## Pericopinae.

The members of this subfamily are generally denoted as the American Hypsidae; Hampson ranged them with Callimorpha among the Callimorphidae, which combination we cannot follow here, since Callimorpha is better placed to the genuine Arctinae by reason of the neuration as well as of the larva. The Pericopinae differ from all the other Arctiids by the peculiar course of vein 8 in the hindwing. The latter is at the extreme base entirely fused with the anterior edge of the cell in the Arctiids (i. e. its base is situate above the anterior edge of the cell, which looked at from above is no more visible at this place); in the *Pericopinae*, however, the extreme base of vein 8 is separate, the anterior edge of the cell rises behind it. The larva of the Pericopinae, on the 2nd and 3rd thoracal segment, has but 1 tubercle above the row of stigmatal tubercles; it thereby differs from the larvae of all the other Arctiids which have at least 2 tubercles there. In primitive Pericopinae (Composia) there are besides two subdorsal tubercles which, however, are already slightly fused. Callimorpha has more than 1 tubercle, whereby it also proves its distant relationship to the *Pericopinae*. The latter invariably show a well developed proboscis whereby they differ from all the similar Lymantriids; the hind tibiae exhibit 2 pairs of spurs in the older genera, in the others 1 pair. The tympanal organ is thoracal, and in its structure resembles that of the Arctidae and Syntomidae, thus testifying its close relationship of these three groups. Vein 5 in the forewing rises nearer at 4 than at 6, distinguishing it from the similar Geometrids and Dioptids. There are here accessory eyes, which are wanting in the Lithosiinae. In contrast with similar Syntomidae, vein 8 in the forewing is well developed. The subfamily comprises about 310 forms chiefly distributed in Tropical America; few go as far as the northern and southern temperate zones. The veins were denominated in accordance with the system of Comstock-Needham; thus the subcosta denotes vein 12 in the forewing, 8 in the hindwing; the radial branches 1 to 5 denote the veins 11 to 7 in the forewing, the radial ramus 7 in the hindwing. The median branches 1 to 3 are the veins 6 to 4 in the forewing and hindwing, the cubitus 1 and 2 are the veins 3 and 2, the analis is the fold-vein 1 c, and the axillaris means 1 a and 1 b. Some genera are enumerated by way of appendix, although they are no genuine Pericopinae, vein 8 in the hindwing is not separate at its base. But as they are mostly sought for among the Pericopinae, they have here been dealt with for the reason of practical purposes. In some genera with a distinct sexual dimorphism (Pericopis), future investigations will necessitate yet several species to be combined.

## Review of the genera of the Pericopinae.

- 1. In the hindwing the subcosta is separate at the base, after that for some distance fused with the anterior edge of the cell (genuine *Pericopinae*).
  - A. Hind tibiae with 2 pairs of spurs.
    - I. 2nd radial branch in the forewing separate or only partly anastomosing with the 3rd to 5th.

- 1. In the forewing all the veins are present.
  - a. In the hindwing the 3rd median branch and 1st cubitus are not forked.
    - α. In the hindwing the posterior angle of the cell is hardly produced.
      - \*. Margin of the hindwing before the anal angle with a concave indentation.

Ambryllis.

\*\*. Margin of the hindwing everywhere convex.

Daritis.

- β. Posterior angle of the cell of the hindwing laciniformly produced.
  - \*. 3rd joint of the palpus at least one third as long as the second.
    - o. 1st cubitus in the hindwing in the centre between the 2nd cubitus and 3rd median branch, posterior angle of the cell of the forewing very much produced.

Xenosoma.

- oo. 1st cubitus in the hindwing nearer at the 3rd median branch, posterior angle of the cell of the forewing less produced.

  Thyrgis.
- \*\*. 3rd joint of the palpus one fourth the length of the second at most. Composia.
- b. In the hindwing the 3rd median branch is forked with the 1st cubitus.
  - α. In the forewing the 2nd cubitus is nearing the first, the distance between both being one half at most of the length of the posterior edge of the cell from the base to the 2nd cubitus.
  - Gnophaela.

