

An aerial photograph of Shiga Prefecture, Japan, showing a vast landscape with rolling green hills, a large body of water (Lake Biwa) in the distance, and a patchwork of agricultural fields in the foreground. The sky is blue with scattered white clouds.

Shiga Prefecture Agriculture is the Best Solution to Climate Change!

Taizo Mikazuki
Governor of Shiga

May 13, 2019, Otsu City, Shiga, Japan

Shiga and Lake Biwa



Shiga in Japan



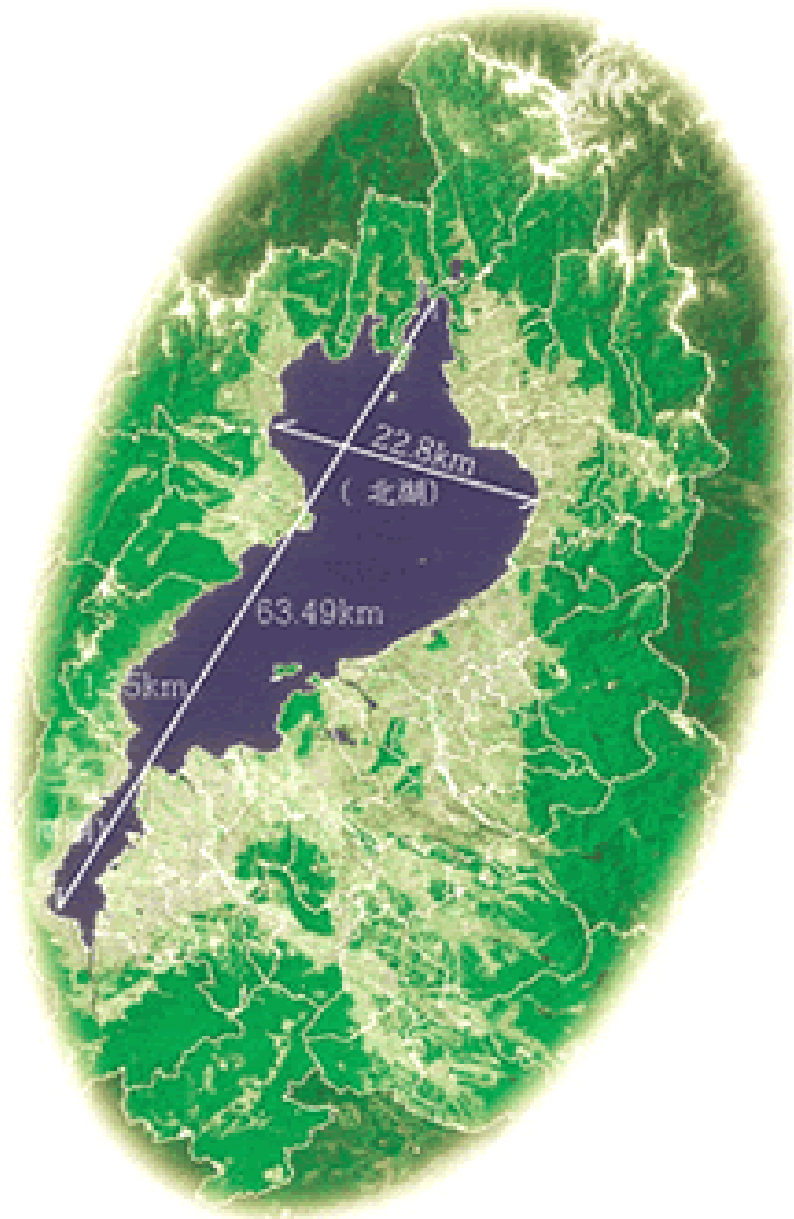
Location of Lake Biwa



Shiga and Lake Biwa



Basic information about Lake Biwa

