

The mechanisms of thermal stratification and water circulation in a blackish lake from the continuous data of water temperature.

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Lake Kaiike is a meromictic and brackish lake in Koshiki islands in Japan, separated from the sea by the sand bar. Maximum depth of Kaiike is about 12m and has fresh water from the surface to 4m depth and its border between fresh and brackish water is clear. It have by unique physical and chemical phenomena. Lake Kaiike has an inverse thermal stratification, so is called mesothermy, which is observed at 2-4m depth throughout the year. The author observed continuously seasonal changes of thermal stratifications of this lake with auto recording devices continuously since 1997. We observed several sudden changes of thermal stratifications caused by strong winds, and pointed out that these changes are important to the water circulation of the brackish lake.