# Overview on how to differentiate between species within the family Diopsidae

Mihály Földvári

General parts illustrated:

- head (Figs 1-3)
- thorax (Figs 4-9)
- wing (Figs 10-11)

Important characters to check:

- colour and length of hairs distributed all over the body
- facial teeth on the head: present / absent / shape (Fig 1/B)
- length of inner vertical (IVB) and outer vertical bristles (OVB) (can be compared to width (diameter) of eye-stalk in the middle) (Figs 1-3)
- IVB on tubercle or not (Fig 2)
- colour and darkness of scutellar spines (SCS), length compared to length of scutellum (Figs 5, 7, 8, 9)
- length and shape of intra-alar spines (IAS): blunt to sharp, straight to curved (Figs 5-9)
- colour of front femur, number of setae, bristles and peg-like tubercles (compare the not overlapping ranges, not exact numbers) (Fig 14)
- colour of mid and hind legs
- wing colour: extension of dark bands, usually 3 transverse bands in *Diasemopsis* and *Teleopsis*

Remarks on wing:

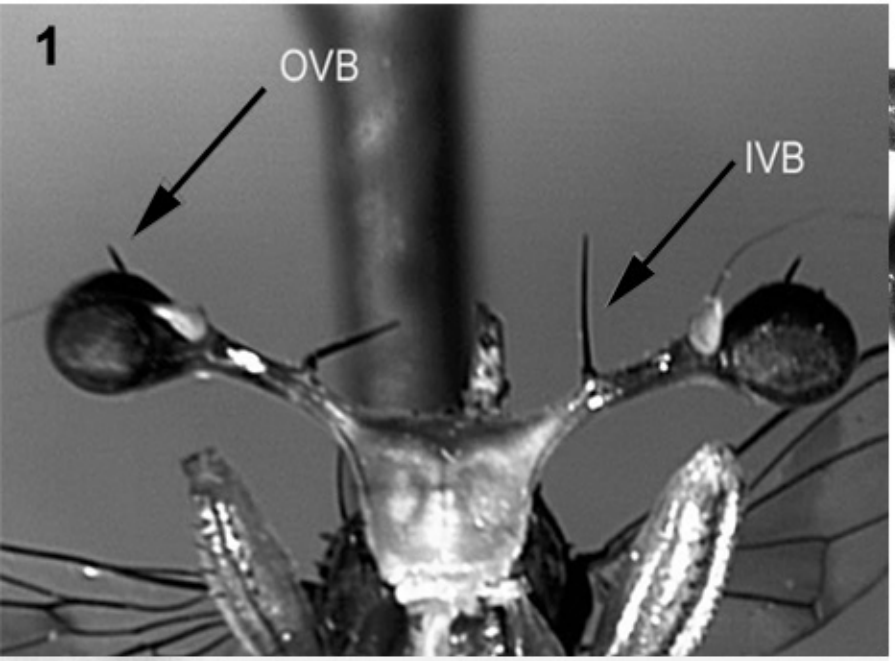
Usually 3 bands on the wing and extension of these counts: middle band in case of Teleopsis sp. 3 and T. sp. 4 from Malaysia as shown (Figs 12, 13).

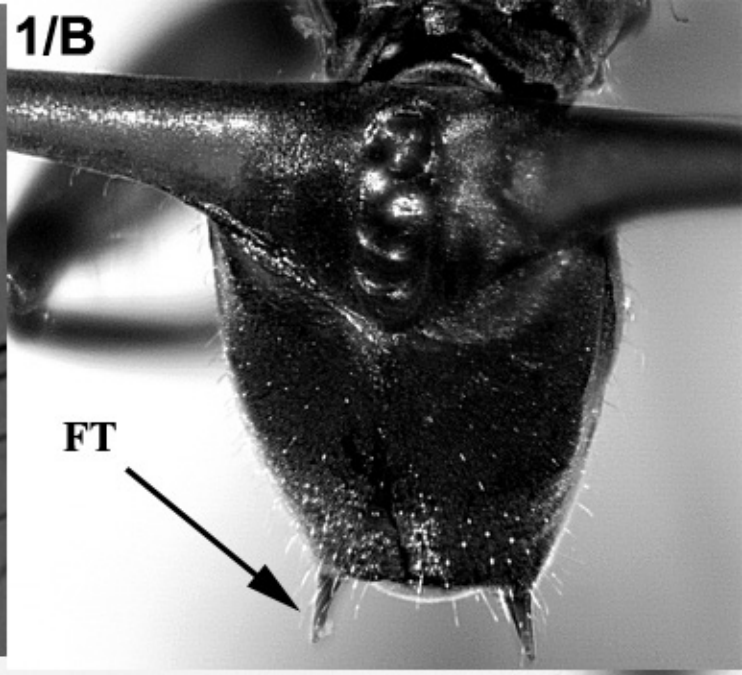
*Teleopsis* species in general have the middle band covering (Fig 13) the distal part of cell *bm+dm* (discal cell), but not in case of sp. 3. (Fig 12)

