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中國及日本異尾蟲科昆蟲之記述

馬駿超

臺灣省臺北市

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RECORDS AND DESCRIPTIONS OF SOME CHINESE AND JAPANESE UROSTYLIDAE (HEMIPTERA HERTEROPTERA)

By

TSING-CHAO MAA

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TAIPEH, TAIWAN

中國及日本異尾蟲科昆蟲之記述

馬　駿　超

（提　　要）

異尾蟲科亦稱長角蠼科或尾蠟科，隸半翅目。本文所記述者共 23 種，內中國之新記錄種 1，新種 13，其名稱暨產地列次：

暹羅異尾蟲	*Urochela siamensis* Yang	福建（中國新記錄種）。
叉稜異尾蟲	*Urostylis tricarinata* Maa	福建。
邵氏異尾蟲	*Urostylis genevae* Maa	福建，爲害雷公藤。
蔡氏異尾蟲	*Urostylis chinai* Maa	福建，臺灣。
楊氏異尾蟲	*Urostylis yangi* Maa	江西，安徽。
黑痣異尾蟲	*Urostylis atrostigma* Maa	浙江。
負笛異尾蟲	*Urostylis verticalis* Maa	福建。
犁鈎異尾蟲	*Urostylis recurvata* Maa	臺灣。
縮背異尾蟲	*Urostylis suppressa* Maa	臺灣。
肋脾異尾蟲	*Urostylis lobopleuralis* Maa	臺灣。
凹緣異尾蟲	*Urolabida emarginata* Maa	福建。
隱突異尾蟲	*Urolabida intacta* Maa	福建。
截缺異尾蟲	*Urolabida subtruncata* Maa	福建。
七齒異尾蟲	*Urolabida septemdentata* Maa	福建。

以上諸新種之標型（Type-specimens），分存於中央研究院，福建省研究院，震旦大學博物院，本試驗所暨筆者處。

此外，本文復提示新同物異名 2 例，並予中華異尾蟲 *Urostylis sinensis* Wk. 以詳盡之重記載。文末附中國（41 種），朝鮮（7 種），日本（5 種）及西比利亞（4 種）之異尾蟲科名錄，計 44 種，按其尾部體制，編排爲 19 種群，俾異日釐訂本科各屬及各亞屬之自然系統時，有所依據。

RECORDS AND DESCRIPTIONS OF SOME CHINESE AND JAPANESE UROSTYLIDAE (HEMIPTERA HETEROPTERA)*

By T. MAA (MAA TSING-CHAO)

The present communication is the result of a study on the urostylid bugs contained in the collections of Academia Sinica, Academia Fukienica, Fukien Christian University, Musée Heude of Aurora University, Provincial Institute for Agricultural Improvement of Fukien, Taiwan Agricultural Research Institute, and of the writer. It is offered here primarily as a supplement to YANG's admirable revision (1939): one species is recorded from China for the first time, thirteen others are described as new, while two of YANG's species are suppressed as new synonyms, and *Urostylis sinensis* WK. is redescribed. A check list of the known species of China, Chosen, Japan and Siberia, arranged according to a natural system of subgeneric grouping, is also appended.

For the loan of materials, informations, and courtesies of a varied nature, the writer is much indebted to the Rév. Père A. DE COOMAN, Dr. H. C. BLÖTE, Prof. H. F. CHAO, Dr. SICIEN H. CHEN, Mr. W. E. CHINA, Prof. W. E. HOFFMANN, Prof. T. WONG, Mr. C. C. SUNG and Prof. W. I. YANG; for the making of the drawings he is obliged to Messrs. K. S. LIN, C. W. CHEN and P. L. LOH and Miss S. C. CHIU.

Urochela luteovaria DIST., 1881.

1881. *U. luteovaria* Distant, Ann. Mag. n. H (5) 8:28 ♂ ♀. (Tokyo).
1938. *U. neoluteovaria* Yang, Bull. Fan Inst. Biol. Zool. 8:63 ♂. (syn. nov.)
1939. *U. wui* Yang, op. cit. 9:25 ♂ ♀. (syn. nov.)

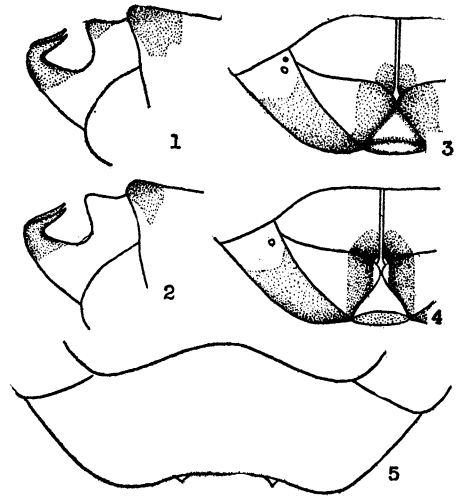
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* Contribution from the Department of Economic Zoology, Taiwan Agricultural Research Institute, published with the approval of the Director of the Institute.

Extrait des "Notes d'Entomologie Chinoise" du Musée Heude (Shanghai), vol. XI fasc. 3 (30 avril 1947).

Kiangsi: Kuling, 2. vii. 1935, O. PIEL, 1 ♂, 1 ♀ (Mus. Heude).
Kweichow: Kweiyang, 5. ix. 1934, O. PIEL, 2 ♂ ♂ (Mus. Heude).

Fukien: Chungan Hsien (Kua-Tun, Miao-Wan, San-Chiang, Tsi-Li-Chiao, Tung-Mu-Kwan), Kienyang Hsien (Lo-Tun, Yao-Tao), Shaowu Hsien (Ta-Chu-Lan and its vicinity), seriously infesting peach and plum trees, 1941-45, MAA, LIN & FU, 164 ♂ ♂, 158 ♀ ♀, 9 nymphs (MAA coll.).



Text-fig. 1-2. *Urochela luteovaria* Dist., ♂ genital segments, color variation. 3-4. Ditto, ♀, color variation. 5. Ditto, ♀, dorsal view.

Honshu: Agatamuraagata, Tisagatagun, Naganoken, 6. viii. 1936, H. YANAGIZAWA, 1 ♀ (Taiwan Inst.); Hakone, Kanagawaken, 3. vii. 1936, T. ICHIYANAGI, 1 ♂, 1 ♀ (Taiwan Inst.); Hirosaki, Aomoriken, T. SHIRAKI, 1 ♀ (Taiwan Inst.); Mt. Takao, Tokyo, 11. vi. 1932, Y. OUCHI, 1 ♀ (Acad. Sinica); Tonoshiroyama, Ueda, Naganoken, 21. vii. 1935, Kyushu: Ichibusayama, Miyasakiken, 1. xi., 1 ♀ (Taiwan Inst.). S. MIYAMOTO, 1 ♂ (Taiwan Inst.)

Miss L. C. Woo together with the writer has made an extensive study in the variability of the present species including body size, abdominal markings, relative lengths of fore-wings and of rostrum, as well as shape of parameres and we are inclined to the view that neither *neoluteovaria* nor *wui*, which are based upon these characters, can be classified as distinct species or even subspecies. YANG (1938, 1939) probably compared the parameres of these three "species" *not* at the same time or *not* from the same angle, and thus supposing them to be representing more than one species (Text-fig. 1-5).

Urochela falloui Reut., 1888.

