



## ***Enhypon* Carter: a taxonomic revision of an endemic Australian genus of ground-dwelling beetles (Coleoptera: Zopheridae)**

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### **Abstract**

The Australian endemic genus *Enhypon* Carter (Coleoptera, Zopheridae) is revised, including the description of six new species: *E. cordicollis* sp. n., *E. kosciuszko* sp. n., *E. simplex* sp. n., *E. squamosum* sp. n., *E. latitarsis* sp. n., and *E. tuberculatum* sp. n., and the re-description of four species: *E. costatum* (Carter, 1919) comb. n. (from *Mnionophilus*), *E. horridum* (Carter, 1919), *E. laticeps* Carter, 1919 and *E. punctatum* Carter, 1927. A lectotype and paralectotype are herein designated for *E. laticeps*. A key to species is provided. All species are illustrated with line-drawings and high-resolution photographs. Detailed locality records are given for each species and distribution maps are provided. Distribution and habitat preference data are discussed.

**Key words:** Colydiinae, Colydiini, new species, taxonomy, morphology, key, distribution, ecology

### **Introduction**

*Enhypon* Carter (Zopheridae: Colydiinae) is an endemic Australian genus of small, wingless beetles which feed on fungi growing in the leaf litter and moss of various forest types with medium-high levels of humidity. These beetles are notable for their cryptic appearance, as they are often encrusted with a thin layer of dirt adhered to the body surfaces by secretions produced by the beetle and kept in place by short recumbent setae on the dorsal and ventral surface of the body. Thus, *Enhypon* beetles often resemble small granules of soil. In many species, the presence of short or elongate tubercles, particularly on the elytra, also contributes to the camouflaged appearance. The genus was described by Carter in 1919 including only *E. laticeps*. In the same paper, Carter described the genus *Mnionophilus*, including *M. horridus* and *M. costatus*. Both genera were originally considered members of the family Tenebrionidae. After the description of a second species of *Enhypon* by Carter (1927: *E. punctatum*), the two genera were moved into Colydiidae (now Zopheridae, Colydiinae) by Lawrence (1980). *Mnionophilus* was synonymised with *Enhypon* by Ślipiński and Lawrence (1997). Taking into account the new combination listed in this paper (*E. horridus*) *Enhypon* contained three species, whereas *Mnionophilus costatus* remained *incertae sedis*.

The genus was re-described and diagnosed by Ślipiński and Lawrence (1997) in their revision of the Colydiinae of the Australo-Pacific region. In the last eighty years a large amount of material has been collected, from both Tasmania and mainland Australia, necessitating a taxonomic revision of *Enhypon*, including the description of new taxa. These new species and their diagnostic characters do not pose any challenge to the definition of the genus given by Carter (1919) and further developed by Ślipiński and Lawrence (1997).

In a few cases, species names have been emended, taking into account that the gender of *Enhypon* is considered neuter (see details in the Taxonomy section). Therefore, *E. costatus* and *E. horridus*, both described in *Mnionophilus* by Carter (1919), are listed as *E. costatum* and *E. horridum*, respectively.