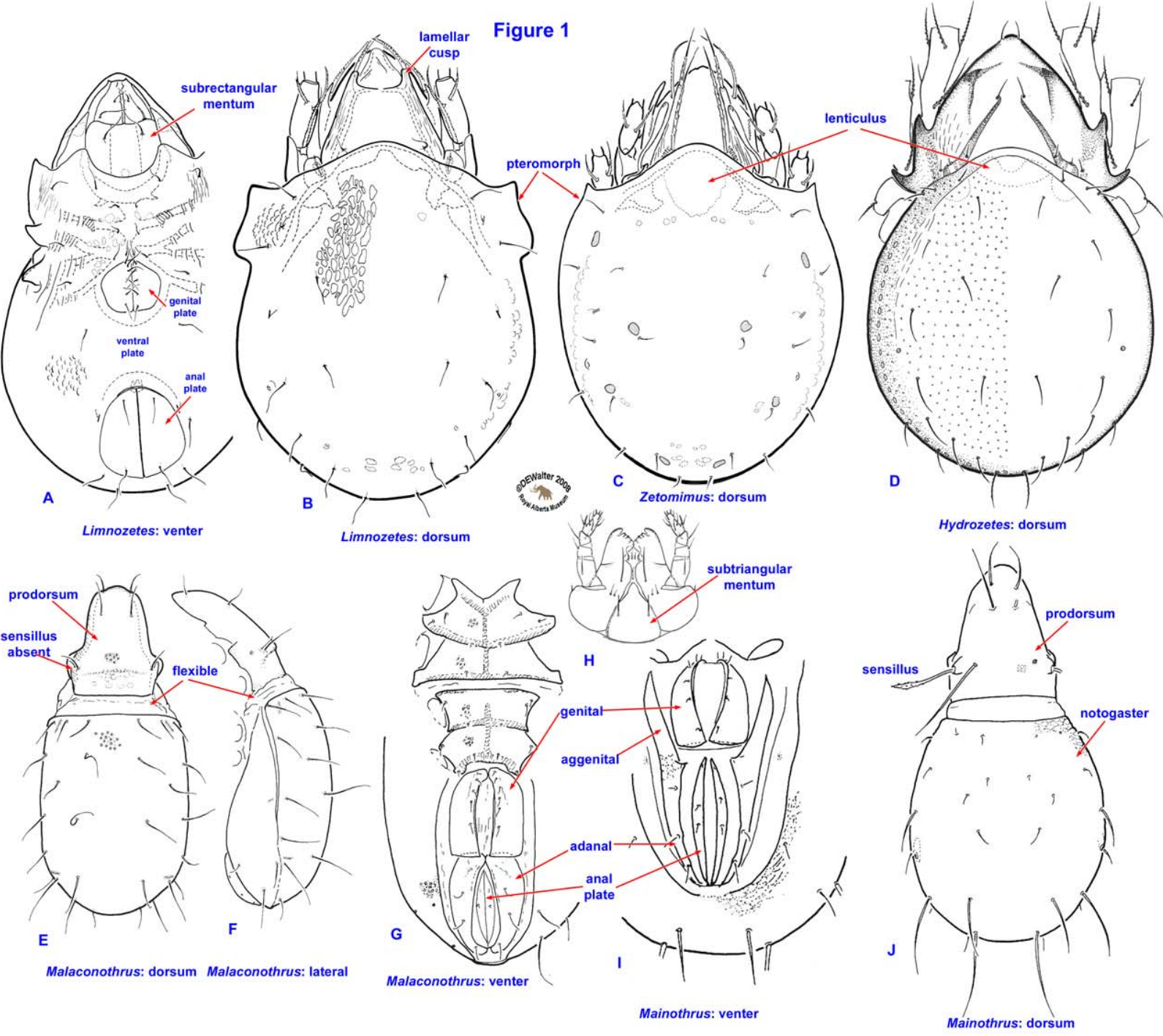


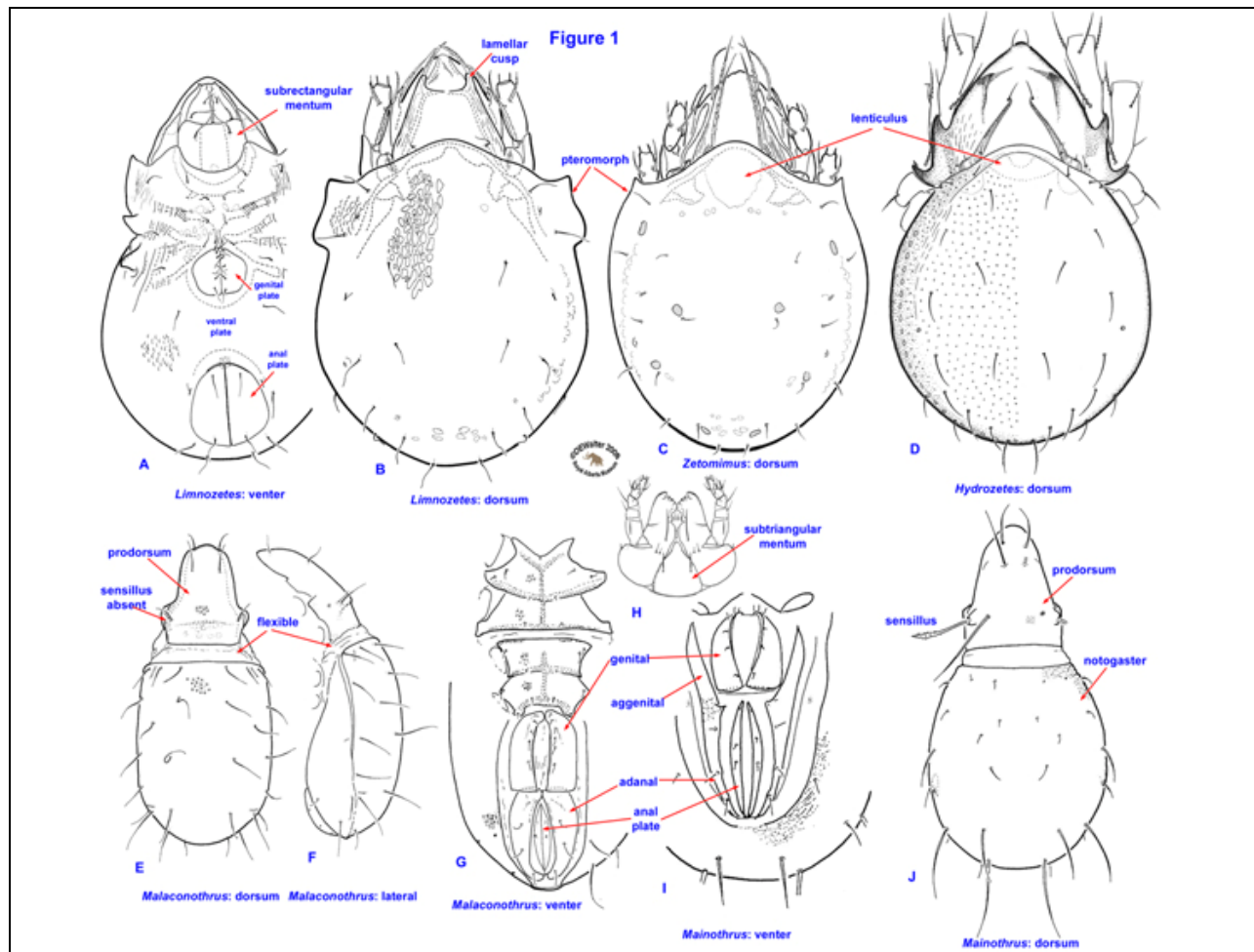
Figure 1



Key to the Fully Aquatic Oribatida in Alberta (adults)

