

Character comparison of the *Corynopuntia schottii* complex in the Big Bend region. Unless otherwise noted, measurements given in cm. Descriptions, especially spine characters, refer to the most mature or developed structures of the plant (Appendix E: [Fenstermacher J, Phytoneuron, 1:1-58 2016](#)).

	<i>C. aggeria</i>	<i>C. densispina</i>	<i>C. emoryi</i>	<i>C. grahamii</i>	<i>C. schottii</i>
Chromosome number ( <i>n</i> )	11	22	22	22	33
Plant habit	Tight mound	Open mound	Clumps / mound / mat	Small clumps	Small clumps to vast mats
Root habit	Tuberous	Diffuse, thickened	Diffuse, hair-like	Tuberous	Diffuse, hair-like
Adventitious roots common	No	Yes	Yes	No	Yes
Plant width	30 – 60	30 – 150	30 – 150+	15 – 30	15 – 300+
Plant height	15 – 30	10 – 30	10 – 30+	10 – 20	5 – 12
Joint attachment	Strong	Strong	Strong	Weak	Weak
Joint growth origin	Lateral	Lateral	Lateral	Apical	Lateral
Joint length	3.5 – 8	6 – 9	9 – 15	2 – 5	2 – 8
Joint size ratio	2-3x long as broad	2-3x long as broad	≥ 3x long as broad	1-2x long as broad	≥ 3x long as broad
Joint shape	Clavate, elongated	Clavate, elongated	Clavate, elongated	Obovate to cylindrical	Clavate, J-shaped
Tubercle shape, abaxial profile	Rounded/ inflated	Rounded/ inflated	Rounded/ inflated	Rounded/ inflated	Flat/ deflated
Areolar wool habit; where most abundant	Protruding, villous; basally	Protruding, villous; basally	Flat/short, felt-like; apically	Protruding, villous; basally	Flat/short, felt-like; apically
Central spine no.	1 – 4 (6 – 9)	(4) 7 – 11 (+)	6 – 8	7 – 8	6 – 8 (10+)
Central spine shape: adaxial/ abaxial	Flat / angled	Flat / angled	Flattened but no angles, oval profile	Terete (rare: slight angle below)	Flat / angled; thinned margins

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Central spine color; tone	Various, with white/gray; streaked	Yellowish (pinkish), white/gray; streaked	Tan/golden brown; saturated	Peach to red-brown; saturated, blotchy	Tan to red-brown, white margins; saturated, blotchy
Central spine base shape / color	Bulbous / differently colored	Flared to bulbous / diff. colored	Flared (uppers flared to bulbous)	Bulbous / diff. colored, iridescent	Undifferentiated, hidden by wool
Central spine epidermis	Smooth, farinose, especially distally	Smooth, farinose, especially distally	Variably ridged, thin appressed trichomes	Lateral ridges, robust appressed trichomes	Smooth, longitudinal striations
Main central spine present	No	No	Yes	No	No
Central spines often twisted	Yes	Yes	No	No	No
Subcentrals present	No	No	Yes	No	Yes
Diminutive subcentral	No	No	No	No	Yes
Location of most mature spine clusters in joint	Upper half to third	Upper half	Upper half	≥ Upper <sup>3</sup> / <sub>4</sub>	Upper half
Radial spine color	Bright white; bases different	Bright white/gray; bases various	Light tan	White; bases different, iridescent	Cream-tan
Radial spine number (pairs)	1 – 2 (3)	2 – 3	2 (3)	3 – 4 (5+)	2 – 3
Radial spine aspect (esp. lowest pair)	Appressed and decurved at base	Appressed and decurved at base	Descending	Appressed to decurved at base	Descending

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Long 1° radial pair	No	Yes	No	Various	No
Glochids in brachyblasts	Common	Common	Rare	Common	Rare
Glochid/areole habit towards base of plant	Often increased, radiating, protruding	Often increased, radiating, protruding	No pattern	Often increased, radiating, protruding	No pattern
Location of joints with flower buds	Terminal	Terminal	Terminal	Terminal	Medial
Conic leaf length, pericarpel rim areoles (mm)	< 5	< 5	≤ 5	< 5	> 5
Bud proliferation common	No	No	No	No	Yes
Flower color	Yellow	Yellow	Yellow	Yellow (pink)	Yellow
Filament color	Red, pink	Green, red, pink	Green/clear	Green/clear	Green/clear
Stigma lobe color	Green	Green	Cream	Green	Green
Fruit color, at maturity	Green	Green	Yellow	Green	Yellow
Phenology	(Feb-)Mar-Apr(-May)	(Mar-)Apr-May	May-June	(Mar-)Apr-May	(May-)Jun(-Jul)
Woody old growth	Yes	Yes	Yes	Yes	No