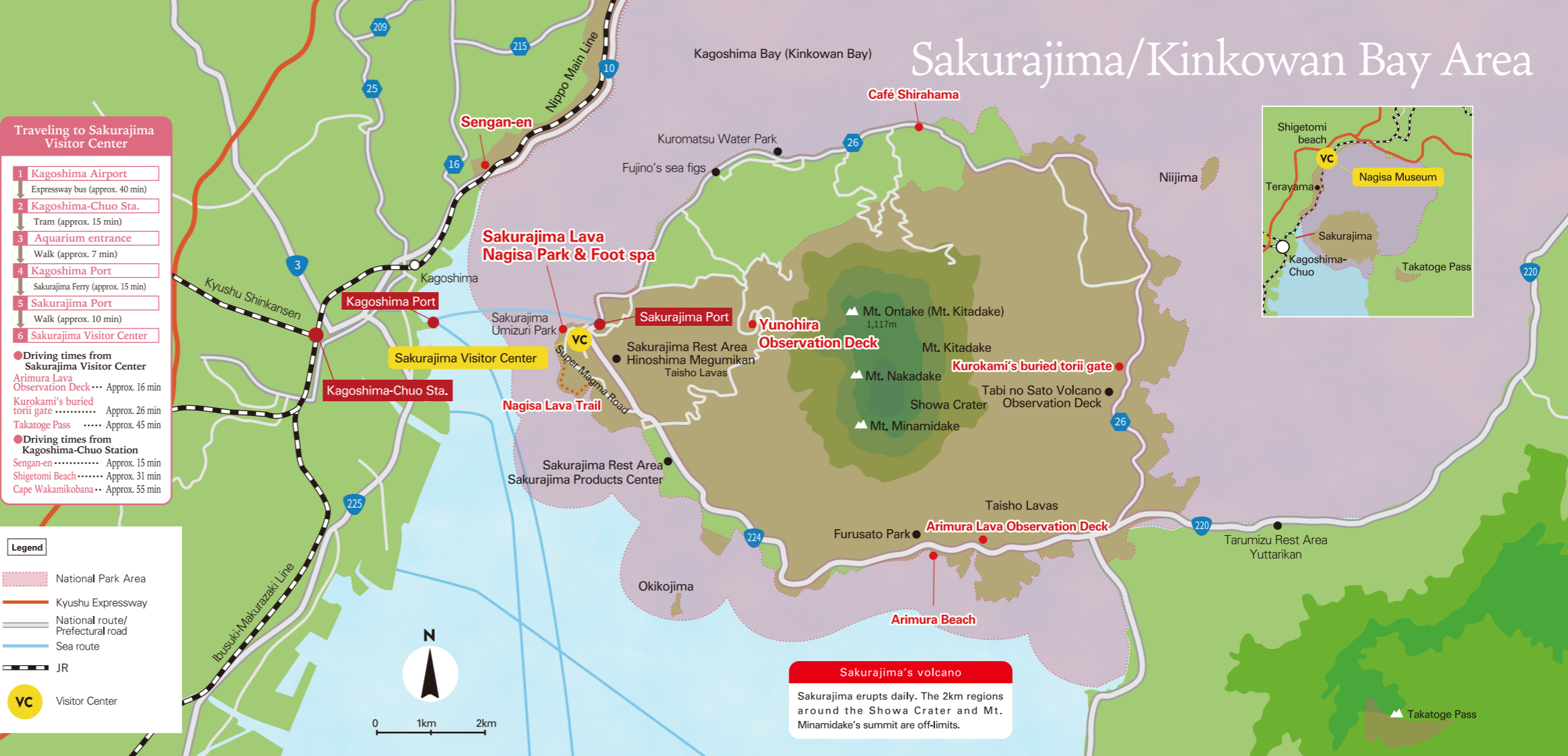


## Phenology Calendar

### Sakurajima/Kinkowan Bay

# Almanac of Nature and Life's Bounty



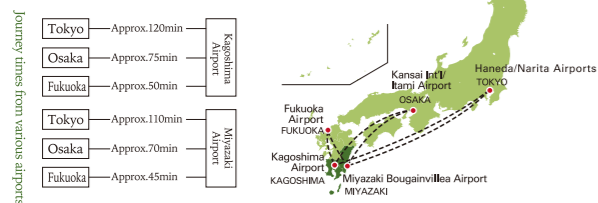
## Kirishima-Kinkowan National Park | Overview

One of Japan's first national parks features diverse volcanic and sea landscapes, including the Kirishima mountains, Sakurajima volcano, and Kinkowan Bay, created by massive calderas. It is also a place where visitors can enjoy the rich local culture, nature's gifts such as hot springs and food, extraordinary history, and mythologies.

