Crows and buzzards, so that probably all the corvids and raptors involved in this incident were reacting to the owl as a potential predator of their young.

Acknowledgement
At the time of the observation, J.S. Ash made valuable comments to the manuscript.

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Scopus 32: 51–52, June 2013
Received 12 September 2011

Observations on two nests of the Black-headed Siskin *Serinus nigriceps* in the Bale Mountains National Park, Ethiopia

The Bale Mountains in southeast Ethiopia support an exceptionally varied avifauna, including six Ethiopian endemic species and a further 16 near endemic species (shared with Eritrea) (Williams *et al.* 2004, Asefa 2007). But this avifauna remains rather poorly studied, with little information on breeding biology in particular. One of these endemics, the Black-headed Siskin *Serinus caniceps* is found in the western and southeastern highlands of Ethiopia, in Afro-alpine moorlands, highland grasslands and open areas of montane forest (Urban & Brown 1971, Urban 1980, Vivero Pol 2002, Ash & Atkins 2009). During September–October 2007, we observed breeding of this species in Bale Mountains National Park. Two nests were found in the northern woodlands at 7˚05′ N, 39˚47′ E; 3150 m, in an area dominated by *Juniperus procera, Hagenia abyssinica and H. revolutum* woodland, shrubs such as *Euphorbia dumalis, Solanum marginatum* and *Acanthus sennii*, grasses including *Agrostis* spp., *Andropogon* spp., *Poa* spp. and *Festuca* spp., and herbs *Satureja paradoxa, S. simensis* and various *Trifolium* spp. This area experiences light rains from March to June and heavy rains from July to October with a dry season from November to February (Hillman 1986, Asefa 2005).

Observations were made between 12 September and 20 October. A first nest (nest A) was discovered by AA on 11 September. Construction was almost complete and eggs not yet laid. AA then found another nest (nest B) with three chicks on 14 October. We watched both nests using 8 x 40 binoculars, usually standing concealed among shrubs about 7 m away. We observed nest building activity (nest A) for 2 h each day for three days, noting frequency of visits, type of materials delivered, and any nest building or courtship behaviour of the male and female. We made further observations twice each day, from 08:30 to 09:00 and from 15:30 to 16:00, from the first egg-laying date to hatching date . We measured nest height and dimensions, and major (C1) and minor (C2) egg circumferences. We checked both nests each morning until all chicks had left and also noted nest site selection and egg morphology. The major (D1) and minor (D2) egg diameters were calculated from C1 and C2, using the formula, $D_i = C_i/2\pi$.

Nest site selection and nest building behaviour

Both nests were built in *H. revolutum* shrubs, 1.85 m and 1.65 m tall respectively.

Nest A was positioned on a branch 1.45 m above ground, nest B 1.35 m above ground (Fig. 1). Nests were compact, cup-shaped structures, A with a depth of 40 mm and cup diameter 55 mm, B with a depth of 39 mm and cup diameter 56 mm. The rims of both consisted of grass stems (*Agrostis* spp., *Andropogon* spp., and *Poa* spp.) and rootlets, and the insides were lined with feathers, fibres and spider webs (Fig. 2).

We observed only the female delivering nesting materials and building the nest. The mean frequency of delivery of materials was 2 ± SD 1.1 per hr. The male often accompanied the female, but was not observed to participate in gathering or building. On one such occasion the male displayed courtship behaviour, uttering and flapping his wings around the female while she collected materials. The female (nest A) ceased building activity once she laid the first egg, after which the male appeared to abandon the nest site.

Figure 1. Position of the nest (A) in the *Hypericum* shrub and the incubating female brooding the eggs.

Figure 2. Nest A of Black-headed Siskin *S. nigriceps* containing three eggs.

Egg morphology, incubation and nesting period

The female of nest A laid three eggs on consecutive days, 17–19 September. These were oval and bluish-white with a few brown spots (Fig. 2). Mean egg size (diameter x width) was 17.67 ± SD 0.58 mm x 12.58 ± SD 0.58 mm.

The incubation period from laying of the first egg until all eggs were hatched was 14 days. Two weeks after chicks hatched, one of the fledglings along with the female disappeared, but the male reappeared and began to care for the remaining chicks until they fledged, which was three days following the female's disappearance. We assumed that the first chick was not lost since we found no evidence of predation around the nest site. The total nesting period from laying of the first egg until all young had left the nest was 28–31 days. Extrapolating observations from nest A, we therefore estimated that the first egg-laying date for nest B was probably between 16 and 19 September. We did not observe the male at nest B at any time.

Discussion

Our findings concerning breeding seasonality and general nest structure accord with those given earlier (Ash 1979, Urban 1980, Hillman 1986). Ash (1979) also noted Black-headed Siskins as breeding in the rainy season, mainly in September. But here we present a more detailed picture of nest materials, eggs, incubation and fledging. Feathers, spiders' webs and plant fibres were noted in the nest structure, in addition

to the rootlets, stems and grasses reported previously (Ash 1979, Vivero Pol 2002). In the northwestern highlands, Ash (1979) found that Black-headed Siskins preferred to nest lower (≤ 1 m high) than other *Serinus* such as Streaky Seedeater *S. striolatus* and Brown-rumped Seedeater *S. tristriatus,* and suggested this was due to their stronger flight and thus better ability to avoid predators. Our nests were both >1 m high, similarly positioned to those of other *Serinus* species. Branches at greater height tend to produce a denser structure, which may give better nest support, provide more concealment, and serve as shelter against heavy rain and strong winds during the wet season. But given the similarities in vegetation types, climate and topography between the two areas (northwestern and southeastern highlands) there seems no obvious reason for this nest height difference, though it may reflect a difference in potential predators or in conspecific competition for sites.

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Scopus 32: 52–54, June 2013
Received 1 December 2010

Pectoral Sandpiper *Calidris melanotos*: first record for Tanzania

At 14:40 on 14 March 2005, whilst watching waders at Ngorongoro Crater Lake, my attention was drawn to a bird feeding on mud between tussocks of reed *Juncus* sp. by the lake edge. It was distinctly warmer toned, more buffy, than the bleached winter plumage Little Stints *Calidris minuta* and Curlew Sandpipers *C. ferruginea* present. The brown upperparts showed buff scaling, the white belly with a few streaks at the side