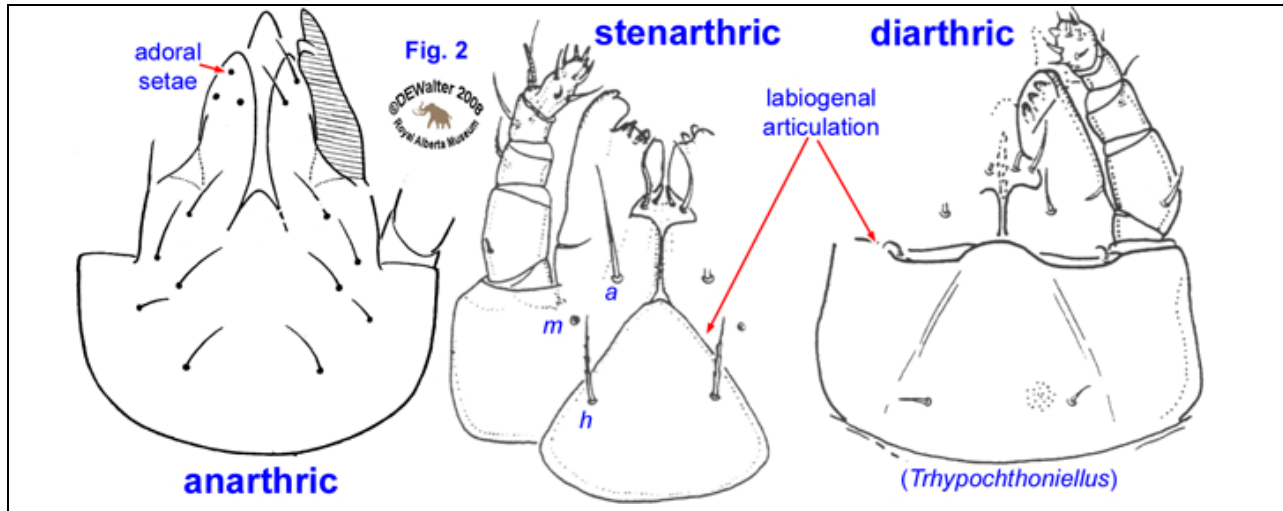
NB – this is a key to adult oribatid mites that live in water. Many other oribatid mites live on the margins of water bodies and are occasionally inundated, but are not aquatic and will not key out here.

1. Body more or less spherical (Fig. 1 B-D); prodorsum and notogaster completely fused; genital and anal plates inserted in a ventral plate (Fig. 1 A), separate aggenital and adanal plates absent; lenticulus often present (Fig. 1 C, D); pteromorphs present (Fig. 1 B, C) or absent (Fig. 1 D); lamellar cusps present or absent; mentum typically subrectangular (Fig. 1 A), never triangular **Brachypylina (6)**
- Body more or less dorso-ventrally flattened, typically with a flexible scissure between prodorsum and notogaster (Fig. 1 E, F, J), ventral plate absent, with a complex of genital-aggenital and anal-adanal plates (Fig. 1 G, I); lenticulus and pteromorphs never present; mentum without labiogenal articulation (Fig. 2) or with labiogenal articulation and subrectangular to subtriangular (Fig. 1 H)..... **Macropylina (2)**



Macropylina

- 2. Sensillus (*bo*) and bothridium suppressed; mentum without labiogenal articulation (anarthric); genera III-IV with 1 seta **Malaconothridae (3)**
- Sensillus (*bo*) present, *bothridium* cup-like, modified or vestigial; labiogenal articulation present (diarthric or stenarthric); genera III-IV with 2-3 setae **Trhypochthoniidae (4)**

