Familiar Chat *Cercomela familiaris*: a veritable avian weightlifter

Peter Cunningham

Cunningham P 2024. Familiar Chat *Cercomela familiaris*: a veritable avian weightlifter. Biodiversity Observations 14: 62–66.

30 May 2024

DOI: 10.15641/bo.1570

Ornithology

Familiar Chat *Cercomela familiaris*: a veritable avian weightlifter

Peter Cunningham

Environment and Wildlife Consulting Namibia, P. O. Box 417, Karasburg, Namibia
pckkwrc@yahoo.co.uk

Abstract

Four nests of Familiar Chat *Cercomela familiaris* were examined. The nests were constructed mainly of awns and stems grasses (genus *Stipagrostis*) on substantial foundations averaging 827 components, mostly small stones, with an average weight of 723 g, which is 33 times the weight of the average Familiar Chat.

Observation

The name, Familiar Chat *Cercomela familiaris*, implies a common species; but there is a dearth of published literature on the nest construction for this bird. Steyn (1966) confirmed this lack of general information regarding the breeding biology. The most comprehensive study is that by Steyn (1966) supplemented by Hockey et al. (2005), Tarboton (2001) and Peacock (2015) although the three latter authors refer mainly to Steyn (1966). All four references confirm that the bulky nest structure rests on a solid foundation dominated by earth clods, bark and small stones.

Four Familiar Chat nests were discovered on a farm c. 70 km south of Grünau in southern Namibia, all associated with the farmhouse infrastructures. Two of these were placed indoors (generator room and garage), one in an abandoned outbuilding without a roof and one within an old rusted watering can on a rubbish heap. However, all four nests were covered from above in some way – i.e., not open to the elements (Figures 1–4). One nest was constructed on an old disused nest of a Tractrac Chat and one had a second cup constructed on a flattened cup from a previous nesting attempt. Tarboton (2001) and Steyn (1966) confirm the reuse of nesting sites.

After breeding activity at the nests was complete, the nests were examined. All four nests were constructed, almost in their entirety, using the seed awns and stems of various *Stipagrostis* grass species (e.g. *S. brevifolia*, *S. ciliata* and *S. uniplumis*). Feathers, string, and bark were also observed albeit as individual items only. This nesting material is similar as described by Tarboton (2001) and Peacock (2015), except that there was no use of animal hair to line the cups.

Nests were constructed at heights varying between 40 cm to 117 cm above ground level (mean 86 cm) with the lowest being outdoors in the old watering can on the rubbish dump and the highest being indoors on a shelf in the generator room. The positioning of nests is opportunistic (Hockey et al. 2005, Tarboton 2001); while Steyn (1966) confirms the opportunistic nesting site selection, he includes only two heights (albeit both artificially placed) at between 137 cm and 243 cm above ground level.

Nest dimensions by Tarboton (2001) are given as 65 mm (cup diameter) and 32 mm (cup depth); these four nests averaged 66. 5mm and 35.5 mm for cup diameter and depth, respectively. These are slightly larger dimensions.

Although nests are known to consist of a solid foundation dominated by earth clods, bark, and small stones (Steyn 1966, Tarboton 2001),

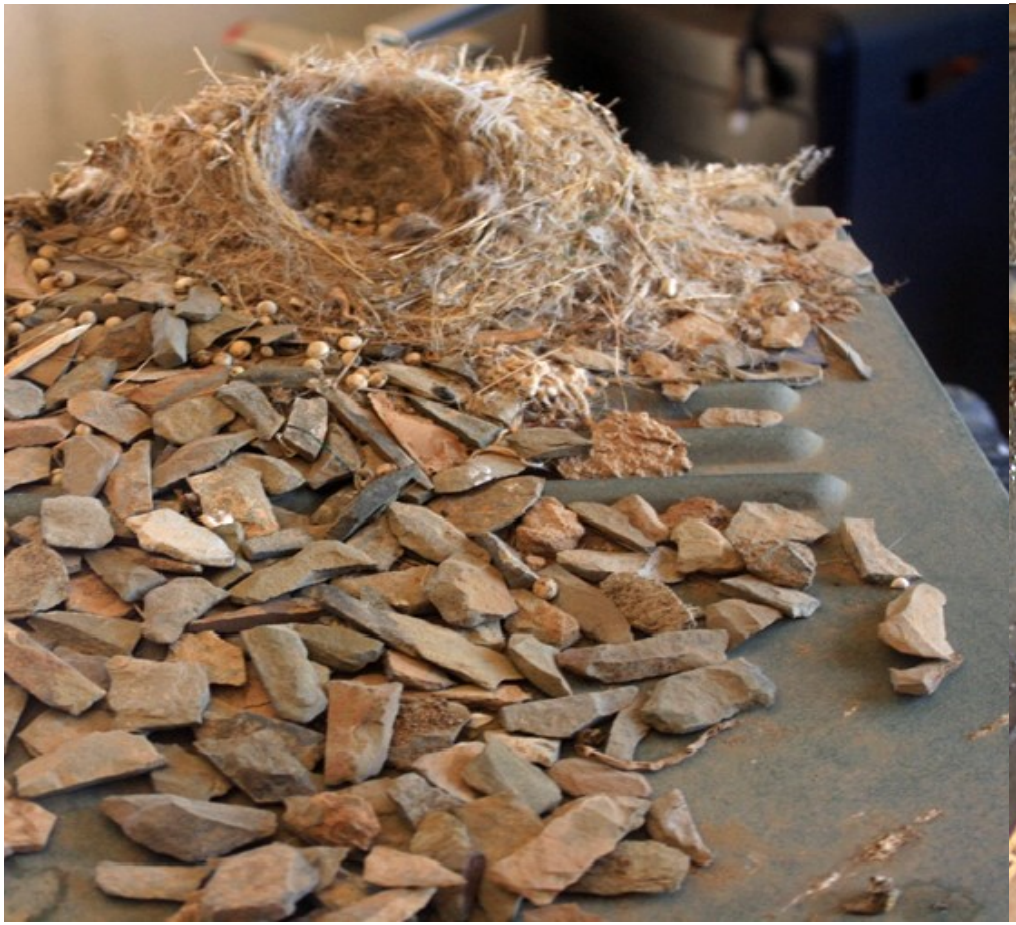

Figure 1: Nest under shelf in generator room (indoors).

