

New Record of the Libyan Striped Weasel *Ictonyx libycus* from the Atlantic Moroccan Sahara

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Abstract

Updated information on a recent record of the Libyan Striped Weasel *Ictonyx libycus* occurring in a new area in the Moroccan Atlantic Sahara region is provided. Most of the recent records for this species come from the Aousserd (22°33'25N, 14°19'44W) region at the extreme south of the country.

Keywords: Libyan Striped Weasel, skull, Morocco

**Nouveau signalement du Zorille *Ictonyx libycus*
dans le Sahara atlantique marocain**

Résumé

Des informations actualisées concernant un signalement récent du Zorille *Ictonyx libycus* dans une nouvelle zone de la région du Sahara atlantique marocain sont fournies. La plupart des observations récentes de cette espèce proviennent de la région d'Aousserd (22°33'25N, 14°19'44W) à l'extrême sud du pays.

Introduction

The Libyan Striped Weasel (or Saharan Striped Polecat) *Ictonyx libyca* is a small-sized and compact terrestrial mustelid ranging in total length from 30 to 380 cm and in weight from 200 to 600 g (Larivière & Jennings 2009). General morphological characteristics include black face, limbs and underparts. The body is covered by white stripes interleaved with variable black inter-stripes and the fur is longish with a silky appearance. The tail is long and white and sprinkled with black hairs. An unbroken white band encircles the face, running from the forehead behind the eyes to the base of the throat (Fig. 1). As with most mustelids, it has well developed anal glands and secretes a pungent fluid when threatened (Franca 2012).

The Libyan Striped Weasel ranges from the Sahel to Sudan throughout North Africa on the edges of the Atlantic Sahara as well as the coastal band of south Mediterranean (Ahmim & Do Lihn San 2015; Fig. 2). It occupies mainly sub-desert habitats such as stony desert, massifs, steppes, oases, sparsely vegetated dunes and cultivated areas in arid and sub-arid zones (Ahmim & Do Lihn San 2015).



Fig. 1. A Libyan Striped Weasel *Ictonyx libycus* at Aousserd, southern Morocco. © Javi Elorriaga.

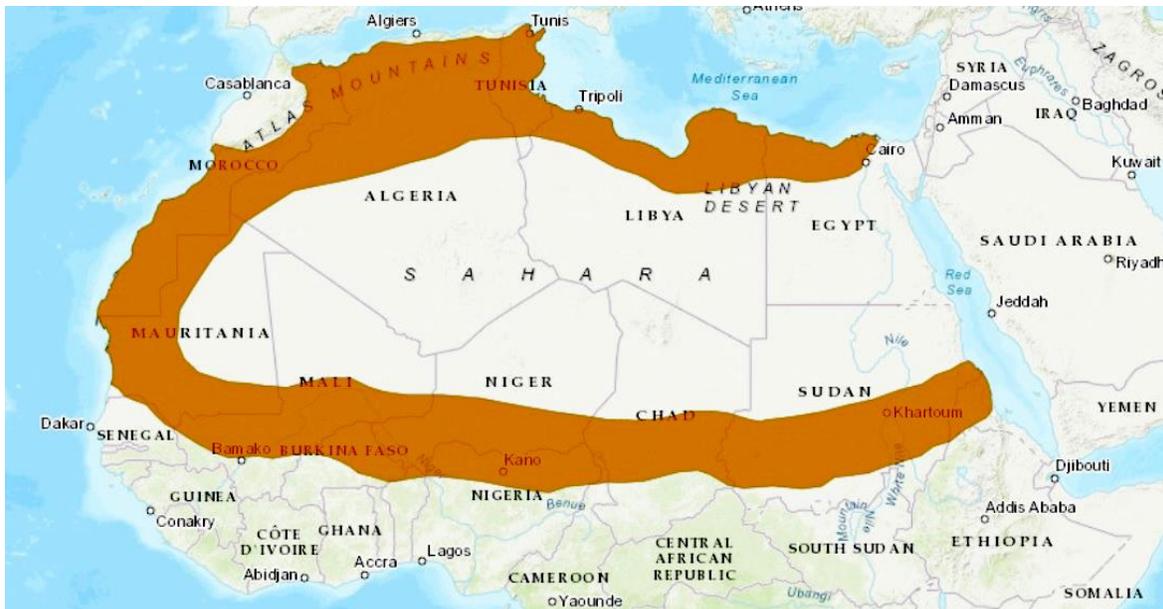


Fig. 2. Distribution map of the Libyan Striped Weasel *Ictonyx libycus* (IUCN 2015).

