

## THE MEXICAN LICHENICOLOUS FUNGI: NEW TAXA, NEW RECORDS AND WHAT IS CURRENTLY KNOWN.

Alejandro Huereca<sup>1\*</sup>, Efen Robledo-Leal<sup>2</sup>, Sergio M. Salcedo-Martínez<sup>1</sup>, Leopoldo García-Sancho<sup>3</sup>, Javier Etayo<sup>4</sup>

<sup>1</sup>. Laboratorio de Biología de Criptógamas, Facultad de Ciencias Biológicas, Universidad Autónoma de Nuevo León., San Nicolás de los Garza, Nuevo León, México.

<sup>2</sup>. Departamento de Microbiología e Inmunología, Facultad de Ciencias Biológicas, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo León, México. 66450

<sup>3</sup>. García Sancho: Dto. Biología Vegetal II, Fac. Farmacia, Universidad Complutense de Madrid, E-28040 Madrid. España.

<sup>4</sup>. Javier Etayo: Navarro Villoslada 16, 3º dcha, 31003 Pamplona, Navarra. España 2. Leopoldo

\* correspondence author

Email: [huereca\\_imp67@hotmail.com](mailto:huereca_imp67@hotmail.com)\*; [efren.robledoll@uanl.edu.mx](mailto:efren.robledoll@uanl.edu.mx); [sergio.salcedomr@uanl.edu.mx](mailto:sergio.salcedomr@uanl.edu.mx); [sancholg@ucm.es](mailto:sancholg@ucm.es); [jelayosa@educacion.navarra.es](mailto:jelayosa@educacion.navarra.es)

Mexico is considered a megadiverse country, due its wide variety of biomes and rugged orography, however, many groups of organisms remain to be documented. The study of lichenicolous fungi in Mexico is a little explored line of research. Starting in the early 18th century with the contributions of Bouly de Lesdain and Vouaux, isolated reports and some descriptions of new species by specialists followed, and its greatest boom was the publication of the Lichen Flora of the Great Sonoran Desert edited by Nash and collaborators in 2002, 2004 and 2007. In this present study we update the state of knowledge of lichenicolous fungi in Mexico over time, compiling all records cited in the literature, resulting in a compendium of 106 known species. Based on field work carried out by J. Etayo in 2007 at the Iztaccíhuatl-Popocatepetl volcanoes in central Mexico and A. Huereca in 2017-2019 in the northeastern states, 64 species previously unknown to Mexico are reported; of which *Abrothallus ramalinae*, *Arthonia apotheciorum* s.l., *A. leucomelodis*, *A. subvarians*, *Gyrphtorus perforans*, *Opegrapha geographicola*, *Roselliniella* aff. *euparmeliicola*, *Sagediopsis lomnitzensis* and *Stigmidium cladoniicola* are recorded for the first time in America and *Arthonia heterodermiae* s.l., *Didymocyrtis infestans*, *Endococcus sipmanii*, *Lichenochora chimaerica*, *Lichenopeltella heterodermiae*, *Pronectria leptogii*, *Sclerococcum areolatum*, *Taniollella umbilicariae*, *Trichonectria intermedia*, *Xenonectriella leptaloides* y *X. subimperspicua* are new records for North America. A total amount of 170 species are cited to Mexico. In addition, several taxa which are unnamed or pending publication are described, including an unnamed new Coelomycete genus. Even with all the present data, it is safe to say that many lichenicolous fungi in Mexico remain to be documented.