tely fix the range of variations allowable for this species. As in *simus*, the range seems to be very great. »

Quatre spécimens, deux mâles et deux femelles, constituent les seuls représentants de *R. tricuspis* dans ma collection ; cette espèce, encore mal connue, prête à discussion. Selon THEILER (Little known african Rhipicephalids), il s'agit de *R. tricuspis* DÖNITZ 1906 qui serait synonyme de « *lunulatus* ». Les deux femelles de ma collection répondent bien à la description qu'en donne cet auteur.

Par ailleurs, les deux mâles répondent mieux à la description du *lunulatus* ZUMPT (Preleminary Study to a Revision of the Genus *Rhipicephalus* KOCH), les sillons postérieurs étant mal définis et l'angle postéro-interne des plaques anales assez droit. Pour ZUMPT et DIAS, *tricuspis* et *lunulatus* constituent deux espèces distinctes.

Il est prématuré de trancher cette question, comme le dit THEILER : « until further work has been done on larger collections and the FI generation from a so called *lunulatus* has been bred, the question will have to remain an open one. »

(Laboratoire de Parasitologie
du Professeur GRÉGOIRE,
Ecole de Médecine Vétérinaire-Cureghem.)

Two New Species of the *Amata tenuis* Group

(Lepidoptera, Ctenuchidae)

By Nicholas S. OBRAZTSOV.

Among the materials of the family Ctenuchidae of the Rijksmuseum van Natuurlijke Historie of Leiden (the Netherlands) a part of which the author had an opportunity to study, there were fourteen specimens of moths of the *Amata tenuis* group from Indonesia. Even a superficial examination of them had shown that they might belong to three different species because the antennae of three male specimens were simple, those of three others were serrate and they were almost short bipectinate in one specimen. Some diversity was also found in the body and wing markings of the moths. The examination of the genitalia confirmed definitively that the moths belonged to three different species. It was considered useful to give in the present paper, besides the descriptions of two new species, a detailed redescription of *Amata tenuis* (Wkr.).

The author wishes to ack nowledge with thanks the assistance of Dr. A. DIAKONOFF (Leiden) in sending the moths for study.

Amata (Amata) paratenuis n. sp.

MALE : Antennae biserrate, rather short bipectinate, black, with tips white above, brown reddish beneath. Head black ; frons and palpi orange. Patagia orange ; tegulae brownish black, each shoulder with a small orange patch. Thorax blackish brown, with two medio-lateral patches and posterior edge orange ; pectus with lateral orange patches on each side. Legs brown, inner side of the fore coxae and streaks on the femora of all legs orange. (Abdomen badly damaged, with traces of a black ground pigmen-

tation ; an orange patch on the first tergite and some orange scales on the second and third pleurites ; these scales are probably remains of abdominal bands whose number and development are uncertain.) Wings black brown with slight violet reflection ; six orange spots in the forewing, two in the hind wing. Length of the forewing : 12 mm.

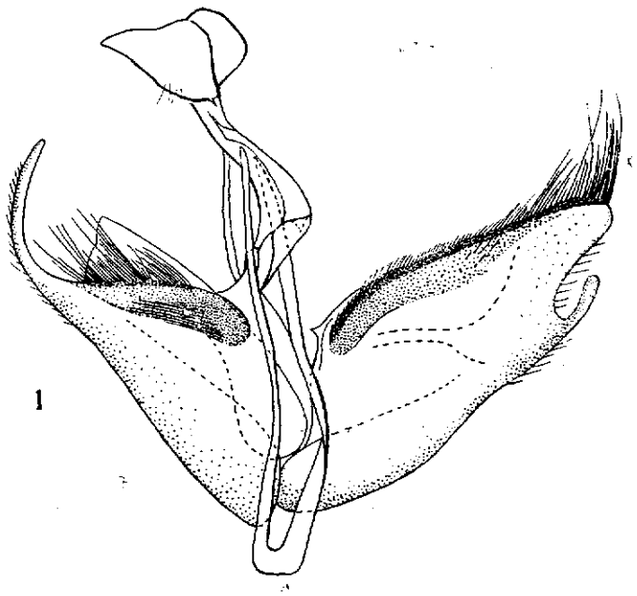

FIG. 1. — Male genitalia of *Amata paratenuis* n. sp., exterior view (Monotype).