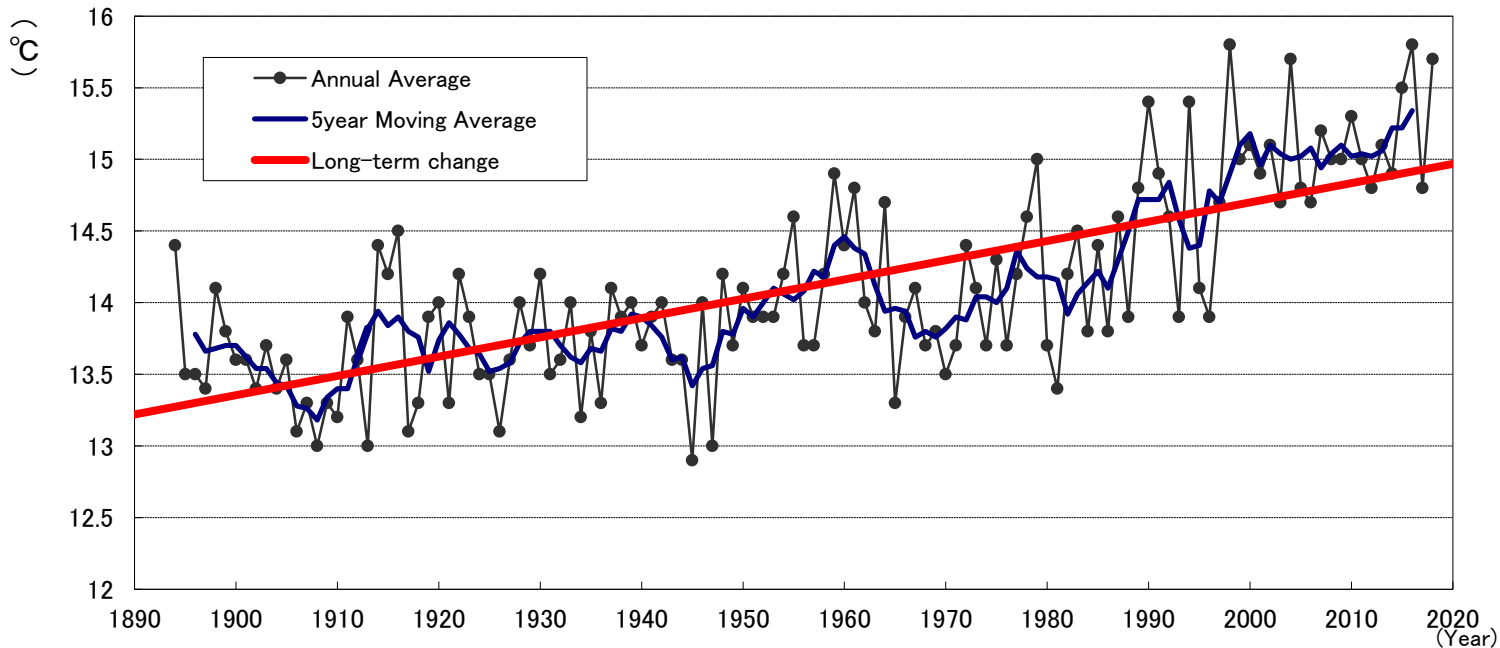


- Surface area:
670.25 km²
(1/6 the size of Shiga)
- Length of shore:
235 km
- Water volume:
~27.5 billion m³
- Average depth:
~41 m
- Maximum depth:
103.58 m
- Minimum width:
1.35 km

Impact of Climate Change in Shiga

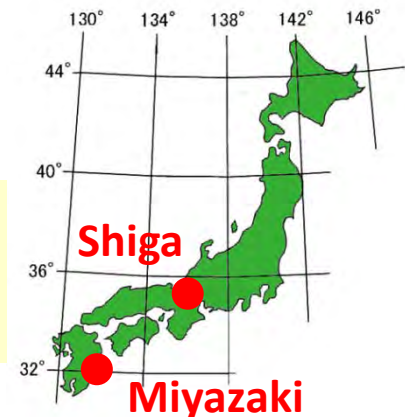


Trend in the average temperature: +1.3°C in 100 years



The annual average temperature in Hikone, Shiga (1894-2018)

A further rise of about 2.9°C by the end of the century is predicted. That is the same average temperature as present-day Miyazaki.



