Geophysical Research Abstracts Vol. 21, EGU2019-5463, 2019 EGU General Assembly 2019 © Author(s) 2019. CC Attribution 4.0 license.



Retention time of lakes located in the Larsemann Hills, East Antarctica.

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The lake retention time (LRT) generally reports how long water remains in a lake. It is among concepts of lakes' transport time scale needed to support modelling of lakes' eutrophication and biochemistry. In our study, the LRT was evaluated for five lakes located in the Larsemann Hills oasis, where the LRT is not estimated previously. We focused on the lakes Stepped, Reid, Nella/Scandrett, Sarah Tarn and Progress since these lakes serve water for scientific bases located in the oasis. The LRT was estimated as ratios of the incoming water balance components with assumptions of thermal homogeneity of lakes, and existing of water exchange only during a warm season. The study is based on the field measurements carried out during summer seasons 2012–2014.