

Lake drilling in Japan: Biwa and Suigetsu

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Lake drilling is an important subject of the International Continental Scientific Drilling Program (ICDP), where several projects were implemented in ancient-type lakes utilizing the GRAD200 and GRA800 systems. However, proposals for attempting lake drilling in Japan have not been submitted to ICDP so far. In 2002, an ICDP workshop, entitled "Lake Biwa and Lake Suigetsu: Recorders of Global Paleoenvironments and Island Arc Tectonics" was held in order to assemble an international team and prepare a full proposal. Subsequently, piston coring and deep drillings were made in Lake Biwa supported by the grant-in-aid from Monbusho. Studies of these core samples are now ongoing in various disciplines including sedimentology, paleomagnetism, organic and inorganic chemistry, and radiocarbon dating. In Lake Suigetsu, an international collaborative research has been carried out aiming to provide a high-resolution paleoenvironmental record of the East Asian monsoon. It also contributed toward establishing a purely terrestrial radiocarbon calibration model, based on analysis of the annually laminated sediment. As the next step of the current researches in Lake Biwa and Lake Suigetsu, we expect a new drilling project targeting a 250-m thick continuous clay member of the Lake Biwa sediments.

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