

January Cactus of the Month

Echo Pang

Name: *Pelecyphora aselliformis*

Synonym: *Ariocarpus aselliformis*; *Mammillaria pectinifera*

Common names: *Woodlouse cactus*, *Hatchet cactus*, *Peyotillo*

Family: *Cactaceae*

Genus: *Pelecyphora*

Origin and Habitat: *Pelecyphora aselliformis* is a cactus originated in San Luis Potosí, Mexico. The name comes from Greek “*pelekus*”, which means hatchet. “*Phoros*” means bearing, referring to the shape of the cactus tubercles. The species name “*aselliformis*” describes the



P. aselliformis in habitat by Steve Plath



morphology of the

cactus spines that look like *Oniscus asellus*, or woodlouse. The habitat of *P. aselliformis* is near the city of San Luis Potosí, located in central Mexico at over 1800 meters in altitude. The climate is arid subtropical, mitigated by altitude, with a very mild and dry winter from mid-November to early March and a warm summer with some rain from June to mid-October. The temperature typically varies from 41°F to 83°F and is rarely below 33°F or above 90°F. Being a very small and low growing cactus, *P. aselliformis* grows in grits under the shade of bushes so they get protection from midday sun. There is a rainless period of the year that lasts for 5 months (from November

to April). Summer to early autumn have the most precipitation and rain fall from July to September. The most rainfall is in July (of 3.7 inches in an average year). Winter to late spring is the dry season. The least precipitation and rainfall are both recorded in December (an average rainfall of 0.2 inches).

Description: *P. aselliformis* is a small cactus with a spherical to cylindrical stem. A flowering size plant is only 5-10 cm tall, 2-5 cm in diameter. A young plant is pencil-like, tall and thin. It can look quite different than an older plant when it starts to become more spherical and form a cluster. Its grayish-green color tubercles are flattened underneath the oval shape areoles (elongated and very close together). The spines resemble the most characteristic feature of this species- pectinated and look just like a woodlouse on top of each areoles!

Floral buds usually forms on the apex of the cactus in early spring, after the cactus has a rest during the dry winter. Flower season is from spring to mid autumn. Flowers only open on sunny days. Each flower is 2-3 cm in diameter; pink to violet in color with lighter outside petals with orange anthers and white stigmas.

NOTE: This species is congeneric to *Pelecyphora strobiliformis*, with almost identical floral, fruit, and seed morphology, as well as the internal structures. *P. strobiliformis* and *P. aselliformis* are the only two species comprise the genus of *Pelecyphora*.

Pelecyphora aselliformis is known to contain a trace amount of Mescaline, a psychoactive substance in the same way as *Lophophora williamsii*. That gives them the nickname “Peyotillo”. The wild population of both species of *Pelecyphora* are classified as “being of Least Concern on the IUCN Red List.” (* The International Union for Conservation of Nature (IUCN) Red List of Threatened Species, also known as the IUCN Red List or Red Data Book, founded in 1964, is the world’s most comprehensive inventory of the global conservation status of biological species.)

Cultivation and Propagation: *P. aselliformis* is a very slow growing species. It has a tuberous root system that requires excellent drainage from its soil. Grow it in direct morning sun or afternoon sun with mid-day shade for a compact spinal growth. Waterings should be sufficient in summer but restricted in winter, when night time temperatures remain below 10° C (50° F). In spring and fall, it needs very little watering in Houston. You can give this plant a light monthly watering to prevent shedding of the lower tubercles if your pot is small and the potting medium dries out too fast. Although it is hardy to -4°C for a short period, growing this cactus in a greenhouse or indoor during winter in Houston is the best. A good ventilation is crucial for the overall health of this cactus.



It can be reproduced both by seeds and cuttings. Plants in cultivation today is often grafted because it is slow to grow on its own roots. Grafting pups from older specimens is a much easier way of propagation than sowing.

The rarity in cultivation, its characteristic tubercles and showy flowers plus the challenge of growing from seed successfully make the woodlouse cactus highly valuable and desirable by cactus collectors.



P. aselliformis in cultivation in Houston at Echo's Cacti and Succulents Nursery

Reference

1. <https://www.iucnredlist.org/species/152618/121601538>
2. <https://cactiguide.com/cactus/?genus=Pelecyphora&species=aselliformis>
3. https://www.cactus-art.biz/schede/PELECYPHORA/Pelecyphora_aselliformis/Pelecyphora_aselliformis/Pelecyphora_aselliformis.htm
4. <https://weatherspark.com/y/5131/Average-Weather-in-San-Luis-Potos%C3%AD-Mexico-Year-Round>
5. <https://www.climatestotravel.com/climate/mexico/san-luis-potos%C3%AD>

Photo credits

1. *P. aselliformis* photo in habitat by Steve Plath: <https://www.facebook.com/photo.php?fbid=10224068345846630&set=a.10212630052336441&type=3&mibextid=cr9u03>
2. *Pelecyphora aselliformis* at Echo's Cacti and Succulents Nursery: <https://www.facebook.com/EchosCactiandSucculents>
3. *Oniscus asellus* and Seedlings at the base of an old plant in the growing pot: https://www.cactus-art.biz/schede/PELECYPHORA/Pelecyphora_aselliformis/Pelecyphora_aselliformis/Pelecyphora_aselliformis.htm