

## Protecting Lake Akan's *Marimo*

Large, round *marimo* once thrived at four locations across Lake Akan. Today, such *marimo* inhabit just two locations in the northern parts of the lake: Churui Bay and Kinetanpe Bay. Now, conservation efforts focus on preserving the *marimo* and their remaining habitat.

The species was classified as critically endangered in 1997. Before being declared a protected species by the national government in 1921, *marimo* were often stolen from the lake to be sold. Now, it is prohibited to even touch them. In 1950, Emperor Showa was offered a gift of *marimo*, but he refused. This prompted other government officials who had been given *marimo* as gifts to return them to Lake Akan, leading to the creation of the Marimo Festival. The festival is held for three days in October, during which *marimo* are ceremoniously restored to their natural habitat.

The development and construction of the nearby hot spring town Akanko Onsen, around 1960, resulted in the inflow of domestic wastewater into the lake, causing eutrophication, an imbalance in the levels of nutrients in the water. This led to an overgrowth in the lake's plankton and aquatic plants, which block the sunlight necessary for *marimo* to photosynthesize. The impact on larger *marimo*, which live further out in the lake, was especially significant. Local residents took notice of this and undertook efforts to clean the lake and its shores. Sewage facilities were also built to treat the water coming from the hot spring town.

These efforts have all resulted in improved water clarity in the lake, but that itself has caused a new host of problems for *marimo*. Abnormal growth of aquatic plants has occurred because of improved light absorption, resulting in the overcrowding of the *marimo*'s natural habitat.

While progress is being made, there is still much more to be done to preserve the world's sole population of large, spherical *marimo*.