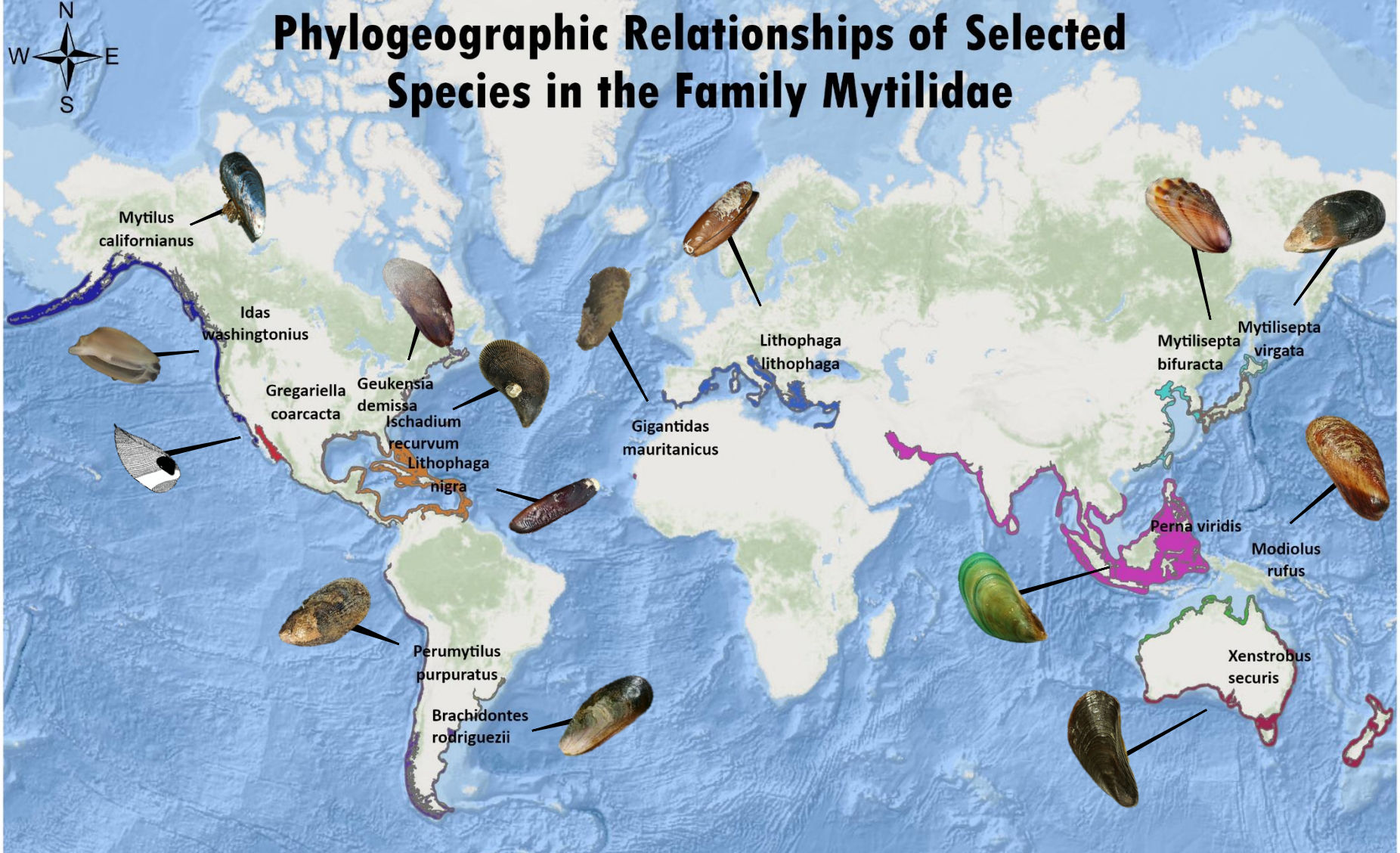
Phylogeographic Relationships of Selected Species in the Family Mytilidae



The Mollusca phylum is one of the largest groups of invertebrate animals and account for nearly 35% of the fossil record. Few studies have contextualized geographic range with phylogeny using a GIS framework. Here, using 15 extant Bivalve species (Mytilidae) by digitizing their accurate native geographic ranges and using a robust phylogenetic framework, I found that Mollusks have the ability to achieve large areal ranges near the equator, an opposite result from some terrestrial plant and animal species. Furthermore, the origin species of Mytilidae likely possessed a medium-sized range, preferably near the equator. The versatility of this data can address important biogeographical topics such as the inheritability of range sizes and the invasiveness of a species based off range breadth. In the paleontological context, it can address mas extinctions and recovering pulses of life.

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