AN UNDESCRIBED SPECIES OF VESPA.

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Having lately been occupied in arranging the wasps contained in the Hope Saunders and Smith's collection I have come across a curious species which has not been mentioned by either Saussure or McFarland, so I venture to describe it here as a new species in honor of Professor Westwood through whose kindness I am able to devote my time to the study of entomology.

This is the only true Vespa which I know whose colors are bright dark red and black, and although it somewhat resembles V. sylvestris in general facies, it differs essentially from it both in color and the style of markings. It should be placed in the second division of the genus, viz., that in which the eyes extend to the base of the mandibles.

Vespa westwoodii Shipp. Black. Head; mandibles with the exception of teeth, a trapezoidal spot above clypeus, clypeus with the exception of a broad longitudinal mark, widening at apex, the sinus of the eyes, a spot close to mandibles on the cheeks, and another longer one above, behind the eyes, red; antennae dull black, a line on the margin of the mesothorax at the sides of prothorax, tegulae, two spots, one on each side of scutellum, two on the post-scutellum and a spot under the anterior wings, red. Abdomen black, first segment with a broad, red apical band, narrowing in centre; second with a broadish red band irregular, widening greatly at the sides, giving the idea of three spots run together; apical segment red with a blackish reflection, bands continued underneath; coxae and trochanters all black, femora black, knees red, tibiae red with a black patch in the centre of the inner margin; tarsi red with a golden pubescence, wings with a slight yellow tint, larger nervures with a decided reddish tint. Eyes extending to base of mandible.

Hab. N. Amer. Bor. Type in Ox. Univ. Museum.

BRIEF NOTES ON TWO JAMAICA PAPILIONIDAE.

BY T. D. A. COCKERELL.

SYNCHLOE JOPPA.—July 14, 1892, I saw a female ovipositing on a sweet scented sticky Cleome, having a hairy stem, the leaf with five hairy or pubescent leaflets. The egg was laid on the under side of the leaf near the tip. Egg about 1 mm. high, long, cylindrical, shiny pale yellow, truncate above, with twelve strong vertical ribs and numerous small weak transverse riblets. It was not attached other than by the secretion of the hairs of the plant; from the abundance of glutinous hairs on the leaf it would be hard to attach it in any other way.

PAPILIO PELAUS.—Larvae about to pupate found on Prickly Yellow, July 13, 1892. About 4 cm. long, stout, cylindrical, but first and last two body segments smaller. Head shiny brown with a whitish spot on each side of crown anteriorly. Body dark brown. A pair of short subdorsal tubercles on each of the four first body segments those on the first ochrous; side of body with a broad dash of creamy white marbled with gray on 5-7th body segments and some of the same color on sides of 10th and 11th segments. Abdominal legs pale gray, blotched externally with darker. Thoracic legs brown.
laterally broad, subquadrate, densely clothed with hair; the third joint minute and almost lost in the hairy vestiture of the second joint. Antennae moderately long, heavily pectinated, with the setae appressed and almost uniform in length from the base to just before the tip, where they rapidly shorten. The antennae are in all the dried specimens before me curved downward at the tips. The patagia are relatively long, covering the insertions of both the primaries and secondaries.

The abdomen is produced one-fourth of its length beyond the posterior margin of the secondaries, and on the dorsal line back of the thorax has a large and very prominent cluster of upright scales, giving the appearance of a small hump. The legs are moderately hairy; the third pair quite long with the tibiae swollen at the end and armed at the extremity and beyond the middle with double spurs. The primaries are subtriangular with the costa moderately convex, the outer margin rounded, the inner margin slightly convex. The secondaries are subpyriform with the costa convex, the outer margin evenly rounded, and the inner margin nearly straight.

♀. The female does not differ materially from the male except in the size of the antennae but invariably in all specimens before me has the silvery spot near the outer angle of the primaries upon the upper side. Expanse, \( \varnothing \), 35 to 38 mm.; \( \varphi \), 38 mm.

99. *N. nubifuga*, sp. nov. ♀. Palpi, antennae, front, collar, and upper side of thorax dark brown. The abdomen above slightly paler, having the dorsal cluster of scales very dark brown. The under side of the thorax and abdomen is brown, paler than the upper surface. Legs concolorous with the tarsi ringed with dark brown. The primaries are rich brown with obscure grayish transverse lines along the costa; a velvety brown spot near the base; a very large velvety brown spot beyond this on the inner margin, followed by a series of similar velvety markings disposed as a submarginal series, most prominent below the apex at the end of the third median and near the outer angle. The velvety spot near the outer angle is sometimes accentuated by a small silvery dot on its outer margin. The posterior wings above are uniformly wood-brown with the fringes checkered with darker brown. On the under side, the primaries and secondaries are pale wood-brown, the primaries clouded with fuliginous in the region of the cell and traversed by an obscure double submarginal band. The secondaries have a large dark brown discal dot, a transverse median and an angulated submarginal transverse line. The fringes on the lower side are conspicuously checkered with dark brown.

♀. The female does not greatly differ from the male except in the size of the antennae but invariably in all specimens before me has the silvery spot near the outer angle of the primaries upon the upper side. Expanse, \( \varnothing \), 35 to 38 mm.; \( \varphi \), 38 mm.

100. *N. delicata*, sp. nov. ♀. Upper side of palpi and front pale brown. Antennae testaceous. Collar and upper side of thorax pale brown. Upper side of abdomen dark brown. Lower side of thorax and abdomen pale brown. Legs concolorous, the tarsi and tibiae ringed with brown. The primaries are warm brown marked by very narrow transverse basal, median, and limbal lines of dark brown, margined on both sides by very fine grayish lines. On the inner margin before the base there is a large dark velvety, subquadrate patch of brown scales, and there is a similar linear patch of like scales below the apex on the outer margin, followed by a very narrow irregular marginal line of similar scales. The fringe is pale brown, checkered with dark brown. The