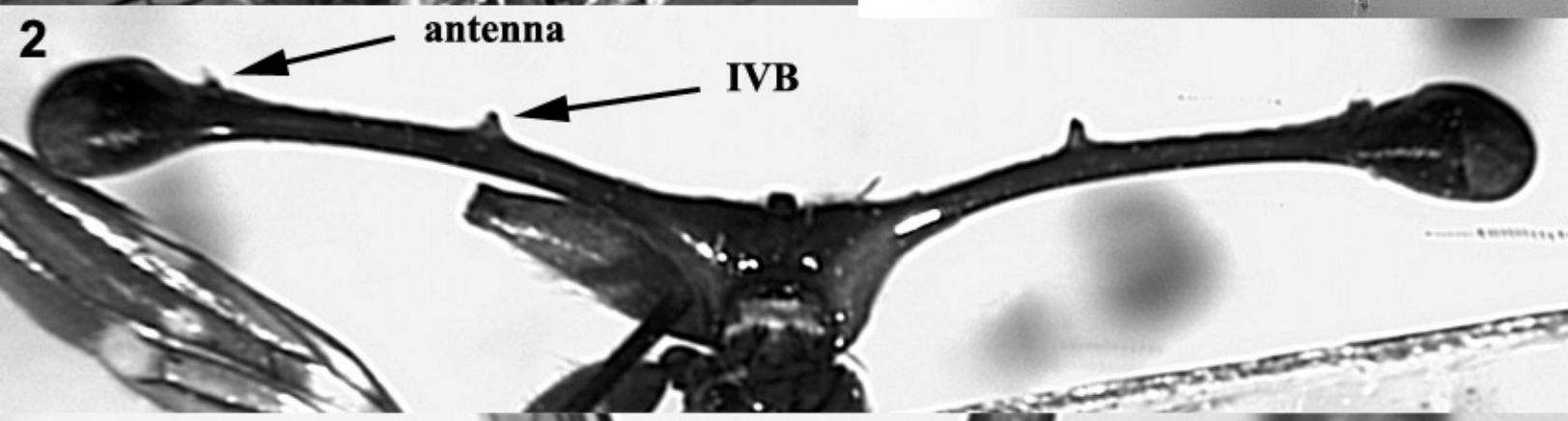
Extension of bands in other cases may be dubious due to the variation of the pigments on the wing, but one can observe "real characters" by checking many (hundreds of) specimens of different species (this happened in the above mentioned example).