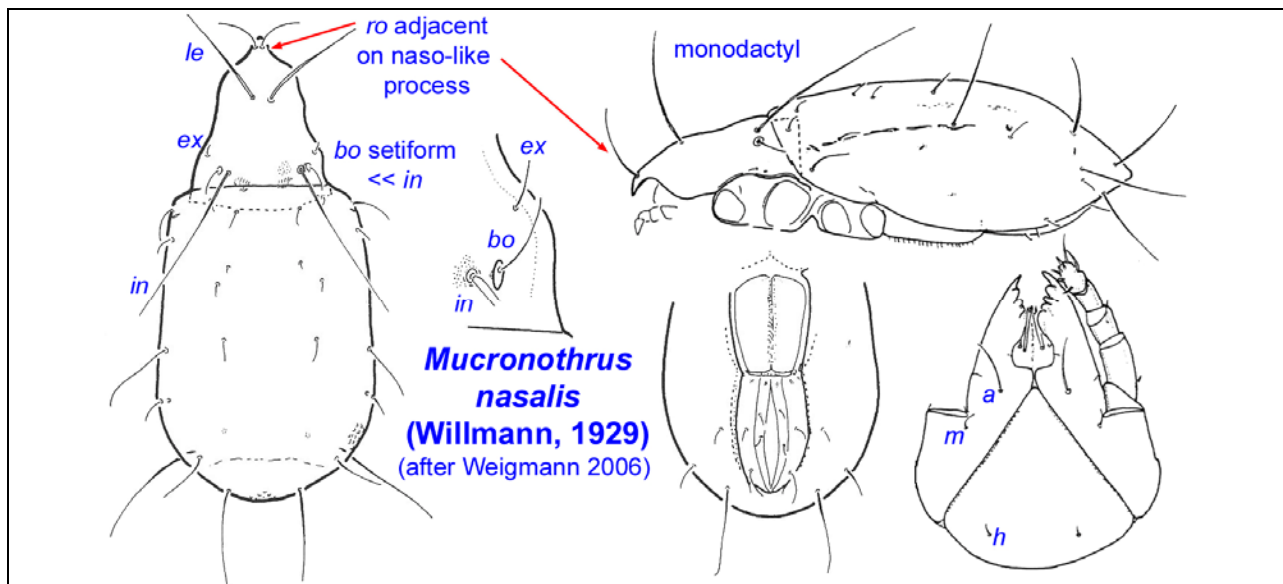


Malaconothridae

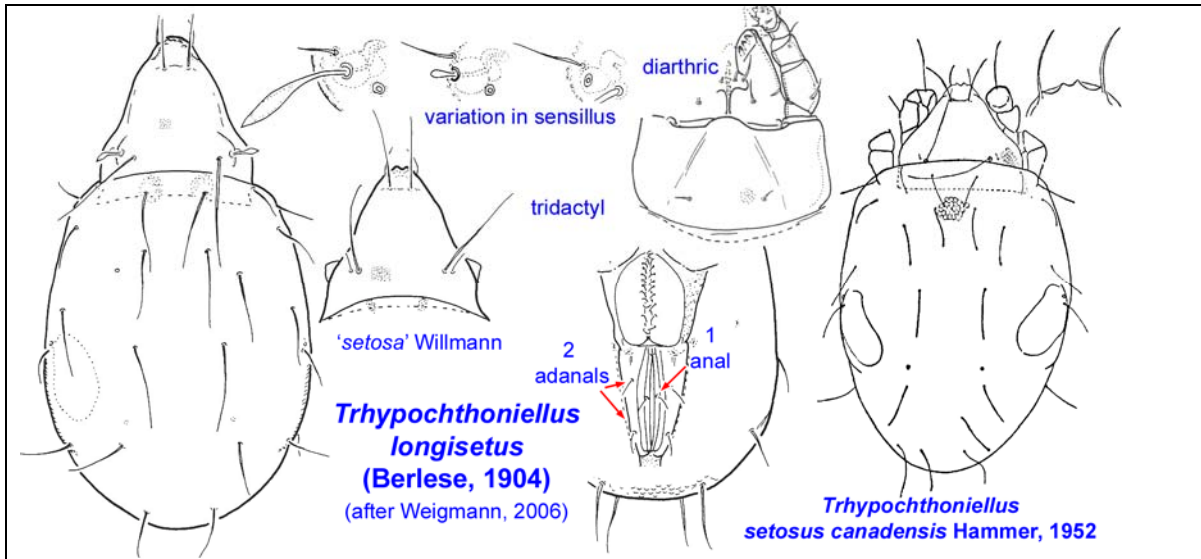
- 3. Tarsi with a single claw **Malaconothrus**
- Tarsi with 3 claws **Trimalaconothrus (4)**

