

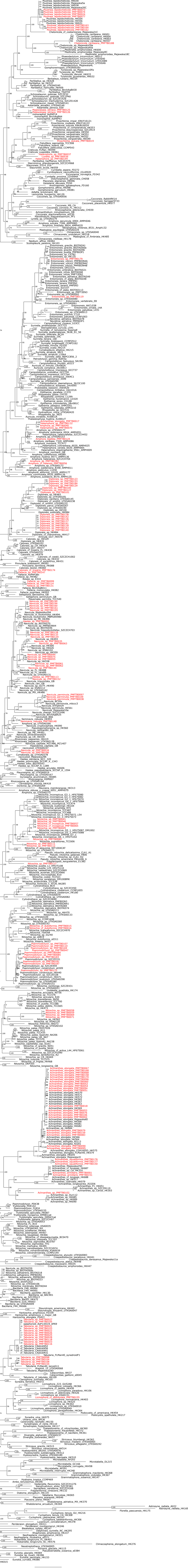
SSU
+
rbcL
+
psbC

Phylogenetic tree showing relationships among various species, primarily focusing on the SSU, rbcL, and psbC gene regions. The tree is rooted at the bottom left and branches upwards and to the right. The species names are listed along the branches, often followed by accession numbers. The tree is color-coded by group: green for Chlorophyta, blue for Rhodophyta, red for Charophyta, yellow for Embryophyta, and purple for other groups. Bootstrap values are shown at the nodes. The tree is labeled with species names and accession numbers. The scale bar at the bottom left indicates 0.04 substitutions per site.

Species names and accession numbers visible in the tree include:

