

#### Key to subfamilies:

1. Leg I short and thick, ocularium enlarged (Figure 4.20c) . . . . . **Zamorinae**  
   . Leg I elongated and filiform, ocularium low, strongly depressed medially (Figure 4.20a) . . . . . 2
2. Male chelicera swollen; pedipalp with long setae on ventral femur and tibia-tarsus (Figure 4.20f) . . . . . **Leiosteninae**  
   . Chelicera similar in both sexes; pedipalp with short setae on ventral femur and tibia-tarsus (Figure 4.20d) . . . . . **Agoristeninae**

**Distribution:** Agoristeninae is endemic to the Greater Antilles. Leiosteninae and Zamorinae were recorded from northern South American countries (Peru, Colombia, Venezuela, Guyana, Surinam, French Guiana, and Brazil).

**Relationships:** Leiosteninae and Agoristeninae are sister groups, and Zamorinae is the basal clade (Kury, 1997b). Agoristenidae is the sister group of all Gonyleptoidea except Stygnopsidae (Kury, 1997c).

#### Main references:

- **Systematics:** Šilhavý (1973), González-Sponga (1987), Kury (1993b, 1997b).
- **Natural history:** González-Sponga (1987), Pinto-da-Rocha (1996c).

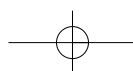
### Assamiidae Sørensen, 1884

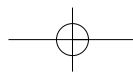
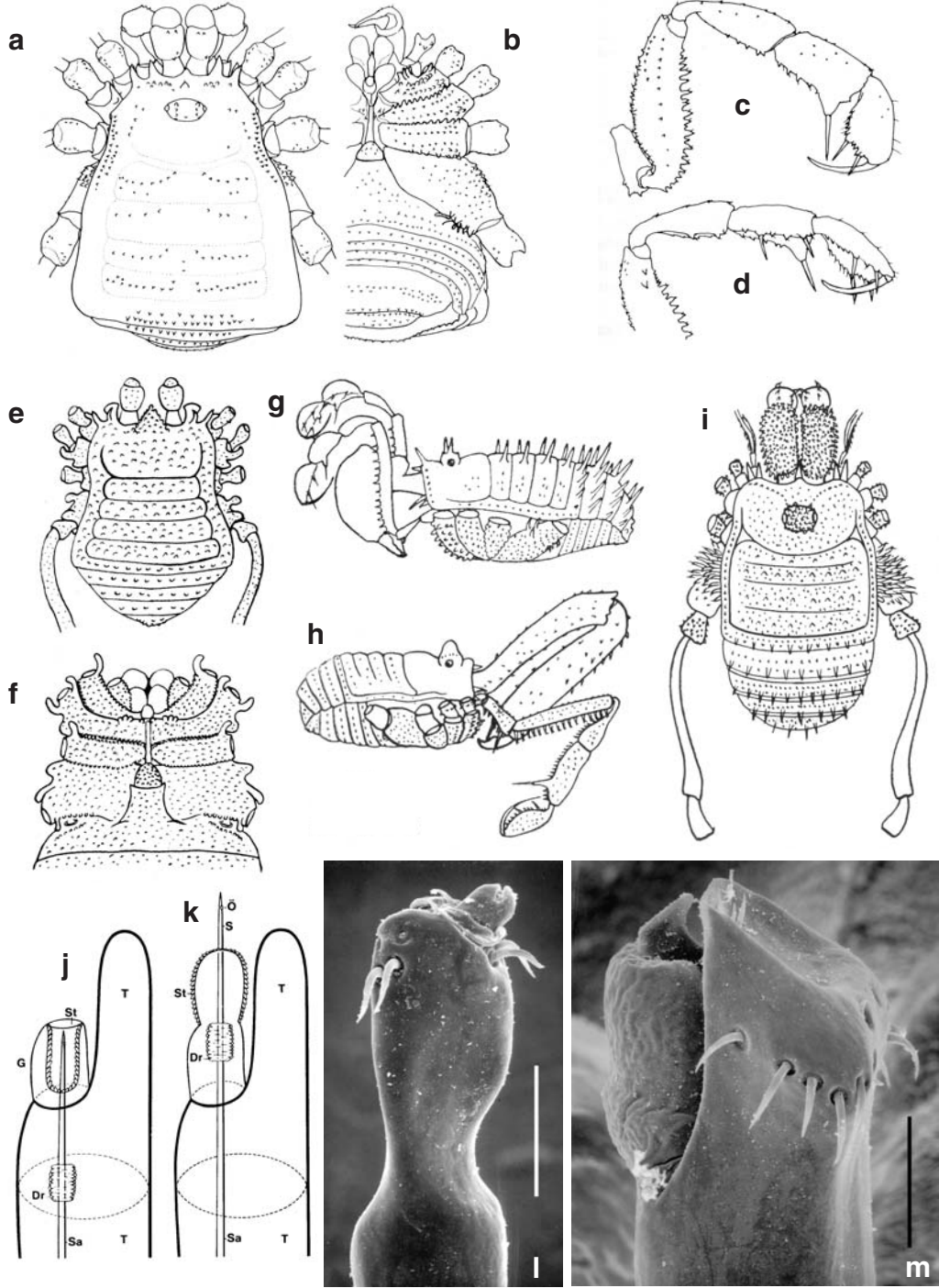
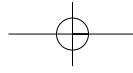
Adriano B. Kury

