

Asian Stubtail Yabusame (Jpn) *Urosphena squameiceps*

Morphology and classification

Classification: Passeriformes Cettidae

Total length:	105mm	
Wing length:	♂ 52.7±1.2mm (n = 64)	♀ 51.5±1.2mm (56)
Tail length:	♂ 29.4±1.1mm (64)	♀ 28.7±0.9mm (56)
Culmen length:	♂ 10.4±0.5mm (64)	♀ 10.3±0.5mm (56)
Tarsus length:	♂ 19.2±0.4mm (64)	♀ 19.1±0.6mm (56)
Weight:	♂ 9.3±0.6g (63)	♀ 9.3±0.6g (27)

The total length after Enomoto (1941), and other measurements by the author. The male statistically shows significantly larger values in the mean lengths of natural wing and tail. But the difference may not be always distinct (Kawaji 1995).

Appearance:

The male and female Asian Stubtails are similar in plumage coloration. They are brown all over, but paler on the underpart than the upperpart. The crown looks scaly due to the dark edges of feathers (Photo. 1). They have a distinct pale brown superciliary. After fledging, the juveniles molt into adult plumage in a short period of time, which makes it difficult to distinguish between juveniles and adults by plumage coloration (Kawaji & Hirokawa 1998).



Photo 1. Asian Stubtail. [Ryozo Yamada]

Vocalization:

Once males arrive at the breeding grounds, they sing their cricket-like diagnostic song of "shee-shee-shee-shee" with rising intonation. The common call of the male and female sounds like "Chott-chott-chott" as in Winter Wrens. When they are alarmed, they call continuously "Bich-bich-bich" or make a metallic sound like "Chichichittz, chichichittz". Males call in the same way when they are engaged in a territorial defense.

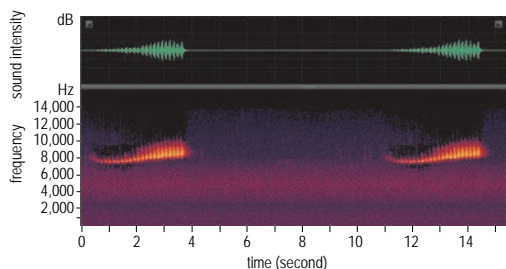


Fig. 1. Sonogram of Asian Stubtail song. [Mutsuyuki Ueta]

Distribution and Habitat

Distribution:

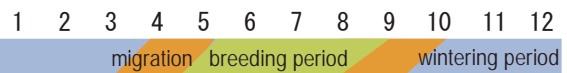
As a summer resident, Asian Stubtails visit Japan (to the north of Yakushima Island, Kagoshima Pref., southern Japan). They also breed in northeastern China, the Korean Peninsula, the Ussuri region, Sakhalin and the Kuril Islands. They generally migrate to southwestern China, Taiwan and the Indo-China Peninsula in winter, but some of them winter in the Amami Islands and the Okinawa Islands as well.

Habitat:

In the breeding season, Asian Stubtails are usually found in a broad-leaved or mixed forest with the under-growth of *Sasa* spp. (bamboo grass) or various shrubs and a thick litter layer on the ground. They occasionally stop over in parks of urban areas while on migration.

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Life history



Breeding system:

They are basically monogamous, but can be polygamous (Kawaji et al. 1995).

Nest:

Male Asian Stubtails visit the study site (Hitsujigaoka experimental forest, Sapporo, Hokkaido) in late April every year and claim the territory, singing vigorously at the top of a tall tree for a while. Some males sing a distinct song at night right after arrival in some areas (Masayoshi Kamioki pers. comm.). A male has about 0.5ha singing area on average. The study of the difference in arrival date between the male and female of a pair showed that females arrived about ten days later than males. When a male pairs up with a female passing through the territory, the male moves around with the female. About 12 days later, the female begins to build a nest and the male starts to sing on the ground, instead of in treetops.

It is females that build a nest. It takes about five days on average to complete it. They usually build a cup-shaped nest on the ground. They lay grass fibers and fallen leaves and animal fur in the inner cup. They often use fallen leaves with only veins for the exterior. The nest is 54mm in diameter on the inside and 38mm in depth. In the study site of Hitsujigaoka, for instance, they usually build a nest in a space under the fallen leaves lifted from the ground by *Sasa* grass bended under the weight of snow, when the bamboo grass rises again after the snow has melted. They sometimes use as a nest site the fork of the roots at the base of a large tree and a hollow on a slope in the woods as well. There was a pair which built a nest in a hollow of a birch tree trunk at a height of 1.3m above the ground, which is an exception.