Animal and Plant Life is Already Changing



**Butterfly that lived
further south**



**Cherry Blossoms at
Lake Biwa Canal**

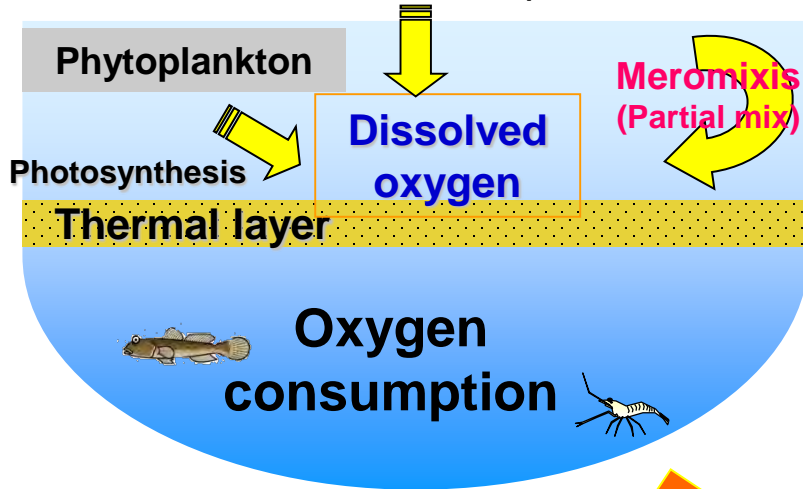


**Blue-green algae appeared later than usual,
in late autumn (November 6, 2015)**

Impacts on Lake Biwa

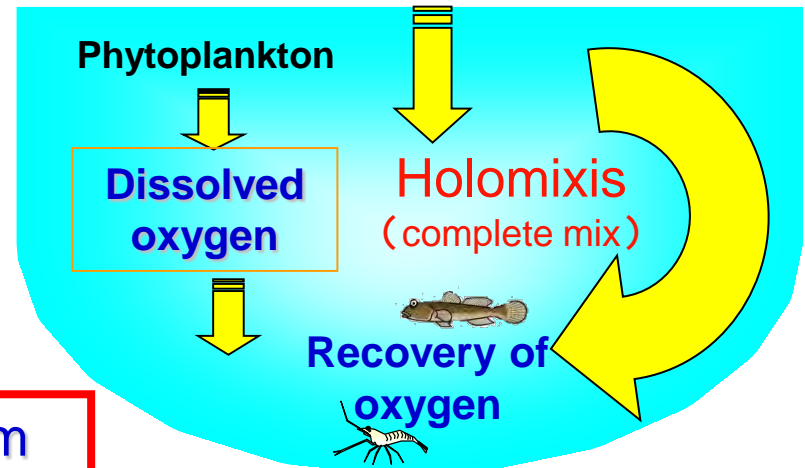
Spring to autumn

Dissolved from the atmosphere



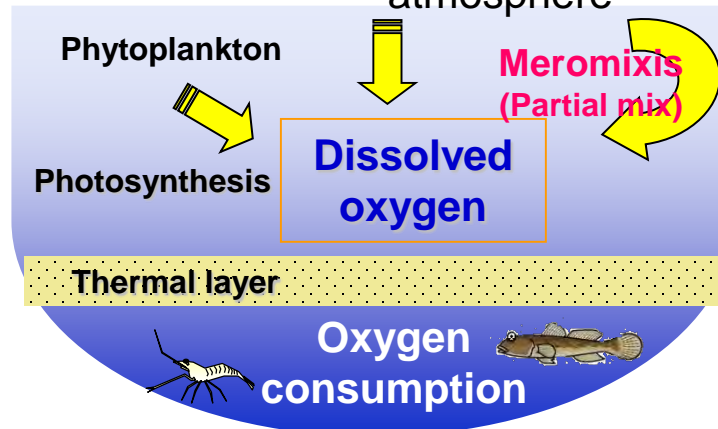
Average winter

Dissolved from the atmosphere



Warm winter

Dissolved from the atmosphere



Every winter, Lake Biwa turns into a holomictic lake that has a uniform temperature and density from top to bottom. However, this year, the lake stayed meromictic because of the warm winter.

Impacts of Climate Change on Agriculture in Shiga



Deterioration in the appearance of rice due to summer heat

Impacts of Climate Change on Agriculture in Shiga



Destruction of vinyl greenhouses by typhoon No. 21 (September 2018)