

Echinomastus intertextus

1. *Echinomastus intertextus*: ribs with right-handed spiral. Anthony Gap, just south of Highway 404. Elevation 4,600 ft (1,400 m). This is one of the more massive specimens, which seems to be doing fine despite having recently fallen on its side. 28 February 2020. All photos are of *Echinomastus intertextus* in Doña Ana County, New Mexico.

E*chinomastus intertextus* (synonym *Neolloydia intertextata*) is a charming species that is seldom grown in cultivation. It never grows very large nor has massive spines and almost never branches, but it is reasonably fast-growing, which admittedly probably also means that it is not very long-lived.

While plants of *Echinomastus intertextus* are quite young, tubercles form ribs that spiral (Figs. 1 & 2). Roughly half of my photos of this species show ribs that spiral in a left-handed direction and half in a right-handed direction.

The first time I saw *Echinomastus intertextus* was in 1994 on a small hill along the Achenbach Canyon trail, with that small hill covered in this species, as well as another pretty little cactus, *Mammillaria heyderi*. This population of *E. intertextus* seemed to be thriving, but then, four years later, crashed to the point that I could not find a single specimen of *E. intertextus* on this hill (but did find a few isolated specimens of *E. intertextus* elsewhere along the trail, as I always do). A few

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2. *Echinomastus intertextus*: ribs with left-handed spiral. Anthony Gap, just south of Highway 404. Elevation 4,500 ft (1,372 m). 28 February 2020.



3. Achenbach Canyon at small hill with many specimens of *Echinomastus intertextus* and *Mammillaria heyderi*. Elevation 5,380 ft (1,640 m). 26 February 2020.



4 & 5. Long skinny neck found in many plants of *Echinomastus intertextus*. These two plants are at most 20 years old. Achenbach Canyon at small hill with many specimens of *E. intertextus* and *Mammillaria heyderi*. Elevation 5,380 ft (1,640 m). 26 February 2020.



6. Same locale as Figs. 4–6, but plant with a wide base, i.e. no skinny neck. 26 February 2020.

years later, a few seedlings were again visible on this small hill. Twenty years after that, in 2020, this small hill had more specimens of *E. intertextus* than in 1994, now with many large specimens (Figs. 3–6). The largest specimens there in 2020 were about 6–7 inches (15–18 cm) tall with very skinny bases (“long necks”) that are characteristic of some populations of *E. intertextus* and of no other species of *Echinomastus* (Figs 4 & 5). Long skinny necks are also characteristic of other cacti such as *Turbinicarpus mandragora*.

Some populations of *Echinomastus intertextus* seem to lack long skinny necks and instead are uniformly wide from their base to apex, such as the population at Anthony Gap, which is 20 miles (32 km) south of Achenbach Canyon. Anthony Gap contains the largest specimen I have ever seen of *E. intertextus* at 8

inches (20 cm) tall and 4 inches (10 cm) in diameter (Fig. 7). This plant had a wide base and three short stout offsets. This is the only branched specimen of *E. intertextus* I have ever seen other than plants injured by being trampled by cattle. This giant specimen had a dozen flowers fully open with the darkest pink, virtually red, stigma lobes I have seen in this species (Fig 8).

In habitat, *Echinomastus intertextus* is the first cactus to flower each year, flowering from late February until late March in Doña Ana County, NM. When living in Las Cruces, NM, I could always find a few specimens flowering in February. The only cactus in Doña Ana County that comes close is *Mammillaria lasiacantha*, which starts flowering a week later, during the first week of March (Gorelick 2021). Both *E.*



7 & 8. This is the largest specimen I have ever seen — 8 inches (20 cm) tall × 4 inches (10 cm) — and the only uninjured specimen I have ever seen that was branched. A dozen flowers were open at once: one on the lower offset and eleven on the main stem. No plants of *Echinomastus intertextus* at Anthony Gap seem to have a long skinny neck. Anthony Gap, just north of Highway 404, by El Paso Natural Gas compression station. Elevation 4,500 ft (1,372 m). 11 March 2020.



9. Spherical 1 inch (2.5 cm) diameter plant already with well-developed ribs and flowers. Southwest end of Peña Blanca, Organ Mountains. Elevation ca. 5,000 ft (1,524). 9 March 2016.



10. *Echinomastus intertextus* growing at the southern tip of North Anthony's Nose, Franklin Mountains. Elevation 4,500 ft (1,372 m). 11 March 2020.



11 & 12. Southwest end of Peña Blanca, Organ Mountains. Elevation ca. 5,000 ft (1,524 m). 9 March 2016.

intertextus and *M. lasiacantha* start flowering when plants are only about one inch (2.5 cm) tall and across (Fig. 9), making me wonder why these are not more commonly cultivated.

