



International Congress on Bivalvia, 22-27 July 2006, Universitat Autònoma de Barcelona, Catalunya, Spain

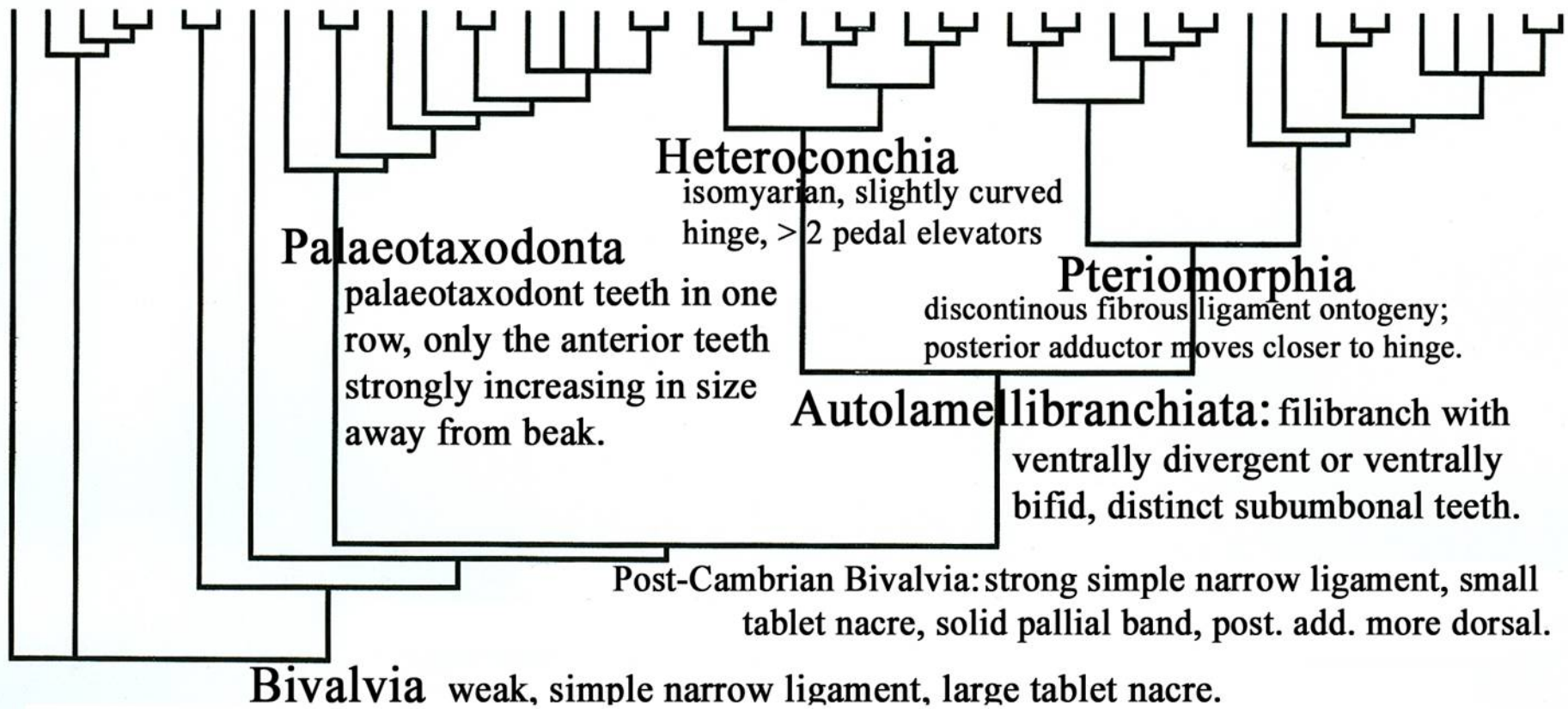
## Morphological phylogenetics of the early Bivalvia

