

Molecular phylogeny of *Amanita* based on large-subunit ribosomal DNA sequences: implications for taxonomy and character evolution

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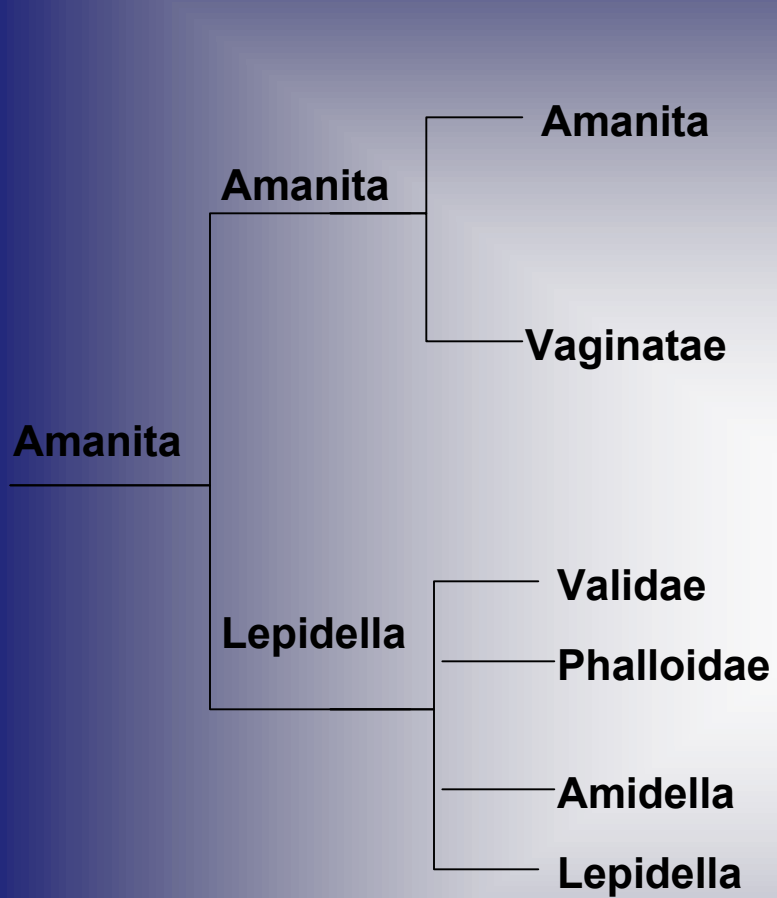


The Question?

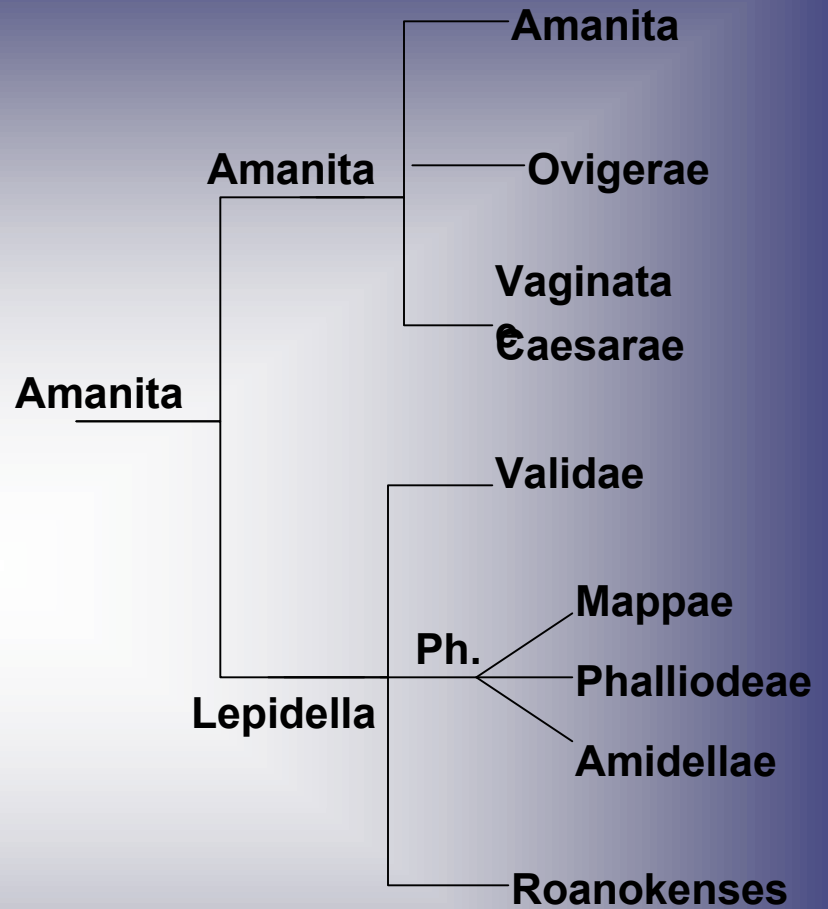
There are two alternative classifications that exist at the sectional level of the genus *Amanita*. One recognizes six different sections and the other recognizes nine. Which classification is more valid after DNA analysis?

Nuc-LSU

- **This gene was chosen because they used PCR amplication of Nuc-LSU in a previous experiment of Vigily's and Hester.**
- **They choose it because it provides a basis for understanding character evolution in Amanita.**



Jenkin's Six Sections



Singer's Nine Sections

GenBank

- I used GenBank to obtain the twenty-nine new sequences that were determined. The accession numbers were AF097367- AF097399. I blasted additional sequences on genbank to add more to my sequence alignments but all did not align well so I chose to delete them. The paper chose *Limacella* as the outgroup because it was sister to the genus *amanita*. I then transferred my sequence alignment to the PAUP program and created my three different trees.

Fig. 1

