

Contribution to the systematics of the genus *Scydmaenus* (Coleoptera: Scydmaenidae)

Stanislav VIT

26, Rue de la Poterie, 1202-Genève, Switzerland
e-mail: stanislav.vit@edu.ge.ch

Taxonomy, synonymy, Coleoptera, *Scydmaenus*, *Alaudula*, Ethiopian Region

Abstract. The genus *Alaudula* Schaufuss, 1889 syn. n., is relegated to synonymy of *Scydmaenus* Latreille, 1802. Actually, the unique diagnostic character supporting originally the genus *Alaudula* Schaufuss proves irrelevant and occurs also in other species and subgenera of *Scydmaenus* Latreille. The new combination for *A. rectispina* Schaufuss - the type of *Alaudula* by original designation - is *Scydmaenus rectispina* (Schaufuss, 1889).

INTRODUCTION

The genus *Alaudula* Schaufuss, was erected (Schaufuss, 1889) to accommodate two new species of Scydmaenini (Eumicridae sensu Schaufuss): the type species *A. rectispina* (1889: 31) and *A. prudentis* (1889: 32), species from Aden (Yemen) and from Zanzibar (presently Tanzania) respectively.

The unique diagnostic character of the genus *Alaudula*: „*Tarsi postici articulo primo in spino prolongato*“, is given in the Key to genera (ibid, 1889: 30), thus, balanced as generic feature by the last century author.

The character was not figured but only shortly described within the specific diagnoses of each species, where commented also in German. The number of studied specimens and their sex were not given and the type material of Schaufuss could not be obtained for the purpose of this study.

The original diagnosis of the genus *Alaudula* states: „*Caput quadratum. Oculi in angulis anticis siti. Antennae apice clavate. Thoracis basi foveolata. Tarsi omnes antrorsum angustati, antici in mare parum dilatati, breves; anteriores articulis mediis subquadratis; postici articulis 2-5 longitudine latioribus, primo elongato, apice spinoso. Coxae anteriores bulbosae, fere adjacentes, trochanteres oblique quadrati, coxae posticae distantes, breviter conicae, trochanteres elongati.*“ (Schaufuss, 1889: 31). Given in Latin only, the diagnosis of Schaufuss doesn't set any morphological feature supporting neither an inter- nor an infra-generic level.

Thus far, the shape of the basitarsus of the metatarsi, diagnosed in *rectispina* and *prudentis*, remained the unique „outstanding“ character distinguishing formally *Alaudula* from *Scydmaenus*. But it's highly probable that the genus *Alaudula* was based exclusively on a secondary sexual character of females and does not fulfil the criteria of generic admissibility (see Discussion). Nevertheless the character erected originally as generic proves to be barely one of interspecific value.

DISCUSSION

Within the restricted extent of the last century knowledge of the family of Scydmaenidae while only two species of *Scydmaenus* Latreille have been reported hitherto from „Africa“: *Scydmaenus vulpinus* (Schaum, 1844) from „Arabia“ and *Scydmaenus pinguiculus* (Gerstäcker, 1871: 43) from Zanzibar, *A. rectispina* and *A. prudentis* studied by Schaufuss appeared as significantly differentiated from *Scydmaenus*. All the more that twelve new taxa of *Scydmaenus* s. str. (all Schaufuss, 1889), occurring within the same geographical area but devoid of this character, were described in the same paper, namely: *S. coxalis*, *S. delectus*, *S. efflorescens*, *S. gloriosus*, *S. hyalinus*, *S. nitidus*, *S. separatus*, *S. scutellatus* and *S. vilis* from Zanzibar (incl. Bagamoyo), and *S. blandus*, *S. excavatus*, *S. geniculatus* from Arabia (Aden), where four species, *blandus*, *efflorescens*, *scutellatus* and *vilis* were quoted from both proveniences.

When both new species were transferred by Schaufuss in the new genus *Alaudula* because of an outstanding character of the tarsal morphology - a spine-like distal portion of the basitarsus of the metatarsy - the generic treatment appeared as a sound taxonomic hypothesis. Nevertheless, within the specific diagnosis of each species these characters were only insufficiently developed:

rectispina (Yemen) „...; tarsorum posticorum articulo primo spina longa recta armato.“ (Schaufuss, 1889: 31).

prudentis (Zanzibar) „...; tarsorum posticorum articulo primo apice longe curvato-spinato.“ (Schaufuss, 1889: 32).

Corrolarily, no new species have been included to *Alaudula* Schaufuss by any of latter scholars and contributors to the systematics of African *Scydmaenus* (E. Reitter, J. Lhoste, R. Jeannel, P. Cauchois, H. Franz and G. Castellini). But these authors also did not quoted such tarsal particularities or focused more consequently their taxonomic analysis on the tarsal morphology.

Several similar tarsal modifications were nevertheless reported in other species of *Scydmaenus* (non extensively!): *Scydmaenus miritarsis* Peyerimhoff (1949: 262-263), a well characterised species of the subg. *Eustemmus* Reitter data from Morocco, as well as in *Scydmaenus* (s. str.) *loeblianus* Franz (1980: 704) and *Scydmaenus* (s. str.) *gigantophallus* Franz (1980:705) from Ivory Coast, but also in *Scydmaenus* (s. str.) *korthaliensis* Franz (1973: 114, figs 2-3) from Nepal. Actually, the females of the above mentioned species exhibit equally a „spine-like“ *basitarsus* of metatarsi reported in *Alaudula*.

Other recent collects in Africa attest that such spine-like basitarsus occurs among other undescribed *Scydmaenus* from: Ivory Coast (legit Löbl), Togo (legit Vit), Zaire and Rwanda (legit Mühle), Rwanda and Burundi (legit Brachat). In the following species, a similar spine-like process can be observed - in various extent and form alternately on any of first three segments of the female metatrasi. It proves be a cluster of long setae, often plastered with some secretions. In *Scydmaenus loeblianus* Franz from Ivory Coast (personal observation) the female basitarsus is swollen and the cluster of long setae originates on its dorsal side, then exceeds the length of the apex of the third tarsal segment.

CONCLUSIONS

Female tarsal dimorphism is attestingly present in other formally valid sub-genera of the genus *Scydmaenus* Latreille as well as in different informal „phyletic groups“ of *Scydmaenus* occurring at least in Ethiopian and Oriental region. Corollarily, the name *Alaudula* Schaufuss (1889) **syn. n.**, is relegated here to synonymy of *Scydmaenus* Latreille (1802).

REFERENCES

- FRANZ H. 1973: Die auf meinen Forschungsreisen nach Nepal in der Jahren 1970 und 1971 gesammelten Scydmaeniden und einige nordindische Vertreter dieser Familie (Coleoptera, Scydmaenidae). *Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen* 23 (1971): 113-156.
- FRANZ H. 1980: Scydmaenidae (Coleoptera) von der Elfenbeinküste, gesammelt von J. Decelle, Tervuren, und I. Löbl, Genf. II. Gattungen *Microscydms* Sauley & Croiss. und *Scydmaenus* Latr. *Revue Suisse de Zoologie* 87: 671-709.
- PEYERIMHOFF P. M. 1949: Études et descriptions de coléoptères marocains II. *Bulletin de la Société des Sciences Naturelles du Maroc* 25-27 (1945-1947): 248-308.
- SCHAUFUSS, L. W. 1889: Neue Scydmaeniden im Museum Ludwig Salvator. *Berliner Entomologische Zeitschrift* 33: 1-42.