Terrestrial area: 36,605 ha Designation: March 1934

Related municipalities (two prefectures, eight cities, and three towns)  
Miyazaki Prefecture: Miyakonojo City, Kobayashi City, Ebino City, and Takaharu Town.  
Kagoshima Prefecture: Kagoshima City, Taramizu City, Kirishima City, Aira City, Yusui Town, Ibusuki City, and Minami-Osumi Town.

## Traveling from across Japan



## Kirishima-Kinkowan National Park Sakurajima/Kinkowan Bay Area Information Center



### Sakurajima Visitor Center

1722-29, Sakurajima Yokoyama-cho, Kagoshima, Kagoshima Prefecture, 891-1419  
TEL: 099-293-2443 Hours: 9:00 - 17:00 Open all year/free admission  
<http://www.sakurajima.gr.jp/svc/>



### Shigetomi Beach Nagisa Museum

7675, Hiramatsu, Aira City, Kagoshima Prefecture, 899-5652  
TEL: 0995-73-3146 Hours: 9:00 - 17:00 (open until 18:00 in the summer)  
Closed on Tuesdays, year-end, and New Year holidays (open in the summer)  
Free admission  
<https://www.nagisa-museum.com/>



## Culture, Industry, Living

In addition to the residents of Sakurajima itself, the city of Kagoshima with a population 600,000 sits in the shadow of Sakurajima. The area's long history of human settlement suggests that volcano-side living has benefits that outweigh the dangers. Indeed, the volcano provides fertile soil for farming, ignimbrite rock for walling, and ash for a number of industries.



## Dealing with Ash

Ash is a part of life for those living around Sakurajima. Far from seeing it as just a nuisance, residents have come up with ways to live with the ash and even profit from industries that make use of it. Street sweeper trucks keep the roads clean, while households bag ash that dusts their property. Weather forecasts include information on wind direction, allowing people to prepare appropriately. While some may choose to wear face masks when working outside, the ash doesn't pose any health risks. Mostly, residents live their lives as normal, as have countless generations of inhabitants around Sakurajima.



## Activities

Unique activities abound, from classes on volcano-ash pottery and baking pizzas in lava rock ovens to nighttime eruption cruises. Add to those hiking, cycling, kayaking, hot springs, guided tours and more, and Sakurajima offers adventures to suit all tastes.

## How Sakurajima's bounty relates to people's lives

Sakurajima and Kinkowan Bay have various specialties that capitalize on the volcanic locality's unique terrain and climate.



### Sakurajima tangerine (mandarin orange)

Sakurajima tangerine is a small mandarin orange with a diameter smaller than 5cm and weighs about 50g. Since daylight duration and geological layers vary in different parts of Sakurajima, various efforts are made to maintain quality. They include using reflective sheets and choosing stocks that suit the area, growing the oranges in greenhouses to protect them from ashes, and controlling the water volume.



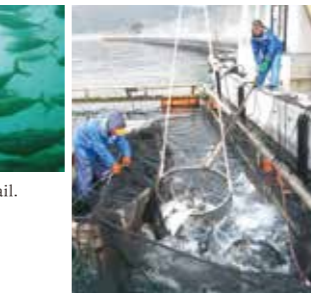
### Sakurajima loquats

Loquats are richly cultivated in Sakurajima. The fruit is grown carefully by bagging, training, pruning, managing the soil, controlling pests, and providing after-pruning care. They are ready to harvest when the bagged loquats droop down, so loquat farmers assess the harvest timing by patrolling the orchards to weigh the bags and check the fruits inside.



### Sakurajima radishes

Sakurajima radishes's cultivation method varies by farmers. Due to typhoons and volcanic ashes, growing the radish requires much time-consuming work such as re-sowing and blowing away the ashes with leaf blowers, and it takes about five months to grow. The soil is similar to a wasteland containing pumice. The moderately lean, well-drained earth is excellent for growing radishes as it is easy to control nutrients and water content.

