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附录 IV　槭属和金钱槭属濒危物种种群特征及濒危原因

Supplement IV　Population characteristics and causes of endangerment of endangered species of *Acer* and *Dipteronia*

物种 Species	种群特征 Population characteristics	濒危原因 Causes of endangerment	文献 References
梓叶槭 *Acer amplum* subsp. *catalpifolium*	(1) 仅在四川省有分布, 分布区域狭窄, 常以散生孤立于立地条件较差的陡崖峭壁, 集群分布少; (2) 结实能力较差, 种子质量不高, 萌发率较低; (3) 幼苗和幼树死亡率高, 种群处于衰退趋势。 (1) It is only found in Sichuan Province, and has a narrow distribution with very low population density. The individuals are isolated due to steep cliffs with poor connectivity, and rarely distributed in clusters. (2) Poor fruiting ability, low seed quality, and low germination rate. (3) The juvenile stage has a high mortality rate. The population is declining.	(1) 生境要求严格, 生境破碎化作用; (2) 结实个体少, 种子败育率高; (3) 种子扩散能力弱; (4) 人为破坏和病虫害的影响; (5)种群缺乏幼龄个体, 幼苗更新困难。 (1) Strict habitat requirements, and habitat fragmentation. (2) A few fruiting individuals, and a high percentage of non-viable seeds. (3) Low dispersal ability. (4) Anthropogenic destruction, pests and diseases. (5) Lack of young individuals, and seedling recruitment limitation.	Xu & Liu, 2018, 2019; Zhang *et al*., 2018, 2020; Xu, 2019
庙台槭 *Acer miaotaiense*	(1) 在陕西、河南、湖北、浙江和甘肃有分布, 种群规模小; (2) 庙台槭种群径级结构不完整, 多数处于衰退趋势; (3) 结实能力差, 萌发率低。 (1) It is distributed in Shaanxi, Henan, Hubei, Zhejiang and Gansu, and the population size is small. (2) The population of *A. miaotaiense* has an incomplete age structure, and most of the populations are declining. (3) The fruiting ability is poor, and the germination rate is low.	(1) 生境要求严苛, 适生生境狭窄; (2) 幼苗幼树受到竞争强度大, 死亡率较高; (3) 结实个体少, 种子败育率高; (4) 人为干扰和病虫害影响; (5)幼苗更新困难。 (1) Strict habitat requirements, and limited suitable areas. (2) High competition intensity of young individuals, and high mortality rate. (3) Rare fruiting individuals, and a high percentage of non-viable seeds. (4) Anthropogenic destruction, diseases and insect pests. (5) Seedling recruitment limitation.	Cao, 1999; Cao & Chen, 1996; Meng *et al*., 2016; Li & Zheng, 2018; Li *et al*., 2018; Zhou *et al*., 2019; Sun *et al*., 2022; Zhang, 2022
五小叶槭 *Acer pentaphyllum*	(1) 仅四川省有分布, 种群规模小, 仅存 500 余株, 且种群孤立; (2) 分布于地质条件不稳定的滑坡带上; (3) 幼苗较多, 但存活率较低。 (1) It is only found in Sichuan Province. The population size is small and isolated, and only 500 plants are found. (2) The population is distributed in landslide zones with unstable geological conditions. (3) The number of seedlings is large, but the survival rate is low.	(1)生境不良, 季节性干旱; (2)人为干扰。 (1) Poor habitat, and seasonal drought. (2) Anthropogenic disturbance.	Roh *et al*., 2008; Sun *et al*., 2010; Luo *et al*., 2017
漾濞槭 *Acer yangbiense*	(1) 仅分布于云南省漾濞县, 散生; (2)种群规模小, 12 个分布点共 577 株; (3)结实率低、个体分散。 (1) It is sporadically distributed in Yangbi County, Yunnan Province. (2) The population size is small. A total of 577 plants are distributed in 12 points; (3) The seed setting rate is low and the individuals distribution are scattered.	(1) 人为干扰; (2) 更新能力差; (3) 生境被破坏。 (1) Anthropogenic disturbance. (2) Low ability of regeneration. (3) Destroyed habitat.	Yang *et al*., 2015; He, 2019
云南金钱槭 *Dipteronia dyeriana*	(1) 仅云南省有分布, 零星分布于农耕区向自然植被的过渡地带; (2) 种群规模小; (3) 结实率高。 (1) It is sporadically distributed in the transition zone from agricultural areas to natural vegetation in Yunnan Province. (2) The population size is small. (3) The seed setting rate is high.	(1) 生境要求严格; (2) 不耐荫; (3) 种子具有深休眠特性, 种子的萌发率低; (4) 人为干扰; (5) 幼苗的成活率低, 更新困难。 (1) Strict habitat requirements. (2) Shade-intolerant. (3) Deep dormancy of seeds, and low seed germination rate. (4) Anthropogenic disturbance. (5) Low survival rate of seedlings, and recruitment limitation.	Su *et al*., 2006; Ouyang *et al*., 2006; Deng *et al*., 2008

名录整理自国家重点保护野生植物(新版),《中国珍稀濒危植物图鉴》《中国植物红皮书》, 极小种群(狭域分布)保护物种、中国物种红色名录(植物部分); 表中的 5 种植物均为我国II级保护植物, 且均为中国特有; 其中梓叶槭处于无危(LC)状态, 庙台槭处于易危(VU)状态, 云南金钱槭处于濒危(EN)状态, 五小叶槭和漾濞槭处于极危(CR)状态。
The list is compiled from the List of National Key Protected Wild Plants in China (new edition), *Rear and Endangered Plants in China, China Plant Red Data Book,* List of Plant Species with Extremely Small Populations, China Species Red List (Plant Section). The above five plants are all listed as second-level endangered species, and all of them are endemic to China. Among them, *Acer amplum* subsp. *catalpifolium* is in the least concern (LC) state, *Acer miaotaiense* is in the vulnerable (VU) state, *Dipteronia dyeriana* is in the endangered (EN) state, and *Acer pentaphyllum* and *Acer yangbiense* are critically endangered (CR) status.

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