

First record of Algerian hedgehog *Atelerix algirus* (Lereboullet, 1842) in La Palma Island Biosphere Reserve

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The Algerian hedgehog *Atelerix algirus* (Lereboullet, 1842) is an introduced species in the Canary Islands, currently presents in Fuerteventura, Lanzarote, Gran Canaria and Tenerife (Alcover 2007, Arechavaleta *et al.* 2010). It was firstly introduced from Morocco in Fuerteventura in 1892, and later being dispersed by humans to the rest of islands where it is currently distributed (Hutterer 1983, Khaldi *et al.* 2016).

During March 2016, two female hedgehogs were observed in two different localities of La Palma Island Biosphere Reserve. One of them was captured on a street at the village of El Paso, in the central part of the island (UTM: 28R 218177.18 E // 31722923.74 N) (Fig. 1). The second one was found dead due to a casualty on a road at Garafía, a northern locality of the island (UTM: 214755.78 E // 3191883.26 N). These are the first records of the species in La Palma Island, although an unconfirmed observation seems to be placed several years ago in Tzacorte, on the western side of the island, where another hedgehog was died after being run over (G. Hernández-Martín, pers. comm.).



Figure 1. Specimen of Algerian hedgehog captured at the village of El Paso.

Scarce studies have been done on hedgehog ecological impacts upon the Canary Islands ecosystems or species; however, this insectivorous mammal could be affecting endemic invertebrates (Coleoptera; Nogales *et al.* 2006) and some vertebrate groups such as ground nesting birds and endemic reptiles (Domínguez & Bacallado 1984). Furthermore, hedgehogs can disrupt ecological processes such as animal-plant mutualisms (Traveset 2002), as it has been observed in the Canaries with the dispersion of seeds of the endemic fleshy-fruited plant species *Plocama pendula* (Barquín *et al.* 1986). Finally, they can transmit parasites of human health interest (Khaldi *et al.* 2012).

Although, Algerian hedgehog is considered an invasive species in the Canaries (Arechavaleta *et al.* 2010) it is not included in the official Spanish catalogue of exotic invasive species. Nevertheless, current Spanish law forbids the introduction of exotic species and subspecies when they are susceptible to compete with native species or to alter ecological processes (Ley 33/2015 de 21 de septiembre). In spite of that, the presence of these two hedgehogs in nature was caused due to escapes from captivity, as they were found very closely related to villages. In the Canary Islands, hedgehogs are usually considered as pets, even being sold on the Internet (see for example: <http://www.milanuncios.com/otros-animales-en-canarias/erizo.htm>; downloaded on April 29, 2016). Taking into account that some of the selling hedgehog species seems to be African pygmy hedgehog (*E. albiventris*), European hedgehog (*E. europaeus*), or even their hybrids, it is probably that some animals belonging to these species could also appear on the island. Sanz *et al.* (2015) indicates that hedgehog morphological identification to species level is sometimes complicated, so the molecular markers based on

mitochondrial DNA (from maternal inheritance) may be a useful tool for characterization of species. Nevertheless, considering the importance of the island biodiversity, basic to have been declared a World Biosphere Reserve, the introduction of Algerian hedgehog, or any other species of this insectivorous mammal, could mean a high threat for its conservation (Nogales *et al.* 2006).

This is a new example of how the lack of controls in ports and airports in the Canary Islands allows the transportation and translocation of invasive species among islands, as occurred in the past with other introduced mammals such as ferrets (Medina & Martín 2010), or mouflons (Acevedo-Rodríguez & Medina 2010), increasing problems to preserve endemic species and island biodiversity. So, it is urgent and a priority in the Canary Islands to establish a legal framework, management strategies, and educational programmes to minimize the risk of invasive species, as it has been previously stated (Genovesi *et al.* 2009).

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