**Invert Zoo Group Assignment: Phylogenetic Relationship of the Gnathifera Phyla**

*Both have amniotic eggs*

*Birds*

*Reptiles*

Names of group members:

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How are rotifers similar to micrognathozoans? How are they different?

How are acanthocephlans similar to rotifers? How are they different?

How are gnathostomulids similar to platyhelminthes? How are they different?

Using this information, **construct a single phylogenetic tree** that shows a possible evolutionary relationship between micrognathozoans, acanthocephlans, platyhelminthes, gnathostomulids, and micrognathozoans. Based on **morphological** evidence, indicate at each node of branching on your tree the evidence for why you represented the relationship of these phyla as you did (see example in upper right- hand corner of page). Resolve any trichotomies.