

Notes on fledglings of Spectacled Finch *Callacanthis burtoni*

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The Spectacled Finch *Callacanthis burtoni* is a range-restricted species breeding in the Endemic Bird Area of the Western Himalayas (BirdLife International 2015). Its status is described as locally common, to scarce, and it is erratic in occurrence in some parts of its range (Clement *et al.* 1993).

On 22 August 2013, we were birding on the left bank of the Baspa River, at the western edge of the Rakchham-Chitkul Wildlife Sanctuary. This area is recognised as an Important Bird Area (IBA) by BirdLife International (2015).

It was a typically overcast August day, with recurrent spells of rain. We were walking through the transition zone between the agricultural fields and the forest, towards the south-western ridge of the valley (31.39°N, 78.35°E; 3,200 m asl) in a densely forested area strewn with large boulders. The forest was dominated by west Himalayan fir *Abies pindrow*, morinda spruce *Picea Smithiana*, blue pine *Pinus wallichiana*, Himalayan birch *Betula utilis*, and maple *Acer* species. There were some fields cultivated with buckwheat *Fagopyrum* species, in the forest clearings. Streams fed by rainwater had created a swampy bed of rich forest undergrowth.

At 1400 hrs, we saw three birds land upon a bare branch of a tall spruce, beside a buckwheat field. We identified them as an adult female Spectacled Finch, followed by its two fledglings. The birds soon flew into the dense forest. After nearly an hour's search, we saw a dull-looking bird perched upon a 60 cm high stump—it was a young fledgling waiting to be fed by one of its parents. We had stumbled upon a family of Spectacled Finches, consisting of a breeding pair, and two fledglings. We spent the rest of the day observing this family: 'Family A'.

On 23 August 2013, while observing 'Family A', we encountered another family of the species, 'Family B', also with two fledglings. They were found at nearly the same altitude, about 50 m west from the spot where we had first seen 'Family A' (Fig. 1). We observed all eight birds foraging together in the same area. We tried to observe both families by walking from one group to the other. Due to the distinct plumage differences in the juveniles, as described below, it was not difficult to separate the two family groups.

There are only two previous records documenting family parties with fledglings, and in both cases, the family parties had two fledglings each, just like what we were observing. Bates (1935) noted a pair feeding two fledglings in late June. Raja *et al.* (1999) noted a pair, accompanied by a begging juvenile, in May, and a male feeding two juveniles in late June.

We present our field notes below, and share some interesting observations.

Description of the fledglings

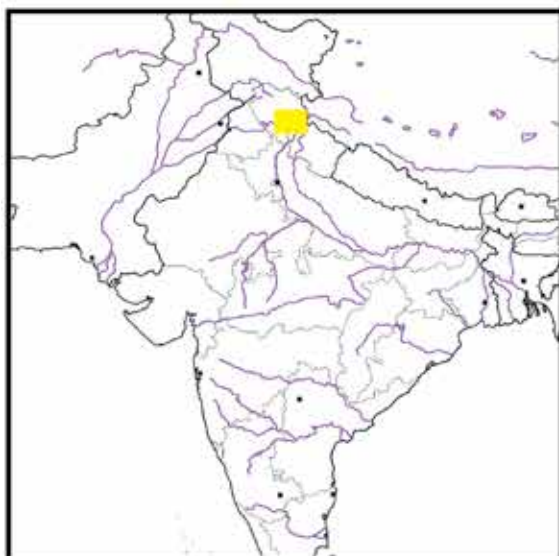
We observed 'Family A' for a period of two days, and its two fledglings merit a detailed description. The two fledglings, F1, and F2 had differences in their plumages [19]. F1 showed a faint buff patch around the eye, and had a distinct face pattern, while F2 showed a uniform brown head. Magrath (1912b) described an individual similar to F2. F1 bore a buffish tinge to the brown plumage, whereas F2 showed a uniform pale brownish colour. The spots on the greater wing-coverts of F1 became whiter progressively towards the outer most feathers, i.e., the outer most spot showed the cleanest shade of white, while the inner most two spots were still buff-coloured. In comparison, the greater wing-covert spots of F2 were all buff-coloured. Both fledglings showed clean white primary spots, slightly whitish-buff carpal patches, and buff-coloured tertial spots. The tips of the primaries and secondaries, and the tail-tips were more prominently bordered with white in F1, distinctly visible when the wing was closed. F2 showed only a faint white outline to the wing, and tail tips. The inner webs of the outer most pair of tail feathers showed white in both the fledglings. This was frequently visible as the birds always held their tails cocked when being fed by their parents. Richmond (1896) described an immature bird collected on 13 September 1891, which had a russet band over the eye, but was otherwise somewhat similar to these birds.



