Appendix S2. Species list for Fig. 3. Each name appears in the order of the alignment in Fig. 3.

A.

*Goodenia filiformis*

*Goodenia decursiva*

*Goodenia drummondii*

*Goodenia pinifolia*

*Selliera radicans*

*Scaevola phlebopetala*

*Goodenia ovata*

*Goodenia phillipsiae*

*Verreauxia reinwardtii*

*Goodenia hassallii*

*Coopernookia polygalacea*

*Goodenia helmsii*

*Velleia foliosa*

*Velleia discophora*

*Goodenia tripartita*

*Scaevola collaris*

*Scaevola porocarya*

*Scaevola tomentosa*

*Diaspasis filifolia*

*Velleia rosea*

*Goodenia micrantha*

B.

*Coopernookia strophiolata*

*Goodenia drummondii*

*Goodenia decursiva*

*Goodenia hassallii*

*Diaspasis filifolia*

*Goodenia filiformis*

*Goodenia helmsii*

*Scaevola collaris*

*Verreauxia reinwardtii*

*Coopernookia polygalacea*

*Scaevola phlebopetala*

*Goodenia micrantha*

*Goodenia ovata*

*Goodenia phillipsiae*

*Scaevola porocarya*

C.

*Goodenia drummondii*

*Coopernookia strophiolata*

*Goodenia filiformis*

*Velleia foliosa*

*Diaspasis filifolia*

*Diaspasis filifolia*

*Goodenia drummondii*

*Goodenia ovata*

*Goodenia viscida*

*Goodenia helmsii*

*Goodenia hassallii*

*Selliera radicans*

*Scaevola phlebopetala*

*Coopernookia polygalacea*

*Verreauxia reinwardtii*

*Scaevola tomentosa*

*Goodenia micrantha*

*Goodenia decursiva*

*Goodenia pinifolia*

D.

*Goodenia decursiva*

*Goodenia filiformis*

*Scaevola tomentosa*

*Verreauxia reinwardtii*

*Coopernookia polygalacea*

*Velleia foliosa*

*Goodenia ovata*

*Goodenia hassallii*

*Goodenia drummondii*

*Goodenia phillipsiae*

*Goodenia pinifolia*

*Goodenia viscida*

*Velleia rosea*

*Selliera radicans*

*Goodenia micrantha*

*Diaspasis filifolia*

*Coopernookia strophiolata*

*Scaevola phlebopetala*

*Scaevola porocarya*

*Goodenia helmsii*

*Velleia discophora*

*Goodenia decursiva*

*Goodenia drummondii*

*Goodenia tripartita*

*Goodenia drummondii*