The basal spot (m_1) of the forewing elongate-trapezoidal ; the spot (m_2) in the middle cell subtrapezoidal ; the spot (m_3) below the middle cell subtriangular ; the spot (m_4) between the veins R_5 and M_1 narrow, elongate ; two shorter spots (m_5 and m_6) between the veins M_2 and Cu_1 separated from each other by the black vein M_3 ; the lower of these spots slightly shorter than the upper one. The basal spot of the hind wing shorter than the middle cell, narrower at the base and enlarged distally ; the distal spot remote from the middle cell ; it consists of two spots almost joined together, the upper of them is much narrower.

The genitalia with a very thickened uncus ; its distal part is like a short and thick bird beak and the upper part has a large

crest. Valvae asymmetrical ; the left one with a broad, blunt, distal angle and a rather narrow short sacculus tip ; the right valva without distal angle and with a narrow and long, upturned sacculus tip. Aedoeagus curved, enlarged distally.

MONOTYPE : male, Pelabuan Ratu, South Coast of Java, sea level, July-August, 1915, M. C. PIEPERS.

The new species is similar to *tenuis* Wkr. but differs from it (like wise from *subtenuis* n. sp.) in having short bipectinate antennae. The spots of the hind wing are more remote from each other than in *tenuis* ; the spots are not hyaline as in *subtenuis*.

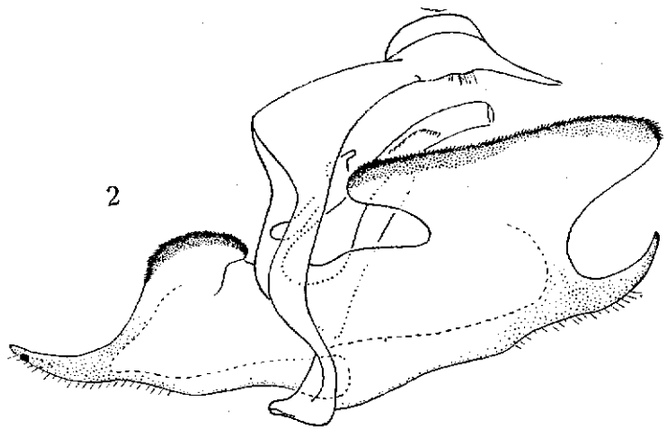

FIG. 2 — Male genitalia of *Amata subtenuis* n. sp., exterior view (Holotype).

Amata (Amata) subtenuis n. sp.

Antennae serrate in the male, simple in the female, black, with tips white above, brown reddish beneath. Head and palpi black, frons orange. Patagia orange ; tegulae black, narrowly orange-edged exteriorly. Thorax black, with two medico-lateral patches and posterior edge orange ; pectus with two yellow patches on each side. Legs dark brown, middle and hind coxae yellow (at least at tips), fore femora and tibiae sometimes with narrow, longitudinal, yellow streaks. Abdomen black ; first tergite and second to sixth segments orange girdled, in the male the two posterior girdles very narrow ; eighth segment in the female with grayish wool. Wings dark brown with copper or violet reflection ;

six hyaline spots in the forewing, two in the hind wing; often two spots below the middle cell on the forewing and always both spots on the hind wing almost completely suffused by orange, the rest of spots sometimes more or less orange-edged. Length of the forewing; 11-12 mm.