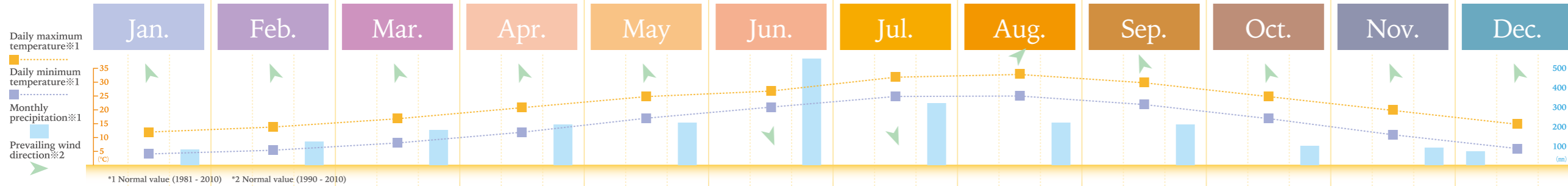


### Yellowtail and greater amberjack farming

Kinkowan Bay is renowned for yellowtail and greater amberjack farming. Yellowtail accounts for 20 percent, and greater amberjack accounts for 90 percent of the national production. This is because Kinkowan Bay is blessed with warm and oxygen-rich seawater throughout the year. Since the bay is deep, an excellent environment is maintained in the fishing grounds, and the cages are installed deep in the sea, even in the coastal areas. Moreover, those in the aquafarming industry are young and energetic. Their youthful vigor significantly contributes to Kinkowan Bay's dominance as a fish production area.

# Sakurajima/Kinkowan Bay Almanac of Nature and Life's Bounty

The active volcano Sakurajima and Kinkowan Bay have nurtured the diversity of unique vegetation and marine life in the volcanic landscape. The Phenology Calendar (almanac) conveys the region's seasons through its nature and people's activities throughout the year. Sakurajima/Kinkowan Bay Almanac of Nature and Life's Bounty introduces the delights and gifts of nature in all its seasons and the lives of the locals who enjoy them.



## Gifts from the land

**Sakurajima radishes harvest**

**Sakurajima radishes**  
Sakurajima's specialty has a history dating back over 200 years. The world's largest radishes weighing 31.1kg (119cm circumference), is registered in the Guinness Book of Records.

**Sakurajima's loquats**

**Sakurajima's loquats**  
Sakurajima's loquats are fleshy and sweet. The delicate fruit is nurtured carefully by bagging each one and growing the fruits in plastic greenhouses.

**Loquat harvest**

**Loquats**  
Excellent farm produce, including leeks are grown in the well-drained soil in the volcanic fan at the foot of Sakurajima.

**Leeks**

**Leeks**  
Leeks with edible green tops are rich in nutrients such as β-carotene and vitamin B1! They taste lovely eaten raw as toppings or cooked in a hotpot, stew, stir-fry, or dressed in a sauce.

**Sakurajima's camellia oil**

**Sakurajima's camellia oil**  
The high-quality camellia oil is extracted from the seeds of Japanese camellia growing at the foot of Sakurajima. It is resistant to oxidization and has a longer shelf-life than other oils.

**Harvesting Sakurajima's camellia seeds**

**Harvesting Sakurajima tangerine**

**Sakurajima tangerine**  
The local specialty represents Sakurajima. Reputed to be the world's smallest orange, the fruit is characterized by its size and rich sweetness. The soft-serve ice cream made with Sakurajima tangerine is very popular.

## Gifts from the sea

**Yellowtail farming**

**Yellowtail farming**  
Yellowtail is regarded as a lucky fish and is also known as Shusseu (Shusse, meaning career success in Japanese) because it changes its name according to its growth stage. Wild and farmed yellowtails are enjoyed accordingly through the year. The area ranks top in farmed yellowtail output in Japan, and it is highly valued as Kagoshima yellowtail.

**Red seabream**

**Red seabream**  
Kinkowan Bay is a treasure-trove of red seabream, thanks to the project for releasing a million red seabreams launched in 1980. The fish is well-formed and is highly-valued across Japan.

**Octopus**

**Octopus**  
Octopus pots, which make use of octopi's habit, fishing baskets, and rods are used to catch octopi. Octopi are very popular for they have a flavor that suits Japanese tastes.

**Greater amberjack farming**

**Greater amberjack farming**  
There is a never-ending supply of greater amberjack, even during typhoons. The expensive fish has been extensively farmed in Kagoshima since 1990.

