



Living with wild boar and wolf in the Apennine mountains

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OBJECTIVES

**Describe Monti Sibillini National Park
pluri-annual programs about:**

1) Wild Boar Management

(the first performed in Italy on wild boar in a NP)

2) Wolf Monitoring and Conflict Prevention

and discuss about their integration

TOPICS

Territory of Monti Sibillini National Park

Wild boars within Monti Sibillini National Park

Wolves within Monti Sibillini National Park

Short term and medium term strategies

Monti Sibillini National Park Territory



Since: 1993

Surface: about 700 km²

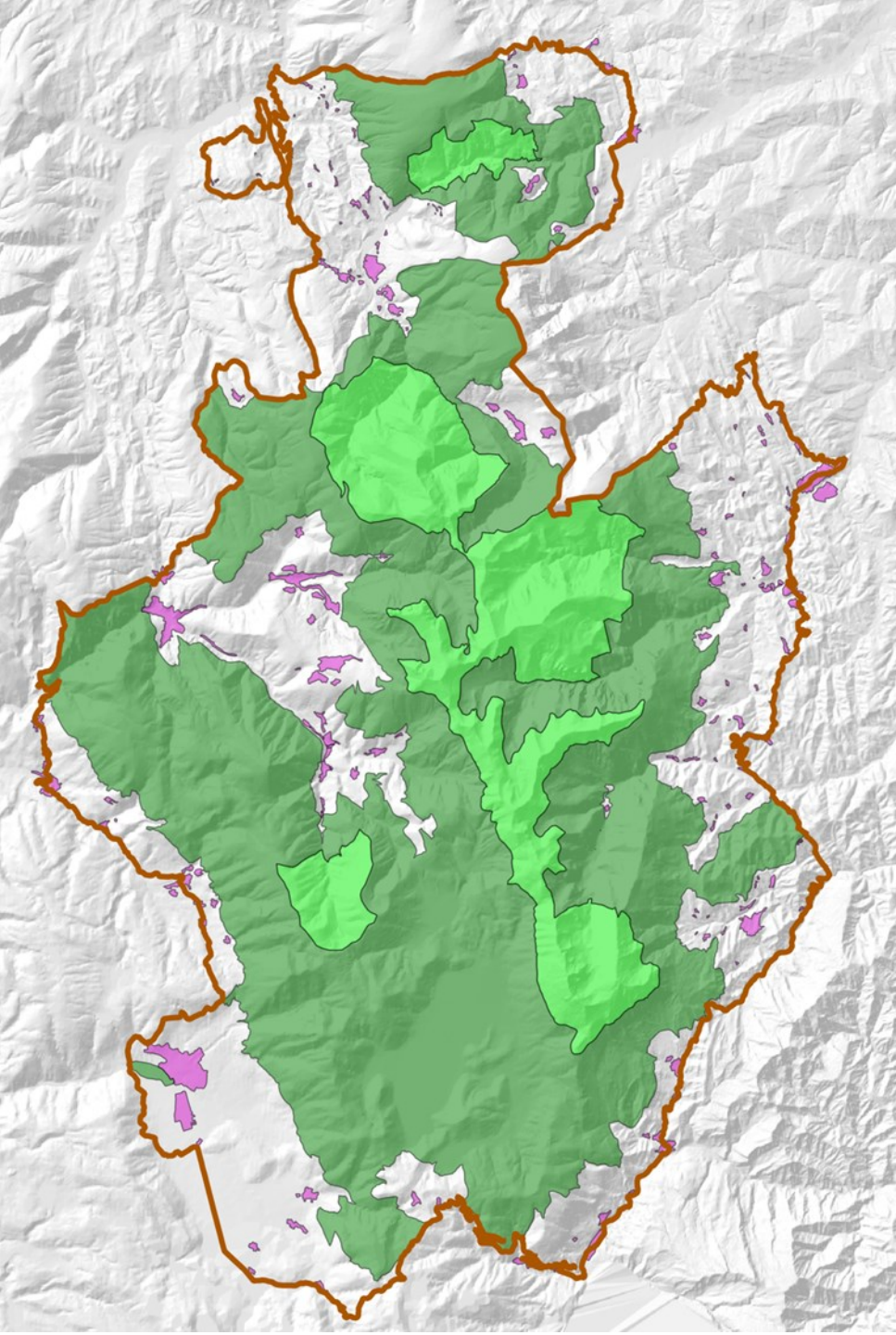
About 13,200 people

Minimum altitude: 360 m asl

Maximum altitude : 2,476 m asl

Municipalities : 16

(Marches and Umbria)

