple. Metasternum broadly and shallowly impressed, moderately coarsely and densely punctate, interstices reticulate, nearly as large as punctures. Anterior sternites simple, sternite 7 with an oval median impression, which is finely and densely punctate and pubescent, posterior margin very shallowly emarginated. Sternit 8 apically with a round emargination about one ninth as long as the sternite. Sternite 9 acute apicolaterally. Tergite 10 rounded. Aedoeagus (fig. 117), apical portion of median lobe triangularly pointed, expulsion hooks large, separate, tubous internal sac very long; parameres longer than median lobe, narrowed at apex, with 7-8 subapical setae.

F e m a l e : Sternite 8 rounded at posterior margin. Valvifer acute apicolaterally (fig. 121). Tergite 10 rounded apically. Spermatheca (fig. 113), spermathecal duct very long, weakly sclerotized.

Head broader than elytra, frons broad with two broad and shallow longitudinal furrows, median portion a little narrower than each of the side portions, moderately elevated, not extending to the level of dorsal eye margins; punctuation coarse and very dense, punctures about as large as maximum cross section of antennal segment 3, interstices much smaller than half diameter of punctures, slightly larger in actual middle of the median portion. Antennae slender, when reflexed extending to the posterior margin of pronotum, penultimate segments nearly twice as long as broad, segment 11 a little longer than segment. 10. Pronotum slightly longer than broad, broadest slightly behind middle, sides convex anteriorly, concave posteriorly; a transverse impression about lateral middle and a very short longitudinal impression in actual middle present; punctuation coarse and very dense (can be very slightly confluent), largest punctures as large as basal cross

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section of antennal segment 2, interstices smaller than half diameter of punctures, larger in the median impression. Elytra trapezoid, as long as broad, shoulders oblique, posterior margin deeply emarginated; humeral and sutural impressions shallow; the orange spot in lateral half of each elytron is at most half as long as one elytron and somewhat elevated; punctuation very coarse and very dense. Abdomen elliptic, paratergites narrow, declining ventrad, almost impunctate, those of tergite 4 nearly as broad as antennal segment 2 (fig. 32), basal furrows of anterior tergites deep, tergite 7 with a more or less distinct membranous fringe apically; punctuation coarse (anteriorly) to moderately coarse (posteriorly) and moderately dense: on tergite 4 punctures are as large as basal cross section of antennal segment 3, interstices on the average about as large as punctures; on tergite 7 punctures are as large as eye facets near dorsal eye margin, interstices slightly larger than punctures; tergite 10 moderately finely, sparsely punctate. Legs slender, metatarsi about two thirds as long as metatibiae, segment 1 a little shorter than the three following segments combined, much longer than the last segment; segment 4 deeply bilobed. The whole body is deeply reticulate.

C o m p a r a t i v e n o t e s : This new species belongs to the group of *S. indubius* SHARP (NAOMI 2006), in which it is remarkable by the elytral sports. It is very close to *S. makiharai* nov.sp., from which it may be distinguished by the broader head, the coarser abdominal punctuation and the spermatheca.

For identification amongst the Taiwanese species see key.

E t y m o l g y : "*electristigma*" (Lat.) = with amber stigmata.

***Stenus shibatai* nov.sp. (Figs 33, 109)**

T y p e m a t e r i a l : Holotype (♂) and 2♀♀- paratypes: TAIWAN: Taoyuan Hsien: near Mt. Lalashan, 25.VII.1978, Y. Shibata. Paratypes: 1♂, 2♀♀: ibidem, 24.VII.1978, Y. Shibata; 1♀: Nantou Hsien: Sungchuankang (2400 m), 3.VIII.1983, Y. Shibata.- HT and PTT in coll. Shibata, PTT also in cP.

D e s c r i p t i o n : Micropterous, black with some brownish hue, each elytron with a slightly elevated oval orange spot (fig. 33), moderately shiny, forebody coarsely and densely punctate, abdomen coarsely, moderately densely punctate; pubescence short, recumbent. Antennae yellowish, club infuscate. Maxillary palpi yellowish, segment 3 slightly infuscate. Paraglossae oval. Legs reddish brown. Clypeus black, labrum dark brown, moderately densely pubescent.

Length: 5.0-6.0 mm (forebody: 2.4-2.7 mm).

PM of the HT: HW: 37; DE: 20; PW: 26.5; PL: 29; EW: 31; EL: 33; SL: 24; SpL: 15.

M a l e : Same as in *S. electristigma*. Sternite 8 apically with a narrow rounded notch about one eighth as long as the sternite. Aedeagus (fig. 117), median lobe with a narrowly prominent apical tip, broad expulsion hooks and a weakly sclerotized flagelliform tube; parameres slightly longer than median lobe, weakly sclerotized at narrowed apices, with 3+4 lang setae.

F e m a l e : Same as in *S. electristigma*.

C o m p a r a t i v e n o t e s : In most respects as *S. electristigma*, but the abdominal punctuation less coarse and less dense: on tergite 4 the interstices are on the average slightly larger than punctures, on tergite 7 distinctly larger than punctures. The reticulation of the abdomen is less deep than in *S. electristigma.*

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This species belongs to the *S. indubius*-group. For identification amongst the Taiwanese species see key.

E t y m o l o g y : This is species is named in honour of Mr. Yasutoshi Shibata (Tokyo), who collected the type specimens and in appreciation of his merits in the staphylinid research of the Taiwanese fauna.

***Stenus shibataiellus* nov.sp. (Figs 34, 111)**

T y p e m a t e r i a l : Holotype (♂): Taiwan: Nantou Hsien: near Piluchi, 1.IV.1984, Y. Shibata: in coll. Shibata.

D e s c r i p t i o n : Micropterous, black with a faint brownish hue, each elytron with a slightly elevated oval orange spot (34); forebody coarsely and densely punctate, abdomen moderately coarsely, moderately densely punctate; pubescence short, recumbent. Antennnae reddish yellow, club infuscate. Maxillary palpi yellowish, segment 3 slightly infuscate. Paraglossae oval. Legs reddish brown. Clypeus black, labrum dark brown, moderately densely pubescent.

Length: 4.6 mm (forebody: 2.3 mm).

PM of the HT: HW: 40.5; DE: 23; PW: 31; PL: 33; EW: 37; EL: 36.5; SL: 25; SpL: 15.

M a l e : Same as *S. electristigma*. Aedeagus (fig. 111), similar to that of *S. shibatai*, but larger, outline of apical portion of median lobe slightly but distinctly different, expulsion hooks of slightly different shape, weakly sclerotized flagelliform tube broder; parameres same as in *S. shibatai*, but with 3+6 apical setae.

F e m a l e : Unknown.

C o m p a r a t i v e n o t e s : This new species can only be distinguished from *S. electristigma* by the different aedeagus. In the single specimen (HT) the elytral spot is smaller than in the compared species, but this character might be variable.

From *S. shibataianus* the new species may be distinguished by much deeper reticulation of the abdomen and by the male sexual characters.

This species belongs to the *S. indubius*-group. For identification amongst the Taiwanese species see key.

E t y m o l o g y : This is species is named in honour of Mr. Yasutoshi Shibata (Tokyo), who collected the type specimen.

***Stenus shibataianus* nov.sp. (Figs 35, 101, 110, 112, 120)**

T y p e m a t e r i a l : Holotype ♂ and 1♂, 1♀-paratypes: TAIWAN: Kaohsiung Hsien: near Tengchih, 13.VIII.1978, leg. Y. SHIBATA. Paratypes: 1♀: Nantou Hsien: Lushanwenchuan, 28.V.1980, leg. H. MAKIHARA; 1♂: Chiai Hsien: Fenchihu, 4.VI.1971, leg. M. NISHIKAWA. HT and PTT in coll. Y. SHIBATA, PTT also in coll. Naomi and in cP.

D e s c r i p t i o n : Macropterous, black with a faint brownish hue, each elytron with a round reddish spot in posterior middle (fig. 35), moderately shiny, coarsely and very densely punctate; pubescence short, recumbent. Antennae yellowish brown, club infuscate. Maxillary palpi yellowish red, segment 3 infuscate. Paraglossa oval. Legs reddish brown. Clypeus black, labrum blackish brown, moderately densely pubescent.

