

Moreira, G. R. P., and C. G. C. Mielke. 2010.

A new species of *Neruda* Turner, 1976 from northeast Brazil  
(Lepidoptera: Nymphalidae, Heliconiinae, Heliconiini).  
Nachrichten des entomologischen Vereins Apollo, N.F.  
31:85-91.

Abstract: A new species of passion vine butterfly, *Neruda metis* sp. n., from Serra do Penitente, Balsas municipality, Maranhao state, Brazil, is described and illustrated. Integumentary ultrastructural characteristics of the genitalia of both sexes are compared with the congeneric species. *N. metis* sp. n. general colour pattern resembles the erato-like "dennis-ray" subspecies of *N. aoede* (Hübner, [1813]), differing from these by having the outer margin of the hindwing with paired, conspicuous white spots located within each cell, and the forewing with two oblique, median yellow bands, instead of a yellow ring formed in the latter, among other differences in the male and female genitalia. The female holotype is deposited in the collection Padre Jesus S. MOURE, Departamento de Zoologia, Universidade Federal do Parana, Curitiba, Parana, Brazil.

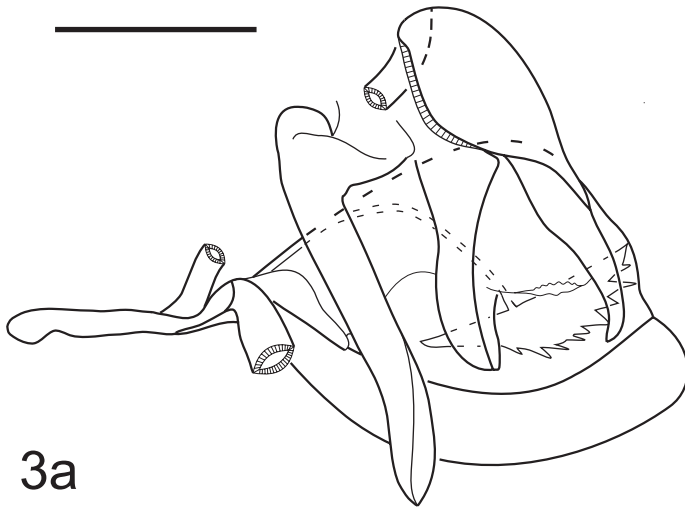
Uma espécie nova de *Neruda* Turner, 1976 do nordeste brasileiro (Lepidoptera: Nymphalidae, Heliconiinae, Heliconiini)

Resumo: *Neruda metis* sp. n., da Serra do Penitente, município de Balsas, Maranhão, Brasil, é descrita e ilustrada. São apresentadas características da ultraestrutura tegumentar da genitália de ambos os sexos e comparadas às espécies congênicas. O padrão de coloração de *Neruda metis* sp. n. é similar às subespécies de *N. aoede* (HÜBNER, [1813]), do tipo "erato", diferindo delas por apresentar a borda externa da asa posterior com um par de manchas brancas arredondadas conspícuas em cada célula, e duas bandas amarelas, oblíquas, em posição mediana nas asas anteriores, ao invés de um anel formado naquelas, dentre outras diferenças nas genitálias feminina e masculina. O holótipo fêmea está depositado na coleção Padre Jesus S. MOURE, Departamento de Zoologia, Universidade Federal do Paraná, Brasil.

