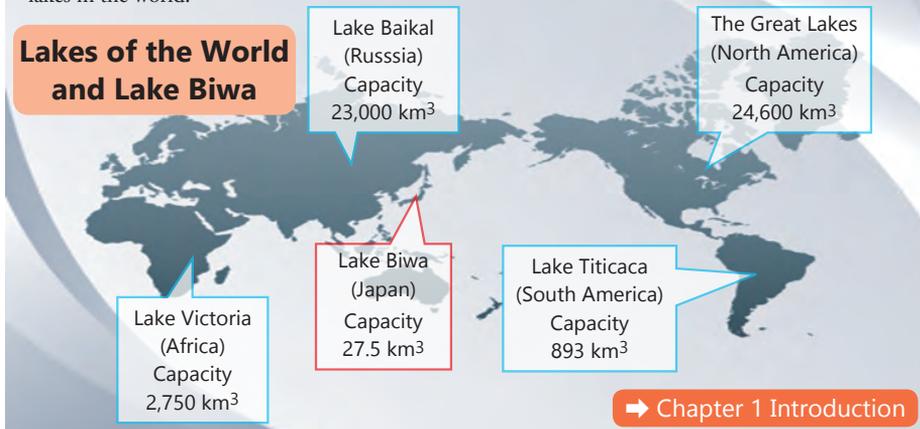


Overview of the Book

Chapter 1 Feature of Lake Biwa

Among the major lakes in the world, the most notable are Lake Baikal in Russia, the Great Lakes in North America, Lake Victoria in Africa and Lake Titicaca in South America. Lake Biwa ranks 129th in surface area, and with a history of 4 million years, it is the oldest in Japan and one of the ancient lakes in the world.

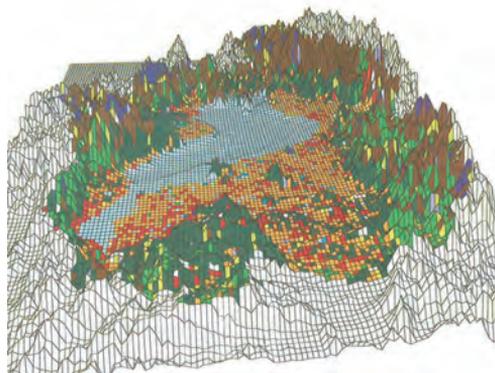
Lakes of the World and Lake Biwa



About Shiga Prefecture

⇒ Chapter 1-1

Shiga Prefecture is located more or less in the middle of the Japanese Archipelago. Surrounded by mountains, Shiga Prefecture forms the Omi Basin at its center. About 1.4 million people reside in this prefecture. Lake Biwa is the largest lake in Japan. Roughly 460 rivers flow into the lake.



Reference : Shiga Prefecture regional environment atlas

(Photos courtesy of Biwako Visitors Bureau)

Islands in the lake



Okishima Island



Takeshima Island



Chikubushima Island

Chapter 1 Feature of Lake Biwa

Geological History



(Data by Lake Biwa Museum)

➔ Chapter 1-6

The origin of Lake Biwa dates back to small lakes that formed in the south of the current site about 4 million years ago, and gradually changed size and position, reaching the current location.

Lakeshore

➔ Chapter 1-4



(Photos courtesy of Biwako Visitors Bureau)

37% of the entire lake shore of Lake Biwa is artificial, with sandy beaches covering 30%, mountainous areas 17% and vegetation 14%.

Fossils from Lake Biwa

➔ Chapter 1-7



Stegodon aurorae



Crocodile teeth



Fossil of footprints at the Hattori River

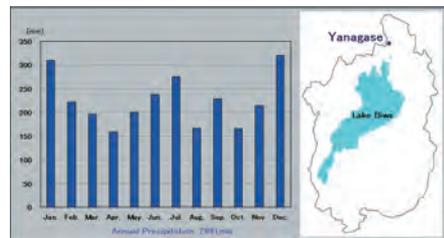
(Photos courtesy of Lake Biwa Museum)

Climate

Precipitation in the south of the prefecture is no more than about 1,500 mm, and it is as much as 2,000-2,500 mm in the north.

(Data by Japan Meteorological Agency,

Photo by Hideo Takeda)



Precipitation at Yanagase, the most northern part of Shiga Prefecture



Special cumulus occurring over Hira Mountains during the fall wind.

➔ Chapter 1-9

Chapter 2 Fauna and Flora of Lake Biwa

A total of about 1,700 species (protozoa, plants and animals) have so far been recorded from Lake Biwa, among which roughly 60 species/subspecies are regarded as endemic.

Endemic species and subspecies

→ Chapter 2-1

(Photos courtesy of Lake Biwa Museum)



Biwa catfish
(*Silurus biwaensis*)

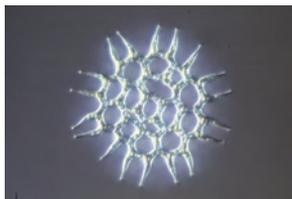


Biwa salmon
(*Onchorhynchus masou* subsp.)

Plankton

(Photos by Satoshi Ichise)

→ Chapter 2-2



Pediatrum biwae



Diffugia biwae

Submerged Macrophytes

(Photos by Etsuji Hamabata)

The submerged macrophyte community dominated with *Hydrilla verticillata* and *Myriophyllum spicatum* in the southern part of the South Basin after the regime shift in 1994.