Length: 4.3-5.0 mm) (forebody: 2.1-2.2 mm).

PM of the HT: HW: 37.5; DE: 19; PW: 28.5; PL: 30; EW: 37.5; EL: 38; SL: 29.

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M a l e : Legs simple. Metasternum shallowly impressed, coarsely and densely punctate, smooth interstices smaller than half diameter of punctures (fig. 101). Anterior sternites simple, sternite 6 slightly shallowed and finely punctate posteromedially, sternite 7 with a shallow finely and densely punctate median impression. Sternite 8 apically with a small rounded notch about one tenth as long as the sternite. Sternite 9 pointed apicolaterally. Tergite 10 broadly rounded apically. Aedeagus (fig. 110), apical portion of median lobe obtuse-angled narrowed, expulsion hooks large, internal sac with a weakly sclerotized falgelliform tube, parameres slightly longer than median lobe, with 3+4 apical setae.

F e m a l e : Sternite 8 rounded apically. Valvifer acute apicolaterally (fig. 120). Tergite 10 rounded apically. Spermatheca (fig. 112), spermathecal collum long-oval, spermathecal duct weakly sclerotized (incomplete in the type specimen ?).

In many respects similar to *S. electristigma*, but the head narrower. Elytra broader, size and position of the elytral spots different. Abdominal punctuation about same as in *S. electristigma*, but the punctuation denser: on tergite 4 interstices are distinctly smaller than diameter of punctures, punctation of tergite 7 much finer than in the compared species, punctures distinctly smaller than eye facets near dorsal eye margins, interstices much larger than punctures, punctuation of tergite 10 fine and sparse.

C o m p a r a t i v e n o t e : Also this new species belongs to the *S. indubius*-group as is shown by the spermatheca. For identification amongst the Taiwanese species see key.

E t y m o l o g y : This new species is dedicated to its collector, Mr. Y. SHIBATA.

***Stenus stigmosus* nov.sp. (Figs 24, 85, 116)**

T y p e m a t e r i a l : Holotype (♂) and 1♂, 1♀-paratypes: TAIWAN: Nantou Hsien: Hwy 14 below Wushe, 900 m, 22.IV.1990, A. Smetana (T 16). Paratypes: 1♂: near Tsuifeng (2200 m), 19.VII.1976, Y. Shibata; 2♀: near Piluchi (2300 m), 3.VIII.1983, 27.III.1986, Y. Shibata; 1♂: Lushan Hot Springs, 31.VII.1971, Y. Shibata; 1♀: near Lushan (1200 m), 28.VII.1977, Y. Shibata; 1♀: near Chushan, 11.II.1977, J. C. Lien; Taoyuan Hsien: 2♀♀: Takuanshan Forest, 1600 m, 17.IV.1990, A. Smetana (T 3); 1♀: Taoyuan-Taipei Hsien: near Mt. Lalashan, 25.VII.1978, Y. Shibata; Ilan Hsien: 1♀: Chyr Duan, 1050 m, 18.IV.1990, A. Smetana (T 7); 3♀♀: Taipingshan, 1820 m, 15.VII.1993, A. Smetana (T 153); Hualien Hsien: 4♀♀: Taroko N. P., Nanhushi Hut, 2220 m, 8.V.1990, A. Smetana (T 48); 4♀♀: ibidem 2200 m, 11.V.1990, A. Smetana (T 53); 1♀: ibidem, 2220 m, 12.V.1990, A. Smetana (T 54); 1♀: Kwan Yuan, ca. 2200 m, leg. C. L. Li; Chiai Hsien: 3♀♀: Alishan (2300 m), 7.VIII.1970, 2.VIII.1973, 8.VIII.1974, Y. Shibata; 1♂: Fenchihu (1400 m), 6.VIII.1976, Y. Shibata; Kaohsiung Hsien: 1♂: Peinantashan trail, 2065 m, 6.VII.1993, A. Smetana (T 140); 1♂: Creek 2 km E Tien Chih, Hwy 20, 2400 m, 22.VII.1993, A. Smetana (T 161); 1♀: Near Tianchi (2200 m), 1.VIII.1976, Y. Shibata; Taitung Hsien: 1♂, 1♀: Hsinkangshan above Chengkung, 800 m, 27.IV.1995, A. Smetana (T 168)- HT and PTT in coll. A. Smetana (Ottawa), PTT also in the Museum für Naturkunde Berlin, in coll. Shibata and in cP.

D e s c r i p t i o n : Macropterous, black, each elytron with a small orange spot in posterior middle, moderately shiny, forebody coarsely to very coarsely, very densely punctate, abdomen coarsely and densely (anteriorly), finely and moderately densely (posteriorly) punctate; pubescence short, recumbent. Antennae brown, club infuscate. Segment 1 of maxillary palpi yellow, segment 2 reddish yellow, segment 3 brownish. Paraglossae coniform. Legs reddish brown, knees infuscate. Clypeus black, labrum blackish brown, moderately densely pubescent.

Length: 5.8-7.2 mm (forebody: 2.8-3.2 mm).

PM of the Ht: HW: 50; DE: 25; PW: 36; PL: 39; EW: 53; EL: 58; SL: 47.

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M a l e : Legs simple. Metasternum broadly shallowed, coarsely and densely punctate, interstices on the average smaller than punctures. Anterior sternites simple, sternite 7 finely and densely punctate and pubescent in posterior middle. Sternite 8 apically with a moderately broad notch, about one tenth as long as the sternite. Sternite 9 serrate apicolaterally (fig.85). Tergite 10 broadly rounded. Aedeagus (fig.118), apical portion of median lobe short with a small apical tip, sclerotized expulsion clasp very narrow and short, internal sac broadly tubous; parameres much longer than median lobe, spoon shaped apically with about 17-21 strong setae.

F e m a l e : Sternite 8 rounded at posterior margin, slightly roundly projecting in apical middle. Valvifer serrate apicolaterally. Tergite 10 broadly rounded. Spermatheca (fig. 24).

Head slightly narrower than elytra, frons moderately broad with two deep longitudinal furrows, median portion slightly narrower than each of the side portions, moderately elevated, not extending to the level of dorsal eye margins; punctation coarse and very dense, punctures about as large as medial cross section of antennal segment 3, interstices much smaller than half diameter of punctures. Antennae slender, when reflexed extending to the posterior margin of the pronotum, penultimate segments twice as long as broad, segment 1 three times as long as broad. Pronotum a little longer than broad, broadest in about middle, sides convex anteriorly, distinctly concave posteriorly; a deep transverse impression laterally and a moderately narrow longitudinal furrow medially present; sculpture very coarse and rough, at parts slightly coalescent, punctures can become as large as apical cross section of antennal segment 2, interstices much smaller than half diameter of punctures, in the median impression sometimes as large as punctures. Elytra large, longer than broad, shoulders prominent, sides slightly convex, posterior margin moderately deeply emarginated; humeral, sutural and a posterolateral impression distinct; the slightly oval elytral spot is situated in the posterior middle, its distance from the suture is somewhat larger than its diameter, from the sides slightly smaller; punctuation very dense, almost slightly coarser than on the pronotum. Abdomen broad, paratergites horizontal, broad, densely punctate, those of tergite 4 about as broad as metatibiae at base, basal furrows of anterior tergites deep, tergite 7 with a broad membraneous fringe apically; anterior punctuation coarse and dense, on tergite 4 punctures are about as large as basal cross section of antennal segment 3, interstices much smaller; on tergite 7 punctures are about as large as one eye facet near dorsal eye margin, interstices distinctly larger than punctures; tergite 10 finely and sparsely punctate. Legs slender, metatarsi about ¾ as long as metatibiae, segment 1 slightly shorter than the three following segments combined, much longer than the last segment; segment 4 deeply bilobed. Reticulation of the forebody indistinct, that of the abdomen shallow but distinct.

Variability: The punctation on tergite 4 may sometimes be sparser than described above.