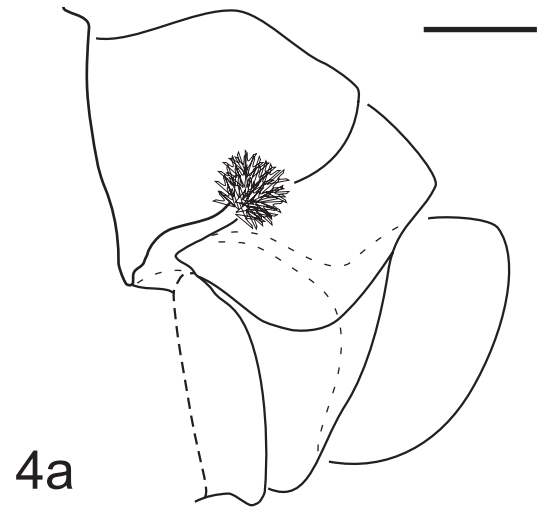


Color plate 1: Figs. 1-2

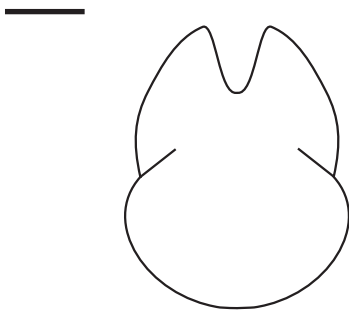
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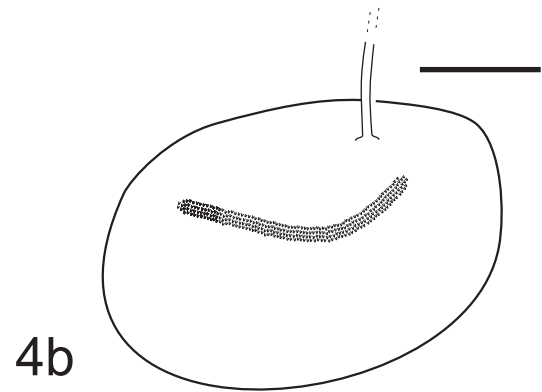