According to the IUCN Red List this species is globally classified as Least Concern because it has a wide distribution range. The species is uncommon throughout Morocco and information is scarce and patchy (Aulagnier *et al.* 2017; Fig. 3). In Morocco, the Libyan Striped Weasel, which is nocturnal, co-exists in places with other parapatric small-sized mustelids with which the weasel may compete, such as the mainly diurnal Least Weasel *Mustela nivalis*, near Berkane and Taourirt, in the north-east of the country (Imad Cherkaoui, pers. obs. 2006).

To our knowledge no research has assessed the ecology or population dynamics of this species in North Africa, which makes this small carnivore one of the least studied in this region. Although the Libyan Striped Weasel is not included in the IUCN Red Lists of Threatened Species, the lack of studies of its ecology, distribution and current conservation status in Morocco and elsewhere is noteworthy. Given the ecological importance of this species, there is a need for a better understanding of microhabitat factors that are associated with its occurrence and field research is needed to quantify its conservation status and distribution.

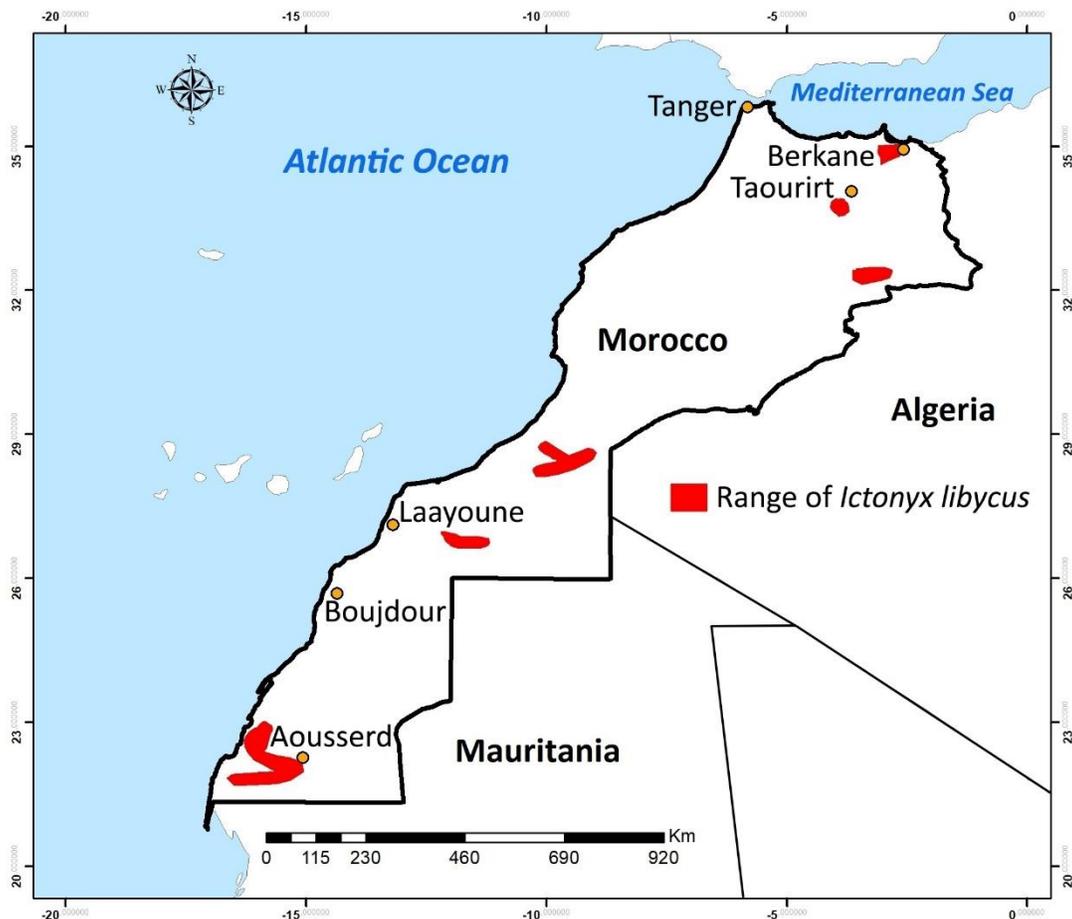


Fig. 3. Known range of the Libyan Striped Weasel *Ictonyx libycus* in Morocco prior to the observation reported here (map modified from Ahmim & Do Linh San 2015).

Because of its secretive nature, almost nothing is known of the Libyan Striped Weasel's reproductive biology (Rosevear 1974, Walker 1975) and it has probably been overlooked and under-recorded in many areas. Recent records of the weasel at sites that were previously considered unsuitable underscore this.

These small, solitary carnivores are specialist predators of small mammals and have a high metabolic rate, which means they can only exist in habitats containing adequate numbers

of prey (Kingdon 1997). Such habitats are being lost or drastically transformed to agriculture and agroforestry, especially in the Mediterranean part of the range of this weasel (Benabid 2000). This is compounded by overgrazing, which reduces the cover on which the Libyan Striped Weasel's prey species rely. Human population expansion has increased the number of dogs that often kill Libyan Striped Weasels or compete with them for food. The density of stray dogs has increased markedly in and around human settlements, which is likely having a significant impact on the weasels.