1888. Reuter, Rev. d'Ent, 7:65 ♂. (Peiping).
1936. Lindberg, Ark. Zool. 27A (28):15 ♂ ♀ (S. Kansu; redescription).

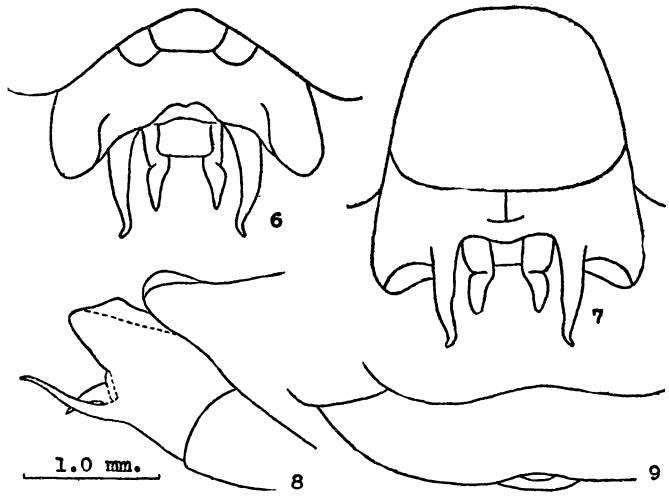
Shantung: Tsingtao, on pear, 10 ♂♂, 8 ♀♀ (Mus. Heude).

The abdominal markings of this species are rather variable, and, in female sex, are practically inseparable from that of the preceding species. The black tubercles on palettes of pleurites X (♀) are, however, more prominent in *falloui*.

Urochela strandi Esk., 1937.

1937. Esaki, Festschr. Strand 1:492 f. ♂ ♀. (Formosa).

Formosa: Arisan, 2-23. x. 1918, J. Sonan & M. Yoshino, 1 ♂ (Taiwan Inst.); Chiponsan, 5. vi. 1935, Y. Ouchi, 1 ♂ (Acad. Sinica); Horisha, 10. v. 1913, M. Maki, 2 ♂♂ (Taiwan Inst.); Kanmon, 18. iv. 1910, I. Nitobe, 1 ♂ (Taiwan Inst.); Karenko, 20. vii.-4. viii. 1919, T. Okuni, J. Sonan, K. Miyake & M. Yoshino, 1 ♂ (Taiwan Inst.); Kyuhabon, 9. x. 1926, S. Issiki, 1 ♀ (Taiwan Inst.); Nankotaizan, 31. x. 1928, J. Sonan, 1 ♂ (Taiwan Inst.); Sikikun, 3. xi. 1928, J. Sonan, 1 ♂ (Taiwan Inst.); Yusho, 3. xi. 1928, J. Sonan, 1 ♂ (Taiwan Inst.).



Text-fig. 6-8. *Urochela strandi* Esk., ♂ genitalia in dorsal, ventral and lateral aspects. 9. *U. distincta* Dist., ♀ genital segments in dorsal view.

Fukien: Between Tsi-Li-Chiao and Tung-Mu-Kwan, Chungan Hsien, 17. x. 1941, 1 ♂ (Maa coll.).

ESAKI's illustrations of the male genitalia, especially in lateral aspect, seem to be slightly different from what the writer has observed from specimens on hand (Text-fig. 6-8).

Urochela distincta DIST., 1900. (Text-fig. 9).

Kiangsi: Kuling, vii.-viii. 1935, O. PIEL, 3 ♀ ♀ (Mus. Heude).

Chekiang: Mokanshan, v.-vi. 1935, Y. OUCHI, 9 ♂ ♂, 5 ♀ ♀ (Acad. Sinica); Tienmushan, vi.-vii. 1936, O. PIEL, 7 ♂ ♂, 3 ♀ ♀ (Mus. Heude), vi. 1936-viii. 1937, Y. OUCHI, 6 ♂ ♂, 6 ♀ ♀ (Acad. Sinica); Yentangshan, 22. v. 1937, Y. OUCHI, 1 ♂ (Acad. Sinica).

Fukien: Bohea Hills, Chungan Hsien, 6. v. 1940, 1 ♀ (MAA coll.); San-Chiang, Chungan Hsien, C. H. POPE, 1 ♀ (Fukien Univ.); Miao-Wan, Chungan Hsien, 10-11. vi. 1943, 1 ♂ (MAA coll.); Ta-Chu-Lan, Shaowu Hsien, infesting *Rosa*-species, 1942-43, 5 ♂ ♂, 9 ♀ ♀ (MAA coll.); Shui-Pei-Chieh, Shaowu Hsien, 27. i. 1942, hibernating among bamboo leaves, K. S. LIN, 1 ♂ (MAA coll., det. W. I. YANG).

Urochela guttulata STAL, 1876.

This is an eastern Himalayan species, and its occurrence in Formosa as recorded by MITSUHASHI* is quite improbable.

Urochela siamensis YANG, 1938.

Fukien: Ta-Chu-Lan, Shaowu Hsien, 15. vi.-12. xii. 1942, 2 ♂ ♂ (MAA coll.).

New to China, hitherto known only from its type locality (Chiengmei, Siam).

Urochela quadrinotata (REUT.), 1881.

Chahar: La Trappe, 16. vi. 1930, LICENT, 1 ♀ (Mus. Heude).

Yezo: Sapporo, 1 ♂ (det. T. SHIRAKI as *guttulata* STAL!) (Taiwan Inst.).

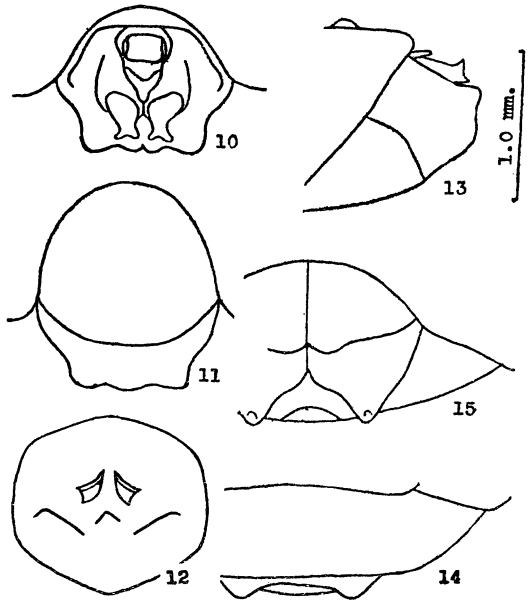
Urostylis tricarinata, sp. nov.

Male:—Grassy green. Vertex with one brown spot posterior to each ocellus. Antennae greenish yellow or reddish brown on segments I, II-III (extreme apices), IV (basal halves). Pronotum with its posterio-lateral tubercles black. Propleura each with a lateral black band. Scutellum basally, metapleura laterally and coria discally and

* Mitsuhashi, S. (1915) Ins. World 19:523 n 135.

costo-apically each with one black spot, sometimes medio-apical margins of coria also with such a spot. Membranes hyaline, baso-anally yellowish brown, venal interspaces sometimes with brownish markings. Femora apically sooty brown. Abdominal segments IV-VIII laterally each with one semicircular black marking. Genital carinae and parameres apically brownish.

Pronotum with rather fine brown punctures, posteriorly wrinkled. Puncturation on scutellum finer, that on coria sparser but rather evenly distributed.



Text-fig. 10-13. *Urostylis tricarinata*, sp nov., ♂ genital segments in dorsal, ventral, caudal and lateral aspects. 14-15. Ditto, ♀, in dorsal and caudo-ventral aspects.

Rostrum extending to the mid-point between coxae I and II. Relative lengths of antennal segments about 62: 67: 34: 52: (?). Face with an elongate triangular depression posterior to each antenniferous tubercle, and with one narrow fovea lateral to each ocellus. Pronotum with its lateral margins weakly curved, markedly reflexed and very obscurely serrated. Membranes each with seven or eight veins. Genitalia (Text-fig. 10-13). Length of body including wings 11.5 mm., breadth 4.2.

