

世界栽培水杉的调查(1947~2007年)*

马金双

(布鲁克林植物园, 布鲁克林, 纽约, 11225-1099, 美国)

摘要: 自第一批种子于1947年12月底走出中国国门,著名‘活化石’水杉已在世界上栽培了60年。过去的5年间通过各种调查方式获得了6大洲近50个国家的2535份资料。调查结果显示,水杉除在欧美及东亚等国家栽培非常普遍外,阿根廷、澳大利亚、智利、印度、墨西哥、尼泊尔、新西兰、南非、泰国、土耳其、津巴布韦等国也有成功的栽培。生长最好的是北美植物耐寒带5-9及欧洲和东亚相似气候地区的栽培水杉,植株最高已达38 m,最大胸围已达6.2 m。调查内容包括引种的时间、栽培地点、株数、高度及胸围,调查单位不仅包括公立的单位,还包括不对外开放的私人住宅。另外,还讨论了栽培用途、限制因子以及原生种群的资源保护等。

关键词: 活化石; 水杉; 栽培; 调查; 世界

中图分类号: Q949.66*6

文献标识码: A

文章编号: 1000-470X(2008)02-0186-11

A Worldwide Survey of Cultivated *Metasequoia glyptostroboides* Hu and Cheng (Taxodiaceae) from 1947 to 2007

MA Jin-Shuang

(Brooklyn Botanic Garden, 1000 Washington Avenue, Brooklyn, New York, 11225-1099, USA)

Abstract: Since the first group of seeds sent out from China in December 1947, the famous ‘living fossil’, *Metasequoia glyptostroboides* Hu and Cheng, has been cultivated in the world for sixty years. The worldwide survey has been conducted in the past five years through requests at www.metasequoia.org, special announcement in professional journals, citations from various publications, direct correspondences by emails, personal measurement, and herbarium consultation as well as internet searches. The survey yielded 2535 accessions from nearly fifty countries in every continent. Besides most popular in Europe and N. America, this tree has also been successfully cultivated in Argentina, Australia, Chile, India, Japan, the Koreaes, Mexico, Nepal, New Zealand, South Africa, Thailand, Turkey and Zimbabwe. The best performance of growth is in the USDA Plant Hardiness Zones 5-9 in North America and Europe as well as the similar area in East Asia. The tallest individual is about 38 meters in height, and the largest is about 6.2 meters in girth. The details of every accession, both in private property and in public institutions around the world, including place cultivated, recent size of height and circumference, and introduction information if available, have been summarized, with further cultivation issues discussed.

Key words: Cultivation; Dawn Redwood; Living fossil; *Metasequoia glyptostroboides*; Survey; World-wide

20世纪40年代发现的‘活化石’水杉,被学术界认为是20世纪植物学史上最伟大的发现之一^[1-7]。水杉在1948年5月被正式描述之前^[8],种子就已经于1947年底走出中国国门^[9,10]。尽管欧美等地先后有区域性的栽培报道^[11-19],但目前还没有世界性的全面调查。笔者自2002年以来通过各

种渠道与方法收集水杉在世界上的栽培资料,5年间在6大洲共收集到近50个国家的2535份资料,包括7950株水杉。

1 调查方法与内容

首先,通过水杉网站(www.metasequoia.org)和

收稿日期:2007-08-31,修回日期:2007-11-29。

作者简介:马金双(1955-),男,博士,专业方向为种子植物分类(E-mail: jinshuangma@bbg.org)。

* 本文根据 *Metasequoia*: Back from the Brink? An Update, edited by H. Yang, and L. J. Hickey; Proceedings of the 2nd International Symposium on *Metasequoia* and Associated Plants; 2006 Aug. 6-10; Smithfield, RI, and New Haven, CT, USA; Ma, J. S. 2007. A worldwide survey of cultivated *Metasequoia glyptostroboides* Hu & Cheng (Taxodiaceae; Cupressaceae) from 1947 to 2007. Bulletin of the Peabody Museum of Natural History 48 (2): 235-253 的英文改写而成,但内容大为缩减,并侧重国内有关方面,有兴趣的读者可参考英文全文。