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NOTES ON THE CHRYSOMELIDAE FROM TAIWAN I^{1,2}

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Under the Japan-U. S. Cooperative Science Program, "Zoogeography and Ecology of Pacific Area Insects," extensive field works in Taiwan were carried out in the years 1964 and 1965. This paper is a result of my study on the Chrysomelid specimens collected by the members of the Japanese team.

In addition, the collections of Prof. T. Shirôzu (1965 and 1967), Mr. H. Kamiya (1966), Dr. S. Uéno (1961), Mr. B.-S. Chang (1964) and Mr. Y.-I. Chu (1965) were also examined. Further a long series of materials preserved in the Entomological Laboratory, Kyushu University and B. P. Bishop Museum were also treated. Those specimens were mostly collected before the World War II.

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Subfamily Zeugophorinae

Auchenia (Pedrillia) formosensis (Gressitt, 1945)

=*Pedrillia ornata* Chûjô, 1937 (nec Achard, 1914).

Alishan, 2300 m, Chiayi Hsien (2 exs., 9. iv. 1965, Y. Hirashima leg.).

Distribution: Taiwan.

Auchenia (Pedrillia) gracilis (Chûjô, 1937)

Alishan, 2300 m, Chiayi Hsien (1 ex., 28. vii. 1966, H. Kamiya leg.).

Pahsienshan (=Hassenzan), Taichung Hsien (1 ex., 26. v. 1934, J. L. Gressitt leg.).

Distribution: Taiwan.

A specimen from Alishan is characteristic in having the most part of meso-

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and metathorax, entire abdomen and legs blackish, and the body a little larger in size (4.2 mm). I am not certain whether this is only a color variation of the nominate form or represents an independent species.

Auchenia (Pedrillia) nitida (Chûjô, 1932)

Sungkang, Nantou Hsien (1 ex., 3. vi. 1965, B.-S. Chang leg.).

Distribution: Taiwan.

Subfamily Megalopodinae

Temnaspis shirakii (Chûjô, 1932)

Sungkang, Nantou Hsien (1 ex., 19. v. 1965, 1 ex., 31. v. 1965, T. Shirôzu leg.).

Liming (=Reimei)—(Piawai-kei)—Meiyuanshan (=Baibarasan) in Pahsienshan (=Hassenzan), Nantou Hsien (2 exs., 13. vii. 1932, T. Esaki leg.).

Distribution: Taiwan.

Temnaspis rubi (Chûjô, 1932)

Yangmingshan—Chutzuhu, Taipei Hsien (1 ex., 14. iv. 1967, T. Shirôzu leg.).

Distribution: Taiwan.

Subfamily Donaciinae

Donacia (Cyphogaster) provostii Fairmaire, 1885

Taipei, Taipei Hsien (1 ex., 17. vi. 1965, S. Kimoto leg.).

Distribution: E. Siberia, Manchuria, China, Indo-China, Korea, Japan, Ryukyu Is., Taiwan.

Subfamily Criocerinae

Liliocerus nigropectoralis (Pic, 1928) New to Taiwan

Alishan, 2300 m, Chiayi Hsien (1 ex., 5. vii. 1965, Y.-I. Chu leg.; 1 ex., 27. vii. 1966, H. Kamiya leg.).

Distribution: Tonkin, S. China, Taiwan.

This species is here recorded from Taiwan for the first time. Among the good numbers of the *Liliocerus* species in the East Asia, this species is characteristic in having slender antennae and weaker punctuation of apical portion of elytra. Up to the present the nominate subspecies has been recorded from Tonkin and Yunnan, and subspecies *ochracea* Gressitt from S. China. In the nominate subspecies, body is ochraceous with blackish meso- and metathorax, and in subsp. *ochracea* body is entirely yellowish brown.

The two specimens before me are separable from any of these two subspecies. One specimen is characteristic in having antennae, legs and meso- and metathorax blackish, and dorsal surface and abdomen yellowish brown with head much infuscate, and another specimen is quite different in having head, thorax, antennae, legs, and basal 1/3 of elytra blackish and abdomen yellowish brown.

Thus, these two Taiwan specimens are separable from any of the continental subspecies in having legs and antennae entirely blackish. However, these two specimens are quite different to each other in the coloration of dorsal surface. It would be better to wait the decision on the infraspecific status of the Taiwan-

ese population, until additional material is available.

Lilloceris gibba (Baly, 1861)

=*Lilloceris formosana* Chûjô, 1933.

