

Black-faced Spoonbill Kurotsura-Herasagi (Jpn) *Platalea minor*

Morphology and classification

Classification: Falconiformes, Falconidae

Total length: 688-777mm Wing length: 362mm (346-371)
 Tail length: 109mm (101-116) Culmen length: 183mm (163-207)
 Tarsus length: 139mm (129-152)
 Weight: 1660g (1470-1900)

The total length after Enomoto (1941), others based on the 13 individuals captured in Hong Kong.

Appearance:

Black-faced Spoonbills are white except for the bill, feet and the area around eyes, which are black in adult birds, but the bill has a tint of flesh color in young ones. A spatula-shaped bill is their trademark. The neck, bill and feet are long. In the breeding season adult birds develop long crest feathers, and the crest and breast feathers become tinged with yellow. The bill of adult birds has wrinkles, while that of young birds, in contrast, has no wrinkles. In addition, the wings of young birds are black at the tip.



Photo 1. Young Black-faced Spoonbill (Photo. N. Mita). The bill is smooth and has no wrinkles.

Distribution and Habitat

Distribution:

The distribution of Black-faced Spoonbills is restricted to a part of eastern Asia. They breed primarily on uninhabited islands along the western coast in the vicinity of the border between North and South Korea. In addition, this species breeds on the uninhabited islands between the West Coast of the Democratic People's Republic of Korea and the Liaodong Peninsula, China (Chong & Pak 1999, Ueta et al. 2002). Most of the spoonbills winter in Taiwan, Hong Kong, Japan (Kyushu to Ryukyu Islands), Macau and northern Vietnam, with some on the Jeju Island of Korea, the east coast of China and in Thailand (Yu 2005).

Habitat :

The breeding grounds of the Black-faced Spoonbills are limited to uninhabited islands, which they share with other seabird species. They move to the estuaries and tidal flats of the coastal areas of the mainland more than 10km away from the breeding sites to forage for aquatic animals, such as fish and crustaceans (Zheng et al. 1996). They also frequently use rice paddies as a feeding site in Korea. In the wintering season, on the other hand, most of them range in limited areas, such as mud flats, estuaries, ponds and fish farms.

Life history

Breeding system:

Monogamous. The incubation is performed both by the male and female. Both sexes also take care of the chicks.

Nest : A nest of dead branches is built on a ledge or the ground in an uninhabited island. Old nests of other bird species such as Gray Herons are also used.



Egg: The clutch size is 2-3 eggs

Incubation and chick-rearing periods:

The incubation and chick-rearing periods are approximately 26 days and about 40 days, respectively.

Age of first breeding:

It takes 5-6 years for a young bird to acquire adult plumage in captivity. Females are sexually mature at age 3, compared to males at the age of 4-5 (Chong et al. 1999).

Migration:

The individuals wintering in Hong Kong and Taiwan head north for the Korean Peninsula along the coast of China. A study conducted by the Ministry of the Environment in 2003 showed that the spoonbills wintering in Okinawa, southern Japan flew to the Korean Peninsula through Kyushu.

Diet and foraging behavior

The species thrusts its open bill into the water and moves forward shaking his head from side to side to capture aquatic organisms that enter the beak. This method is profitable in the murky water where the prey is not visible but the prey density is very high.

Topics of ecology, behavior and conservation

● Lazy young are increasing?

The satellite-tracking of migrating Black-faced Spoonbills showed that adults left earlier the wintering grounds for the breeding sites and spent a shorter period of time at stopover sites than young birds (Ueta et al. 2002, Ueta & Higuchi 2002). Some of the young birds that do not breed spend the summer in the wintering grounds or at stopover sites without migrating to the breeding grounds. Although no young birds spent the summer in Japan up to 2002, they have been observed in summer since 2003. The cause of such behavior is not known.



Photo 2. Adult Black-faced Spoonbill with a satellite transmitter.

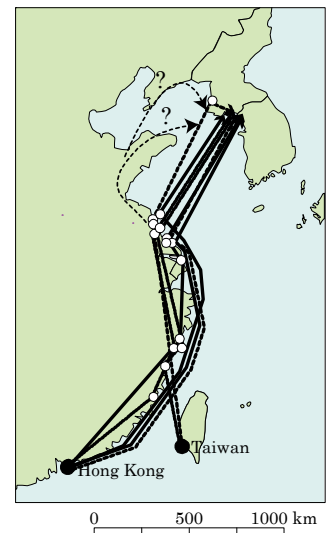


Fig. 1. Migration routes of Black-faced Spoonbills revealed by satellite-tracking.

