## LIURNAL LEPIDOPTERA.

eealed, half its length or more, by the long bristles of the middle joint, nearly perpendicular, straight, subulate, or linear, covered with scales; femora and tibiæ with long hairs; tibiæ of middle legs with a series of short spines; abdomen densely hairy; anal angle of hind wings produced; male with stigma which is not prominent on the under side; at the base of antennæ a brush of stiff hairs.

## PAMPHILA, F.

Knob of antenna thick, ovoid, or elongate-ovoid; the tip suddenly bent with a much contracted, pointed little hook, nearly half as long as the knob, and composed of a larger or smaller number of joints; sometimes of the apical joint alone, which then is placed upon the thick end of the knob as a short slender spine (*Phylacus*); the last joint of palpi conical or nearly linear, hardly projecting beyond the bristles of the middle joint; tibiæ generally with spines, the strongest and most constant on the middle tibiæ, the most feeble on the anterior; in some species all the tibiæ are without spines; body stout; abdomen as long as the head and thorax, reaching the anal angle of hind wings, or surpassing; fringes unicolored. The anterior wings of the typical species triangular, the costal margin long, nearly straight, apex slightly pointed; the hind margin oblique, very little or not at all convex; the inner margin much shorter than the costal; hind wings more or less produced on the sub-median nervure, at least in the male.

In Group I, the wings a little broader, the apieal angle of fore wings obtuse, the hind margin less oblique and more convex. The two species have the apieal hook of antenne a little longer and stronger, especially at the base, than the typical species; tible with spines, but feeble on the fore and hind legs; the male without stigma. There are numerous differences in the shape of the hooks of the antenne and the spines of tible. In respect to the hook, *Phylaus* differs most, the antenne being shorter than in any other species,—only half as long as the abdomen; *Metca* has the apical hook forming a thick bent cone. The tible of *Vitellius, Conspicua* and *Metacomet*, have no spines at all. The spines of the tible of fore legs are often feeble and indistinct and seem to be wanting in *Comma, Peckius* and *Osyka. Verna* has only the middle tible spined; *Hianna* has the hind tible spined, but only on the apical third interiorly, between the two pairs of spurs.

Nore.—As to Pamphita; the differences in the shape of the knob of antenna, the spines of tibite, the character of the stigma, are very remarkable, but none of them lead to a natural arrangement of the species. This is least the ease with the spines and stigma (presence or absence of), as appears at once when the species without spines on the tibite (*Vitellius, Conspicua, Metacomet*), or those without discoidal stigma, are compared, and opposed to all the others. In regard to the untenne, *Phylacus* differs most, but is otherwise in all characters an entirely typical Pamphila, and in shortness of antennæ the otherwise widely different *Huron* is its nearest neighbor. The spines of the tibie on the fore legs, and sometimes on the hind legs, are so short and fine, that they are difficult to recognize, and in danger of being pronounced wanting, though they are

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