

Marimo: Formation and Shapes

The mechanism by which Marimo develop their round shape is somewhat complex. There are two types of spherical Marimo depending on their internal structure. One type consists of many thread-like algae radiating outwards, while the other is formed when thread-like algae become bunched up and gather into a ball.

A number of factors at Lake Akan contribute to the formation of circular Marimo. The wind and waves that are produced due to the unique topography around the lake create just the right amount of movement needed for these Marimo to tumble. This tumbling exposes the entirety of the ball to sunlight, causing photosynthesis to be even and resulting in a round shape. When the wind and waves are too strong, Marimo can be washed up onto the shoreline. If the waves wash the Marimo back into the lake, they can begin to grow again.

Particular properties of Lake Akan's water also affect the growth of Marimo. Cold water from the rivers in the northern area and spring water rich with minerals and chloride ions from Mt. Oakan and the southern shore both flow into this habitat. The mixture of these two water sources creates a balance of nutrients conducive to Marimo development.