Figure 2: Nest on boxes in garage (indoors).

Figure 3: Old watering can on rubbish dump (outdoors). This nest was built on an old tractrac chat nest.

the actual scale of constructing these foundations, is impressive, but has not been previously been well described. Steyn (1966) refers to the foundation as the base with one nest having a moderate base while another was more extensive and comprised of 147 small stones, with 50 additional stones added the following year, as a new base covering the old nest cup. However, not all nests were constructed with stone foundations and were dependent on the nature of the site.

According to Steyn (1966) the stones selected as base material weighed between 5–6 g (maximum 7.5 g); they were elongate and flat in shape and varying in length and width from 38–48 mm and 11–20 mm, respectively. The shape of the stones selected was thought to be best for transporting in their bills. Plowes (1943) and Taylor (1936) indicate that pebbles, earth clods and plaster are also used as foundation material.

Figure 4: Nest in old building (outdoors) – covered by drum (above) and exposed (below). This nest had 2 cups, one partially covered by stones.

Table 1: Familiar Chat nest foundation material from four nests in southern Namibia. For each category of material, the first line gives the count of the number of items, and the second line, in italics, gives mass (g).

	Nest 1	Nest 2	Nest 3	Nest 4	Totals	Averages
Nest placement	Generator room Indoors	Garage Indoors	Watering can Outdoors	Old building Outdoors		
Nest placement above ground level (cm)	117	100	40	87		86
Stones (shale) (No.)	312	112	253	2315	2992	748
Mass (g)	*660*	*288*	*724*	*5393*	*7065*	*1766*
Stones (calcrete) (No.)	5				5	1.25
Mass	*4*				*4*	*1*
Stones (gravel) (No.)		7		96	103	26
Mass		*15*		*248*	*263*	*66*
Ground clods (No.)	9			11	20	5
Weight (g)	*15*			*10*	*25*	*6*
Cement/Plaster (No.)	6	3		169	178	44
Mass		*6*		*528*	*534*	*134*
Bark/Twigs (No.)	8				8	2
Mass	*<1*				*<1*	–
Bones (No.)	1				1	–
No. of pieces of nest material						**827**
Weight(g)						***723***

In the four nests in southern Namibia, the material used in the construction of the nest foundations was predominantly stones (shale) supported by ground clods, bark/twigs and a single piece of animal bone (Table 1). Most of the stone material was flat pieces of shale while the calcrete and gravel pieces were more typically angular/rounded pebbles. The ground clods and cement/plaster material varied between flat and angular/rounded pieces.

The number of stones (shale) used in the construction of the nest foundations averaged 748 individual pieces (range 112–2,315), but Nest 4 was in fact two nests overlaid (Table 1). This exceeds the number of stones indicated by Steyn (1966) and is probably due to the environment dominated by shale at the study site. The average number of pieces/nest (all material) used for the nest foundation was 8,267 pieces.

The average weight per stone (shale, calcrete, gravel) was 2.4 g, less than the 5–6 g observed by Steyn (1966). This is also possibly due to the environment at the study site being dominated by shale; consequently, the birds could take smaller more manageable stones because the choice was not limited to larger stones. The average weight per nest of the nest foundation (all material) was 723 g.

The huge number of components of foundation material per nest, which build up to a substantial weight per nest, indicates a major investment by Familiar Chats in nest construction, especially when considering birds weigh between 15–29 g (average 22 g) (Hockey et al. 2005, Peacock 2015); the nest foundation is c. 33 times the average weight of a bird. Nest construction was not observed and it is not certain if both males and females contributed to this activity (Steyn 1966). What is known is that nests are constructed relatively quickly, within 2–13 days (Steyn 1966, Taylor 1936), exacerbating the physical investment. Being monogamous, solitary nester and territorial (Hockey et al. 2005) probably favours such a large investment in real estate. How this all contributes to breeding success is open to speculation.

References

Hockey PAR, Dean WRJ, Ryan PG (eds) 2005. Roberts birds of southern Africa 7th ed. Voelcker Bird Book Fund, Cape Town.

Peacock F 2015. Chamberlain's LBJ's – the definitive guide to southern Africa's little brown jobs. Pavo Publishing, South Africa.

Plowes DCH 1943. Bird-life at the Orange River mouth. Ostrich 14: 133.

Steyn P 1966. Observations on the breeding biology of the Familiar Chat, *Cercomela familiaris* (Stephens). Ostrich 37: 176–183.

Tarboton W 2001. A guide to the nests & eggs of Southern African birds. Struik Publishers (Pty) Ltd, Cape Town, South Africa.

Taylor JS 1936. Birds in the garden. Ostrich 7: 45–48.

Paper edited by Megan Loftie-Eaton
Biodiversity and Development Institute