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## Leaf, flower and fruit phenology of 21 thornscrub plant species across 13 yr.

Marisela Pando, Flor Andres, Enrique Jurado and Eduardo Estrada. Universidad Autonoma de Nuevo Leon, Mexico

This work seeks to contribute to the knowledge of phenology of 21 species of thornscrub in northeastern Mexico, providing information on three phenological stages (foliar, flowering and fruiting). For this purpose, percentage measurements were made to a total of 105 individuals (five per species), within a University vegetation reserve in Northeastern Mexico. Data collection was made every 15 days throughout thirteen years. The correlation between the percentages obtained from the phenological phases and the temperature and precipitation variables were analyzed. Only two species presented seasonality in the three phenological stages and ten more only produced fruits in the same season each year. Celtis pallida (Ulmaceae) and Zanthoxylum Fagara (Rutaceae) did not present seasonality in any of the phases studied. Three species showed no tendency, Foresteria angustifolia (Oleaceae), Cordia boissieri (Boraginaceae) and Acacia rigidula (Fabaceae). At least 14 species produced flowers and fruits twice a year, mainly in spring and late summer. Leucaena leucocephala (Fabaceae) produced fruits ready for dispersion 4 times per year. Phenology of Melia Azederach (Meliaceae) showed the most significant correlation with rainfall and temperature. Patterns of leaf and fruit production were not consistent within families, implying a lack of phylogenetic constraint.

## **Recent Publications**

- 1. Mendoza A.D., Cortina J. Pando-Moreno M. 2014. Biological soil crust influence on germination and rooting of two key species in a Stipa tenacissima steppe. Plant and Soil. Issn:0032-079x.
- Silva, A, F., Pando-Moreno M., Gonzalez, R.H., Scott, M.L. 2013. Changes in the chemical properties of a soil impacted by intensive agriculture, North-Eastern Mexico. International Journal of Bio-Resources and Stress Management. Vol. 4(2), pp. 126-131. ISBN: 1930-2126.
- Estrada, E., Soto, B., Garza, M., Villarreal, J., Jimenez, J., Pando-Moreno M., Sanchez J., Scott, L 2013. Medicinal plants in the southern region of the state of Nuevo Leon, Mexico. Journal of Ethnobiology and Ethnomedicine. Vol 8(45) ISSN: 1746-4269.
- Jurado, Y, E., Flores, R, J., Muro, P.G., Gonzalez, R, H., Pando, M. M., Doria, O. 2013. Are nurse plants always necessary for succulent plants? Observations in northeastern Mexico, including endangered and threatened species. Bradlyeya, Vol. 31. Pp. 150-156.
- 5. Mendoza, A, D. Jurado, Y, E., Pando, M, M 2013. Posible disparo de metano en el cambio climatico. CIENCIA UANL, Vol 16(60) pp. 94-101. ISSN: 2007-1175
- Pando-Moreno M., Reyna L., Scott L., Jurado E. 2013. Characterization of soil in colonies of Mexican prairie dogs (Cynomys mexicanus Merriam) in Northeastern Mexico. ISSN: 1405- 3586. Revista Mexicana de Ciencias Forestales. Vol 4:98105.
- Pando-Moreno, M., R. Pulido, D. Castillo, E. Jurado, y J. Jimenez. 2008. Estimating fiber for lechuguilla (Agave lecheguilla Torr., Agavaceae), a traditional non-timber forest product in Mexico. Forest Ecology and Management. Vol. 255 (11): 3686-3690.

## Biography

Marisela Pando Moreno was nominated Woman Scientist of the State of Nuevo Leon in 2005. She has a PhD in Geography and a MSc. in Natural Resources. She is a member of the national research system in Mexico, has published dozens of research paper and edited books. She has supervised over 50 thesis and her research has been cited over 50 times. Dr. Pando has contributed to research by obtaining funds from national and international sources.

Mpando55@hotmail.com

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