New record of a Libyan Striped Weasel

The record documented here confirms the presence of the Libyan Striped Weasel in an area where the species had not previously been recorded. On 22 July 2018, a decomposed body of the animal was found 14 km north of the city of Boujdour and 4 km from the coast (26°13'58"N; 14°17'45"W; Fig. 3). This area is characterized by stony desert with occasional sparse vegetation, concentrated in contrasted green patches known locally as “grara” (Fig. 4). Available records indicate that this is the first known sighting of the weasel in this location of the Moroccan Atlantic Sahara. In recent years, most of the records have come from the Aousserd area (22°33'25"N, 14°19'44"W), a few kilometres north of the Mauritanian border.



Fig. 4. Habitat in the area of southern Morocco where the remains of a Libyan Striped Weasel *Ictonyx libycus* were recovered on 22 July 2018.



Fig. 5. Dorsal view of the Libyan Striped Weasel *Ictonyx libycus* skull recovered in the Moroccan Atlantic Sahara on 22 July 2018.



Fig. 6. Ventral view of the Libyan Striped Weasel *Ictonyx libycus* skull recovered in the Moroccan Atlantic Sahara on 22 July 2018.

Skull identification

The Libyan Striped Weasel specimen (Figs. 5, 6) was identified by its cranial characters, following Osborn & Helmy (1980) and Panouse (1957). The outline of the skull is a triangular shape in the dorsal view. It differs from all other small Moroccan carnivores by one particular characteristic: the para-pterygoid bones in the Libyan Striped Weasel are fused with the tympanic bulla. Also, the coronoid process of the mandible is rounded. In the specimen recovered, the sutures in the cranial bones are not visible, indicating that it is an

adult. Skull measurements fall into the range given by Osborn & Helmy (1980) which, for condyloincisive lengths (CIL) are 49.9 mm in males (range 48.2 – 54.9 mm) and 49.8 mm in females (range 46.8 – 52.8). In this specimen, the CIL is 48.9 mm, the zygomatic width (ZW) is 29.4 mm and the postorbital width (POW) is 10.4 mm, and the para-pterygoid bones are fused with the tympanic bullae. This cranial character is not present in any other Moroccan carnivore. The skull is now registered in the Mammal Collection of the National Museum of Natural History, Grigore Antipa, Bucharest, Romania, with collection number MAM12912.

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