Female.—Rostrum extending hardly beyond coxae I. Abdominal segment IX laterally with one semicircular black marking, palettes of

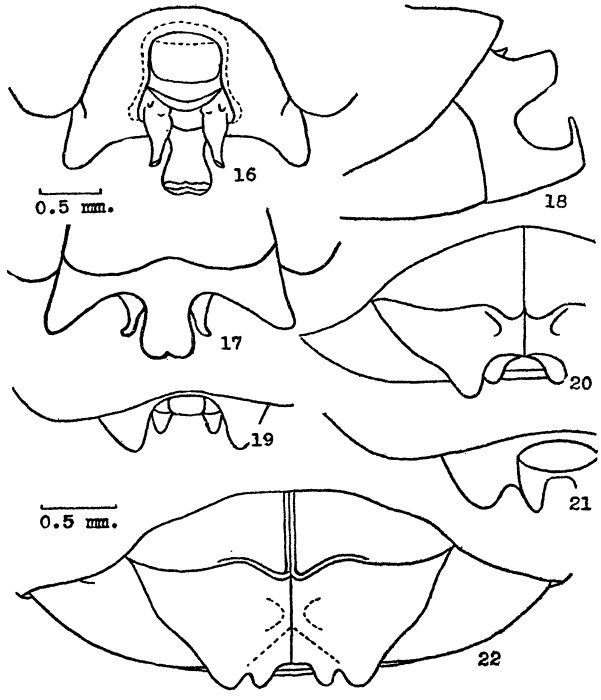
pleurites X posterio-laterally also black (Text-fig. 14-15). Length of body including wings 11.5 mm., breadth 4.5.

Fukien: Li-Shan, Chih-Shui, Tehwa Hsien, v. 1942, T. WONG 1 ♀ (Allotype) (MAA coll.); Ho-Ling, Tehwa Hsien, v. 1942, T. WONG, 1 ♀ (Acad Fukienica); Tehwa City, v. 1942, T. WONG, 1 ♂ (Holotype) (MAA coll.), 2 ♀ ♀ (Acad. Fukienica).

The lateral and median carinae of this species in male are highly specialized and homologous with the lateral and median processes of other species-groups. Its female genital segments are, on the other hand, very similar to those of *luteovaria*-group.

Urostylis genevae, sp. nov.

Male.—Grassy green. Antennae black, segments I together with basal portions of the II reddish brown, basal halves of the IV and V yellowish brown. Pronotum with two small black spots anterior to its disc, and with one lateral black band on either side of its venter. Apices



Text-fig. 16-18. *Urostylis genevae*, sp. nov., ♂ genital segments in dorsal, ventral and lateral aspects. 19-20. Ditto, ♀, in dorsal and caudo ventral aspects. 21-22. *U. blattiformis* Berg., ♀, in dorsal and caudo-ventral aspects.

of tibiae together with tarsi dull brown. Fore-wings basally each with one short black band running along with the costal and anal margins. Membranes fuscous, darker along basal margins and at apical angles, and paler along the veins. Hind-wings greyish, hyaline, apical angles and clavi being a little darker. Abdominal tergites V and VI each with one large sanguineous discal spot. Connexivae IV to VII as well as sternites III to VII laterally each with one triangular black spot. Sternites each with two faint transverse bands formed by numerous minute brown spots.

Puncturation on pronotum dense, brown in color, denser near the posterior portion. Scutellum similarly punctured, but posteriorly sparsely so. Coria with a few fine brown punctures along costal margins. Abdomen impunctate.

Face depressed. Rostrum about twice as long as head in ventral aspect. Relative lengths of antennal segments about 78: 88: 43: 77: 59. Pronotum rather flat; slightly reflexed and finely serrated along its lateral margins. Fore-wings rather narrow, membranes each with eight veins. Genitalia (Text fig. 16-18). Length of body including wings 13.0 mm., breadth 5.5.

Female.—Rostrum apically greenish yellow. Antennal segments I yellow, basally reddish brown. Pronotum anteriorly without black markings. Metapleura laterally sometimes each with two obscure brownish spots. Scutellum, tibiae and tarsi greenish yellow. Coria without black markings near the apical margins. Sternites III-VII laterally with roundish black spots but without submarginal fasciae, sternite VIII laterally with one small brownish spot.

Rostrum extending almost to the level of anterior margins of coxae II. Relative lengths of antennal segments about 74: 83: 45: 59: 50. Pronotum without serration on the posterior half of its lateral margins. Genital segments (Text-fig. 19-20). Length of body including wings 13.5-15.0 mm., breadth 5.5.

Nymph (Fifth Instar).—Oval. Rostrum extending to the level of anterior margins of coxae II. Antenniferous tubercles black. Relative lengths of antennal segments about 42: 65: 54: 50; segments II-IV apically black. Juga and tylus anteriorly of the same extent. Ocelli vestigial. Pronotum almost twice as long as head; lateral margins reflexed, without serration; anterior margin flat. Mesonotum slightly shorter than pronotum, anteriorly with two small black submarginal

spots. Thoracic pleura laterally black. Wing-pads extending almost to the posterior margin of abdominal tergite IV, which is posteriorly ornamented with two brown lunulate markings. Tergite V anteriorly with a broad black band, and discally with one elliptical sanguineous prominence; tergite VI, in addition to such markings, anteriorly and posteriorly each with one black intersegmental prominence. Lateral margins of abdominal segments III-IX, both dorsally and ventrally, each with a narrow black streak. Length of body 8.0-8.5 mm., breadth 4.5.

Fukien: Ta-Chu-Lan, Shaowu Hsien, 20. v. 1943, 1 ♂ (Holotype); 8-14. v. 1945, infesting *Tripterygium Wilfordii* HOOK., 1 ♀ (Allotype), 6 nymphs (fifth instar), 1 exuvia; 25. v. 1945, 1 ♀ (MAA coll.).

This elegant species is named after MRS. GENEVA T. (SHAO) LI, sometime my entomological assistant in Fukien. Its closest relatives are *nigrolineata* YANG and *blattiformis* BERG., but their parameres and median genital processes are differently shaped, notwithstanding their color patterns are hardly distinguishable.

Urostylis blattiformis BERG., 1916. (Text-fig. 21-22).

Fukien: San-Chiang, Chungan Hsien, C. H. POPE, 3 ♂ ♂, 3 ♀ ♀ (Fukien Univ.).

Urostylis sinensis WK., 1867.

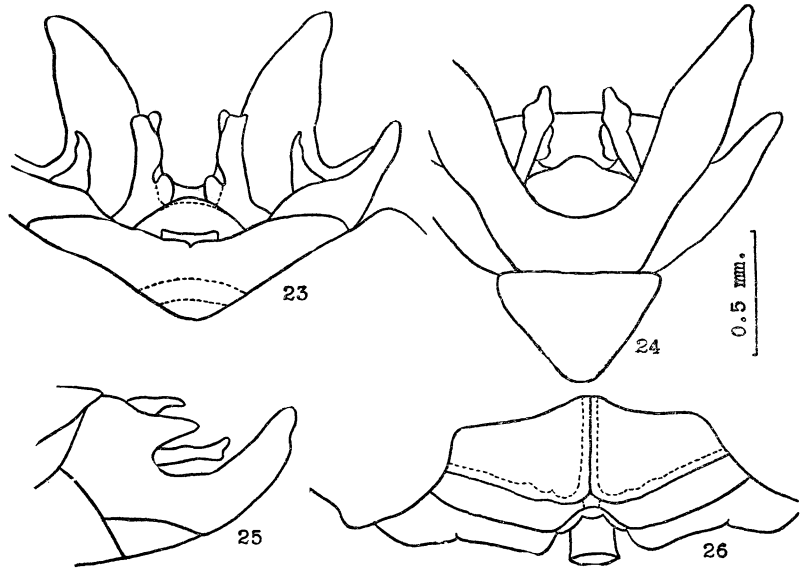
Male. — Grassy green. Antennal segments III, IV (apical halves) fusco-brown. Thorax ventrally with a black lateral submarginal stria at each side, pronotum with its posterio-lateral tubercles fusco-brown. Coria costally black. Membranes fuscous along costal, basal and anal margins, and in the interspaces between veins I-II (basal one-third), II-III (apical two-thirds) and III-IV (near the midway). Hind-wings hyaline, pale brown at the apices, veins basally yellowish green. Sternites often with dull markings mesad to stigmaculettes. Parameres as well as mesal lobes of dorso-lateral genital processes fuscous.

