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## Japanese LTER Network (JaLTER) : Collaborated Activities and Database for Integrated Ecosystem Observation and Research

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Japan Long Term Ecological Research (JaLTER) Network was established in 2006, currently consisting of 18 core sites and 38 associated sites that represent forest, grassland, lake, and marine ecosystems. JaLTER is an official member of International LTER (ILTER) Network since 2007.

The network's unified research themes are:

- 1) Response and feedback of biodiversity and ecosystem functioning under the climate changes
- 2) Hydro-biogeochemical processes and ecosystem interaction from terrestrial to marine ecosystem
- 3) Development and establishment of ecosystem monitoring network and techniques with multiple scales and dimensions

We have an own data base server called "METACAT" maintained at the National Institute for Environmental Studies, Tsukuba. Various types of ecological data uploaded from nation wide JaLTER sites was archived using EML (Ecological Metadata Language), and is open to public access.

JaLTER is now undergoing formation of collaborative networks with other research organizations and networks for two major objectives.

1. Establishment of Global-scale Biodiversity Observation Network under governmental and inter-governmental initiatives (with GEO BON/GBIF, ILTER).
2. Multi-scale assessment of biogeochemical cycles in ecosystems incorporating ecological field surveys, flux tower measurements, remote-sensing, and models mainly to understand the ecosystem responses to global climate change (with JapanFlux, JAXA and JAMSTEC).

Both networking movements assume sharing of data. JaLTER is now assessing the needs for the information management system that promotes the collaborative research activities based on these networks.

Keywords: long-term ecological research network, METACAT, EML, GEO BON, ILTER