Trhypochthoniidae

- 4. Naso-like process bears closely adjacent rostral setae (*ro*); sensillus (*bo*) setiform; monodactyl **Mucronothrus nasalis (Willmann,1929)**

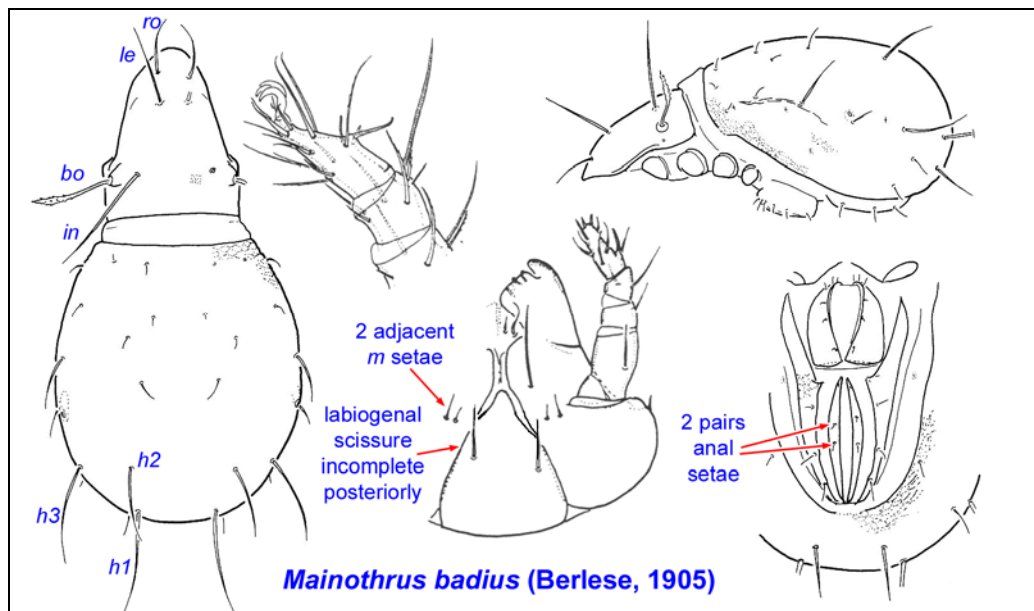


- Rostrum sessile, setae *ro* distant; sensillus club-like or vestigial; tridactyl 5



