

Table S2. Brief descriptions of the flowers at the three developmental stages for the nine Cleomaceae species.

Species	Stage	Description
<i>Arivela viscosa</i>	Bud	Sepals closed with petals inserted; 0.4–0.6 cm from base of sepals to apex of sepals
	Intermediate	Sepals closed with petals exerted; 0.7–0.9 cm from base of sepals to apex of petals
	Anthesis	Anthesis; sepals and petals open, anthers dehiscent
<i>Cleome amblyocarpa</i>	Bud	Sepals closed with petals inserted; 0.2 cm from base of sepals to apex of sepals
	Intermediate	Sepals closed with petals exerted; 0.5–0.6 cm from base of sepals to apex of petals
	Anthesis	Anthesis; sepals and petals open, anthers dehiscent
<i>Cleome violacea</i>	Bud	Sepals closed with petals exerted; 0.1–0.4 cm in length from base of sepals to apex of petals
	Intermediate	Petals beginning to open
	Anthesis	Anthesis; sepals and petals open, anthers dehiscent
<i>Gynandropsis gynandra</i>	Bud	Sepals closed with petals inserted, apex of pistil level with sepals or exerted; 0.5–0.7 cm from base of sepals to apex of pistil
	Intermediate	Sepals closed with petals exerted, pistil elevated above petals; 1.5–1.9 cm from base of sepals to apex of pistil
	Anthesis	Anthesis; sepals and petals open, anthers dehiscent
<i>Melidiscus giganteus</i>	Bud	Sepals closed with abaxial sepal apex extending beyond closed petals; 1.5–2.5 cm from base of sepals to apex of petals
	Intermediate	Sepals open, filaments and gynophore exerted and incurved with anthers and pistil enclosed in petals
	Anthesis	Anthesis; sepals and petals open, anthers and pistil released from petals
<i>Polanisia dodecandra</i>	Bud	Sepals closed with petals inserted, beak of pistil exerted; 0.5–0.7 cm from base of sepals to apex of pistil
	Intermediate	Sepals and petals opening, filaments not fully elongated; 1.0–1.2 cm from base of sepals to apex of pistil
	Anthesis	Anthesis; sepals and petals open, anthers dehiscent
<i>Sieruela hirta</i>	Bud	Sepals closed with petals inserted; 0.4–0.9 cm from base of sepals to apex of sepals
	Intermediate	Sepals closed with petals exerted; 1.0–1.5 cm from base of sepals to apex of petals
	Flower	Anthesis; sepals and petals open, anthers dehiscent
<i>Sieruela rutidosperma</i>	Bud	Sepals closed with petals exerted; 0.3–0.5 cm from base of sepals to apex of petals
	Intermediate	Sepals closed with petals exerted; 0.6–0.7 cm from base of sepals to apex of petals
	Anthesis	Anthesis; sepals and petals open, anthers dehiscent
<i>Tarenaya houtteana</i>	Bud	Sepals closed with petals exerted; 0.7–1.9 cm from base of sepals to apex of petals
	Intermediate	Sepals open, filaments and gynophore exerted and incurved with anthers and pistil enclosed in petals
	Anthesis	Anthesis; sepals and petals open, anthers and pistil released from petals

Note: Descriptions include key distinguishing features for each stage. As the floral nectaries are obscured early in development for all species and at anthesis for some species, nectary characteristics were excluded from the descriptions.