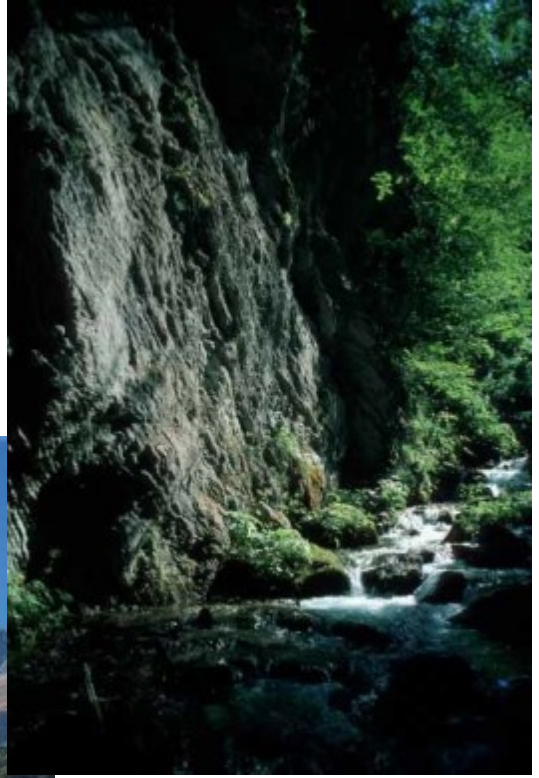


Parco Nazionale



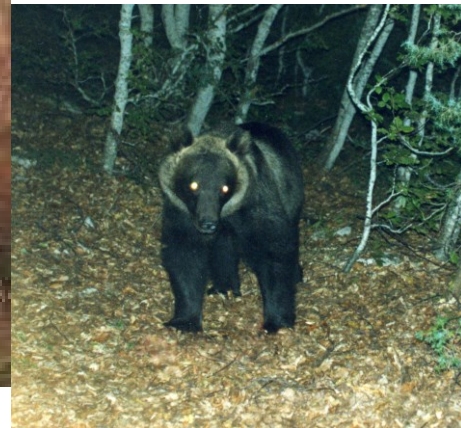
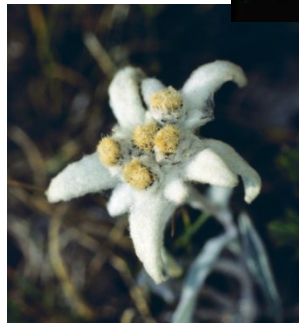
dei Monti Sibillini

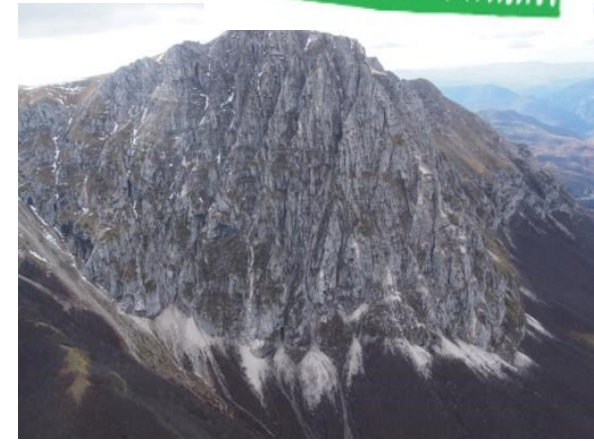
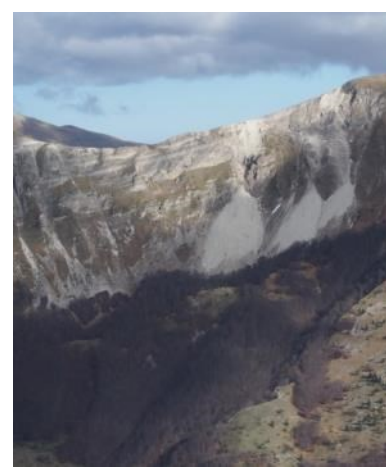
... Landscapes ...





