

FIG. S4. Cladogram (branch lengths not scaled to change) from Landis et al. (2020) representing phylogenetic relationships using RAD-seq data, showing inferred ancestral volumes. Names of *Viburnum* clades (Clement et al. 2014) are indicated with a black dot adjacent to a node or to the right of the taxon names. Fruit cross sections show typical forms of fruit color, endocarp shape, the relative amount of pulp, and ruminate endosperm. For clades with more than one fruit feature, either two separate fruit cross sections are shown (e.g., *Oreinotinus*), or a single cross section is shown with the two conditions illustrated on the left and right-hand sides of the fruit (e.g., red and black color in *Lobata*, which here forms a clade).

