November 1893.]

(Continued from page 538.)

diminishing and terminating upon the third median nervule. There is an obscure irregularly curved sub-basal transverse line and a similar transverse limbal line which runs from the costa beyond the middle obliquely to the third median nervule about its middle, and then sweeps inwardly with three irregular scallops to about the middle of the inner margin. The secondaries are pale fulvous. On the under side, both the primaries and the secondaries are pale fulvous with obscure and incomplete geminate transverse limbal lines. The white spot at the end of the cell on the upper surface reappears indistinctly upon the lower side.

Q. The markings in the female sex are very much as in the male, with this difference that the white discal spot in the primaries is in all specimens before me, save one, replaced by a dark brown spot. In one case, the silvery-white scales reappear, but far more indistinctly than in any male. Expanse \mathcal{S} , 50 to 65 mm.; Q, 85 to 100 mm.

I have over forty specimens of this species, male and female, reared ex larva. I hope to be able to give shortly an account of the life history of the species.

PINARIDAE.

GONOMETA, Walk.

190. G. brotoëssa, sp. nov. J. Front, pectus, and upper side of thorax rich maroon; upper side of abdomen uniformly steely-blue; lower side of thorax and abdomen ferruginous. Primaries rich maroon with a silvery dot encircled by black at the end of the cell; a yellow subtriangular spot below the cell near the base. On the middle of the wing there are two obscure parallel zigzag blackish lines running from the apex diagonally to the middle of the inner margin. The secondaries have the costa dusky-ferruginous; the remainder bluish-black. On the under side, the primaries are maroon, heavily clouded with blackish on the cell and middle area. The secondaries are colored much as on the upper side.

Q. The female has the body as the male, but much larger. The upper side of the abdomen is brilliant steel-blue with an orange colored tuft of hairs at the anal extremity. Both primaries and secondaries on the upper and lower sides are uniformly rich maroon. Expanse \mathcal{J} , 65 mm; Q, 95 to 100 mm.

There is less disparity between the sexes than is the case in some other species of the genus.

NOCTUIDAE.

GIGANTOCERAS, gen. nov.

Allied to Risoba, Moore The palpi are not as closely compressed as in that genus; the second and third joints are longer, less hairy, and more attenuated than in Risoba. The antennae are very long. In Risoba they are not quite equal in length to the costa of the primaries; in Gigantoceras, they are from fully one-half to twice as long again as the costa of the primaries, and are directed forward. They are minutely serrated at the base. The legs are also relatively much longer than in Risoba and not so hairy. The tibiae of the third pair have a subterminal and two minute terminal spurs: in Risoba the spurs are prominent. The primaries are relatively shorter and broader than in Risoba. The neuration so far as I have been able to ascertain does not differ from that of Risoba. Type G. solstitialis, Holl.

191. G. solstitialis, sp. nov. S. Antennae one-half longer than the costa of the primaries, very slender; palpi and front fuscous; collar brown; patagia and upper side of thorax white; lower side of thorax and entire abdomen fuscous. The primaries are obscure fuscous with a dark brown apical patch, and the base and inner margin prevalently

clouded with the same color. The inner margin for one-third of the distance from the base is covered with silvery white scales. In the middle of this white longitudinal mass of scales is a minute brown spot. The secondaries are pale fuscous with the outer margins broadly blackish. The fringes of the primaries and the secondaries are light fawn and obscurely checkered with darker brown at the ends of the nervules. On the under side, both wings are pale fuscous with the neurations, an obscurely defined discal mark, and the margins from a little beyond the cell dark fuscous. The fringes are paler, and not checkered as on the upper side. Expanse,