... Flora and Fauna ...





... Earthquakes ...



Wild boars within Monti Sibillini National Park



Population assessment based on 10 consecutive counting sessions

(5 morning and 5 evening)

03/2015 about 1260

03/2016 about 780 10/2016 about 1510

03/2017 about 1170 (PNMS 2017)

Data from the wild boar management program

Wild boar selectors 164

chosen and trained by the park

Removed wild boars

2014 658

2015 767

2016 324

2017 (UNTIL JUNE) 464

September 2016/May 2017

Days.selectors 1590

Wild boars removed 588

(PNMS 2017)

Data from the wild boar management program

January/May 2017

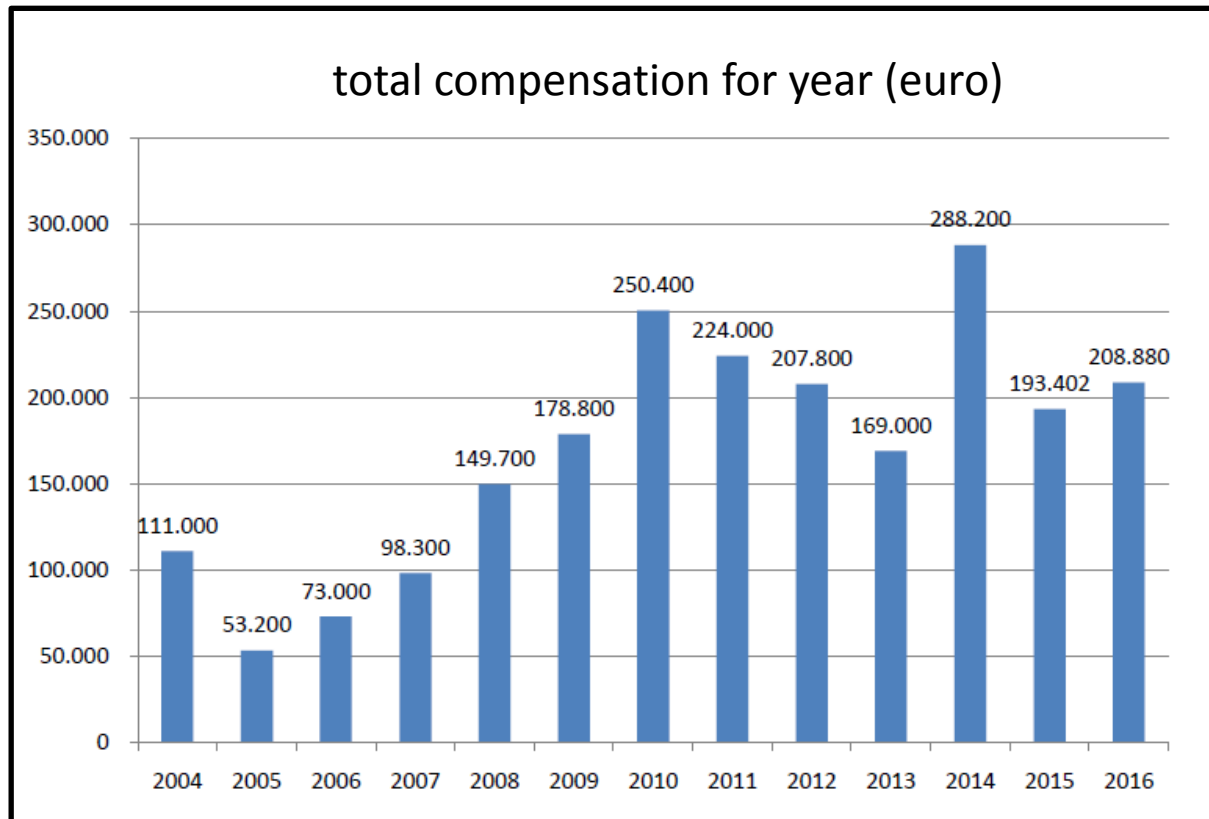
Wild boars captured with 3 trap (28 nights.traps) 58