- Amphora* (e.g., *Amphora* sp. PMTB00124, *Amphora* sp. PMTB00125)
- Caloneis* (e.g., *Caloneis* sp. PMTB00126, *Caloneis* sp. PMTB00127)
- Navicula* (e.g., *Navicula* sp. PMTB00128, *Navicula* sp. PMTB00129)
- Nitzschia* (e.g., *Nitzschia* sp. PMTB00130, *Nitzschia* sp. PMTB00131)
- Achnanthes* (e.g., *Achnanthes* sp. PMTB00132, *Achnanthes* sp. PMTB00133)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00134, *Stauroneis* sp. PMTB00135)
- Halophora* (e.g., *Halophora* sp. PMTB00136, *Halophora* sp. PMTB00137)
- Parabellus* (e.g., *Parabellus* sp. PMTB00138, *Parabellus* sp. PMTB00139)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00140, *Stauroneis* sp. PMTB00141)
- Halophora* (e.g., *Halophora* sp. PMTB00142, *Halophora* sp. PMTB00143)
- Parabellus* (e.g., *Parabellus* sp. PMTB00144, *Parabellus* sp. PMTB00145)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00146, *Stauroneis* sp. PMTB00147)
- Halophora* (e.g., *Halophora* sp. PMTB00148, *Halophora* sp. PMTB00149)
- Parabellus* (e.g., *Parabellus* sp. PMTB00150, *Parabellus* sp. PMTB00151)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00152, *Stauroneis* sp. PMTB00153)
- Halophora* (e.g., *Halophora* sp. PMTB00154, *Halophora* sp. PMTB00155)
- Parabellus* (e.g., *Parabellus* sp. PMTB00156, *Parabellus* sp. PMTB00157)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00158, *Stauroneis* sp. PMTB00159)
- Halophora* (e.g., *Halophora* sp. PMTB00160, *Halophora* sp. PMTB00161)
- Parabellus* (e.g., *Parabellus* sp. PMTB00162, *Parabellus* sp. PMTB00163)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00164, *Stauroneis* sp. PMTB00165)
- Halophora* (e.g., *Halophora* sp. PMTB00166, *Halophora* sp. PMTB00167)
- Parabellus* (e.g., *Parabellus* sp. PMTB00168, *Parabellus* sp. PMTB00169)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00170, *Stauroneis* sp. PMTB00171)
- Halophora* (e.g., *Halophora* sp. PMTB00172, *Halophora* sp. PMTB00173)
- Parabellus* (e.g., *Parabellus* sp. PMTB00174, *Parabellus* sp. PMTB00175)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00176, *Stauroneis* sp. PMTB00177)
- Halophora* (e.g., *Halophora* sp. PMTB00178, *Halophora* sp. PMTB00179)
- Parabellus* (e.g., *Parabellus* sp. PMTB00180, *Parabellus* sp. PMTB00181)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00182, *Stauroneis* sp. PMTB00183)
- Halophora* (e.g., *Halophora* sp. PMTB00184, *Halophora* sp. PMTB00185)
- Parabellus* (e.g., *Parabellus* sp. PMTB00186, *Parabellus* sp. PMTB00187)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00188, *Stauroneis* sp. PMTB00189)
- Halophora* (e.g., *Halophora* sp. PMTB00190, *Halophora* sp. PMTB00191)
- Parabellus* (e.g., *Parabellus* sp. PMTB00192, *Parabellus* sp. PMTB00193)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00194, *Stauroneis* sp. PMTB00195)
- Halophora* (e.g., *Halophora* sp. PMTB00196, *Halophora* sp. PMTB00197)
- Parabellus* (e.g., *Parabellus* sp. PMTB00198, *Parabellus* sp. PMTB00199)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00200, *Stauroneis* sp. PMTB00201)
- Halophora* (e.g., *Halophora* sp. PMTB00202, *Halophora* sp. PMTB00203)
- Parabellus* (e.g., *Parabellus* sp. PMTB00204, *Parabellus* sp. PMTB00205)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00206, *Stauroneis* sp. PMTB00207)
- Halophora* (e.g., *Halophora* sp. PMTB00208, *Halophora* sp. PMTB00209)
- Parabellus* (e.g., *Parabellus* sp. PMTB00210, *Parabellus* sp. PMTB00211)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00212, *Stauroneis* sp. PMTB00213)
- Halophora* (e.g., *Halophora* sp. PMTB00214, *Halophora* sp. PMTB00215)
- Parabellus* (e.g., *Parabellus* sp. PMTB00216, *Parabellus* sp. PMTB00217)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00218, *Stauroneis* sp. PMTB00219)
- Halophora* (e.g., *Halophora* sp. PMTB00220, *Halophora* sp. PMTB00221)
- Parabellus* (e.g., *Parabellus* sp. PMTB00222, *Parabellus* sp. PMTB00223)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00224, *Stauroneis* sp. PMTB00225)
- Halophora* (e.g., *Halophora* sp. PMTB00226, *Halophora* sp. PMTB00227)
- Parabellus* (e.g., *Parabellus* sp. PMTB00228, *Parabellus* sp. PMTB00229)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00230, *Stauroneis* sp. PMTB00231)
- Halophora* (e.g., *Halophora* sp. PMTB00232, *Halophora* sp. PMTB00233)
- Parabellus* (e.g., *Parabellus* sp. PMTB00234, *Parabellus* sp. PMTB00235)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00236, *Stauroneis* sp. PMTB00237)
- Halophora* (e.g., *Halophora* sp. PMTB00238, *Halophora* sp. PMTB00239)
- Parabellus* (e.g., *Parabellus* sp. PMTB00240, *Parabellus* sp. PMTB00241)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00242, *Stauroneis* sp. PMTB00243)
- Halophora* (e.g., *Halophora* sp. PMTB00244, *Halophora* sp. PMTB00245)
- Parabellus* (e.g., *Parabellus* sp. PMTB00246, *Parabellus* sp. PMTB00247)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00248, *Stauroneis* sp. PMTB00249)
- Halophora* (e.g., *Halophora* sp. PMTB00250, *Halophora* sp. PMTB00251)
- Parabellus* (e.g., *Parabellus* sp. PMTB00252, *Parabellus* sp. PMTB00253)
- Stauroneis* (e.g., *Stauroneis* sp. PMTB00254, *Stauroneis* sp. PMTB00255)
- Halophora* (e.g., *Halophora* sp. PMTB00256, *Halophora* sp. PMTB00257)
- Parabellus* (e.g

rbcl



psbC