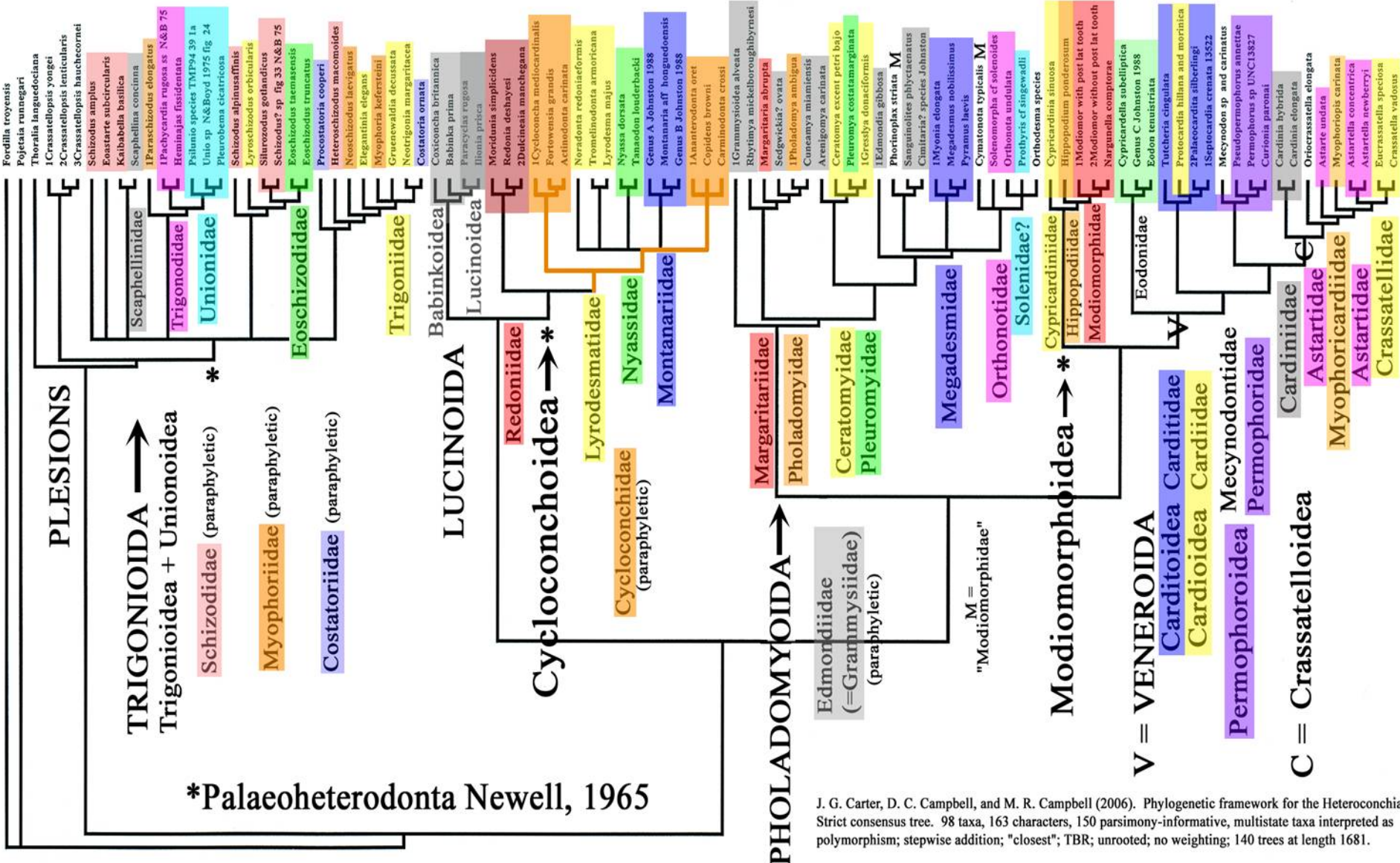
Carter, Joseph G.; Campbell, David C.; Campbell, Matthew R.

This contribution presents the latest cladistic analysis of Bivalve phylogeny based on 296 predominantly Paleozoic and Mesozoic bivalves with 126 parsimony-informative characters for the Subclass Palaeotaxodonta, 183 for the Superorder Pteriomorpha, and 156 for the Superorder Heteroconchia.

1. **Bivalvia**: Majority-rule Consensus Tree
2. **Palaeotaxodonta 1**: Strict Consensus Tree
3. **Palaeotaxodonta 2**: Strict Consensus Tree (solemyoid hinges scored similar to ctenodonts)
4. **Heteroconchia**: Strict Consensus Tree
5. **Pteriomorpha**: Strict Consensus Tree