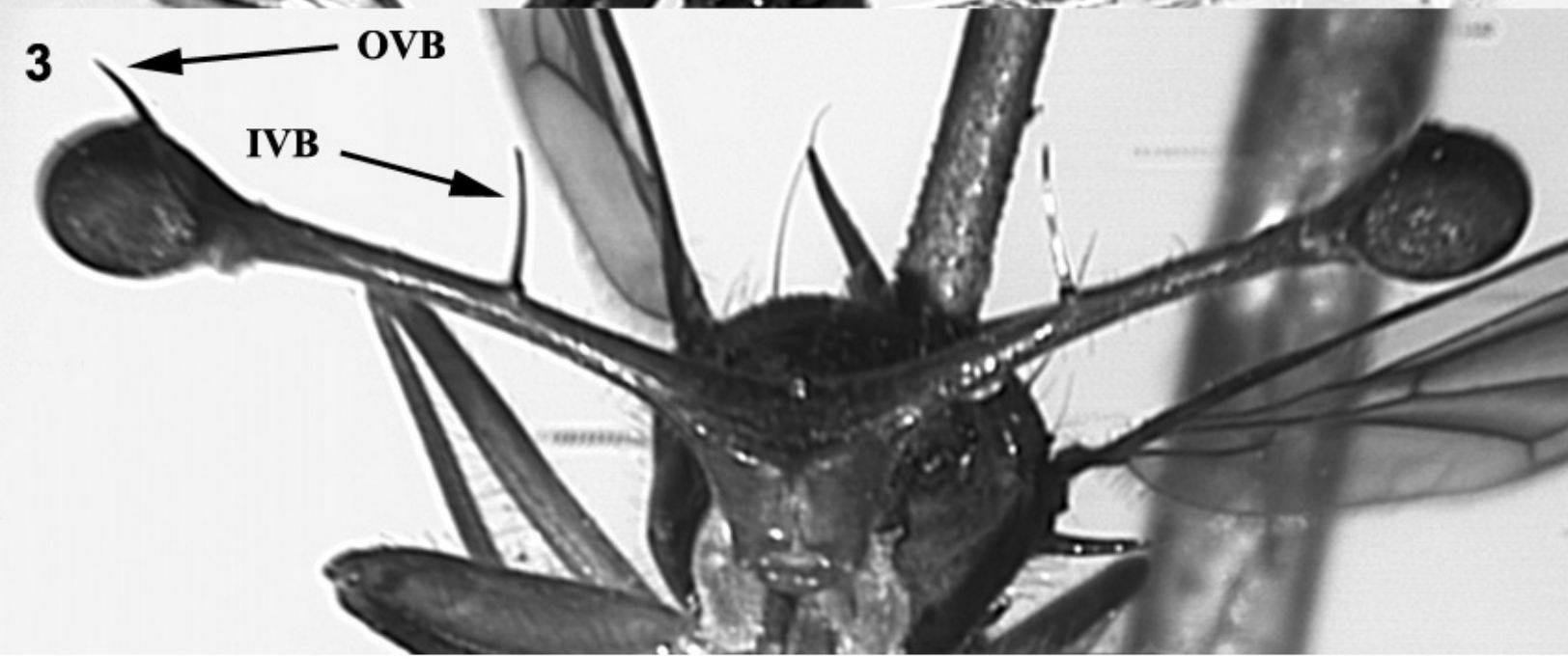
One may go into detail on the shape of certain structures, like the cell *cu* on the *Teleopsis* wings. If you look at the bordering veins on T. sp. 3 and T. sp. 4 (Figs 12, 13), it draws a different shape indeed, although it would be very difficult to describe / circumscribe it.

There are a number of other characters and anybody can always "invent", i.e. find new ones by checking long series of specimens.

