

Western Polecat *Mustela putorius* distribution in Greece

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Abstract.

Western Polecat *Mustela putorius* is a mustelid species native to Greece. The species is poorly understood in the country and it is listed as Not Evaluated in The Red Data Book of Threatened Animals of Greece. Records based on road-kill observations were collected from January 2008 to February 2018. These records have extended the known range of the species into western and north-western Greece. A review on the species occurrence in neighbouring countries (Albania, the Former Yugoslav Republic of Macedonia (FYROM), Bulgaria and Turkish Thrace) is also presented here.

Keywords: *Mustela putorius*, road-kill observations, geographic range, Greece, Balkan Peninsula.

Western Polecat *Mustela putorius* is a mustelid species with a widespread distribution in Western Europe and into the east to the Ural Mountains in the Russian Federation (Skumatov *et al.* 2016). In Greece, Western Polecat was thought to be restricted to the northern and north-eastern areas of the country (Figure 1; Mitchell-Jones *et al.* 1999, Skumatov *et al.* 2016) and published data records in Greece are from the Evros district in Thrace (Helmer & Scholte 1985). The species is also present in the southern Balkan countries neighbouring Greece (Bulgaria, the Former Yugoslav Republic of Macedonia (FYROM), and Albania) and in European Turkey (Kurtonur *et al.* 1994, Prigioni 1996, Mitchell-Jones *et al.* 1999, Kryštufek & Petkovski 2003, Apostolova *et al.* 2016, Croose *et al.* 2018).

Western Polecat is considered as Least Concern on the IUCN Red List of Threatened Species (Skumatov *et al.* 2016). It is listed on Appendix III of the Bern Convention and on Appendix V of the EU Habitats Directive (Skumatov *et al.* 2016). The species is listed as Not Evaluated in The Red Data Book of Threatened Animals of Greece (Legakis & Maragou 2009) because there are no adequate data on its distribution and population trends in order to determine its conservation status in the country. Western Polecat is fully protected in Greece by a Presidential Decree (PD no. 67/1981).



Figure 1. Map of mainland Greece with the 28 Western Polecat records (black dots). The administrative regions of Greece are separated by grey solid lines. The shaded area covers the species' previously documented range in Greece (Source: IUCN Red List of Threatened Species 2016).

Road-kill observations in Greece

Between January 2008 and February 2018, 28 Western Polecats were recorded, all as road-kill observations (Figure 1). These records were collected during routine driving in Greece. All sites where dead animals were found, were marked using a Global Positioning System (GPS) receiver. Most records (23) came from western and north-western Greece, specifically from the Regions of Epirus and Dytiki Makedonia. The remaining five records were from north-central and north-eastern Greece, from the Regions of Kentriki Makedonia and Anatoliki Makedonia – Thraki.

Sixteen of the records were in the lowlands (under 500 m asl), close to wetlands (i.e., rivers and river deltas, lakes and streams), where agricultural land dominated, interspersed with riparian forests, low shrubs and maquis (i.e., typical habitat of the Mediterranean region). The remaining 12 dead animals were found in higher altitudes (around 500 – 900 m asl), in woodland areas, mostly in deciduous forest. One record was from the south of Lake Kerkini, in Serres district, in Kentriki Makedonia (Figure 2).

Twenty-two Western Polecats were recorded on provincial and regional roads and the remaining six animals were recorded on highways.



Figure 2. Photograph of a dead Western Polecat on a highway, in Serres district, close to the River Strymon, in the Region of Kentriki Macedonia, 2016 (Photo: T. Kominos).

Records from neighbouring countries

In Albania the species has a known geographic range from the northern and central areas of the country (Prigioni 1996, Mitchell-Jones *et al.* 1999, Beqiraj & Dhoha 2007), while it is categorized as Endangered on the National Red List (National Red List 2013 as reported in Croose *et al.* 2018). The species was recently documented further south, in the Albanian part of Lake Ohrid (IUCN/ICOMOS 2016), as well as in central-southern Albania, along the designated route of the Trans Adriatic Pipeline (TAP 2013). The Western Polecat is found in the southernmost wetland complex of Albania, the RAMSAR site of Butrint, where its status is considered rare (MFAG/ECAT 2006). This area is adjacent to the Greek border and close to where the species was recorded by the authors in the Kalamas River Delta, Thesprotia district (Figure 3).