C o m p a r a t i v e n o t e s : This new species belongs to the group of *S. stigmaticus* FAUVEL, which is characterized as follows: Moderately large to large species (4.0-7.5 mm) with coniform paraglossae, antennae and legs slender, tarsal segment 4 deeply bilobed, abdomen with broad paratergites, sternum 9 serrate apicolaterally. Male: Legs without special sexual charaters. Aedeagus without or with small sclerotized expulsion mechanisms, parameres long, spoon shaped apically. Female: Spermatheca distinctly sclerotized with slender infundibulum. Sister group is the *abdominalis*-group with apicolaterally acute ninth sternum.

The following species belong to the *stigmaticus*-group: *S. agostii* PUTHZ, *S. contrusus* L.

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BENICK, *S. divergens* L. BENICK, *S. obliquenotatus* CAMERON, *S. stigmatias* PUTHZ, *S. stigmaticus* FAUVEL, *S. stigmosus* nov.sp. and *S. stigmifer* nov.sp. The group is distributed from Northern India, Nepal, Southern China to Sumatra, Java and the Philippines.- For identification amongst the Taiwanese species see key.

E t y m o l o g y : "*stigmosus*" (Lat.) = with stigmata.

Stenus stigmifer nov.sp. (Figs 25, 36, 37, 119)

T y p e m a t e r i a l : Holotype (♂) and 1♂-paratype: TAIWAN: Chiai Hsien: Alishan, Sister ponds, 2180 m, 26.IV.1990, leg. A. Smetana (T 34). Paratypes: 5♂♂, 2♀♀: near Tadongshan, 10., 11.VIII.1978, 14.VIII.1983, Y. Shibata; Nantou Hsien: 1♀: Kao-Leng Dyi, 18 km W of Wushe, 24°4.561'N, 121°8.046'E, 1945 m, swept from vegetation, 18.-19.IV.2002, leg. D. Austine, Gy. Fábián & O. Merkl.- HT in coll. A. Smetana (Ottawa), paratypes in the Budapest Zoological Museum, in coll. Shibata and in cP.

D e s c r i p t i o n : Macropterous, black, each elytron with an orange spot in posterior middle (figs 36, 37), moderately shiny, forebody coarsely and very densely punctate, abdomen moderately coarsely (anteriorly) to finely (posteriorly), densely punctate; pubescence short, recumbent. Antennae brownish, club infuscate. Maxillary palpi yellowish, segment 3 infuscate. Paraglossae conform. Legs reddish brown, knees infuscate. Clypeus black, labrum dark brown, moderately densely pubescent.

Length: 5.0-6.5 mm (forebody: 2.4-2.8 mm).

PM of the HT: HW: 45; DE: 23; PW: 34; PL: 36M; EW: 51; EL: 51; SL: 41.

M a l e : Same as in *S. stigmosus*, but the apical emargination of sternite 8 broader. Aedeagus (fig. 119) similar to that of *S. stigmosus*, but the apical portion of the median lobe less broad and triangularly narrowed, parameres with 14-16 setae in apical third.

F e m a l e : Same as in *S. stigmosus*. Spermatheca (fig. 25).

In many respects same as *S. stigmosus*, but the head narrower and the punctuation of the foreparts slightly less coarse. Elytra shorter, the orange spot of different size: in the HT nearly two thirds as long as one elytron (fig. 36), in the PTT much smaller, less than one quarter as long as one elytron. Punctation of the abdomen notably different, slightly less coarse and distinctly denser: on tergite 4 interstices are on the average smaller than half diameter of punctures, on tergite 7 punctures are smaller than one eye facet near dorsal eye margin, interstices slightly larger than punctures.

C o m p a r a t i v e n o t e s : This new species belongs also to the *S. stigmaticus*-group and may be distinguished from its relatives as indicated at *S. stigmosus* (see above).- For identification amongst the Taiwanese species see key.

E t y m o l o g y : "*stigmifer*" (Lat.) = with stigmata.

Stenus arisanus CAMERON 1949 (Figs 97, 115)

Stenus arisanus CAMERON 1949: 462f.; PUTHZ 1971b: 532.

M a t e r i a l s t u d i e d : TAIWAN: Chiai Hsien: 1♂, 1♀: 1 Arisan, 25.V.1934, J. L. Gressitt (HT and PT: USNM, NHML); 4♂♂, 6♀♀: ibidem, 2130 m, 19.VIII.1947, J. & H. Sedlaček, J. L. Gressitt (BPBM, cP); 1♂: Arisan to Hosha, 26.V.1948, J.L. Gressitt (BPBM); 5♂♂, 7♀♀: Alishan, 2400 m, 12.-16.VI.1965, T. C. Maa & K. S. Lin (BPBM, cP); 7♂♀, 2♀♀: ibidem, 2300 m, 8.IV.1968m Y. Hirashima (Niv.of Kyoto, cP); 2♂♂, 5♀♀: ibidem, 7., 8.VIII.1970, 7.VIII.1971, 7.VIII.1974, 8.VIII.1978, 29.III.1982, Y. Shibata (cSh, cP); Nantou Hsien: 1♀:

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Nankaoshan Trail, Tenchi Hut, 2880 m, 5.V.1992, A. Smetana (T 13); Hualien Hsien: 1♀: Taroko N. P., Duodyatunshan, 2650 m, 8.V.1990, A. Smetana (T 46). Sichuan: 1♂: Songpan, 2000 m, 32°30'N, 103°40'E, 13.-17.VII.1990, J. Kolibač (NHMB); 1♂: Ganzi-Tibet Aut. Pref., Yajiang Co., Shalui Shan, river valley 6 km WSW Yajiang, 3250 m, 30°01 N, 100°57'E, 4.VII.1999, D. Wrase (cSchülke); 1♀: Daxue Shan, E Tsheto-La Pass, W. Kangding, 3500 m, 30°00'N, 101°52'E, 25.V.1997, M. Schülke (cSchülke); 1♀: Daxue Shan, Mugemo ca. 26 km W Kangding, 3200-3400 m, 30°1'N, 101°52'E, 21.V.1997, A. Pütz (cPütz); 1♀: env. Xichang, 1600 m, 28.VII.1996, S. Kurbatov (MHNG); 1♀: Gonggashan, Hailuoguo, 1900-2900 m, 29°36'N, 102°06'E, 5.VII.1994, D. Král & J. Farkač (cHromádka); 1♀: 30 km NW Muli (BOWA), 3500 m, 28°07'N, 101°05'E, 2.VII.1998, Bočak (SMNS); Yunnan: 1♂: Kunming, 20.I.1993, G. de Rougemont (cRougemont); 1♂: Zhongdian Co., 33 km ESE Zhongdian, 3200 m, 27°41.5'N, 100°50.7'E, creek valley with old mixed forest, 14. VIII.2003, D. Wrase (cSchülke); Shaanxi: 1♂, 2♀♀: Quinling Shan, pass on raod Zhouzhi-Foping, 105 km SW Xi'an, N. slope, 1990 m, 33°44'N, 107°59'E, 2./4.VII.2001, A. Smetana, D. Wrase (cSmetana, cSchülke); 3♀♀: Quinling Shan, mountain pass at Autoroute km 70, 47 km S Xi'an, 2300-2500 m, 33°51'N, 108°47'E, 26.-30.VIII.1995, M. Schülke (cSchülke, cP).

Comparative note: This species belongs to the *S. virgula*-group. The aedeagus has an anteriorly obtuse median lobe (fig. 97), the spermatheca of the female has a very peculiar shape (fig. 115).

Stenus bilunatus PUTHZ 1984 **(Figs 3, 4, 38, 58-63, 75-78, 89, 100, 105, 106)**

Stenus bilunatus PUTHZ 1984: 108f. fig.

