A REVISIONAL NOTE ON THE TYPE SPECIMENS OF JAPANESE CHRYSOMELIDAE WHICH ARE PRESERVED IN THE MUSEUMS OF EUROPE AND THE UNITED STATES. I^{1,2}

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Since 1956, Prof. M. Chûjô and the author have worked on a systematic catalogue of Japanese Chrysomelidae and completed it at the early spring of 1960, and the work is now in press. After his one and half years stay in Hawaii working on Asiatic Chrysomelidae, the author spent from September to November 1959 working on the type specimens of Far Eastern Chrysomelidae in the continental United States and Europe as a Bishop Museum Fellow in Entomology.

During the author's stay in Europe and the United States, he made a large volume of notes on the type specimens of Asiatic Chrysomelidae. To save the space, the authors did not give any notes or remarks on each species in the catalogue. In this paper the author wishes to summarize his notes on the results of his studies on the type specimens of the Chrysomelidae found in the Japanese fauna together with some new knowledge which were noticed by the author after the completion of the manuscript. The author thinks that this note will be a convenience to the other workers who will use the catalogue in the future.

Most of the Japanese Chrysomelidae were described by Baly and Jacoby. Except for a few species, Baly's types are preserved in the Brit. Mus. (Nat. Hist.), London, and Jacoby's types are mostly in the Brit. Mus. (Nat. Hist.) and partly in the Museum of Comparative Zoology, Harvard University, Cambridge. M. Pic's types are now in the Mus. Nat. d'Hist. Nat., Paris but some of his types were already destroyed before the transfer to Paris. Most of Kraatz' types seem to be preserved in the Deutsche Ent. Inst., Berlin. Some of Weise's and Harold's types are in the Zool. Mus., Berlin.

It is unfortunate that the author could not see most of Motschulsky's types and some of them might have been destroyed until today.

It must be noticed that the specimens sold by the Hanazono Entomological Laboratory, Kyoto, to some of the European Museums were in most cases labelled as "Japan, Kioto." Many of them were collected in outside of Kyoto, such as Hokkaido, and some of them seem to be of Formosan origin. In Pic's collection, the author found many specimens labelled as "Japan, Kioto," but many of them are not thought to be collected in Kyoto.

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At the first paragraph of each subfamilies, a list of species of which the author could work on type or cotype, is given. Type depositions are cited after each specific name in parenthesis. The names of the following institutions are abbreviated:

BM-British Museum (Nat. Hist.), London, England.

CAS-California Academy of Sciences, San Francisco, Calif., U. S. A.

DEI-Deutsches Entomologische Museum, Berlin, Germany.

MCZ—Museum of Comparative Zoology, Harvard University, Cambridge, Mass., U. S. A.

PARIS-Museum Nationale d'Histoire Naturelle, Paris, France.

ZMB-Zoologisches Museum der Universität zu Berlin, Germany.

Subfamily ZEUGOPHORINAE

Zeugophora (Zeugophora) annulata (Baly) (BM: type), nigricollis (Jacoby) (BM: type; MCZ: cotype), unifasciata (Jacoby) (BM: type), varipes (Jacoby) (BM: type; MCZ: cotype).

Subfamily MEGALOPODINAE

Temnaspis japonica Baly (BM: type).

Subfamily DONACIINAE

Donacia (Donacia) gracilipes Jacoby (BM: type; MCZ: cotype).

Macroplea japana (Jacoby) (BM: type).

Plateumaris (Plateumaris) constricticollis (Jacoby) (BM: type; MCZ: cotype).

- Donacia vulgaris Zschach, 1788, Mus. Leskeanum: 27 (Europe).—Chûjô & Kimoto, 1916, Niponius, Takamatsu 1(4): 2 (Japan).
 - =Donacia simplex Harold, 1878, Deutsche Ent. Zeitschr. 22(1): 87 (Japan: Tokyo).
- 2. Donacia thalassina Germar, 1811, Neue Schrift. Ges. Halle 1(6): 29 (Europe).
 - =Donacia impressa Lewis, 1893, Entomologist 26(360): 153 (Japan: Ishikari River; Sapporo).
 - =Donacia obscura Chûjô & Kimoto, 1960, Niponius, Takamatsu 1(4): 2 (Japan: Sapporo, Tenryû-numa in Hokkaido).

