

August 14, 2019

Dr. Fernando Álvarez Noguera

Editor Responsable – *Revista Mexicana de Biodiversidad*

Dear Dr. Álvarez,

Attached please find our manuscript entitled, “**Appraising forest diversity of the seasonally dry tropical region of the Gulf of Mexico**” written by Natalia Mesa-Sierra, Federico Escobar and Javier Laborde, which we are sending for your consideration and possible publication in the journal *Revista Mexicana de Biodiversidad*.

In this paper we provide an accurate quantitative description of the current biodiversity of the woody forest plants present in the highly fragmented and disturbed seasonally dry tropical region of the coastal plain on the Gulf of Mexico in central Veracruz, Mexico. Despite the long-term history of human disturbance in this area and the small proportion of remaining forest cover ($\approx 25\%$) the region still harbors a remarkable diversity; we recorded 158 tree species. Many of these species are only present in this area and several can withstand long periods of seasonal drought. Also important is their provision of key ecosystem services to local inhabitants, and the fact that they form part of the corridor for North American migratory birds.


We believe that this contribution would be of interest to the readers of *Revista Mexicana de Biodiversidad* because the study provides crucial baseline information on the current status of forest biodiversity in a man-dominated landscape, and because even though this region has received little attention, it has a remarkably high diversity of woody plants that is unique at local, regional and national scales. Seasonally dry tropical forests are often classified as fragile. However, our results show that within this region the native forest is highly resilient and recovers relatively quickly if allowed to do so. Keeping in mind that for many anthropic landscapes it is not feasible to establish large protected areas, it is necessary to protect all fragments that, together, maintain their diversity and ecosystem functions at the landscape level.

Based on floristic composition we identified six different forest types within this region, three are old-growth forest (tropical oak forest, semi-deciduous and deciduous tropical forest) and three are second-growth forest in different stages of secondary succession. Contrary to expectation, based on pervasive habitat loss in our study area, local diversity (α) is currently high, and diversity on the regional scale is even higher. The latter highlights the high conservation value of this region, and the importance of the forested patches for maintaining a variety of environmental services (e.g., carbon storage, soil erosion prevention, coastal protection) in this highly modified anthropic landscape.

The main text is 30 pages long, has a total of 7,611 words (including references), plus 4 figures and 4 tables. Additionally, it has 3 tables and one figure as appendices or supplementary information. All authors and I agree on all the interpretation of the results. This paper is our original, unpublished work and has only been submitted to your journal.

We suggest the following two referees: Dr. Juan Manuel Dupuy Rada, from CICY (jmdupuy@cicy.mx) and Dr. María Camila Pizano Gómez, from Universidad ICESI, Colombia (cpizano@icesi.edu.co).

Yours sincerely,



Javier Laborde
On behalf of the authors