The Genus *Pteroloma* Gyllenhal 1827 in Japan (Coleoptera: Agyrtidae)

By Wolfgang Schawaller, Stuttgart

With 5 figures

**Summary**

In Japan the genus *Pteroloma* is represented by four species: *Pteroloma rufovittatum* (Nakane 1955) [miranda Hlisnikovsky 1963 new synonym], *Pteroloma koebelei* van Dyke 1928 [gotoi Nakane 1955 new synonym, ssp. *japonica* Hlisnikovsky 1963 new synonym; *magnifica* Hlisnikovsky 1963 new synonym], *Pteroloma forstroemi* (Gyllenhal 1810), and *Pteroloma discicolle* Lewis 1893. The proofs for synonymy, all known faunistic data, and a key for these species are given.

**1. Introduction**

This paper analyses the taxonomic situation of the species of the genus *Pteroloma* and their distribution in Japan. This polymorphic genus is distributed in all the mountainous regions of the northern hemisphere (USA, Mexico, Europe, Himalaya, Central Asia, Japan). No synapomorphic characters which prove its monophyletic origin have yet been worked out. Probably this genus must be divided into a number of natural groups — but this needs a complete phylogenetic study which is not the purpose of the present paper.

In Japan, *Pteroloma* is represented by four species: *Pteroloma rufovittatum* (Nakane 1955) and *Pteroloma koebelei* van Dyke 1928 both with a wider distribution on Honshū, Shikoku, and Kyūshū; *Pteroloma discicolle* Lewis 1893 known only from the type locality in the mountains around Nikko (Tochigi prefecture, Honshū); and *Pteroloma forstroemi* (Gyllenhal 1810) with its new record for the Japanese fauna on
Hokkaidō. All the other forms from Japan, hitherto described, are synonyms of these species (see list of species).

Not included in this revisionary note is „Pteroloma“ calathoides Portevin 1905 from Nikko which is synonymous with Ipelates striatipennis (Lewis 1893) (NAKANE in litt., comparison of types). Unfortunately this synonymy has not been registered in my Ipelates-paper (SCHAWALLER 1983).

2. Acknowledgements

First of all I wish to thank Prof. T. NAKANE (Kagoshima) for his various help and the loan of important specimens (collection NAKANE: CN). My friend H. Ono (National Science Museum Tokyo) identified the localities and translated the informations on the labels into a uniform and correct writing. Specimens used for this revision were made available by the following persons and institutions: BMNH = British Museum of Natural History London (Dr. M. E. BACCHUS), Brio = Biosystematics Research Institute Ottawa (Dr. A. SMETANA), CAS = California Academy of Science San Francisco (Dr. D. H. KAVANAUGH), CD = Collection DOSTAL Wien, MHNG = Museum d’Histoire Naturelle Genève (Dr. I. LÖBL), MNB = Museum für Naturkunde Berlin (Dr. M. UHLIG), SMF = Senckenberg Museum Frankfurt (Dr. R. ZUR STRASSEN), SMNS = Staatliches Museum für Naturkunde Stuttgart (author).

Fig. 1. Localities (numbers see list of species) of the genus Pteroloma in Japan. Locality no. 6 not identified and not in the map.
3. List of species

3.1. *Pteroloma rufovittatum* (Nakane 1955) (fig. 5)


Studied material: Shikoku, Tokushima prefecture, Miyoshi-gun, Mt. Higashi-iya-yama (locality 1 in fig. 1), V.1937, 1 sp. leg. Hirai (CN).


Synonymy: I compared one specimen of *rufovittatum* from the Nakane collection with the description of *miranda* and found no specific differences. The figured *miranda* shows the conspicuous black-yellow elytrae and the circular shape of the body, which are corresponding, and typical characters of *rufovittatum*. This synonymy has already been recognized by Nakane (in litt.).

