**Hidden Diversity of Lichens in the Qinghai-Tibet Plateau**

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The abstract – Qinghai-Tibet Plateau is the highest and largest plateau in the world, only a few people made substantial lichen collections and did taxonomic research in this region, thus, the lichen diversity in this area remains largely unknown. After our field surveys in recent years, and with the start of Second Tibetan Plateau Scientific Expedition and Research Program (STEP), more than 60,000 lichen specimens are collected in this region, while revealing numerous unknown lichens in "the Roof of the World". The reason for this rapid growth of species due to the detailed floristic survey and the help of molecular technology, huge numbers of hidden species are continuously being discovered in Qinghai-Tibet plateau, even if some ‘well-known’ lichen groups, such as *Everniastrum* Hale ex Sipman, *Lobaria* (Schreb.) Hoffm. and *Pyxine* Fr. Furthermore, many lichen species were published in this area since a hundred years ago, due to lack of molecular study, species boundaries are rather blurry; after morphological, chemical and molecular study of these species, species concepts are redefined by using more detailed figures, chemical data and molecular analysis, including genera such as *Anamylopsora* Timdal, *Buellia* De not. and *Squamarina* Poelt. This study shows that the Qinghai-Tibet Plateau harbors rather unique lichen species composition and rich lichen species diversity.

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