(PNMS 2017)



PNMS 2017

Data from the wild boar compensation budgets



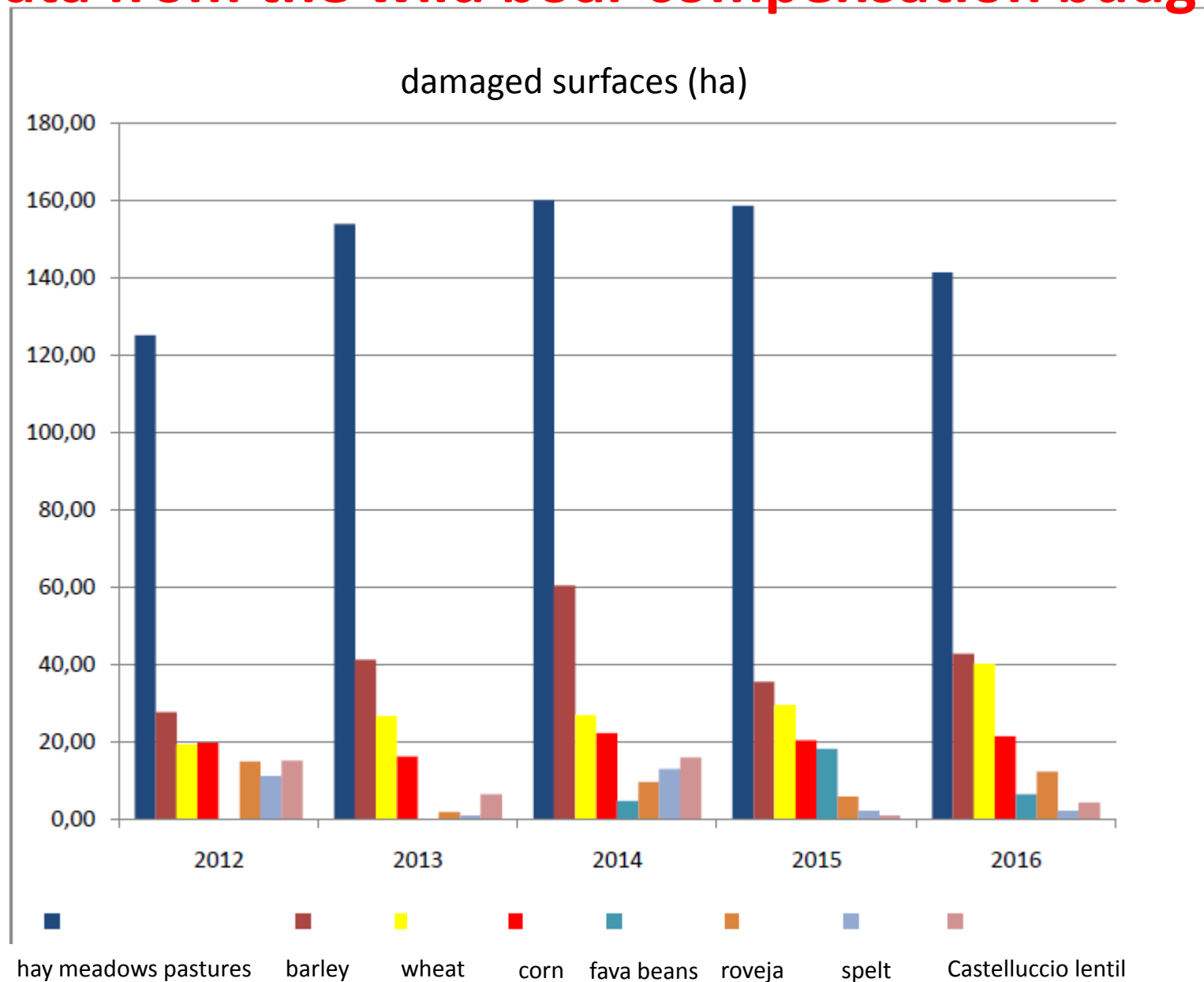
year	applications
2004	222
2005	128
2006	180
2007	180
2008	196
2009	189
2010	218
2011	267
2012	303
2013	239
2014	301
2015	246
2016	246