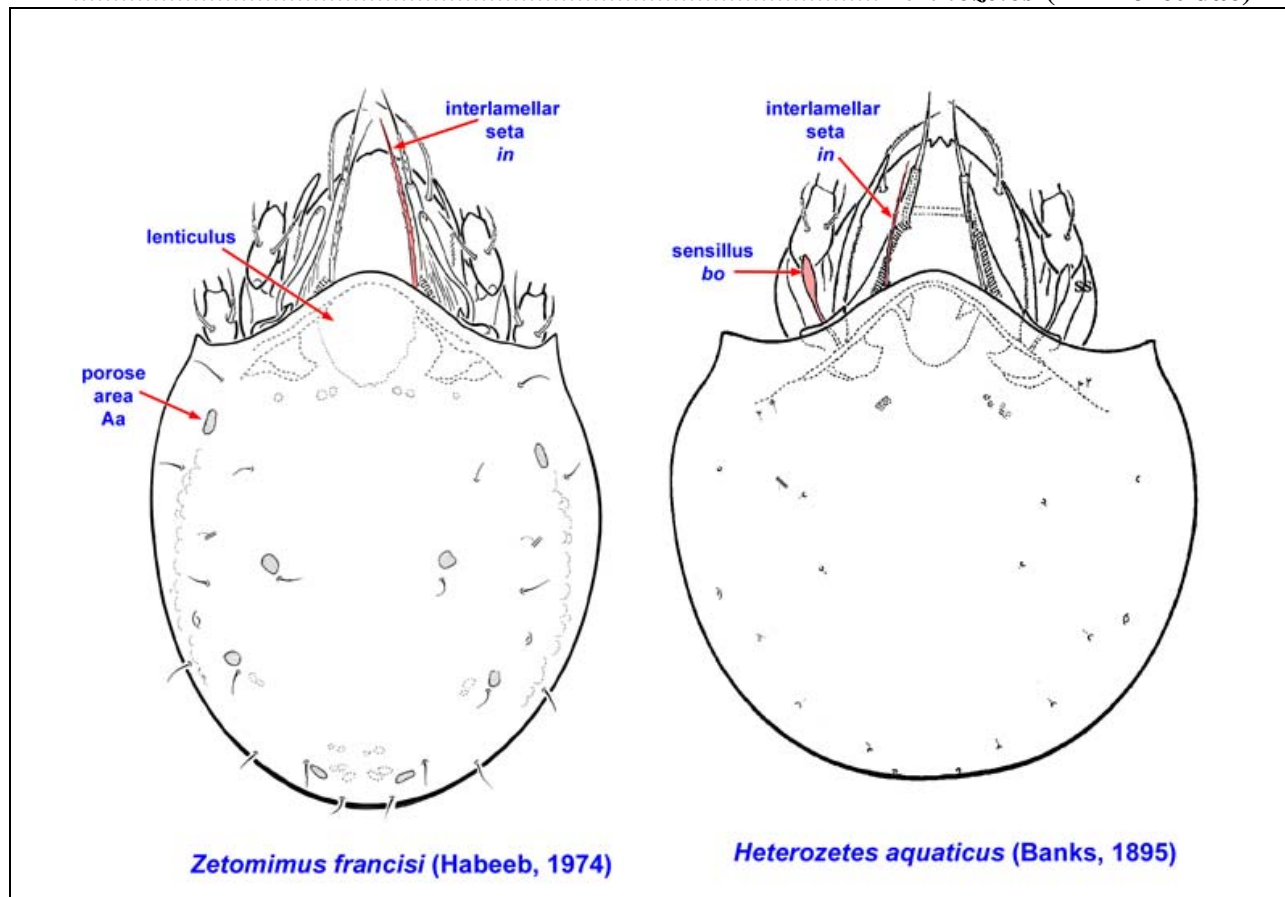
- 5. Sensillus (*bo*) reduced to minute club or absent; subcapitulum subrectangular (diarthric); anal/adanal setation 0-1/2 *Trhypochthoniellus setosus canadensis* Hammer, 1952

- Sensillus (*bo*) well developed; subcapitulum subtriangular (stenarthric); anal/adanal setation 1-2/3; labiogenal scissure incomplete posteriorly, with 2 pairs of *m* setae closely adjacent....
.....*Mainothrus badius* (Berlese, 1905)



Brachypylina

6. Pteromorphs present (Fig. 1 B, C); lamellae well developed and with distinct cusps; lenticulus present or absent; tarsus of leg IV tridactyl 7
- Pteromorphs absent (Fig. 1D); lamellae usually indistinct ridges without cusps; lenticulus present; tarsus of leg IV usually bidactyl (lateral claw is very thin), rarely monodactyl *Hydrozetes* (**Hydrozetidae**)
7. Notogaster smooth, shiny; pteromorphs broadly cover legs III-IV; porose areas present or absent from notogaster 8
- Notogaster with pebbly surface ornamentation; pteromorphs strap-like (Fig. 1 B) *Limnozetes* (**Limnozetidae**)



8. Porose areas absent; interlamellar seta not reaching tip of rostrum; legs I monodactylous, II-IV tridactyl; 525-596 long *Heterozetes aquaticus* (**Banks, 1895**)
- Porose areas present; interlamellar seta very long, passing tip of rostrum; legs I-II monodactyl, III-IV tridactyl; 330-400 long; *Zetomimus francisi* (**Habeeb, 1974**)