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## Measuring water temperature

Surface water temperature is measured daily during the ice-free season at over 30 stations. The hydrological database contains surface water temperature data from altogether 80 sites. The surface water temperature is in most cases measured at a water level gauge station. The vertical distribution of temperature in lakes is measured three times a month year-round at nine deep water sites.

Measurements are made at 8 am near the shore at depth of 20 cm. Almost all surface water temperature observation sites have automatic measurement equipment with real-time data transmission. The rest of the stations have manual measurements with digital thermometers. The sensor, which is fixed at a 1 to 2 m long cable, is placed at a depth of 20 cm at a site where the water can be mixed. When the display of the thermometer has stabilized, the observer writes down the reading at an accuracy of 0.1 degrees. Observation data are available online almost in real time.

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The longest surface water temperature records began in the 1910's. The most well-known series from Lake Saimaa at Lauritsala can be considered homogeneous since 1924. At nine ongoing surface water temperature stations records date back at least to the 1960s.