3a



4a



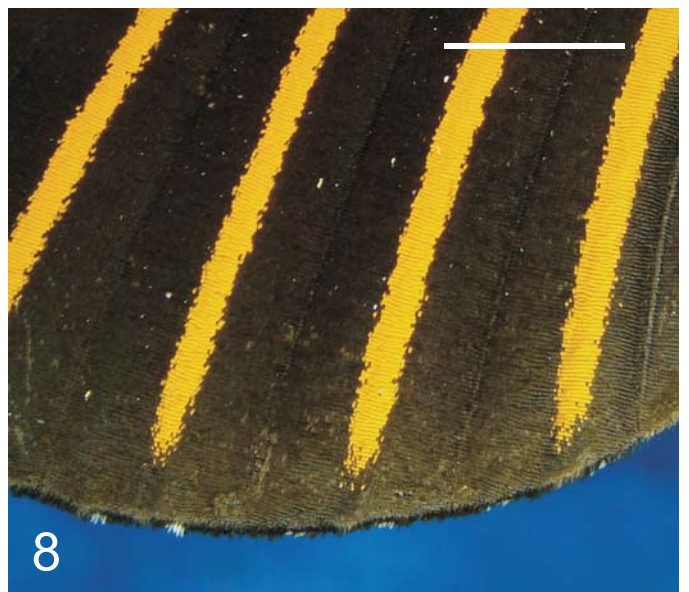
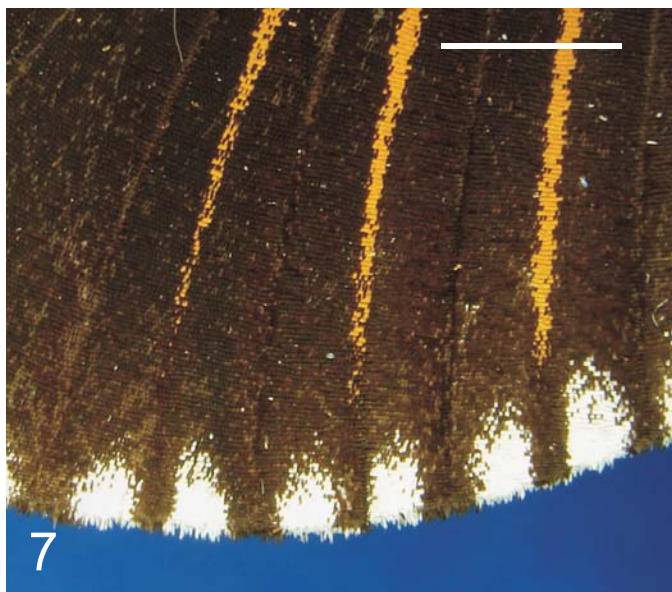
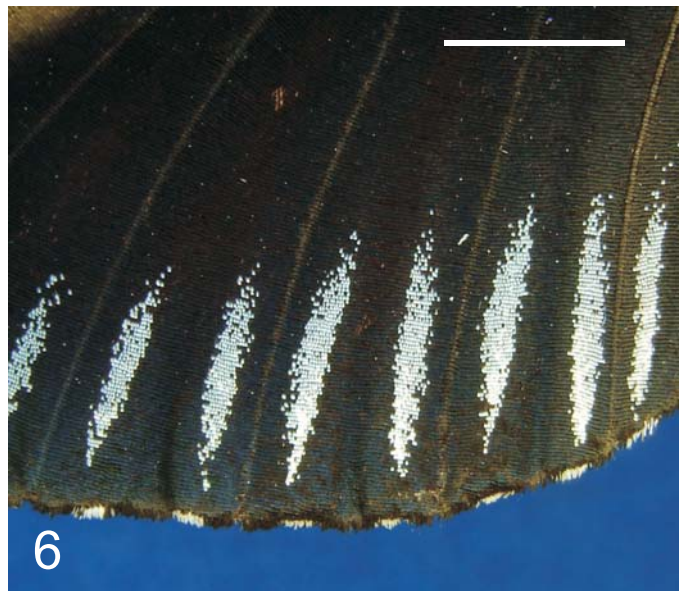
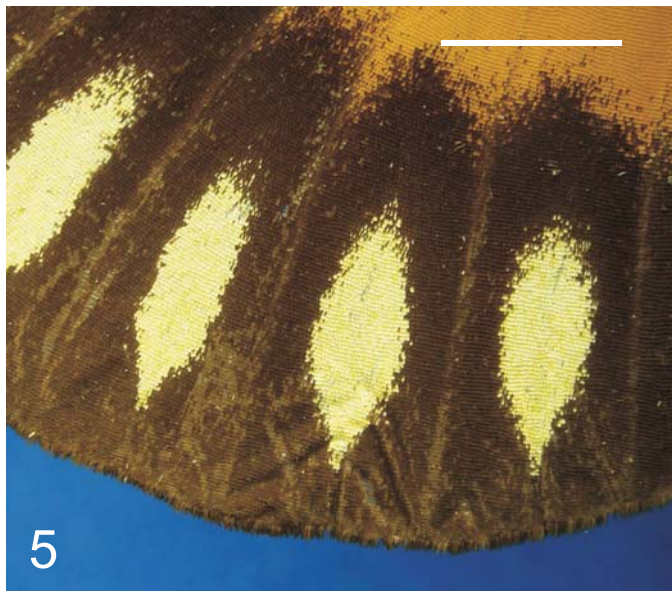
3b



