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A PRELIMINARY REVISION OF THE GENUS NYMPHIDIUM (RIODINIDAE) III. THE OMOIS GROUP

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The third species group in *Nymphidium* consists of four taxa closely related to the Baeotia and Azanoides groups. They likewise have sexually dimorphic palpi, those of the females having longer second and third segments. With the exception of *N. omois* Hewitson, the butterflies of this group are restricted in their distribution and are rare. Their habits, where known, are similar to other *Nymphidium*, the perching males frequenting the edges of open sunny clearings in secondary or disturbed forest during the afternoon, resting with wings outspread on the undersurfaces of leaves. As with other *Nymphidium*, the life histories of species within this group are unknown.

KEY TO THE SPECIES OF THE OMOIS GROUP

1a. Wings with red or orange at the tornus of forewing and/or hindwing 2
1b. Wings without red or orange scaling; forewing elongated; white triangular area convex and serrate distally ..... *lenocinium*
2a. Orange scaling at tornus of hindwing only; white triangular area of male forewing with rounded apex ..... *ariari*
2b. Orange scaling at tornus of both hindwing and forewing; white triangular area of male forewing with pointed apex ..... *osmois*
3a. White triangular area of male forewing with rounded apex; female with distinct short band of orange scales at the tornus of hindwing ..... *ariari*

Nymphidium omois Hewitson, 1865

Figs. 1, 2, 3, 4, 10, 11, 12, 13

Nymphidium omois, Hewitson, 1865, *Nymphidium* 5, fig. 20

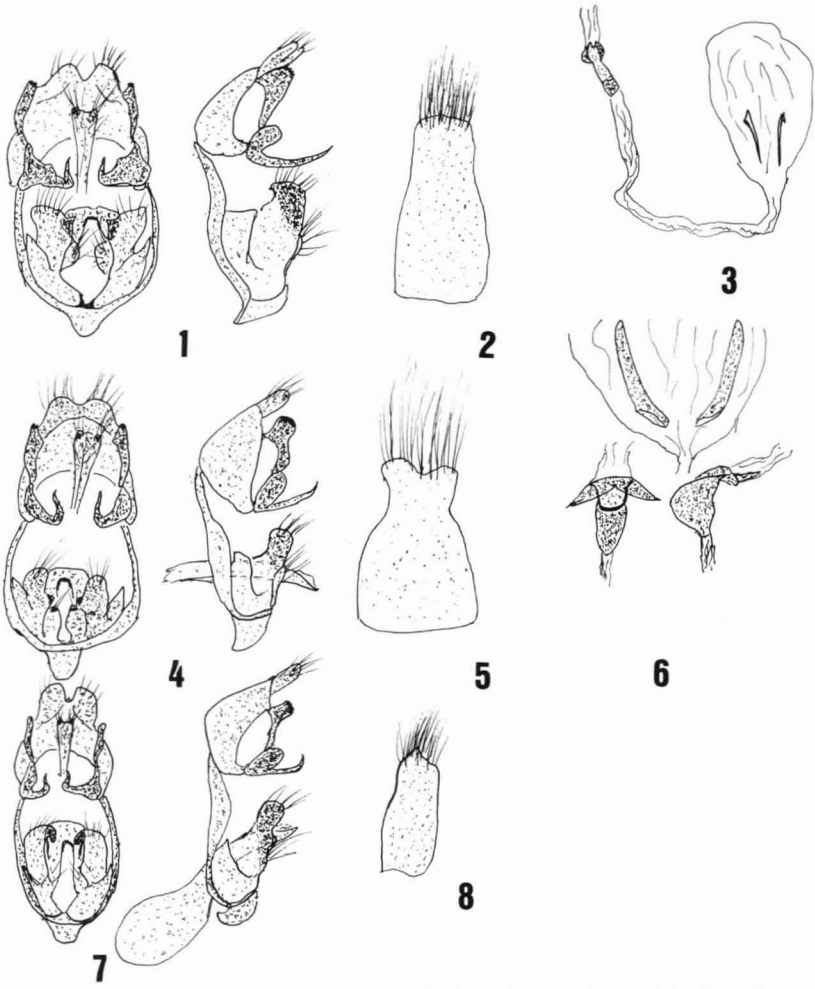
ORIGINAL DESCRIPTION: "Upperside white. Both wings with a marginal band of conical dark brown spots bordered with white. Both with an orange spot near the anal angle. Anterior wing with the costal margin and apex broadly rufous brown. Underside as above. Female does not differ from male, except in form. Exp. 11/10 inch. Habitat

Amazon."

To the original description I add: Palpi sexually dimorphic, those of female longer.

GENITALIA: Male (Fig. 1): Uncus bilobed, truncated; falces elongated, pointed; Socci broad, several small spines dorsally, saccus pointed cephalad. Rami (Fig. 2) rounded. Female (Fig. 3): ductus bursae very small, rounded with two flanges laterally. Corpus bursae with two small pointed signae.