(PNMS 2017)



Foto: Rodolfo Alemanno

Data from the wild boar compensation budgets



Wolves within Monti Sibillini National Park

Definition of territories and distribution

Wolf-howling

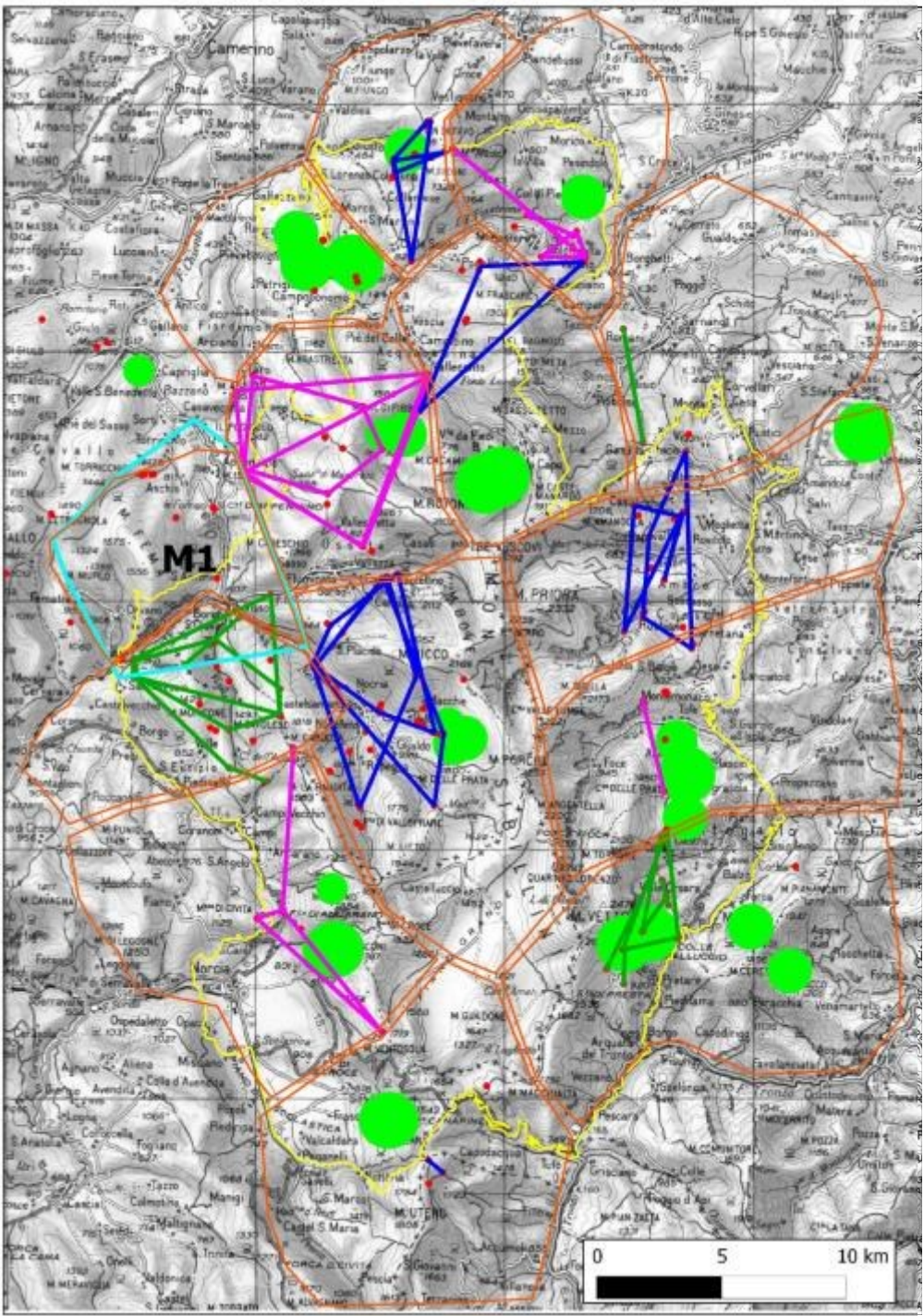
Snow-tracking

Camera-trapping

Noninvasive genetic analysis

Radio tracking

