

## Hyo-ko

## Water Storage Area, Pond

Geographical coordinates: 37°50'N, 139°14'E / Altitude: 8.6m / Area: 24ha / Major type of wetland: Water storage area, pond / Designation: Special Protection Area of National Wildlife Protection Area / Municipalities involved: Agano City, Niigata Prefecture / Ramsar designation: October 2008 / Ramsar Criteria: 2, 6

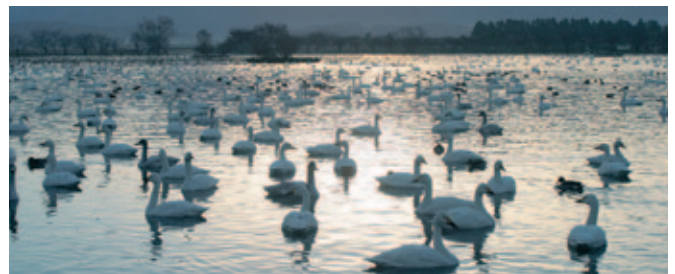


Hyo-ko filled with blooming lotuses in summer

Harvesting water chestnuts



Hyo-ko from the west in winter



### General Overview

With Agano River from Fukushima Prefecture meandering through, the north-east inland of the Niigata Plain is a flat and wet lowland that stretches out into a vast field of rice paddies. Hyo-ko is a small pond in Agano City in the center of the rice production area in this plain.

The pond was made in 1639 in Edo period as an irrigation reservoir. Initially the shape was like a gourd, but one cannot see the image anymore because a part of it was filled in. With the addition of three more ponds - Higashi-shin-ike developed in 1991 and Sakura-ike and Ayame-ike in 2000, the four ponds are now open to the public as the Hyo-ko Waterbird Park. Hyo-ko is not used for irrigation any more.

Hyo-ko is only 0.7m deep in average, and 1.2m at the deepest. It has very small inflows collected from the streams nearby, but is practically a static pond. Plant species such as "Onibishi" *Trapa natans* var. *japonica*, Lotus, and Prickly Water Lily, flourish in the pond, and Reed and Manchurian Wild Rice are found on the shore.

Although cherry trees are planted on the bank, the pond can be observed from all directions because the bank is low and flat.

### Swan Lake, Hyo-ko:

In the Edo-period, hunting was pro-

hibited in Hyo-ko. In the subsequent Meiji-period and thereafter, hunting has been prohibited as a custom. Hyo-ko became a paradise for water birds. Still today, as a feeding and resting place for migratory birds, Hyo-ko welcomes every year approximately 6000 swans such as Tundra Swan and more than 30,000 ducks such as Northern Pintail, Mallard, Common Teal and Pochard.

In particular, Hyo-ko is the first place in Japan where the people succeeded in feeding swans in 1954. Hyo-ko came to be known nationwide as the "Swan Lake," and it greatly influenced the movement for the wild bird protection. The local people, from children to the elderly, participate actively in the community-based protection activities. The lake has facilities such as the swan museum called "Hakucho-no-sato". Because of these historic backgrounds and local people's efforts for conservation, people can watch swans and other water birds right in front of them here in Hyo-ko.

### Wetlands scattered on Niigata Plain:

In addition to Hyo-ko, the Niigata Plain, a major rice production area, has many safe and rich resting sites for migratory birds, including Sakata (a Ramsar site), Toyonogata, and Fukushima-gata. Hyo-ko is included in the Flyway Site Network

under the Partnership for the East Asian-Australasian Flyway.

**[Tundra Swan *Cygnus columbianus*]** In Hyo-ko, 90% of the swans are Tundra Swans. They stay from mid October to mid March to feed and rest in Hyo-ko and the neighboring rice paddies. Every morning, they fly from their resting area around 6:30 to 9:00 a.m., feed on the leftover crops such as rice grains on the harvested rice paddies, and go back to their resting area around 3 p.m. They move around in family flocks with their juveniles. Only a limited number of birds, such as ill or injured, are dependent on artificial feeding. In contrast, the nocturnal ducks spend the daytime in Hyo-ko.

### Contact Information:

Agano City Office

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