THE AMERICAN TRIBE EVANIOSOMINI IN SOUTHERN AFRICA (COLEOPTERA: TENEBRIONIDAE)

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The systematic position of the Namibian *Oppenheimeria bombophthalma* is changed from the African tribe Epitragini to Evaniosomini, previously thought to occur only in arid America. Morphological characters of the tribes Evianosomuni and Epitragini are evaluated and the historical biogeography of the former tribe is discussed with reference to the tribe Caenocrypticini.

Keywords: Coleoptera, Tenebrionidae, Evaniosomini, Arid Faunal Elements, Historical Biogeography.

INTRODUCTION

Koch (1952) described the genus and species *Oppenheimeria bombophthalma* and placed the genus in the tribe Epitragini. During a Transvaal Museum expedition to Chile, I collected a series of specimens of an Evaniosomini species at light, which was subsequently described as *Aryenis tenuis* by Peña (1994). The collecting locality was Chanarcillo (27°47′S, 71°16′W), at an elevation of 1100 m in the hinterland of the Atacama Desert.

The habitats of the Chilean and Namibian species are remarkably similar: sparsely vegetated arid areas in the hinterland of the Namib and Atacama deserts respectively. The Namibian species is known from three localities: Keetmanshoop, Sessriem and Bullspoort in the Otjivarongo area. Both the Namibian and Chilean localities are on sandy ground, with patchy herbaceous vegetation and low bushes with few trees.

MORPHOLOGY

The comparative external characters of Evaniosomini and Epitragini listed in Table 1 clearly show that *Oppenheimeria* belongs to the tribe Evaniosomini. The genus-level separation of *Oppenheimeria* from its most similar genus *Aryenis* is supported by the characters listed in Table 2.

HISTORICAL BIOGEOGRAPHY

The distribution of Evaniosomini in both the Atacama and Namib deserts is similar to that of Caenocrypticini (Endrödy-Younga, 1996). On the west coast of southern Africa the genus *Caenocrypticus* Gebien, 1920, is represented by six subgenera whereas in the Atacama area the undivided genus Caenocrypticoides Kaszab, 1969, represents the tribe.

In southern Africa the subgenus *Vernayella* Koch, 1958 and some species of the subgenus *Psammotopulus* Endrödy-Younga, 1996, inhabit the dune-sea of the Namib Desert. These subgenera are the most derived of the genus *Caenocrypticus*. The species belonging to the other four subgenera inhabit the hinterland of the dune-desert and the western coastal area of the South African Western

Table 1
Differential characters of the tenebrionid tribes Evaniosomini and Epitragini (after Doyen, 1993).

	Evaniosomini	Epitragini
1.	Right mandible with large dorsolateral tooth	Without tooth
2.	Mandibles with broad ventral fossa	Without fossa
3.	Maxillary articulation of cardo covered by subgena and submentum	Concealed in socket of submentum
4.	Postmental region elevated along oral foramen	Flat
5.	Submentum is a distinct sclerite	Continuous with gula
6.	Submental anterior edge produced	Not produced

Table 2
Differential characters of the genera *Oppenheimeria* and *Aryenis*.

	Oppenheimeria	*Aryenis*
1.	Eyes not touching on ventral side of head	Eyes touching
2.	Dorsal tooth of right mandible pre-median	Post-median
3.	Basal hump of antennae immarginate	Marginate on inside
4.	Pronotum with fine lateral margin	Immarginate

Cape Province. The species of the South American genus *Caenocrypticoides* inhabit the coastal part of the Atacama Desert or its hinterland.

The wide distribution of *Aryenis* species can be explained by their alate body, whereas the limited distribution and higher specific composition of the Caenocrypticini are explained by their winglessness.

Evidence for a continental split between two arid-area tenebrionid tribes indicates a common ancestry and common initial distribution area. This must have been the central arid area of the Gondwana megacontinent, that was split up by continental drift.

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