on both wings. The red spots, too, are more numerous, those of the anal angle and the base of the costa of secondaries being wanting in Mr. Edwards' figure. As the present form, however, comes from nearly the same locality as the type from which that figure is taken, it may ultimately prove to be an extreme variety of *P. Eversmanni*. It is, however, so distinct to be considered for the present as a separate species.

PARNASSIUS HERMODUR. n. var.

A remarkable variety of P. Smintheus Dbly., which approaches very closely P. Corybas, Fisch, from the Altai. The whole upper surface of the primaries is of a smoky black hue, slightly transparent, the usual bands being lost in the ground color of the wing. In this respect it nearly resembles P. Corybas, but the latter, as well as two red spots near the costa, has also another near the internal margin, which is absent in the present form. The red spots of secondaries are nearly the same in both, but in P. Hermodur there is a trace of some red scales near the anal angle, which is wanting in P. Corybas. The black sub-marginal lunules of secondaries are also much more strongly marked in P. Corybas than in P. Hermodur, and the wing is whiter and more opaque. On the other side the resemblance is more apparent, the red spots on the costa, and that between the sub-costal nervures having white centres in both forms, while those of the base are wholly red, and alike in their color and arrangement. The present insect is smaller than its ally, the expanse being only 2.30 inch, while the pair of P. Corybas in my collection measure 2.65 inch.

Southern Colorado.

Type. Coll. Hy. Edwards.

This extremely interesting insect was generously given to me by my friend, Dr. James S. Bailey, of Albany. I have named it after the son of Odin and Freija, and the Mercury of the Scandinavian mythology.

DESCRIPTION OF FOUR NEW SPECIES OF MOTHS.

By A. R. GROTE.

(Read before the N. Y. Ent. Club, at the first meeting in December, 1880.)

SCEPSIS EDWARDSII. n. sp.

This form is stouter than fulvicollis, with paler forewings and

approaches Echeta albipennis, H.-S. from Cuba.

Forewings pale, slaty brown, with a whitish cast; the costal edge pale yellow, which shade extends faintly within the edge, from the middle outwardly, and obtains beneath, over apical third of costa.

Secondaries hyaline with broad smoky costal border, and narrow smoky external edging.

Beneath, primaries bluish black; secondaries hyaline with bluish

costal border.

Head behind, palpi, base of fore legs orange. Thorax, pale,

slaty brown; collar touched with orange; abdomen metallic blue above, white beneath; legs white inwardly. Expanse 38 mm.

Indian River, Fla. Collection of Mr. Hy. Edwards, after whom

this interesting species is named.

PARASA FRATERNA, n. sp.

This differs from *chloris*, which is evidently Reakirt's *viridus*, by the absence of the brown dark spot on the terminal brown marginal band of primaries, and by the greater width of that band, and the narrowness of the green median band. Else the species are very similar, but the difference is striking in comparison. *Fraterna* is slighter than its ally, and the larva, found by Mr. Tepper, is quite distinct from that of *chloris*, as I am informed by Mr. Tepper. Thorax and vertex green; hindwings yellowish at base, with darker border; fore wings with an inwardly oblique median green band, not extending over costal edge, and reaching to the base of the wing along internal margin. N. Y., Mass., Mr. Roland Thaxter; also in Mr. Tepper's collection.

MAMESTRA SUTRINA, n. sp.

This species is similarly sized with the Californian cuneata, but a little slighter-bodied. It is deep brown, cut and lined with white and wants all yellowish markings, and is thus differently colored from its ally. It differs in markings by the absence of the dots following the t. p. line, and by the white lunulate s. t. line. Lines double, filled in with white. Reniform and orbicular subequal, approximate, white-ringed. Claviform outlined in black, beyond it a white spot. A dark line upon submedian Median lines lunulate, uneven, approaching inferiorly. Black interspaceal marks precede the white s. t. line. Half-line marked; t. a. line nearly perpendicular, marked by a black outer line and preceding white shade; t. p. line outwardly bent above, drawn in below vein 4, well removed outwardly. Beneath fuscous; hind wings irrorate with whitish, with discal dot and transverse line; above, secondaries with darker border and slightly paler base. Eyes hairy; body tufted. Expanse & 30 mm. Colorado.

CATACOLA DULCIOLA, n. sp.

A new species of Catocala (I do not now think we have to do with a variety), has been collected by my friend, G. R. Pilate, of Dayton, Ohio, in his neighborhood. It is of the size of crataegi and has its paler color; it is pale greenish gray, the primaries with a slight reflection recalling, praeclara. It is intermediate between alabamae and crataegi. It differs by the anterior line, forming a moderate arc, being more even and without the usual indentation on vein 1. The lines are black, the t. p. line fine. The veins are marked with black over the terminal space. The median shade is indicated by a dentate black costal mark, a black basal dash. The basal space is darker than the rest of the

wing, while the depth of the terminal coloring leaves the large median space of the primaries pale and contrasting, reminding us a little of *C. cordelia*. The hind wings are dark yellow, with the wide black median band connected with the base, and resemble those of *polygama*. Five or six examples, all alike, have been collected by Mr. Pilate, of this interesting form, which I call *C. dulciola*. The female type before me expands 44 millimetres.

ON THE EARLY STAGES OF SOME MOTHS.

By D. W. COQUILLETT, Woodstock, Ill.

The larvæ described below are provided with 16 legs, except

the last one, which has only 12:

APATELA AMERICANA, Harris.—Body greenish white; a subdorsal and stigmatal black line; on top of the last two segments is a black stripe which widens posteriorly; body thickly covered with short pale yellow hairs; on top of segments 4 and 6 are two pencils, and on top of segment 11 is a single pencil, of very long black hairs; venter black; head shining black; length 2½ inches. One specimen taken on a red-oak tree August 13; on the 19th of the same month it spun in one of the upper corners of its breeding cage a large cocoon, interwoven with the hairs with which its body was covered; the imago emerged on the 24th of May of the following year.

APATELA LOBELIÆ, Guenée.—Body bluish gray, the dorsal space tinged with yellow; a dorsal and subdorsal pale yellowish line extending only to segment 11 which is humped, the top blueish, and on it are four quite large piliferous spots, top of segment 4 bluish, interrupting the dorsal line; piliferous spots whitish, prominent, each bearing a black hair; sides of the body quite thickly covered with whitish hairs; spiracles white, encircled with black; venter, greenish white; head, gray, dotted with black, and marked on the top with two blood-red spots; length 1½ inches. One specimen found June 6, on a burr oak tree; it spun

a cocoon June 22, disclosing the imago July 14.

APATELA FALCULA, Grote.—Body, dark brown, mottled with pale greenish; a dark dorsal line, on each side of which are two rows of prickles, most distinct on anterior part of body; the four prickles on top of segment 11 are larger and placed closer together than those on the segments anterior to it; from each of these prickles proceeds or two short black hairs; venter, greenish white; sides of head pale greenish, the face brownish; length, 1½ inches. One specimen found on hazel, September 25, entered the earth and spun a thin cocoon September 29, disclosing the imago May 25 of the following year.

APATELA SUPERANS, Guenée.—Body green; a reddish brown dorsal stripe, edged with yellow; in the middle of this



Grote, Augustus Radcliffe. 1881. "Description of four new species of moths." *Papilio* 1(1), 4–6.

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