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A photographic record of Firethroat *Calliope pectardens* wintering in northern Thailand with a reassessment of a specimen record of Blackthroat *C. obscura*

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A first wintering Firethroat *Calliope pectardens* in north Thailand

At about 16h40 on 26 December 2014, WB was clearing vegetation in front of one of the bird hides (Cettia Hide) at Nam Kham Nature Reserve, Chiang Saen district, Chiang Rai province, north Thailand, when he noticed a small chat which had emerged to forage for terrestrial arthropods. It remained in the approximately 4 m wide hide clearing for about 20 minutes before disappearing into the adjacent reedbed. Although resembling a first-winter male Siberian Blue Robin *Larvivora cyane* in having bluish upperparts and pale underparts, it differed in having greyish legs, a dark lower mandible and a blackish tail with white lateral flashes (Plate 1). Referring to the text in Robson (2008), WB identified the bird as a probable first-winter male Firethroat *Calliope pectardens*.

RK and PDR were among observers who came to see the bird during the following two days. It frequented an area of dense reeds on mainly dry land, close to oxbow lakes formed by the Nam Kham River. It continued to frequent the Cettia Hide clearing, near the edge of the *Phragmites* reedbed, where there was a small (about 30 cm diameter) drinking and bathing pool. However, the bird ranged widely around 1–2 ha of the 12 ha nature reserve, appearing on trails as well as in dense reeds, and was caught during a routine mist-netting session on 21 January 2015. It subsequently became evident that the same individual was first seen and photographed on 7 December 2014 by Suwanna Mookachonpan, but was not at that time identified or drawn to the attention of Nam Kham regular observers.

The following description has been compiled from observations in the field and features evident

Plate 1. First-winter male Firethroat *Calliope pectardens* at Nam Kham on day of discovery, 26 December 2014, showing central tail feathers which were not full-grown.





PETER REICHAERT

Plate 2. Same individual, one week after ringing, 28 January 2015.

from images. A chat with a shortish tail, medium greyish legs and all-black bill. Prominent white flashes on the sides of blackish tail. Mantle, scapulars, rump, lesser and median coverts and inner greater coverts slaty-bluish; cheeks, crown and nape brownish; narrow buffy eye-ring. Tertiaries with blackish centres and slaty-bluish edges. Unmoulted outer greater coverts, primary coverts, primaries and secondaries edged brownish. Breast and flanks fulvous-buff, with a contrasting slightly warmer buff-tinged throat; whitish belly, contrasting with pale fulvous-buff undertail-coverts. When first found, the central tail-feathers were incompletely grown, exposing the white

Plate 3. Two larger red spots on the lower breast and the beginnings of black feathering on the sides of the head, 29 March 2015.



TAWEEWAT SUPINDHAM

sides to the tail. After about two weeks, when the central tail-feathers were full-grown, the white lateral tail-flashes were not usually visible except when the tail was cocked. During ringing the wing (maximum chord) was measured as 73 mm, tail 56 mm, bill 14.5 mm, tarsus 29.4 mm and body mass 16.3 g.

The bird was more inclined to appear on tracks and open areas in the very early morning, up to around 07h00. Later in the day it remained in cover, although it visited the area in front of the hide repeatedly during the late morning and throughout the afternoon. It usually bathed during its afternoon visits, sometimes following this with sunbathing, wings partly extended, for 3–5 minutes when undisturbed. It occasionally flew into low trees, perching up to 2 m from the ground. The infrequently heard calls were a quiet *tuck-tuck*, made when moving on the ground while cocking its tail slightly to show the white tail-flashes, and a loud monosyllabic whistled *cheee*, recalling that of Oriental Magpie Robin *Copsychus saularis*; the latter call was usually made from the cover of vegetation. A song or sub-song was heard from 6 March onwards, usually delivered close to the ground from dense reeds, although after moulting into breeding plumage it was once observed singing perched in reeds at 1.0–1.5 m.

The nature reserve was open to visitors with no access restrictions and as a result the bird was closely monitored throughout its long stay, with the progress of its body moult well-documented by photographers (Plates 2–7). The first few red feathers on the breast were observed by PDR on 27 March. Thereafter moult was rapid; by 5 April

Plate 4. By 5 April 2015 the lower breast was extensively orange-red and black feathering on the sides of the breast and head had developed. The throat was still largely white but the first red feathers were beginning to be moulted in.



AYUWAT JEARWATTANAKANGKOL

WICHAN TANTIPUVANART



Plate 5. By 10 April 2015 the throat was fully orange-red but the feathers were still in pin.

an extensive red patch on the breast was evident, as was black feathering on the sides of the head and breast, although the throat was still whitish. By 10 April the breast was a solid fiery-orange, and although the throat was now orange, the throat feathers were still in pin. The ear-coverts, lores and sides of the breast were completely black, and a white spot on the side of the neck was visible by

Plate 7. By 20 April 2015 the pre-nuptial moult was complete.