Pronotum and scutellum rather sparsely covered with medium-sized brown punctures. Coria costo-basally scarcely punctate. Ventral surface except urosternite IX impunctate.

Rostrum almost extending to the mid-point of mesosternum. Relative lengths of antennal segments about 35: 45: 24: 40: (?). Head dorsally with numerous transverse wrinkles. Ocelli oblong, situated in the center of a deep rhomboid impression; interspace between this

impression and antenniferous tubercles flattenedly depressed. Pronotum anteriorly slightly reflexed and rather deeply emarginated; lateral margins finely serrated, sharply reflexed and weakly curved. Membranes each with six veins. Genitalia (Text-fig. 23-25), genital embracer well developed. Length of body including wings 13-14 mm., breadth 6.

Female. — Fuscous markings on antennae, membranes, thorax and abdomen rather obscure. Head with a triangular prominence posterior to tylus and juga, and a Y-shaped foveation running from vertex to antenniferous tubercles. Pronotum anteriorly emarginated. Stigmata on pleurites IX strongly tuberculated. Genital segments (Text-fig. 26). Length of body including wings 12-13 mm., breadth 4. 5- 5.5.



Text-fig. 23-25. *Urostylis sinensis* Wk., ♂ genital segments in dorsal, caudo-ventral and lateral aspects. 26. Ditto, ♀, in caudo-ventral aspect.

Formosa: Arisan, 10. x. 1912, I. NITOBE, 2 ♂♂ (1 ♂ det. T. SHIRAKI) (Taiwan Inst.); Horisha, 10. v. 1913, M. MAKI, 1 ♂, 1 ♀ (Taiwan Inst.); Musha, 18. v.-15. vi. 1919, T. OKUNI, J. SONAN, K. MIYAKE & M. YOSHINO, 1 ♀ (Taiwan Inst.).

This little known species was originally very briefly described by F. WALKER from Shanghai, and later, in 1900 and 1908, was recorded by DISTANT from Darjeeling and Nepal. But all these distributional records appear to be unreliable, as no urostylids have so far

been found on the lowland and none of them is known to be common to E. China and India. Probably DISTANT was dealing with a species other than true *sinensis* WK.

The male genitalia of this species is very peculiar in structure and seems only comparable to that of *hummeli* LINDB., otherwise it must have a species-group for itself. The tuberculated stigmata on pleurites IX in female are also of high diagnostic value.

Urostylis hummeli LINDB., 1936.

1936. Lindberg, Ark. Zool. 27A (28) :14 pl. 1 f. 4 pl. 2 f. 1 ♀ ♂. (S. Kansu).

This species is unknown to the writer and is not included in YANG'S enumeration. From its original description, it appears to be a close relative of *sinensis* WK.

Urostylis chinai, sp. nov.

Male. — Grassy green. Hind-wings slightly tinged with fuscous, veins basally brown, apically yellow. Tibiae apically black. Pygofer apically sanguineous.

Pronotum and scutellum with medium-sized sooty brown punctures. Coria coarsely punctate. Abdominal sternites finely and faintly so.

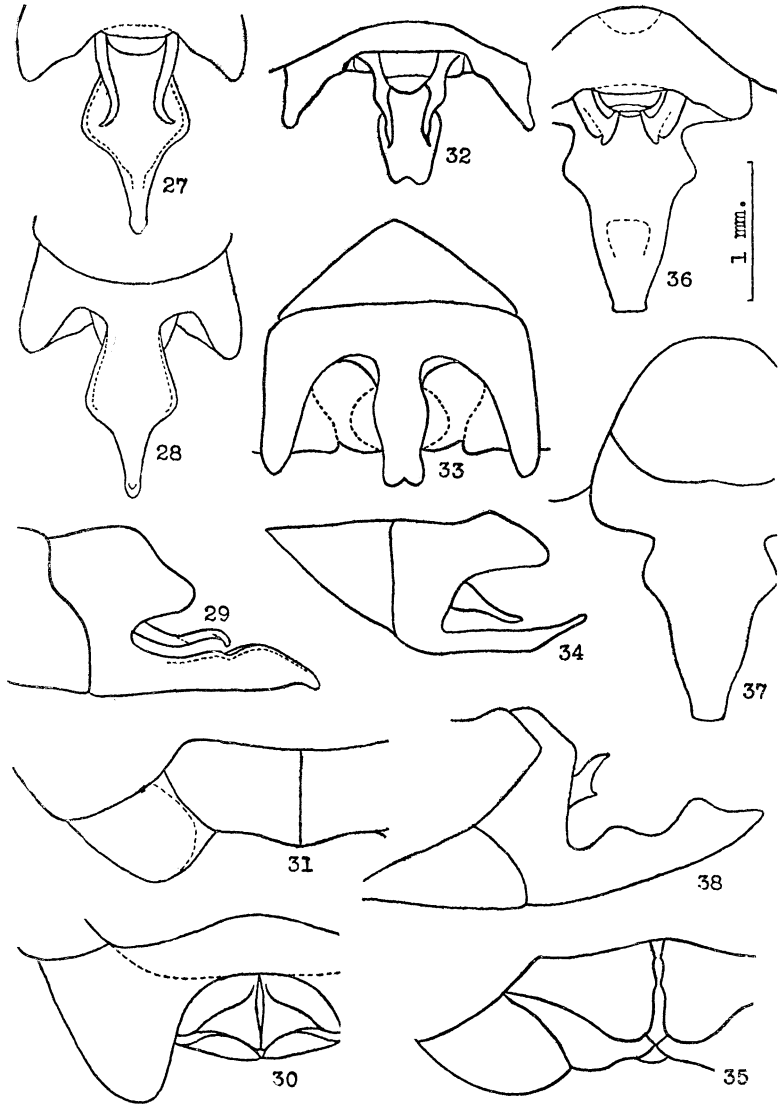
Rostrum almost twice as long as the venter of head. Relative lengths of antennal segments about 63: 83: 30: 70: 50. Vertex with an ovate depression, which has two oblique foveations running anteriorly to antenniferous tubercles. Ocelli oblong. Pronotum slightly reflexed and very finely serrated along its lateral margins, which are almost straight. Membranes each with eight veins. Genitalia (Text-fig. 27-29). Length of body including wings 11.0 mm., breadth 4.5.

Female.—Rostrum extending to the mid-point between coxae I and II. Genital segments (Text-fig. 30-31), pleurites IX sanguineous, ventrally with a longitudinal impression. Length of body including wings 14.0 mm., breadth 5.5.

Fukien: Kua-Tun, Chungan Hsien, 30. iv. 1939, 1 ♀ (Allotype) (MAA coll.); Ta-Chu-Lan, Shaowu Hsien, 18. xii. 1942, 1 ♂ (Holotype) MAA coll.).

Formosa: Karenko, 20. vii.-4. viii. 1919, T. OKUNI, J. SONAN, K. MIYAKE & M. YOSHINO, 1 ♀ (Taiwan Inst.); Musha, 18. v.-15. vi. 1919, T. OKUNI, J. SONAN, K. MIYAKE & M. YOSHINO 1 ♀ (Taiwan Inst.).

The writer takes much pleasure in naming this new species for our eminent hemipterologist, Mr. W. E. China of the British Museum. The male genitalia and the female pleurites IX of this species are rather similar to those of *lateralis* Wk. and *yangi* m. The female palettes of pleurites X are, however, highly modified, reversely situated



Text-fig. 27-29, 32-34 ,36-38. ♂ genitalia of *Urostylis chinai*, *yangi* and *verticalis* spp. nov. in dorsal, ventral and lateral aspects (Fig. 33. caudo-ventral). 30-31. ♀ genital segments of *U. chinai* in dorsal and caudo ventral aspects. 35. Ditto, *U. yangi* in caudo-ventral aspect.

and dorsally observable, and thus make the genital orifice and anus opened dorsally.