Chiaoliping, Chiayi Hsien (1 ex., 13. iv. 1965, T. Saigusa leg.).

Distribution: Taiwan, China, Korea.

Lilloceris miwai Chûjô, 1951

Fenchihu, 1400 m, Chiayi Hsien (2 exs., 7. vii. 1965, S. Itô leg.).

Distribution: Taiwan.

Lilloceris cyaneicollis (Pic, 1916)

=*Lilloceris shirakii* Chûjô, 1943.

Yeh-liu, Taipei Hsien (1 ex., 30. iii. 1965, S. Miyamoto leg.).

Wulai, Taipei Hsien (1 ex., 6. vii. 1966, H. Kamiya leg.).

Yangmingshan, Taipei Hsien (1 ex., 24. vi. 1965, S. Kimoto leg.; 1 ex., 25. v. 1965, K. Morimoto leg.; 1 ex., 28. iii. 1965, S. Uéno leg.).

Shungchi, Hsientien, Taipei Hsien (4 exs., 23. vi. 1965, S. Kimoto leg.; 1 ex., 20. vi. 1965, T. Nakane leg.; 1 ex., 20. vi. 1965, T. Yamasaki leg.).

Penpuchi, Nantou Hsien (2 exs., 9. vii. 1966, 1 ex., 13. vii. 1966, H. Kamiya leg.).

Nanshanchi, Nantou Hsien (2 exs., 20. vi. 1965, 1 ex., 30. iv. 1965, T. Shirôzu leg.; 1 ex., 12. vii. 1966, H. Kamiya leg.).

Meichi, Nantou Hsien (2 exs., 12. v. 1965, T. Shirôzu leg.).

Fenchihu, 1400 m, Chiayi Hsien (1 ex., 8. vii. 1965, S. Kimoto leg.; 1 ex., 24. vii. 1966, H. Kamiya leg.).

Kueitzuchiaio (=Kururu), Pingtung Hsien (1 ex., 30. viii. 1921, T. Esaki leg.).

Distribution: Tonkin, S. China, Taiwan, Ryukyu Is.

Lilloceris infraticornis Gressitt & Kimoto, 1961 New to Taiwan

Yangmingshan, Taipei Hsien (1 ex., 25. v. 1965, K. Morimoto leg.).

Nanshanchi, Nantou Hsien (1 ex., 27. vii. 1965, T. Shirôzu leg.).

Distribution: SE China, Taiwan.

This species is here recorded from Taiwan for the first time.

Lilloceris cheni Gressitt & Kimoto, 1961 New to Taiwan

=*Lilloceris yunnana*: Chûjô, 1963, Ann. Hist. Nat. Mus. Nat. Hungarici 55: 380 (Kosempo, Takao).

Chiaopanshan (=Kappanzan), Taoyuan Hsien (1 ex., 17. ix. 1921, T. Esaki leg.).

Kenting, Pingtung Hsien (1 ex., 2. vii. 1965, S. Kimoto leg.).

Distribution: SE China, Taiwan.

This species is here recorded from Taiwan for the first time. Chûjô's record of *yunnana* from Taiwan should be referred as this species.

Lilloceris neptis (Weise, 1922)

=*Lilloceris neptis formosana* Heinze, 1943.

=*Lilloceris impressa* auctt. (Taiwan).

Wulai, Taipei Hsien (1 ex., 6. vii. 1966, H. Kamiya leg.; 1 ex., 27. v. 1965, S. Asahina leg.).

Yangmingshan, Taipei Hsien (3 exs., 17. vi. 1965, Y. Kurosawa leg.; 2 exs., 1. vi. 1965, T. Shirôzu leg.).

