

# WEINGARTIA PURPUREA

## A New Species from Bolivia

by J.D. Donald

*Weingartia purpurea* Donald et Lau sp. nova., corpus simplex applanatum globosum ad 85 mm latum 40 mm altum est, epiderme atrovirido. Costae, 11-18, in spiris tuberculatis valde resolutis sunt. Areoli ovati, 6 mm longi 3 mm lati, in dorso summo siti omni scutuliformis tuberculi, in sulcis depositis sunt. Plus minusve 10 spinae radiales, 5-12 mm longae, et 4-6 spinae centrales robustae, 10-12 mm longae, primo rubro-nigrae sero fulvae, vel fulvae sero fulvae dilutae, subuliformae, per areolo adsunt. Flores 15-25 mm longae et 45 mm latae, infundibuliformae latae sunt, receptaculis brevibus, tepalis violaceis vel purpureis vel rubro-purpureis, filamentis purpureis, antheris gilvis, stilo virido cum stigmata 6-cuspidata flava, nectario aperto. Receptaculum 5 mm longum et 5-8 mm latum est, squamis spatulatis latis nudisque cum marginibus purpureis. Fructus 5-7 mm diam. baccula aurantiaca applanata globosa est, seminibus 1,5-2 mm fuscis vel nigris, pileiformis, testis verrucosis ferentibus polygonalibus lineis erectis, hilo ovato depresso.

Habitus prope vicino Cruce, Cochabamba, Bolivia ad 2900 m. Holotypus HEI Lau 332 in Herb. Univ. Heidelberg, depositus. Cotypus HEI Lau 336 similiter depositus.

The body is usually solitary, but many-headed clumps can occur, flattened up to 85 mm in diameter and 40 mm high with a dark green epidemis. The 11-18 spiralled ribs are strongly tuberculate. The mature individual tubercles are approximately square pyramidal in shape with the longer base axis vertical, roughly 10 mm high, 10 mm long and 6 mm wide with the areole on the upper edge close to the plant body. The umbo is quite naked or with only a little white fluff from the immature areoles. No areoles are visible in the first three spiralled rows of conical tubercles arising from the umbo. The mature areoles are oval up to 6 mm long and 3 mm wide usually buff or cream felted, sunken in a groove. There are usually about 10 radial and 4-5 central spines on each areole. The radials consist of relatively weak spines, less than 5 mm long, at the lower end of the areole and three or more pairs of strong lateral spines 10-12 mm long. The centrals are strong and thick-based awl-like 10-12 mm long. The spines are all either reddish black becoming brown (332) or brown becoming light brown (336). The flowers are very short-tubed and wide funnelform in appearance with the perianth colours ranging from a violet-mauve to bright purple (336) to reddish purple (332). The olive green pericarp is 3-4 mm across with broad green, mauve edged, naked spathulate scales. The receptacle is barely 5 mm long, 5-8 mm wide funnelform with

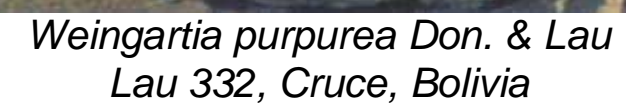
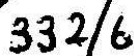
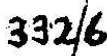
olive-mauve, broad spathulate-acuminate, naked scales, The perianth segments are 20-25 mm long, 4-5 mm wide and spathulate with the bracteoles and outer scales somewhat shorter and narrower. The throat is purple. The purple filaments arise over the whole inner wall of the receptacle and are 5-10 mm long with creamy yellow anthers. The style is thick stemmed and green with a yellow 6-lobed stigma some 5 mm

below the uppermost anthers. The nectary is an open chamber at base of receptacle and not occluded by the style. The overall dimensions of the fully expanded flower are 45 mm wide by 15-25 mm long. The flower buds arise from areoles on the side of the plant body and are rounded slightly pointed and covered by the naked broad green, mauve-edged overlapping bracts. The fruit is a flattened thick walled, reddish brown to orange berry, about 5-7 mm in diameter with scales and persistent floral remains attached. Dehiscence occurs with a basal transverse slit to reveal the dark brown to black seeds, after the fruit walls have become paper thin. The seeds are cap-shaped, showing a verrucose testa with raised ridges dividing the surface into irregular polygons. The hilum is white or yellow, oval and slightly depressed.

Habitat close to Cruce at 2900 m on the pass between Cruce and Mina Asientos Cochabamba, Bolivia. The plants were first discovered by Alfred Lau in 1970.

Holotype under no. Lau 332 deposited in the Herbarium of the University of Heidelberg. Cotype no. 336 similarly deposited.

This species differs from the other purple flowered *Weingartia torotorensis* Card. by its much stronger spination, fewer ribs and larger tubercles. Two distinct forms exist at the habitat, differing chiefly in the colour of the flower, spines and size of tubercle and number of ribs. 332 has a redder tone, black spines and more ribs and smaller tubercles than 336. 336 was illustrated in *Ashingtonia* 1, no.1 p.6. July 1973. Alfred Lau comments '332/336 grew at an altitude of 2900 m on the pass between Cruce and Mina Asientos, but very close to Cruce, still overlooking the valley of the railroad. It grew right on top of the pass on almost horizontal ground, at times slightly falling to the east. The pass is strewn with smaller rocks of conglomerates, basalt and granite. They are more or less exposed as there is very little other vegetation apart from the cacti.'



*Publisher : Ashingtonia, Sussex / Hollygate Nurseries Ltd*

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