Urostylis yangi, sp. nov.

Male. — Grassy green. Antennal segments I each with one fuscous stria on lateral surface near the base, segments III-V tinged with fuscous at their extreme apices. Pronotum with its posterio-lateral tubercles black. Membranes hyaline. Veins of hind-wings basally brown. Sternites IV-VII each usually with one fuscous spot mesad to stigmaculettes on either side.

Puncturation on pronotum and scutellum sparse, coarse and concolorous to the same sclerites. Coria with a few black punctures in their costal areas. Venter of thorax and abdomen transversely wrinkled. Urosternite IX finely and rather densely punctate.

Rostrum extending to the mid-point of mesosternum. Relative lengths of antennal segments about 72:94:38:62:47. Face flattened, wrinkled, with a transverse impression anterior to ocelli, which are oblong and each lying in a longitudinal fovea. Lateral margins of pronotum slightly reflexed, weakly curved, roundly marked off and grossly serrated. Membranes each with seven veins. Genitalia (Text-fig. 32-34). Length of body including wings 12-13 mm., breadth 5.0-5.5.

Female. — Genital segments (Text-fig. 35), pleurites IX each ventrally with one longitudinal depression, palettes of pleurites X discally each with a densely pilose prominence.

Kiangsi: Kuling, 16. vii. 1935, O. PIEL, 1 ♂ (Holotype) (Mus. Heude) (det. W. I. YANG in 1937 as *U. virescens* REUT.); Lien-Fa-Tung to North Gate, 28. ix. 1942, Y. OUCHI, 1 ♀ (MAA coll.)

Anhwei: Sao-Hwa-Shan, 1. xii. 1942, Y. OUCHI, 1 ♀ (Allotype) (Acad. Sinica).

The present species bears a very close resemblance to *virescens* REUT. from Amur. In the latter species, however, the antennal segments II are one-third longer than the I, the segments III are fuscous, the tibiae are basally black and apically sub-ferrugineous, the membranes are pigmented in part and the pygofer is ventrally with a profound quadrangular excision, and with its median process twice as long as the lateral ones.

Urostylis atrostigma, sp. nov.

Female. — Grassy green. Antennal segments I laterally each with a fuscous streak, segments III apically fuscous. Pronotum with its posterio-lateral tubercles sooty brown, ventral extensions (anterior halves) each with one brown submarginal streak. Membranes each with two brownish lunulae near the base. Hind-wing with brownish veins. Stigmata black.

Pronotum, scutellum, coria and clavi sparsely and more or less evenly covered with shallow, medium-sized brown punctures. Ventral surface practically impunctate.

Rostrum extending to the level of anterior margins of coxae II. Relative lengths of antennal segments about 31: 52: (?): (?): (?). Face flat, with one faint median depression anterior to ocelli, and one circular prominence posterior to tylus. Ocelli oblong. Pronotum moderately reflexed and slightly curved along anterior and lateral margins. Membranes each with six or seven veins. Genital segments (Text-fig. 39). Length of body including wings 13 mm., breadth 6.

Chekiang: Huchow, 21. vii. 1934, Y. OUCHI, 1 ♀ (Holotype) (Acad. Sinica).

The present species is chiefly characterized by its black stigmata and broad palettes of pleurites X, otherwise it is hardly separable from *yangi* m.

Urostylis verticalis, sp. nov.

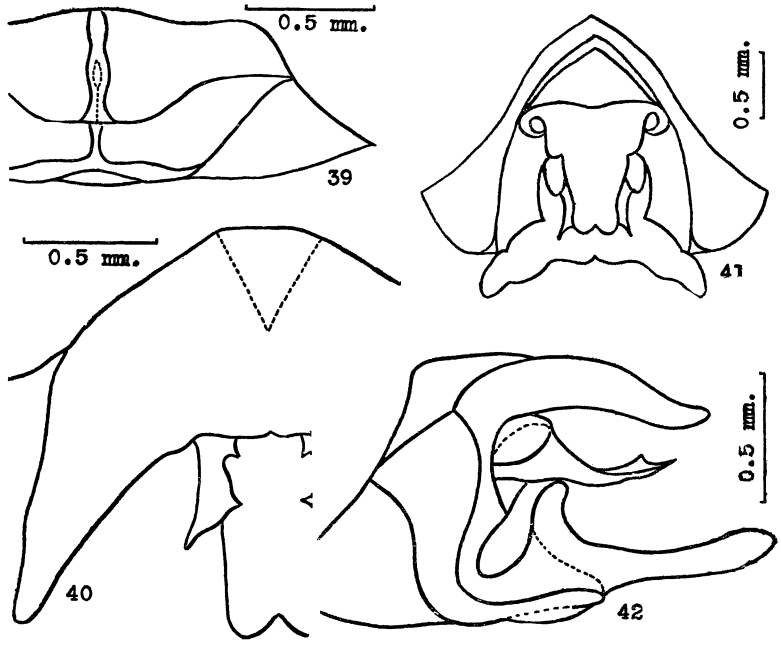
Male. — Very closely similar to *chinai* m. as described above. Body slightly longer. Head without distinct impression or foveation, and about half as long as rostrum in ventral aspect. Puncturation on pronotum and scutellum finer, that on costal margins of coria being rather conspicuous and sooty brown in color. Membranes each with six or seven brownish inter-venal bands. Genitalia (Text-fig. 36-38).

Fukien: San-Chiang, Chungan Hsien, 31. x. 1942, 1 ♂ (Holotype) (MAA coll.)

Urostylis recurvata, sp. nov.

Male. — Grassy green. Antennal segments II, III, IV (apical two-thirds) and V (apical halves) fuscous. Tibiae basally black. Ventral processes of pygofer sanguineous, parameres apically fuscous.

Puncturation on pronotum and scutellum rather dense, deep, coarse and brown in color, that on coria sparse, and restricted to costal areas. Ventral extensions of pronotum posteriorly with a few coarse, shallow punctures. Anal areas of coria and urosternite IX very faintly punctured.



Text-fig. 39. *Urostylis atrostigma*, sp. nov., ♀ genital segments in caudo ventral aspect. 40 42. *U. recurvata*, sp. nov., ♂, in dorsal, caudo-ventral and lateral aspects.

Rostrum extending to the mid-point of mesosternum. Relative lengths of antennal segments about 82:85:50:77:66. Head dorsally flattened and with an obscure Y-shaped foveation. Ocelli vestigial, each lying in a longitudinal depression. Pronotum with its anterior margin slightly reflexed, and lateral margins straight, reflexed and somewhat sharply margined. Membranes each with eight or nine veins. Genitalia (Text-fig. 40-42). Length of body including wings 14 mm., breadth 6.

Formosa: Koshun, 25. iv. -25. v. 1918, J. SONAN, K. MIYAKE & M. YOSHINO, 1 ♂ (Holotype) (Taiwan Inst.)

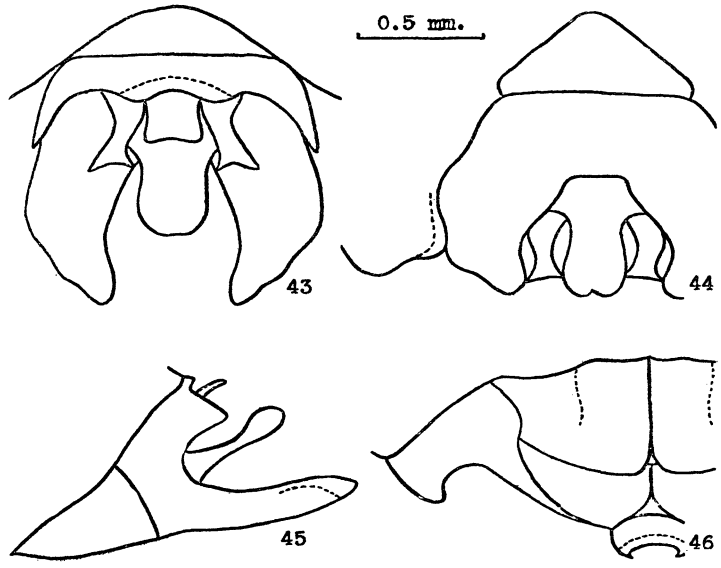
This new species can be very easily recognized by its median genital process which bears a strong recurved tooth near the base. Presumably *verticalis* m. is rather closely related to it.