Subfamily CRIOCERINAE

Crioceris orientalis Jacoby (BM: type), innotaticeps Pic (PARIS: type).

Lilioceris (Bradyceris) lewisi (Jacoby) (BM: type); L. (Lilioceris) lateritia (Baly)
(BM: type), neptis (Weise) (ZMB: cotype), parvicollis (Baly) (BM: type), potens

(Weise) (ZMB: type), rugata (Baly) (BM: type), scapularis (Baly) (BM: type), subpolita (Motschulsky) (BM: ?cotype).

Lema adamsii Baly (BM: type), concinnipennis Baly (BM: type), coronata Baly (BM: type), delicatula Baly (BM: type), dilecta Baly (BM: type), diversa Baly (BM: type), fortunei Baly (BM: type), honorata Baly (BM: type), kiotoensis Pic (PARIS: type), lewisii Baly (BM: type), scutellaris (Kraatz) (DEI: type).

Oulema atrosuturalis (Pic) (PARIS: type), dilutipes (Fairmaire) (PARIS: type).

- 3. Crioceris quatuordecimpunctata (Scopoli) [f. innotaticeps Pic], 1916, Mel. Exot. Ent. 19: 17 (Yunnan) (originally described as an independent species).
 - =Crioceris quatuordecimpunctata var. sibirica auct. in Japan.

The Japanese specimens have been identified by many Japanese authors as var. *sibirica*. According to the author's studies on the types, Japanese specimens differ from *sibirica* Weise (type preserved in Zool. Mus. Berlin) but identical with *innotaticeps* Pic, and this form distributed in Yunnan, Fukien, Formosa and Manchuria. At present, the author wishes to recognize *innotaticeps* as an infraspecific variation within the nominate form.

4. Lilioceris subpolita complex.

L. subpolita and its allied species have been confusedly treated. According to the author's studies, lateritia is not a synonym or infraspecific variation of subpolita Motsch. but identical with potens Weise. In the collection of the Brit. Mus. (Nat. Hist.), two cotypes of L. subpolita Motsch. are preserved. It is strange that one type is labelled as N. China and another as Amur.

Baly (1873) recorded subpolita var. A, from Nagasaki. Judging by his description of var. A, this seems to be neptis Weise. In the collection of the Brit. Mus. (Nat. Hist.), the author found four specimens of neptis Weise collected in Japan and the Loochoos. Of which three specimens were labelled as "Japan, G. Lewis, 1910-320" and 1 ex. labelled as "Baly coll., Japan," but the author could not find the specimen collected in Nagasaki by G. Lewis. Jacoby (1896) recorded subpolita from Amami-Oshima, the Loochoos, but this record must be corrected as neptis Weise. Medvedev (1958) recorded Lilioceris pectoralis Baly from Japan, but according to the author's studies on the specimens which are preserved in the collection of the Frey Museum, the locality is written just "Japan" but this shoud be corrected as neptis Weise. Actually pectorallis Baly is a species belonging to Lema and his identification might have been based on Weise's unpublished name, Crioceris pectoralis Weise, which is synonymous with neptis Weise.

Thus *L. neptis* has been recorded many times from Japan, but the author has yet seen any specimens which were securely collected in Japan mainland. According to the author's studies, the Tokara Is., the Loochoos, is undoubtedly the northernmost record of this species.

Crioceris subpolita var. B, Baly, 1877, seems to be a new species. In the collection of the Brit. Mus. (Nat. Hist.) two specimens are preserved.

The Japanese species concerned may be arranged as follow:

- i. Lilioceris subpolita (Motschulsky, 1860).
- ii. Lilioceris neptis (Weise, 1922).