WORAPHOT BUNKHWAMDI



PRATEEP BOONSIRAM

Plate 6. By 15 April 2015 the bird was close to full breeding plumage, and showed a white spot on the side of the neck and a fully orange-red throat although with feathers still in pin.

15 April. Molt into breeding plumage appeared complete by 19 April. The bird was last photographed on 22 April by both Ayuwat Jearwattanakanok and Smith Sutibut, and it was presumed to have departed that night as it was not seen on the following day. This is the first record of Firethroat for Thailand and only the third for South-East Asia.

Reassessment of specimen record of Blackthroat *Calliope obscura*

Although within a day of WB's discovery on 26 December 2014, it was confirmed that the Nam Kham bird closely resembled first-winter male Firethroats netted in Bangladesh (Round & Clement 2015), the bluish upperparts and black and white tail pattern are also shared with Blackthroat *C. obscura*. First-winter males and indeed all age/sex classes other than breeding males of Blackthroat may be rather similar to Firethroat although Xu Yi-Xin's photograph of a presumed first-winter male Blackthroat in Chengdu in October 2013 on OB Images is the only record (and image) of this age/sex class which we have been able to trace (Plate 8). Additionally, a female chat, identified as a Blackthroat, was netted and collected near Chiang Saen by Ben King and a field team from the Migratory Animal Pathological Survey on 3 February 1965 (Ripley & King 1966), leading to questions about the identity of the present bird. Could the same district in northern Thailand really have been blessed with single records of two of Asia's most iconic and sought-after robins? Or might the Nam Kham bird be another Blackthroat?

Plate 8. Presumed first-winter male Blackthroat *Calliope obscura*, Chengdu, China, 2 October 2013.



XU YI-XI

SM carried out a DNA assay on a few body feathers of the Nam Kham bird, dislodged during ringing, together with feathers from three other Firethroats ringed or handled in Bangladesh during February 2012 and 2014. DNA from feathers was extracted using QIAamp DNA Mini Kit (Qiagen) following the manufacturer's protocol, but with 20 µl of 1 M DTT added to the initial incubation step of the feather extractions; 1178 bp of mitochondrial cytochrome *b* (*cytb*) locus was amplified using primer L14851 and H16058 according to the protocol described in Groth (1998). Sequences obtained for the Nam Kham bird (CP1) and three Firethroats from Bangladesh (CP2–CP4) were deposited in Genbank and compared for genetic divergence with existing Genbank sequences of *Calliope obscura*, *C. pectardens* and *Larvivora cyane* (Table 1). Uncorrected p-distances and best-fitting model genetic distances were calculated in MEGA 6.06 (Tamura *et al.* 2013) following the recommendations of Fregin *et al.* (2012).

The pairwise *cytb* distances among the Nam Kham bird (CP1), three Bangladesh birds (CP2–CP4) and one *C. pectardens* from Sichuan, China (CP5) were all extremely low (0.2–0.6%) for both uncorrected p-distance and Tajima-Nei (TN93 + G) model (Table 2). These confirmed the original identification of the Nam Kham bird as a Firethroat only days before the first red feathers on the breast were observed.

Table 2. Pairwise *cytb* uncorrected p-distances (above diagonal) and Tajima-Nei model genetic distances (TN93+G) (below diagonal) of 4 Firethroat samples in this study and a selection of closely related species. **Bold** indicates intraspecific comparisons.

	CP1	CP2	CP3	CP4	CP5	CP6	CO	LC
CP1		0.004	0.002	0.003	0.006	0.122	0.053	0.120
CP2	0.004		0.003	0.004	0.002	0.121	0.054	0.119
CP3	0.002	0.003		0.002	0.004	0.121	0.052	0.119
CP4	0.003	0.004	0.002		0.006	0.120	0.054	0.118
CP5	0.006	0.002	0.004	0.006		0.121	0.054	0.119
CP6	0.147	0.145	0.145	0.144	0.145		0.122	0.004
CO	0.057	0.058	0.056	0.058	0.058	0.147		0.123
LC	0.143	0.142	0.142	0.141	0.142	0.004	0.148	

Table 1. List of samples included in this study and their Genbank accession numbers.

Taxon	Locality	Accession no. (Cytb)	References
<i>Calliope pectardens</i> (CP1)	Chiang Saen, Thailand	KT452629	This study
<i>Calliope pectardens</i> (CP2)	Bangladesh	KT452626	This study
<i>Calliope pectardens</i> (CP3)	Bangladesh	KT452627	This study
<i>Calliope pectardens</i> (CP4)	Bangladesh	KT452628	This study
<i>Calliope pectardens</i> (CP5)	Sichuan, China	HM633320.1	Sangster <i>et al.</i> 2010
<i>Calliope pectardens</i> (CP6)	Shaanxi, China	DQ285444.1	Pan <i>et al.</i> 2006
<i>Calliope obscura</i> (CO)	Shaanxi, China	KC967092.1	Alström <i>et al.</i> 2013
<i>Larvivora cyane</i> (LC)	Russia	HM633317.1	Sangster <i>et al.</i> , 2010

Interestingly, one *cytb* sequence in Genbank labelled as *C. pectardens* (DQ285444; CP6 from Shaanxi, China, Pan *et al.* 2006) showed unusually high genetic distances from other *pectardens* sequences (12.0–14.7%, both methods combined) and was almost identical to that of Siberian Blue Robin (genetic distance both methods, 0.4%), suggesting that CP6 was a misidentified example of the latter species.