The basal spot (m_1) of the forewing more or less subtriangular; the spot (m_2) in the middle cell subtrapezoidal; the spot (m_3) below the middle cell irregularly subrhomboidal; the spot (m_4) between the veins R_5 and M_1 narrow, long; two shorter spots (m_5 and m_6) between the veins M_2 and Cu_1 separated from each other by the dark brown scaled vein M_3. The basal spot of the hind wing shorter than the middle cell, narrower at the base and enlarged distally: the distal spot roundish, widely remote from the middle cell and intersected by the vein Cu_1.

The male genitalia with an uncus extended and very long tipped, with a rather long and flat crest. Valvae asymmetrical; the upper part of the left valva with two distinct angles, a narrower proximal and a broader distal one, the tip of the sacculus acute; the right valva with a rather thick, acute sacculus tip. Aedoeagus rather slender, slightly curved, not enlarged distally.

TYPES: Holotype, male, Tombugu, East Celebes, 1882, C. RIBBE; allotype, female, Celebes, ROSENBERG; two paratypes: one male, Bantimurung, South Celebes, 1883, C. RIBBE; one female, Modajog (?), Balaäng-Mogondu, North Celebes, July, 1917, W. KAUDERN. Two badly damaged specimens, one male and one female, Gorontalo, East Celebes, FORSTEN.

The new species is very similar to *tenuis* Wkr. and differs from it in having serrate antennae in the male, black palpi, tegulae narrower orange-edged, legs with somewhat less yellow, wing spots mostly hyaline and the basal spot of the hind wing shorter than the middle cell. Moreover, *subtenuis* has the abdomen girdled equally in both sexes, one girdle less than the male of *tenuis*.

Amata (Amata) tenuis (Wkr.).

Syntomis tenuis WALKER, 1856, List Spec. Lep. Ins. B.M., vol. 7, p. 1595; JURRIAANSE & LINDEMANS, 1920, Tijdschr. v. Ent., vol. 62, Suppl., p. 32.

Syntomis linearis WALKER, 1864, op. cit., vol. 31, p. 77.

Antennae simple in both sexes, black, with tips white above,

brown reddish beneath. Head brown black; frons and palpi orange. Patagia orange; tegulae dark brown, exterior part of their shoulders orange patched. Thorax dark brown, two medio-lateral patches and posterior edge orange; pectus with two orange patches on each side. Legs brown, innerside of coxae and longitudinal streaks on fore femora and tibiae orange yellow. Abdomen dark brown, with slight violet reflection; first tergite and post-segmental girdles on second to seventh segments in the male, to sixth in the female, orange; some of posterior girdles developed at least ventrally; in the female the eighth segment with gray-whitish wool. Wings dark brown with copper or violet reflection; six orange spots in the forewing, two in the hind wing. Length of the forewing: 12-14 mm.

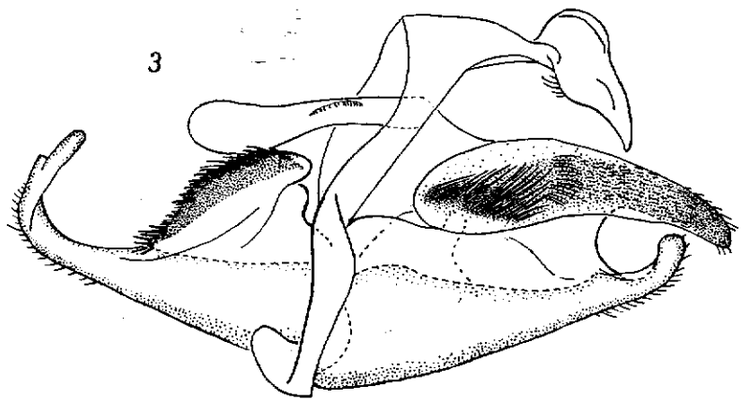

FIG. 3. — Male genitalia of *Amata tenuis* (Wkr.), exterior view (Gurupalu, North Celebes).

