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A new species of *Nemacerota* Hampson, [1893] (Lepidoptera, Thyatiridae) from Tibet, China

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The genus *Nemacerota* Hampson, [1893] includes 14 species worldwide, which are mainly distributed from Pakistan along the main Himalayan chain, the eastern frontier of the Tibetan plateau and the Central Chinese mountains to the northern Pacific regions. Ten species have been recorded from China. Among them, only *N. tancrei* (Graeser, 1888) occurs in NE China, whereas all other taxa inhabit mountainous areas in Central China, the eastern frontier of the Tibetan plateau or Tibet. *N. igorkostjuki* Laszlo, Ronkay, Ronkay & Witt, 2007 is found only in the southern edge of Tibet (Nyalam = Nielamu); *N. mandibulata* Laszlo, Ronkay, Ronkay & Witt, 2007, *N. taurina* Laszlo, Ronkay, Ronkay & Witt, 2007, *N. stueningi* Laszlo, Ronkay, Ronkay & Witt, 2007, *N. pectinata* (Houlbert, 1921), *N. inouei* Laszlo, Ronkay, Ronkay & Witt, 2007 and *N. owadai* Laszlo, Ronkay, Ronkay & Witt, 2007 are known from Mt. Taibaishan, Shaanxi Province; *N. griseobasalis* (Sick, 1941), *N. decorata* (Sick, 1941) and *N. pectinata* (Houlbert, 1921) occur in the northwestern parts of Yunnan Province (and, possibly, also in southern Sichuan).

Here we describe a new species from the Linzhi area, Autonomous Region Xizang (Tibet), China. Specimens were dissected and examined using standard methods; adult photographs were photographed with a Nikon D700; genitalic slides were photographed using the Qcapture pro system, and processed in Adobe Photoshop CS5 software.

Systematics

Genus *Nemacerota* Hampson, [1893]

Nemacerota Hampson, 1893, *The Fauna of British India including Ceylon and Burma, Moths* 1: 185. Type-species: *Asphalia cinerea* Warren, 1888. (TL: India (Himachal Pradesh), Thundiani).

= *Togaria* Matsumura, 1921, *Thousand Insects of Japan (Additamentum)* 4: 842, 843. Type-species: *Togaria suzukiana* Matsumura, 1921. (TL: Japan, Honshu);

= *Microthyatira* Werny, 1966, *Untersuchungen über die Systematik der Tribus Thyatirini, Macrothyatirini, Habrosynini und Tetheini (Lepidoptera, Thyatiridae)*: 253. Type-species: *Polyploca decorata* Sick, 1941. (TL: China, Yunnan, Li-kiang [Lijiang]).

Nemacerota sejilaa Pan, Ronkay, Ronkay & Han sp. n.

(Figs 1–2, 5–7, 9)

Material examined. Holotype. Male, Autonomous Region Xizang, Linzhi, Kadinggou, altitude 3000m, 31 VII 2013 (leg. HL Han, ZG Wu). Paratypes. 1 male, Autonomous Region Xizang, Linzhi, 28–30 VIII 2012 (leg. Zhaohui Pan), slide no. hhl-2785-1; 2 females, Autonomous Region Xizang, Linzhi, Mt. Sejila, altitude 3400m, 2 VIII 2013 (leg. HL Han, ZG Wu), slide no. hhl-2838-2; 1 male, Autonomous Region Xizang, Linzhi, Mt. Sejila, altitude 4300m, 4 VIII 2013 (leg. HL Han, ZG Wu). Type material is deposited in the collection of the Northeast Forestry University (NEFU), Harbin, China.