TYPE MATERIAL: Hewitson's type is probably deposited in the British Museum, (Natural History).



Figures 1-8. *Nymphidium omois*. 1, male genitalia (left, ventral, and right, lateral views); 2, rami. 3, female genitalia. *Nymphidium ariari*, new species. 4, male genitalia (left, ventral, and right, lateral views); 5, rami. 6, female genitalia. *Nymphidium lenocinium*. 7, male genitalia, (left, ventral and right lateral views); 8, rami.

DISCUSSION: In spite of the terseness of Hewitson's description, *omois* is a well known and distinct butterfly and is well illustrated in Seitz (1917). It is easily recognized by the orange spot at the tornus of both wings which borders basad on the white triangular area, and by the complete lack of orange on the costal margin of the forewing. It is a small butterfly, with the average wing length 12 mm and 15 mm. It is very homogeneous throughout its range.

N. omois is local, but can be common where found. It is a weak flier compared to other *Nymphidium*, which makes its capture easy. The males perch just inside the forest edges in groups of 2-20 individuals during the early afternoon.

DISTRIBUTION: *N. omois* is found throughout the Amazon drainage north to the Guyanas (Fig. 9).

MATERIAL EXAMINED: BRAZIL: Belém, Pará 18 m, 7 ♀; Santarém, Pará, 1 ♀; Serra do Navio, Amapá, 3 ♂, 2 ♀; Manaus, Amaz., 3m, Itaituba, Pará, 5 ♂; Manicoré, Amaz., 2 ♂, 1 ♀; Jaru, Rondonia, 3 ♂, 1 ♀; Pimenta Bueno, Rondônia, 4 ♂. COLOMBIA: La Estrella, La Macarena, Meta, 1 ♀; Villa Garzin, Putumayo, 1 ♀.

Nymphidium ariari, new species

Figs. 4, 5, 6, 14, 15, 16, 17

DESCRIPTION: Male: Thorax with brown dorsally, white ventrally; abdomen with some white scaling. Forewing with apex rounded, ground color dark brown; white triangular area reaches from inner margin to slightly past M_3 with apex rounded; elongated black marks on costa indistinct, except for one at the end of the cell; submarginal area brown enclosing black crescent spots between the veins outlined in white scales, with a black line along the base of the brown fringe. Hindwings with discal area from costa to inner margin white, small area of brown scales at wing base, and bordered distad by the irregular dark brown submarginal area about 2.5 mm wide, in which are found the crescent black spots outlined in white as on the forewing; tornus with a short, narrow band of yellow-orange scales reaching Cu_2 and separated from the white discal area by a 1 mm wide line of brown scales. Ventral surface like dorsal, but lighter, with an infusion of white scaling into the brown areas.

Female: Like male, except palpi with second and third segments longer. Wings more rounded, and white triangular area of forewing broader, with apex above M_3 turned inward towards the costa.

Forewing length (FWL): Male 16 mm, Female 17 mm.

GENITALIA: Male (Fig. 4) with uncus bilobed, truncated; socci broad; valvae rounded, pointed inwards with tips more than halfway down; rami (Fig. 5) squared at tip with slight indentation in middle. Female (Fig. 6) with ductus bursae rounded, two flanges caudad, bent dorsad; signa broad, elongated.

HOLOTYPE MALE: From Rio Ariari, Meta, Colombia, 700m, 18-vi-82 leg. C. Callaghan. PARATYPES: 1 male, same locality and date, 2 females, Villa Garzin, Putumayo 20-x-82 leg. C. Callaghan. The HOLOTYPE and one PARATYPE will be deposited in the Allyn Museum, Sarasota, Florida, U. S. A. and a male and female paratype will go to the Museu Nacional, Rio de Janeiro, Brazil.

DISCUSSION: Superficially, *ariari* appears very close to *N. omois*; in fact, the two are sympatric along the foothills of the eastern Cordillera in Colombia. The male genitalia are likewise similar in the truncated uncus and the general form of the valvae. They can be easily separated by the wider black margins of *ariari* and the lack of an orange spot on the tornus of the forewing. The females may be separated by the bent apex of the white triangular area of *ariari*.

The males of *ariari* were encountered perching at about 1100 hours inside the edge of a secondary forest. They rested about three meters off the ground under leaves with wings outspread. The females were likewise encountered in secondary forest during the afternoon. The species appears to be rare and local.

DISTRIBUTION: This butterfly appears to be confined to the eastern foothills of the

Andes in Colombia (Fig. 9).

Nymphidium lenocinium Schaus, 1913

Figs. 7, 8, 18, 19

Nymphidium lenocinium Schaus, 1913:302
=*Nymphidium albicaus* [sic] Stichel, 1929:25.
=*Nymphidium chiriquiensis* Lathy, 1932:74.