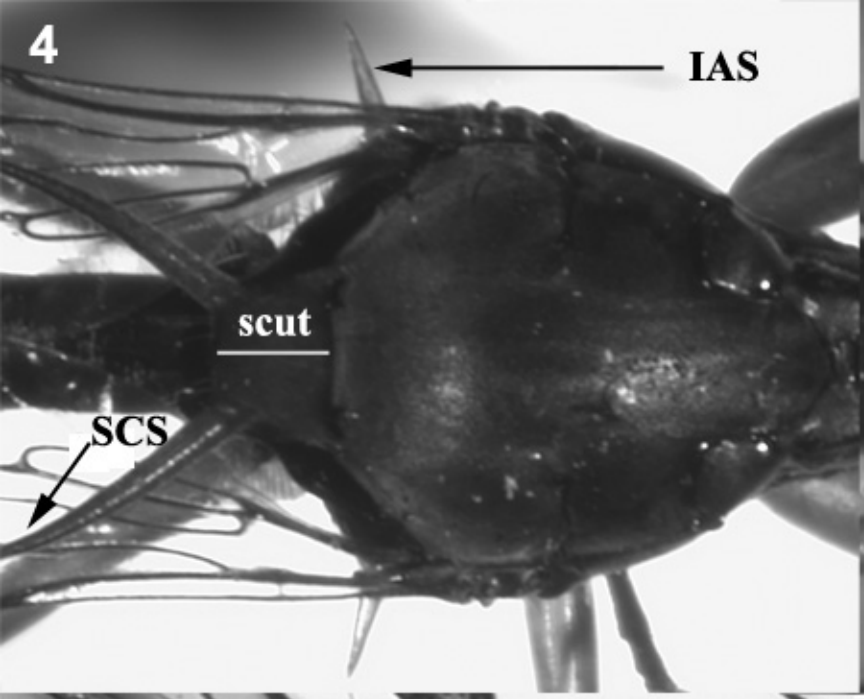


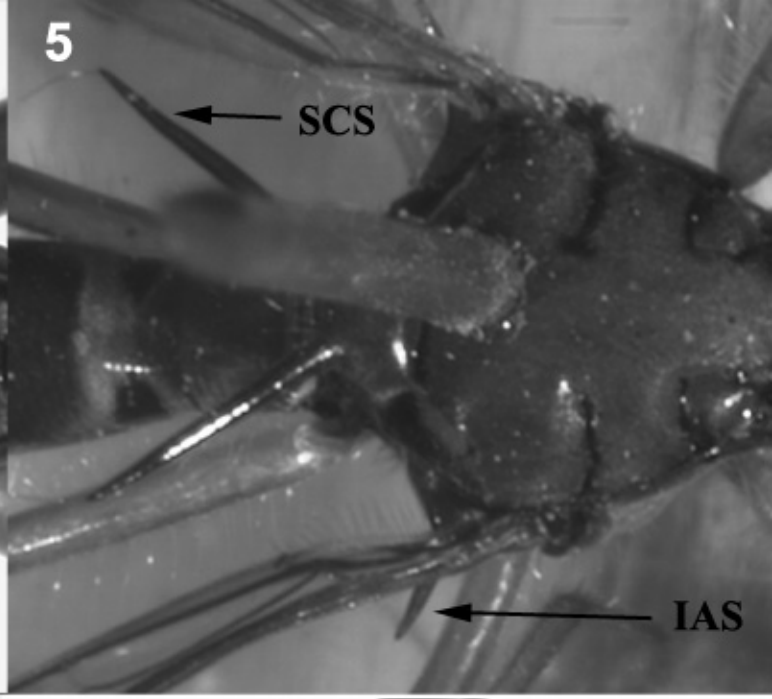



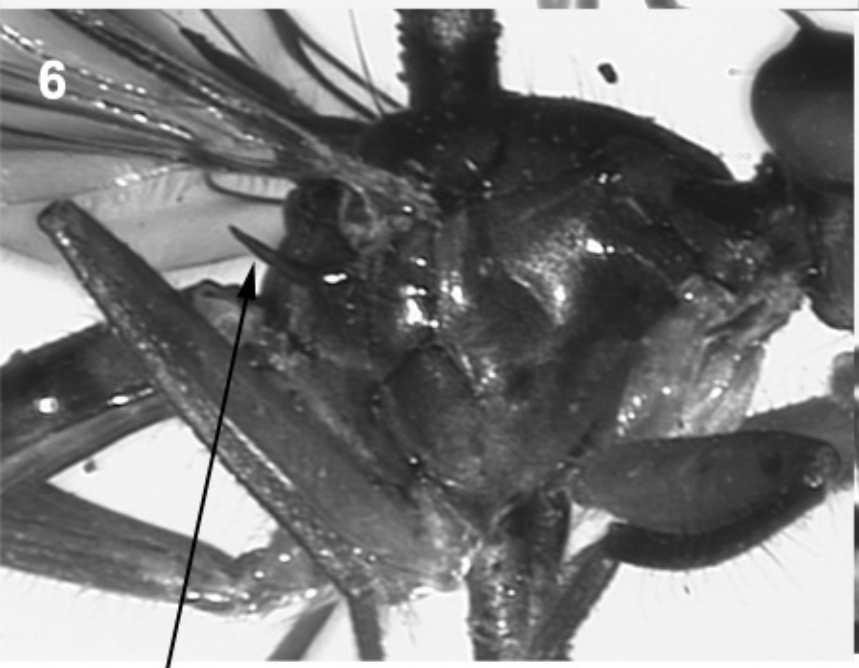



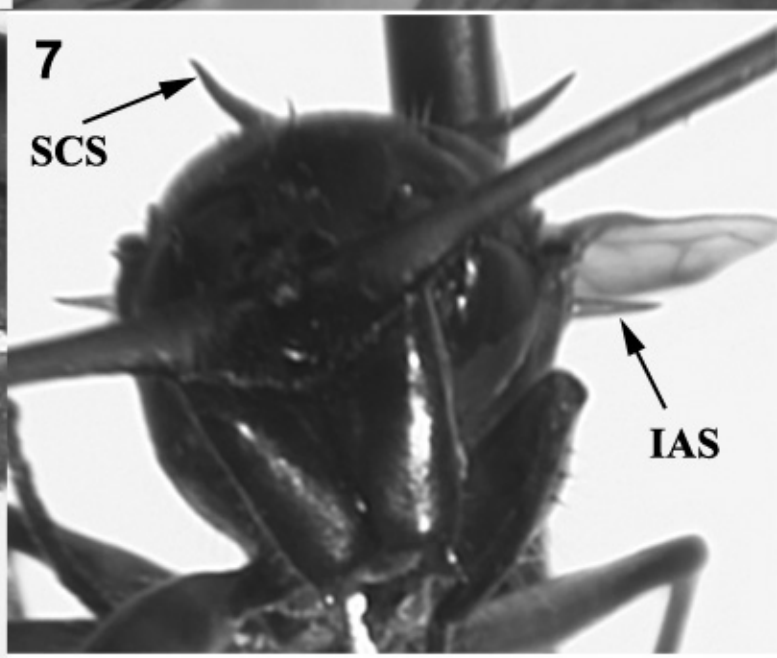




**OVB:** outer vertical bristle
**IVB:** inner