

# Brood defence by a female Long-eared Owl *Asio otus* against an attack by a Tawny Owl *Strix aluco*

Jordi Baucells

This note reports an attack by an adult Tawny Owl *Strix aluco* on an adult female Long-eared Owl *Asio otus* on its nest. The event occurred on 1 April 2007 and was recorded with a high definition infrared camera installed near the nest ten days earlier. The Long-eared Owl nest was in a stone pine *Pinus pinea* and contained four six-day-old chicks. Some 261 meters away from this nest, an oak contained a Tawny Owl nest with two about 20-day-old chicks. The Tawny Owl attack lasted for five seconds, during which time the Long-eared Owl repelled the attack and kept her chicks safe. Interspecific competition between Long-eared and Tawny owls is known, although attempts at nest predation have seldom been described.

Key words: Tawny Owl, *Strix aluco*, Long-eared Owl, *Asio otus*, intraguild competition, film recording, nest predation attempt.

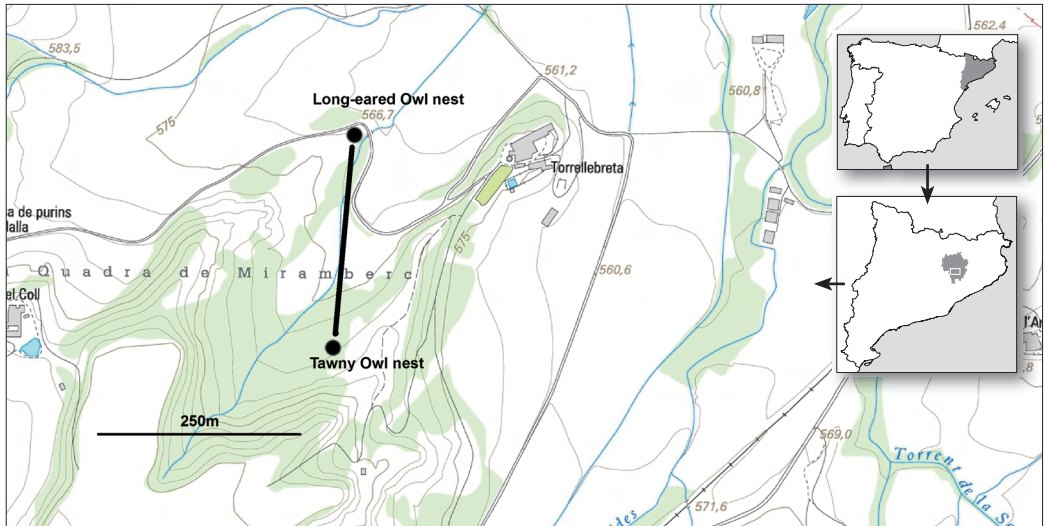
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Intraguild predation (IGP) provoked by ecological interactions related to the sharing of habitat, hunting grounds and/or nest location (Sih *et al.* 1985, Polis *et al.* 1989, Zuberogoitia 2008) is known to occur in owls. Interspecific competition between Long-eared *Asio otus* and Tawny *Strix aluco* Owls, specifically, has previously been described and often occurs when these two species share the same hunting and reproduction sites (Mikkola 1995). Tawny Owl place their nests in cavities in trees, on rock outcrops or inside old houses, whereas Long-eared Owls occupy old nest platforms built by corvids, squirrels or diurnal raptors. However, these platforms may also be occasionally occupied by Tawny Owls (Mikkola 1995, Baucells & Vila 2002, Baucells 2010). Tawny Owls have recently colonized forest and scrubland fragments in the agroforestral landscape of the Plana de Vic (province of Barcelona, NE Spain), a habitat used by Long-eared Owls in this area (Aymerich *et al.* 1991, Baucells *et al.* 1998, Baucells & Vila 2002, Baucells 2010).

Adult Long-eared Owls are predated by Goshawks *Accipiter gentilis* and by larger nocturnal raptors (such as Eagle Owl *Bubo bubo* or Great Horned Owl *Bubo virginianus*) (Mikkola 1995, Rodríguez *et al.* 2006). Traces of predated adult Long-eared Owls have often been found in both Eagle Owl nests with chicks and Tawny Owl nests (Mikkola 1995). As well, the predation by an adult Tawny Owl of a Long-eared Owl chick of about 25 days old left alone in the nest has been recorded from near Barcelona (FX. Macià & S. Aris, pers. comm.). However, to our knowledge, no attack on adult Long-eared Owls on the nest has previously been reported (Bull *et al.* 1989, Galeotti *et al.* 1997, Rodríguez *et al.* 2006, Baucells 2010).