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=Crioceris subpolita var. A. Baly, 1877, Trans. Ent. Soc. Lond.: 77 (Japan: Nagasaki).

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=Crioceris subpolita Jacoby (nec. Motsch.), 1896, Entomologist 29: 5 (Loochoos: Oshima).

=pectoralis Baly, Medvedev, 1958, Ent. Arb. Mus. Frey 9(1): 110 (Japan).

iii. Lilioceris lateritia (Baly, 1863).

=Crioceris potens Weise, 1922, Tijdschr. Ent. 65: 39 (China; Japan).

iv. Lilioceris sp.

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- =Crioceris subpolita var. B. Baly, 1877, Trans. Ent. Soc. Lond.: 77 (Japan: Hiogo).
- 5. **Lema cirsicola** Chûjô, 1959, Mem. Fac. Lib. Arts & Educ., Kagawa Univ., 2 (81): 2 (Japan).
 - =Lema puncticollis Baly (nec Curtis), 1873, Trans. Ent. Soc. Lond.: 74 (Japan: Nagasaki).
 - 1 ex., Nagasaki, G. Lewis leg.; 1 ex., Japan, G. Lewis leg.

These two specimens were recorded by Baly (1873) as *puncticollis* but are *cirsicola* Chûjô. The records of *puncticollis* from Japan made by many Japanese authors may all referred to *cirsocola* Chûjô.

- 6. Lema concinnipennis Baly, 1865.
 - =Lema kiotoensis Pic, 1929, Mel. Exot. Ent. 41:12 (Japan: Kioto).

According to the author's studies on Pic's type, kiotoensis is a synonym of concinnipennis Baly.

- 7. Lema coronata Baly, 1873.
 - =Lema sagaensis Heinze, 1943, Stett. Ent. Ztg. 104: 107 (Japan: Saga).

The author could not find the type of *sagaensis* in Zool. Museum, Berlin. The type is probably possesed by Heinze himself. Judging by his original description, it is clear that *L. sagaensis* is a synonym of *coronata*.

8. Lema fortunei Baly, 1859.

Baly (1873) recorded this species from Nagasaki. In the collection of the Brit. Mus. (Nat. Hist.) two specimens labelled as "Japan, G. Lewis, 1910-320" are preserved. The author does not know any other specimens collected in Japan.

- 9. Oulema atrosuturalis (Pic), 1923, Mel. Exot. Ent. 40: 18 (Annam) (Lema).
 - =Lema downesii, Baly (nec Baly, 1865), 1873, Trans. Ent. Soc. Lond.: 75 (Japan: Nagasaki):—Chûjô & Kimoto, 1960, Niponius, Takamtus 1 (4): 2.

Baly (1873) recorded *downesii* Baly from Japan, but this should be corrected as *atrosuturalis* Pic. SE Asian specimens including Japanese, Chinese and Formosan ones should be identified as *atrosuturalis*. In *downesii*, pronotal punctures confusedly cover the disc but in *atrosuturalis* clearly arranged in a pair of longitudinal rows.

10. Oulema dilutipes Fairmaire and tristis Herbst.

Chûjô and Kimoto (1960) recorded dilutipes Fairmaire from Japan. O. dilutipes and tristis are extremely resembling each other, but both are distinct species. The author has not seen true tristis collected in Japan but in the collection of the Brit. Mus. (Nat. Hist.) seven specimens are preserved:

3 exs., "Tsushima, 73, 14." 2 exs., "Nagasaki, G. Lewis, 1910-320." 1 ex., "Miyanoshita, 24, IV-3. V. 80."

These two species may be separable as follow:

Pronotum finely and closely punctured at side and sparsely above..... tristis

Pronotum finely and closely punctured throughout......dilutipes

Subfamily CLYTRINAE

Coptocephala orientalis Baly (BM: type).

Smaragdina japonica (Baly) (BM: ?type), kiotoensis (Pic) (PARIS: type), nigrifrons (Hope) (BM: type).

