



# Rediscovery of *Lemaireocereus lepidanthus* (Eichlam) S. Arias & Terrazas (Cactaceae) from Guatemala

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1. *Lemaireocereus lepidanthus*, landscape of Monte Espinoso in Guatemala

**SUMMARY** rediscovery of *Lemaireocereus lepidanthus*, a poorly known and endemic species of the “Monte Espinoso” of Guatemala.

**Keywords:** rediscovery, *Lemaireocereus*, Cactaceae, Guatemala.

**Introduction.** *Lemaireocereus lepidanthus* is one of the treelike cactus species from “Monte Espinoso”, rare to observe, in spite of its size; and the low number of collected specimens at the beginning of the last century did not allow a detailed description (1978 Bravo; Standley & Steyermark, 1961). Under the Head office of Investigation-DIGI



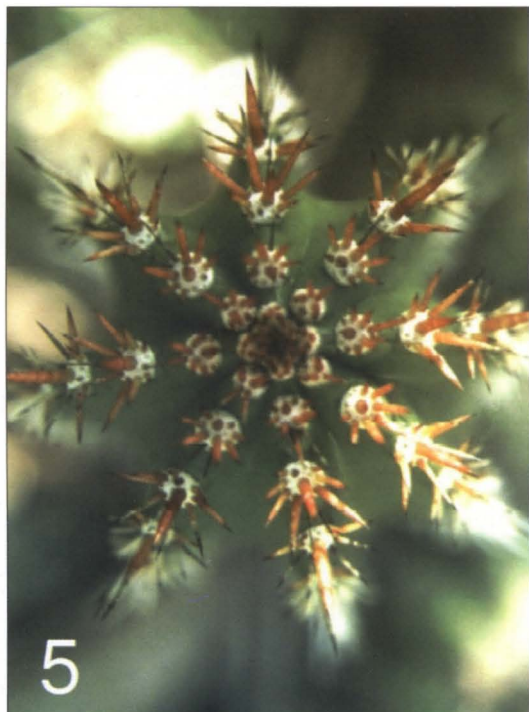
2. *Lemaireocereus lepidanthus*, habitat  
(photo : M. Véliz).



3. Plentiful branches at the base of the stem.  
(photo : M. Véliz).



4. Sight of a grown-up branch (photo : M. Véliz).



5. Extremity of a branch with young spines.  
(photo : M. Véliz).



sponsorship, the University San Carlos of Guatemala, during 2003, realized the study of "The Vegetation of Monte Espinoso of Guatemala", in the departments of El Progreso, Zacapa and Chiquimula, and this allowed the documentation of this species, also its distribution and phenology (Véliz 2002, Véliz *et al.*, 2003).

*Lemaireocereus lepidanthus* (Eichlam) S. Arias & Terrazas. Systematic Botany 2009, 34 (1) 68-83

Synonyms:

*Pachycereus lepidanthus* (Eichlam) Britton & Rose, *Cactaceae* 2:76 1920

*Cereus lepidanthus* Eichlam. Monatsschr. Kakteenk. 19:177. 1909.

Type: Guatemala, Eichlam. s.n. (US). Name com: Organo, Tunillo (G)

*Escontria lepidantha* (Eichlam). Buxbaum; *Anisocereus lepidanthus* (Eichlam) Backeb.

**Treelike cactus**, 3 - 5 m high, columnar, branched out from the base and when the apical region is damaged, 1-6 branches, branches 4-7 cm in diameter, dark green to greenish yellow; 6-9 ribs, thin, 3-4 mm wide and 8-12 mm high; **areoles** rounded, whitish, 2-3 mm in diameter, densely tomentose-glandulose, hairless and grey when old, separated by ca. 1 cm; **radial spines** 7-11, 3-6 mm long, bulbous at the base, stiff, straight, reddish at the beginning, then dark grey; **central spines** 1-3, 6-22 mm long, bulbous at the base, grey, stiff, at first reddish; **flowers** nocturnal, growing at the tip of branches, campanulate, 5 - 7 cm long, 3-4 cm wide; Densely covered with papyraceous scales at the tip and fleshy at the base, 19-22 mm long, 5-8 mm wide, bicoloured, light brown, dark brown or black at



6. vue de côté d'une fleur qui se trouve semi-ouverte durant le jour (photo : M. Véliz).

the base, lanceolate - ovate, caudate at the tip, rounded at the base; **pericarpel**, 1.7-2 cm long, **pericarpel wall** 5-6 mm thick; **peduncle**, 2-2.5 mm thick; **receptacle**, 3-4.5 cm long, **nectar chamber** streaked, pink to reddish, 10-11 mm long; **outer tepals** elliptic - obovate, pink to carmin red, 22-24 mm long and 7-8 mm wide, papyraceous, erose, with a caudate tip; **inner tepals** yellow orangy, lanceolate - obovate, fleshy, with a caudate tip, 22-23 mm long, 7 mm wide, curved inside during the day; **style** exerted ca. 5 mm, light yellow, 30-36 mm long, cylindrical, ca 1.2 mm wide and 2 mm at the base, **stigma lobes** 5-11, 5-6 mm long, **stamens** exerted ca. 5 mm, those at the base, light yellow, 18-20 mm long, the apical 23-25 mm long, the anthers light yellow, ca. 1 mm long; **fruit** dry, egg-shaped to pear-shaped, with remains of the perianth, 27-35 mm long, 25-32 mm wide, becoming at first pink - reddish, irregular,



7. During the day the flower is almost opened (photo : M. Véliz).



Quickset hedge made of *Lemaireocereus lepidanthus* at Chiquimula, Guatemala (photo : M. Véliz).





s8. *Lemaireocereus lepidanthus*, sight of the androecium and the gynaecium (photo : M. Véliz).