**Etymology:** *Assamia*, from Assam, the province in India where *Assamia westermanni* has been collected.

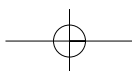
#### Characterization:

- **Size:** Medium-sized to large Laniatores, body length 2–8 mm. Legs I–IV very variable, 4–25/8–70/5–30/7–40 mm long.
- **Dorsum:** Dorsal scutum (Figures 4.21a,b,e) outline much wider at opisthosoma, often with a major constriction at area IV. Mesotergum usually clearly divided into areas by grooves, which may be partially effaced. Armature of areas and tergites highly variable, perhaps either completely smooth and unarmed or armed with spiniform apophyses. In some species the scutum is densely covered with granules and tubercles. Ocularium always present, usually low and with weak armature, sometimes elevated, forming a frontal cone (Figure 4.21e), with eyes much reduced or absent (Irumuinae).
- **Venter:** Coxae apically with large lobes. Spiracles often concealed by stout tubercles (Figure 4.21b).
- **Chelicerae:** Cheliceral hands usually not swollen, and basichelicerite rarely with ornamentation of tubercles, but when present may be extremely dense





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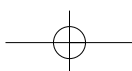
(as in *Scabrobunus* from India, Figure 4.21i). Exceptionally, chelicerae can be extremely long only in males (as in *Eubaeorix* from Burma, Figure 4.21g) or swollen in males (as in *Bolama*, Figure 4.21h, and *Mermerus*).

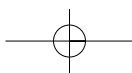
- Pedipalps: Very homogeneous with ventral row of setiferous tubercles on the compressed femur and ventromesal and ventroectal (distal one largest) spines in patella-tibia-tarsus (Figures 4.21c,d). Tibia and tarsus do not form a subchela. When the animal is alive, the pedipalps rest on the chelicerae.
- Legs: Usually long, straight, and unarmed, often entirely smooth. Apical part of coxae ventrally and dorsally often with large lobes and projections (Figures 4.21e,f). Femur to tibia IV may be crooked and/or inflate. Distitarsus I two- or three-jointed; II typically three- or four-jointed.
- Color: Background usually reddish brown to yellow, with black mottling and reticulation. Some species have white drawings on dorsal scutum.
- Genitalia: Known for only a few species. Shape of ventral plate and distal part of truncus extremely variable (Figures 4.21d,e). Glans is mounted on a sac whose distal part is eversible, being often spiny, exposing the stylus (Figures 4.21j,k).
- Sexual dimorphism: Weakly developed, sometimes present in male chelicerae or leg IV.

**Subfamilies:** The numerous Roewerian subfamilies are unsupported, and some were already synonymized by Staręga (1992). There are at least five great groups of Assamiidae: (1) the dampetrines from Australia and Papua New Guinea, (2) the typical Indian/Nepalese Assamiinae, (3) the Sri Lankan/Indian pseudonychiate genera known as Trionyxellidae, (4) the central African Erecinae, and (5) the small, blind, cave- on soil-dwelling Irumuinae. Boundaries of these groups do not coincide with the subfamilies as currently recognized. A key to the subfamilies cannot be provided at this time because of the uncertainty of the subfamilial designations.

