

Notes on *Coleophora* (Lepidoptera: Coleophoridae) injurious to *Lycium* (Solanaceae), with descriptions of two new species from China

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Abstract

This paper treats three species of *Coleophora* injurious to *Lycium barbarum* Linnaeus (Solanaceae) in China. *Coleophora ningxiana* n. sp. and *Coleophora neolycii* n. sp. are described as new, and *Coleophora mosasaurus* (Falkovitsh) is reported for the first time from China. A checklist and key to *Coleophora* injurious to *Lycium* on a worldwide basis are provided. Descriptions and illustrations of the Chinese species are given.

Key words: Lepidoptera, *Coleophora*, Solanaceae, *Lycium*, new species, pest

Introduction

Several species of *Coleophora* Hübner are pests of *Lycium* Linnaeus (Solanaceae). Meyrick (1925) described *Coleophora vigilis* Meyrick feeding on *Lycium arabicum* Schweinitz ex Boissier in Egypt, and Landry and Baldizzone (1993) redescribed and illustrated this species. Falkovitsh (1972, 1988) reported four species injurious to *Lycium* in Uzbekistan and Turkmenistan. He (Falkovitsh, 1973, 1996) also provided illustrations of the cases of *Coleophora* species attacking *Lycium*. To date, five species of *Coleophora* are known to be injurious to *Lycium*, and these species can be separated into two different species groups, the *stegosaurus* group and the *vigilis* group, based on morphological characters, especially the male and female genitalia. In the *stegosaurus* group, the forewing has streaks but lacks spots; the sacculus is bifurcate at the apex; the appendix of the outer sheath and the cornuti are absent; and the posterior apophyses are about the same length as the anterior apophyses. In the *vigilis* group, the forewing lacks streaks but usually has a spot at the lower angle of the cell; the sacculus is not bifurcate apically; the appendix of the outer sheath is sclerotized; the cornuti are usually present; and the posterior apophyses are longer than the anterior apophyses.