vertical bristle
**FT:** facial teeth



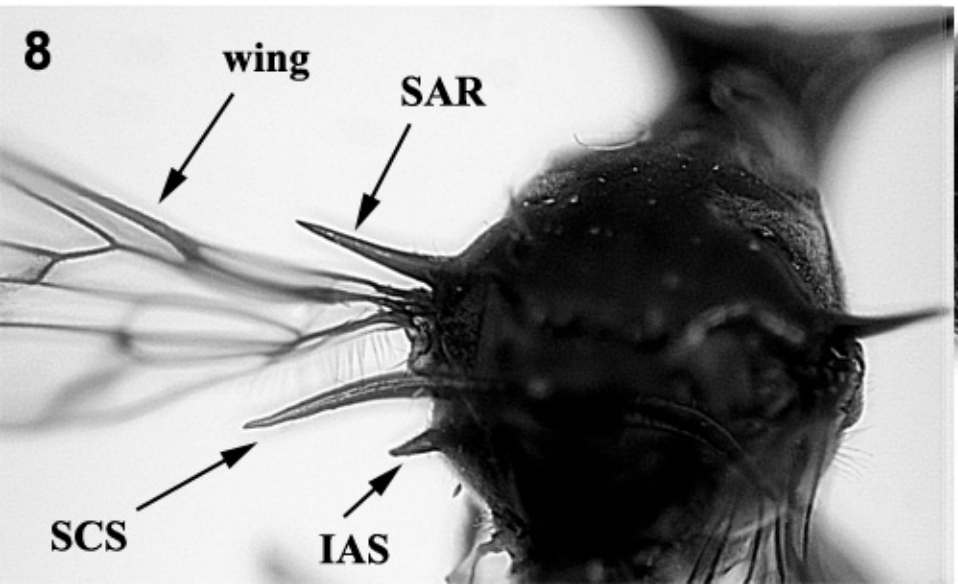



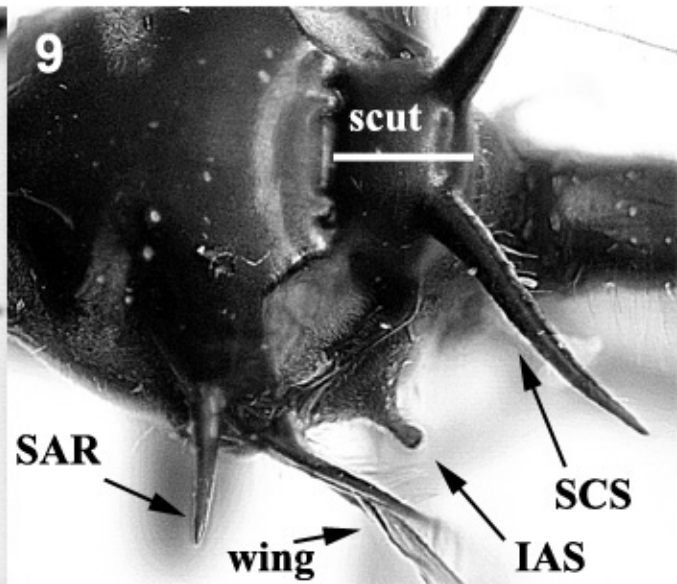




scut - scutellum
SCS - scutellar spine
IAS - intra-alar spine
SAR - supra-alar spine