9. Dried fruits with many scales (photo : M. Véliz).



10. Fruit where the pasty, reddish pulp is observed. (photo : M. Véliz).



*Lemaireocereus lepidanthus*, habitat, Guatemala (photo : M. Véliz).

generally transverse dehiscence; scales many, papyraceous; areoles tomentose with 2-6 bristles, light to dark brown, 10-20 mm long; pulp pasty, reddish; **seeds** black, shiny, 3-3.5 mm long, 2-2.7 mm wide (see photos).

**Studied specimens:** **GUATEMALA, El Progreso**, Mpio San Agustín Acasaguastlán, 2nd April 2003 (fl) F. Ramírez **FR 592** with M. García (BIGU), 9th May 2003 (fl) A. Cobar **AC 343** with F. Ramírez (BIGU), 11 June 2003 (fl, fr) M. Véliz **MV 13555** (BIGU); Mpio Guastatoya 10th December 2007 (e) M. Véliz **MV 19454** with T. Calderón & J. López (BIGU); **Zacapa**, Mpio Cabañas. 8th May 2003. (fl) M. Véliz **MV 13551** with M García (BIGU); Mpio Huite 14th December 2007 (e) M. Véliz **MV 19479** with T. Calderón & J. López (BIGU) **Chiquimula**, Mpio Chiquimula, Transecto La Hondonada. 11th February 2003. (e) M. Véliz **MV 12916** with F. Ramírez (BIGU), 1st April 2003. (fl) M Véliz **MV 13224** with M Pérez (BIGU), 6th May 2003. (fl, fr) M. Véliz **MV 13445** with M. García (BIGU).

**Distribution:** this species was found in three departments of Guatemala, El Progreso, Zacapa and Chiquimula, at an altitude of 250 to 400m. In the department of El Progreso, it was found near the Municipalities of Guastatoya and San Agustín Acasaguastlán, in the neighborhood of the village El Rancho and km 94.5, 3 km North of the road, in the department of Zacapa, Municipalities of Huite and Cabañas, 3-7 km from the road which goes to the Municipality El Jicaro, and in the department of Chiquimula, along the road, in the colonia El Ingeniero, as a quickset hedge (IGN, on 1966, see photo)



**Use:** this species is known as “Tuno de punta”, because being very upright, it is used for the construction of roofs with tiles; furthermore, due to its good habit of rooting easily, it is used as a quickset hedge (Chiquimula, see photo).

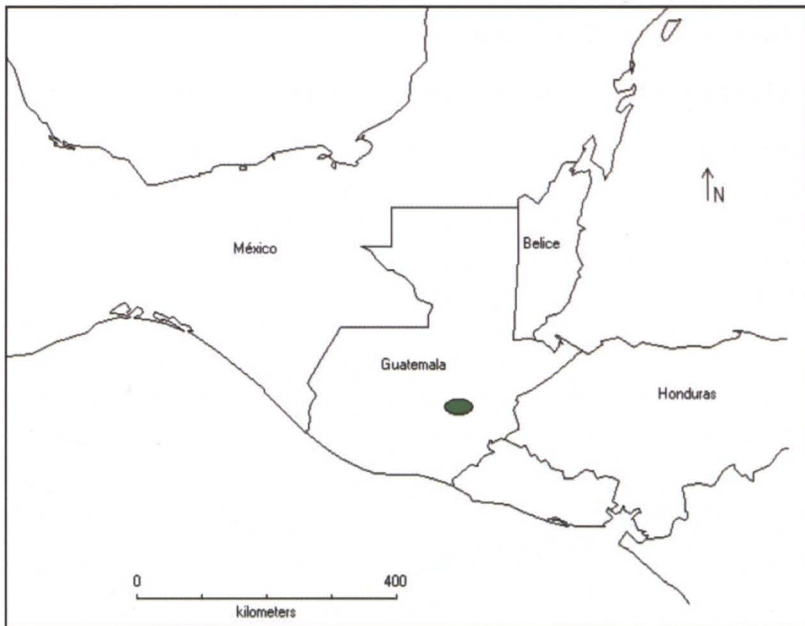
**Phenology:** blooms from April till June, fruits from May till July.

**Habitat:** unfrequent species, it grows together with *Stenocereus pruinosus*, *Pilosocereus leucocephala*, *Nopalea guatemalensis*, *Melocactus curvispinus*, *Mammillaria voburnensis* var. *Eichlamii*, *Guaiacum coulteri*, *Juliania adstringens*, *Malpighia puniceifolia*, *Plocospermum buxifolium*, *Bursera schlechtendalii*, *Ceiba aesculifolia* and *Ximena americana*, in a deciduous-thorny low forest.



*Lemaireocereus lepidanthus*, flowering in habitat, Guatemala (photo : M. Véliz).

## Distribution map of *Lemaireocereus lepidanthus* in Guatemala



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N.D.L.R.: recent phylogenetic studies allow us to recognize the genus *Lemaireocereus* which is again in use and separated from *Pachycereus*.

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