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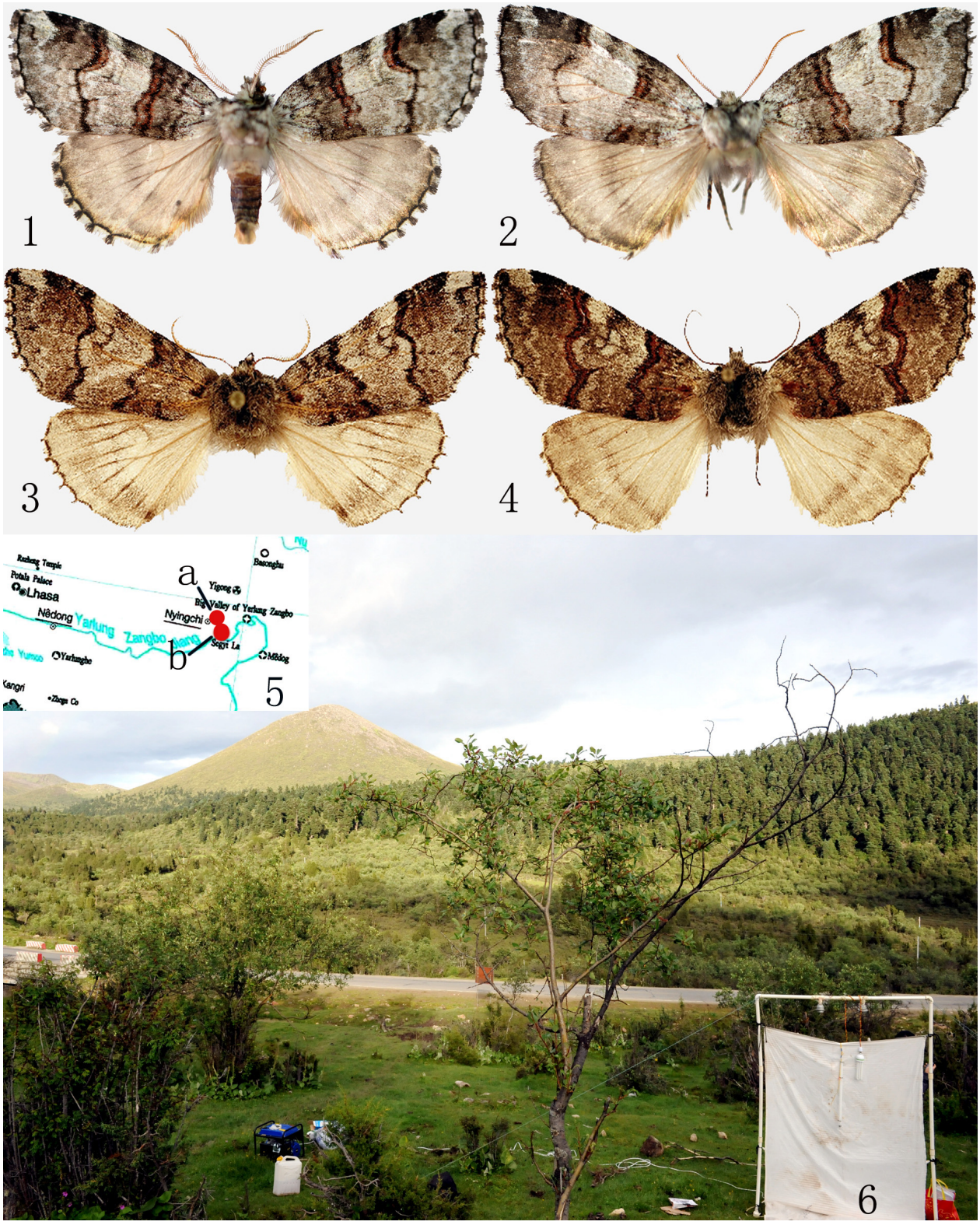
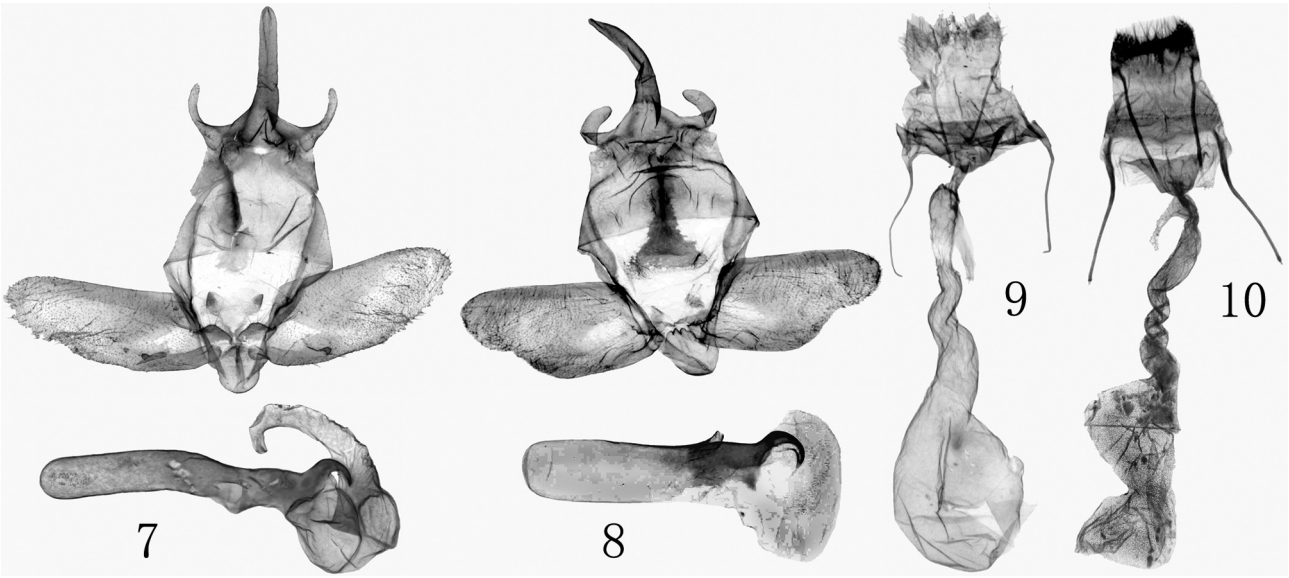