● Population of the world

Since 1994, simultaneous censuses have been conducted for this species in all the known wintering grounds of the world in mid-January every year (Yu 2005). The recorded population increased rapidly from 351 birds in 1994 to 1475 birds in 2005. It is possible, however, that this increase does not reflect the true increase of

the population but the influx of the spoonbills from so far unknown wintering sites which have disappeared due to development and other causes. Similar population increase was recorded in the wintering populations of Common Shelducks and Saunders' Gulls in Kyushu, southern Japan. As is the case with Black-faced Spoonbills, these species are distributed in a limited area of eastern Asia and winter in the tidal flats. I had the opportunity to visit the east coast of China, a possible wintering ground for the spoonbills, as a part of the study commissioned by the Ministry of the Environment in February 2003. However, the tidal flats represented on the map had disappeared due to reclamation or turned to seashell culture sites, which are not suitable for wintering Black-faced Spoonbills. The satellite image shows the obvious changes of the tidal flats (Figure; Hasegawa 2005). Thus, it is assumed that the Black-faced Spoonbills have concentrated in some of the wintering grounds due to the loss of their former wintering sites.

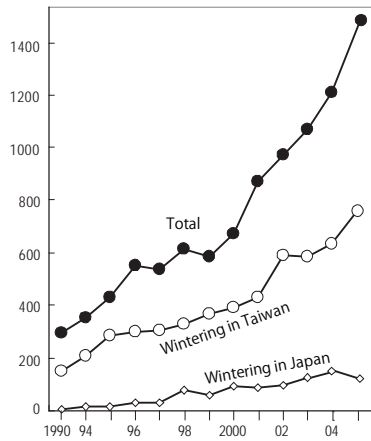


Figure 2. Changes in the population of Black-faced Spoonbills. The recorded population increased rapidly, but that phenomena is suspected to indicate concentration of individuals from the other sites that is lost or degraded.

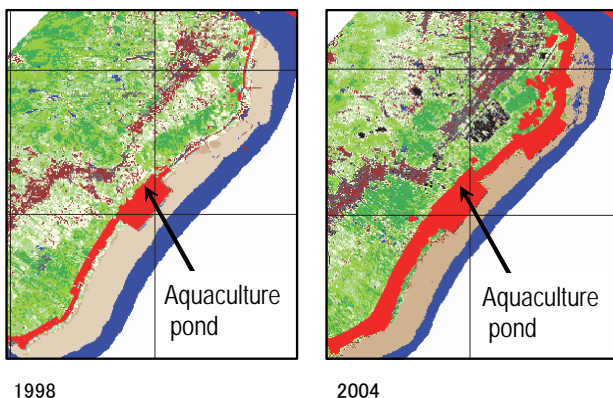


Figure 3. Changes in the wetlands in Wenzhou Bay, China. The tidal flats have been changed to aquaculture ponds (Hasegawa 2005).

● Risk of mass mortality

In Tainan County of Taiwan which is the world's largest wintering ground for Black-Faced Spoonbills, 757 birds that account for more than half of the world population wintered in 2005. Between December 2002 and January 2003, 73 spoonbills died in this site from *Clostridium botulinum* poisoning. It was the first mass mortality of Black-faced Spoonbills, but it is conceivable that it may be repeated in the future because the mass mortalities of ducks occurred several times before that time. Although the first-aid measures against the mass mortality need to be worked out, it is more urgent to take steps to control the concentration of wintering spoonbills to reduce the risk of mass mortality. In addition of conserving the known wintering sites of the spoonbills, it is important to determine and conserve their wintering grounds in the east coast of China swept over by a wave of development. Since this area is used as a stopover site by Black-faced Spoonbills and other water

birds while on migration, it is extremely important to conserve favorable tidal-flats even if the spoonbills are not currently confirmed to winter.

● Intra- and international cooperation for the necessary conservation

The distribution of Black-faced Spoonbills is restricted to the Far East Asia. While on migration, however, they use many countries and regions from the Korean Peninsula to Vietnam. Intra- and international cooperation is essential to promote the conservation of such species. The "Japan Black-faced Spoonbill Working Group" was founded in Japan in 2002 and BirdLife International is formulating conservation programs at the international level. Conservation efforts of this type will have a great influence on the future of Black-faced Spoonbills.

Literature

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 Languages of literature cited other than English: [J] in Japanese, [J+E] in Japanese with English summary.



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I have been involved in the study of the Black-faced Spoonbill since the first satellite tracking study of migration routes from Hong Kong. Even though I do not follow this species closely since then, I still am involved somewhat. I remember the year that we tried to capture them for the first time. I felt sorry for the staff of NTT that had developed the world's lightest transmitter as that time, because we could not capture them as planned. The photo was taken in Okinawa.
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