The first ringing record of Sedge Warbler *Acrocephalus schoenobaenus* in Japan

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A Sedge Warbler *Acrocephalus schoenobaenus* was captured during a ringing survey in south-west Hokkaido on September 12, 2016. This is the first ringing record and the second national record of this species in Japan.

Key words: *Acrocephalus schoenobaenus*, Banding, Hokkaido, Ringing, Record, Sedge Warbler

The Sedge Warbler *Acrocephalus schoenobaenus* is a migratory member of the family Acrocephalidae (Clements *et al.* 2016; Gill & Donsker 2016). This species has a wide distribution and is a monotypic taxon; it breeds from Western Europe to central Russia (west of the Yenisei River) and central Asia including Kazakhstan, and winters in sub-Saharan Africa (Kennerley & Pearson 2010). Its status is considered by IUCN to be of “least concern” (BirdLife International 2004). East Asia, including Japan, lies far to the east of its normal distribution and its migration route. However, on rare occasions, juvenile songbirds of many species are known to migrate well beyond their normal ranges in their first Autumn (e.g. Furuichi *et al.* 2010, Horimoto & Watabe 2014).

We captured a single Sedge Warbler during a ringing survey in the Autumn migration season of 2016. This represents the first time that this species has been caught and the second time the species has been recorded in Japan – the first individual was photographed on the island of Tsushima, in western Japan, in September 2012 (Shoushima *et al.* 2013).

1. Details of the individual caught

Sedge Warbler *Acrocephalus schoenobaenus*

Age: Juvenile

Sex: unknown

2. Observers

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Katsura MIKAMI

3. Ring Number

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4. Date, Site, and Ringing Method

The Sedge Warbler was captured on September 12, 2016 in Nanae on the Ohno Plain, Hokkaido, Japan at 41.9106 N, 140.6687 E (WGS84). The vegetation at the site consists of tall grasses (around 2 m), mostly *Phragmites australis*, surrounding rice fields. We have conducted ringing surveys at this site for many years. Surveys have been carried out during the early morning from March to November each year. Thirty-one mist nets (mesh size: 36 mm or 30 mm, height: 2 m, length: 12 m) were set at the site on the day on which the individual was caught, while the song of Middendorff's Grasshopper Warbler *Locustella ochotensis* was being used to attract birds to the nets.

5. Morphological details

The focal individual had a conspicuous pale supercilium (Fig. 1a), a darkly streaked crown with a faint central crown-stripe (Fig. 1a, 1b), and faint, dark spots on the lower throat (Fig. 1c). The edge of the darkish streaks on the crown looked like lines above the supercilium. The mantle and back were warm olive-brown, while the rump was rufous brown (Fig. 1b, 1d, 1e). The mantle was fairly darkly streaked, but the rump, upper tail coverts, and upper central rectrices were not (Fig. 1b, 1e). The tip of the tail was slightly rounded (Fig. 1d and see measurements below). The upperwing secondary coverts and tertials had dark centers with buffish-brown fringes (Fig. 1a, 1d, 1e). The longest primary was the third, counting from the outermost (Fig. 1e; $p(3) > p(2) \geq p(4) > p(5) > p(6) > p(7) > p(8) > p(9)$), and primary projection, which is the projection of the primaries beyond the tertials at rest, was 76.4% of the length of the exposed longest tertials (Fig. 1a, 1b, 1d). The primary projection included eight primaries.

The tarsi were yellowish grey (Fig. 1f). The Skull ossification (SO) score (Svensson 1992) was "B."

6. Morphometric measurements

The warbler's measurements were as follows: total length: 122 mm, natural wing length: 66.5 mm, central tail feathers: 47 mm, outermost tail feathers: 42 mm, tarsus length: 21.4 mm, and exposed culmen: 9.9 mm, weight: 9.4 g.

7. Species Identification

We first compared the trapped individual with the two species that are most commonly encountered at the study site, Middendorff's Grasshopper Warbler and the Black-browed Reed Warbler *Acrocephalus bistrigiceps*. Middendorff's Grasshopper Warbler (the song of which we broadcast as a means of attracting birds for our ringing study) is larger, with a total length of 140–150 mm (Kennerley & Pearson 2010) and with a more rounded tip to the tail than the focal individual. Moreover, Middendorff's Grasshopper Warbler has neither dark streaks on the crown, nor a clear supercilium (Kennerley & Pearson 2010). Although some juvenile of hybrids type of Middendorff's x Pallas's Grasshopper Warblers have streaks on both the back and breast (Kennerley & Pearson 2010), their size and bill resemble Middendorff's closely (such a bird was caught at this site on September 29, 2016, unpublished

Fig. 1. The Sedge Warbler caught in Nanae, Hokkaido, Japan on September 12, 2016.

data). Black-browed Reed Warblers were caught simultaneously close to where this individual was observed/caught. The body size (total length 120 mm) of the Black-browed Reed Warbler is similar to the focal individual. However, the former differs from the focal individual in the following plumage characteristics: the crown lacks speckles, pale supercilium are conspicuous, there are bold blackish stripes along the side of crown, the upperparts are drab and unmarked (Kennerley & Pearson 2010), and there are no speckled on the throat regardless of age.

