

Loss of a Citril Finch *Serinus citrinella* nest possibly as a result of ant predation

M. FÖRSCHLER, J. CABRERA, T. CABRERA & A. BORRÀS

*Ants have been reported as the direct or indirect cause for nest loss in a few bird species. Here we describe a possible instance affecting a Citril Finch *Serinus citrinella* nest in the Spanish Pre-Pyrenees. The nest was found on 18 May 2002, when building activity was detected. On 1 June, the female was observed with five eggs hatching, apparently normally. Two weeks later, on 14 June we tried to detect signs of parental behaviour, but did not manage to make contact with the birds at the nest site. During a nest control on 18 June we found it to contain only one egg, and to have been totally invaded by mountain ants *Formica rufa*. No dead chicks or broken eggs were found.*

Key words: Citril Finch, *Serinus citrinella*, nest predation, ants, *Formica rufa*

Marc Förschler. Dept. of Experimental Ecology, University of Ulm. Albert-Einstein-Allee 11 (M 25). 89069 Ulm. Germany.

e-mail: m.foerschler@gmx.de

Josep Cabrera, Toni Cabrera & Antoni Borràs. Museu Ciències Naturals (Zoologia). Passeig Picasso s/n. 08003 Barcelona. Spain.

Rebut: 03.09.02; Acceptat: 04.10.02

Bird-nest predation by ants has been very infrequently described, although it seems to be more frequent than is generally supposed. In America, evidence was found of the predation of bird nests by carpenter ants *Camponotus* sp. (Conner & Lucid 1976) and especially by fire ants *Solenopsis* sp. (e.g. Kroll *et al.* 1973, Silkes & Arnold 1986, Drees 1994).

During research on the breeding biology of the Citril Finch *Serinus citrinella* 13 nests were found on the high plateau "La Bofia" at the top of the mountain Port del Comte, in the Spanish Pre-Pyrenees.

In the following text we describe possible reasons for the loss of one of these nests. The nest was first detected on 18th May. At this time nest building was nearly completed and the female stayed on the nest for long periods. The nest was on a strong lateral branch, 5 m above the ground and 3.5 m from the trunk, in a mountain pine *Pinus mugo uncinata* about 9 m high. The nesting site was 2065 m above sea level. On 1st June, we recorded the clutch size. The female hatched five eggs and breeding appeared to be proceeding normally. However, during a longer

observation on 14th June, neither parent was observed in the surroundings of the nest and no calls of young birds from the nest were noticed. On 18th June, we then checked the nest, with the intention of ringing any young fledglings, and we realized that it had been abandoned. The nest had suffered a major invasion of mountain ants *Formica rufa*. From the original clutch of five eggs only one intact egg was still in the nest. No dead fledglings were found in the nest. So the ants may well have picked up the parts of the dead young birds and/or the eggs.

There are two possible reasons for the observed nest loss. It may be that the Citril Finches abandoned the nest because of the onset of cold weather with snowfall in the first half of June, and that the ants subsequently invaded the abandoned nest. Alternatively, the nest might have suffered true predation by the ants. Senar & Corbera (1982) described an ant invasion at a Serin *Serinus serinus* nest, with direct nest loss as a consequence of the breaking of an egg. Mountain ants are very active insect predators and commonly patrol tree tops (Bernard 1968), so they might easily detect any broken egg or dead chick. Ant predation could play a more important role than is generally supposed, especially in areas with high ant densities (e.g. mountain ants in mountain pine forests).*

ACKNOWLEDGEMENTS

We are grateful to Dr Martin Pfeiffer for locating the ant references and to J. Carlos Senar for suggestions and advice.

RESUM

Pèrdua d'un niu de Llucareta Serinus citrinella per possible predació de formigues

Les formigues s'han considerat responsables directes o indirectes de la

pèrdua de nius en diverses espècies d'ocells. En aquesta nota es descriu un possible cas que va afectar un niu de Llucareta Serinus citrinella al Prepirineu català. El niu es va trobar en fase de construcció el 18 de maig de 2002. L'u de juny es va observar la femella covant la posta, la qual consta normalment de cinc ous. Dues setmanes després, el 14 de juny, no es van detectar signes d'activitat dels pares al voltant del niu. Durant un control efectuat el 18 de juny el niu va ser trobat completament envaït per Formica rufa i amb un sol ou al seu interior. No es van localitzar restes dels altres ous ni de cap poll mort.

REFERENCES

BERNARD, F. 1968. *Les fourmis (Hymenoptera Formicidae) d'Europe Occidentale et Septentrionale*. Paris: Masson et Cie Editeurs.

DREES, B. M. 1994. Red imported fire ant predation on nestlings of colonial waterbirds. *Southwest Entomol.* 19: 355-359

CONNER R. N. & LUCID, V. J. 1976. Interactions between nesting birds and carpenter ants. *Bird Banding* 47:161-162

KROLL, J. C., ARNOLD, K. A. & GOTIE, R. F. 1973. An observation of predation by native fire ants on nestling Barn Swallows. *Wilson Bull.* 85:478-479

SENAR, J. C. & CORBERA, E. 1982. Sobre la depredació de nius de *Serinus serinus* per formigues. *Acta Grup Autònom Manresa; Inst. Cat. Hist. Nat.* 2: 115.

SIKES P. J. & ARNOLD K. A. 1986. Red imported fire ant (*Solenopsis invicta*) predation on Cliff Swallow (*Hirundo pyrrhonota*) nestlings in East-Central Texas. *Southwest Nat.* 31:105-106