Diasemopsis

Teleopsis

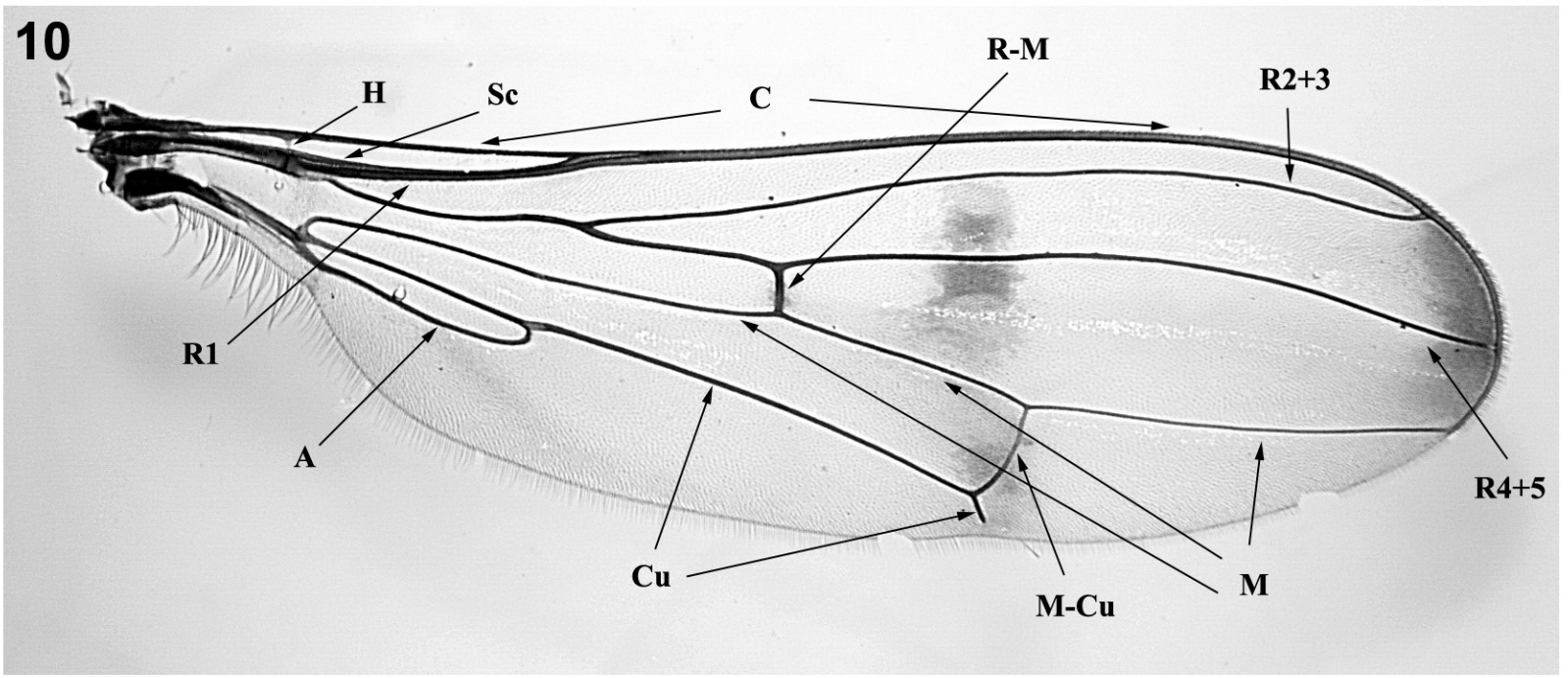


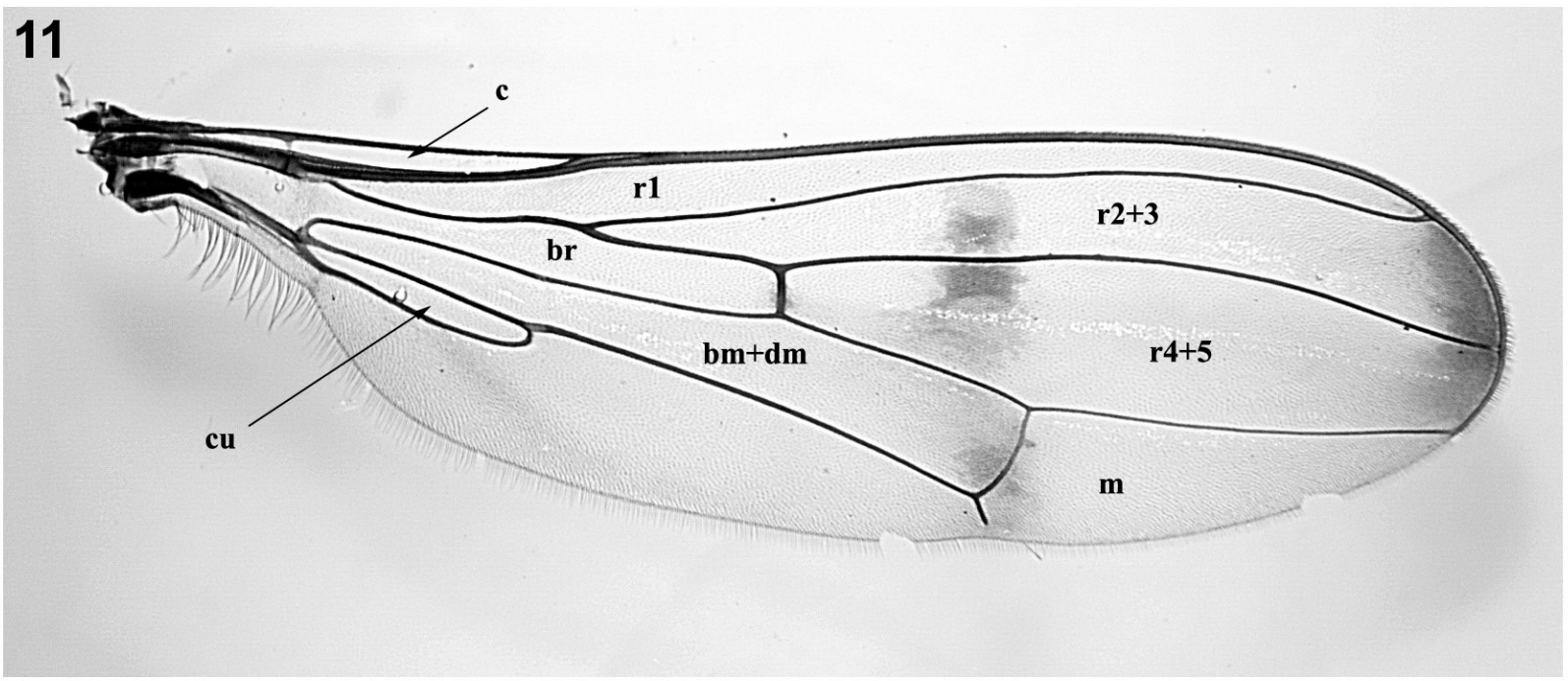
**Longitudinal veins:**
- H - humeral vein
- Sc - subcosta
- C - costa
- R - radial
- M - medial
- Cu - cubital
- A - anal