The basal spot (m_1) of the forewing elongate, slightly enlarged exteriorly; the spot (m_2) in the middle cell elongate-trapezoidal; the spot (m_3) below the middle cell subrhoinboidal, with the exterior angle rounded; the spot (m_4) between the veins R_5 and M_1 long; two shorter spots (m_5 and m_6) between the veins M_2 and Cu_1 separated from each other by the dark scaled vein M_3. All spots as broad as the vein interspaces in which they are but separated from one another. The basal spot of the hind wing near the wing base, almost as long as the middle cell, broad, sometimes with additional spots in the middle cell; the distal spot much smaller, round, beyond the lower angle of the middle cell.

The male genitalia with a massive, beak-shaped uncus, with a less developed crest in its upper basal part. Valvae asymmetrical; the upper part of the left valva enlarged, broad proximally, narrowed and extended distally, the sacculus tip blunt, thick, curved upward; the right valva with a very long, broad sacculus tip which is curved upward. Aedoeagus almost direct, not enlarged distally.

SPECIMENS EXAMINED: one male, Bonthain, Southeast Celebes, one male and one female, Gurupalu, North Celebes, March 21 and April 11, 1917, W. KANDERN; one male, Bantimurung, South Celebes, 1883, C. RIBBE; one female, Makassar, South Celebes; one female, Nulion Peleng, Banggai Islands, June 13, 1937; one female, Kaledupa Island, Tukang Besi Islands, December 4, 1916, KRANS.

(Sea Cliff,
Long Island, New York, U.S.A.)

SOCIETE ENTOMOLOGIQUE DE BELGIQUE

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Présidence de M. R. MAYNE, *Président*.

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COMMUNICATIONS.

Nouvel accouplement interspécifique chez Chrysolina.

Le long du ruisseau d'Asse, au bord du bois de Mortroux, près de Julémont, le 28.VII.1954, nous avons découvert sur Mentha aquatica L. un accouplement: *Chrysolina staphylea* L. ♂ X *C. menthastri* SUFFR. ♀. Cet accouplement est assez inattendu, vu la disparité de couleur des deux espèces. Les deux insectes, mis en élevage en captivité, se réaccouplèrent et la ♀ *C. menthastri* pondit des œufs stériles qui dégénérèrent. Ces accouplements interspécifiques ou intergénériques sont le plus souvent stériles, sauf, peut-être, en ce qui concerne *Chrysolina menthastri* X *C. coerulans*, espèces très voisines et de même biologie, et les espèces du groupe de *C. gypsophilae* Küst.

Les accouplements interspécifiques suivants ont été observés: chez *Chrysolina* (P. JOLIVET, *Bull. Soc. Ent. Fr.*, XLVII, 9, p. 141, 1942; *Bull. Soc. Linn. Normandie*, 9e sér., III, p. 110, 1942; *L'Entomologiste*, V, 3-4, pp. 77-80, 1949; *Miscell. Ent.*, XLVI, 1, p. 7, 1949; *L'Entomologiste*, VI, 1, p. 19, 1950; *Bull. Ann. Soc. Entom. Belgique*, LXXXVI, 9-10, p. 200, 1950).

Chrysolina menthastri SUFFR. ♀ X *C. polita* L. ♂ (très fréquent; l'inverse mécaniquement impossible; stérile).

Chrysolina menthastri SUFFR. ♀ X *C. staphylea* L. ♂ (stérile).

Chrysolina menthastri SUFFR. ♀ X *C. coerulans* SCRIBA ♂ (inverse rare mais possible, existence douteuse d'hybrides).

Chrysolina banksi F. ♀ X *C. staphylea* L. ♂ (hybride anormal, S. DE MOCQUERYS, 1880).

Chrysolina graminis L. ♀ X *C. polita* L. ♂ (stérile).

Chrysolina hyperici FORST. X *C. cuprina* DUFT. (stérile, espèces de l'Hypericum).