



Figure 3.6 **A.** One hypothesis of relationships of the land plants (Embryophyta), with major apomorphies indicated. After Qiu et al. (1997), some apomorphies after Bremer (1985), Mishler and Churchill (1985), and Mishler et al. (1994). **B.** One of many alternative hypothesis, this showing a monophyletic bryophytes (after Puttick et al. 2018), with different scenarios for the evolution of some characters. Note that a photosynthetic, nutritionally independent sporophyte evolves twice, and stomate evolution could involve a novel (for the bryophytes alone) or intermediate (for all embryophytes) function in sporangium dehiscence.