In 2007, a pair of Tawny Owls and of Long-eared Owls bred in close proximity at Torrelle-breta Mill, Malla (province of Barcelona). The nests were only 261 m apart (Fig. 1). On 1 April the Long-eared Owl had four six-day-old chicks on an artificial nest platform, while the Tawny



**Figure 1.** Situation of the Long-eared and Tawny Owls' nests.  
Situació dels nius de Mussol Banyut i Gamarús.

Owl was rearing two approximately 20-day-old chicks in a hole of an old oak.

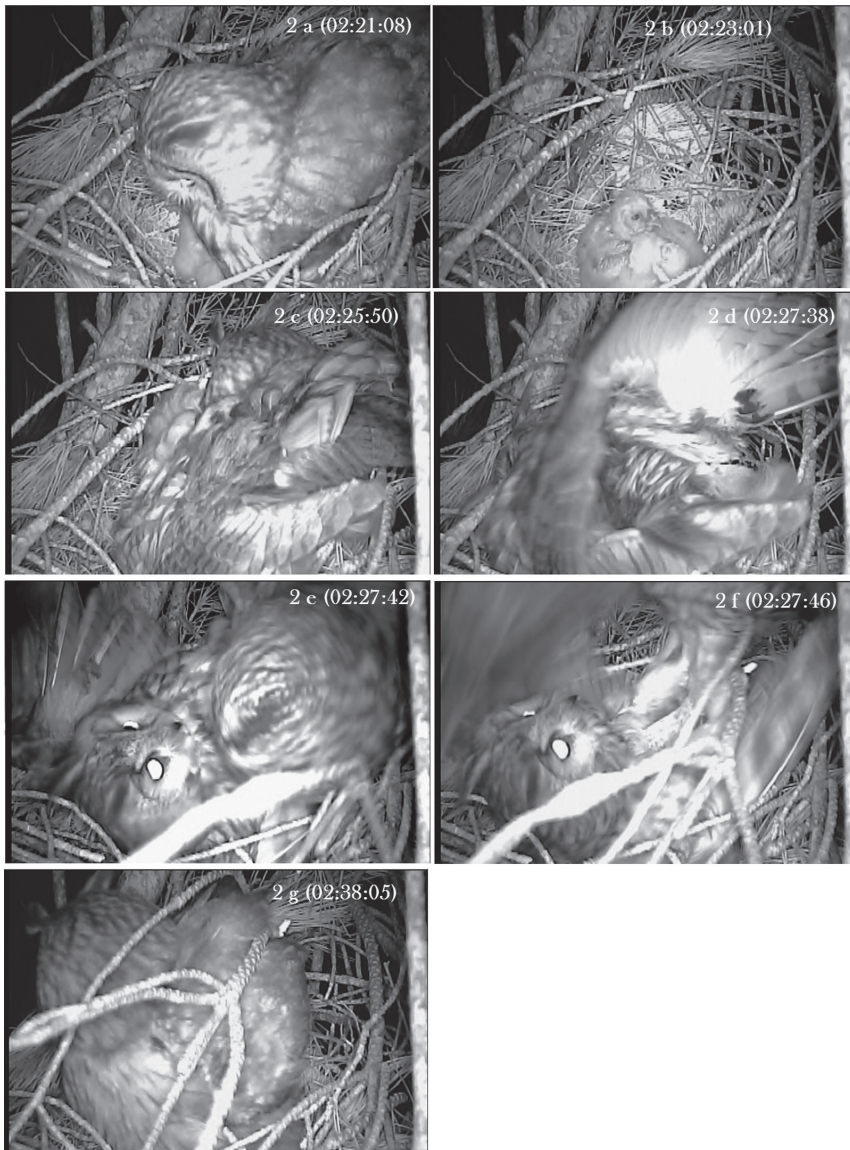
On 1 April 2007, during a study of Long-eared Owl breeding biology and food habits, I recorded an exceptional film sequence in which an adult Tawny Owl was seen to attack the female Long-eared Owl on its nest at Torrellebreta. The images were recorded with a high-definition infrared camera, which had been placed on a branch of the tree one metre from the actual nest four days before the chicks hatched. The nest consisted of an artificial platform constructed using an old Magpie's *Pica pica* nest and a wicker basket (according to specifications in Baucells 2010) that had been placed in a stone pine *Pinus pinea* about five meters above the ground as part of the ongoing Long-eared Owl conservation program in the county of Osona.