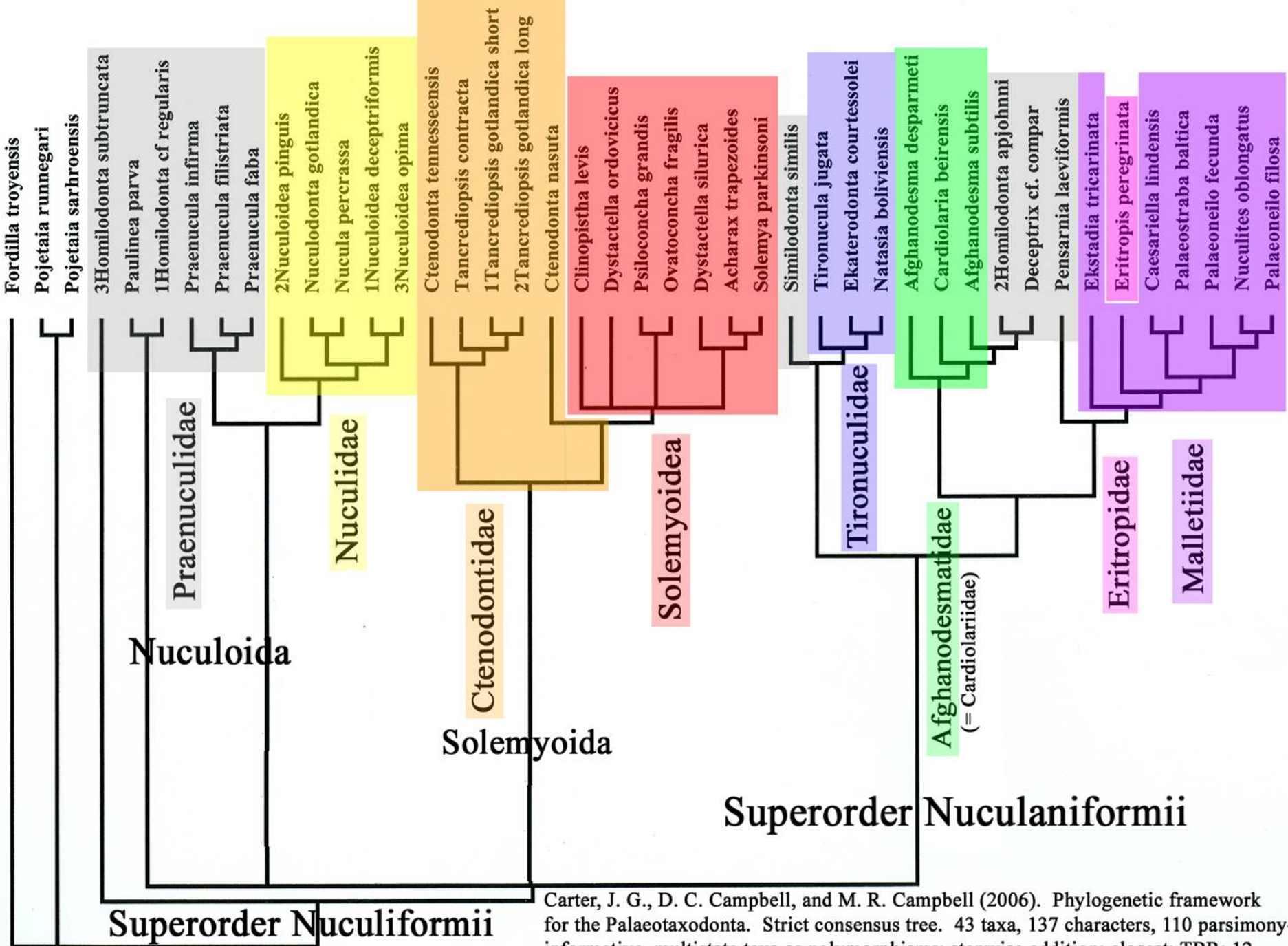
- Tuarangia gravgaerdenensis  
Pseudomyona queenslandica  
Watsonella crossbyi  
Anabarella plana  
Ribeiria junior  
**Pojetaia runnegari**  
**Pojetaia sarbroensis**  
**Fordilla troyensis**  
Afghanodesma desparmeti  
Nuculites oblongatus  
Palaeoneilo fecunda  
Pensarnia laeviformis  
Cardiolaria beirensis  
Similodonta similis  
Tironucula jugata  
1Homilodonta cf regularis  
Tancrediopsis contracta  
Caesariella lindensis  
Praenucula filistriata  
3Nuculoidea opima  
Montanaria aff honguedoensis  
Tromelinodonta armoricana  
Lyrodesma majus  
1Cycloconcha mediocardinalis  
Fortowsia grandis  
Actinodonta carinata  
1Ananterodonta oret  
Carminodonta crossi  
Copidens browni  
Modiolodon oviformis  
Matheria tenerugosa  
Metapadia matapediensis  
1Modiolopsis alvae  
Colpomya hugini  
Evyana baltica  
Aleodonta burei  
Cyrtodonta saffordi  
1Falcatodonta cost  
Hemiprionodonta lusitanica  
Glyptarca serrata  
Cannantia ampla  
Freja fecunda  
Uskardita mikraulax  
Alytodonta gibbosa  
Catamarcaia chaschuilensis  
1Trecanolia acincta form 3A



