

HGM005-02

Room: Exhibition hall 7 subroom 3

Time: May 25 09:13-09:26

## Lake-catchment systems and sediment information in Baikal-Hovsgol district, East Eurasia

Kenji Kashiwaya<sup>1\*</sup>

<sup>1</sup>K-INET, Kanazawa University

Lake-catchment studies (limno-geomorphology) on global environmental changes make clear mutual correlations between landscapes and environmental changes, both regionally and globally. Long- and short-term (gradual and abrupt) environmental changes have had significant effect on lake-catchment systems while they have been recorded in lake bottom sediments through the systems. In addition, in some lake-catchment systems, present and regional issues can be discussed in the context of long-term and global changes.

In general, it is difficult to establish causal relationships for global environmental issues, especially past issues. However, the lake-catchment systems may give a key to understand cause and effect in past physical environments because current sediment information (sedimentation) can be compared to present observation in the systems; environmental information, especially catchment one, may be causally connected with observational data, which means that past information recorded in sediments has a possibility to be properly interpreted. This is one of significant advantages for lake-catchment studies in environmental changes.

Baikal-Hovsgol district, in the middle latitudes, is highly sensitive to changes in solar insolation related to long-term climatic changes. This region is influenced not only by westerly circulation, but also by the East Asian monsoon. Its prevailing wind system is closely related to the proximity of the Himalayas and the Tibetan Plateau. These factors imply that direct solar insolation is crucial in this district, especially in the high plateaus of the middle-latitude zone.

Keywords: Lake-catchment system, lacustrine sediment