4b

Figs. 3-4

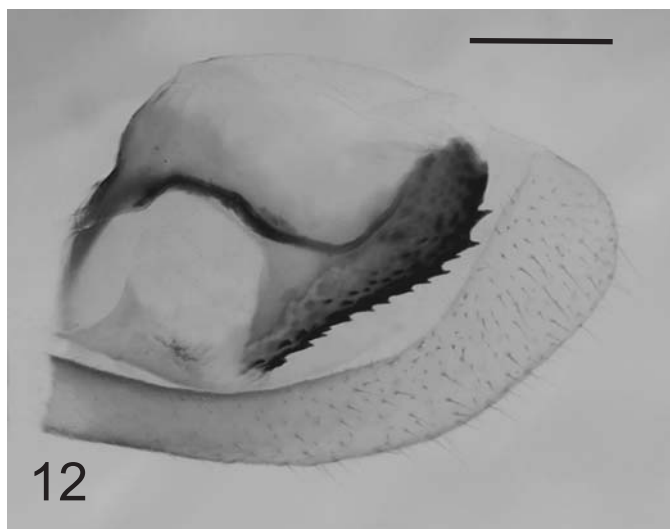
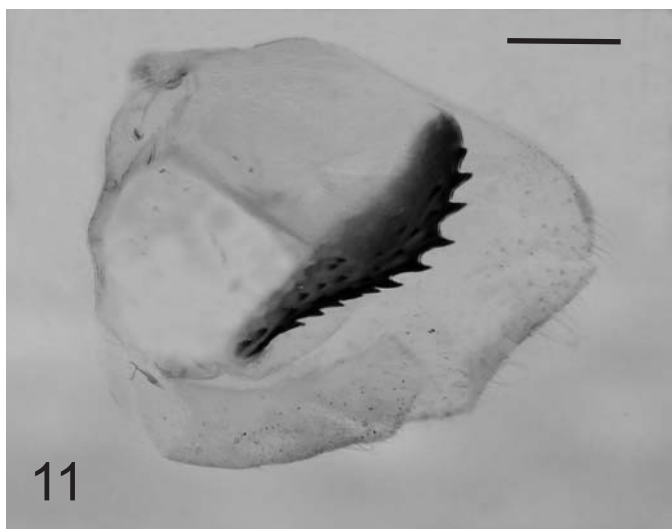
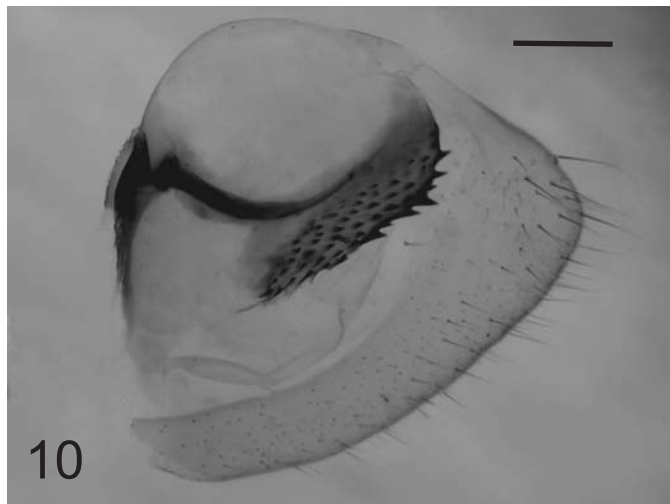
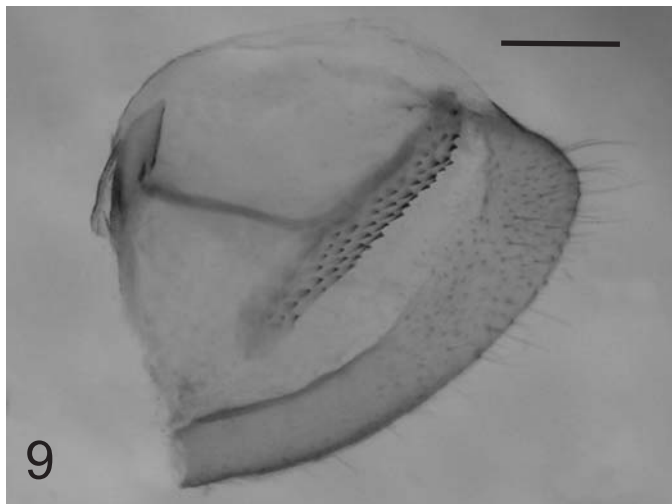
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Color plate 2: Figs. 5-8