We subsequently also referred to the somewhat similar Pallas's Grasshopper Warbler *Locustella certhiola*, which is a Far-Eastern *Locustella* species. However, in comparison with the Sedge Warbler, that species has a narrower supercilium, a greater difference in lengths between the outer and central tail feathers, white tipped tail feathers (T2–T6), and dark spots on the rusty-colored rump (Svensson 1992).

Based on the focal individual's tail shape and head shape, we compared it with the four morphologically similar species referred to in the study by Svensson *et al.* (1999): Sedge Warbler, Aquatic Warbler *A. paludicola*, Moustached Warbler *A. melanopogon*, and Speckled Reed Warbler (Streaked Reed Warbler) *A. sorghophilus*. The characteristics of the wings of the four species are summarized in Table 1 based on Kennerley & Pearson (2010). The number in brackets following P indicates the ascendant number of each primary beginning with the outermost. We were unable to compare wing length owing to different measurement methods, but have described them help in order to help in identifying species.

The plumage of the Aquatic Warbler is a more yellowish brownish (like ground) color than that of the focal individual. The plumage shows pale lores, a broad, pale central crown stripe, and heavily streaked pointed tail feathers (Kennerley & Pearson 2010; van Duivendijk 2011). Moreover, the streaks on the back of the focal individual were less obvious than those of in the Aquatic Warbler, and the rump was less speckled. The Moustached Warbler, particularly the Eastern race *A. m. mimicus*, which is duller or greyer than nominate *A. m. melanopogon*, is also similar to the Sedge Warbler (Kennerley & Pearson 2010). However, it has no pale central crown stripe, and it has clearer, more well-marked eye-stripes and moustachial-stripes (Williamson 1976; van Duivendijk 2011). The lores and ear-coverts of the Moustached Warbler are dusky whereas those of Sedge Warbler are mainly yellowish-brown (Williamson

Table 1. Summary of wing characteristics of four similar species based on Kennerley & Pearson (2010).

	Longest primary	Maximum wing length	Primary projection	No. of visible primary tips
Sedge Warbler	P(3)	63–71 mm	80%	8
Aquatic Warbler	P(3)	60–66 mm	60–70%	7–8
Moustached Warbler*	P(4)	57–67 mm	50%	6
Speckled Reed Warbler	P(4)	57–59 mm	50%	5 or 6
Black-browed Reed Warbler	P(3,4)	51–60 mm	60–70%	6 or 7
The focal individual	P(3)	66.5 mm**	76.4%	8

**A. m. mimicus*. The nominate subspecies has shorter wing than *mimicus*.

** : natural wing length

1976). The upperparts of *A. m. mimicus* are olive-brown and its crown is brown (Kennerley & Pearson 2010), and the longest primary is either P6 or P7 (Kennerley & Pearson 2010, Svensson 1992). Although, the primary projection of *A. m. mimicus* is longer than in Western races (*melanopogon* and *albiventris*), it is still shorter than Sedge Warbler (Harris *et al.* 1996; Kennerley & Pearson 2010). The Speckled Reed Warbler also closely resembles Sedge Warbler. However, the two species are readily separated based on measurements and wing structure. According to Kennerley & Pearson (2010), Speckled Reed Warbler has noticeably shorter wings (55–59 mm) than Sedge Warbler (62–72 mm), and its longest primary is the fourth outermost. The primary projection beyond the longest tertial typically includes six widely visible primaries (Hong Kong Bird Watching Society 1992). Both Speckled and Moustached warblers have short, rounded wings, and their P(2)s are either equal to, or shorter than, P(6) or P(7) (Kennerley & Pearson 2010).

Tarsus length, tail length, and weight of the captured individual were within the normal range for Sedge Warblers (Svensson 1992; Kennerley & Pearson 2010). Furthermore, various characteristics of the individual captured such as speckles on the throat (Fig. 1c), a pale yellowish breast and belly (Fig. 1c), fresh remiges (Fig. 1d), a dark grey upper mandible, and a pink lower mandible (Fig. 1a.), were all consistent with those of juvenile Sedge Warblers (Svensson 1992, Svensson *et al.* 1999).

8. Behaviour

When the mist nets were checked at AM 05:30, the focal individual moved from short grasses to tall grasses, and then flew into the lowest rack of the mist net. The bird was trapped alone, while several Black-browed Reed Warblers were found in other nets nearby.

9. Previous Japanese record

The first national record of a Sedge Warbler was of an individual bird photographed in pre-harvested rice *Oryza sativa* fields on Tsushima, Nagasaki Prefecture, on September 1, 2012 (Shoushima *et al.* 2013). The habitat at our ringing site consisted of tall reeds of the species *Phragmites australis*. These reeds were coincidentally in the vicinity of rice fields, some of which were fallow and some of which were ready for harvest.

