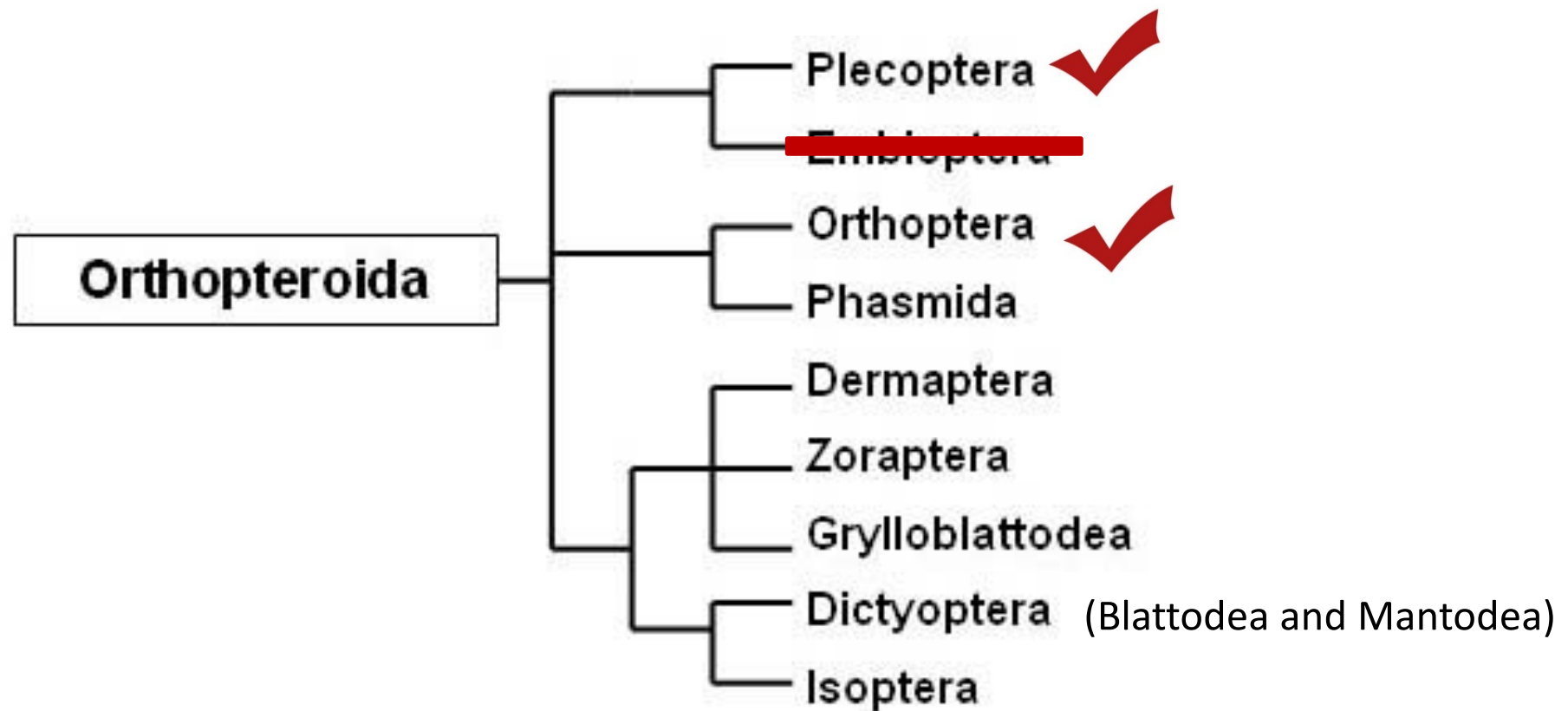


- Pterygota: Winged True Insects
 - Paleoptera: Ephemeroptera and Odonata
 - Neoptera: wings fold flat onto back
 - Exopterygota (simple metamorphosis)
 - Orthopteroida (mandibulate mouthparts, large anal lobe in the hind wing)

