

Order ARCHEOGNATHA (=Microcoryphia) **Jumping Bristletails**

Synapomorphy:

- Compound eyes enlarged, medially contiguous
- Spiracles 1 absent
- Perhaps jump-facilitating specializations of abdominal skeletomusculature

Diagnosis:

- Cylindrical; thorax arched; body with scales; up to 15 mm in length
- Compound eyes large and contiguous
- Abdominal segments 1-7 with styli (muscle, styli thought to be rudimentary telopodite of abdominal appendage) and 1-2 pairs of eversible vesicles (water absorbing organs)
- Middle and hind coxae usually bear styli (these styli lack muscles, thought not to be homologous with abdominal styli)
- 3 terminal filaments, middle much longer

Habitat & Habits:

In forest under leaves, bark, rocks etc.; some species of Machilidae found along rocky seashores in New England. Nocturnal, eyes glow when illuminated. In life, scales form distinctive patterns, lost in alcohol preservation. Active, jump up to 30 cm when disturbed. During molting attach themselves to substrate with fecal material - if this "cement" doesn't hold cannot molt and will die. Feed on algae, also mosses, lichen, detritus.

Collecting & Preserving:

Funnels, ecollectors or by hand; best kept on pins or in 80% EtOH.

Distribution:

250 spp. worldwide
35 species Nearctic

References:

Wygodzinsky, P. and K. Schmidt. 1980. Survey of the Microcoryphia (Insecta) of the northeastern United States and adjacent provinces of Canada. Amer. Mus. Novit., 2701: 17 pp.