

*Descriptions of New Genera and Species of Parasites, belonging to the Families Proctotrupidæ and Chalcididæ, which attack Insects destructive to the Fig in India.* By the late FRANCIS WALKER, Esq.

[Communicated by F. SMITH, Esq.]

Genus PSEUDISA, n., *Walker*. Fam. DRYINOIDÆ?

Body convex. Head and thorax very finely squamous. Head large, transverse, subquadrate, a little broader than the thorax; front perpendicular. Mandibles very short. Eyes large. Ocelli three, in a curved line on the vertex. Antennæ pubescent, filiform, 12-jointed, shorter than the thorax; first joint long, stout; second elongate-cyathiform; third and fourth extremely short; fifth and four following long, linear, equal; tenth, eleventh and twelfth forming a fusiform club, which is a little less than twice the length of the ninth. Prothorax large, quadrate. Mesothorax well developed; sutures of the parapsides distinct, converging hindward; scutellum with a slight longitudinal furrow. Metathorax large, tapering. Petiole slender, cylindrical, about two thirds of the length of the abdomen. Abdomen smooth, compressed, with four nearly equal segments; tip obtuse in the male, aculeiform in the female. Legs stout, setose; femora incrassated; tibiæ curved; tarsi 5-jointed; claws moderately long. Fore wings moderately broad, with a setose subcostal vein proceeding from the base to a large stigma, which emits a short branch or cubitus.

PSEUDIA SMICROIDES.

Luteous, with some black marks, which vary in number, and occasionally are wholly wanting. Wings cinereous-hyaline; subcostal vein tawny; stigma black. Length of the body  $1\frac{1}{2}$ —3 lines. One specimen, which is much larger than the other, has a ferruginous stigma. Thirty-six specimens.

The number of specimens of this species indicate that it is especially an agent in caprification. It may deposit its eggs in some larvæ that feed within the fig, near the surface. It is very different from all genera hitherto described.

Genus ISANISA, n., *Walker*. Fam. EURYTOMIDÆ.

Body convex. Head and thorax very finely squamous. Head transverse, subquadrate, as broad as the thorax. Parts

of the mouth very small. Antennæ subclavate, 11-jointed, not longer than the thorax; first joint long, slender; second cyathiform; third very minute; fourth to eighth successively decreasing in length; club fusiform, a little broader than the eighth joint, and more than twice its length. Prothorax elongate, well developed. Mesothorax with the sutures of the parapsides distinct. Petiole about one-sixth of the length of the abdomen. Abdomen smooth, slightly compressed, with four distinct segments. Oviduct springing from the base of the abdomen, and extending just beyond its tip. Fore wings moderately broad; humerus extending to a costal stigma; no ulna nor radius.

ISANISA DECATOMOIDES.

Luteous, with the abdomen more or less piceous, or with the body wholly piceous. Wings cinereous-hyaline. Fore wings with a black stigma, and with a large brown spot in the disk adjoining the stigma. Length of the body 2 lines. Eight specimens.

The mimicry of this species with regard to the preceding one is probably subservient to its habits or economy. The larvæ on which it is parasitic probably live within the fig, near the surface.

Genus *AGRIANISA*, n., *Walker*. Fam. SYCOPHAGOIDÆ.

Body slender, flat, smooth. Head horizontal, oblong-quadrate, more than half the length of the thorax. Eyes narrow, lateral. Ocelli three, in a triangle on the hind part of the head. Mouth setose. Mandibles curved, falcate, very long, crossing in front of the head. Antennæ clavate, 11-jointed, a little longer than the head; first joint long, stout; second clavate; third to eighth short, successively decreasing in length; club fusiform, 3-jointed, as long as the four preceding joints. Prothorax very long, tapering in front. Mesothorax with the sutures of the parapsides distinct, converging hindward; paraptera large; scutellum rather small. Metathorax long, subquadrate. Petiole extremely developed, longer than the metathorax. Abdomen oval; first segment a little shorter than the four following together. Oviduct tubuliform, as long as the first segment. Fore legs slender; posterior legs incrassated; tarsi 5-jointed; claws distinct. Fore wings narrow; ulna about one-sixth of the

length of the humerus; cubitus curved, much shorter than the ulna; no stigma; radius rudimentary.