FIGURES 1–6. *Nemacerota* spp., adults. 1. *N. sejilaa* **sp. n.**, male, holotype, China (NEFU); 2. *N. sejilaa* **sp. n.**, female, paratype, China (NEFU); 3. *N. igorkostjuki*, male, holotype, Nepal (MWM); 4. *N. igorkostjuki*, female, paratype, Nepal (MWM); 5. collecting sites of *N. sejilaa* **sp. n.**: a. Auto. Reg. Xizang, Linzhi, Kadinggou, b. Auto. Reg. Xizang, Linzhi, Mt. Sejila; 6. collecting site close to timberline with shrubs, deciduous and coniferous forest patches.



FIGURES 7–10. Genitalia of *Nemacerota* spp. 7. *N. sejilaa* **sp. n.**, genit. prep. hhl-2785-1 (male); 8. *N. igorkostjuki*, genit. prep. LG1121(W5884) (male); 9. *N. sejilaa* **sp. n.**, genit. prep. hhl-2838-2 (female); 10. *N. igorkostjuki*, genit. prep. LG1921(W7142) (female).

Diagnosis. This new species is externally close to *N. igorkostjuki* Laszlo, Ronkay, Ronkay& Witt, 2007 and *N. decorata* (Sick, 1941), but can be distinguished by the light gray and broad forewing; postmedial line smoothly incurved above vein M_2, then slightly straight to inner margin without curving out towards tornus which is typical of both *N. igorkostjuki* and *N. decorata*. In *N. igorkostjuki* (Figs 3–4) and *N. decorata*, the postmedial line runs from the costa inward straight to M_1, cambered outward between M_1 and Cu_2, then outward to tornal area. In addition, the reniform stigma of *N. sejilaa* is long, narrow and kidney-shaped, whereas in *N. igorkostjuki* it is short and more broadly round. The male genitalia of the three species are rather similar, but display several clearly recognizable differences. The socii of *N. sejilaa* (Fig. 7) are much thinner and longer than in *N. igorkostjuki* (Fig. 8) and *N. decorata* (Laszlo et al 2007: gen. fig. 93); the sacculus has a weakly sclerotized process, which is reduced in *N. igorkostjuki* and differently shaped in *N. decorata*; the fultura superior of the new species is considerably more slender than in *N. igorkostjuki* (especially in its ventral section) and narrower although less conspicuously than in *N. decorata*), and the saccular margin is almost straight which is somewhat concave in *N. igorkostjuki*. The aedeagus of *N. sejilaa* is slenderer than in the two related species, slightly curved medially, and the basal part of the carinal hook has sclerotized lateral lobe which is missing in *N. igorkostjuki*. In the female genitalia, the size and sclerotization of the ostium bursae is different in the three species: that of *N. sejilaa* (Fig. 9) is larger and more cup-shaped than in *N. igorkostjuki* (Fig. 10), but smaller and more flat than in *N. decorata* (Laszlo et al 2007: gen. fig. 93). The tubular part of the corpus bursae of the new species is similar to that of *N. decorata*, but considerably shorter and less coiled than that of *N. igorkostjuki* (Fig. 10).

Description. External appearance (Figs 1–2). Wingspan 42–46 mm. Antennae bipectinate in male, comparatively thin in female; head, palpi and thoracic pubescence generally gray, mixed with whitish and blackish scales; thorax with black dorsal lines on tegulae; abdomen gray-brown. Ground colour of forewing silvery ash-gray; basal band thin and black; subbasal line double, waved, dark grey filled with ground colour; antemedial line sharply defined and less sinuous, black, defined by red scales, double with interior line stronger; median line rather indistinct, shadow-like, grey. Outer half of basal field suffused with dark brownish grey, median area bright grey; postmedial line black, double, with indistinct interior line; termen with dark blackish-grey subapical patch followed with whitish-grey costal spot of subterminal line; marginal area with fine dark lines on veins; subterminal line pale whitish-grey, waved, gradually tapering from costa to inner margin; terminal line deep black; fringes as ground colour, chequered with black patches at veins. Reniform stigma elongate, more or less kidney-shaped; orbicular stigma obsolescent, small and rounded, whitish-grey. Hindwing lighter than forewing, pale whitish-grey with fine ochreous-pinkish hue; transverse line broad, diffuse, darker grey; marginal area deeper grey with ochreous shade along black terminal line; fringes whitish, chequered with blackish; inner margin with long ochreous-brown hair-scales. Male genitalia (Fig. 7). Uncus long, strong and straight, twice as long as socii; socii thin, finely arched inwards. Tegumen broad and rather short; fultura superior sclerotized, cuneate-lanceolate with narrow basal (ventral) portion; dorsal part of juxta reversed triangular with V-shaped marginal

sclerotisation; vinculum U-shaped with well-developed saccus. Valvae rather broad, with apex rounded; sacculus narrow, thick, shorter than half length of valva, with small and sclerotized process of harpe; costa with broad triangular sclerotisation. Aedeagus slightly curved at middle, long and narrow, with strongly sclerotized, thick, falcate hook of carina; vesica broadly tubular, tapering distally, everted dorsad and recurved ventrad, without cornuti band. Female genitalia (Fig. 9). Papillae anales short, broad, loose-bodied apically. Apophyses posteriores relatively shorter, ca 2/3 as long as apophyses anteriores. Ductus bursae short, membranous; cervix bursae narrow, weakly screwy at anterior part; tubular distal part of corpus bursae with one full coil; proximal part of corpus bursae oblong, with weakly sclerotized signum.

Etymology. The species name "*sejilaa*" refers to the type locality, Mt. Sejila.

Distribution and Bionomics. The new species occurs in China, Xizang: Mt. Sejila (Fig. 5). **Bionomics** (Fig. 6). It inhabits the coniferous forest zone with high montane shrubby regions dominated by *Rhododendron* stands above 3000 m in the Southeast part of the Autonomous Region Xizang (Tibet) in the south-eastern Himalayas (Fig. 6). Adults are on the wing from late July to late August.

Acknowledgements

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