

Value of CyberInfrastructure Access in Leech Identification

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Taxonomic Keys to the North American Hirudinida and Acanthobdellida

Chapter 12. Annelida (Clitellata, Oligochaeta, Branchiobdellida, Hirudinida, and Acanthobdellida. Fredric R. Govedich, Bonnie A. Bain, William E. Moser, Stuart R. Gelder, Ronald W. Davies, and Ralph O. Brinkhurst

Ecology and Classification of North American Freshwater Invertebrate. Third Edition. 2010 Editors: James H. Thorp and Alan P. Covich. Elsevier Press



Glossiphonia complanata



Glossiphonia complanata ?

PHYLUM: Annelida

CLASS: Hirudinida

Taxonomic Key

1. Presence of a pharyngeal proboscis → ORDER Rhynchobdellida



PHYLUM: Annelida

CLASS: Hirudinida

ORDER: Rhynchobdellida

Taxonomic Key

1. Body flattened dorsalventrally and much wider than head



PHYLUM: Annelida

CLASS: Hirudinida

ORDER: Rhynchobdellida

Taxonomic Key

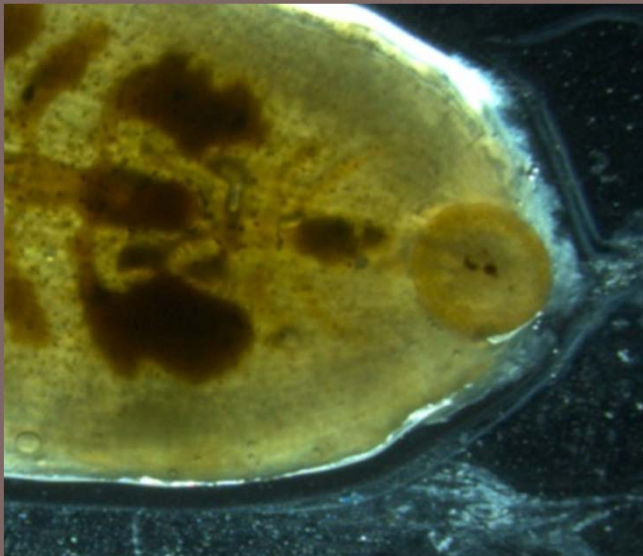
1. Body flattened dorsalventrally and much wider than head
2. Two, three, or four pair of eyes → FAMILY Glossiphoniidae



PHYLUM: Annelida
CLASS: Hirudinida
ORDER: Rhynchobdellida
FAMILY: Glossiphoniidae

Taxonomic Key

1. Posterior sucker without a circle of glands
2. Body firm
3. Three or four pair of eyes
4. Eyes in two paramedial rows



PHYLUM: Annelida
CLASS: Hirudinida
ORDER: Rhynchobdellida
FAMILY: Glossiphoniidae

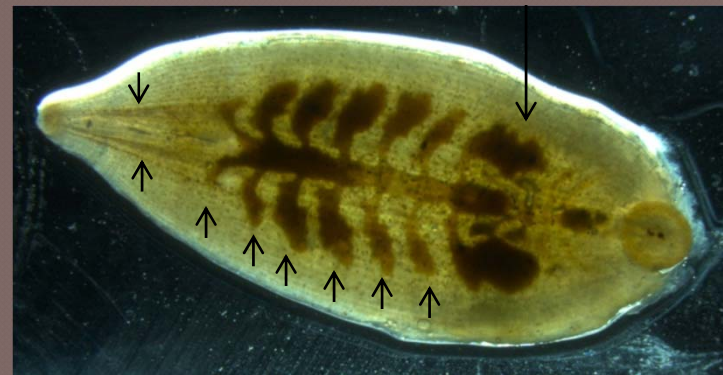
Taxonomic Key

- 5. Pair of paramedial stripes on dorsal and ventral surface
- 6. Six pair of crop caeca

Four pair of simple caeca
Characteristic of Glossiphoniidae



Dorsal



Ventral

PHYLUM: Annelida
CLASS: Hirudinida
ORDER: Rhynchobdellida
FAMILY: Glossiphoniidae