Material studied: Holotype ♂: TAIWAN: Taipei Hsien: Tsuoshan near Taipei, 150-300 m, 9. VII.1958, leg. K. S. LIN (B. P. Bishop Museum. Paratypes: 1♀: Taipei & vicinity, IX. 1964, leg. T.C. MAA; Chiai Hsien: 1♀1♂, 2♀♀: Arisan, 2130 m, 19.VIII.1948, leg. J.L. GRESSITT; 1♀: Alishan, 2270 m, 8.-9.IV.1965, Malaise trap, leg. C.M. YOSHIMOTO (B. P. Bishop Museum, Museum Geneva, cP). Further material: Taipei Hsien: 1♀: Hsiaoyi, Wulai, 9.XII.1976, J. C. Lien; Taoyuan Hsien: 1♂: Takuanshan Forest, 1650 m, 17.IV.1990, A. Smetana (T 5); 2♂♂, 3♀♀: near Mt. Lalashan, 24.VII.1978, Y. Shibata; Ilan Hsien: 2♂♂: Taipingshan, 1895 m, 13.VII.1993, A. Smetana (T 149); 1♂: ibidem 1950 m, 13.VII.1993, A. Smetana (T 150); 1♀: ibidem 1895 m, yellow pan traps, 13.-16.VII.1993, A. Smetana (T 151); 1♂: ibidem 1880 m, 14.VII.1993, A. Smetana (T 152); 1♂, 3♀♀: ibidem 1820 m, 15.VII.1993, A. Smetana (T 153); 1♀: Shen-Mi Lake, 24°22'43''N, 121°44'12''E, 1110 m, 10.V.1995, A. Smetana (T 177); 3♀♀: near Chihtuan, 23.VII.1978, Y. Shibata; Taichung Hsien: 3♀♀: Anmashan, 2225 m, 2.V.1990, A. Smetana (T 37, T 38); 1♂, 1♀: ibidem 2225 m, 14.V.1992, A. Smetana (T 130); 1♀: ibidem 2220 m, 14.V.1992, A. Smetana (T 131); 1♂, 1♀: near Lishan, 18.VIII.1976, Y. Shibata; Nantou Hsien: 1♀: Hwy 14 below Wushe, 90 m, 22.IV.1990, A. Smetana (T 16); 1♀: near Wushe, 30.VII.1971, Y. Shibata; 4♂♂, 7♀♀: Meifeng, 2130 m, 3.V.1991, 10.VII.1993, 2. and 4.V.1998, A. Smetana (T 61, T 146, T 196, T 197, T 199); 1♀: ibidem, 12.V.1991, A. Smetana (T 78); 1♂, 2♀♀: ibidem, 19.IV.1977, W. Suzuki; 1♂: ibidem (2150 m); 26.VII.1976, K. Matsuda; 1♂, 1♀: ibidem, 29.V.1980, leg. H. MAKIHARA; 1♂, 2♀♀: near Meifeng, 29.VII.1979, Y. Shibata; 1♂♂, 1♀: Yushan N. P., Mun-Li Cliff, 270 m, 13., 18.V.1991, A. Smetana (T 79, T 86); 1♂, 1♀: Nankaoshan trail, Yuenhai Hut, 2350 m, 4.V.1992, A. Smetana (T 112); 19♂♂, 30♀♀: near Tsuifeng (2200/2300 m), 28.VII., 22.VIII.1973, 26.VII., 25.VIII.1974, 28., 29.VII., 21., 22.VIII.1976, 23.VII.1977, 3.VIII.1978, Y. Shibata; 2♂♂: near Lushan, 1200 m, 27.VII.1977, Y. Shibata; 1♀: Lushanwenchuan, 28.V.1980, leg. H. MAKIHARA; 1♀: Keitou [= Chitou], 31.III.1980, leg. K. SUGIYAMA; Hualien Hsien: 1♀: Taroko N. P., Chungyantienshi (River), 2280 m, 10.V.1990, A. Smetana (T 51); Chiai Hsien: 2♀♀: Yushan N. P., Ta-Ta Ghia, 2750 m, 27.IV.1990, A. Smetana (T 27); 2♂♂, 3♀♀: Yushan N. P., Mun-Li Cliff, 270 m, 27.IV.1990, A. Smetana (T 28); 1♂, 3♀♀: Fenchihu, 22.VI.1968, leg. M. TOMOKUNI; 5♀♀: Fenchihuu, 1500 m, 2.-3.VII.1982, leg. N. NISHIKAWA; 1♂, 3♀♀: ibidem, 1400 m, 9.VIII.1974, 6.VIII.1976, Y. Shibata; 1♀: near Fenchihu, 29.-30.IV.1971, W. Suzuki; 1♀: ibidem, 23.V.1975, K. Matsuda; 1♂, 4♀♀: near Tadongshan (1800 m)/ Mt. Tadongshan, 10., 11.VIII.1978, 14.VIII.1983, Y. Shibata; 1♀ (cf. det.): Alishan (2300 m), 8.VIII.1978 (very long elytral spot), Y. Shibata; Kaohsiung Hsien: 1♀: Tengchih, 1565 m, 23.IV.1990, A. Smetana (T 18); 1♀: ibidem, 1700-1800 m, 24.IV.1990, A.

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Smetana (T 21); 1♀: Kuanshan trail at Kaunshanchi River, 2400 m, 20.IV.1992, A. Smetana (T 94); 2♀♀: ibidem 2550 m, 21.IV.1992, A. Smetana (T 96); 1♂, 1♀: Peinantashan trail, ridge at 2800 m, 3. VII.1993, A. Smetana (T 134); 1♀: ibidem 2500 m, 4.VII.1993, A. Smetana (T 136); 1♀: ibidem 2250 m, 4.VII.1993, A. Smetana (T 137); 3♂♂, 4♀♀: ibidem 2080 m, 6.VII.1993, A. Smetana (T 141); 1♂: ibidem 2020 m, 7.VII.1993, A. Smetana (T 143); 1♀: ibidem 2000 m, 7.VII.1993, A. Smetana (T 144); 1♂: ibidem 2080 m, 2.V.1995, A. Smetana (T 169); 1♀: Road above Tona Forest Station, km 16-17, Fork, 1850 m, 29.IV.1998, A. Smetana (T 191); 1♂: near Tienchih, 27.III.1988, Y. Shibata; Pingtung Hsien: 1♂, 2♀♀: Peitawushan trail at 2000 m, 23.V.1991, A. Smetana (T 91); 2♂♂: ibidem at 1500 m, 1.V.1992, A. Smetana (T 110) (cN, cSmetana, cShibata, cSato, cP).

Comparative notes (1): *Stenus bilunatus* belongs to the group of *S. abdominalis* FAUVEL (PUTHZ 1998: 244) and within this group to the *S. coronatus*-complex, which is characterized by the peculiar expulsion clasp of the median lobe: a strongly sclerotized anteriorly broadened clasp (in contrast to many species of the *S. abdominalis*-group) with the anterior margin on each side serrate (not smooth as in most species of the *S. abdominalis*-group). The shape of the anterior margin seems to be species-specific and should be carefully studied. In specimens where the median lobe is half everted the anterior outline of the expulsion clasp can be seen very clearly (figs 89, 91-94), in specimens with a non everted median lobe the expulsion clasp is situated between other internal structures of the median lobe and may be poorly visible (see figs 90, 95). The outline of the anterior portion of the median lobe can be very similar in closely related species.

Two species (+ 1) of this complex are known from the Asiatic continent: *S. coronatus* L. BENICK (China: from Yunnan to Heilongjiang), Korea, Russia: Primorski kraj, Kuriles (?), *S. rougemonti* PUTHZ (Burma), several undescribed species from Nepal and from Burma. Seven species are now known from Taiwan, 6 of them new.

Descriptional remarks: In *S. bilunatus* the abdominal punctuation is coarse and very dense, punctures on tergite 7 are at least as large as eye facets near dorsal eye margins, interstices in the average as large as diameter of punctures.*Stenus bilunatus* is characterized by the relatively small (short) elytral spot (EL: SpL = 0.26-0.45, ø 0.33, N=43) the coarse and very dense abdominal punctuation and the aedeagus with an expulsion clasp as figured in figs 75-78, 89. The head is about as wide as the elytra (HW: EW = 0.88-1.05, ø 0.96, N=43).

