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Casey's conundrum, a review of the genus *Semanotus* Mulsant (Coleoptera: Cerambycidae: Cerambycinae: Callidiini) in North America

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Abstract

The North American species of *Semanotus* Mulsant, 1839 are reviewed. *Semanotus ligneus* (Fabricius, 1787), *Semanotus amplus amplus* (Casey, 1912) **new status**, *S. amplus basalis* (Casey, 1924) **new status**, *Semanotus amplus sequoiae* Van Dyke, 1923 **new status**, *Semanotus conformis* Casey, 1924 **new status**, *Semanotus terminatus* Casey, 1912 **new status**, *Semanotus amethystinus* (LeConte, 1853), *Semanotus juniperi* (Fisher, 1915), and *Semanotus litigiosus* (Casey, 1891) are recognized as valid. A key to the North American fauna, as well as to *Semanotus japonicus* Lacordaire, 1869 and *Semanotus australis* Giesbert, 1993 is included. A morphometric study was conducted using 37 measured characters from adults of *S. litigiosus*. Data were examined using stepwise discriminant analysis to determine which characters aid in the diagnosis of taxa, and their amounts of resolving power using canonical variates analysis. Morphometrics revealed significant sexual dimorphism among taxa and suggested that three taxa were present, however, only two taxa could be reasonably separated using observable characters. Phylogenetic analysis using a hypothetical ancestor as out-group returned a single most parsimonious tree for North American *Semanotus*.

Key words: Insecta, taxonomy, morphometrics, phylogenetics, wood borer