- Keelung, Taipei Hsien (1 ex., vi. 1954, T.-C. Maa leg.).
 Ilan, Ilan Hsien (3 exs., 19. viii. 1966, H. Kamiya leg.).
 Charnghchuenchyan, Haulien Hsien (2 exs., 21. viii. 1965, B.-S. Chang leg.).
 Chiaobaotai (=Kahodai) in Pahsienshan (=Hassenzan), Taichung Hsien (2 exs., 11. vii. 1932, T. Esaki leg.).
 Meichi, Nantou Hsien (2 exs., 12. v. 1965, 1 ex., 5. vi. 1965, 1 ex., 16. vi. 1965, B.-S. Chang leg.).
 Nanshanchi, Nantou Hsien (1 ex., 28. iv. 1965, 1 ex., 26. vi. 1965, T. Shirôzu leg.; 1 ex., 30. vi. 1965, S. Kimoto leg.; 1 ex., 30. vi. 1965, T. Nakane leg.).
 Penpuchi, Nantou Hsien (1 ex., 4. vi. 1965, T. Shirôzu leg.; 1 ex., 9. vii. 1966, H. Kamiya leg.).
 Chulu, Taitung Hsien (2 exs., 12. viii. 1966, H. Kamiya leg.).
 Kenting, Pingtung Hsien (1 ex., 4. iv. 1965, T. Shirôzu leg., 1 ex., 3. vii. 1965, S. Kimoto leg.; 1 ex., 2. vii. 1965, T. Yamasaki leg.; 1 ex., 30. iv. 1965, S. Miyamoto leg.).
 Kueichiauliu, Pingtung Hsien (1 ex., 1. vii. 1966, H. Kamiya leg.).
 Oulanpi, Pingtung Hsien (2 exs., 10. viii. 1966, H. Kamiya leg.).
 Hengchuan, Pingtung Hsien (2 exs., 10. viii. 1934, J. L. Gressitt leg.; 1 ex., 4. iii. 1966, H. Kamiya leg.).
 Kueitzuchiaio (=Kuraru), Pingtung Hsien (1 ex., 2. ix. 1921, 1 ex., 3. ix. 1921, 1 ex., 23. viii. 1932, T. Esaki leg.).
 Distribution: S. China, Taiwan.

***Lilloceris egena* (Weise, 1922)**

- Buruburu—Kaimosu in Mt. Kuanshan (=Kanzan), Taitung Hsien (1 ex., 12. viii. 1932, T. Esaki leg.).
 Kenting, Pingtung Hsien (5 exs., 4. iv. 1965, T. Shirôzu leg.; 2 exs., 3-4. iv. 1965, S. Miyamoto leg.; 2 exs., 4. iv. 1965, T. Saigusa leg.).
 Hengchun, Pingtung Hsien (9 exs., 4-5. viii. 1966, H. Kamiya leg.).
 Kueitzuchiaio (=Kuraru), Pingtung Hsien (1 ex., 30. viii. 1921, 1 ex., 3. ix. 1921, T. Esaki leg.).
 Distribution: SE. China, Taiwan.

***Mecoprosopus minor* (Pic, 1916)**

=*Mecoprosopus fulvus* Chûjô, 1951.

- Fenchihu, 1400 m, Chiayi Hsien (1 ex., 10. iv. 1965, S. Miyamoto leg.).
 Distribution: S. China, Taiwan.

***Oulema atrosuturalis* (Pic, 1923)**

=*Lema downesi* auctt. (Taiwan).

- Shungchi, Hsientien, Taipei Hsien (1 ex., 20. vi. 1965, S. Kimoto leg.).
 Wushe—Yushih, Nantou Hsien (1 ex., 3. v. 1965, T. Shirôzu leg.).
 Nanshanchi, Nantou Hsien (1 ex., 20. vi. 1965, T. Shirôzu leg.).
 Distribution: Indo-China, China, Taiwan, Ryukyu Is., Japan.

***Oulema oryzae* (Kuwayama, 1931)**

- Shungchi, Hsientien, Taipei Hsien (1 ex., 23. vi. 1965, S. Kimoto leg.).
 Yangmingshan, Taipei Hsien (1 ex., 28. iii. 1965, S. Uéno leg.).
 Distribution: Taiwan, China, Ryukyu Is., Manchuria, Korea, Japan.

***Ortholema gracilentata* (Chûjô, 1951) New Combination**

Yangmingshan, Taipei Hsien (2 exs., 24. vi. 1965, S. Kimoto leg.; 1 ex., 22. vi. 1965, T. Yamasaki leg.).

Distribution: Taiwan.

According to my study on the type which is preserved in the Taiwan Agriculture Research Institute, this species should be transferred to the genus *Ortholema* Heinze.

Lema postrema Bates, 1866

Ilan, Ilan Hsien (2 exs., 16. iv. 1965, Y. Hirashima leg.).

Kueitzuchiaio (=Kuraru), Pingtung Hsien (1 ex., 31. viii. 1921, 1 ex., 4. ix. 1921, T. Esaki leg.).

Distribution: Taiwan.

Lema lacosa Pic, 1924

=*Lema persicariae* Chûjô, 1933, *Sylvia* 4 (1): 38 (Taito, Musha, Kuraru, Sozan, Urai). **New Synonymy**

Ilan, Ilan Hsien (1 ex., 15. iv. 1965, Y. Hirashima leg.).

