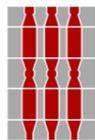


The Wolf in Umbria (Central Italy) and new management perspectives

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Regione Umbria

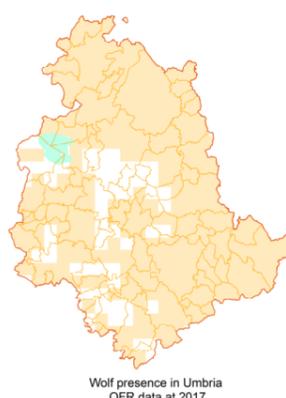
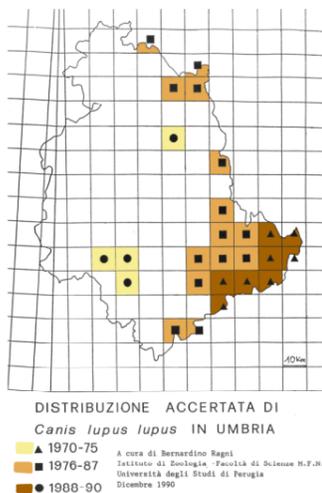


ISTITUTO ZOOPROFILATTICO SPERIMENTALE DELL'UMBRIA E DELLE MARCHE "TOGO ROSATI"



INTRODUCTION

The grey wolf (*Canis lupus*) has reoccupied most of its former ranges in Umbria (Italy), leading to new interactions and encounters with humans and with their activities in the region. Servizio Faunistico of Provincia di Perugia and of Provincia di Terni and the Osservatorio Faunistico Regionale collected (OFR), validated and archived critical encounters reported by citizens (e.g. farmers, hunters, shepherds).



METHODS

From 2008 to 2017, we collected reports of critical encounters between wolves and citizens in anthropic or natural areas, for example nearby towns. We consider as critical encounters, those in which humans and wolves are at close range, "face to face". In addition, we investigated the numerical trend of dead wolves in Umbria and their causes of death, examined by the Istituto Zooprofilattico Sperimentale of Umbria and Marche. We received reports from citizens, Carabinieri Forestali and Prefettura Officers. We also collected reports during our investigation on predation events.

RESULTS: CRITICAL ENCOUNTERS

From 2008 to 2017, we collected reports of critical encounters between wolves and citizens in anthropic or natural areas, for example nearby towns. We consider as critical encounters, those in which humans and wolves are at close range, "face to face". In addition, we investigated the numerical trend of dead wolves in Umbria and their causes of death, examined by the Istituto Zooprofilattico Sperimentale of Umbria and Marche.

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We gathered 19 critical events, even though three reports were not taken into consideration due to lack of evidences:

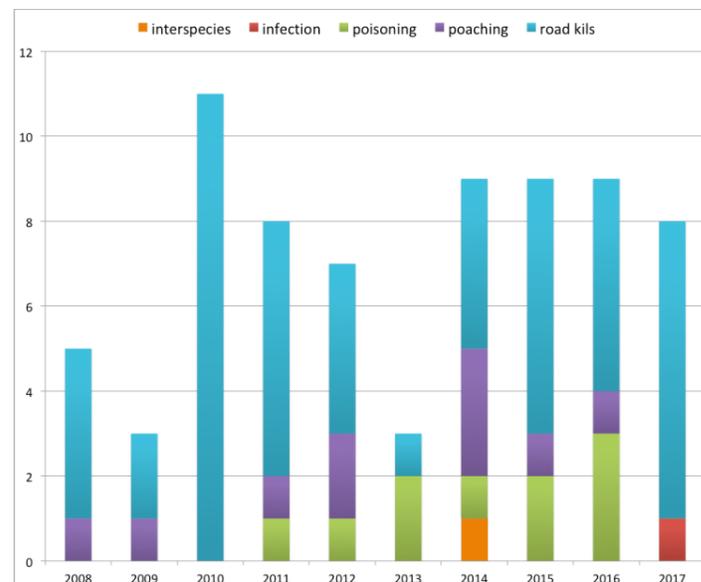
- 15 encounters occurred nearby houses;
- simultaneously with 13 encounters, predation was observed on livestock flocks (9), barnyard animals (3), domestic dogs (2) and on wildlife (1);
- in 4 events, citizens described the encounter as an aggression; in other 3, a close approach that lasted few seconds was reported;
- in 3 events dogs scared away the wolf.

