



## A new expanded revision of the European high mountain *Sciadia tenebraria* species group (Lepidoptera: Geometridae)

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### Abstract

*Sciadia tenebraria* auctorum from European high mountains was recently recognized to be a complex of several allopatric species. In this paper the group is revised anew on the basis of extended studies of collections and combined analysis of morphological and molecular traits. The habitus and male and female genitalia of all taxa are figured. Five species and two subspecies are recognized as valid. The name *Geometra horridaria* Hübner, 1799 is not available for that group, being a junior primary homonym. Two taxa, *Sciadia sabaudiensis* Leraut, 2008 and *Geometra torvaria* Hübner, 1813 are downgraded from species rank to the synonymy of *Sciadia tenebraria* (Esper, 1806). *Sciadia innuptaria* (Herrich-Schäffer, 1852) is raised from the synonymy of *Sciadia tenebraria* to species rank. One new species and one new subspecies are described: *Sciadia dolomitica* **sp. nov.** from the Dolomite mountains, South Tyrol, northern Italy; and *Sciadia tenebraria taurusica* **ssp. nov.** from Hohe Tauern mountains, East Tyrol, Austria. A lectotype is designated for *Gnophos innuptaria* Herrich-Schäffer, 1852, and neotypes are designated for *Geometra tenebraria* Esper, 1806 and *Geometra torvaria* Hübner, 1813.

**Key words:** Lepidoptera, Geometridae, *Sciadia tenebraria*, species complex, new species, Europe, high mountains