Male: Mesotibiae with a ± distinct preapical spine, metatrochanter simple, metatibiae straight with a ± distinct preapical spine. Metasternum (fig. 100) broadly and deeply impressed, moderately finely, densely punctate medially where a ± distinct median carina can be seen, moderately coarsely and moderately densely punctate laterally. Sternites 4-6 denser punctate and pubescent medially, sternite 7 with a finely and densely punctate horseshoe-like impression in posterior middle, posterior margin very shallowly emarginated. Sternite 8 apically with a moderately broad notch about one tenth as long as the sternite. Sternite 9 with long apicolateral teeth (as in fig. 87). Tergite 10 broadly rounded. Aedoeagus (fig. 106), anterior portion of median lobe relatively broad (figs 58-63) as strongly sclerotized as the rest of the anterior portion, the shape of the anterior portion of the expulsion clasp is broadly triangular and comparatively uniformly serrate (figs 75-78, 89) in contrast to *S. coronatus* (figs 70-74) and the new species described below.

Female: Sternite 8 rounded at posterior margin, its apical middle very slightly projecting. Valvifer apicolaterally with a long tooth. Tergite 10 broadly rounded. The sper-

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mathecae of the species near *S. coronatus* are very similar: the infundibulum is much longer than broad (three times or more), the twice bent spermathecal duct broad, the RT-duct about as long as the capsule (for terminology see NAOMI 2006) (e. g. figs 102-105). Whether there are constant specific differences between the species of the complex cannot be answered, since the material is too poor.

C o m p a r a t i v e n o t e s (2)*: Stenus bilunatus* is distinguished from *S. coronatus* L. BENICK (China (type from Yunnan), Korea, Far East Russia, China (9 provinces) and *S. coronatus zipanguensis* PUTHZ (Japan) by the shape of the metasternum (male) (figs 98, 99) and the expulsion clasp of the median lobe (figs 70-74) and by longer elytral spots (SpL: EW ø 0.25 (*S. coronatus*, N= 26), ø 0.21 (*S. coronatus zipanguensis*, N= 10)). For identification amongst the Taiwanese species see key.

***Stenus bigemmosus* nov.sp. (Figs 40, 64, 80, 90)**

T y p e m a t e r i a l : Holotype ♂ and 2♂♂-paratypes: TAIWAN: Taipei Hsien: Wulai, 24.-30.IV.1992, leg. A. YOSHII. Paratypes: 1♂, 5♀♀: Nantou Hsien: Lushan Wenchuan, 1200 m, 28.VII.1982, 3. and 5.VIII. 1985, leg. Y. SHIBATA; 2♂♂, 2♀♀: Hualien Hsien: near Juisui, 29.III.1984, 29.III.1986, leg. Y. SHIBATA; 1♂♂: Ilan Hsien: Fushan Botanical Garden, swept from vegetation, 8.-11.IV.2002, leg. O. MERKL.- HT and PTT in coll. Y. Shibata (Tokyo), PTT also in the Hungarian Natural History Museum, Budapest and in cP.

D e s c r i p t i o n : Macropterous, black with a faint lustre, each elytron with an oval orange spot in posterolateral quarter (fig. 40); punctuation coarse and very dense; pubescence short, recumbent. Antennae brownish, club infuscate. Maxillary palpi reddish yellow, segment 3 slightly infuscate. Paraglossae coniform. Legs reddish brown, apical portion of tarsal segments infuscate. Clypeus black, labrum dark brown, anterior margin brown, moderately sparsely pubescent.

Length: 6.5-7.0 mm (forebody: 3.1-3.4 mm).

PM of the HT: HW: 50.5; DE: 30; PW: 40.5; PL: 47.5; EW: 54; EL: 57; SL: 44; SpL: 19.

M a l e : Similar to *S. bilunatus*, but the anterior portion of the median lobe more rounded and weakly sclerotized anteriorly (fig. 64), the expulsion clasp less broad and more rounded at the serrate anterior portion (figs 80, 90).

F e m a l e : Same as in *S. bilunatus*.

C o m p a r a t i v e n o t e s : In general facies this new species looks highly similar to *S. bilunatus* and the measurements would fall into the variability range of that species (HW: EW = 0.83-0.94, ø 0.908; SpL: EL = 0.26-0.34, ø 0.30; N= 16), but the aedeagal differences do not agree with *S. bilunatus*.-).- For identification amongst the Taiwanese species see key.

E t y m o l o g y : "*bigemmosus*" (Lat.) = with two gems.

***Stenus bigemmatus* nov.sp. (Figs 39, 65, 79, 91, 96)**

T y p e m a t e r i a l : Holotype ♂: TAIWAN: Chiai Hsien: Yushan National Park, Mun-Li Cliff, 2700 m, 27.IV.1990, leg. A SMETANA (T 28): in coll. SMETANA (Ottawa).

D e s c r i p t i o n : Macropterous, black with a faint lustre, each elytron with a long, oval, slightly elevated orange spot in posterolateral quarter (fig. 39); punctuation coarse to very coarse, coalescent on pronotum and elytra; pubescence short, recumbent. Anten-

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nae brownish, club infuscate. Maxillary palpi reddish brown. Paraglossae coniform. Legs reddish brown, apical portion of femora shortly infuscate.

Length: 6.8 mm (forebody: 3.4 mm).

PM of the HT: HW: 55.5; DE: 28; PW: 44; PL: 52.5; EW: 54; EL: 60; SL: 47; SpL: 23.

M a l e : Femora swollen, metatrochanter toothlike prominent (fig. 96), meso- and metatibiae each with a small preapical spine, metatibiae curved inwards. Metatsternum broadly and very deeply concave, punctuation slightly less coarse, distinctly more sparse than in *S. bilunatus*. Sternites 3-7 with very shallow median impressions, which are much denser punctate and pubescent than the sternites laterally, sternite 7 very shallowly emarginated apically. Sternite 8 apically with a moderately broad notch about one tenth as long as the sternite. Sternite 9 with a shap tooth apicolaterally. Tergite 10 broadly rounded. Aedeagus about as in *S. bilunatus* (fig. 65), the apicomedian excision of the expulsion clasp narrower and deeper (fig. 79, 91).

Female: Unknown.

C o m p a r a t i v e n o t e s : In most respects very similar to *S. bilunatus*, but the head comparatively broader, the elytral spot distinctly elevated, relatively long, the sculpture of the forebody slightly more coalescent and the male sexual characters different.- For identification amongst the Taiwanese species see key.

E t y m o l o g y : "*bigemmatus*" (Lat.) = with two gems.

***Stenus bilunatior* nov.sp. (Figs 41, 66, 67, 81, 82, 87, 103)**

T y p e m a t e r i a l : Holotype ♂ and 2♂♂-paratypes: TAIWAN: Taichung Hsien: Anmashan, 2230 m, 4.V.1990, leg. A SMETANA (T 43). Paratypes: 2♀♀: same data as HT, 1.V.1990 (T 33); 2♀♀: ibidem 2225 m, 2.V.1990 (T 37); 1♀: ibidem, 11.V.1992 (T 123); 1♂, 1♀: ibidem 2230 m, 12.V.1992 (T 127); 1♂, 1♀: Pingtung Hsien: Peitawushan, Kuai-Ku Hut, 2325 m, 21.V.1991 (T 88); 1♀: ibidem 2750 m, 22.V.1991 (T 89); 1♂, 1♀: Peitawushan ridge, 2800-2910 m, 28.IV.1992 (T 105), all leg. A. SMETANA.- HT and PTT in coll. SMETANA (Ottawa), PTT also in cP.

D e s c r i p t i o n : Macropterous, black with a faint lustre, each elytron with a very long orange spot in lateral half (fig. 41); punctuation of the forebody very coarse, on pronotum and elytra shortkly rugose, coarse and very dense on abdomen; pubescence short, recumbent. Antennae brown, club infuscate. Maxillary palpi reddish yellow, segment 3 infuscate. Paraglossae coniform. Legs reddish brown, apical portion of femora and of tarsal segments slightly infuscate. Clypeus black, labrum blackish brown, anterior margin brown, moderately densely pubescent.

Length: 5.2-7.0 mm (forebody: 3.0-3.4 mm).