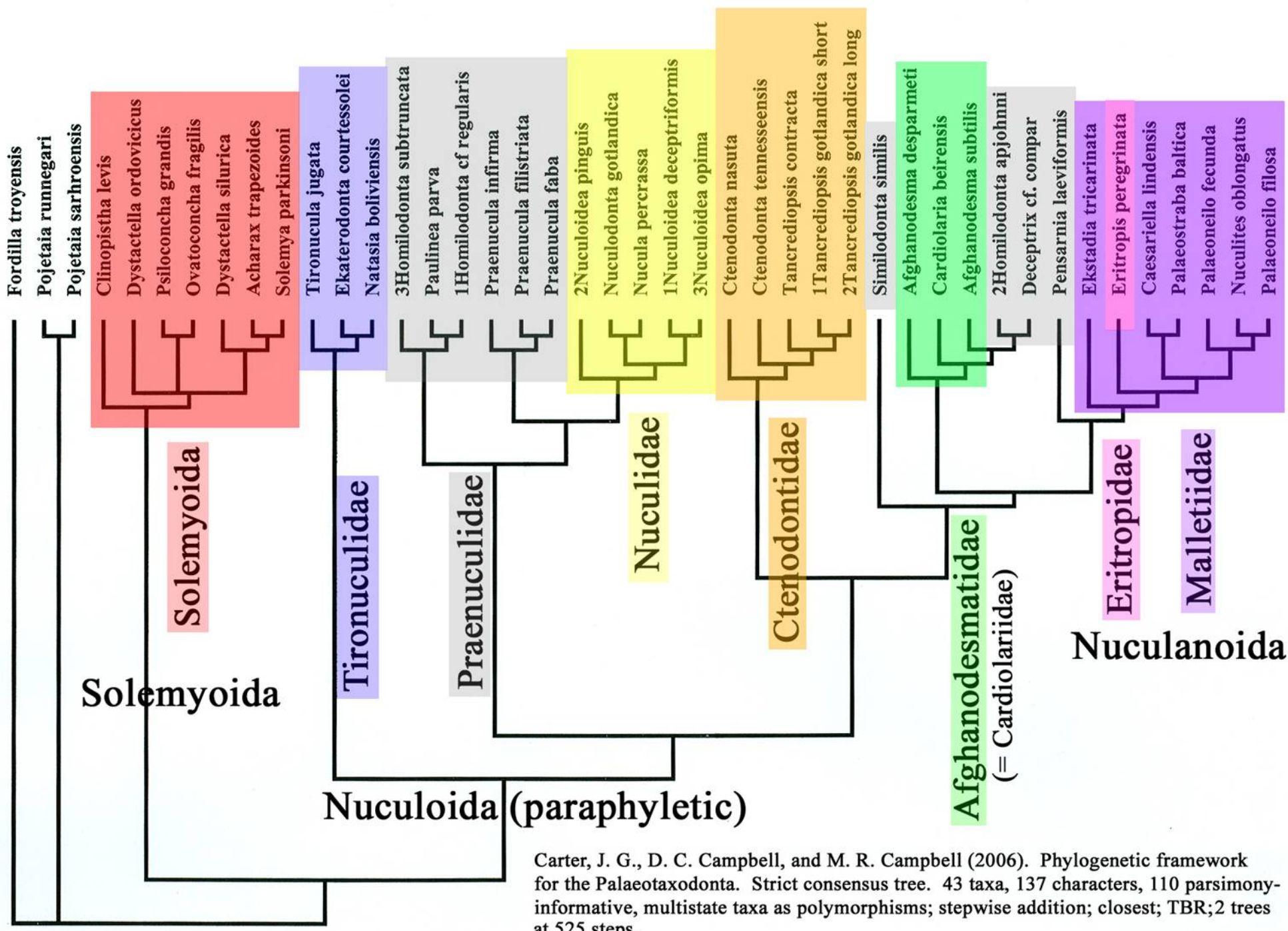


\*Palaeoheterodonta Newell, 1965

J. G. Carter, D. C. Campbell, and M. R. Campbell (2006). Phylogenetic framework for the Heteroconchia. Strict consensus tree. 98 taxa, 163 characters, 150 parsimony-informative, multistate taxa interpreted as polymorphism; stepwise addition; "closest"; TBR; unrooted; no weighting; 140 trees at length 1681.



Carter, J. G., D. C. Campbell, and M. R. Campbell (2006). Phylogenetic framework for the Palaeotaxodonta. Strict consensus tree. 43 taxa, 137 characters, 110 parsimony-informative, multistate taxa as polymorphisms; stepwise addition; closest; TBR; 12 trees at 535 steps; solemyoid hinges scored similar to ctenodontids.



Carter, J. G., D. C. Campbell, and M. R. Campbell (2006). Phylogenetic framework for the Palaeotaxodonta. Strict consensus tree. 43 taxa, 137 characters, 110 parsimony-informative, multistate taxa as polymorphisms; stepwise addition; closest; TBR;2 trees at 525 steps.