Figure 3. Photograph of a dead Western Polecat on a provincial road, in Kalamas River Delta, in Thesprotia district, in the Region of Epirus, 2017 (Photo: T. Kominos)

In FYROM, the Western Polecat is widespread with a scattered distribution; most records are from the northern, eastern and south-western areas (Kryštufek & Petkovski 2003). The nearest Western Polecat records in FYROM come from south-western areas, with recent observations in the Studenchishte Marsh, a wetland bordering Lake Ohrid (Apostolova *et al.* 2016). This area is nearby the trilateral international Prespa Park (Megali & Mikri Prespa Lakes), which is situated in Greece, Albania and FYROM. Dead Western Polecats were observed by the authors of this paper in the Greek side, in Florina district, in Dytiki Makedonia.

Information about the Western Polecat's distribution and conservation status is largely based on inferences from sporadic observations and experts' opinion. Due to lack of systematic research in Greece and other range countries its population trend is unclear. However, thorough documentation of incidental road-kill observations has dramatically increased knowledge of this species' distribution in Greece. The habitats where these records were obtained, supports the species' current categorization as Least Concern on The IUCN Red List of Threatened Species. Similar efforts in other range countries could be equally insightful and should be encouraged.

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References

- Apostolova A, Scarry D & Verhoeven JTA. 2016. Studenchishte Marsh as an Integral Part of Ancient Lake Ohrid: Current Status and Need for Protection. *Wetland Science & Practice* 33(2): 35–45.
- Beqiraj S & Dhoha D. 2007. *Regional importance of the fauna of the cross-border River Buna*. <siba-ese.unisalento.it/index.php/rivers_citizens/article/view/8131/7359>.
- Croose E, Duckworth JW, Ruetter S, Skumatov DV, Kolesnikov VV & Saveljev AP. 2018. A review of the status of the Western polecat *Mustela putorius*: a neglected and declining species? *Mammalia* doi: <https://doi.org/10.1515/mammalia-2017-0092>.
- Helmer W & Scholte P. 1985. *Herpetological research in Evros, Greece. Proposal for a biogenetic reserve*. Council of Europe study on critical biotopes for threatened amphibians and reptiles. Societas Europaea Herpetologica, Conservation Committee, Nijmegen.
- IUCN/ICOMOS. 2016. *Baseline Assessment of the Lake Ohrid region –Albania*. IUCN/ICOM joint draft report. <whc.unesco.org/document/139987>.
- Kryštufek B & Petkovski S. 2003. Annotated checklist of the mammals of the Republic of Macedonia. *Bonner Zoologische Beiträge* 51: 229–254.
- Kurtonur C, Kryštufek B & Özkan B. 1994. The European polecat (*Mustela putorius*) in Turkish Thrace. *Small Carnivore Conservation* 11: 8–10.
- Legakis A & Maragou P (eds.). 2009. *The Red Data Book of the Threatened Animals of Greece*. Hellenic Zoological Society. Ministry of Environment, Athens. (In Greek).
- MEEG. 2017. *National Legislation and Circuits for the Implementation of the CITES International Convention*. <<http://www.ypeka.gr/Default.aspx?tabid=538&language=el-GR>> (In Greek).
- MFAG/ECAT. 2006. *LIFE: Inventarizimi i sistemit ligatinor te zones se butrintit (Inventory of the Butrint wetland system)*. Ministry of Foreign Affairs of Greece/Environmental Center for Administration and Technology, Tirana. (In Albanian).
- Mitchell-Jones AJ, Mitchell J, Amori G, Bogdanowicz W, Spitzenberger F, Kryštufek JH, Reijnders F, Spitzenberger M, Stubbe JBM, Thissen V, Vohralík V & Zima J (eds). 1999. *The Atlas of European Mammals (Vol. 3)*. London: Academic Press.
- Prigioni C. 1996. Distribution of mammals in Albania. *Hystrix* 8(1-2): 67–73.
- Skumatov D, Abramov AV, Herrero J, Kitchener A, Maran T, Kranz A, Sándor A, Saveljev A, Saviour-Soubelet A, Guinot-Ghestem M, Zuberogoitia I, Birks JDS, Weber A, Melisch R. & Ruetter S. 2016. *Mustela putorius*. *The IUCN Red List of Threatened Species 2016*: e.T41658A45214384.
- TAP. 2013. *ESIA Albania. Annex 6.2.1.5 – List of Habitats – Fauna*. www.tap-ag.com/assets/07.reference_documents/english/esias/albania/AAL00-ERM-641-Y-TAE-1008_02-at17--ESIA_Albania_Annex_6.2.1.5_-_List_of_Habitats_-_Fauna.pdf