PM of the HT: HW: 50; DE: 29; PW: 39; PL: 43; EW: 50; EL: 51.5; SL: 40; SpL: 40.

M a l e : Very similar to *S. bilunatus*, but the anterior portion of the median lobe narrower (figs 66, 67) and the shape of the anterior expulsion clasp different (figs 81, 82).

F e m a l e : About as in *S. bilunatus* (fig.103).

C o m p a r a t i v e n o t e s : In most respects very similar to *S. bilunatus*, but the elytral spot much larger (two thirds as long as one elytron or even longer) and narrowed anteriad, the punctuation of the posterior tergites variegate, interstices on tergite 7 distinctly smaller or distinctly larger than punctures. - For identification amongst the Taiwanese species see key.

E t y m o l o g y : "*bilunatior*" (Lat.) = furnished with two long lights (= elytral spots).

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***Stenus bilunatoides* nov.sp. (Figs 7, 42, 92, 104)**

T y p e m a t e r i a l : Holotype ♂ and 3♀♀-paratypes: TAIWAN: Hualien Hsien: Taroko National Park, Nanhushi Hut, 2220 m, 8.V.1990, leg. A. SMETANA (T 48). Paratypes: Hualien Hsien: 1♀: Taroko National Park, Duodyatunshan, 2600 m, 7.V.1990 (T 45); 1♀: ibidem 2650 m, 8.V.1990 (T 46); 1♂: ibidem 2650 m, 8.-13.V.1990 (T 57); 1♀: Taroko Nat. Park, Ridge SE Nanhushi Hut, 2700 m, 11.V.1990 (T 52); 1♂, 1♀: Nanhushi Hut 2220 m, 12.V.1990 (T 55); Nantou Hsien: 1♀: Houhuanshan, 3175 m, 15.V.1990 (T 59); 2♀♀: Houhuanshan, Kunyang, 3050 m, 4.V.1991 (T 63); 1♂, 1♀: ibidem (T 64); 2♂♂: ibidem, 13.V.1995 (T 170); Taichung Hsien: 1♂, 1♀: Hsuehshan Chi-Ka, 2463 m, 6.V.1991 (T 67); 1♀: Hsuehshan, nr. Hsuehshan Tun-Feng, 3170 m, 7.V.1991 (T 68); 1♀: ibidem, 11.V.1991 (T 76); 1♂, 1♀: Hsuehshan, above Shan-Liu-Gien Hut, 3220 m, 7.V.1991 (T 69); 1♂, 1♀: ibidem 3150 m, 8.V.1991 (T 71); 1♂, 3♀♀: ibidem 3200 m, 8.V.1991 (T 72); 1♂: Hsuehshan Main Peak, 3650 m, 9.V.1991 (T 73) all leg. A. SMETANA; 1♂: Nantou Hsien: Piluchi, 18.VII.1988, leg. S. NOMURA; 1♀: Chiai Hsien: 1♂: Alishan, 3.V.1983, leg. T. ITO.- HT and PTT in coll. SMETANA (Ottawa), PTT also in coll. NAOMI, coll. DE ROUGEMONT and in cP.

D e s c r i p t i o n : Macropterous, black, moderately shiny, each elytron with a long, oval, slightly elevated orange spot in posterolateral quarter (fig. 42); punctuation of the forebody coarse and very dense, slightly coalescent, abdominal punctuation coarse and dense anteriorly, fine and moderately sparse posteriorly; pubescence short, recumbent. Antennae reddish brown, club infuscate. Maxillary palpi reddish brown. Paraglossae coniform. Legs reddish brown, apices of femora and of tarsal segments shortly darker. Clypeus black, labrum blackish brown, anterior margin brown, moderately densely pubescent.

Length: 5.3-7.0 mm (forebody: 2.9-3.1 mm).

PM of the HT: HW: 50; DE 27; PW: 39; PL: 43; EW: 49.5; EL: 51; SL: 40; SpL: 19.

M a l e : About as in *S. bilunatus*, but the punctuation of sternites much finer and the notch of sternite 8 slightly less deep. Outline of aedeagus similar to that of *S. bilunatus*, anterior shape of expulsion clasp also very similar but slightly narrower (fig. 92).

F e m a l e : About as in *S. bilunatus*, but the infundibulum of spermatheca narrower and longer (fig.104).

C o m p a r a t i v e n o t e s : In most respects similar to *S. bilunatus*, but the head on the average narrower (HW: EW = 0.94-1.04, ø 0.99, N= 31), the elytral spot a little longer (SpL: EL = 0.31-0.46, ø 0.38, N= 31). The punctation of the posterior abdomen is distinctly sparser and less dense: on tergite 7 punctures are smaller than one eye facet near dorsal eye margin, interstices distinctly larger (up to twice as large) as punctures (in *S. bilunatus* punctures are as large or larger as eye facets near dorsal eye margin, interstices on the average slightly smaller than punctures).- For identification amongst the Taiwanese species see key.

E t y m o l o g y : "*bilunatoides*" (Lat.) = close to *S. bilunatus*.

***Stenus biluminatus* nov.sp. (Figs 68, 83, 94, 102)**

T y p e m a t e r i a l : Holotype ♂ and 2♀♀-paratypes: TAIWAN: Nantou Hsien: Nankaoshan, 1.5 km SW Tenchi Hut, 2830 m, 6.V.1992, leg. A. Smetana (T 116). Paratypes: 1♂, 1♀: Tenchi Hut, 2900 m, 5.V.1992 (T 114); 1♀: 2.5 km SW Tenchi Hut, 2720 m, 6.V.1992 (T 115) all leg. A. SMETANA.- HT and PTT in coll SMETANA (Ottawa), PTT also in cP.

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Highly similar to *S. bilunatoides*, but the shape of the expulsion clasp of the median lobe different (figs 83, 94). The spermatheca about as in *S. bilunatus* (fig. 102).

Length: 5.8-6.8 mm (forebody: 2.8-3.1 mm).

PM of the HT: HW: 49; DE: 28; PW: 38.5; PL: 42; EW: 48; EL: 49; SL: 39; SpL: 21.

C o m p a r a t i v e n o t e s : At the present state the specimens described here could not been included into the variability range of *S. bilunatoides* and should therefore been regarded as a separate species. (SpL: EW = 0.39-0.45, ø 0.41, N=5; HW: EW = 0.99-1.03; ø 1.01, N=5).- For identification amongst the Taiwanese species see key.

E t y m o l o g y : "*biluminatus*" (Lat.) = furnished with two lights (= elytral spots).

***Stenus bistigmosus* nov.sp. (Figs 43, 69, 84, 86, 93)**

T y p e m a t e r i a l : Holotype ♂: TAIWAN: Taichung Hsien: Hsuehshan near Hsuehshan-Tun-Feng, 3170 m, 11.V.1991, leg. A SMETANA (T 76). Paratypes: 1♀: Kaohsiung Hsien: Kuanshan, Kuanoshing Hut, 3020 m, 18.IV.1992, leg. A. SMETANA (T 92); 1♀: Kaohsiung Hsien: Peinantashan trail, 2500 m, 4.VII.1993, leg. A. SMETANA (T 136).- HT and 1 PT in coll. Smetana (Ottawa), 1 PT in cP.

D e s c r i p t i o n : Macropterous, black, slightly shiny, each elytron with a large, oval, orange spot in posterior half (fig. 43); punctuation of the forebody very coarse and very dense, on pronotum and elytra confluent, abdominal punctuation coarse and moderately dense anteriorly to fine and moderately sparse posteriorly; pubescence short, recumbent. Antennae brown, club infuscate. Maxillary palpi yellowish, segment 3 infuscate. Paraglossae coniform. Legs reddish brown, nearly the apical half of the femora and the apices of tarsal segments infuscate. Clypeus black, labrum black, anterior margin brown, moderately densely pubescent.

Length: 6.3-7.3 mm (forebody: 3.2 mm).

PM of the HT: HW: 55; DE: 30; PW: 40.5; PL: 46; EW: 50; EL: 56; SL: 44; SpL: 24.