In the table the encounters have been classified by KORA legend (Strategia Lupo Svizzera, 2016)

year	municipality	nearby houses	predation of livestock	predation of barnyard	predation of domestic dogs	predation of wildlife	encounter as an aggression	dogs scared away wolf	KORA	KORA legend
2008	Lisciano Niccone								3.4	Il lupo arriva su prede abbattute dai cacciatori dopo meno di 10 minuti dalla loro partenza.
2009	Gubbio	X	X				X		3.10	Il lupo si accorge della presenza dell'uomo, l'uomo si avvicina al lupo (distanza <20m), il lupo non scappa.
2010	San Giustino	X					X		2.3	Il lupo si avvicina a un insediamento in pieno giorno (distanza <50m).
2013	San Venanzo	X	X				X		4.7	Il lupo reagisce all'uomo in maniera aggressiva senza essere provocato (gesti di minaccia o attacco).
2013	Città di Castello	X	X				X	X	4.7	Il lupo reagisce all'uomo in maniera aggressiva senza essere provocato (gesti di minaccia o attacco).
2013	Città della Pieve	X	X						3.10	Il lupo si accorge della presenza dell'uomo, l'uomo si avvicina al lupo (distanza <20m), il lupo non scappa.
2014	Foligno	X					X		2.3	Il lupo si avvicina a un insediamento in pieno giorno (distanza <50m).
2014	Piegara	X							2.3	Il lupo si avvicina a un insediamento in pieno giorno (distanza <50m).
2014	Preci	X	X		X				4.6	Il lupo uccide un cane da compagnia in un insediamento.
2014	Gubbio	X	X						3.10	Il lupo si accorge della presenza dell'uomo, l'uomo si avvicina al lupo (distanza <20m), il lupo non scappa.
2015	San Venanzo	X	X				X		3.9	Il lupo si avvicina all'uomo in un insediamento durante le ore di attività dell'uomo.
2015	Città di Castello	X				X			3.3	Il lupo si procura cibo durante le ore di attività dell'uomo vicino a un insediamento e lo porta via.
2015	Tuoro sul Trasimeno	X		X					3.3	Il lupo si procura cibo durante le ore di attività dell'uomo vicino a un insediamento e lo porta via.
2016	Passignano sul Trasimeno	X		X	X				4.6	Il lupo uccide un cane da compagnia in un insediamento.
2016	Magione	X							1.6	Il lupo si avvicina a un insediamento ai di fuori delle ore di attività dell'uomo (dalle 22 alle 6), costeggia l'insediamento.
2016	Spoletto						X		4.7	Il lupo reagisce all'uomo in maniera aggressiva senza essere provocato (gesti di minaccia o attacco).
2016	Terni	X	X						1.6	Il lupo si avvicina a un insediamento ai di fuori delle ore di attività dell'uomo (dalle 22 alle 6), costeggia l'insediamento.
2016	Pietralunga	X		X			X	X	1.7	Il lupo sbrana le sue prede o animali da reddito nelle vicinanze di una casa isolata abitata o di un insediamento in assenza di misure di protezione delle greggi.
2017	Terni		X					X	3.10	Il lupo si accorge della presenza dell'uomo, l'uomo si avvicina al lupo (distanza <20m), il lupo non scappa.

RESULTS: CAUSES OF DEATH

We investigated the causes of death of 86 wolves: motor vehicle accident trauma showed the highest rate (50 wolves, 69,4%), followed by poaching (10 wolves, 13,9%), poisoning (10 wolves, 13,9%), aggression by other wolves (one wolf, 1,4%) and infection (one wolf, 1,4%). The investigation of the causes of death showed that poaching remained relatively constant during years and that it showed a peak in 2014. Poisoning was detected from 2011 and it showed a rising trend in the following years, until 2016.



DISCUSSION

Discussing our results, we should take into consideration local factors that affect wolf-management and the relation between humans and wolf: the expansion of wolf population, the absence of a new National Action Plan for the wolf, the lack of control on poaching due to the suppression of local police services (Polizia Provinciale), the chronic absence of public compensation funds for predations on livestock and for preventing further attacks. Unfortunately, due to these issues, rural human population perceives wolf expansion as a threat and with the aim to protect from it, employs illegal solutions.