**Distribution:** Assamiids are endemic to the Old World. There are several Erecinae-like groups in many countries of central Africa, reaching South Africa, where they are rare and confined to the northeastern portions. Assamids are completely absent from Madagascar, Europe, the Pacific islands, and the Americas. Dampetrinae diver-

**Figure 4.21.** Assamiidae. (a–e) *Pashokia yamadai*, male from Nepal: (a) Habitus dorsal, showing the powerful frontal prongs in the carapace; (b) habitus ventral; (c) right pedipalpus, ectal, showing the typical compressed femur with a ventral row of small setiferous tubercles; (d) left pedipalpus (female), mesal. (e–f) *Typhlobunus troglodytes*, male from Kenya: (e) habitus dorsal; (f) ventral. (G) *Eubaeorix graveleyi*, male from Burma (Myanmar), habitus lateral, showing the immensely developed chelicerae. (h) *Bolama spinosa*, male from Guinea-Bissau, habitus lateral, showing cheliceral hand inflated and rows of high spines on scutal areas and free tergites. (i) *Scabrobunus filipes*, male from India, habitus dorsal, showing densely clustered tubercles at coxa IV and chelicerae. (j–k) Schematic penis structure in lateral view showing the eversible spiny funnel (*Stacheltrichter*); (j) unexpanded; (k) expanded. (l) *Typhlobunus* sp, male (Tanzania), penis, distal part, dorsolateral. (m) *Nilgiriulus scaber*, male (India), penis, distal part, lateral. Sources: a–c, Suzuki (1970); e–f, Roewer (1923); h Roewer (1927); j–k, Martens (1977). Photos: D. Ubick.





sified in Australia, Papua New Guinea, and to a lesser degree in Indonesia. Apart from India, there are many species of Assamiinae-like groups in the Indian subcontinent (Bangladesh, Bhutan, Nepal, Sri Lanka). A few species have been recorded also in Southeast Asia, in Burma and Malaysia.

**Relationships:** Assamiidae was included by Kury (1993a) in a cladistic analysis of what is now known as Grassatores, and was identified as the sister group of the American Gonyleptoidea. The spiny funnel of the penis has very similar counterparts in Mexican Stygnopsidae, and the outline of the dorsal scutum is typical of Gonyleptoidea (Kury, 1997c). However, more data are needed to test this hypothesis.

**Main references:**

- **Systematics:** Sørensen (1884, 1886), Roewer (1912b, 1935b, 1940b), Martens (1977, 1986), Staręga (1992).
- **Natural history:** Roewer (1935b), Martens (1977, 1993b), Hillyard (1981), Kauri (1989).

**Biantidae Thorell, 1889**

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**Etymology:** Biantes, son of Parthenopaeus, was one of the Epigoni who marched against Thebes in Greek mythology.

**Characterization:**

- **Size:** Body 1.5–5.5 mm long. Legs I–IV: 3–12/4.3–23/3–16/4.5–25 mm long.
- **Dorsum:** Dorsal scutum trapezoid in Biantinae, in Stenostygninae almost rectangular (Figure 4.22i); in Lacurbsinae it has convergent posterior margins (Figures 4.22c,k). Frontal border of the carapace straight with small cheliceral sockets. Common ocularium absent; the placement of the eyes is far backward in the carapace for Biantinae and Stenostygninae, more or less in the middle in Lacurbsinae (Figure 4.22k), and in *Zairebiantes* the eyes are placed close together near the front (Figure 4.22b). Typically with small frontal hump. Sulcus I marked, opisthosomal areas typically unarmed in Biantinae (except in a few species, e.g. *Fageibiantes bispina*, *Hovabiantes* spp., *Biantes parvulus*, and *B. albimanus* from the Seychelles); in many species of Antillean stenostygnids, Lacurbsinae, and Mitraceratinae the areas and free tergites can be armed with a powerful spiniform apophysis.
- **Venter:** Without remarkable features; tracheal spiracles not concealed by bridges, but may be hidden under the fold separating coxa IV from the spiracular area.
- **Chelicerae:** With marked bulla, hypertelic in males of Stenostygninae.
- **Pedipalps:** Enlarged, subchelate tibia-tarsus armed with large setiferous tubercles, patella ventrally with or without a mesoventral setiferous tubercle, thin and almost unarmed femur, commonly with only one ventrobasal small setif-

