

## MORPHOLOGICAL VARIATIONS IN *PINUS PRAETERMISSA* (PINACEAE) FROM DURANGO, MEXICO

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### ABSTRACT

*Pinus praetermissa* Styles & McVaugh is recorded for the first time from a locality in the Mexican state of Durango. Collected specimens showed different morphological features from the original description of the species.

KEY WORDS: *Pinus*, Pinaceae, Durango, México, taxonomy

### RESUMEN

Se registra por primera vez una localidad de *Pinus praetermissa* Styles & Mcvaugh para el estado de Durango. Se presentan individuos con características morfológicas diferentes a la descripción original de la especie.

PALABRAS CLAVE: *Pinus*, Pinaceae, Durango, México, taxonomía

Shaw (1909) described *Pinus oocarpa* Schiede var. *microphylla* Shaw from two locations in México: Colomas, Sinaloa, Rose 1755 and Pedro Paulo to San Blasato, Tepic, Palmer, 1948. He stated that cones are different from *P. oocarpa* and needles are much shorter and narrower than the typical variety. Martínez (1948) recognized *Pinus oocarpa* var. *microphylla* in his work on Mexican pines, although he considered a difficult task to set aside this variety from *P. oocarpa* without a better examination of the leaves, because the cones are very similar to each other.



Styles & McVaugh (1990), based on mature cone differences including the direction and distribution of scales as well as rows of stomata on the outer face of the leaf, discussed the differences between the *oocarpa* group and the *pseudostrobus* complex.

Leaf anatomy, as regards to resiniferous ducts, showed differences with the *oocarpa* variety and consequently, they decided to name a new taxon: *Pinus praetermissa*. Perry (1991) showed a distribution map of *Pinus oocarpa* var. *microphylla* with localities in southeastern Sinaloa, southern Zacatecas, southern Nayarit, and central and northwestern Jalisco (Figure 1).

From recent botanical exploration in southern Durango, I discovered a small population of *Pinus praetermissa* from Taxicaringa, Municipio de El Mezquital. The general area is characterized by rough and steep slopes, locally known as Region de las Quebradas (canyon region). This population was located at an elevation of 1780 m, on the limits of the settlement. Vegetation is highly modified due to human productive activities, however some isolated arboreal elements coming from higher elevations can be recognized, such as *Pinus maximinoi* H.E. Moore and *Quercus magnoliaefolia* Née, as well as shrubs typical of tropical deciduous forest such as some cacti and legumes. Family orchards showed fruits trees including guava, avocado, and banana, as an indication of tropical climate.

Mean height of *Pinus praetermissa* is 8 m. Trees are growing in shallow soils. They have abundant foliage which is often consumed by livestock, especially goats. The *Pinus praetermissa* collection was made at Taxicaringa, Municipio de El Mezquital, Durango on March 18th, 1993, A. García & J. Necedal 1767 (CIIDIR and Instituto de Ecología).

As a result of leaf analysis, sheaths with five, six, seven and, in a few cases, eight needles were found. In contrast, only five needled fascicles had previously been recorded. With regard to the number of resiniferous ducts, they were the same as recorded in the original description: one or two internal ducts.

The specimens from Durango present some variations on the cone parameters. Mature cones have strongly curved, reflexed scales toward the base of the cone, showing a very different aspect as compared to typical for the species. Cone length recorded for the collected specimens is as much as 8.8 cm, whereas Styles & McVaugh (1990) reported cones from (4.5-)5.5-7.0 cm. Peduncle thickness is as much as 6 mm, whereas the authors mentioned above recorded thickness of 3-4 mm. This information suggests that recently collected specimens might represent a new taxon, however it is important to collect from different populations that might show more evidence to confirm this possibility.

This new locality increases the species range northwards. There are chances of finding more populations in southern Durango since locations such as this are common and most of them are not yet explored because of their inaccessibility.