10. Further Information

Japan is located far to the East of the breeding and wintering areas and migration routes of the Sedge Warbler (Kennerley & Pearson 2010), making its appearance in Hokkaido exceptional. However, there are known instances of various other European-African migratory species, such as the Wood Warbler *Phylloscopus sibilatrix* (Shigeta & Ozaki 1999), and the Red-backed Shrike *Lanius collurio*, (Fruichi *et al.* 2010, Horimoto & Watabe 2014) reaching Japan during Autumn. Such records may relate to juveniles in their first Autumn that have mistakenly migrated in the wrong direction (sometimes called reverse migration), or having been diverted due powerful weather events (reviewed in Newton 2010). Interestingly, although there have been no records of Sedge Warblers from the Russian Far East as far

as we are aware of, there is an Alaskan record of one of these birds photographed on September 30, 2007 (Pranty *et al.* 2008) providing further suggestion that Western species do occasionally stray eastwards in Autumn, mirroring cases of Central and East Asian migrant birds reaching Western Europe.

Acknowledgements

We greatly appreciate the useful comments and suggestions that we received on bird identification from Toshikazu Ohnishi, Yoshimitsu Shigeta, Chikara Otani, Noboru Nakamura, Jun Yoshida, and Desmond Allen. Yuzo Fujimaki provided helpful access to some the Russian literatures. We would also like to thank Mark Brazil, Scientific Editing Services, for his assistance in the preparation of the final draft of this manuscript.

References

- BirdLife International 2004. *Birds in Europe: population estimates, trends and conservation status*. BirdLife International, Cambridge, U.K. <<http://www.birdlife.org/datazone/speciesfactsheet.php?id=7598>> (viewed on 18 September 2016).
- Clements, J. F., Schulenberg, T. S., Iliff, M. J., Roberson, D., Fredericks, T. A., Sullivan, B. L. & Wood, C. L. 2016. *The eBird/Clements checklist of birds of the world: v2016*. Downloaded from <http://www.birds.cornell.edu/clements-checklist/download/>
- Furuichi, K., Sone, S., Toyama, E. & Iwata, A. 2010. The first record of Red-backed Shrike for Japan in Kagawa Prefecture. *Japanese Journal of Ornithology* 59(2): 189–193.
- Gill, F. & Donsker, D. (Eds) 2016. *IOC World Bird List(v 6.3)*. doi: 10.14344/IOC.ML6.3.
- Harris, A., Shirihai H. & Christie, D. 1996. *The Macmillan Birder's Guide to European and Middle Eastern Birds*. pp. 184–186. Macmillan, London.
- Hong Kong Bird Watching Society 1992. *Hong Kong Bird Report 1991*. pp.153–157. Hong Kong Bird Watching Society, Hong Kong.
- Horimoto, T. & Watabe, Y. 2014. A record of Red-backed Shrike *Lanius collurio* at the Sagami River, Kanagawa, Japan. *Japanese Journal of Ornithology* 63(2): 329–336.
- Kennerley, P. & Pearson, D. 2010. *Reed and Bush Warblers*. pp. 288–310. Helm, London.
- Svensson, L., Grant, P.J., Mullarney, K. & Zetterström, D. 1999. *Collins Bird Guide*. pp. 290. Harper Collins Publishers, London.
- Newton, I. 2010. *The migration ecology of birds*. Academic Press, London.
- Pranty, B., Dunn, J., Heintz, S., Kratter, A., Lehman, P., Lockwood, M., Mactavish, B. & Zimmer, K. 2008. Annual Report of the ABA Checklist Committee 2007–2008. *Birding* 40(6): 32–38.
- Shigeta, Y. & Ozaki, K. 1999. Newly recorded species of birds for Japan confirmed by banding Research (Part 1). *The Bulletin of the Japanese Bird Banding Association*. 14(1): 1–9.
- Shoushima, K., Shoushima, K. & Takagi, S. 2013. A record of Sedge Warbler *Acrocephalus schoenobaenus* on Tsushima, Nagasaki Prefecture; the first record for Japan. *Japanese Journal of Ornithology* 62(2): 192–194.
- Svensson, L. 1992. *Identification Guide to European Passerines. Fourth, revised and enlarged edition*. Published by Author, Stockholm.
- van Duivendijk, N. 2011. *Advanced Bird ID Handbook. The Western Palearctic*. pp 296. New Holland Publishers, New York.

Williamson, K. 1976. *Identification for Ringers 2. The Genus Phylloscopus*. Revised edition. British Trust for Ornithology, Norfolk.

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要 約

スゲヨシキリの日本初放鳥記録

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2016年9月12日、北海道亀田郡七飯町藤城にてスゲヨシキリ *Acrocephalus schoenobaenus* 1羽が捕獲された。本種の標識記録としては日本で初めて、確認記録としては日本で2例目である。環境は休耕田で、コヨシキリの群れと行動をともにしていた。当該個体は標識・計測を行った後、性不明幼鳥として放鳥した。

キーワード：スゲヨシキリ，北海道，七飯町，標識初記録。

受付日：2016年10月31日，受理日：2017年2月20日

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