Urostylis suppressa, sp. nov.

Male. — Grassy green. Membranes with brown veins. Hind-wings hyaline, veins basally brownish.

Pronotum anteriorly rather densely covered with medium-sized sooty brown punctures, posteriorly with black ones. Scutellum anteriorly rather densely punctate. Puncturation on coria sparse, more or less evenly distributed and black in color. Abdomen ventrally practically impunctate, the only exception being urosternite IX.

Rostrum extending almost to the mid-point of mesosternum. Relative lengths of antennal segments about 82:81: (?): (?): (?). Head dorsally with one triangular prominence which is laterally demarcated by oblique foveations and is situated posterior to tylus and juga. Ocelli oblong, circumstanced by an elongate, lozenge-shaped impression. Pronotum faintly reflexed along its anterior margin, and neatly serrated, rather sharply reflexed and weakly curved along lateral margins. Membranes each with seven veins. Genitalia (Text-fig. 43-45). Length of body including wings 13 mm., breadth 6.



Text-fig. 43-45. *Urostylis suppressa*, sp. nov., ♂ genital segments in dorsal, caudo ventral and lateral aspects. 46. *U. lobopleuralis*, sp. nov., ♀, in caudo-ventral aspect.

Formosa: Koshun, 25. iv. -25. v. 1918, K. MIYAKE, J. SONAN, and M. YOSHINO, 1 ♂ (Holotype) (Taiwan Inst.)

This species bears a close superficial similarity to *sinensis* Wk. but their cephalic depressions, lateral genital processes as well as wing-color are quite distinguishable.

Urostylis striicornis Scott, 1874.

Honshu: Mt. Asama, Naganoken, 21. vii. 1934, S. Miyamoto, 1 ♂, 1 ♀ (Taiwan Inst.); Hotoketouye, Hirosimaken, 11. vii. 1935, S. Miyamoto, 1 ♂, 1 ♀ (Taiwan Inst.); Kokuzozawa, Naganoken, 29. vii. 1935, S. Miyamoto, 1 ♂, 5 ♀♀ (Taiwan Inst.); Murayama, Ehimeken, 6. vii. 1932, Y. Ouchi, 1 ♂ (Acad. Sinica); Nangenkyo, Hirosimaken, 13. vi. 1937, S. Miyamoto, 1 ♀ (Taiwan Inst.); Yamagutiken, 7. vi. 1934, S. Miyamoto, 1 ♂ (Taiwan Inst.); "Japan", Y. Miwa, 1 ♂ (Taiwan Inst.)

Urostylis annulicornis Scott, 1874.

Honshu: Mt. Asama, Naganoken, 21. vii. 1934, S. Miyamoto, 5 ♀♀ (Taiwan Inst.); Higashitaroyama, Ueda, Naganoken, 25. vii. 1936, S. Miyamoto, 1 ♀ (Taiwan Inst.); Koganezawa, Ueda, Naganoken, 7. vii. 1935, S. Miyamoto, 1 ♂, 2 ♀♀ (Taiwan Inst.); Kokuzozawa, Naganoken, 29. vii. 1935, S. Miyamoto, 1 ♂, 2 ♀♀ (Taiwan Inst.); Nangenkyo, Hirosimaken, 13. vi. 1937, S. Miyamoto, 1 ♂ (Taiwan Inst.); Tonoshiroyama, Ueda, Naganoken, 21. vii. 1936, S. Miyamoto, 1 ♀ (Taiwan Inst.)

Urostylis lobopleuralis, sp. nov.

Female. — Grassy green. Antennal segments III (apical three-fourths), IV-V (apical one-thirds) black. Thorax ventrally with a black latero-submarginal stria at eath side. Pronotum with its posterio-lateral tubercles black. Coria costally narrowly black. Membranes fusco-brown along the margins and in the interspaces between veins II-III (apical halves), III-IV (near the midway). Hind-wings apically brownish, veins basally yellowish. Sternites with an obscure brownish stria mesad to each couplets of stigmaculettes.

Pronotum and scutellum rather sparsely covered with medium-sized brown punctures. Coria costo-basally with a few shallow punctures. Ventral surface impunctate.

Robust, broad. Rostrum scarcely extending beyond the level of coxae I. Relative lengths of antennal segments about 48:54:19:45:33. Head dorsally wrinkled, with two oblique submedian foveae

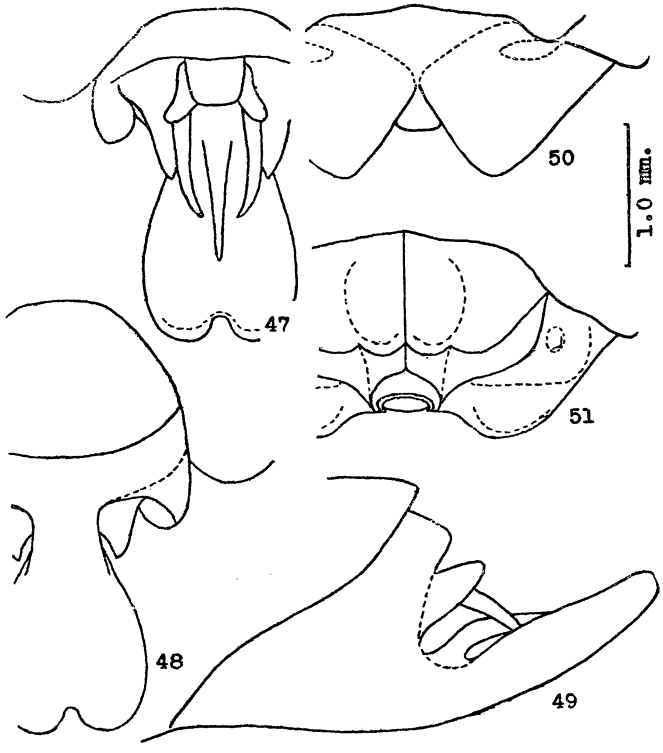
running from the circular dimplement anterior to ocelli and producing anteriorly towards the mesal margins of antenniferous tubercles; interspaces between these tubercles and ante ocellar dimplement mesally slightly raised and laterally weakly depressed. Ocelli oblong. Pronotum anteriorly sharply and rather deeply emarginated, scarcely reflexed; lateral margins curved, finely serrated and sharply reflexed. Membranes each with six or seven veins. Genital segments (Text-fig. 46). Length of body including wings 16.5 mm., breadth 7.0.

Formosa: Jujiro, Arisan, 26. iv. 1931, T. SHIRAKI, 1 ♀ (Holotype) (Taiwan Inst.)

This magnificent species can be readily recognized by its bilobed pleurites IX, the writer is unaware of any of its close relatives.

Urolabida emarginata, sp. nov.

Male. — Grassy green. Membranes greyish yellow, with four or more brownish streaks. Hind-wings greenish, hyaline, with brownish veins. Tibiae apically and tarsi dull brown.



Text-fig. 47-49. *Urolabida emarginata*, sp. nov., ♂ genital segments in dorsal, ventral and lateral aspects. 50-51. Ditto, ♀, in dorsal and caudo-ventral aspects.

Pronotum and scutellum rather densely covered with medium-sized brown punctures. Coria scatteredly and coarsely punctate. Thorax and abdomen ventrally impunctate.