AGRIANISA MYRMECOIDES.

Luteous; wings pellucid; veins luteous. Length of the body 2—3 lines. Four specimens.

This genus differs much in structure from *Agaon*, *Blastophaga*, and *Sycophaga*, the other described genera of the family. It has some resemblance to the genus *Bethylus*, and to the *Formicidæ*.

IDARNES ORIENTALIS, *Walker*.

*Female*.—Metallic-green, slender. Head and thorax very finely squamous. Head transverse; face perpendicular. Trophi small. Antennæ inserted in the middle of the front, 10-jointed, piceous, clavate, nearly as long as the thorax; first joint pale yellow, long, slender; second cyathiform; third to seventh transverse; club fusiform, a little broader than the seventh joint, and full twice its length. Thorax not much developed. Prothorax and metathorax less developed than the mesothorax. Abdomen smooth, lanceolate, much longer than the thorax, pale yellow beneath towards the base. Oviduct tawny, about thrice the length of the body, slightly incrassated at the tip, which is black. Legs slender, pale yellow; tarsi 5-jointed. Wings pellucid. Fore wings narrow; veins pale luteous; ulna more than half the length of the humerus; radius a little longer than the ulna; cubitus extremely short. Length of the body  $\frac{3}{4}$  line. Two specimens.

The genus *Idarnes* hardly belongs to the *Agaonidæ*. The only species hitherto described is a native of the West Indies. The long ovipositor indicates that it is parasitic on larvæ that feed quite in the interior of the fig.

Genus POLANISA, *Walker*.

*Female*.—Body slender, smooth. Head oblong. Trophi small. Antennæ 10-jointed(?), inserted near the mouth, nearly filiform, much shorter than the thorax; first joint long, stout; second elongate-cyathiform; third and following joints elongate, linear; club composed of three transverse joints. Prothorax very long, nearly flat. Mesothorax short. Metathorax well developed. Petiole very short. Abdomen more

than twice the length of the thorax, tapering to nearly half its length, compressed and aculeiform from thence to its tip. Oviduct longer than the body, emerging from the base of the abdomen; sheaths proceeding from the apex of the abdomen, slightly incrassated. Legs moderately long; femora incrassated; tibiæ slender; tarsi 5-jointed, very long and slender. Fore wings narrow; ulna much shorter than the humerus; radius and cubitus long.

#### POLANISA LUTEA.

*Female*.—Pale luteous. Antennæ tawny; first joint pale luteous. Oviduct pale luteous; sheaths black. Wings pellucid; veins pale yellow. Length of the body  $1\frac{1}{4}$  line. One specimen.

This genus, with *Idarnes* and *Micranisa*, may be said to constitute one group, though it differs from them much in structure. The form of the abdomen indicates that in the act of oviposition the apical half of it is inserted as well as the sheaths of the ovipositor.

#### Genus MICRANISA, *Walker*.

Body rather slender. Head and thorax very finely squamous. Head transverse, broader than the thorax. Eyes very large and prominent. Trophi very small. Antennæ 10- or 11-jointed, subclavate, shorter than the thorax. Thorax not much developed, much like that of *Idarnes*. Petiole very short. Abdomen smooth, compressed, longer than the thorax. Oviduct slightly exerted; sheaths not more than one-sixth of the length of the abdomen. Legs slender; tarsi 5-jointed; hind femora slightly incrassated; hind tibiæ slightly curved. Fore wings narrow; ulna much shorter than the humerus; radius more than half the length of the ulna; cubitus shorter than the radius; stigma moderately large. Metallic-green, shining. Antennæ tawny. Sheaths of the oviduct black. Legs luteous; hind femora green. Wings pellucid; veins pale yellow. Length of the body 1 line. One specimen.

The short ovipositor of this genus shows that it is not parasitic on larvæ that feed within the fig.

---