11. Smaragdina nigrifrons (Hope) and some other related species.

S. japonica and kiotoensis Pic are synonyms of nigrifrons Hope. Baly (1873) recorded Gynandrophthalma pallens from Japan. In the collection of the Brit. Mus. (Nat. Hist.) there is a specimen labelled as "Lewis coll., Japan," which was identified as pallens. This specimen is not pallens but is a pale coloured type of nigrifrons Hope (=japonica Baly). It must be noticized that the species which has been identified as Physauchenia pallens is not true pallens but nigrofasciatus Jacoby and true pallens Fabricius is same one with Diapromorpha melanopus Lacordaire. This fact was made sure based on the picture of the type of pallens Fabricius photographed by Dr. J. L. Gressitt.

The female of *Physauchenia bifasciata* and *Smaragdina nigrifrons* are extremely resembling each other, and moreover the systematic position of *nigrifrons* is somewhat doubtful. In both species forelegs of the male are much slender than those of the female but in *nigrofasciata* tibiae and the first tarsal segments are distinctly slender than in *nigrifrons*. Elytral and pronotal markings are very variable but in *nigrofasciata* elytral border is always not stained with black but in *nigrifrons* elytral border is, in most cases, stained with black. In *nigrofasciata* basal 1/2 or 1/3 of forelegs always yellowish but in *nigrifrons* entirely black in most cases.

Above discussion may be summarized as follows:

- i. Smaragdina nigrifrons (Hope), 1842, Proc. Ent. Soc. Lond.: 51 (China) (Clythra). =Clythra japonica Baly, 1873, Trans. Ent. Soc. Lond.: 79 (Japan: Nagasaki).
 - =Gynandrophthalma pallens Baly (nec Fabricius), 1873, Trans. Ent. Soc. Lond.: 81 (Japan: Nagasaki).
 - =Coptocephala kiotoensis Pic, 1927, L'Echange, Rev. Linn. 43: 7 (Japan: Kioto).
- ii. *Physauchenia bifasciata* (Jacoby), 1888, Proc. Zool. Soc. Lond.: 341 (China) (Coptocephala) (MCZ: type).
 - =Clythra (Physauchenia) pallens Lacordaire (nec Fabricius), 1848, Mon. Phytoph. 2: 368 (E. India; China).
 - =Physauchenia pallens or Coptocephala pallens auct. (nec Fabricius).
- iii. Diapromorpha pallens (Fabricius), 1787, Mant. Ins. 1: 81 (China) (Cryptocephalus) (COPENHAGEN: type).
 - =Clythra (Diapromorpha) melanopus Lacordaire, 1848, Mon. Phytoph. 2:238 (India).
- 12. Smaragdina manzhura (Jacobson), 1925, Rev. Russe d'Ent. 19: 10 (Calyptorrhina).
 - =Cyaniris kusanagii, Chûjô, 1940, Trans. Nat. Hist. Soc., Formosa 30: 350, fig. (Korea):—Chûjô and Kimoto, 1956, Kontyû 24 (4): 211 (Japan; Manchuria).

This species a very rare one in Japan but common in Manchuria. The author could not see the type of *manzhura*, but *kusanagii* seems to be a synonym.

Subfamily CRYPTOCEPHALINAE

Adiscus lewisii (Baly) (BM: type), testaceipes (Pic) (PARIS: type), nigripennis (Jacoby) (MCZ: type).

Coenobius piceus Baly (BM: type), sulcicollis Baly (BM: type).

Cryptocephalus amiculus Baly (BM: type), approximatus Baly (BM: type), partitus Jacoby (BM: cotype), difformis Jacoby (BM: type; MCZ: cotype), discretus Baly (BM: type), fortunatus Baly (BM: type), instabilis Baly (BM: type), amatus Baly (BM: type), japanus Baly (BM: type), kraatzi Chûjô (DEI: type), limbatipennis Jacoby (BM: type), mannerheimii Gebler (DEI: type), manturifrons Pic (PARIS: type), nigrofasciatus Jacoby (BM: type; MCZ: cotype), nobilis Kraatz (DEI: type), perelegans Baly (BM: type), permodestus Baly (BM: type), pilosus Baly (BM: type), scitulus Baly (BM: type), signaticeps Baly (BM: type), tetradecaspilotus Baly (BM: type).

