

**The Fuji Five Lakes, a dynamic environment that has  
sustained large changes linked to volcanic eruptions,  
earthquakes and landslides: New evidences from the lake  
survey**

Aurélia Hubert-Ferrari, Department of Geography, University of Liège,  
Belgium

Abstract

Within the framework of the QuakeRecNankai project, about 122 km of seismic reflection profiles were acquired in Lakes Motosu, Sai, Kawaguchi and Yamanaka, and short gravity cores and long piston cores were collected. The talk based on the newly acquired data will explain that the Fuji Five Lakes do not only record past activity of the Fuji Volcano. Large earthquakes are likely to have impacted the lakes, because strong earthquake shaking has the potential to weaken rocks and soils, which results in mass movement and in sediment remobilization. Large mass transport deposits were documented in all the Fuji Five Lakes. In Lake Yamanaka, a min. 5 000 000 m<sup>3</sup> mass flow took place along its southern shore extending to the lake center ~ 2600-2100 yrs ago. In Lake Kawaguchi, smaller mass transport deposits occurred after Higashiken lava flows (~3800-4000 yrs ago). Lake Motosu shows the most extensive record with numerous landslides occurring before ~ 3000 yrs BP. The largest mass transport deposit covers an area of 0.89 km<sup>2</sup> and its upper part was sampled by a piston core. Seismic shaking can also remobilized sediments previously deposited leading to turbiditic flows that settled into the deep depocenter of the lakes. This process was evidenced in Lakes Motosu and Kawaguchi