**Cross veins:**
- R-M - radio-medial vein
- M-Cu - medio-cubital vein

**Veins: UPPER CASE LETTERS**

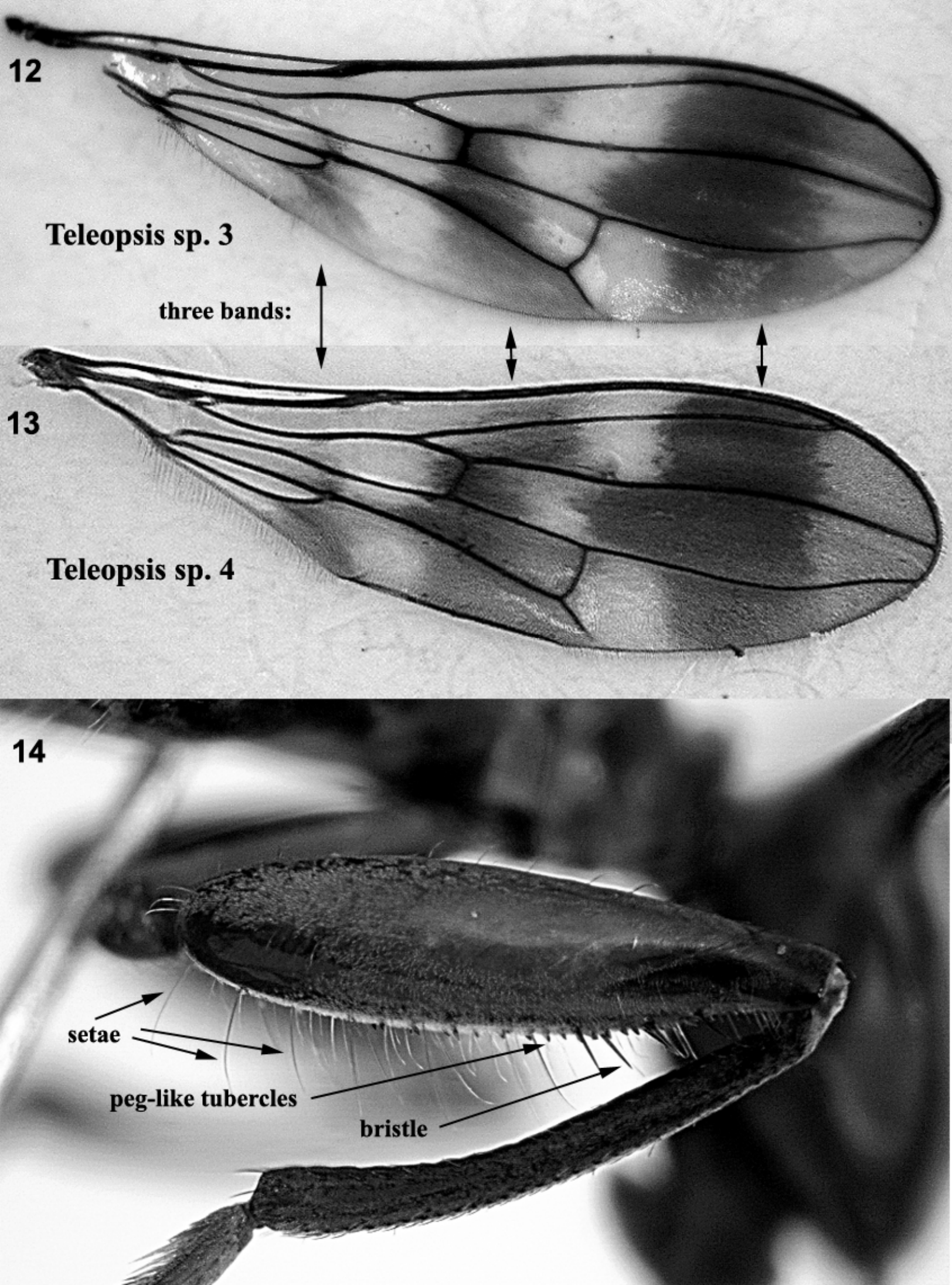



**Diasemopsis**




**Cells:**
- c - costal
- r - radial
- m - medial
- cu - cubital
- br - basal radial cell
- bm+dm - basal medial + discal medial (discal) cell

**cells: lower case letters**


12
Teleopsis sp. 3
three bands:
13
Teleopsis sp. 4
14
setae
peg-like tubercles
bristle