The 1965 Chiang Saen Blackthroat (USNM 518898) was not incorporated in our genetic comparison as no usable sequences were recovered from that specimen (P. Alström *in litt.*) Although Ripley & King (1966) mentioned that it was less warmly coloured than female Firethroat, they also stated that the undertail-coverts of their specimen were ‘sandy-buff, paler than in *pectardens*’, which accords poorly with the appearance of the specimen from images reproduced here (Plate 9). Compared with two female Firethroats handled in Bangladesh, the Nam Kham bird shows more deeply brown-washed undertail-coverts and a noticeably darker throat and breast. Ji Ying’s images of a presumed female Firethroat from Sichuan, 3 May 2015, posted on OB Images (www.orientalbirdimages.org), also show a contrastingly pale throat and paler underparts than do images of a relatively dusky-

throated female Blackthroat at the nest in Song *et al.* (2014). Although Blackthroat is sometimes said to be shorter-tailed and shorter-winged than Firethroat the wing-length of Ripley & King’s specimen (68 mm) cannot be compared directly since North American workers typically use unflattened, unstraightened wing whereas, like most current field workers and bird ringers, WB used maximum chord. The tail of Ripley & King’s specimen (49.5 mm) was indeed markedly shorter than that of the Nam Kham bird. While measurements from specimens (usually made on the upperside of the tail, with calipers from the tip to the base of the longest feather) are slightly shorter than those taken with an unstopped rule on the underside of the tail (usual practice among ringers working with live birds, and the method used for the Nam Kham Firethroat by WB) the difference is probably too slight to account for the relatively large difference observed between the tail-lengths of the two. At present, however, insufficient Blackthroats and Firethroats have been measured for any statistically rigorous examination of biometric differences between them.

Notwithstanding the minor apparent anomaly in the published description there is no reason, on the basis of present knowledge, to doubt that the

Plate 9. Left: female Blackthroat *Calliope obscura* specimen, USNM 518898, dorsal view. Centre: USNM 518898, ventral view. Right: USNM 518898, lateral view.



1965 bird was indeed a female Blackthroat. The collection locality is recorded on the specimen label as 'Bung Guy, 7 km south of Chiang Saen', and in King (1966) as 'Bung Kai', which leaves no doubt that the specimen was collected at, or near, the present-day Nong Bong Khai Non-Hunting Area (Chiang Saen Lake). At the time King and his team were working, the habitat around the lake ('nong' or 'bung') was described by Ripley & King (1966) as 'bamboo, mixed with stands of grass and a few trees'. An additional 23 birds of 16 migrant and resident species were collected from the same site during 2–4 February 1965; 7 species characteristic of bamboo or secondary forest and 9 species more typical of aquatic habitats. Although there is no explicit mention of the precise habitat in which the Blackthroat was collected, it seems likely that it was captured in bamboo or secondary forest, particularly as, in King (1966), the Blackthroat specimen is listed in sequence immediately following a Rufous-tailed Robin *Luscinia sibilans*, another robin that favours lowland wooded habitats in winter.

Future observations at the remarkable Nam Kham Nature Reserve should reveal whether Firethroat is a regular winter visitor there. As for Blackthroat, it seems likely that further wintering birds await discovery in bamboo-dominated habitats and secondary growth around Chiang Saen and perhaps elsewhere in Chiang Rai and adjacent northern Thai or Lao provinces. However, due to the pervasive planting of rubber plantations and the spread of intensive agriculture in the northern Thai lowlands, suitable wintering habitats are now very limited in extent.

Acknowledgements

We are grateful to the many people who shared their images: Prateep Boonsriram, Natthaphat Chotjuckdikul, Ayuwat Jearwattanakanok, Atiwich Kaewchum, Suraphol Kruasuwan, Saowaluck Kwangpaen, Nittaya Lawrence, Parinya Lerthattasin, Suwanna Mookachonpan, Ralph Parks, Peter Reichart, Chuchat Sangob, Taweewat Supindham, Smith Sutibut, Wichan Tantipuvanart, Apisit Wilaijit. We thank James Dean for kindly photographing and sharing images of the USNM specimen of female Blackthroat, Brian Schmidt, at the National Museum of Natural History, Smithsonian Institution, Washington DC, and Gary Voelker for commenting on the Chiang Saen Blackthroat specimen. Per Alström and Peter Clement kindly commented on a draft of this manuscript. Parames Laosinchai advised on interpretation and presentation of the molecular data. Philip Round is supported by The Wetland Trust, UK.

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