192. G. (?) geometroptera, sp. nov. J. Antennae twice as long as the costa of the primaries. The primaries have the outer margin relatively longer and straighter than in the preceding species with the inner margin relatively shorter. The front is brown; the thorax on the upper side olivaceous-green: the upper side of the abdomen fuscous; the lower side of the thorax and the abdomen pale gray. The primaries are pale olivaceous traversed by geminate basal, sub-basal, median, and limbal transverse lines of darker olive-green; darkest in the region of the costa. The nervules at their extremities are marked with short blackish rays, and at the apex there is a series of similar blackish markings enclosing a wood-brown <-shaped apical patch. There is an obscure white spot in the middle of the cell surrounded by pale olivaceous, a linear discal mark at the end of the cell dotted at either extremity by dark brown, and beyond the cell an obscure annulus of pale olive-green, margined with darker olive. Near the outer angle there is a brownish patch of scales. Before the geminate subbasal transverse line just above the inferior vein there is a small white dot. On the margins there are lunulate dark brown markings on the interspaces, and the fringes are pale. The secondaries are pale fuscous with

the margins broadly darker brown, and an obscure discal dot at the end of the cell. On the under side both wings are very pale fuscous with the neurations dark brown and distinctly defined upon the paler ground. A broad blackish incomplete band runs from the costa near the end of the cell to the origin of the lower radial nervule, coalescing on the costa and at the origin of the radial with a broad blackish outer marginal band, which sweeps inwardly to the point of union. Enclosed between these two markings is a large suboval whitish spot. The end of the cell in the secondaries is marked by a broad obscurely defined blackish spot, and the margins are broadly blackish. The fringes are whitish. Expanse, 33 mm.

The greater relative breadth of the wings in this species and the lack of a patch of raised scales on the inner margin of the primaries lead me to refer the insect with a little doubt to this genus. My specimen is unique and I do not care to dissect without more material.

METALEPTINA, gen. nov.

Allied to Leptina, Guen. The palpi are longer than in Leptina, and have the third joint long, aciculate, directed upward. The antennae are as in Guenée's genus. The legs are much more densely clothed with scales, especially the third pair, which have the tibiae very heavily clothed with long scales, armed with long spurs, two at the base and one just before it. The primaries are not as long relatively as in Leptina, and relatively broader. On the inner margin at the base, the primaries are clothed with a linear patch of long raised scales. The neuration of the primaries and secondaries is the same as in Leptina, so far as I have been able to ascertain by careful comparison, without making microscopic mounts of the wings. Type, M. nigribasis, Holl.

30 mm.

193. M. nigribasis, sp. nov. J. The lower sides of the palpi are pale fulvous-gray. The upper side of the palpi, the front, collar, patagia, and upper side of the thorax are blackish brown. The upper side of the abdomen is fuscous, darkest on the dorsal line. The under sides of the thorax and abdomen and the legs are pale gray. The primaries on the upper side are pale woodbrown with a pinkish reflection shading into darker brown toward the apex and the outer margin. The patch of raised scales on the inner margin at the base is dark blackishbrown like the costa. The primaries are traversed from the costa just before the apex to the middle of the inner margin by a narrow dark brown straight line, bordered externally by a paler parallel line. The secondaries are fuscous, darkest on the outer margins. On the under side the primaries are pale fuscous, with the costa and the middle area darker. The outer margin of this darker median area is sharply defined as a curved line, which is followed by a paler shade. The outer margin is darker, and at the end of the cell there is an obscure discal

mark. The secondaries on the lower side are paler than the primaries and are traversed by an obscure curved transverse limbal line. The margins are obscurely bordered with darker fuscous. Expanse, 30 mm.

194. *M. albibasis*, sp. nov. \mathcal{J} . Lower side of palpi pale ferruginous. Front, collar, patagia, upper side of thorax, and abdomen fawn; lower side of thorax and abdomen and legs very pale cinereous. The primaries on the upper side are pale wood-brown, or fawn, traversed from the costa before the apex to the inner margin two-thirds of the distance from the base by a narrow irregularly, and slightly curved darker line, bordered externally by very narrow paler lines. The raised patch of scales on the inner margin at the base is whitish defined on its upper margin by a darker shade which extends outwardly along the inner margin to the termination of the narrow transverse limbal line. There is an obscure round dark spot in the middle of the cell, an obscure linear mark of the same color at its end. The secondaries are uniformly pale fuscous. On the under side, both wings are pale fuscous. The primaries have the middle area and the costa clouded with darker brown, the outer margin of this darker area being well defined against the paler marginal area. The fringes of the primaries are dark brown. The secondaries are traversed from the costa beyond its middle by a curved incomplete transverse limbal band of dark brown. The fringes of the secondaries are concolorous. Expanse, 25 mm.