Taxonomic Key

7. Gonopores separated by two annuli → *Glossiphonia complanata*

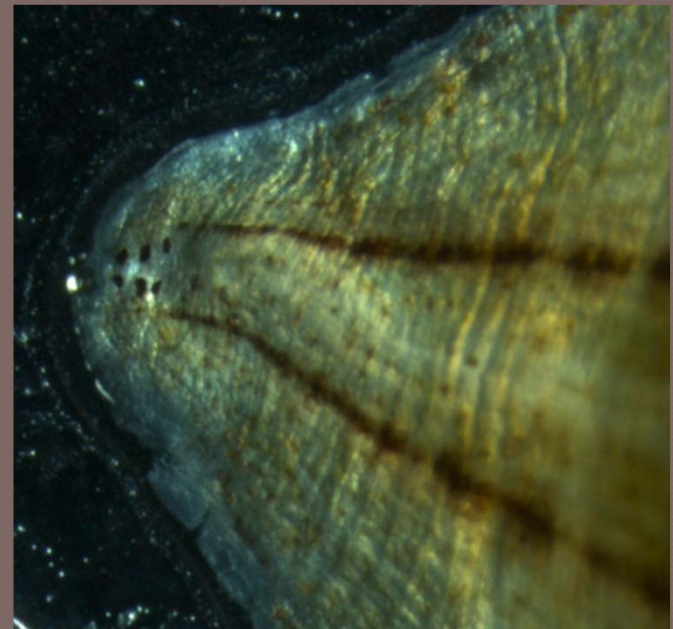


PHYLUM: Annelida

CLASS: Hirudinida

Taxonomic Key

1. Presence of a pharyngeal proboscis → ORDER Rhynchobdellida
2. Body flattened dorsalventrally and much wider than head
3. Two, three, or four pair of eyes → FAMILY Glossiphoniidae



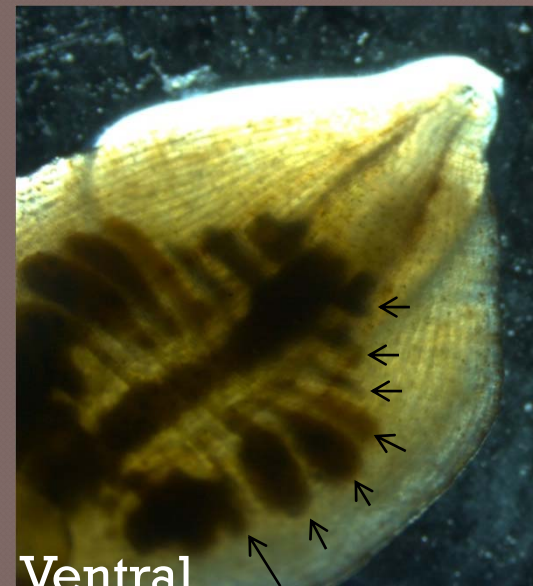
PHYLUM: Annelida
CLASS: Hirudinida
ORDER: Rhynchobdellida
FAMILY: Glossiphoniidae

Taxonomic Key

1. Posterior sucker without a circle of glands
2. Body firm
3. Eyes in two paramedial rows
4. Pair of paramedial stripes on dorsal and ventral surface
5. Six pair of crop caeca → SEVEN PAIR? → *Boreobdella verrucata*



Dorsal

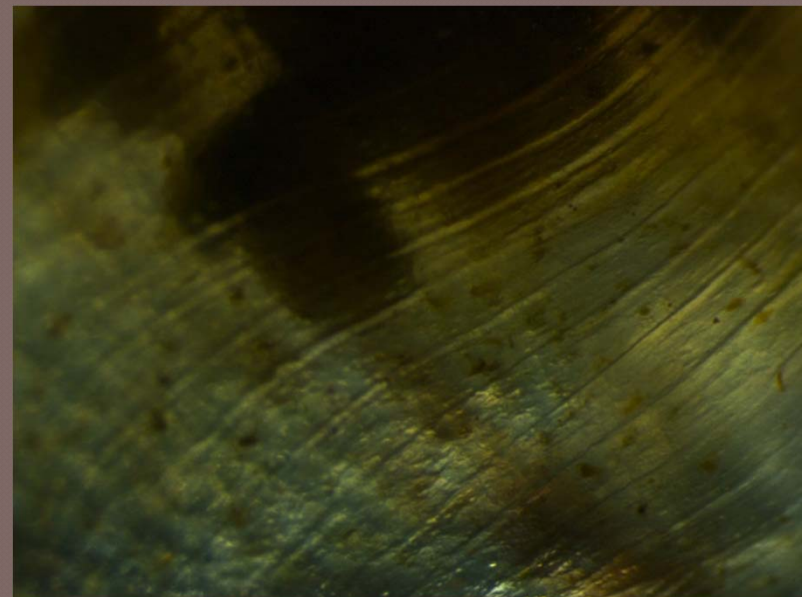
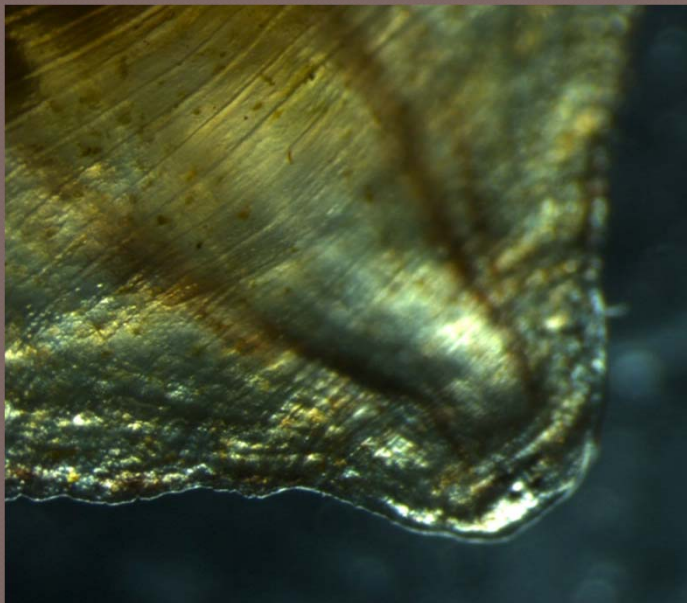


