

***Scopula anfractata* sp. n., a new geometrid moth from Yunnan, China (Lepidoptera: Geometridae, Sterrhinae)**

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Abstract

A new geometrid moth, *Scopula anfractata* Sihvonen sp. n., is described and illustrated from the northern part of Yunnan province, China. The facies of *S. anfractata* are distinct from its congeners, with concave transverse median and posterior lines and an acute apex of the forewing, resembling some species of the ennomine genus *Loxaspilates* Warren. Adults and genitalia of both sexes of *S. anfractata* are compared with those of *S. dubernardi* (Oberthür, 1923), which is considered the most closely related species. The systematic position of the two species within *Scopula* Schrank is uncertain, but structures of the genitalia suggest affinities with the *S. umbelaria* species group. *Scopula anfractata* is known only from the type locality of Dayan (Lijiang), China; its biology and immature stages are unknown.

Key words: Lepidoptera, Geometridae, *Scopula*, new species, China

Introduction

Scopula Schrank is the largest genus of the geometrid subfamily Sterrhinae with over 800 species currently recognized as valid (Sihvonen & Kaila 2004, Sihvonen in press). The genus is worldwide in distribution, and species have been described from all biogeographical regions except Antarctica, including the most remote islands in the Pacific Ocean.

Although no unique synapomorphic characters for *Scopula* have been identified, many of the species have wavy fasciae on the forewings and hindwings, and are cryptically-colored and nocturnal. Males often possess specialized structures on the 8th sternite called cerata and mappa, and females usually have an ovoid, granulate signum in which the spines point away from the center (Sihvonen & Kaila 2004). Caterpillars have been recorded both from woody and herbaceous plants (Holloway 1997).

While preparing a check-list of Chinese *Scopula* species (Sihvonen 2005), I was presented with an undescribed species from the collection of Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn. The purpose of this paper is to describe that new species.