

Evaluating human impacts on tree diversity and ecosystem functions in East Asia from forest inventory database

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Forests hold the majority of the world's terrestrial species. Human activities have caused and will cause species diversity loss, which leads to changes in ecosystem functions that provide various ecosystem services for human well-being. However, the relationship between species diversity and forest ecosystem functions is still unclear and we cannot predict the impacts of biodiversity loss on the ecosystem functions, one of the core research questions of Global Land Project. In this presentation, we introduce a new research program aiming to evaluate how the loss of tree species diversity affects functions and services of forest ecosystem in East Asia. We developed forest inventory database which has already archived more than 700 plots covering all over Japan. Model to predict forest ecosystem functions will incorporate drivers such as land use change, environmental changes and global climate change. By using the forest inventory database, we tested human impacts on tree species diversity in Japan.

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