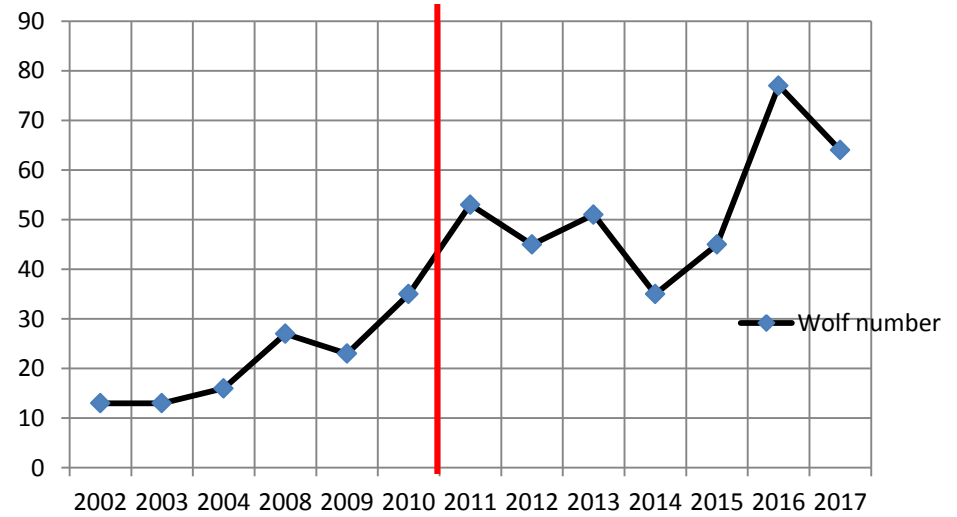
National Park researchers estimated in 2016, in a wider area of 1,200 km² including the park area, 14 packs and 64-77 individuals, these last frequenting the National Park territory for about 55%. (PNMS 2017)



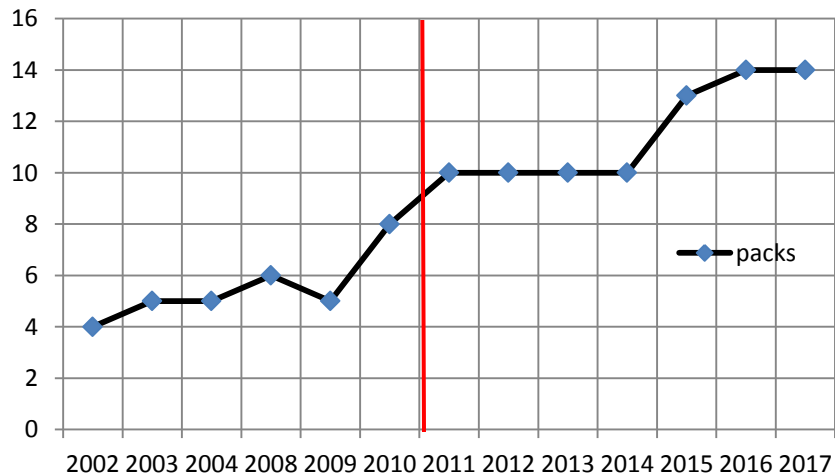
Wolves within Monti Sibillini National Park



