

Predation of the Weasel (*Mustela nivalis*) by diurnal raptors

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The Weasel (*Mustela nivalis* Linnaeus, 1766) is the world's smallest carnivore (King & Powell 2006). Despite being a predator itself, its size makes it prey for a wide range of predators, including other carnivores, snakes and raptors. There are reports of weasels being captured by the Red Fox (*Vulpes vulpes*) (Latham 1952), the Cat (*Felis silvestris catus*) (Gaughren 1950) and the Common Genet (*Genetta genetta*) (Cugnase & Riols 1984). Also, the Weasel forms part of the diet of snakes such as the Lataste's Viper (*Vipera latastei*) (López-Jurado & Ruiz-Caballero 1981). The main nocturnal raptors that prey on weasels are the Barn Owl (*Tyto alba*), the Eurasian Eagle-Owl (*Bubo bubo*) and the Long-Eared Owl (*Asio otus*) (Araújo 1973, Herrera 1974, López-Gordo *et al.* 1977, Álvarez 2003). When weasels are active during the day, however, they are vulnerable to capture by diurnal raptors such as the Common Buzzard (*Buteo buteo*), the Northern Goshawk (*Accipiter gentilis*), the Common Kestrel (*Falco tinnunculus*) and the Bonelli's Eagle (*Aquila fasciata*) (Korpimaki & Nordahl 1989, Real 1991, King & Powell 2006).

This note includes eight unpublished records of weasel predation in Catalonia, over the last few years, by three diurnal raptor species: one by the Short-Toed Snake Eagle (*Circaetus gallicus*), two by the Bonelli's Eagle and five by the Common Buzzard.

- Short-Toed Snake Eagle:
 - 26th July 2011. UTM: 31TDG50. Parc del Montnegre i el Corredor (Barcelona). An automatic camera that was monitoring a nest of this species recorded an adult taking a Weasel to the nest to feed its chicks (record provided by F.X. Macià and X. Larray). The predation by *C. gallicus* on Weasel has not been cited so far.

- Bonelli's Eagle:
 - 26th April 2009. UTM: 31TDF06. A live Weasel was seen entering a nest of a Bonelli's Eagle located on a cliff in the Garraf Massif (Sitges, Barcelona). A female raptor eagle captured the Weasel and fed it to her chicks. This event was recorded by an automatic video camera that was monitoring the reproductive activity of a pair of eagles (record provided by S. Llacuna, Barcelona Provincial Council).
 - 11th February 2015. UTM: 31TCF17. A four-year-old adult male Bonelli's Eagle was shot dead by poachers at Bellaguarda wind farm in Lleida. During the autopsy, the remains of a Weasel were found in its stomach (record provided by X. Parellada and Vallcalent Wildlife Centre).
- Common Buzzard: the five cases involved buzzards feeding weasels to their chicks, as recorded by automatic cameras monitoring different buzzard nests (Fig. 1).
 - 7th June 2012. UTM: 31TDG50. Argentona, Barcelona.
 - 1st May 2013. UTM: 31TDG50. Argentona, Barcelona.



Figure 1. Chicks of common buzzard in the nest with a dead weasel.

- 27th May 2014. UTM: 31TDG40. Argentona, Barcelona.
- 16th May 2015. UTM: 31TDG50. Dosrius, Barcelona.
- 28th May 2016. UTM: 31TDG50. Dosrius, Barcelona.

The presence of weasels in the diet of carnivores, birds of prey and snakes is quite rare. Both the Common Buzzard and the Bonelli's Eagle in NE Spain have highly varied diets, with carnivorous mammals occasionally reported among their prey (Real 1991, Mañosa & Cordero 1992). The mammals in the diet of these raptors include insectivores, rodents and lagomorphs, which are also the main prey of weasels (King & Powell 2006), whereas snakes are the main food source of the Short-Toed Snake Eagle (Gil & Pleguezuelos 2001). By hunting the weasel, birds of prey and other carnivores also reduce competition for their shared prey.

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