M a l e : Very similar to *S. bilunatus*, but the apical notch of sternite 8 less deep (41.5: 2), apicolateral teeth of sternite 9 shorter (fig.86). Anterior portion of the median lobe different (fig. 69), expulsion clasp narrower and differently shaped anteriorly (figs 84, 93).

F e m a l e : Similar to that of *S. bilunatus*.

C o m p a r a t i v e n o t e s : In many respects closely resembling *S. bilunatus*, but the head distinctly broader than elytra, the elytral spot much larger, and the abdominal punctuation less coarse and distinctly sparser: on tergite 4 interstices on the average slightly larger than punctures, in tergite 7 punctures are smaller than eye facets near dorsal eye margins, interstices much larger (becoming twice and more as large) than punctures.

Variability: In the paratype from the Peinantashan trail nearly the whole elytra are dark-orange.

E t y m o l o g y : "*bistigmosus*" (Lat.) = with two (orange) stigmata.

For identification amongst the Taiwanese species see key.

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Stenus bicolon SHARP 1889 (Figs 23, 45)

Stenus bicolon SHARP 1889: 328; PUTHZ 1968: 46 fig.
Stenus posticus FAUVEL 1895; SAWADA 1965: 147.

M a t e r i a l s t u d i e d : TAIWAN: 1♂: Nantou Hsien: near Meifeng, 19.IV.1977, W. Suzuki (cSh); 1♀: Meifeng, 29.V.1980, H. Makihara (cN); 1♀: Hualien Hsien: Pilu-Shenmu (2400 m), 19.VIII.1978, Y.Sibata (cSh); 1♂: Chiai Hsien: Fenchihu 1500 m, 2.-3.7.1982, N. Nishikawa (cN); 1♀: ibidem, 23.V.1995, K. Matsuda (cSh); 1♂: Kaohsiung Hsien: Tengchih ner Liukuei, 3.V.1983, A. Saito (cP). Sawada records the species from Rimogan-Magan [= Fushan, Taipei Hsien].

M a l e : Mesotibiae with a strong preapical tooth, metatibiae with a smaller preapical tooth. Metasternum feebly shallowed, triangularly elevated in posterior middle, which is very densely punctate and pubescent. Anterior sternites simple, sternite 7 with a narrow, sharply carinated impression in posterior middle (fig. 45), coarsely and densely punctate, posterior margin shallowly emarginate. Sternite 8 apically with a shallow emargination about one twelfth as long as the sternite. Sternite 9 acute apicolaterally. Tergite 10 rounded. Since the apical portion of the median lobe is rounded (not obtuse or slightly concave), the Taiwanese specimens belong to the nominate form and not to *S. bicolon posticus* FAUVEL as has been suggested previously.

F e m a l e : Sternite 8 rounded posteriorly. Spermatheca (fig. 23).

This species belongs to the *S. abdominalis*-group.

Stenus changi PUTHZ 1971

Stenus changi PUTHZ 1971a: 19f.; PUTHZ 1991: 19f. figs.

M a t e r i a l s t u d i e d : Ilan Hsien: 1♂: Chihtuan, 18.IV.1981, H. Takemoto (cN); Miaoli Hsien: 1♂: Henglon Wenchuan, 8. VIII.1982, Y. Shibata (cShibata); Taichung Hsien: 1♀: Musha (Wuso) to Bandal, 1000 m, 24.VIII.1947, J. L. Gressitt (BPBM); Nantou Hsien: 1♀: Nanshanchi, 8.IV.1977, T. Niizato (cN); 1♂, 1♀: Wushe, 671 m, along stream, 30.I.1962, C. M. Yoshimoto (BPBM, cP); 1♂, 2♀♀: Lushan Wenchuan, 3., 4.VIII.1985, Y. Shibata (cSh, cP); 1♂, 1♀: near Lushan (1200 m), 30.VII.1978, 15.VIII.1981, Y. Shibata (cSh); 2♂♂, 2♀♀: Lushan spa, 2.IV.1977, W. Suzuki (cSh, cP); Chiai Hsien: 2♂♂, 1♀: Fenchihu, 1500 m, 2.-3.VII.1982, N. Nishikawa (cN, cP); 1♀: ibidem 1370 m, 10.-12.IV.1965, C. M. Yoshimoto & B. D. Perkins (BPBM); 5♂♂, 8♀♀: Keitou [= Chitou], 31.III.1980, K. Sugiyama (cN, cP); Chiai Hsien: 1♂, 1♀: Mt. Karapin [= Chaolipihg] near Mt. Ari (125 m), 19.III.1938, Y. Yano (NHML, cP).- This species lives also on the Chinese mainland: 1♂: Sichuan: Jiulongguo env. Dayi, 70 km W of Chengdu, 28.VI.-2.VII.1995, Z. Jindra (cS).

C o m p a r a t i v e n o t e : This species belongs to the *S. pulcher*-group, in which it is remarkable by the triangular apical shape of sternite 9 in the male. The elytral spot can become indistinct.

Stenus guttalis FAUVEL 1895 (Fig. 10)

Stenus guttalis FAUVEL 1895: 212; PUTHZ 1969: 21f. figs.

M a t e r i a l s t u d i e d from Taiwan: Taichung Hsien: 1♂, 2♀♀: Wufeng, 100-120 m, 14.IV.1990, A. Smetana (T 1) (cS, cP); Taitung Hsien: 1♀: Peiyuan, 7.VI.1968, Y. Watanabe (cP).

This species was described from Burma and is known to me from Laos, Thailand, China (Yunnan), Japan (Okinawa Pref.), Malaysia, Sabah, Sumatra and Bali. It resembles strongly *S. gestroi* but has the abdomen immargined.

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Key to the Tawanese *Stenus* species with spotted elytra

(A = aedeagus; EC = expulsion clasp; S= spermatheca)

1 Abdomen margined 2
- Abdomen unmargined 25
2 Abdominal segments 4-7 very narrow, thread-like margined, without paratergites 3
- Abdominal segments 4-7 with distinct paratergites 9
3 Abdominal pubescence long and erect 4
- Abdominal pubescence short and recumbent 5
4 Larger: 4.0-5.0 mm (FB: 2.0 mm). Elytral spot distinct, longer, extending from shoulder to posterior margin. ♂: Unknown. ♀: S (fig. 25, PUTHZ 2009) ..... *S. cirrativestis* PUTHZ
- Smaller: 3.0-4.0 mm (F: 1.8 mm). Elytral spot less distinct, smaller, in posterior half of elytra. ♂: A(fig. 114). ♀: Unknown ..... *S. cirricinctus* PUTHZ
5 Elytra distinctly broader than long; eyes very large, frons strongly concave. ♂: A (figs 46-54, 56). ♀: S (fig. 8). 4.8-6.5 mm (FB: 2.3-2.7 mm) ..... *S. gestroi* FAUVEL
- Elytra longer than broad, eyes less large, frons shallowly concave, median portion distinctly elevated 6
6 Elytra longer (EW: EL<0.92 [0.88-0.94]), elytral spot distinctly extending into anterior half of elytra 7
- Elytra shorter (EW: EL >0.92 [0.93-0.98]) 8
7 Abdominal punctuation coarser and denser (fig. 44). ♂: A (fig. 107). ♀: S (fig.21). 5.0-6.0 mm (FB: 2.6-2.8 mm) ..... *S. miwai* BERNHAUER
- Abdominal punctuation less coarse, sparser (fig. 27). ♂: A (fig. 108). ♀: S (fig. 20). 5.0-6.0 mm (FB: 2.4-2.7 mm) ..... *S. mithracifer* nov.sp.
8 Elytral spot smaller, not extending to the posterior margin of elytra, abdominal punctuation less coarse. ♂: A (fig. 116). ♀: S (e. g. fig. 16). 5,5-6.5 mm. (FB: 2.4-2.7 mm) ..... *S. electrigemmeus* nov.sp.
- Elytral spot larger, extending to the posterior margin of elytra, abdominal punctuation coarser. ♂: A (fig. 19). ♀: Unknown. 6.5 mm (FB: 2.6 mm) ..... *S. electrigemmatus* nov.sp.
9 Tarsal segment 4 simple. ♂: A (figs 1-2, PUTHZ 2008). ♀: no sclerotized S. 4.0-5.0 mm (FB: 2.3-2.5 mm) ..... *S. alienus* SHARP
Japan, China, Russia (Siberia, Primorje), Korea
- Tarsal segment 4 bilobed 10
10 Paraglossae oval (fig. 1, 2) 11
- Paraglossae coniform (fig. 3, 4) 18
11 Sternum 9 pointed apicolaterally (figs 86-88, 120, 121) 12
- Sternum 9 serrate apically (fig. 85) 15
12 Elytral spot larger, oval, in lateral half of elytra (fig. 31); punctures on tergite 7 as large as eye facets near dorsal eye margin. Three very close species which should be identified by dissecting the males 13
- Elytral spot smaller, round, in actual middle of elytra (fig. 35); punctures on tergite 7 smaller than eye facets near dorsal eye margins. ♂: A (fig. 110). ♀: S (fig. 112). 4.3-5.0 mm (FB: 2.1-2.2 mm) ..... *S. shibataianus* nov.sp.
13 ♂: A (fig. 117). ♀: S (fig. 113). 4.0-5.4 mm (FB 2.0-2.2 mm) ..... *S. electristigma* nov.sp.
- ♂: A otherwise 14
14 ♂: A (fig. 109). ♀: S as in fig. 112). 5.0-6.0 mm (FB: 2.4-2.7 mm) ..... *S. shibatai* nov.sp.
- ♂: A (fig. 111). ♀: unknown. 4.6 mm (FB: 2.3 mm) ..... *S. shibataiellus* nov.sp.
15 Abdominal punctuation extremely dense, interstices smaller than half diameter of punctures. ♂: A (fig. 62, PUTHZ 1969). ♀: S (fig. 22). 3.5-5.0 mm (FB: 1.9-2.4 mm). Known from Hainan. Records from Taiwan? ..... *S. virgula* FAUVEL (?)

