

# Singing Willow Tits *Poecile montanus*: Sino-Japanese song type recorded in the southern and western Altai, Kazakhstan, June–July 2013

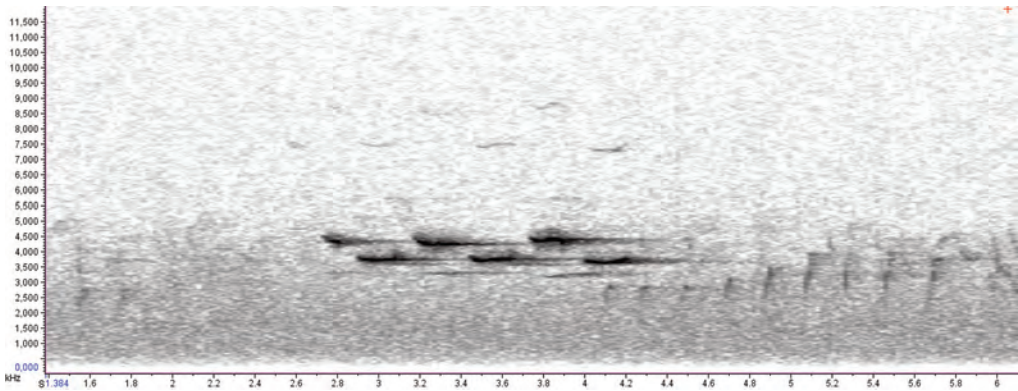
THIJS PETER MATHIAS FIJEN

Willow Tits *Poecile montanus* (Conrad von Baldenstein, 1827) have developed different songs in different geographic regions. However, these song types do not necessarily match the geographic distributions of subspecies. In the Altai of central Asia song types mix and differ on a small scale. In the southern and western Altai, recordings and records of singing Willow Tits were lacking. I heard singing Willow Tits at four different locations there and made five recordings, all performing the Sino-Japanese song type. Using playback, individuals only responded to the local song type.

Willow Tits have a wide distribution over the Palaearctic with many well-described subspecies (Glutz von Blotzheim 1993, Harrap & Quinn 1995). In central Asia several subspecies occur, with uncertain geographical boundaries: *uralensis* in southeast Russia, the southern Urals, southwest Siberia (Glutz von Blotzheim 1993) and northern Kazakhstan (Harrap & Quinn 1995, del Hoyo *et al* 2007, Gill & Donsker 2014) and *baicalensis* from eastern Siberia and the Altai eastwards and south to northwest China and Mongolia (Glutz von Blotzheim 1993, Harrap & Quinn 1995, del Hoyo *et al* 2007, Gill & Donsker 2014) to include the Tarbagatay (Cramp & Perrins 1994). The *songarus* group, which has a distribution in central Asia and China, has been given subspecies (Glutz von Blotzheim 1993, Johansson *et al* 2013) and species status (Songar Tit *Poecile songarus*, Harrap & Quinn 1995). The phylogeography of Willow Tits, including Songar Tit, has been studied (Kvist *et al* 2001, Salzburger *et al* 2002, Johansson *et al* 2013) including the microevolutionary development of song types (Martens & Nazarenko 1993, Martens *et al* 1995). However, song types do not necessarily correspond with the distribution of subspecies (Salzburger *et al* 2002, Eck & Martens 2006).

## SONG TYPES

A map of the distribution of song types is found in Glutz von Blotzheim (1993), updated in Martens *et al* (1995). See also Martens & Nazarenko (1993). The 'Lowland' song consists of several notes where in each note there is a clear drop in frequency. This song type is mainly heard in the lowlands of Europe. The Alpine song (first described from the Alps) consists of several quiet horizontal whistles of equal length. There is some variation involving a slight frequency drop. Intermediates between these two forms exist. Except for these intermediates, both dialect forms do not respond to each other (Martens & Nazarenko 1993). From Scandinavia to the Far East a 'Siberian' song is heard. This song consists of both the Lowland and Alpine song types and variations on both. These birds do respond to other song types and individual males vary in their song. Then there is the last song type, the 'Sino-Japanese' song. This consists of several melancholic whistles with alternating high and low tones. This song type is mainly heard in Japan and very locally in the Altai. Song type distribution in the Altai is complicated with several song types (Ernst 1992, Martens *et al* 1995, Ernst 1996, Ernst & Hering 2000, Ernst 2008). For example, in the south-eastern Altai (Tschazan-Uzun) only Sino-Japanese songs were heard and these birds did not respond to other types, while in the eastern Altai (Kuraj plateau) three song types (Alpine, Siberian and Sino-Japanese) were heard. In the northeastern part of the Altai these



**Figure 1.** Sonogram (frequency kHz/time s) of a singing Willow Tit *Poecile montanus* recorded in the Ivanovskiy mountains, western Altai, Kazakhstan, 29 June 2013 (recording XC145196 on [www.xeno-canto.org](http://www.xeno-canto.org)). This is the Sino-Japanese song type and is easily recognised by the alternating high/low melancholic whistling tones. The faint stripes after the latter tones are echo.

latter three types were heard. It is hypothesized that these local differences in song type are still developing and therefore are not reflected in phylogeographic studies (Salzburger *et al* 2002). Data on songs in the southern and western Altai were lacking (Glutz von Blotzheim 1993, Martens & Nazarenko 1993, Martens *et al* 1995).

### SONG TYPES IN WESTERN AND SOUTHERN ALTAI, KAZAKHSTAN

I was on a birding holiday with friends in the Kazakh Altai in late June and early July 2013. Living in western Europe I was unaware of the Siberian and Sino-Japanese song types. I recorded several individuals of Willow Tit that were singing ‘differently’, now knowing they were using the Sino-Japanese song type. Recordings were made with a Sennheiser ME66 microphone with K6 power module and Sony PCM-M10 sound recorder. Willow Tits were seen and heard singing: 27 June Ulbinskiy valley near Öskemen (1 individual, 49.9604° N, 89.9723° E, 600 m asl), 28–29 June Ivanovskiy mountains east from Ridder (30+ individuals, 50.3409° N, 83.8917° E, 1300–1800 m asl, sound recordings XC145196 (Figure 1), XC146671, XC145185 *Xeno-Canto.org*), 2–3 July at Rakhmanovskiye springs (20+ individuals, 49.5390° N, 86.4803° E, 1750–2000 m asl, sound recordings XC146672, XC146673 *Xeno-Canto.org*) and 4 July at Berel (3 individuals, 49.3651° N, 86.4747° E, 1300 m asl). All singing individuals only performed the Sino-Japanese song type. After using playback, individuals did not respond to the Lowland song type but did to the locally recorded song type.

### DISCUSSION

Unfortunately, I have nothing to contribute on subspecific identification based upon morphological characters of the observed Willow Tits. Based on the literature and the fact that song types match those of *baicalensis* of nearby recording locations, I presume that the birds I recorded were *baicalensis* (but see Eck & Martens 2006). The origin and development of Willow Tit song types in the Altai is of interest and it is important to further document these. Adventurous sound recordists please note that further recordings of songs of the *songarus* group are also needed.

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*Thijs PM Fijen, De Potvois 13-22, 1797 TA Den Hoorn, Netherlands. [thijsfijen@gmail.com](mailto:thijsfijen@gmail.com)*