Ocelli absent or vestigial. Rostrum about twice as long as the venter of head. Relative lengths of antennal segments about 77: 84: 42: 76: 49. Pronotum with its lateral margins almost straight, slightly reflexed and exceedingly finely serrated. Membranes each with eight veins. Genitalia (Text-fig. 47-49).

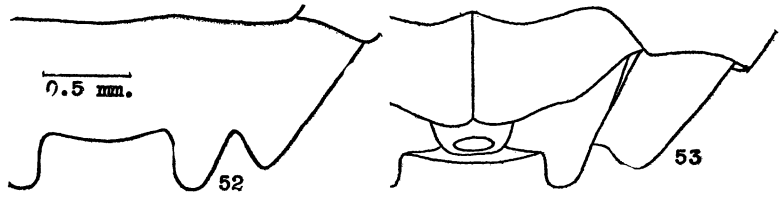
Female. — Rostrum about two and a half times as long as the venter of head. Pleurites IX posteriorly reddish brown. Genital segments (Text-fig. 50-51). Length of body including wings ♂ 11.5 mm., ♀ 12.5 -13.0; breadth ♂ 4.5, ♀ 5.0.

Fukien: Ta-Chu-Lan, Shaowu Hsien, 16. vii. 1942, 1 ♂, 1 ♀ (Holotype & Allotype); 26. iv. 1942, 1 ♀ ; 29-30. xi. 1942, 1 ♀ ; 21. v. 1942, 1 ♀ (MAA coll.)

Urostylis striicornis is perhaps the closest ally of the new species. The details of the male genitalia, of the female palettes of pleurites X as well as the degenerated ocelli are, however, quite distinctive.

Urolabida intacta, sp. nov.

Female. — Grassy green. Antennal segments III-V dark brown, basally more or less greenish. Antenniferous tubercles apically black. Tibiae black at both extremities. Membranes each with a L-shaped brown streak stretching along the basal and anal margins, and with a short one lying between veins II and III. Veins of hind-wings basally green, apically faintly yellowish green. Stigmata yellow.



Text-fig. 52-53. *Urolabida intacta*, sp. nov,. ♀ genital segments in dorsal and caudo-ventral aspects.

Pronotum heavily punctate in brown, with its ventral extensions finely and sparsely so. Scutellum and coria with puncturation slightly finer, shallower and unevenly distributed. Thoracic pleura and sterna as well as abdomen impunctate.

Ocelli vestigial, lunulate. Rostrum twice as long as head in ventral aspect. Relative lengths of antennal segments about 78:90:62:93:65. Head dorsally with a fan-like depression which extends posteriorly to the interspace between ocelli. Pronotum weakly reflexed and scarcely serrated along lateral margins. Coria basally slightly reflexed, membranes each with five or six veins. Genital segments (Text-fig. 52-53). Length of body including wings 14.5 mm., breadth 5.5.

Fukien: Hwang-Lih, Yungan Hsien, 17.x.1944, 1 ♀ (Holotype) (MAA coll.)

The urosternite IX of the present species keeps in contact with the anus, while the palettes of pleurites X themselves are widely separated. These characters are unique amongst the members of the family and thus make the recognition of the species unmistakable. It seems, however, more closely related to *subtruncata* m. rather than to *emarginata* m. or *tenera* WESTW.

Urolabida subtruncata, sp. nov.

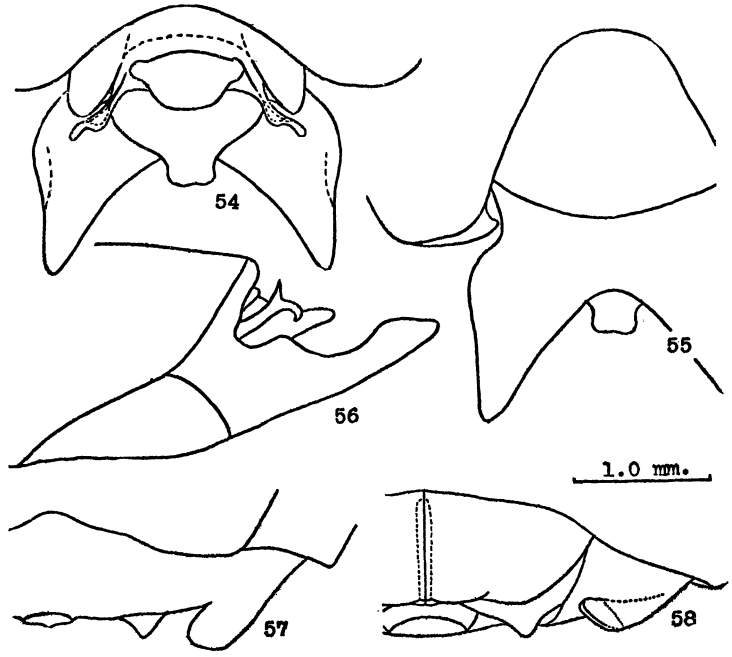
Female. — Grassy green. Antennal segments I basally each with one lateral brownish streak, apical halves of segments III-V sooty brown. Pronotum posteriorly whitish. Membranes hyaline, basal margins more or less pale brownish. Hind-wings hyaline, veins basally brownish. Abdomen dorsally ochraceous, ventrally greyish.

Puncturation on anterior half of pronotum obscure and scattered, gradually denser and duller towards the posterior half, while that on the extreme posterior margin being very dense and black in color, forming a distinct transverse black band. Scutellum and coria costally somewhat sparsely punctate in brownish. Thorax and abdomen ventrally impunctate.

Ocelli absent, or crescent-shaped. Rostrum about twice as long as the venter of head. Relative lengths of antennal segments about 87:87:51:85:60. Pronotum with its lateral margins almost straight, distinctly reflexed. Fore-wings short, membranes each with eight veins. Genital segments (Text-fig. 57-58). Length of body including wings 13.5-14.5 mm., breadth 6.5.

Male. — Rostrum extending to the level of posterior margins of coxae I. Relative lengths of antennal segments about 41:50:25:41:(?). Urosternite IX densely punctate. Genital embracer very thickly pubescent. Genitalia (Text-fig. 54-56). Length of body including wings 13.0 mm., breadth 6.0.

Fukien: Miao-Wan, Chungan Hsien, 1. xi. 1944, 1 ♂, 1 ♀ (Holotype & Allotype) (MAA coll.); Ta-Chu-Lan, Shaowu Hsien, 22-28, xi. 1942, 2 ♀ ♀ ; 17. xii. 1944, hibernating inside bamboo culm, 1 ♂ (MAA coll.)



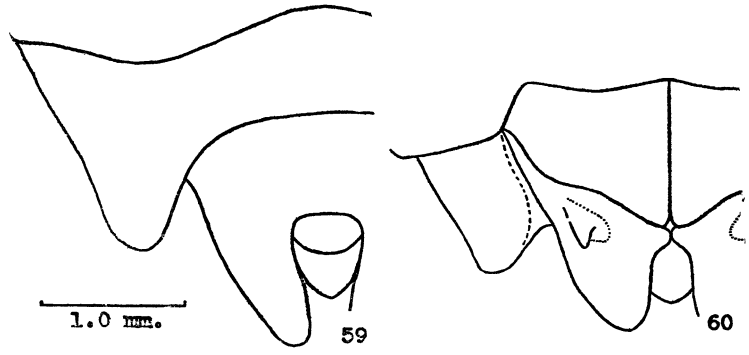
Text-fig. 54-56. *Urolabida subtruncata*, sp. nov., ♂ genital segments in dorsal, ventral and lateral aspects. 57-58. Ditto, ♀, in dorsal and caudo-ventral aspects.

The female of the present species differs from all its relatives by its subtruncate genital segments, by its brevifoliate palettes of pleurites X, and by its incurved pleurites IX. The male genitalia are rather similar to those of *tenera* WESTW., but their lateral aspect as well as the details of the genital embracer, and lateral processes are decidedly different. Its whitish fascia and black puncturation on pronotum are also very characteristic.

