

One of the Japan's largest karst groundwater systems with limestone caves

Akiyoshidai Groundwater System Groundwater System, Karst

Geographical Coordinates: 34°15'N, 131°18'E / Altitude: 80-425.5m / Area: 563ha / Major Type of Wetland: Groundwater system, karst / Designation: Special Zone of Quasi-National Park / Municipalities Involved: Mine City, Yamaguchi Prefecture / Ramsar Designation: November 2005



Akiyoshidai karst tableland



Eastern Bent-winged Bats

Principal Features:

Akiyoshidai, one of the Japan's largest karst topographies, is situated in central Yamaguchi Prefecture in western Honshu, the largest island of the Japanese Archipelago. The karst tableland of Akiyoshidai extends 13,000ha on a gradual plateau at an altitude of 300m. Underneath, a centrally-located groundwater system has developed, forming three limestone caves of Akiyoshido, Taishodo, and Kagekiyodo, where the total area of 563 ha is designated as a Ramsar site.

Akiyoshidai was created 350 million years ago, first as a coral reef rising through orogenesis land formation. Subsequently, the rainfall melted the limestone bed to form the characteristic landscape of "Karrenfeld" with pinnacles and thousands of funnel-shaped dolines to appear over a long period of time.

Groundwater System and the Caves:

The Akiyoshidai karst groundwater system is well-developed by the accumulation of surface water in cracks and crevices formed by erosion in the limestone rocks. The groundwater system as a whole flows down from



Unique formation of limestone pools

northeast to west into Kotto River, with two major systems in the southern Akiyoshido and the northern Taishodo to form approximately 450 caves of variable size in surrounding areas. The Akiyoshido system is the largest, totaling a length of 10km and the area of 1800ha, almost half of the entire Akiyoshidai Groundwater System.

Wildlife in the Caves:

Deep within the underground caves, there are many unique cave-dwelling animals, some even with degenerated physiological traits for living in the darkness as in the loss of eyesight or body pigmentation. Six bat species including Horseshoe Bat and Eastern Bent-winged Bat, totaling over 20,000 in number have been observed. In addition, a variety of aquatic mollusk species inhabit the groundwater.

Eco-tourism Attraction:

Approximately 900,000 tourists visit Akiyoshidai every year. An elevator provides access to Akiyoshido Cave and audio guides are available for use. In a vast underground space of 30m high and 20m wide, one can enjoy seeing more than 500 limestone pools arrayed like terraced fields or the enormous limestone pillars of 15m in height with 4m in diameter.

[Greater Horseshoe Bat *Rhiolophus ferrumequinum*]

A cave-dwelling bat with a horseshoe-shaped nose-leaf used for echolocation. At night they leave their caves in search of insects and return at dawn. Once back in the caves, these bats hang upside-down from the ceilings to rest. Approximately 3600 horseshoe bats inhabit Akiyoshidai.

Contact Information:

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