Nanshanchi, Nantou Hsien (1 ex., 17. vi. 1965, T. Shirôzu leg.).

Distribution: S. China, Taiwan.

According to my study on the type series of *L. persicariae* Chûjô, which is preserved in Taipei, this species is no doubt identical with *lacosa* Pic, described from S. China. However, the head and thorax of the type specimen are missing. Also, this species is almost the same as *Lema cyanea* Fabricius, distributing from Himalayas to Sunda Is. In future, this species might be proved to be a synonym of *cyanea* Fabricius.

Lema coromandeliana (Fabricius, 1798)

=*Lema takara* Chûjô, 1933, *Sylvia* 4 (1): 23 (Rikiriki, Kuraru). **New Synonymy**
Kenting, Pingtung Hsien (3 exs., 3. vii. 1965, S. Kimoto leg.).

Distribution: India, Ceylon, SE Asia, Sunda Is., Hainan, S. China, Taiwan.

According to my study on the type series of *L. takara* Chûjô, which is preserved in the Taiwan Agriculture Research Institute, this species is identical with *coromandeliana* Fabricius which is distributing widely in SE Asia.

Lema coronata Baly, 1873

=*Lema formosana* Kuwayama, 1932.

Ilan, Ilan Hsien (1 ex., 16. iv. 1965, Y. Hirashima leg.).

Distribution: Taiwan, China, Ryukyu Is., Japan.

This species belongs to the form *formosana* Kuwayama. The nominate form of this species has not been recorded from Taiwan until today.

Lema honorata Baly, 1873

Liyushan (=Rigyosan) in Taitung City (=Taito), Taitung Hsien (1 ex., 5. viii. 1932, T. Esaki leg.).

Hengchun, Pingtung Hsien (1 ex., 5. viii. 1966, H. Kamiya leg.).

Distribution: Taiwan, China, Korea, Japan.

Lema rufotestacea Clark, 1866

=*Lema nitobei* Chûjô, 1933.

Nei-hu, Taipei Hsien (1 ex., 3. iii. 1965, S. Miyamoto leg.).

Shungchi, Hsientien, Taipei Hsien (1 ex., 20. vi. 1965, T. Nakane leg.; 1 ex., 23.

vi. 1965, T. Yamasaki leg.).

Distribution: India, Burma, Hainan, S. China, Taiwan.

Subfamily Clytrinae

Clytrasoma palliatum (Fabricius, 1801)

Wushe, 1150 m, Nantou Hsien (1 ex., 14. vi. 1961, S. Uéno leg.).

Nanshanchi, 800 m, Nantou Hsien (5 exs., 6. vi. 1965, T. Shirôzu leg.; 2 exs., 6. vi. 1965, B.-S. Chang leg.).

Distribution: India, S. China, Taiwan.

Physauchenia bifasciata (Jacoby, 1888)

=*Coptocephala (Physauchenia) pallens* auctt. (Taiwan).

Keelung, Taipei Hsien (1 ex., v. 1954, T.-C. Maa leg.).

Nanshanchi, 800 m, Nantou Hsien (1 ex., 8. v. 1965, 1 ex., 27. v. 1965, T. Shirôzu leg.).

Hengchun, Pingtung Hsien (1 ex., 4. viii. 1966, H. Kamiya leg.).

Ssuehchungchi, Pingtung Hsien (1 ex., 3. viii. 1966, H. Kamiya leg.).

Kueitzuchiaio, Pingtung Hsien (4 exs., 1. viii. 1966, H. Kamiya leg.).

Distribution: Tonkin, Hainan; S. China, Taiwan.

Smaragdina nigrifrons (Hope, 1842)

=*Gynandrophthalma japonica* Baly, 1873 (with many varr.).

Shungchi, Hsientien, Taipei Hsien (1 ex., 20. vi. 1965, Y. Kurosawa leg.).

Wulai, Taipei Hsien (2 exs., 22. viii. 1966, 1 ex., 25. viii. 1966, H. Kamiya leg.).

Pingling, Keelung, Taipei Hsien (3 exs., 21. vi. 1965, Y. Kurosawa leg.).

Kamiyodani in Taipingshan (=Taiheizan), Ilan Hsien (1 ex., 25. vii. 1932, T. Esaki leg.).

Shikikun—Togano in Taipingshan (=Taiheizan), Ilan Hsien (1 ex., 21. vii. 1932, T. Esaki leg.).

Nan-Shan (=Pinan), 1200 m, Ilan Hsien (1 ex., 20. vi. 1961, S. Uéno leg.).

