Presence of a small population of a polecat-like mustelid in north Algeria, potentially the wild progenitor of Domestic Ferret *Mustela furo*

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Abstract

Wild-living animals allied to Western Polecat *Mustela putorius* and its domesticated relative, Domestic Ferret *M. furo* do not seem to have been previously documented in Algeria. A small population was discovered in March 2013 in Maamoura, which local people report has been present for at least 60 years. Further investigations, including DNA sequencing, are essential to determine (1) whether these animals are an autochthonous wild population or an introduction, and (2) the extent, if any, to which they are descended from Domestic Ferrets.

Keywords: DNA sequencing, *Mustela putorius*, wild strain

Présence d'une petite colonie de mustélidés de « type putois » au nord de l'Algérie, potentiellement la souche sauvage du Furet domestique *Mustela furo*

Résumé

Des animaux vivant en milieu sauvage apparentés au Putois d'Europe *Mustela putorius* et à sa forme domestiquée, le Furet domestique *M. furo* ne semblent pas avoir été documentés auparavant en Algérie. Une petite colonie a été découverte en mars 2013 à Maamoura, colonie qui, selon les habitants locaux, existerait depuis au moins 60 ans. Des recherches supplémentaires, incluant un séquençage ADN, seront essentielles pour déterminer (1) si ces animaux constituent une population sauvage autochtone ou résultent d'une introduction, et (2) dans quelle mesure, si relevant, leurs ancêtres comprenaient des Furets domestiques.

Mots clés: *Mustela putorius*, séquençage ADN, souche sauvage

Domestic Ferret *Mustela furo* is a close relative of Western Polecat *Mustela putorius*, but neither its geographical nor its taxonomic origins are well documented. Gippoliti (2011) adduced evidence to suggest that Domestic Ferrets may be derived from a wild animal of North Africa. The wild-living North African animals resembling Western Polecats are treated inconsistently in various taxonomic sources, usually as within Western Polecat. If they comprise an autochthonous wild taxon (rather than the descendents of Domestic Ferrets and/or of Polecats introduced from Europe), then they seem to lack a scientific name: *furo* can be used only for domestic animals and their progeny (Gentry *et al*. 2006), and no other name associated with *M. putorius* has a type locality in Africa. In a review of Algerian mammal records, Kowalski & Rzebik-Kowalska (1991) considered that there were no reliable records of wild polecat-like animals from Algeria. Nor were any traced by Gippoliti (2011) or Griffiths & Cuzin (in press). None of these authors gave any evidence for such animals outside Morocco. I recently learnt of a small population of a wild-living polecat-like animal, in north-central Algeria which is morphologically close to or within Western Polecat. Based on the conclusions of Gippoliti (2011) about Moroccan animals, and on their location as wild-living animals in North Africa, these Algerian animals may also potentially be among the wild progenitors of Domestic Ferret. However, they could instead potentially be the descendents of Domestic Ferrets and/or Western Polecats imported from Europe in the past, or a population descended from both autochthonous wild animals and introductions.

On 10 March 2013, a live specimen of a polecat-like animal (Fig. 1) was given to me by a friend, who told me that there is a population of these animals in the region of Maamoura. This is a commune in the southeast of Sour-el-Ghozlane, Bouïra province, Algeria (35°57′30″N, 3°37′13″E; Fig. 2). I visited the locality and asked residents about these animals. They told me that they live in a forest and maquis habitat near the town, and have been present for at least 60 years. The population size was said to be about 30 animals. Some are now in captivity. The main threat to the colony at Maamoura seems to be the capture of the animals for hunting European Rabbits *Oryctolagus cuniculatus*, as was noted by Cabrera (1932) to occur in Morocco.

I also received reports of sale of these animals in some markets in the west of Algeria. As far as I know, captive ferrets kept in Algeria are all animals caught in North Africa or their progeny. I have heard of no imports from outside North Africa, and I have never seen or heard of an animal with a white pelt (such as comprise the majority of Domestic Ferrets in Europe). Distinguishing between Western Polecats and Domestic Ferrets is extremely challenging, in part because of considerable interbreeding between them (Davison *et al*. 1999). Moreover, the wild-living animals of Morocco remain inconsistently treated (Gippoliti 2011) and are not well diagnosed morphologically. Therefore, identification of these animals from Maamoura will require considerable further investigation, including consideration of how similar they are to wild-living Moroccan animals. Detailed morphological and DNA analysis would be required in order to determine the Maamoura population's likely origin and thus taxonomic affinity. Such analysis is urgent, given the conclusion of Gippoliti (2011) that the hypothesised North African wild taxon ancestral to Domestic Ferret is highly threatened, if

Fig. 1. Captive polecat-like animal, *Mustela* cf. *putorius furo*, from Maamoura, Bouïra province, Algeria, 16 March 2013. Four views of the same individual.

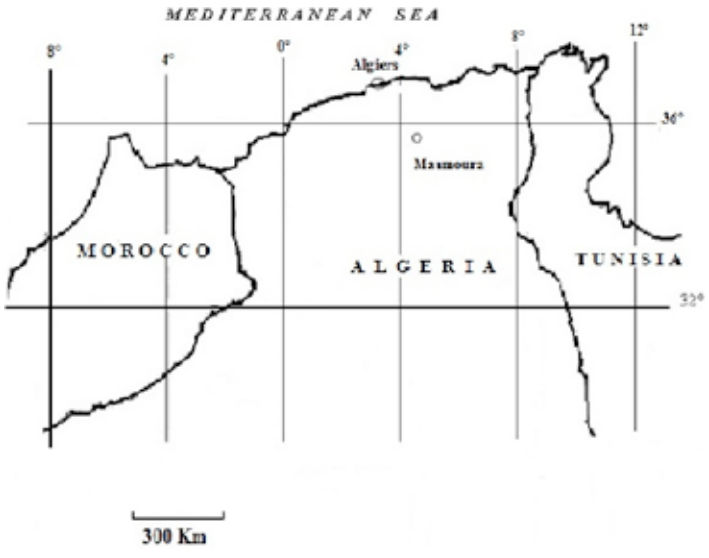

Fig. 2. Location of Maamoura, Algeria, which holds a small population of a wild polecat-like animal, *Mustela* cf. *putorius furo*.

it persists at all. The population at Maamoura seems to be small (this is yet to be confirmed) and conservation work is likely to be essential, if the population is found to be of conservation interest. This latter would be so if they are a pure-bred wild population. It would also be likely if they have some Domestic Ferrets in their ancestry, but still retain genetic material from their wild ancestor not present in modern Domestic Ferrets.

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