
Fern diversity at the edge of Indochina

Daniele Cicuzza*†¹

¹Xishuangbanna Tropical Botanical Garden (Chinese Academy of Science) (XTBG (CAS)) – XTBG (CAS), Menglun, Mengla Xishuangbanna 666303 Yunnan, PRC, Chine

Résumé

In South East Asia the fringe of tropics and subtropics runs on the southern province of Yunnan. As a fringe of tropics and subtropics, this area harbors a unique composition of species with tropical and subtropical components. Furthermore limestone substrate adds a third floristic component in this region. Xishuangbanna prefecture (south of Yunnan) with 0.2% of Chinese surface hosts more than 15% of Chinese flora, showing its importance in term of species diversity and border between two biomes. New vascular species and new records for China are regularly described. A complete knowledge of fern diversity and distributions is still incomplete. This study presents the preliminary results on fern diversity, spatial distribution, and ecological relationships across Xishuangbanna. The preliminary identification lists more than 150 species, the three most common families being Polypodiaceae, Thelypteridaceae and Pteridaceae. Spatially there is a differentiation between North West and South East of Xishuangbanna prefecture. This separation is also clear for lowland and mountain forests, as well as limestone forests with endemic species, including some species on the China Plant Red List. Given that Xishuangbanna and south of Yunnan are often neglected on the studies of Indochina flora and fauna, here I want to contribute to show the importance of this part of China as a crossroad between tropics and subtropics and its position within the Indochina peninsula. At the same time ferns seem to be good indicators to highlight areas with high diversity and high endemism which might act as refugia on the climate change scenario. Finally, pattern of distribution in human modified environment is used to contribute for orientated project for policy and conservation action in this unique region of China and Indochina peninsula.

Mots-Clés: Ferns, Fern distribution, Xishuangbanna, Yunnan

*Intervenant

†Auteur correspondant: cicuzza@xtbg.ac.cn