

A new species of the genus *Nictosoma* DE VOS, 2011 from Sulawesi, Indonesia

(Lepidoptera, Arctiidae, Arctiinae)

by

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Abstract: A new species, *Nictosoma raddei* spec. nov. from Sulawesi is described, distinguishing from other species of the genus by the ♂ genitalia characters and a more yellow wing colouration.

The genus *Nictosoma* DE VOS, 2011 was described for a group of nine species related to *N. niceta* (STOLL, 1782) from New Guinea and adjacent islands, including Moluccas. However, this genus occurs also in Sulawesi; 2 ♂♂ specimens, collected by Dr. RADDE and being obviously a new species, were found in the collection of Zoological Institute in St.-Petersburg (ZISP). The description of this new species is given below. Terms were taken from DE VOS (2011).

Nictosoma raddei spec. nov. (figs 1-3)

Material: Holotype ♂, [Indonesia], N[orth] Celebes [North Sulawesi], Dr. RADDE [leg.]. Paratype ♂, no special label, but probably the same data as for the holotype. Both in coll ZISP.

Description: Forewing length 19-21 mm. Antenna serrate, dark brown. Head and thorax ochraceous yellow. Abdomen rose-red, laterally and dorsally with a row of small black dots; lateral side of abdomen yellow. Forewing ground color yellow. Basal spot small. Subbasal spot more or less large, in the holotype accompanied by two smaller spots. Discal spot large, divided by narrow yellow discal vein. Postmedial row of spots straight, going perpendicularly to wing hind edge; in the holotype it consists of four large spots disposed from wing hind margin to discal cell, and a small dot in discal cell, but in the paratype there are only three postdiscal spots beyond vein Cu₂. Hindwings yellowish-rosy, more red along anal margin; discal spot large, round. Wing underside yellowish-rose, rose at base and middle part; dark pattern consists of black discal spots only.

♂ genitalia (fig. 3): Uncus broad basally, with a beak-shaped pointed apex. Left valva short, crescent in shape, with a small rounded apex; digitiform process 1.5 times longer than valva diameter at base. Right valva stout, slightly convex, with a shallow subapical bulge and short apex. Saccus wide and short. Aedeagus strongly curved, coecum short. Sclerotized subapical carinal plate forming the right angle terminating into a small tooth. Vesica bag-like, without any cornuti or spiniculi.

Diagnosis: Concerning the wing pattern, the new species, with a reduced straight row of postmedial spots, is similar to *N. hyporhoda* (BUTLER, 1882) from Bismarck Archipelago (forewings ochraceous yellow, like in the new species), and a group of *N. niceta* (STOLL, 1782) from South Moluccas, *N. saturata* (ROTHSCHILD, 1910) from Kai islands, and *N. papuana* f. *intermedia* (ROTHSCHILD, 1910) from eastern New Guinea and D'Entrecasteaux Islands (forewings buff or brownish). All these species could be distinguished by the ♂ genitalia only. The new species differs from all the above mentioned ones by short valves; the left one with a short apical and a narrow and short digitiform process; the right one with a very short apical process and a shallow subapical bulge. In the aedeagus structure, the new species differs from all other by the rectangular subapical carinal plate.

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Fig. 1-3: *Nicetosoma raddei* spec. nov. (1) holotype ♂, N. Celebes, Dr. RADDE, and its labels; (2) paratype ♂, without labels; (3) holotype ♂ genitalia, N. Celebes, Dr. RADDE, Coll. ZISP.
 Fig. 4-6: *Thyretes ustjuzhanini* spec. nov. (4) holotype ♂, S Africa, Zimbabwe, Manicaland Prov., Vukutu, 18°21'52"S, 32°36'29"E, h 1900 m, 1.-3.XII.2010, P. USTJUZHANIN & V. KOVTUNOVICH leg.; (5) paratype ♂, same data as holotype; (6) ♂ genitalia of the paratype.



Fig. 7, 8: *Hyles hippophaes* (ESPER, 1879), ♂♂, Russia, West Siberia, Novosibirsk Province, 13 km W of Karasuk town, the northern bank of Lake Krotovaya Lyaga (53°43'N 77°52'E), 30.08.2002 (right), 18.06.1998 (left), V. V. DUBATOLOV leg.

A new species of the genus *Thyretes* BOISDUVAL, 1847 from Zimbabwe

(Lepidoptera, Arctiidae, Thyretini)

by

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Abstract: A new species, *Thyretes ustjuzhanini* spec. nov. from Zimbabwe belongs to a group of species with thin body and is mostly similar to *T. buettikeri* WILTSHIRE, 1983.

In 2010, Drs. VASILII KOVTUNOVICH and PETER USTJUZHANIN carried out a regular expedition to South Africa, including a visit to Zimbabwe. Among Arctiinae species, they have collected several new species (DUBATOLOV, 2011). Publication of an illustrated catalogue of the Thyretini of the Afrotropical Region (PRZYBYŁOWICZ, 2009) makes determination of this group quite possible. Among many well known thyretine species collected by Drs KOVTUNOVICH and USTJUZHANIN, two specimens of *Thyretes* BDV., 1847 from Zimbabwe belong to a new species. Its description is given below.