Photo 2. Nest and eggs

Egg:

Asian Stubtails generally breed more than once in a breeding period. The clutch size was six eggs from every nest in May, but it decreased to 5.4 eggs after June in the study site of Hitsujigaoka, Sapporo. The eggs have red flecks on a white ground (Photo 2). They are 1.5cm by 1cm and about 1g in weight. During the egg-laying period, females visit their nest and lay an egg early in the morning every day. After laying, however, they leave the nest and do not return until the following morning.



Photo 3. Nestlings and eggs

Incubation and nestling periods and fledging success:

Completing the clutch, females start incubating immediately, but males do not take part in the incubation. The incubation and nestling

ing periods are 13 and 10 days, respectively. Females continue to incubate the nestlings for about eight days after hatching. While females incubate the eggs, males visit the nest exclusively to feed females only once or twice a day. Females leave the



Photo 4. A pair of Asian Stubtails feeding the nestlings.

nest to feed once an hour for about 20 minutes. After the nestlings have hatched, males take full responsibility for feeding them, while females brood them except when they occasionally leave the nest to feed. The diet of the nestlings consists primarily of larvae of lepidoptera (caterpillars), followed by spiders and flies (diptera). The male parent mostly takes care of the fledglings because the female usually attempts the second breeding several days after the young have fledged. The juveniles learn to forage for food by themselves about 10 days after fledging. In the Hitsujigaoka study site, the hatching success was 89% and fledging success was 80% which was higher than in other areas (Hitoshi Ohara pers. comm.). The common predators for the Asian Stubtail are green tree snakes and foxes. But in the study site, few nests fell victim to carnivorous mammals which may explain the high fledging success in this site. A dense thicket of bamboo grass probably prevented predatory mammals from gaining access to Asian Stubtail nests.

Topics of ecology, behavior and conservation

● A stranger bird at the nest and what it means

In Asian Stubtails, birds other than the nest owners are frequently observed at the active nest during the breeding season, for which the possibility of a cooperative breeding was earlier suggested because those visiting birds were assumed to be a helper (Ohara & Yamagishi 1984, 1985). Afterwards, however, it turned out that their breeding system was quite different from a cooperative breeding. Ohara (1992) reported that visitors were confirmed at a large number of nests late in the breeding period in the study site of Nagano Pref., central Japan. More than two adult birds were



Photo 5. Arrows show the nest owner male (middle) and female (right) in the nest and a visitor male (upper left). (From the video image by Masayoshi Kamioki).

engaged in raising the nestlings. Those visitors are all males, which are classified into the following three categories: 1) neighboring males whose partners are incubating the eggs, 2) neighboring males that have lost their partners and 3) unknown males that have never sung in the neighborhood. In the Hitsujigakoka study site, on the other hand, birds other than the nest owners were also observed at 48% of the active nests (Kawaji et al. 1996), which occurred since the early nestling period of the first breeding. Some of the visitor males had their own nests and their nests were confirmed to be in the stage of incubation. Since the incubation is carried out only by females, their partners move around and visit the neighboring pairs' nests, where they occasionally feed the nestlings. The visiting and occasional helping behavior of the neighboring males is assumed to be a strategy to acquire the female partners of the visited pairs when they fail in their breeding attempts. Most of the visitor males sang vigorously in the vicinity of the neighboring pair's nest without helping their breeding actively (Photo 5). It is interesting to note, however, that some males chase after the territorial males relentlessly or attack them directly. Many enigmas remain to be solved about the relationship between a breeding pair and an extra-pair male in Asian Stubtails.

Literature

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

Author

Noritomo KAWAJI Forestry and Forest Products Research Institute

I studied the breeding ecology of Asian Stubtails for about six years when I lived in Sapporo before. While struggling with a dense thicket of bamboo grass in the experimental forest of the office every day I collected many interesting data on the species. I did not find any good study sites for Asian Stubtails after I had left Sapporo. When I returned to Sapporo after a dozen years and observed breeding Asian Stubtails, I realized the charm of this big-eyed little bird again. I feel that Asian Stubtails are still full of riddles to be solved.
syrmaticus@emobile.ne.jp