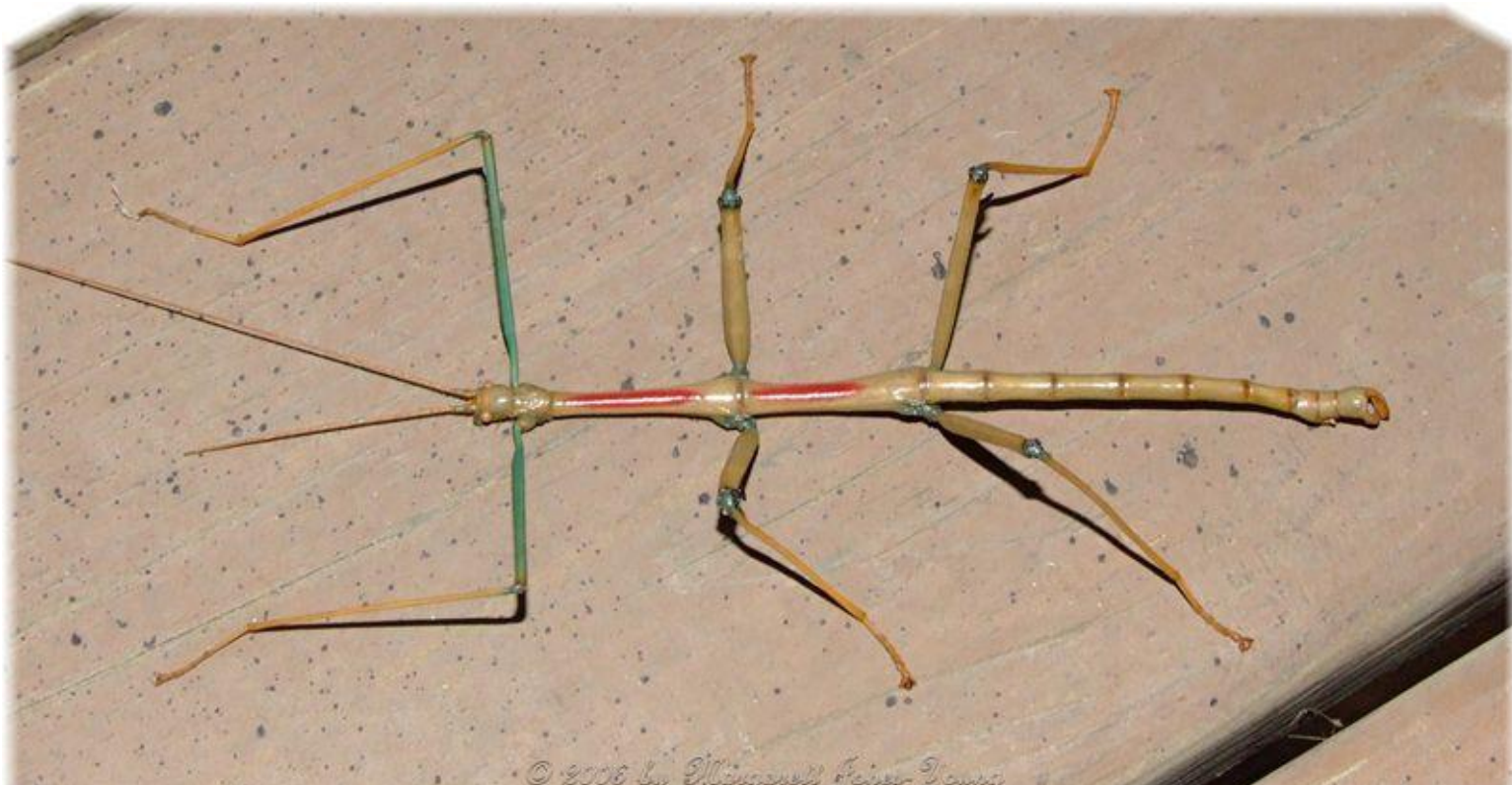


ORDER: Phasmida – Walking sticks

- sister group to the Orthoptera, they lack jumping legs, have 5-segmented tarsi (most), and elongate bodies with reduced or absent wings. Some species are apparently parthenogenetic, as no males have been found.

1. Heteronemiidae – Common Walking sticks

- uh, it's a walking stick! (mesothorax 4x length of prothorax)
- longest insect in U. S. : *Megaphasma denticrus* (Stal) – to 180mm



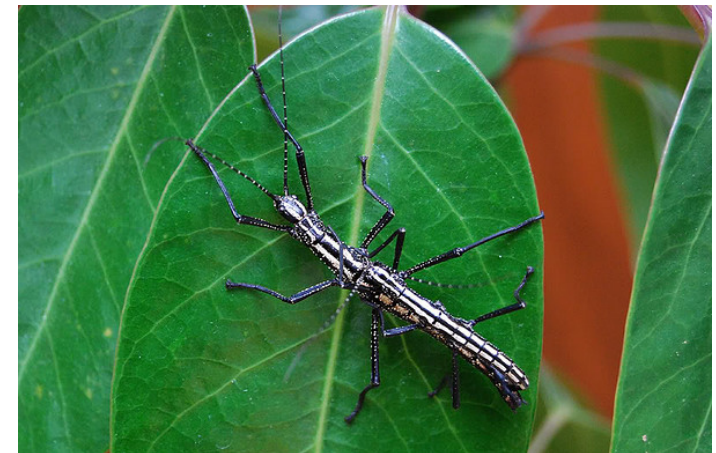
ORDER: Phasmida – Walkingsticks

1. Heteronemiidae – Common Walking sticks
2. Pseudophasmatidae – Striped Walking sticks
 - first abdominal seg as long as metanotum
 - there are several introduced species. Members of the genus *Anisomorpha* can spray a whitish chemical from a pronotal gland up to 40cm with great accuracy, aiming for the eyes.

“Although Gray (1835) mentioned the defensive secretion of *A. buprestoides*, the first account of its effect on humans that could be located was by Stewart (1937), who wrote about an incident in Texas: "The victim was observing a pair of *Anisomorpha buprestoides* . . . with his face within two feet of the insects, when he received the discharge in his left eye. . . The pain in his left eye was immediately excruciating; being reported to be as severe as if it had been caused by molten lead. Quick, thorough drenching with cool water allayed the burning agony to a dull aching pain. The pain eased considerably within the course of a few hours. Upon awakening the next morning the entire cornea was almost a brilliant scarlet in color and the eye was so sensitive to light and pressure for the next forty-eight hours that the patient was incapacitated for work. Vision was impaired for about five days." Symptoms gradually disappeared and there were no lasting effects. Albert (1947) described a similar but less severe incident.”

From: Thomas (2003).

<http://entnemdept.ufl.edu/creatures/misc/walkingstick.htm>



ORDER: Phasmida – Walkingsticks

1. Heteronemiidae – Common Walkingsticks
 2. Pseudophasmatidae – Striped Walkingsticks
- Mesonotum at most 3x pronotum in length
 - first abdominal seg as long as metanotum
 - the eyes.