Pachybrachys eruditus Baly (BM: type).

13. Adiscus lewisii (Baly, 1873).

- =Dioryctus testaceipes Pic, 1922, Mel. Exot. Ent. 35: 14 (Japan).
- A. testaceipes is a synonym of lewisii, as Chûjô (1957) already mentioned.

14. Cryptocephalus amiculus Baly, 1873.

The type of the species is not of Japan but of Amur and slightly differs from Japanese specimens in having somewhat clearly impressed longitudinal wrinkles of pronotum. It is not necessary to separate Japanese specimens from the nominate form.

15. Cryptocephalus fortunatus Baly, 1873.

The type of this species is based on the specimen taken from Chusan, China. Chen (1942) treated fortunatus as a synonym of kulibini but fortunatus is clearly seprarable from kulibini by the characters mentioned in the original description. On the other hand, Japanese specimens slightly differ from the Chusan specimen. In the type specimen, basal half of elytral border yellowish but in Japanese specimens only basal corner of elytra yellowish. It would be necessary to study more materials from the type locality or neighbouring areas.

16. Cryptocephalus fulvus Goeze, 1777.

- =Cryptocephalus fuscolineatus Chûjô, 1940, Trans. Nat. Hist. Soc., Formosa 30 (205): 385, fig. 5 (Korea); 1956, Rep. Nagaoka Municipal Sci. Mus. 1:5 (Japan).
- C. fuscolineatus is a synonym of fulvus Goeze. In the collection of the Brit. Mus. (Nat. Hist.) one specimen which is labelled as "Japan, Lewis coll." is preserved.

17. Cryptocephalus kraatzi Chûjô, 1935.

C. kraatzi was described by two specimens from Japan but until today author has not seen any other specimens collected in Japan. In Manchuria and Korea this species is rather common. The type locality is only cited as "Japan." The author doubts this "Japan" means surely Japan proper. The type locality seems to be some place of Korea which was formerly a territory of Japan.

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18. Cryptocephalus limbatipennis Jacoby, 1885.

=Cryptocephalus limbatus var. moriwakii Azuma, 1940, Konchû-Kenkyû 3(2): 29, 1 f. (Japan).

The type of limbatipennis belongs to a blackened type of this species.

19. Cryptocephalus manturifrons Pic, 1922.

Redescription of this species will be given by Prof. M. Chûjô based on the specimens collected in Siberia. The author does not know any specimen collected in Japan except the type specimen.

Subfamily LAMPROSOMATINAE

Oomorphoides cupreatus (Baly) (BM: type), nigrocoeruleus (Baly) (BM: type). Oomorphus japanus Jacoby (BM: type; MCZ: cotype).

Subfamily CHLAMISINAE

Chlamisus diminutus (Gressitt) (CAS: paratype), geniculatus (Jacoby) (BM: type), japonicus (Jacoby) (BM: type; MCZ: cotype), lewisii (Baly) (BM: type), spilotus (Baly) (BM: type).

20. Chlamisus interjectus (Baly) and a related species.

Until today, Japanese entomologists have incorrectly identified *C. interjectus* Baly as *cirsicolus* Chûjô. *C. interjectus* auct. in Japan, should be identified as *diminutus* (Gressitt).

Subfamily **EUMOLPINAE**

Abirus fortuneii (Baly) (BM: type), kiotoensis Pic (PARIS: type).

Basilepta balyi (Harold) (ZMB: type), japonicum (Jacoby) (BM: type; MCZ: cotype), hirticolle (Baly) (BM: type), modestum (Jacoby) (BM: type), pallidulum (Baly) (BM: type), laeviusculum (Weise) (ZMB: type), ruficolle (Jacoby) (BM: type; MCZ: cotype), varicolor (Jacoby) (BM: type).