    β. 2nd cubitus farther towards the base, its distance from the 1st cubitus more than  $\frac{1}{2}$  of the basal portion of the posterior edge of the cell.

Pseudophaloë.

2. In the forewing one vein (the 3rd radial) is absent.

Josiomorpha.

- II. In the forewing the 2nd to 5th radials are forked.
  - 1. 5th radial rising before the 2nd.
    - a. In the hindwing the 2nd median branch is about in the centre between the 1st and 3rd median branches.

      Cyanohypsa.
    - b. 2nd median branch nearing the 3rd.
      - α. 1st radial in the forewing before the middle of the distance of the 1st and 2nd cubitus.
        - \*. 1st and 2nd cubitus in the forewing converging towards the margin. Ephestris.
        - \*\*. 1st and 2nd cubitus diverging at their rise.

Isostola.

β. 1st radial in or behind the middle of the distance of the 1st and 2nd cubitus

Calodesma.

- 2. 2nd radial rising before the 5th.
  - a. The 3rd joint of the palpus far less than a half of the second.

Eucyane.

- b. The third joint of the palpus at least a third of the second.
  - α. Third palpal joint little shorter than the second.

Josiomorphoides.

β. Third palpal joint a half of the second at most.

Sagaropsis.

- B. Hind tibiae with 1 pair of spurs.
  - I. In the forewing the 2nd radial is separate, or only anastomosing with the 3rd to 5th radials.
    - 1. In the forewing the 5th radial branch rises before the 3rd.
      - a. In the hindwing the 3rd median branch is not forked with the 1st cubitus.
        - z. Pinnae of the ♀ antennae shorter than the diameter of the shaft (the 2nd radial often anastomosing with the 3rd to 5th.

          Pericopis.

(incl. Chetone, Thebrone, Sermyla, Taxila).

- β. Pinnae of the Q antennae at least as long as the diameter of the shaft.
  - \*. 3rd palpal joint very much shorter than the second.

Dysschema.

- \*\*. 3rd palpal joint about half the length of the second.
  - o. Distance of the 1st radial from the 2nd in the forewing twice as long as that from the 2nd to 5th radials.

    Are.
  - oo. Distance of the 1st radial from the 2nd about the same as that from the 2nd to 5th radials, or shorter.

    Phaloe.
- b. In the hindwing the 3rd median branch is forked with the 1st cubitus.

Ctenuchidia.

2. In the forewing the 3rd radial branch rises before the 5th.

Phaloësia.

- II. In the forewing the 2nd to 5th radials are forked.
  - 1. In the hindwing the 3rd median branch is not forked with the 1st cubitus.
    - a. In the forewing the 2nd to 5th radials before the cell-angle, separated from the 1st median branch, in the hindwing the distance from the 3rd median branch to the 1st cubitus is less than twice as long as the distance from the 2nd median branch to the 3rd.

      Hyalurga.

- b. In the forewing the fork of the radials 2 to 5 from the cell-angle, with the 1st median branch from the same place or forked; in the hindwing the distance of the 3rd median branch to the 1st cubitus is at least twice the distance from the 2nd median branch to the 3rd.
  - α. Posterior angle of the cell in the forewing projecting.
     β. Posterior angle scarcely projecting.
     Stenognatha.
- 2. In the hindwing the 3rd median branch and the 1st cubitus are forked.

  Graphelysia.
- 2. In the hindwing the subcostal is also at the extreme base fused with the anterior edge of the cell (not genuine *Pericopinae*).
  - A. Accessory eyes wanting, 1st radial in the forewing anastomosing with the subcosta (Lithosiina).

    Gardinia.
  - B. Accessory eyes present, 1st radial always quite separate (Micrarctiinae).

    I. In the forewing the 2nd and 5th radials rise almost from the same place.

    Episcea.

    II. The 5th radial rises considerably before the 2nd.

    Crocomela.