



El nostre company **Jordi López Pujol** acaba de publicar, en companyia d'altres autors de l'Acadèmia de Ciències de la Xina, l'article [Centres of plant endemism in China: places for survival or for speciation?](#) a la prestigiosa revista **Journal of Biogeography**.

Es tracta d'una contribució rellevant a l'estudi d'una de les flors més riques del món, on (i) per primera vegada es quantifiquen els endemismes d'aquell país i es delimiten amb una relativa fiabilitat els centres d'endemicitat de la Xina, (ii) aquesta eina indirecta permet la identificació dels refugis putatius de flora -el primer cop que es disposarà de dades per a la Xina- i (iii) s'estableix una nova classificació i diferenciació de les àrees de paleoendemismes i neoendemismes

## **Referència bibliogràfica**

**López-Pujol, J., F-M. Zhang, H-Q. Sun, T-S. Ying & S. Ge (2011)**  
Centres of plant endemism in China: places for survival or for speciation? *Journal of Biogeography*

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[Enllaç a l'article](#) - Web de Journal of Biogeography

## Resum de l'article

### Abstract

*Aim* This study aimed to identify the 'centres of endemism' of the Chinese spermatophyte flora in order to indirectly detect the locations of past glacial refugia. The role of these areas as places for plant survival ('plant museums') and/or areas for plant evolution and speciation ('plant cradles') was also assessed.

*Location* China.

*Methods* Distribution patterns of 555 plant endemic taxa, taken as a representative sample of the Chinese endemic flora, were mapped on a  $1^{\circ} \times 1^{\circ}$  latitude/longitude grid. For each grid cell, species richness (total count of species) and weighted richness (down-weighting each species by the inverse of its range) were calculated. Grid cells within the top 5% of highest values of weighted richness were considered centres of endemism. Based on available information, all plant taxa included in this study were classified into palaeoendemics and neoendemics, and their distributional patterns were represented separately.

*Results* Twenty areas of endemism were identified in central and southern China, roughly corresponding to mountain ranges, including the Hengduan and Daxue Mountains, the Yungui Plateau, central China Mountains, the Nanling Mountains, eastern China Mountains, and Hainan and Taiwan. Although almost all centres of endemism contained both palaeoendemic and neoendemic taxa, considerable differences in their respective numbers were recorded, with the majority of neoendemics on the eastern fringe of the Tibetan Plateau (Hengduan Mountains sensu lato) but more palaeoendemics towards the east.

*Main conclusions* Owing to their varied topography, the mountainous regions of central and southern China have provided long-term stable habitats, which allowed palaeoendemics to persist and facilitated the process of speciation. Contrasting patterns between the palaeoendemics and neoendemics within refugia might be attributable to the geological and tectonic history of specific areas. The eastern fringe of the Tibetan Plateau clearly constitutes the 'evolutionary front' of China, probably as a result of the uninterrupted uplift of the plateau since the late Neogene. In contrast, the tectonic stability of central and southern China during the Tertiary may have facilitated the persistence of relict plant lineages.