The recording reveals the following events: at 02:23:01 the Long-eared Owl female, who had been covering the chicks (Fig. 2a), leaves the nest. The chicks are left alone in the nest (Fig. 2b) until 02:25:50, when the female returns to the nest and immediately begins to look to her right, shaking her head nervously with both ears erect (Fig. 2c). After eight seconds she starts to ruffle up her feathers and assumes a defensive position (plumage fluffed up in a menacing attitude, visible in Fig. 2d) until 02:27:42, when she suddenly leaps powerfully out of the nest

as an adult Tawny Owl attacks her. The female Long-eared Owl ends up on her back on the nest platform with her claws in the air protecting her chicks from the aggressive attacks of the Tawny Owl (Fig. 2e). It is easy to differentiate between the two owls in the recording given the typical dark stripe on the Tawny Owl's head. The two owls fight intensely for about four seconds, during which time the Tawny Owl attacks the other owl with its claws (Fig. 2f). The Long-eared Owl manages to fend off the attack, although three seconds later the Tawny Owl tries unsuccessfully to re-enter the nest. After five seconds, the attack ends with the female Long-eared Owl outside the nest, although she returns quickly at 02:28:00. She continues to protect the chicks and look in the direction in which the Tawny Owl has fled (Figure 2g). After the attack, a branch lies across the nest platform, which the female soon moves with her back to form part of the nest structure.

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**Figure 2.** (a) The female Long Eared Owl on the nest covering the chicks (02:21:08). (b) She departs the nest suddenly, leaving the nestlings untended (02:23:01). (c) The female returns to the nest and assumes a very alert posture and is unwilling to move (02:25:50). (d) The female becomes very agitated, her plumage fully fluffed up as she looks out of the nest (02:27:38). (e) First seconds of the attack: the female beats off an attack by a Tawny Owl, which seems to want to rob the chicks (02:27:42). (f) The defensive posture of the female Long-eared Owl causes the Tawny Owl to renew its attack (note the claws of the Tawny Owl on the belly of the Long-eared Owl). (02:27:46). (g) Seconds after the attack, the female Long-eared Owl has returned to the nest and is now looking in the direction in which the Tawny Owl has disappeared. 02:28:05.

(a) La femella de Mussol Banyut és en el niu cobrint els seus polls (02:21:08). (b) La femella marxa del niu sobtadament, i deixa els polls sols (02:23:01). (c) La femella torna ràpidament al niu i comença a mirar al voltant, tot movent-se de forma vacil·lant (02:25:50). (d) La femella està molt excitada, té el plomatge totalment inflat, i mira constantment fora del niu (02:27:38). (e) Els primers segons de l'atac. La femella es defensa d'un atac de gamarús, que sembla que vol agafar els polls (02:27:42). (f) L'actitud de defensa del Mussol Banyut fa que el Gamarús ataqüi amb agressivitat (vegeu com les urpes del Gamarús estan sobre la panxa del Mussol Banyut) (02:27:46). (g) Segons després de l'atac, la femella del Mussol Banyut torna al niu i, protegeix els polls, i observa nerviosa el lloc per on ha marxat el Gamarús (02:28:05).

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## Resum

### Defensa del niu per una femella de Mussol Banyut *Asio otus* davant d'un intent de predació per un Gamarús *Strix aluco*

Aquesta nota descriu l'atac, ocorregut l'1 d'abril de 2007, d'un Gamarús *Strix aluco* adult a una femella adulta de Mussol Banyut *Asio otus* que estava dins del niu amb quatre polls de 6 dies d'edat. Aquest fet es va enregistrar amb una càmera d'infraroig d'alta sensibilitat, col·locada a uns 70 cm de la plataforma del niu. El niu estava en una plataforma artificial dalt d'un pi piner *Pinus pinea*. A 261 metres d'aquest niu hi havia un niu de Gamarús amb polls d'uns 20 dies d'edat. Les imatges mostren l'agressivitat amb què el Gamarús agredeix el Mussol Banyut, agafant-lo per la panxa amb les urpes, possiblement intentant deixar els polls al descobert. La competència entre aquestes dues espècies és prou coneguda, sobretot pel que fa als recursos alimentaris i l'ús de l'hàbitat, però no s'ha trobat a la bibliografia cap descripció o enregistrament d'un atac directe com aquest, dins del niu.

## Resumen

### Defensa del nido por una hembra de Búho Chico *Asio otus* ante un intento de depredación por parte de un Cárabo Común *Strix aluco*

La nota describe el ataque, ocurrido el 1 de abril de 2007, de un ejemplar de Cárabo Común *Strix aluco* adulto sobre una hembra adulta de Búho Chico *Asio otus* que se encontraba en el interior del nido con cuatro pollitos de 6 días de edad. El ataque fue grabado con una cámara de infrarrojos de alta sensibilidad colocada a unos 70 cm de la plataforma del nido, una plataforma artificial situada en un pino piñonero *Pinus pinea*. A 261 metros del nido de Búho Chico se encontraba un nido de Cárabo Común con pollitos de unos 20 días de edad. Las imágenes muestran la

agresividad del Cárabo Común, que se vuelca sobre la hembra de Búho Chico agarrándola con las garras por el pecho, posiblemente intentando dejar los pollitos al descubierto. La competencia entre estas dos especies es conocida, especialmente por los recursos alimentarios y el uso del hábitat, pero no se han encontrado referencias de ataques directos dentro del nido.

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