Urolabida septemdentata, sp. nov.

Female. — Grassy green. Antennal segments III and IV apically sooty brown. Femora apically and tibiae basally black. Membranes hyaline, basally brownish. Hind-wings hyaline, veins basally brown.

Pronotum, scutellum and coria along costal margins coarsely punctate in brown. Venter of thorax and abdomen impunctate.



Text-fig. 59-60. *Urolabida septemdentata*, sp. nov., ♀ genital segments in dorsal and caudo-ventral aspects.

Robust. Ocelli absent. Rostrum about twice as long as the venter of head. Relative lengths of antennal segments about 92: 102: 49: 90: (?). Pronotum with its lateral margins almost straight, slightly reflexed. Scutellum slightly raised along its median line. Fore-wings very long, membranes each with nine veins. Genital segments (Text-fig. 59-60). Length of body including wings 17 mm., breadth 6.

Fukien: Ta-Chu-Lan, Shaowu Hsien, 20. xi. 1941, 1 ♀ (Holotype) (MAA coll.)

This remarkable species differs from all the known members of the family by its 7-dentate genital segments.

ADDENDA.

A CHECK LIST OF THE UROSTYLIDAE OF CHINA, JAPAN, CHOSEN AND SIBERIA

Genus **TESSAROMERUS** Kirkaldy, 1908.

I. *quadr articulatus*-Group

quadriarticulatus Kirkaldy, 1908. Yunnan.

II. *licenti*-Group

licenti Yang, 1939. Shansi, Sikong, Yunnan.
stigmatellus (Yang, 1939). Shansi.

Genus **UROCHELA** Dallas, 1860.

III. *luteovaria*-Group

luteovaria Distant, 1881. Szechwan, Kweichow, Yunnan, Kiangsi, Fukien, Kyushu, Honshu.
Host-plants: Cherry, pear, plum, peach.
falloui Reuter, 1888. Chahar, Shansi, Hopei, Shantung
Host-plants: Cherry, pear, plum, grape-vine.
flavoannulata (Stål, 1854) (Urostylis). Kirin, Chahar, Shansi, Hopei, Chosen, Transbaikal, Amurland.
agna (China, 1925) (Urostylis). Shansi, Kansu, Yunnan.
caudata (Yang, 1939) (Urostylis). Shansi.

IV. *elongata* Group

elongata Blöte, 1945. Yunnan.

V. *strandi*-Group

strandi Esaki, 1937. Fukien, Formosa.

VI. *distincta*-Group.

distincta Distant, 1900. Shensi, Shansi, Szechwan, Kweichow, Yunnan, Chekiang, Kiangsi Fukien.
Host-plant: *Rosa* sp.

VII. *siamensis*-Group

tunglingensis Yang, 1939. Shensi, Hopei, Chosen.
siamensis Yang, 1938. Fukien, Siam.

VIII. *quadrinatata*-Group

quadrinotata (Reuter, 1881). Kirin, Antung, Chahar, Hopei, Shensi, Shansi, Yezo, Honshu, Kyushu, Chosen, Amurland, Ussuri.
rubra Yang, 1938. Tibet, Fukien.

Genus **UROSTYLIS** Westwood, 1837.

IX. *tricarinata*-Group

tricarinata Maa, 1947. Fukien.

X. *blattiformis*-Group

genevae Maa, 1947. Fukien.
Host-plant: *Tripterygium Wilfordi* Hk.
blattiformis Bergroth, 1916. Fukien.

XI. *sinensis*-Group

sinensis Walker, 1867. Kiangsu, Formosa, Chosen, India, Nepal.
hummeli Lindberg 1936. Kansu.

XII. *lateralis*-Group

lateralis Walker, 1867. Shansi, Chosen.
Chinai Maa, 1947. Fukien, Formosa.
rugosa Blöte, 1945. Yunnan.
virescens Reuter, 1886. Amurland.
yangi Maa, 1947. Kiangsi, Anhwei.
atrostigma Maa, 1947. Chekiang.
verticalis Maa, 1947. Fukien.
furcifer Blöte, 1945. Yunnan.
recurvata Maa, 1947. Formosa.

XIII. *suppressa*-Group

suppressa Maa, 1947. Formosa.

XIV. *striicornis*-Group

striicornis Scott, 1874. Chekiang, Kiangsi, Antung Kyushu, Honshu, Chosen.
Host-plants: *Quercus mongolica*, *Quercus* sp.
annulicornis Scott, 1874. Antung, Honshu.
Host-plants: *Quercus* spp.

XV. *westwoodi*-Group

westwoodi Scott, 1874. Hopei, Shensi, Antung, Kyushu, Shikoku, Honshu, Yezo, Chosen.
Host-plants: *Quercus* spp.

XVI. *lobopleuralis*-Group

lobopleuralis Maa, 1947. Formosa.

Genus **UROLABIDA** Westwood, 1837.

XVII. *emarginata*-Group

emarginata Maa 1947. Fukien.
spathulifera Blöte, 1945. Yunnan.

XVIII. *tenera*-Group

tenera Westwood, 1837. "China", Sikkim.
intacta Maa, 1947. Fukien.
subtruncata Maa, 1947. Fukien.

XIX. *septemdentata*-Group

septemdentata Maa, 1947. Fukien.

Species Incertae Sedis.

geniculata Jakovlev, 1889. (Urostylis). Amurland.
musiva Jakovlev, 1890. (Urostylis). Kansu.
nigromarginalis Reuter, 1881. (Urostylis). Sikong, India.
pallescens Jakovlev, 1890. (Urostylis). Szechwan, Kansu.

INDEX FOR THE ROMANIZATION OF CHINESE AND JAPANESE LOCALITIES CITED IN THE PRESENT COMMUNICATION.

Agatamuraagata 縣村縣
Aomoriken 青森縣
Arisan 阿里山
Asama (Mt.) 淺間山
Bohea Hills 武夷山
Chih-Shui 赤水
Chiponsan 知本山
Chungan Hsien 崇安縣
Ehimeken 愛姬縣
Hakone 箱根
Higashitaroyama 東太郎山
Hirosaki 弘前
Hirosimaken 廣島縣
Ho-Ling 何嶺
Horisha 埔里社
Hotoketouye 佛峠
Huchow 湖州
Hwang-Lih 黃曆
Ichibusayama 市房山
Jujiro 十字路
Kanagawaken 神奈川縣
Kanmon 關門
Karenko 花蓮港
Kienyang Hsien 建陽縣
Koganezawa 黃金澤
Kokuzozawa 虛空藏沢
Koshun 恒春
Kua-Tun 挂墩
Kuling 牯嶺
Kweiyang 貴陽
Kyuhabon (舊社名)
La Trappe (天主教苦修院)
Lien-Fa-Tung 蓮花洞
Li-Shan 李山
Lo-Tun 六墩
Miao-Wan 廟灣
Miyasakiken 宮崎縣
Mokanshan 莫干山
Murayama 松山
Musha 霧社
Naganoken 長野縣
Nakano 中野
Nangenkyo 南原峽
San-Chiang 三港
Sao-Hwa-Shan 少華山
Sapporo 札幌
Shaowu Hsien 邵武縣
Shui-Pei-Chieh 水北街
Sikikun (舊社名)
Ta-Chu-Lan 大竹嵐
Takao (Mt.) 高尾山
Tehwa Hsien 德化縣
Tienmushan 天目山
Tisagatagun 小縣郡
Tokyo 東京
Tonoshiroyama 殿城山
Towada 十和田
Tsi-Li-Chiao 七里橋
Tsingtao 青島
Tung-Mu-Kwan 桐木關
Ueda 上田
Yamagutiken 山口縣
Yao-Tao 坳頭
Yentangshan 雁蕩山
Yungan Hsien 永安縣
Yusho 有勝