Text for explanatory figures (STDB)

Anterior process setation base

Text: 1. Without setation (all Hubbardiinae); 2. Single seta present (only in Cretaceous species); 3. Pair of setae present (in Protoschizomidae and Megaschizominae)

Anterior process setation

Text: 1. 1+1 pattern. This is found in most species from the New World. 2. 1+2 pattern. This is a rare pattern only found in a few species from the Old World. 3. 2+1 pattern. This is found in most species from the Old World.

Chelicerae accessory tooth

Text: 1. No accessory tooth. 2. Single accessory tooth present. This is found commonly in species from the Old World. 3. Three accessory teeth present. Rare condition. 4. Five accessory teeth. Very rare. Occasionally species with 2,4 or more than 5 accessory teeth may occur.

Chelicerae Guard tooth

Text: Guard tooth shown in red. 1. Guard tooth present (most species). 2. Absent (in Protoschizomidae).

Chelicerae Small teeth

Text: 1. No small teeth (only in Protoschizomidae). 2. Single small tooth present (only in Megaschizominae). 3. Three small teeth present (common). Five small teeth present (common). Two, four or more than five (up to eight) teeth can be present.

Femur leg IV

Text: 1. 90° angle. This is the most common condition. 2. Less than 90° angle (rare). 3. More than 90° angle (rare).

Female flagellum flagellomeres

Text: 1. Two flagellomeres (very rare). 2. Three flagellomeres. This is the common condition for species from the Old World. 3. Four flagellomeres. This is the common condition for species from the New World. 4. Five flagellomeres. This is the common condition for Protoschizomidae. 5. Six flagellomeres (only in Megaschizominae).

Female spermathecae gonopod

Text: 1. Without gonopod. This condition is rather being found in species from the New World. 2. Gonopod present (common in Old World species).

Tergite II

Text: 1. Single pair of setae present. This condition is most common. 2. Three setae present. This is a common condition for Caribbean and Australian species. 3. Four (or up to seven) setae. This condition is only being found in some Caribbean species.

Pedipalp dimorphism

Text: Dimorphism in pedipalps is common in the order and can be of varying degree. 1. Normal (or homeomorph) pedipalps. This is a common condition. Species with this character show little difference in pedipalp morphology for males and females. 2. Mesomorph pedipalps. 3. Heteromorph pedipalps. This is a common condition for species from the New World, especially of the Caribbean. In species with strong pedipalpal dimorphism all of the displayed conditions can be present in the same species.

Pedipalp trochanter apical process

Text: 1. Apical process well-rounded. 2. Apical process slightly produced in a weak tip. (most common condition). 3. Apical process very prominent, might be digitiform. The condition of the apical process might vary depending on dimorphism of the pedipalps.

Pedipalp trochanter mesal spur

Text: 1. Without mesal spur. This condition occurs in Protoschizomidae and less commonly in Hubbardiidae, especially in Australian genera.

Posterodorsal process

Text: 1. Without posterodorsal process. This condition is present in almost all females. 2. Small posterodorsal process present (common). 3. Well-developed posterodorsal process (common).

Posterodorsal process shape

Text: 1. Round 2. Acute 3. Conical 4. Truncate 5. Paired (only in species of *Surazomus*)

Propeltidium dorsal setation

Text: There is a certain degree of plasticity in this character. Additional single or paired setae may occur as well as one of the pairs might be absent. It is also not rare for species to lose some of their setae. 1. Only one pair of setae present (rare). 2. Two pairs of setae present (common). 3. Three pairs of setae present (majority of species). 4. Four pairs of setae present (less common). 5. Five pairs of setae present (rare). 6. Exotic patterns such as 2:2:1:2, 2:1:2, 1:2:2 or others (all very rare).

Sex

Text: The flagellum (tail) is the best character to distinguish between male and female specimens. 1. Male flagellum. Most species have the flagellum horizontally flattened, a range of shapes can occur, including circular, arrow-shaped, lanceolate, etc. 2. Female flagellum. Always plain and digitiform, consisting of two to six pseudosegments (flagellomeres). Juvenile specimens of both sexes have undifferentiated flagella that resemble those of adult females.

Male flagellum shape:

Text: 1. Oblong. 2. Circular. 3. Trigonal. 4. Rectangular. 5. Rhomboidal. 6. Trilobate. 7. Lanceolate. 8. Trapezoidal. 9. Polygonal. 10. Arrow-shaped. In this data base, combinations of two of these shapes are frequently used to describe the flagellum shape more precisely.

Female spermathecal lobes

Text: This is a very important and stable character for genus level identification. 1. Single pair of lobes present. This condition is found in all Protoschizomidae. It is also common in South American species. 2. Two pairs of lobes present (majority of species). 3. More than five pairs of lobes present (rare). Three or four pairs of lobes may also occur.

Metapeltidium

Text: 1. Metapeltidium entire. This condition is found in most species of the New World. 2. Metapeltidium with suture. This means that it is not distinctly separated in two parts but the median line of the metapeltidium is visibly thinner and slight translucent. It is a rare condition. 3. Divided metapeltidium. This is the common condition for species from the Old World. This character is slightly plastic and species with both, divided and entire metapeltidium are known.

State of vision

Text: 1. Without eyespots or eyes. This is a common condition for species adapted to live in dark environments such as caves. 2. Eyespots present. This is the most common condition. Eyespots are no proper eyes but rather light-sensitive regions on the propeltidium. 3. Corneate (true) eyes. Only four living species retained this condition. It is more commonly found within fossil schizomids from the Cretaceous.

Elongation of opisthosoma

Text: 1. No elongation of opisthosoma (majority of species). 2. Extreme elongation of segment IX. This particular condition is found in a single species from Singapore (*Bucinozomus hortuspalmarum*). 3. Elongation of segments V/VI-XII. This is a rare condition and is found only in species from the New World.

Body plan

Text:

**Appendages**:

Walking legs (I-IV) and pedipalps (pps) are segmented into: coxa (cx), trochanter (tr), femur (fe), patella (pa), tibia (ti), metatarsus (mts; only in walking legs), tarsus (ts) and either claw (cl; in pedipalps) or pretarsus (pre ts; in walking legs). In the walking legs, the tarsus has multiple segments (tarsomeres); six in leg I, three in legs II-IV.

**Prosoma** (ps):

The prosoma is split in (i) the propeltidium (ppt), a large plate covering about 70-80% of the prosoma (ii) the metapeltidium (mpt), which can consist of either a single or two equally sized plates (-> metapeltidia) and (iii) the mesopeltidia (mspt), two very small plates located between propeltidium and metapeltidium.

The tip of the propeltidium is (usually) bent down between the chelicerae (cc) and is termed the anterior process (ant pro). The setal pattern on the anterior process is very important for schizomid taxonomy. The region in red is the base of the anterior process (base ant pro). Eyes (ce) or eyespots (esp) are also found on the propeltidium. Other setae than those of the anterior process are termed dorsal setae (ds).

Schizomids have only two sternites, the anterior sternum (ant st) and the posterior sternum (pst st), both are visible on the ventral side (right drawing).

**Opisthosoma** (os):

The opisthosoma of schizomids consists of twelve segments (I-XII). The first nine segments have separate tergites (dorsal; left drawing) and sternites (ventral; right drawing). In segments X-XII tergites and sternites are fused. In males (very rarely in females), XII might bear a posterodorsal process (pstds pro). Attached to XII is the flagellum (flg).