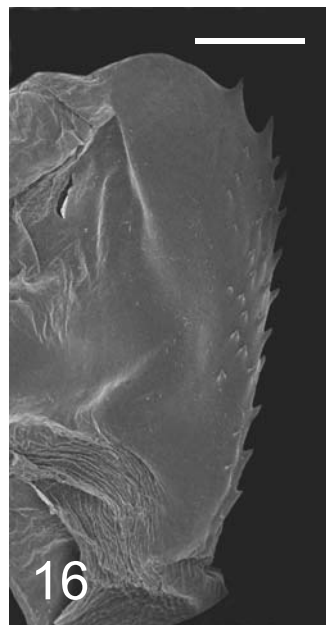
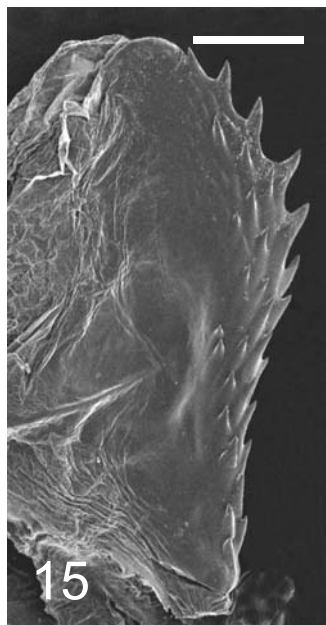
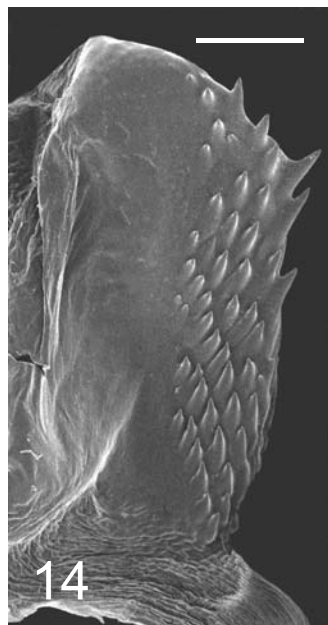
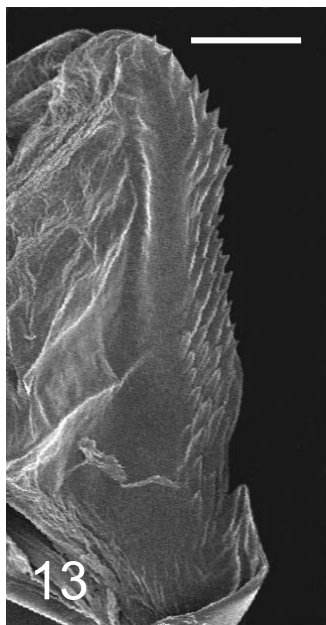
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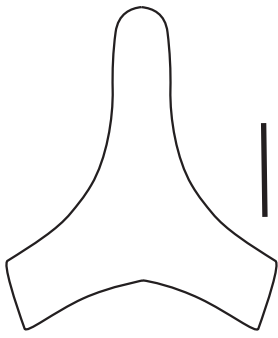
Figs. 9-12

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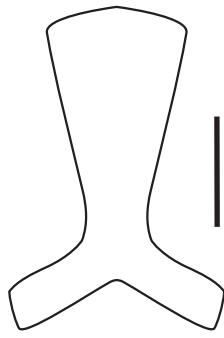


Figs. 13-16

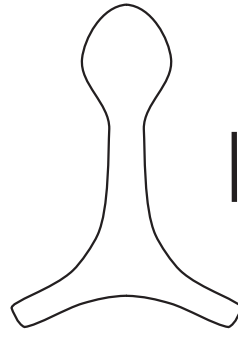
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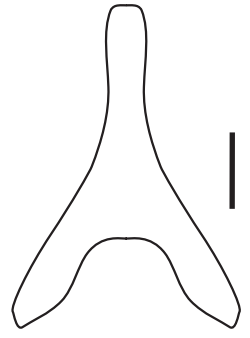
17



