

Papéis Avulsos de Zoologia

METAXIDIUS CHAUDOIR AND THE NEOTROPICAL ZUPHIINI (COLEOPTERA, CARABIDAE)

HANS REICHARDT

ABSTRACT

Based on the study of the holotype of *Metaxidius brunnipenis* Chaudoir, 1852, the only known specimen of this monotypic genus of hitherto uncertain position, the author places it among the Zuphiini, near the genera *Mischocephalus*, *Pseudaptinus* and *Thalpius*. A new key to the Neotropical genera of Zuphiini is presented.

The monotypic genus *Metaxidius* was placed by Chaudoir (1852: 38) between the genera *Polystichus* (a Zuphiini) and *Helluomorpha* (a Helluonini; the species considered as belonging to this genus by Chaudoir, are now included in *Helluomorphoides* Ball), considering it as intermediate between the two tribes.

Lacordaire (1854: 88), the only other author to mention the genus (most probably only based on data taken from Chaudoir's description), placed *Metaxidius* in his "Tribu X, Galéritides", next to *Polystichus* and *Diaphorus* (the latter presently a synonym of *Pseudaptinus*, also a Zuphiini). Lacordaire mentions that Chaudoir considered his genus as intermediate between *Polystichus* and *Helluomorpha*, and concludes that "... il ressort évidemment des caractères qui précèdent, qu'il appartient à celle ci." It is strange that Lacordaire decided that *Metaxidius* was related to *Helluomorpha*, but did not include the genus in the "Tribu XI, Helluonides" (*l.c.*: 90).

In catalogues the position of *Metaxidius* has also varied. Gemminger & Harold (1868: 95) placed the genus after *Agastus* Schmidt-Goebel (a true Zuphiini, as shall be seen below); Csiki (1932: 1578) and Blackwelder (1944: 70) place it among the Helluonini.

In the course of the preparation of a forthcoming revision of the Neotropical Helluonini, the real identity of *Metaxidius* puzzled me, since Helluonini are much larger insects than Chaudoir's species (which measures about 5 mm). In 1964 I failed to locate the holotype of *Metaxidius brunnipenis* in the Paris Museum. More recently, in March 1971, while studying the types of the Neotropical Helluonini in the same Museum, I again tried to locate the type. It was finally found

in the Oberthür collection (which includes that of Chaudoir), among the Zuphiini.

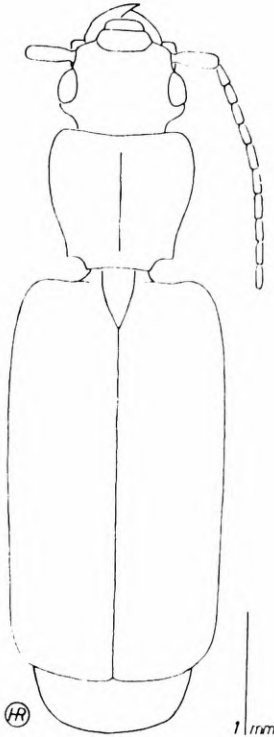
The study of the holotype, the only specimen known at present, clearly indicates that *Metaxidius* is best placed among the Zuphiini, and not among the Hellaonini. The specimen is very poorly preserved, and some characters could not be checked, but based on the holotype and Chaudoir's description it is now possible to relate the genus to the other Neotropical Zuphiini. I have already proposed some kind of rearrangement of the Neotropical genera of Zuphiini (Reichardt, 1967: 8-9; 1971: 86, 88). As said in the 1971 paper (*), I based this classification on Basilewsky's earlier grouping of the African genera (Basilewsky, 1962: 100); I should, however, again, stress that by accepting Basilewsky's classification of the Zuphiini, I am not accepting his concepts of categories. The Neotropical genera can be placed in two groups: the Zuphiini (*sensu* Basilewsky), with *Zuphium* and *Polystichus*, and the Patriziini (*sensu* Basilewsky) with the remaining genera, including now *Metaxidius* Chaudoir. The third group, the Leleupidiini, is not represented in the New World.

KEY TO GENERA OF NEOTROPICAL ZUPHIINI

1. Maxillary and labial palpi similar, even though the maxillary palpi larger 2
 Maxillary palpi long and thick, with large apical segment; labial palpi short and thin, with small apical segment 3
2. Antennal scape very long and thin, longer than segments 2 and 3 together; small species (less than 10 mm), with very narrow neck (more or less as narrow as the diameter of one eye) *Zuphium* Latreille, 1806
 Antennal scape thick and relatively short, more or less as long as segments 2 and 3 together; larger species (over 12 mm), with thick neck (about twice as wide as the diameter of one eye) ... *Polystichus* Bonelli, 1809
3. Neck very narrow (more or less as wide as the diameter of one eye); pronotum very much constricted posteriorly, with a long and strong spine on each side, near base *Mischocephalus* Chaudoir, 1863
 Neck thick (wider than the diameter of one eye); pronotum usually narrower posteriorly, but if with spines or sharp basal angles, these small 4
4. Pronotum without basal spine or angle *Pseudaptinus* Castenau, 1835
 Pronotum with sharp basal angles 5
5. Antennal socket limited above and below by a sharp keel, the lower keel better developed than the upper one (clearly visible from above; see figure); antennal scape relatively shorter (slightly

(*) By an unexplainable mistake I characterized the genera *Mischocephalus*, *Pseudaptinus* and *Thalpius* as having the maxillary palpi less well developed than the labial palpi. The opposite situation is the true one, as corrected in the key below.

- shorter than segments 2 to 4 together); pronotum as long as wide posteriorly, with more or less sharp front angles, and posterior angles sharp, almost square; pronotum and elytra glabrous *Metaxidius* Chaudoir, 1852
- Antennal socket with upper keel as developed as lower keel; antennal scape relatively longer (as long as or longer than 2 to 4 together); pronotum longer than wide; front angles rounded; posterior angles frequently more or less spiniform; pronotum and elytra with dense and very short pubescence
 *Thalpius* Leconte, 1851



Metaxidius brunnipennis
 Chaudoir, 1852: dorsal
 view of holotype.

Metaxidius is quite distinct from the other Neotropical genera, and bears at least superficial resemblance to *Agastus lineatus* Schmidt-Goebel, from Southeast Asia. *Agastus* Schmidt-Goebel, of Oriental distribution, also belongs into the Patriziini (labial palpi less developed than maxillary palpi). Even though being clearly a Zuphiini, this genus was placed among the Lebiini, subtribe Cymindina, by Jedlicka (1963: 299, 451).

Among the Neotropical genera *Metaxidius* seems to be closest to *Thalpius* Leconte, but is easily distinguished by the characters mentioned in the key. The palpi of the holotype of *M. brunnipennis* are broken, but from Chaudoir's description I conclude that the genus must be placed among the Patriziini; no setae are preserved, but I assume that *Metaxidius* has the typical cephalic and pronotal chaetotaxy of the Zuphiini.

A final word should be said about the origin of the holotype. It only bears three labels, which read: 1. "Amér. aequinoct."; 2. "Brunnippennis Chaud."; and 3. "ExMusaeo Mniszech". The possibility of mislabeling of this specimen exists, and the Neotropical provenance of the species should be taken with great care.

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