ORIGINAL DESCRIPTION: "Head, thorax, base and tip of abdomen fuscous, abdomen otherwise white. Wings white. Forewings, costal margin broadly fuscous brown, extending to base of inner margin, the extreme costa whitish blue; a fine dark streak on discocellular and minute postmedian line on vein 5; traces of small blue edged spots in cell and outwardly on costa; outer margin fuscous, its inner edge crenulate; a fine blue subterminal line, lunular to termen from vein 4 to inner margin, followed by a blue shade at vein 6; a terminal blue line proceeded by blue and white shading at tornus and between veins 3-4; cilia fuscous, with white spots at apex between 3 and 4, and just above tornus. Hindwing: Base narrowly black, outer margin brown black, the submarginal line as on forewing; the termen and cilia white. Wings below white. Forewings: Costal margin broadly fuscous, thickly irrorated with bluish white; cell spots defined by bluish-white edging an antimodal, medial, and discocellular spot; a small subbasal spot below cell; small postmedian and outer spots on costa; outer margin fuscous from costa to vein 4; a submarginal white line, defined from below vein 4 by narrow fuscous shadings proceeding it and marginal black spots; cilia as above. Hindwings: a subterminal broad fuscous line, interrupted, somewhat lunular; large marginal black spots between veins 4 and 6; 2 and 3, and near anal angle. Expanse 22mm. Hab. La Florida, Santa Clara."

To Schaus' description I add:

GENITALIA: Male (Fig. 7): Uncus bilobed, lobes rounded with a small point in between them; socci narrow; valvae pointed inward, tips curving cephalad; aedeagus short, stout, like *N. baoetia*; saccus short, pointed cephalad; rami (Fig. 8) pointed, skewed slightly left when viewed dorsally. Female: Unknown

TYPE MATERIAL: Schaus' type is deposited in the National Museum of Natural History, Smithsonian Institution Washington, D. C.

DISCUSSION: Schaus' description of *lenocinium* has created some confusion. His reference to blue on the wings led Stichel (1924) to consider *lenocinium* as a synonym for *olinda* Bates, which also occurs in Costa Rica. Stichel (1929) went on to describe *Nymphidium albicans* from a specimen of *lenocinium* from western Colombia. He was followed by Lathy (1932), who applied the name *chiriquiensis* to a specimen from Panama. Neither of these authors had seen the Schaus' type nor the taxa described by each other. Thus, both *albicans* and *chiriquiensis* became synonyms for *lenocinium*. *N. lenocinium* resembles *N. nivea* Talbot quite closely, but it can be easily separated by the convex serrate distal edge of the triangular area of the forewing. In some of its genitalic characters, such as the point between the lobes of the uncus and the shape of the aedoeagus and the rami, *lenocinium* appears to be closely related to the Baeotia complex.

Gordon Small (per. comm.) informs me that in Panama, *lenocinium* is found singly in humid tropical forest and is extremely rare.

DISTRIBUTION: *N. lenocinium* is restricted to the primary forest areas of Costa Rica, Panama and the Chocó region in western Colombia (Fig. 9).

MATERIAL EXAMINED: PANAMA: Campo Campana, 600m, 3♂ ; 6 mi North of El Liano, 1♂ ; Gatún, 1♂. COSTA RICA: HOLOTYPE: La Florida, Santa Cruz, 1♂.