3.2. *Pteroloma koebelei* van Dyke 1928 (fig. 2)


Synonymy: I studied the types of *koebelei* and *gotoi* and found no morphological differences, therefore *koebelei* is the valid name for this species. The descriptions and sketched figures of ssp. *japonica* and *magnifica* show without doubt the synonymy of these names to *koebelei*, and, moreover, a paratype of ssp. *japonica* from the museum in Genève can not be separated by morphological characters from the holotype of *koebelei*.

3.3. *Pteroloma forstroemi* (Gyllenhal 1810) (fig. 3)


Studied material: Hokkaidō, Mt. Daisetsu-zan (locality 12 in fig. 1), 8.VI.1976, 1 sp. leg. Yudasuda (CN). – New record for Japan!

Synonymy: Szekessy (1935) separated sibiricum from forstroemii only by subtle differences in the male sexual characters. The δ genital apparatus within the genus Pteroloma is only weakly sclerotilized and, moreover, of a very similar construction. Therefore I consider these differences — based only on four old and dry conserved specimens from the last century — not as specific. If specific differences concerning the genital apparatus exist within the genus Pteroloma which are useful for taxonomy, these differences could only be studied in new and alcohol-conserved specimens. The material listed here from Japan, Mongolia and Sachalin cannot be separated from European populations by morphological or other taxonomically relevant characters — so Pteroloma forstroemii is distributed in an expansive palearctic areal and is not restricted to Europe.

3.4. Pteroloma discicolle Lewis 1893 (fig. 4)

Studied material: Honshū, Tochigi prefecture, Nikko, summit of Mt. Nantai-san (locality 13 in fig. 1), 20.VIII.1881, 1 syntype leg. Lewis (BMNH). — Honshū, Tochigi prefecture, Nikko, Lake Chūzenji-ko (14), 19.–24.VIII.1881, 1 syntype leg. Lewis (BMNH). This locality not cited in the original description, but specimen labeled as syntype.

Remarks: This species shows great affinities to Garytes coreanus Mroczkowski 1966 from Corea but there exist probably specific differences (I compared the types of discicolle with recently collected Garytes coreanus from the Hungarian Zoological Expedition to Corea, Museum Budapest). Not clear, however, is the generic position of these two species. The members of Pteroloma are polymorphic and probably not all are of monophyletic origin. Perhaps, the genus Garytes is only a synonym or subgenus of Pteroloma. This question is not a theme of this short paper, until it is clarified I consider discicolle as a member of Pteroloma.

4. Key to the Japanese Pteroloma species

1 Head and pronotum dorsally with netlike microsculpture (magnification 50x) and nearly without punctuation. Basis of pronotum before scutellum without impression. Border of elytrae smooth from the shoulders up to the tip (fig. 4) .......................................... P. discicolle

   — Head and pronotum dorsally smooth, shining and with distinct punctuation. Basis of pronotum before scutellum with impression. Border of elytrae dentated at least in the first third behind the shoulders .......................................................... 2

2 Both elytrae together form a circle. Border of elytrae dentated nearly up to the tip and broadly developed, external interval of elytrae with additional (10th) row of points. Elytrae with contrasting pattern: first and fifth interval, border and tip yellow, the rest black (fig. 5) .......................................................... P. rufovittatum

   — Both elytrae together form an oval. Border of elytrae dentated only in the first third, external interval of elytrae not broader than the other intervals and without additional points. Elytra of uniform black or brown .................................................. 3

3 Maximum breadth of pronotum in the middle, border of pronotum nearly symmetrically bent to basis and tip. Surface of pronotum nearly everywhere with dense or scattered punctation (fig. 2) .................................................. P. koebelii

   — Maximum breadth of pronotum in the first third, border of pronotum narrower towards basis, pronotum heart-shaped. Surface of pronotum only at the borders and basis with punctuation, middle of pronotum shining and without points (fig. 3) ………….. P. forstroemii.
5. References


Author’s address:

Dr. WOLFGANG SCHAWALLER, Staatliches Museum für Naturkunde Stuttgart (Museum am Löwentor), Rosenstein 1, D-7000 Stuttgart 1.