→ Chapter 2-3



Potamogeton anguillanus community
in front of Shirahige
Jinja Shrine



Plants

(Photos by Yuko Kaneko)

→ Chapter 2-4



Lysimachia thyrsiflora
This species is considered to be
remaining from the ice age



Euphorbia adenochlora, one of
floodplain plants, and a young
shoot of reed

Chapter 2 Fauna and Flora of Lake Biwa

Birds

➔ Chapter 2-6



The Little Grebe (*Tachybaptus ruficollis*)



The Tufted Duck (*Aythya fuligula*)

(Photos courtesy of Lake Biwa Museum)

Benthic Invertebrates

➔ Chapter 2-7



Jesogammarus annandalei



Hyriopsis schlegeli

(Photos by Machiko Nishino)

Insects

➔ Chapter 2-8



Phelotrupes auratus
(Photo by Takashi Yoshii)



Chaetodera laetescrpta
(Photo courtesy of Lake Biwa Museum)

Invasive Alien Species

➔ Chapter 2-9



Bluegill (*Lepomis macrochirus*)



Largemouth bass (*Micropterus salmoides*)

(Photos courtesy of Lake Biwa Museum)

Chapter 3 People and Lake Biwa

Culinary Culture

→ Chapter 3-1



Ugawa Sushi (with dried gourd) in Minakuchi



Hinona turnip in Hino town

(Photos by Masako Horikoshi)

Five items have been selected as Shiga prefectural cultural cuisine assets: “narezushi” (fermented fish), “tsukudani” (fish and shellfish cooked with soy sauce), Hinona pickle, Decchi-yokan (sweetened red bean paste) and Amenoio Gohan (boiled rice with Biwa salmon).

Ecotourism

→ Chapter 3-3

Shiga Prefecture offers a wide variety of eco-tours.



Clear stream expedition tour (Animal and plant observation as well as fishing with bamboo poles)



Countryside forest expedition tour (Tree observation and mushroom foraging)

Tourism

Shiga Prefecture caters to the wide-ranging preferences for leisure activities of visitors, providing opportunities to enjoy the unique scenery and culture of the area.

→ Chapter 3-2



Windsurfing on the lake



Enryakuji Temple
(World Cultural Heritage)



Hikone Castle (National Treasure)



Canal Tour in Omihachiman



(Photos courtesy of Biwako Visitors Bureau)

Chapter 3 People and Lake Biwa

Fisheries

Various methods of fishing including Eri (Small type set nets) and Yana (a weir) trap fishing, or boat fishing like Sashi-ami (a gill net) and sokobiki-ami (a trawl) have been developed in Lake Biwa

→ Chapter 3-11



Yana-trap fishing



Sokobiki-ami fishing



Koayu (small sweetfish)



Biwa-masu (Biwa salmon)



Seta-shijimi (Seta clam)

Agriculture



Fish Nursery Paddy Field Project aims at creating a fish-friendly environment by creating fishways through which fish can swim upstream to paddy fields.

→ Chapter 3-13



Shiga Prefecture promotes “Environmentally-friendly Agriculture” that uses technologies that reduce the impact on the environment of the lake.



A bag of “Environmentally-friendly rice” with approval mark

→ Chapter 3-12



Catfish swimming upstream

Chapter 4 Environmental Conservation of Lake Biwa

Water Supply

The water supply facilities of Shiga Prefecture have been properly maintained and water treatment facilities have been improved to cope with deterioration in the level of water quality.



Kitayamada Purification Plant

(Photos by ILEC)

➔ Chapter 4-8

Lake Biwa Comprehensive Development

The project is three-pronged, comprising conservation measures to protect the natural environment, measures to control flooding to prevent damage caused by floods in the Lake Biwa area and measures to ensure the effective usage of the water of the lake.



Seta River Weir



➔ Chapter 4-13

Water Quality Monitoring



The research boat "Mizusumashi II"



Intake of the lake water



Examination of transparency

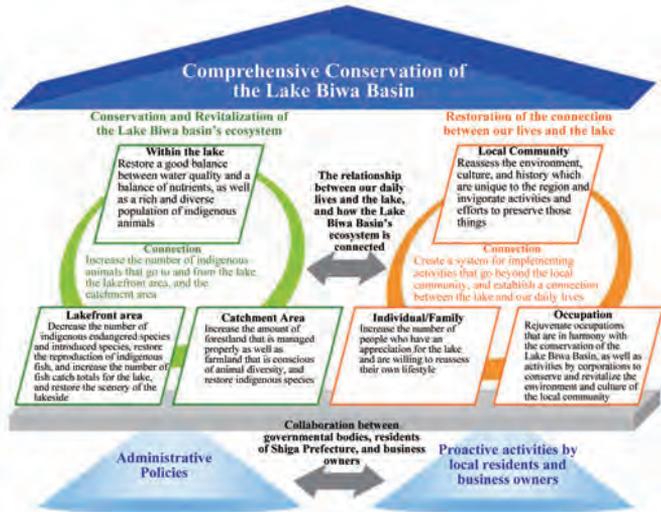
Lake Biwa Environmental Research Institute, established by Shiga Prefecture, is dedicated to the monitoring and research of the environment of Lake Biwa and Shiga Prefecture, elements such as biota, air, water and soil etc.

➔ Chapter 4-6

Chapter 4 Environmental Conservation of Lake Biwa

**Mother Lake
21 Plan**

➔ Chapter 4-15



Chapter 5 From Lake Biwa to the World

ILBM



Integrated Lake Basin Management (ILBM) is an effective approach for achieving sustainable management of lakes and reservoirs based on the idea of Six Pillars of Governance.

➔ Chapter 5-2

Activities in the world

➔ Chapter 5-1



World Lake Conference initiated by the Shiga Prefectural Government



Trainings to develop human resources

(Photos by ILEC)

➔ Chapter 5-3