**Hime amaebi**

**Hime amaebi (all year/closed season in June)**  
Amaebi is only available in Kinkowan Bay. The traditional Tontoko fishing (Tontoko is the sound of banging on the side of a boat) is fascinating.

## Wildlife of Kinkowan Bay

**Kinkowan Bay's dolphins**

**Kinkowan Bay's dolphins**  
There are two types of dolphins found in Kinkowan Bay: Indo-Pacific bottlenose and long-beaked common dolphins. There is an excellent chance of seeing the Indo-Pacific bottlenose dolphins from the national routes because they swim close to the shores. The long-beaked common dolphins swim in large pods away from the shores.

**Uca lacteal lacteal**

**Uca lacteal lacteal**  
The crab is in the family Ocypodidae, a type of fiddler crab, and the male has a much larger major claw. It is marked by a pale-colored body. Other creatures can survive the beach, thanks to the crab combing the mudflats.

**Black-faced spoonbill**

**Black-faced spoonbill**  
The birds have a black, spoon-like bill. They arrive in the Kinkowan Bay marshes from the Korean Peninsula in the winter. Their number has been rising yearly since Kinkowan Bay, with an abundance of food sources, is a precious wintering area.

**Tubeworm Satsuma**

**Tubeworm Satsuma, a deep-sea creature with unique biology discovered in Kinkowan Bay.**  
There are remains of a submarine volcanic eruption called Wakamiko Caldera in Kinkowan Bay. There is also a place called Tagiri (submarine fumaroles), about 80 meters under water in the caldera, which spews poisonous volcanic gas. Tubeworm Satsuma is related to ragworm. It is a very rare creature that survives in the submarine fumaroles by converting hydrogen sulfide into energy using the chemosynthetic bacteria in its body.

## Annual events

**1 Sakurajima radishes Competition (late Jan. - Early Feb.)**

People bring their Sakurajima radishes, the region's winter specialty, to compete on their weight, shape, and size.

**2 Kagoshima Marathons (early Mar.)**

The city marathons have been held since 2016 in Kagoshima city and Aira city.

**3 Sengan-en Kyokusui-no En (early Apr.)**

The elegant spring celebration passed down in the Shimazu family involves performers writing and reading poems as a sake cup floats down before them in the garden stream.

**4 Sakurajima Kinko-Bay Open Water Swimming Championship (Jul. - Aug.)**

Participants compete on their day-to-day achievements in the traditional long-distance swimming competition while getting in touch with Kagoshima's beautiful nature.

**5 Sakurajima Fire Island Festival (late Jul.)**

Spectators can enjoy displays of dynamic fireworks launched near the venue in the summer festival.

**6 Sakurajima Noryo Kankosen (Aug.) (summer cruise)**

Enjoy onboard events, food, drink, and fireworks, while appreciating the night views in Kagoshima's summer tradition.

**7 Kagoshima Kinko-Bay Summer Night Fireworks Festival (late Aug.)**

One of the Kyushu's largest fireworks event is Kagoshima's summer tradition.

**8 Kinkowan Bay Shiokaze Festival (early Sep.)**

Enjoy various stage performances and food while feeling close to Sakurajima's majestic nature at the event.

**9 Sengan-en Chrysanthemum Festival (early - late Nov.)**

The seasonal event sees 15,000 chrysanthemums blossoms grace Sengan-en garden. It offers many photo-worthy spots, such as the three-tiered chrysanthemum pagoda and floral baskets.

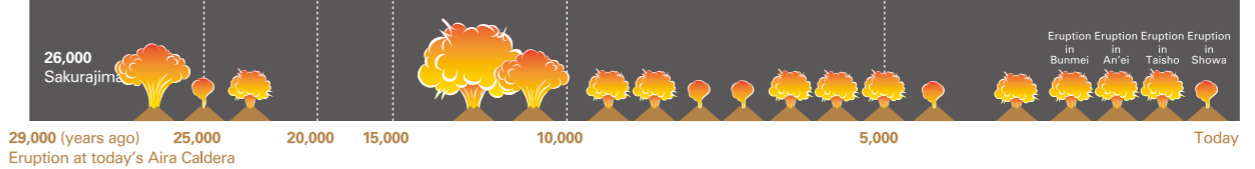
**10 Running Sakurajima (early Dec.)**

The unusual marathon event sees participants run through a lava field.