18



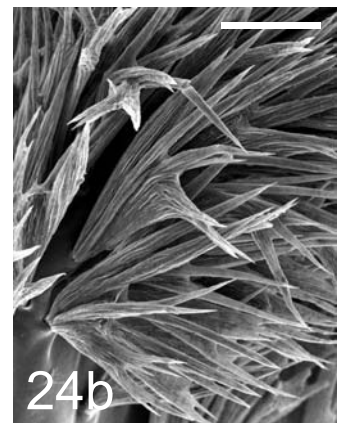
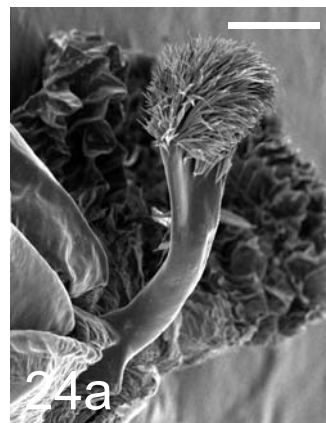
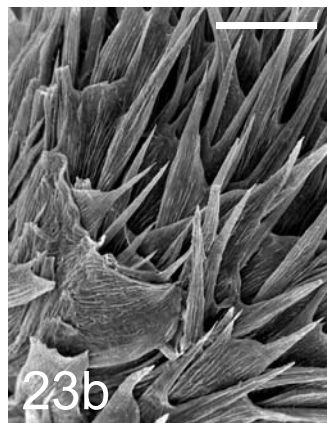
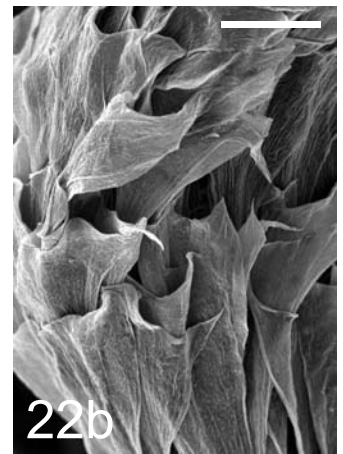
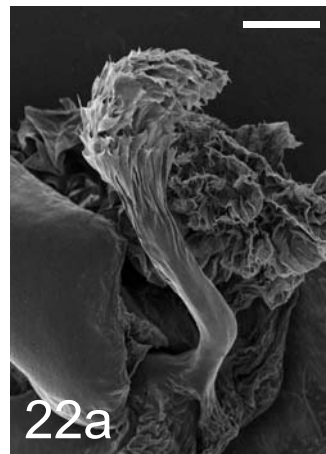
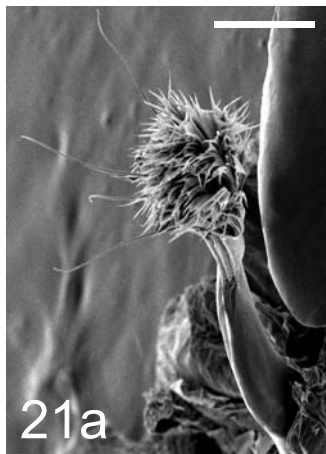
19



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Figs. 17-20

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Figs. 21-24

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## Figure Legends for Moreira & Mielke 2010

Figs. 1-2: *Neruda metis* sp. n.

Fig. 1: HT female dorsal (a), ventral (b).

Fig. 2: PT male, dorsal (a), ventral (b).

-- Scale bars: 1 cm. --

Figs. 5-8: HW posterior margin, dorsal view.

Fig. 5: *N. godmani*.

Fig. 6: *N. metharme*.

Fig. 7: *Neruda metis* sp. n. (HT).

Fig. 8: *N. aoede*.

-- Scale bars: 1 mm. --

Figs. 3-4: *Neruda metis* sp. n. genitalia.

Fig. 3: male (PT): internal view (a), juxta posterior view (b).

Fig. 4: female (PT): external view (a), bursa copulatrix lateral view (b).

-- Scale bars: 1.0 mm (3a, 4b), 0.2 mm (3b), 0.4 mm (4a). --

Figs. 17-20: Sacci, ventral view.

Fig. 17: *N. godmani*.

Fig. 18: *N. metharme*.

Fig. 19: *N. metis* sp. n. (PT).

Fig. 20: *N. aoede*.

-- Scale bars: 0.2 mm (16, 18), 0.5 mm (17), 0.3 mm (19). --

Figs. 9-12: Valvae under light microscopy, internal view.

Fig. 9: *N. godmani*.

Fig. 10: *N. metharme*.

Fig. 11: *N. metis* sp. n. (PT).

Fig. 12: *N. aoede*.

-- Scale bars: 0.5 mm. --

Figs. 13-16: Valvular cristae under scanning electron microscopy, internal view.

Fig. 13: *N. godmani*.

Fig. 14: *N. metharme*.

Fig. 15: *Neruda metis* sp. n. (HT).

[NB -- not possible? Holotype is a female. See also Fig. 11]

Fig. 16: *N. aoede*.

-- Scale bars: 250  $\mu$ m (13), 200  $\mu$ m (14, 15, 16). --

Figs. 21-24: Stink clubs under scanning electron microscopy, lateral view.

Fig. 21: *N. godmani*, whole (a), detail (b).

Fig. 22: *N. metharme*, whole (a), detail (b).

Fig. 23: *Neruda metis* sp. n. (PT), whole (a), detail (b).

Fig. 24: *N. aoede*, whole (a), detail (b).

-- Scale bars: 100  $\mu$ m (20a, 21a, 22a, 23a), 20  $\mu$ m (21b, 22b, 23b), 40  $\mu$ m (20b). --