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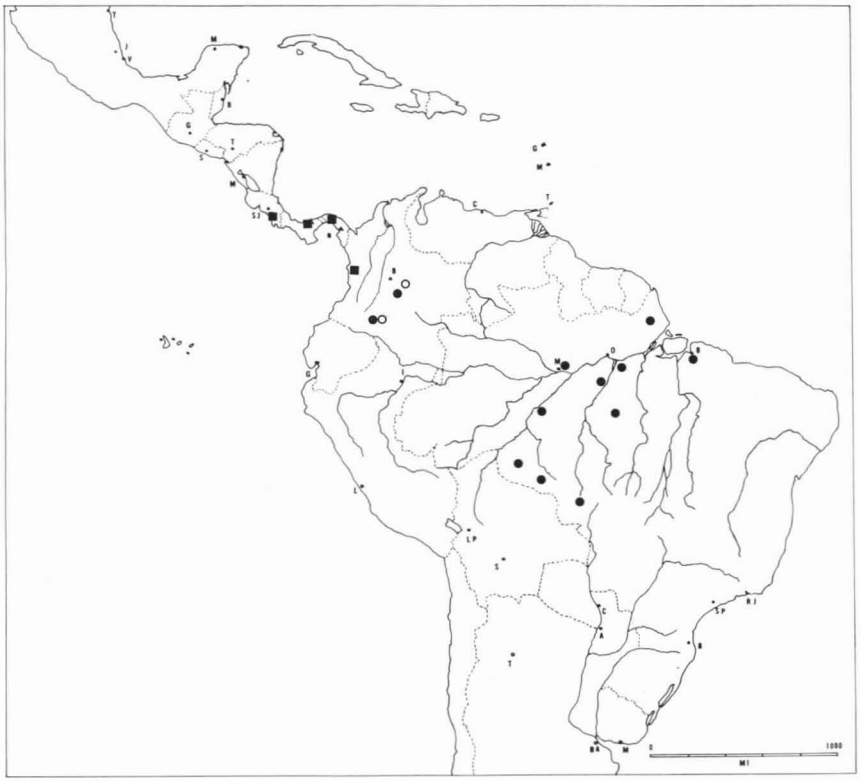
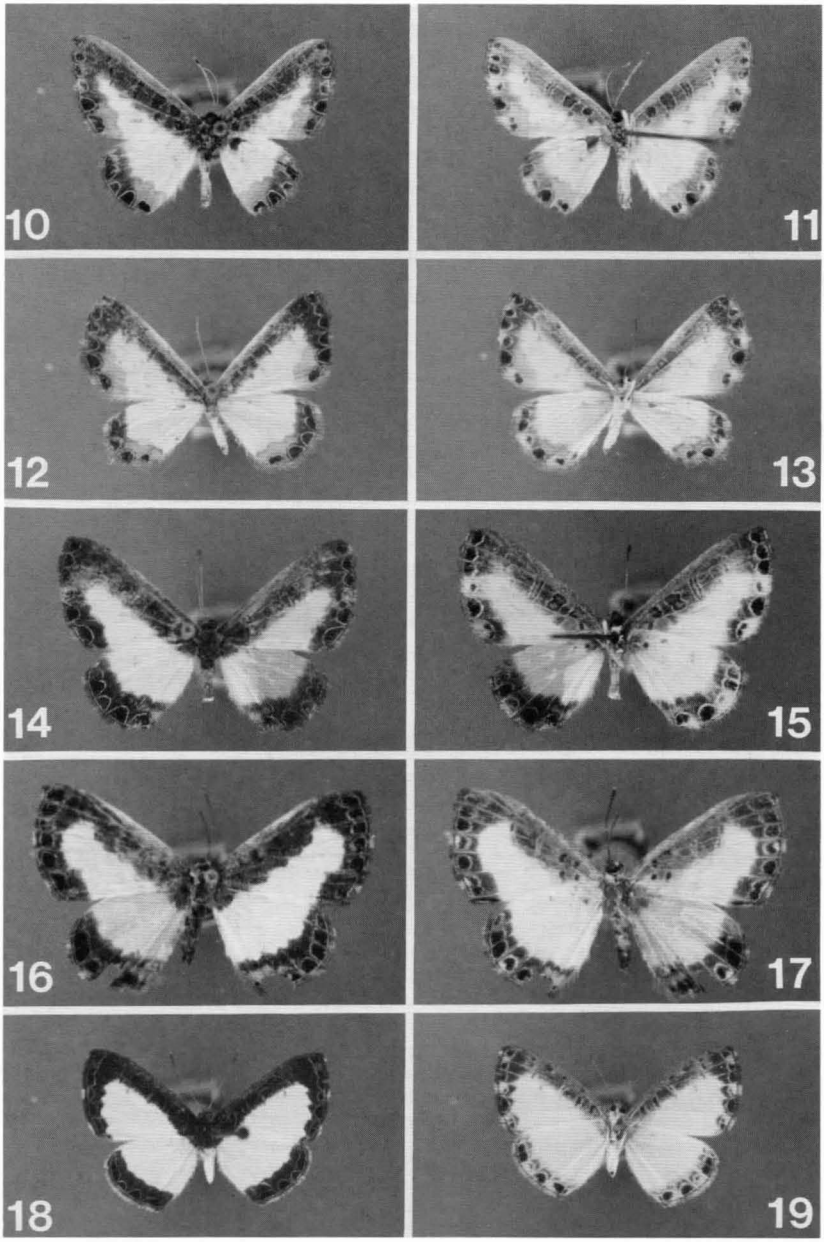


Figure 9. Distribution of the *Nymphidium omois* group. ● = *N. omois*. ○ = *N. ariari*. ■ = *N. lenocinium*.



Figures **10-19**. *Nymphidium omois*, male dorsal (**10**) and ventral (**11**) surfaces; female, dorsal (**12**) and ventral (**13**) surfaces. *Nymphidium ariari*, new species. Holotype male, dorsal (**14**) and ventral (**15**) surfaces; Paratype female, dorsal (**16**) and ventral (**17**) surfaces. *Nymphidium lenocinium*, male, dorsal (**18**), and ventral (**19**) surfaces.

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