**Panoramic vista of Sakurajima** Kinkowan Bay occasionally sees a phenomenon called Kearashi (a steam fog that arises when the air rapidly cools the vapor produced by warm seawater) on cold early mornings, enabling people to see gorgeous and fantastical scenery.

## The Origins of Sakurajima



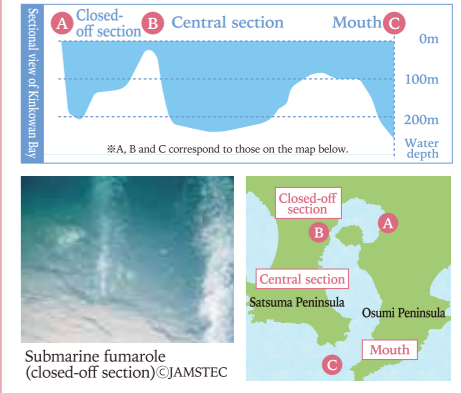
Approximately 30,000 years ago, a colossal eruption buried Kagoshima in magma up to 60 meters deep. A pyroclastic flow of ash, stone, and gas covered the area's mountains and valleys, rendering it flat in the space of a week. The volcanic crater cavity created by this epic eruption is the Aira Caldera. Some 4,000 years later Sakurajima, located on the southern rim of the Aira Caldera, erupted for the first time, growing larger with each subsequent eruption. The northern peak, Kitadake, was active until 5,000 years ago. The southern peak, Minamidake, became active 4,500 years ago and is the peak that continues to erupt today.

## Kinkowan Bay's Characteristics

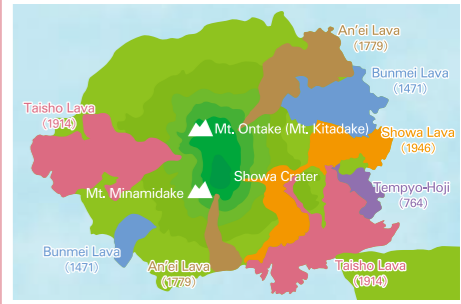
Kinkowan Bay is about 1,130 square km, approximately the size of Tokyo Bay. It is an elongated, heavily indented bay about 80km long from north to south and 20km wide from east to west. The bay continues to see Sakurajima's volcanic eruptions and submarine volcanic activities. Kinkowan Bay's waters containing unique hydrothermal vent and seepage communities, where rich biodiversity can be observed, is indeed a natural aquarium.

**Seafloor topography**  
Kinkowan Bay has a seafloor topography that resembles two mortars fused due to several volcanic activities that have continued from tens of thousands of years ago. The seafloor is divided into the closed-off section north of Sakurajima, the central section in the south, and the bay's mouth.

**Oceanic depths**  
Kinkowan Bay is the only one in Japan with an abyssal sea at the bay's closed-off section. The maximum depth is 206 meters at the close-off section and 237 meters at the central section. The average depth of water across the bay is 117 meters.



## Sakurajima's volcanic geological map



## Topography and Geology

Sakurajima, rising 1,117 meters above sea level, is the post-caldera volcano of the Aira Caldera. There are three peaks running north to south—Kitadake, Nakadake and Minamidake. The three peaks were formed by two volcanoes. The older volcano, Kitadake, is no longer active. The younger volcano, Minamidake, has been erupting continuously since 1955. It has two vents, Nakadake and Minamidake. Sakurajima's magma originates from beneath Kinkowan Bay. Over the millennia, there have been seventeen massive eruptions from Sakurajima, although smaller eruptions occur on an almost daily basis. The "jima" of "Sakurajima" means "island," and although once separate it is now attached to the mainland as a result of a lava flow from the 1914 Taisho eruption.

## Lava and Vegetation

Far from being bare, lifeless expanses of rock, volcanoes are home to a huge variety of vegetation. Around Sakurajima's summit, closest to the volcanic vents, Japanese pampas grass and Japanese knotweed grow, while further down, Japanese eurya and Japanese green alder—deciduous evergreen shrubs—can be found. Further from the crater, Japanese black pine and Japanese bay trees thrive. Lava flows are home to a diversity of vegetation, and because Sakurajima is home to five visible lava flows, it is possible to see the stages of revegetation up close. On the Arimura Seashore it is possible to see three flows, from the An'ei (1779), Taisho (1914), and Showa (1946) eruptions. The newest flow is characterized by hardy black pine growing among otherwise bare rock, while the Taisho flow boasts more verdant vegetation, and the oldest is now home to thriving forests.