195. M. obliteratu, sp. nov. J. Head whitish. Collar, patagia, and upper side of thorax dark cinereous. Upper side of abdomen pale brown; lower side of thorax and abdomen with legs whitish. The primaries are pale ferruginous. At the end of the cell, there are two small spots of whitish raised scales margined with blackish. Beyond the cell there is a narrow and very obscure transverse limbal line, regularly curved outwardly, running from the costa before the apex to the inner margin two-thirds of the distance from the base. The patch of raised scales on the inner margin at the base is cinereous, defined on its upper side by a brownish spot. The secondaries are uniformly pale creamy, tinged on the outer margin with fuscous. On the under side both wings are shining creamy with the fringes of the primaries dark brown, and a faint brownish shade on the upper margin of the cell below the costa. Expanse, 30 mm.

DINOTODONTA, gen. nov.

Allied to Dasunaga, Moore. The palpi are short, ascending, compressed, scarcely reaching beyond the vertex; the third joint is very short, hemispherical; the second joint relatively very long. The antennae in the male are simple, slightly ciliated on the lower side near the base, and three-fourths as long as the costa of the primaries. The legs are long, naked, the second pair with a long slender terminal spur, the third pair with double subterminal and double terminal spurs, likewise slender, the inner member of each pair being longer than the outer. The abdomen is much produced beyond the inner margin of the secondaries, slender, and lightly tufted with long hairs at the tip. The vestiture of the abdomen is smooth, appressed. The patagia are relatively long, covering the insertion of both wings. The primaries are narrow, elongated, slightly curved on the costa, evenly rounded on the outer margin, and

bilobed on the inner margin, the first lobe being just beyond the base, the second about the middle of the wing. Beyond this second lobe, the inner margin of the wing is straight. The secondaries are subtriangular; the costa is arched beyond the base, pointed at the apex, nearly straight along the outer margin, and slightly curved on the inner margin. In the primaries the internal vein has two branches, the lower one extending from the base to the outer edge of the second lobe of the inner margin, the upper extending to the outer angle. The radial springs from the middle of the discocellulars. There

is an areole at the upper angle of the cell, from which veins six to ten spring. Veins seven and eight are emitted from nine beyond the upper angle of this areole. Vein eleven is given off beyond the middle of the cell. Vein twelve is straight and terminates upon the costa three-fourths of the distance from the base. In the secondaries the inferior vein has two branches, the innermost terminating on the anal angle, the outermost widely separated from it, the outer margin being slightly lobed between the extremities of these veins. The radial is given off from the middle of the discocellulars, which form an angle with each other pointing inwardly. Veins six and seven are stalked. Vein eight curves downwardly to the upper margin of the cell near the base, and then diverges widely and terminates upon the costa a trifle before the apex. Type *Dinotodonta longa*, Holl.

This genus shows in the neuration affinity to the Notodontidae, but together with the two immediately subsequent genera is in my judgment more properly referred to the noctuids, the simple antennae and the long legs being more characteristic of the noctuids than of the notodonts, although the genus Scrancia, which I have referred to the notodonts, in its neuration comes very near this and the two following genera.





196. D. longa, sp. nov. J. Palpi, head, collar, and thorax dark brown; upper side of abdomen fuscous; lower side of thorax and abdomen and the legs paler. Primaries on the upper side pale vandyke brown, traversed by a broad band of dark vandyke brown beyond the middle, which is defined externally and internally by heavy dark brown lines, which are produced on the nervules, the outermost very irregularly curved and fusing with a dark brown ray, which extends from the apex inwardly. There is a dark vandyke brown basal shade bordered externally with a curved sub-basal dark line. The inner margin where lobed is dark like the basal area. The



AFRICAN MOTHS. (Holland.)

(REDUCED NEARLY ONE-HALF.)







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