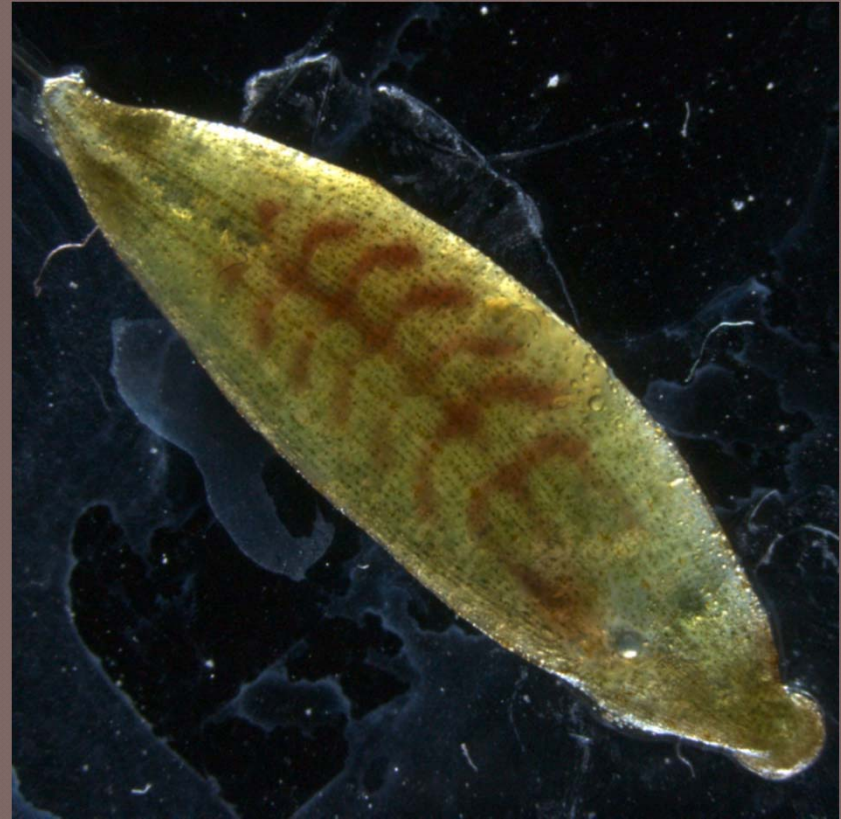
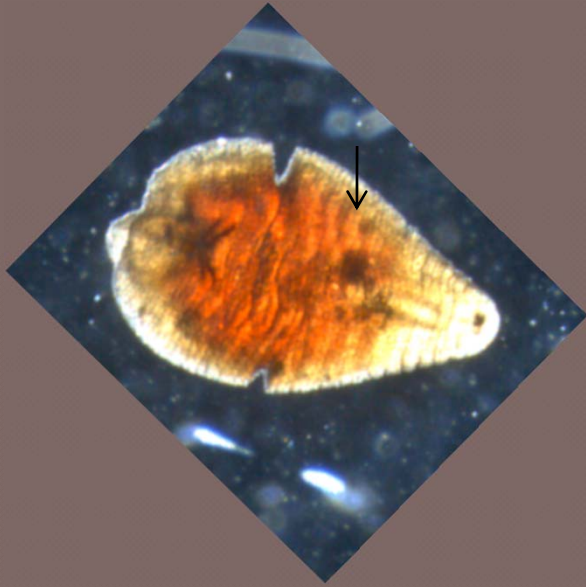
Ventral

PHYLUM: Annelida
CLASS: Hirudinida
ORDER: Rhynchobdellida
FAMILY: Glossiphoniidae

Taxonomic Key

7. Gonopores separated by two annuli → ?





CONCLUSION

CyberInfrastructure access would allow Dr. Govedich and Dr. Bain to directly participate in the identification of these leeches.

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