Colour of the inner surface of flower petals of *Echinomastus intertextus* are always of one solid colour, which can be white, cream, light pink, dark pink, or yellow, with colour varying even in a single population (Figs. 8–13). The outer surface of the petals are less variable, being some shade of pink, red, or brownish red near the middle of the petal and white along the margin (Figs. 14 & 15), except for flowers with yellow inner petals which have yellow margins of their outer petals (Figs. 16 & 17). To me the most striking feature of *E. intertextus* flowers are the stigma lobes, which vary from a washed-out pink to a dark vibrant pink that could be deemed red.



13. Achenbach Canyon at small hill with many specimens of *E. intertextus* and *Mammillaria heyderi*. Elevation 5,380 ft (1,640 m). 26 Feb 2020.



14 & 15. Outer surface of petals are relatively darkly coloured, with white margins. Southern tip of North Anthony's Nose, Franklin Mountains. Elevation 4,500 ft (1,372 m). 11 March 2020.



16. Outer surface of petals are relatively darkly coloured, but with yellow margins in all plants whose inner surface of petals is yellow. Southwest end of Peña Blanca, Organ Mountains. Elevation ca. 5,000 ft (1,524 m). 9 March 2016.

17. Outer surface of petals are relatively darkly coloured, but with yellow margins in all plants whose inner surface of petals is yellow. Achenbach Canyon at small hill with many specimens of *E. intertextus* and *Mammillaria heyderi*. Elevation 5,380 ft (1,640 m). 26 February 2020.

Echinomastus intertextus seems to be most common in the Organ and Franklin Mountains of Doña Ana County, New Mexico and El Paso County, Texas. The range of *E. intertextus* is primarily near the Rio Grande, from Albuquerque to Big Bend. Its range also extends west along the U.S. side of the Mexico border from El Paso to Nogales, surprisingly with only one documented locale on the Mexican side of that stretch of border, in Sonora between Agua Prieta and El Gallo. There are other (possibly disjunct) range extensions south into central Chihuahua and east into the Guadalupe and Delaware Mountains along the Texas–New Mexico border. There is a single documented specimen from Santa Rosa Lake State Park along the

Pecos River in east-central New Mexico. This location along the Pecos River seems unlikely, but Ken Heil collected the herbarium specimen, so this record cannot be dismissed lightly.

There are supposedly two varieties of *Echinomastus intertextus*, var. *intertextus* and var. *dasyacanthus*. The primary difference between them is length of the porrect central spine, i.e. the central spine sticking out away from the stem, i.e. perpendicular to the stem, rather than central spines that are appressed or spreading. Variety *intertextus* has porrect central spines that are 0.5–5 mm long, whereas var. *dasyacanthus* has longer porrect central spines that are 4–20 mm long. Given that radial spines on both varieties are almost always



18. Juvenile plants of *Echinomastus intertextus* superficially resembling sympatric juveniles of *Coryphantha vivipara* var. *neomexicana* and *Echinocereus viridiflorus* var. *chloranthus*. Anthony Gap, just south of Highway 404. Elevation 4,600 ft (1,400 m). 1 May 2005.

longer than central spines, differences between the two varieties in the field are often not obvious, especially for porrect central spines that are 4–5 mm long or for young plants that may not yet grow long porrect central spines. As someone who gradually seems to be becoming a taxonomic lumper, I am not convinced that splitting this species into two varieties is warranted. *Flora of North America* (Zimmerman and Parfitt 2004: 196) stated, “Many populations of *E. intertextus* are intermediate between the two varieties, i.e., they contain a wide range of central spine lengths. Consequently, sampling error (usually only one specimen from each population) created the illusion of extensive sympatry between long-spined and short-spined varieties.” I agree with their first sentence regarding intermediate central spine lengths, but not their second sentence about sympatry because there seems to be a continuum of porrect central spine lengths and no consistent way to distinguish two separate varieties. Please take my assessment of varieties here with a grain of salt because I am not a taxonomist, just someone who has often visited these plants in the field.

Echinomastus intertextus is a lovely little plant that cannot be mistaken for anything else, except maybe when very young, in which case they superficially resemble sympatric juvenile specimens of *Coryphantha vivipara* var. *neomexicana* and *Echinocereus viridiflorus* var. *chloranthus* (Fig. 18). But colour and timing of flowers of *E. intertextus* certainly give its identity away. Given its range, *E. intertextus* is also probably fairly cold hardy, especially if one can find seeds or seed-grown plants for sale that were native to the Manzano or Sandia Mountains, so might be an interesting species to grow in an unheated greenhouse or to grow outdoors year-round.

References

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- Zimmerman AD & Parfitt BD (2004) *Echinomastus* Britton & Rose (Cactaceae). In: *Flora of North America - Volume 4*. Editors: Flora of North America Editorial Committee. Pages 192–196. Oxford University Press, New York.

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