ABS-00272

Construction of scientific research systems at the Shanghai Botanical Garden under the establishment of the National Botanical Garden

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Keywords: scientific research systems, Shanghai Botanical Garden, National Botanical Garden

As a crucial founding unit in the establishment of National Botanical Gardens, Shanghai Botanical Garden stood as one of China's earliest botanical gardens and bore the significant responsibility of serving both the strategic needs of the city and the country. This paper primarily highlighted Shanghai Botanical Garden's accomplishments in research platform construction, *ex situ* conservation, germplasm innovation, utilization of characteristic ornamental plant resources, biodiversity conservation, and tree ecology. Building upon these achievements, it focused on how Shanghai Botanical Garden actively responded to National Botanical Gardens system objectives while catering to East China's regional context and serving national strategic requirements. Furthermore, it addressed the development demands placed upon domestic leading and internationally renowned botanical gardens by creating three distinct components within Shanghai Botanical Garden's characteristic scientific research system: East China Wild Plant Conservation Center and Global Germplasm Resource Bank for important taxa; East China Urban Characteristic Ornamental Plant Resources Innovation Research Center and Urban Biodiversity Conservation. For the first time ever, safeguard measures had been proposed to implement Shanghai Botanical Garden's development strategy effectively, which included innovation working mechanism to strengthen scientific research management, increasing capital investment to enhance development environment, prioritizing talent training to create a talent hub, promoting transformation of scientific research achievements through increased scientific research publicity and deepening cooperation and exchanges to foster rapid development All these efforts aimed at integrating into the new pattern of national botanical garden construction.