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ACG035-P03

Room:Convention Hall

Time:May 27 09:00-10:45

## The water budget of a closed lagoon sporadically open to the sea: Lake Oikamanai, Hokkaido

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A closed lagoon, Lake Oikamanai, on the coast of southeastern Hokkaido tends to open sporadically to the Pacific Ocean. The sporadic opening is due to the overflow of the lake water breaking the gravelly sand bar. For several days after the opening, the lake level fluctuates daily in response to the ocean tide. Meanwhile, the drift sand and gravel close the lake again by constructing the bar. Many kinds of birds and water plants are seen in the marsh around the lake, and extraordinarily large corbiculae (*Corbicula japonica*) live in the lake. In this study, the water budget of lake was estimated before and after the opening. The temporal change of water volume was calculated by using the accurate bathymetry. As a result, more than 96 % of the lake water was drained by the opening, and during the closed periods, the river inflow dominated the water budget of the lake. Our future's works are to estimate groundwater input from around the lake and groundwater output to the sea.

Keywords: closed lagoon, water budget, snowmelt runoff, rainfall runoff, open frequency