

Little Owl (*Athene noctua*) winter fledglings in Catalonia, NorthEast Spain

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Across its large distribution through the southern Palaearctic region Little Owl (*Athene noctua*) breeding period falls between March and August. Even in Mediterranean countries, with mild weather conditions, like Spain, Greece or Morocco, the onset of the breeding season is March (Cramp 2000).

Unexpectedly, on 29 January 2007 an almost 4 wk old Little Owl was found around the gardens of the passenger terminal at Reus Airport (41°08' N, 01°09' E) in Catalonia, Spain. The fledgling weighed 100 g, had remiges almost fully grown and rectrices half grown. It was transferred to the wildlife rehabilitation centre and released 2 mo later in the area where it had been found. Feather development indicated that the young was about 25 days of age, but its mass was lower than average for that age (Van Nieuwenhuysse et al. 2008). This record implies an estimated laying date in the first half of December (assuming the typical incubation period of 25-28 d; Van Nieuwenhuysse et al. 2008), at least 4 months before the usual laying dates. Egg-laying dates in Europe fall primarily between April and May (Mikkola 1995, Génot 2005, Van Nieuwenhuysse et al. 2008). In Catalonia eggs are laid typically in April (Mañosa in Martínez-Vilalta 2001, Baucells et al. 2003, Andino et al. 2005). Fledglings have been seen out of the nest between mid and late June in the region (Framis unpubl. data, Baucells et al. 2003, Andino et al. 2005).



Foto door de eerste auteur

Winter breeding records are rare for Little Owl. Génot cited the earliest clutch in France, found in January 1927, and the earliest record of all in December 1949, in Hungary (Génot 2005). Another early record was documented in Turkey (Van Nieuwenhuysse et al. 2008).

To our knowledge, winter breeding in Little Owls in Spain has not been published. However, a similar case was found in the records of one of the rehabilitation centres in Catalonia. Of >200 Little Owl admitted for rehabilitation or treatment between 1994 and 2005, two fledglings arrived at the centre on 26 January 2000, from Prat de Llobregat (41°19' N, 2°05' E) near Barcelona city (Departament de Medi Ambient i Habitatge). One factor that may have contributed to winter breeding is local temperature change. In order to quantify a possible variation, we compared temperatures in 2006 with a long series of previous years at Reus Airport. The mean temperature at the airport in November 2006 was 14.7°C ± 1.9 SD, compared to the thirty-year average of 12.4 °C ± 1.4 SD (1971-2000; Weather Forecast Office at Reus Airport pers. comm.).

In other species, early breeding dates have sometimes been correlated to an increase in local temperatures. Kniprath et al. (2008) studied Barn Owls (*Tyto alba*) in Germany for more than 25 yr and found that egg-laying dates in Barn Owls had advanced at a rate of 0.43 to 0.87 d per yr during that time. These results correspond with a trend observed for over 60 bird species in England: earlier egg-laying episodes were related to warmer temperatures (Kniprath et al. 2008). Gustin (2006) documented the first winter breeding record for Long-eared Owl (*Asio otus*) in Italy but found no significant change in temperatures between the months of his observations and for the previous 28 yr.

The results of Kniprath et al. (2008) suggest that, if the current trend continues, Barn Owls may eventually breed in winter. Barn Owl is a very adaptable with a flexible and lengthy breeding period (Martin 1994); in that respect, it differs from the Little Owl which has great breeding synchrony (Mikkola 1995), making winter breeding for the latter species more unlikely.

Some Barn Owl studies have demonstrated how weather conditions can affect reproductive timing and success: climate may affect female body condition, as well as access to food (Marti 1994, Zuberogoitia 2000). Factors limiting breeding success may vary greatly from region to region, or even from area to area. In Spain where irruptions of microtines are uncommon, Barn Owl breeding success likely is limited by rainfall, at least in the Vizcaya area of northern Spain (Zuberogoitia 2000). However, in some areas of Eastern Spain where rain is scarcer and prey populations are constant through the year, Barn Owls occasionally have third broods, whereas north of the Pyrenees they rarely produce second broods (Martínez et al. 2002).

Similarly, Little Owl breeding phenology may likewise be influenced by the availability of food as well as climate conditions: early laying dates are associated with peak vole years, but bad weather conditions can delay laying. Interestingly, a large amount of rain in spring may have contradictory influences on egg laying date: in some cases, when rain has been abundant, egg laying may be advanced due to the improvement in female's body condition because of the availability of earthworms; however, in other cases, laying may be delayed as rainfall increases (Van Nieuwenhuysse et al. 2008). Little Owl winter fledglings found in Catalonia simply enlarge the short list of species observed breeding in the winter. Such breeding patterns for other bird species may be linked to climate change. However, such unusual observations may simply represent deviations from the mean. The ultimate cause of this unusual behaviour remains unknown.

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Samenvatting (Ronald van Harxen)

Geheel onverwacht werd op 27 januari 2007 een 25 dagen oude Steenuil aangetroffen in de tuinen van Reus Airport in Catalonië (circa 100 km ten zuidwesten van Barcelona). Met een gewicht van 100 gram bleek hij licht voor zijn leeftijd. Teruggerekend moet het eerste ei in de eerste helft van december gelegd zijn, tenminste 4 maanden eerder dan gebruikelijk als we er van uitgaan dan de meeste Steenuilen in Europa in april en mei eieren leggen. Dergelijke vroege legsel zijn zeldzaam. Génot (2005) vermeldt voor Frankrijk januari 1927 als vroegste datum. Uit Hongarije vermeldt hij een decemberlegsel als vroegste ooit. De auteur beschouwt dit vroege legsel als een toevallige afwijking, eerder dan bijvoorbeeld het gevolg van klimaatveranderingen.

Naschrift: De eerste ei datum voor Nederland is helaas niet precies te achterhalen. De meeste opgaven van vroege data in het nestkaartenprogramma zijn helaas niet betrouwbaar genoeg of niet goed te controleren doordat een opgaven van de leeftijd van de jongen ontbreekt. Twee controleerbare vroege data zijn 24 maart 2007 te Ruurlo (Anton Meenink) en 26 maart 2007 in Deurne (Marcel Boerenkamp)