

## Discovery of the male of *Temnolopha matura* Diakonoff (Lepidoptera: Tortricidae: Olethreutini) in South Thailand

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*Temnolopha* was proposed by Lower (1901) for two species; Fernald (1908) subsequently designated *T. mosaica* Lower as the type species of the genus. Diakonoff (1968) synonymized *Temnolopha* with *Phaecadophora* Walsingham but later (Diakonoff 1973) reinstated it as a valid genus. Members of the genus are medium-sized tortricid moths with long, porrect labial palpi with the median segment strongly sinuate and the apex conspicuously pointed (Lower 1901, Diakonoff 1973, Horak 2006). Wing venation is typical of Olethreutini, but the accessory cell is small with the chorda arising between  $R_2$  and  $R_3$  (Horak 2006). The male genitalia are characterized by a tegumen with a clavate or hooked and ventrally bristled uncus; large, flat, densely hairy, drooping socii; and at least slightly asymmetrical, broad valvae. The female has a single signum comprised of a patch of scobination with one or two larger central teeth and one or two flattened, elongate-to-quadrata sclerites (Diakonoff 1973, Horak 2006). The genus includes five species worldwide (Brown 2005): *Temnolopha mosaica* Lower from Australia, *T. sponditis* (Meyrick) from South Africa, *T. matura* Diakonoff from Borneo, *T. biguttata* Diakonoff from Borneo (Diakonoff 1973), and *T. abstrusana* Kuznetsov from Vietnam (Kuznetsov 1988).

Kuznetsov (1988) discovered and described an interesting character in *T. abstrusana* that is absent in the type species and thus not mentioned in the generic description of *Temnolopha* - the hind tibiae are covered by long, dense scales with a contrasting black hair pencil reaching the middle pair of tibial spurs. The original description of *Temnolopha matura* was based on a female collected in Borneo, Indonesia in 1956, deposited in the Netherlands Centre for Biodiversity Naturalis (formerly Rijksmuseum van Natuurlijke Historie, Amsterdam, Netherlands) (RMNH) (Diakonoff 1973). The first specimen of *T. matura* from Thailand also was a female collected in 1987 by Moriuti, Saito, Arita, and Yoshiyasu from Phu Rua Wildlife Sanctuary, Loei Province and deposited in Osaka Prefecture University (OPU) (Kawabe 1989). During a survey for olethreutine moths from May 2006 to October 2008 in Khao Nan National Park, Nakhon Si Thammarat Province, southern Thailand, the first males of the *T. matura* were collected. The purpose of this paper is to describe and illustrate the male of this species.

### *Temnolopha matura* Diakonoff, 1973

(Figs. 1–7)

*Temnolopha matura* Diakonoff, 1973, Zool. Monogr. Rijksmus. Nat. Hist. 1: 322. Type locality: Indonesia (East Borneo, Tabang, Bengen River). Holotype (♀): RMNH.

**Diagnosis.** The wing pattern of *Temnolopha matura* is similar to that of *T. mosaica* but the former has pale sinuate striae distinctly edged with ochreous. The male hind tibia has a well-developed black hair pencil, which is present in *T. abstrusana* but absent in all other known *Temnolopha* species. The male genitalia are very similar to those of *T. abstrusana* with the uncus gradually tapering; the valvae asymmetrical with a tooth on the edge of the basal excavation and a row of strong, blunt spines from the base of the costa; and a long, slender, tapering aedeagus with a dorsal process near the apex. *T. matura* differs from *T. abstrusana* by the presence of two distinct, long spines near the basal excavation on the right valve and by a bend in the aedeagus 1/3 from base rather than in the middle. The female genitalia have a subelliptical, complex sterigma fused with a long colliculum and a single signum comprised of a patch of scobination with usually a single, flattened tooth-shaped central sclerite.

**Description.** Head: Upper frons pale brown, lower frons with very short, appressed scales, pale grey; labial palpus moderately long, pointed and sinuate, first segment small and short, greyish white, second segment sinuate and distally