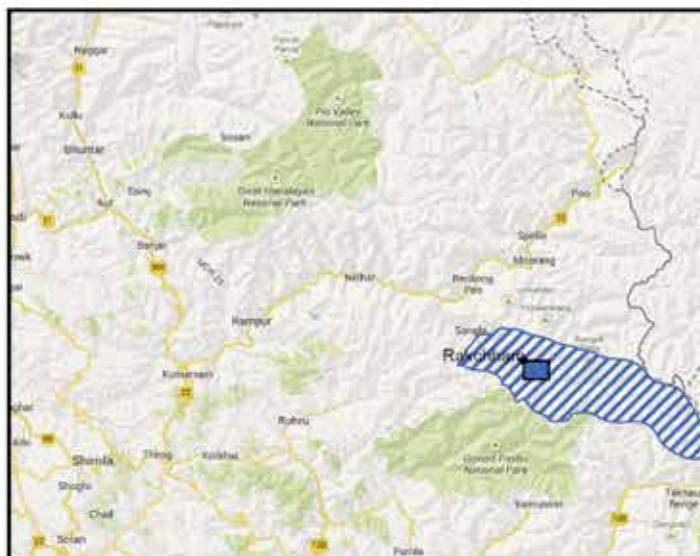
19. Two fledglings of Spectacled Finch showing different plumages.

Photo: Puja Sharma

Interestingly, the bill colour of all the four fledglings was dark greyish-black, unlike the yellowish bill of an adult [20]. This feature has not been documented before. The bill colour of a juvenile bird is described as 'pale yellowish-horn' (Clement *et al.* 1993). Peter Clement (*in litt.*, e-mail dated 11 November 2015) agrees that fledglings/juveniles have the bill all or mostly dark, or black until well into their first winter, but the time period over which the colour-change process occurs, and whether it is




The General location map



The Rakchham-Chitkul Wildlife Sanctuary map

Legend

-  Spot where the family group A was first sighted
-  Family group A
-  Family group B




-  The Rakchham-Chitkul WLS
-  Approximate area enlarged in the Sighting Location Map
-  Approximate area enlarged in the Rakchham-Chitkul Wildlife Sanctuary map

Fig. 1. Location of sightings of Spectacled Finch *Callacanthus burtoni* families on the left bank of the Baspa River, at the western edge of the Rakchham-Chitkul Wildlife Sanctuary.

governed by other factors, is not yet understood. The bill of the fledglings appeared stouter in shape than that of the adults. The tips of both mandibles were of the same length [20], unlike the upper mandible of an adult, which protruded slightly beyond the lower mandible (Baker 1926: 153; Fig. 37). The birds showed a prominent yellow gape flange.



Photos: Puja Sharma

20. A juvenile Spectacled Finch has a dark greyish-black bill, the upper, and lower mandibles of which are of the same length.

Feeding behaviour of the fledglings

'Family A' was observed on 22 and 23 August 2013. They remained in the same area of about 125x50 m, over both the days. 'Family B' was observed on 23 August 2013, and remained in an area of about 100x75 m. The foraging areas of the two families overlapped (Fig. 1). On 23 August 2013, the two families were observed foraging together in the overlapping area. Here, the adults fed their respective fledglings in a congenial flock. This suggests that their territories are quite small, corroborating Roberts (1992).

The birds fed solely on the green basal part of the immature fruit of crane's-bill *Geranium wallichianum*, which flowered abundantly in the area [21]—it was identified by its large, ovate stipules (Polunin & Stainton 1997). The birds fed on the ovate basal end of the elongated fruit structure, the seed-bearing carpels¹. The adults hold the fruit laterally in their bills, meticulously tear off each sepal covering the ovate seedpod, consume the seedpod, and then discard the rest of the fruit [22]. The adults fed the fledglings by regurgitation. The fledglings were clearly familiar with the crane's-bill fruit, as they held it in their bills, but were subsequently unable to consume it [23]. Once the parents arrived to feed them, they were quick to abandon such feeding attempts. It has been documented (Jones 1948; Roberts 1992) that the birds consume berries and buds of *Viburnum nervosum*, and *Berberis lyceum*, and the seeds of conifers. However, during our observation, the birds only fed on the crane's-bill fruit. Magrath (1912a) also observed that birds fed on seeds of succulent undergrowth.

