

Long-Term Ecological Research in Thailand

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Abstract

The Kingdom of Thailand is situated Southeast Asia and the Kingdom is one of the rich countries in biological resources in this region. However, with the rapid industrialization and economic development in the last three decades, the natural resources have been over exploited. The degradation of natural resources poses major challenges to decision making regarding sustainable utilization of natural resources. In order to solve this problem in smarter way, Thailand has launched a number of long-term ecological research sites (LTER) since 1963. Basically the main objectives of LTER in Thailand are to inventory precise baseline information on biodiversity, to monitor ecosystem function, and to study forest community ecology and population dynamic, in addition to conserve the genetic resources of various forest ecosystems for on going and future studies/uses. In 2007, Thailand became a member of International Long-term Ecological Network (ILTER). Two LTER sites in Thailand have been listed in ILTER, namely the Sakaerat Biosphere Research Station (SERS) and the Kog Ma Watershed Research Station. The SERS lies in Nakhon Ratchasima Province of northeast Thailand, covering approximately 80 km². In addition, the Kog Ma Watershed Research Station is located in Chiang Mai Province of northern region, covering 64 ha. Both sites are internationally recognized as Man and Biosphere Reserve (MAB).

The goal of the SERS ILTER site is to promote the SERS as the demonstration site for sustainable forest management to decision-makers, scientists, local people and publics. On-going research topics focus on monitoring changes in biodiversity, comparison between pristine forest and degraded forest, as well as mapping spatial variation in biodiversity of the SERS landscape. While the research aims of Kog Ma cover all aspects on hydro-ecological research and resource uses of mountainous land. On-going research emphasizes on monitoring long-term trend and regional assessment on energy, water balance and carbon flux of tropical forest. Both sites are managed by the Faculty of Forestry, Kasetsart University in collaboration with relevant agencies.