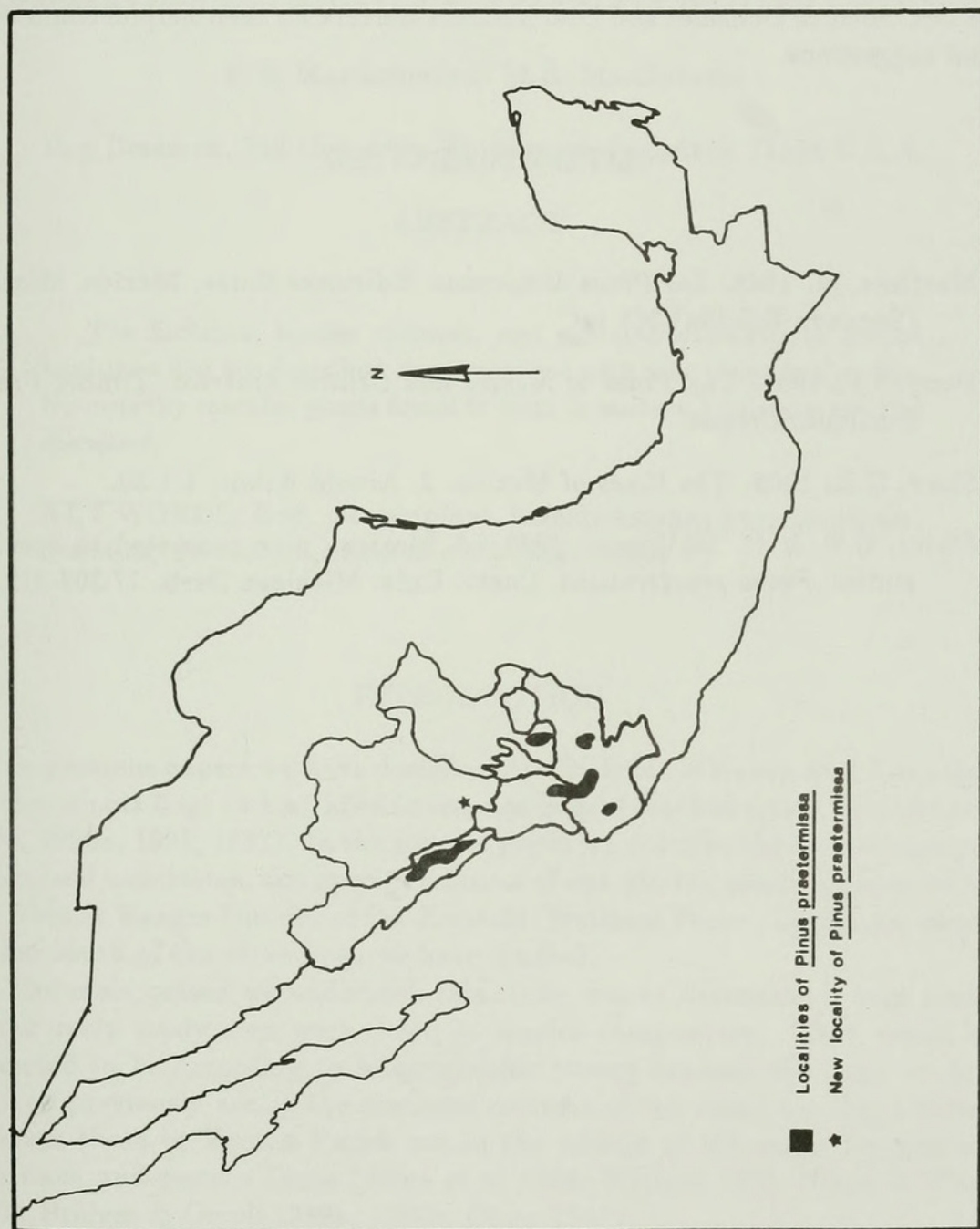


Figure 1. Geographical distribution of *Pinus praetermissa* in western México (from Perry 1991).



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