We observed many feeding sorties, and routines of the adults feeding their two fledglings. The approximate frequency of feeding was once every ten minutes. When begging for food, or when being fed, the fledglings displayed, as described below. Interestingly, this display is somewhat similar to the courtship display of the adult birds (Jones 1948; Bates & Lowther 1952; Roberts 1992). The adult female of 'Family A' was seen feeding

1. The fruit has five carpels, each of which has two parts: an ovate lower part called the mericarp body that contains the seed, and an elongate upper part called the carpel beak. This type of elongate schizocarpic fruit is typical of plants in the geranium family (Geraniaceae).



Photo: Somendra Singh

21. Crane's-bill *Geranium wallichianum* flowered profusely in the area.



22. An adult Spectacled Finch *Callacanthis burtoni* holds the fruit of crane's-bill laterally in its bill.



23. Though fledgling Spectacled Finch held the fruit of crane's-bill in their beak, they could not consume it.

F1, while F2 waited for its turn, holding a crane's-bill fruit in its bill [24]. F2 then begged for food from F1 [25]. In the majority of the feeding sorties of 'Family A', F1 was fed first, while F2 waited for its turn [26, 27].



24. The adult female of Family A feeds one chick, while the other waits, to be fed, behind her, unable to eat the fruit in its beak by itself.



25. Family A: F2 begging for food from F1.



26. Family A: In a majority of cases, F1 was fed first...



27. ...while F2 waited its turn.

Photos: Puja Sharma

The fledglings were entirely dependent on their parents for feeding them. The fledglings would perch on a vantage point where the adults would feed them. Occasionally they would follow the parents onto the ground where they would wait while acutely observing the parents. They would frequently pick up a crane's-bill fruit. We noted that the fledglings made every effort to learn to feed by imitating their parents.

When begging for food, the fledglings would usually hold their tails slightly cocked, the wings drooped and gently quivering, while uttering a plaintive 'twee' call (Fig. 2). The fledglings also used this sound as a contact call to keep in touch with the parents. While being fed by the parents, the fledglings would flutter their wings open, make a rapid hopping movement, and hold their tails cocked. They would also utter a repetitive 'twee' call each time they received a mouthful (Fig. 3). They would also slightly fan their tails, while pumping it up and down. The movement of the tail was synchronised with the 'twee' call. A loud, whistle-like call (Fig. 4) was given by the adults to beckon the fledglings. The fledglings were quick to respond to this call, and would fly to the parents whenever they heard it.

The breeding biology of this species is relatively well known, but actual details of period of incubation, and fledging are lacking (Roberts 1992). Its movements are also poorly known (Clement *et al.* 1993). We hope that our notes on the feeding habits of the fledglings will prove useful in understanding this species better.



Fig. 2. Sonogram of call uttered by fledglings of Spectacled Finch when they begged for food.

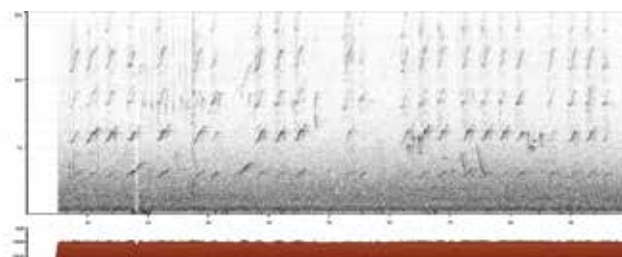


Fig. 3. Sonogram of call uttered by fledglings of Spectacled Finch with every beakful of food they received.

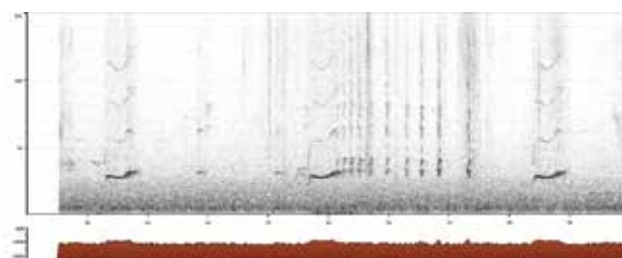


Fig. 4. Sonogram of whistle uttered by adults of Spectacled Finch to summon the fledglings.

Acknowledgments

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