Bromius obscurus var. concinnus (Weise) and var. lewisii (Weise) (ZMB: type). Chrysochus chinensis Baly (BM: type).

Cleroprorus variabilis (Baly) (BM: type), robustus (Baly) (BM: type).

Colasposoma oberthuri Jacoby (BM: type), cyaneum Motsch. (BM:?cotype).

Colposcelis consimilis (Baly) (BM: type), flavopustulata (Baly) (BM: type).

Demotina bipunctata Jacoby (BM: type; MCZ: cotype), decorata (BM: type). fasciculata Baly (BM: type), modesta (Baly) (BM: type), modesta (Baly) (BM: type), tuberosa Chen (PARIS: type).

Hyperaxis fasciata (Baly) (BM: type).

Lypesthes pulverulenthus (Jacoby) (BM: type; MCZ: cotype), testaceipes Pic (PARIS: type), fulvus (Baly) (BM: type), lewisii (Baly) (BM: type).

Nodina chalcosoma Baly (BM: type).

Osnaparis nucea Fairmaire (PARIS: type).

Platycorynus japonicus (Jacoby) (BM: type; MCZ: cotype).

Scleodonta lewisii Baly (BM: type).

Xanthonia placida Baly (BM: type).

21. Abirus fortuneii (Baly, 1864).

=Abirus kiotoensis Pic, 1944, L'Echange, Rev. Linn. 60: 8 (Japan: Kioto). The type of A. kiotoensis was labelled as "Kioto" but may be a Formosan specimen sent from Hanazono Entomological Laboratory.

22. Basilepta varicolor (Jacoby, 1885).

=Basilepta maebarai Chûjô, 1956, Mem. Fac. Lib. Arts & Educ., Kagawa Univ., 2 (31): 1, f. 1 (Japan).

23. Basilepta pallidulum (Baly, 1874).

=Nodostoma laeviusculum Weise, 1910, Verh. Naturf. Ver. Brünn, 48: 34 (Japan: Tokio).

The author could not find any distinct differences between these two species.

24. Bromius obscurus (Linné) [f. villosulus (Schrank, 1781)].

= Adoxus obscurus var. concinnus Weise, 1898, Archiv Naturg. 64 (1): 190 (Japan).

=Adoxus obscurus var. lewisii Weise, 1898, l. c. (Japan: Yokohama).

Those two forms are identical with an European form villosulus.

25. Cleoporus variabilis (Baly, 1874).

=Pagria robustus Baly, 1874.

C. robustus is slightly larger and robuster but may be regarded an infraspecific variation.

26. Colposcelis signata (Motschulsky, 1858).

- =Nodostoma consimilis Baly, 1874, Trans. Ent. Soc. Lond.: 168 (Japan).
- =Nodostoma flavopustulata Baly, 1874, l. c. (Japan).
- C. consimilis has been treated as a synonym of signata Motschulsky, and flavopustulata is also a synonym of signata.

27. Demotina modesta Baly, 1874.

- =Demotina elegans Chûjô & Shirôzu, 1955, Sieboldia, Fukuoka 1(3): 239.
- =Demotina elegans var. futamon Nakane, 1958, Sci. Rep. Saikyo Univ., 2(5): A 306 (Japan).
- D. modesta is somewhat variable in size and elytral coloration.

28. Demotina tuberosa Chen, 1939.

=Demotina japana Ohno, 1960, Trans. Shikoku Ent. Soc. 6(6): 65 (Japan).

The author could not find any distinct differences between S. Chinese and Japanese specimens.

29. Lypesthes ater (Motschulsky, 1860).

=Lypesthes testaceipes Pic, 1928, Mel. Exot. Ent. 52: 26 (Kioto).

As Ohno (1958) already mentioned, L. testaceipes is one of the forms of ater Motschulsky, in having reddish brown legs instead of entirely black.