Thyretes ustjuzhanini spec. nov. (p. 168: fig. 4-6)

Material: Holotype ♂, S Africa, Zimbabwe, Manicaland Prov., Vukutu, 18°21'52"S, 32°36'29"E, h 1900 m, 1.-3.XII.2010, P. USTJUZHANIN & V. KOVTUNOVICH leg. coll. Siberian Zoological Museum of the Institute of Systematics and Ecology of Animals, Siberian Branch of the Russian Academy of Sciences (Novosibirsk, Russia). Paratype ♂, the same data as in the holotype.

Description: Forewing length 15-16,5 mm. Central cell with an apical trapezoid white spot. Beyond the cell, there is a triangularly oval spot above the Cu2 base. Large elongate spot between anal vein and cell slightly curved, not extending distally of external margin of spot above Cu2 base; so not extending to wing external margin. A diffuse lightening is visible beyond this large spot and wing hind margin. Submarginal row of white spots consists of 5 oval spots extending from the wing apex to Cu1.

Hindwings occupied by a large white spot, with brown coloration persisting along costal margin, with an angle towards discal vein, and between cubital veins, with two processes along Cu1 and Cu2.

Antennae as long as half of forewing costal margin, they bear long branches. Head yellow, with a black band between eyes at their dorsal edges. Patagiae white. Tegulae dark brown, with yellow patches at external side of their bases. Thorax dark brown, with two white spots on dorsal surface at base of abdomen. Abdomen brown, with a dorsal row of small yellow spots. Legs black.

♂ genitalia (fig. 6): typical for the genus. Unfortunately, PRZYBYŁOWICZ (2009) stated that ♂♂ and ♀♀ genitalia in *Thyretes* BDV. are "very homogeneous, providing no characters for separating the species", so it is impossible to designate specific characters of the new species.

Diagnosis: Among all *Thyretes* BDV. species (PRZYBYŁOWICZ, 2009), one, *T. hippotes* (CRAMER, [1780]) has a wide body. Three species, *T. cooremani* KIRIAKOFF, 1953, *T. negus* OBERTHÜR, 1878, and *T. signivenis* HERING, 1937 have the discal cell of the forewing occupied by one long white triangular spot. In four formerly known species, *T. buettikeri* WILTSHIRE, 1983, *T. caffra* WALLENGREN, 1863, *T. montana* BOISDUVAL, 1847 and *T. montei* BUTLER, 1876, the discal cell is dark, with an apical white spot only. In the latter species, such apical spot in the discal cell is very small, adjoining to the vein Cu1 origin. In this species and *T. montana* BDV., the white spot between the anal vein and the discal cell on the forewing never extends beyond the inner margin of the next spot between veins Cu1 and Cu2. In *T. buettikeri* WILTSH., the white spot between the anal vein and the discal cell is very long, extending far from the distal margin of the spot between Cu1 and Cu2, up to the wing hind angle. In *T. montei* BTL., a long white spot in front of the anal vein does not extend from the middle part of the spot between Cu1 and Cu2, and the latter is large and nearly reaches external margin of the wing. So, the new species differs from all known species.

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Hyles hippophaes (ESPER, 1789) in West Siberia

(Lepidoptera, Sphingidae)

by

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Hyles hippophaes (ESPER, 1789) is distributed in seven subspecies from South Europe through the Caucasus and Middle Asia till North-Western China and Mongolia (DANNER et al., 1998). For long time, the single reliable record from Siberia was the observation in Tuva Republic in South Siberian mountains by VIIDALEPP (1979). There is also a very old and questionable record of this species by KAMBALOV & PROKOFIEV (1975) from Altaiskii Krai, but it was not accompanied by any figure or specific character citing, so nobody accepted this record as reliable, because all adjacent records have been made in South-Eastern Kazakhstan only.

While catching moths at light in the Karasuk station of the Institute of Animal Systematics and Ecology, SB RAS, which is situated 13 km W of Karasuk town on the northern bank of Lake Krotovaya Lyaga (53°43'N 77°52'E), I unexpectedly collected 2 ♂♂ of *H. hippophaes shugnana* (SHELJUZHKO, 1933) June 19th and 20th, 1998 (p. 168: fig. 7, 8). Later, August 30th, 2002, I collected one more ♂ at the same place. Moreover, while examining *Hippophae rhamnoides* and *Eleagnus angustifolia* bushes, in one *Eleagnus* bush I observed leaf damages and excrements typical for Sphingidae. Unfortunately, the caterpillar left this bush several days before. Such damage might belong to *H. hippophaes* (Esp.) only, because no other large moth in South Siberia uses this bush as a foodplant. *Eleagnus* is not a native plant in Novosibirsk Province; it occurs naturally somewhat south in Kazakhstan and was planted at the Karasuk station for decorative purposes. *Hippophae rhamnoides* is a component of the natural South Siberian flora. Moreover, AVIKIN (2004) observed *H. hippophaes miatleuskii* EITSCHBERGER & SALDAITIS, 2000 caterpillars both on *Hippophae* and *Eleagnus* in Lower Volga basin.

According to modern observations in Russia, *Hyles hippophaes* (Esp.) started to occur more to the north not only in West Siberia, but also in the Orenburg Province (NUPPONEN & FIBIGER, 2002), Saratov Province in Volga Region (ANIKIN, 2004). These observations are not unique but were repeated later. The species is common in Kalmykia, Astrakhan and Volgograd Provinces (ANIKIN, 2004). So a shift of the northern limit of this species ranges to the north looks to be consistent in Inner Eurasia.

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