BACKGROUND

The U.S. Forest Service has collaborated with counterparts in China for more than 20 years. Since U.S. and Chinese forests share similar species and landscapes as well as common threats and challenges, information exchange and technical cooperation in areas such as forest health & invasive species is mutually beneficial. U.S. Forest Service engagement has taken various forms over the years; long-term cooperation between the two countries has fostered innovative solutions to pressing natural resource issues and has resulted in productive partnerships. In recent years, the U.S. Forest Service has worked closely with the Chinese State Forest Administration in areas such as natural resource policy and economics, nature-based tourism, best management practices, combating illegal logging, and sustainable forest use.

Other important partners include the Chinese Academy of Forestry, Chinese Academy of Sciences, Beijing Forestry and Parks, the Memphis Zoo, Wildlife Conservation Society, and The Nature Conservancy.

Forest Health and Invasive Species

The U.S. Forest Service is working with Chinese counterparts, the USDA Agricultural Research Service (ARS), and other partners on a three-year research project to aid in the identification of the invasive Emerald Ash Borer (EAB) and related species of Agrilus wood-boring beetles. The three objectives of this effort are to:

1) Determine and illustrate the characteristics that enable the identification of EAB and related species;
2) Organize workshops in China and the United States that will transfer the technology to make identification easier; and
3) Develop and disseminate the information resulting from this research.

This information will be used by both ARS and the Forest Service to jointly develop a fully illustrated identification manual. Under this program, the Forest Service and ARS have also hosted Chinese entomologists for intensive training on identification of EAB and related species. Scientists from the U.S. also regularly join partners in China and neighboring Asian countries for field collection to support several research initiatives. By improving the identification of the EAB and its relatives and by increasing our understanding of what makes the borer such a successful invasive species, we will help predict and prevent potential future outbreaks by wood-boring beetles.
Climate Change and Forests

The U.S. and China have agreed to include a new Climate Change and Forests initiative under the U.S.-China Strategic and Economic Dialogue’s Climate Change Working Group. This initiative is supported by the U.S. Department of State and will facilitate communication between the U.S. and Chinese on forest-related climate change topics. This program will address four specific work streams, including: 1) Strengthen communication on forestry-related agenda items under UNFCCC climate change negotiations; 2) Technical cooperation in measuring, monitoring, and reporting forestry-related greenhouse gases; 3) Facilitate technical and policy cooperation to promote the synergies between forest mitigation and adaptation to climate change; and 4) Share best practices and technical experiences in U.S. and Chinese overseas finance and investment related to forests and climate change. The U.S. Forest Service is working collaboratively with the Chinese State Forest Administration to implement this program. The program also engages a Civil Society Advisory Board to provide technical input on this initiative’s activities and ensure linkages to ongoing program and projects.

Wildlife Conservation

The U.S. Forest Service is also working with the Memphis Zoo, the Chinese Academy of Sciences, and China’s State Forest Administration to advance wildlife research and conservation. These research efforts are designed to develop forest corridors to connect areas of high biodiversity in the Qingling Mountains of China, the home of the Giant Panda, golden monkey, and takin. Researchers in China and from the U.S. are working collaboratively to study landscape characteristics and habitat suitability for these species to prioritize conservation units for protection and forest landscape restoration. Findings from this study will hopefully support the development of habitat corridors between nature reserves and also focus attention on biodiversity hotspots that remain unprotected.

Forest Service is also working collaboratively with the Memphis Zoo, Mississippi State University, and the Shaanxi Institute of Zoology to promote conservation of the Chinese giant salamander and the Hellbender salamander in the U.S. American and Chinese scientists are working together to improve understanding of these iconic species and generate information to improve reintroduction to help reestablish native populations.

Research and Development

The US Forest Service Research & Development Deputy Area has a wide array of cooperative research activities with Chinese counterparts.

United States-China Carbon Consortium (USCCC): US Forest Service scientists are working with Chinese scientists to better understand climate change impacts on carbon and water cycles through the US-China Carbon Consortium. USCCC members maintain over 50 eddy flux sites that represent natural and managed ecosystems ranging from coastal wetlands to steppes, and from tropical mangroves to boreal conifer forests. Scientists use specially equipped towers located across China and the eastern U.S. to study ecosystem changes. Outputs from this work are being used to develop new and improved models to predict future impacts of climate change.

Urban Forestry Research: US Forest Service scientists are also working with Chinese researchers on urban forestry and urban resilience. Specifically, Forest Service scientists from the USFS Urban Field Station network is providing assistance in the development of a Beijing Urban Field Station and working collaboratively with the Chinese to develop an international Urban Field Station Network.