Yangmei, Taoyuan Hsien (4 exs., 21. viii. 1965, B.-S. Chang leg.).

Charngchuenchyan, Haulien Hsien (1 ex., 21. vii. 1965, B.-S. Chang leg.).

Tailuko (=Taroko), Haulien Hsien (3 exs., 30. vii. 1932, T. Esaki leg.).

Chiaobaotai (=Kahodai)—Kukuan (=Meiji)—Wulai (=Urai) in Tachiachi (=Taikôkei), Taichung Hsien (1 ex., 15. vii. 1932, T. Esaki leg.).

Chiaobaotai (=Kahodai) in Pahsienshan (=Hassenzan), Taichung Hsien (1 ex., 11. vii. 1932, T. Esaki leg.).

Lishan (=Saramao)—Huanshan (=Heiganzan) in Tachiachi (=Taikôkei), Taichung Hsien (1 ex., 18. vii. 1932, T. Esaki leg.).

Changchen, Nantou Hsien (1 ex., 20. v. 1965, B.-S. Chang leg.).

Puli, Nantou Hsien (1 ex., 8. vii. 1966, H. Kamiya leg.).

Nanshanchi, 800 m, Nantou Hsien (1 ex., 12. vii. 1966, H. Kamiya leg.; 1 ex., 8. v. 1965, T. Shirôzu leg.; 1 ex., 12. vi. 1965, B.-S. Chang leg.).

Hotso (=Rozan Onsen), Nantou Hsien (1 ex., 16. vii. 1964, S. Asahina leg.).

Sungkang, 2000 m, Nantou Hsien (1 ex., 29. vi. 1965, T. Shirôzu leg.).

Chulu, Taitung Hsien (1 ex., 9. viii. 1966, H. Kamiya leg.).

Jiuyuehtan, 760 m, Nantou Hsien (1 ex., 28. vi. 1965, S. Itô leg.).

Chuchi, Chiayi Hsien (1 ex., 14. iv. 1965, S. Miyamoto leg.).

Fenchihu, 1400 m, Chiayi Hsien (2 exs., 8. vii. 1965, S. Kimoto leg.; 1 ex., 7. vi. 1961, S. Uéno leg.).

Alishan, 2300 m, Chiayi Hsien (2 exs., 12. vii. 1964, S. Asahina leg.).

Kenting, Pingtung Hsien (1 ex., 3. vii. 1965, S. Kimoto leg.).

Distribution: Japan, Korea, China, Taiwan.

Smaragdina octomaculata (Chûjô, 1952)

Sungkang, 2000 m, Nantou Hsien (1 ex., 31. v. 1965, 1. ex., 1. vi. 1965, 2 exs., 9. v. 1965, T. Shirôzu leg.).

Fenchihu, 1400 m, Chiayi Hsien (3 exs., 12. iv. 1965, T. Shirôzu leg.; 1 ex., 12. iv. 1965, S. Miyamoto leg.).

Distribution: Taiwan.

Smaragdina nipponensis (Chûjô, 1951)

=*Gynandrophthalma flavimana* Chûjô, 1952.

Fenchihu, 1400 m, Chiayi Hsien (1 ex., 10. iv. 1965, S. Miyamoto leg.; 2 exs., 12. iv. 1965, T. Shirôzu leg.).

5-10 km. S. of Fenchihu, Chiayi Hsien (1 ex., 11. iv. 1965, Y. Hirashima leg.).

Sungkang, 2000 m, Nantou Hsien (1 ex., 7. iv. 1965, T. Shirôzu leg.).

Kuantzuling, Tainan Hsien (1 ex., 7. iv. 1965, T. Shirôzu leg.).

Distribution: Japan, Ryukyu Is., Taiwan, China.

Smaragdina fulveola (Jacoby, 1890)

=*Gynandrophthalma divisoides* Chûjô, 1952, Tech. Bull. Kagawa Agr. Coll. 4 (1): 48 (Fromosa). **New Synonymy**

Wushe (1150 m)—Yushih (1700 m), Nantou Hsien (2 exs., 3. v. 1965, T. Shirôzu leg.).

Distribution: S. China, Taiwan.

According to my study on the type of *divisoides* Chûjô, which is preserved in the Taiwan Agriculture Research Institute, Taipei, *divisoides* is a synonymy of *fulveola* Jacoby, originally described from S. China. The type of *fulveola* Jacoby is preserved in the Museum of Comparative Zoology, Harvard University, Cambridge.