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- Abdominal punctuation less dense, interstices much larger than half diameter of punctures 16

16 Larger, punctuation on tergite 7 less coarse, punctures smaller than one eye facet near dorsal eye margin 17

- Smaller (FB: 2.1-2.4 mm), punctation on tergite 7 coarser, punctures larger than eye facets near dorsal eye margins. ♂: A (fig. 97). ♀: S (fig. 115). 3.8-5.3 mm ..... *S. arisanus* CAMERON

17 Elytra longer than broad, abdominal punctuation coarser and less dense. ♂: A (fig. 118). ♀: S (fig. 24). 5.5-7.2 mm (FB: 2.8-3.2 mm) ..... *S. stigmosus* nov.sp.

- Elytra as long as broad, abdominal punctuation less coarse, denser. ♂: A (fig. 119). ♀: S (fig. 25.). 5.0-6.5 mm (FB: 2.4-2.8 mm) ..... *S. stigmifer* nov.sp.

18 Punctation of tergite 7 coarser and very dense, interstices smaller than diameter of punctures, punctures at least as large as eye facets near dorsal eye margin 19

- Abdominal punctuation denser, interstices on lateral half of tergite 4 on the average smaller than half diameter of punctures 22

19 Elytral spot longer, two thirds as long as one elytron or longer (fig. 41). ♂: A (figs 66, 67), EC (fig 81, 82). ♀: S (fig. 103). 5.2-7.9 mm (FB: 3.0-3.4 mm)..... *S. bilunatior* nov.sp.

- Elytral spot shorter, one third as long as one elytron or shorter (0.26-0.45, ø 0.34) 20

20 Elytral spot mostly shorter (SpL: EL = 0.29-0.45, ø 0.33), not elevated from rest of elytral surface. ♂: Trochanter simple, metatibiae straight 21

- Elytral spot elevated from rest of elytral surface, longer (SpL: EL = 0.38). ♂: Trochanter with a prominent tooth (fig. 96), metatibae curved, A (fig. 65), EC (fig. 79, 91)..4 mm)..... *S. bigemmatus* nov.sp.

21 ♂: Anterior portion of median lobe as strongly sclerotized anteriorly as posteriorly, less rounded, A (figs 58-63, 106), EC (figs 75-78). ♀: S (fig. 105). 5.8-7.5 mm (FB: 2.9-3.3 mm)..... *S. bilunatus* PUTHZ

- ♂: Anterior portion of median lobe weakly sclerotized anteriorly, more rounded, A (fig. 64), EC (fig. 80, 90). ♀: S (about as in fig. 105). 6.5-7.0 mm (FB: 3.1-3.4 mm)..... *S. bigemmosus* nov.sp.

22 Punctation of pronotum preponderately distinctly delimited. ♂: A (fig. 10, PUTHZ 1968). S (fig. 23). 4.0-5.0 mm (FB: 2.2-2.4) ..... *S. bicolon* SHARP

- Punctation of pronotum preponderately confluent 23

23 Abdominal punctuation denser, interstices on lateral half of tergite 4 on the average smaller than half diameter of punctures 24

- Abdominal punctuation less dense, interstices on lateral half of tergite 4 distinctly larger than half diameter of punctures, may become as large as punctures. A (fig. 69), EC (fig. 84, 93). ♀: about as in fig. 105). 6.3-7.3 mm (FB: 3.2 mm)..... *S. bistigmosus* nov.sp.

24 ♂: EC (fig. 92). ♀: S (fig. 104). 5.3-7.0 mm (FB: 2.9-3.1 mm) ..... *S. bilunatoides* nov.sp.

- ♂: EC (fig. 83, 94). ♀: S (as in fig. 105). 5.8-6.8 mm (FB: 2.8-3.1 mm)..... *S. biluminatus* nov.sp.

25 Elytra as long as or longer than broad. ♂: Sternite 9 triangularly pointed. ♀: no sclerotized S. 4.0-4.5 mm (FB: 2.2-2.3 mm) ..... *S. changi* PUTHZ
(note: in some specimens the reddish spot can be obsolete)

- Elytra shorter than long. ♂: Sternite 9 apicolaterally acute, A (fig. 69, PUTHZ 1969). ♀: S (fig. 10). 4.8-6.0 mm (FB: 2.3-2.5 mm) ..... *S. guttalis* FAUVEL

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Zusammenfassung

15 neue Arten der Gattung *Stenus* LATREILLE warden von Taiwan beschrieben: *S. bigemmatus* nov.sp., *S. bigemmosus* nov.sp., *S. biluminatus* nov.sp., *S. bilunatior* nov.sp., *S. bilunatoides* nov.sp., *S. bistigmosus* nov.sp., *S. electrigemmatus* nov.sp., *S. electrigemmeus* nov.sp., *S. electristigma* nov.sp., *S. mithracifer* nov.sp., *S. shibatai* nov.sp., *S. shibataianus* nov.sp., *S. shibataiellus* nov.sp., *S. stigmifer* nov.sp. and *S. stigmosus* nov.sp., 5 Taxa synonymisiert: *S. callifrons* L. BENICK 1926 n.syn. = *S. gestroi* FAUVEL 1895; *S. grandiculus* L. BENICK 1926 nov.syn. = *S. gestroi* FAUVEL 1895; *S. ridiculus* SCHEERPELTZ 1933 nov.syn. = *S. gestroi* FAUVEL 1895; *S. stigmatipennis* L. BENICK 1929 nov.syn. = *S. gestroi* FAUVEL 1895; *S. takara* NAKANE 1963 nov.syn. = *S. gestroi* FAUVEL 1895 und 2 Statusänderungen vorgeschlagen: *S. submaculatus* BERNHAUER 1915 = *S. gestroi submaculatus* BERNHAUER 1915 nov.stat.; *S. lacertosus* L. BENICK 1917, spec.propr.. Eine neue Definition der *S. gestroi*-Gruppe und eine vorläufige Definition der *S. tenuimargo*-Gruppe werden vorgelegt. Ein Bestimmungsschlüssel für die gemakelten *Stenus* von Taiwan ist angefügt.

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