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Nesodiprion orientalis sp. nov., *N. japonicus*, and *N. biremis*, with a key to species of *Nesodiprion* (Hymenoptera, Diprionidae)

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Abstract

Nesodiprion japonicus (Marlatt, 1898), the type species of *Nesodiprion*, from Japan, Korea, and Taiwan, and *N. biremis* (Konow, 1899) from China are redescribed based on their type specimens. Lectotypes are designated for both. *Nesodiprion orientalis* Hara & Smith, sp. nov. is described from Thailand and Yunnan Province, China. Larvae of all three species feed on *Pinus*. Generic characters of *Nesodiprion* are discussed, and a provisional key to species of the genus is given.

Key words: Symphyta, lectotype designation, host plant, *Pinus*

Introduction

Nesodiprion Rohwer, 1910 is a small East Asian genus of Diprionidae (Hymenoptera), consisting of 12 species (Taeger *et al.* 2010). Larvae are leaf feeders of Pinaceae such as *Pinus* and *Tsuga* (Matsumura 1899; Smith 1974; Xiao *et al.* 1984; Togashi 2001). Some species are known pests of *Pinus* (Matsumura 1899; Matsushita 1943; Yie *et al.* 1966a; Beaver & Laosunthorn 1975; Sato 1981; Zhu *et al.* 1983; Lee & Chung 1997; Nair 2007).

Lophyrus japonicus Marlatt, 1898 was described from Honshu, Japan. In 1899, Konow described *L. biremis* from Hong Kong, China, a species closely related to *L. japonicus*. Rohwer (1910) proposed a new genus, *Nesodiprion*, for these two species, designating *L. japonicus* as type species. He wrote “Konow’s species may only be a race” of *N. japonicus*. Smith (1974) treated both as distinct species, redescribed “*N. biremis*” based on specimens from Thailand, and gave diagnostic characters of *N. japonicus*. Xiao *et al.* (1981, 1984) described four Chinese species, *N. yananicus* Huang & Zhou, 1981, *N. zhejiangensis* Zhou & Xiao, 1981 and *N. huanglongshanicus* Xiao & Huang, 1981 as resembling *N. japonicus*, and *N. degenicus* Xiao & Zhou, 1984 as similar to *N. yananicus*. Togashi (1998) described four Japanese species, of which three, *N. shinoharai*, *N. nigerrimus* and *N. kagaensis*, were considered closely allied to *N. japonicus*. Togashi (2001) described *N. niger* and *N. tsugae* as similar to *N. shinoharai* and *N. nigerrimus*, respectively. However, the original descriptions of both *N. japonicus* and *N. biremis* are insufficient to identify these species, and there have been no subsequent studies based on their type material.

We examined the type specimens of *N. japonicus* and *N. biremis*, confirm that they are unquestionably different, and redescribe them based on their type material. We also discovered that the Thailand specimens of *N. biremis* by Smith (1974) are not conspecific with the type material of *N. biremis* and belong to a new species. This species is described here as *N. orientalis* Hara & Smith, sp. nov. We also discuss the generic characters, and provide a provisional key to species of the genus.