Wolf number

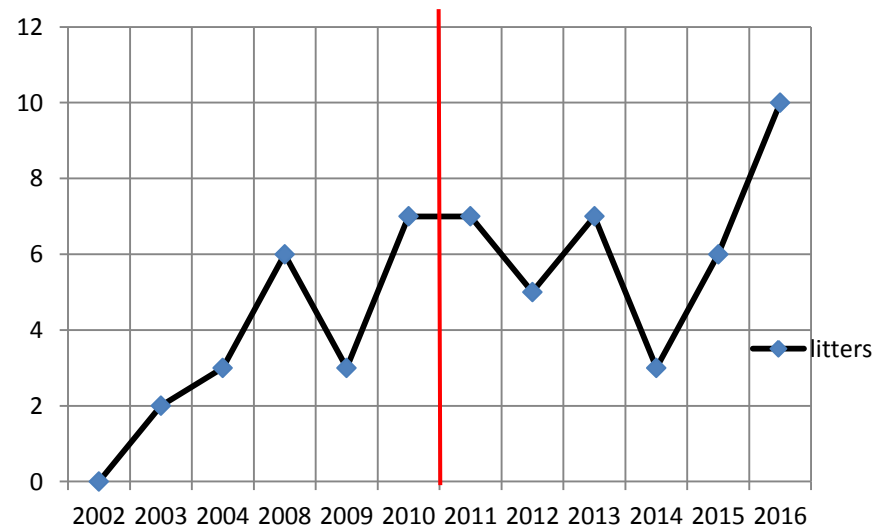


Packs



Litters

(PNMS 2017)



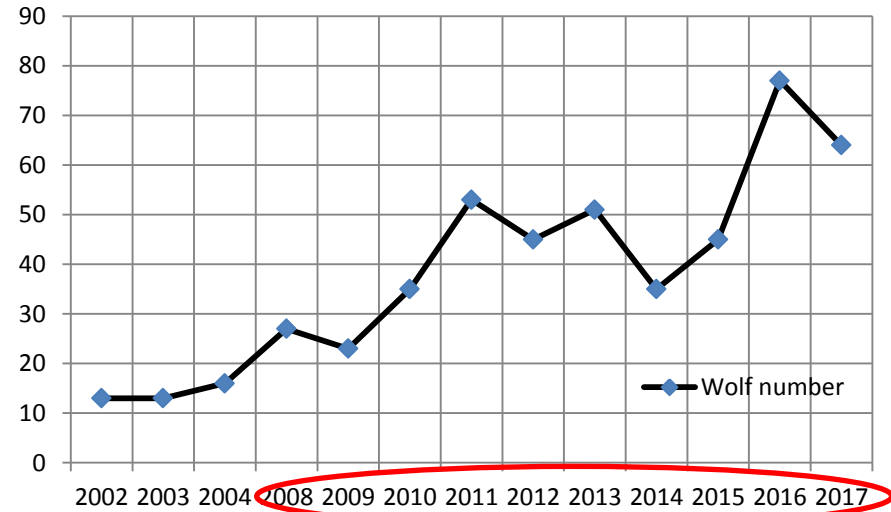
Wolves within Monti Sibillini National Park

Wolf mortality causes

**Since 2008 until now
35 dead wolves were
collected in National Park
territory**

**16 due to poaching (by shot, toxic or snare),
14 due to road accident,
3 supposed poaching,
2 not diagnosed.**

Wolf number



Data from the wolf compensation budgets

Year	total compensations (euro)
2012	2.874
2013	1.461
2014	591
2015	640
2016	2.088

(PNMS 2017)

No damages to the people.

Park compensation only for Umbria; for Marches compensations are paid by the region.

Some conditions to apply for compensation are inconvenient (e.g. costs to incinerate the carcasses and dispose of the remains).

Life+ Ex-Tra project (2010-2012)

Monti Sibillini NP monitored for three years 14 farms, that received electric fence (12 breeding sheeps and/or goats, 2 breeding cows), and 1 farm which received 2 livestock guarding dogs, funded by the Life+ project



Results of electric fences installations

Farms	Damages 2007 – 2009 without electric fences		Damages 2010 – 2012 with electric fences	
	N° attacks	N° killed animals	N° attacks	N° killed animals
Farm A	4	58	2	20
Farm B	2	60	2	26
Farm C	2	57	0	0
Farm D	2	4	0	0
Farm E	1	34	1	35
Farm F	1	31	0	0
Farm G	1	29	0	0
Farm H	1	22	0	0
Farm I	1	10	0	0
Farm L	1	7	2	23
Farm M	2	4	0	0
Farm N	1	3	0	0
TOTAL	19	319	7	104
			- 63 %	- 67,4 %

What are wolves preys?

Wolf scat analysis in Majella NP

(Angelucci 2017)

years 2007-2008

517 samples collected

Wild boar 67 %

Roe deer 13,3%

Red deer 9 %

Other 10,7%

Winter, 250 samples

Wild boar 70 %

Roe deer 11 %

Red deer 4 %

Other 15 %

Summer, 223 samples

Wild boar 58 %

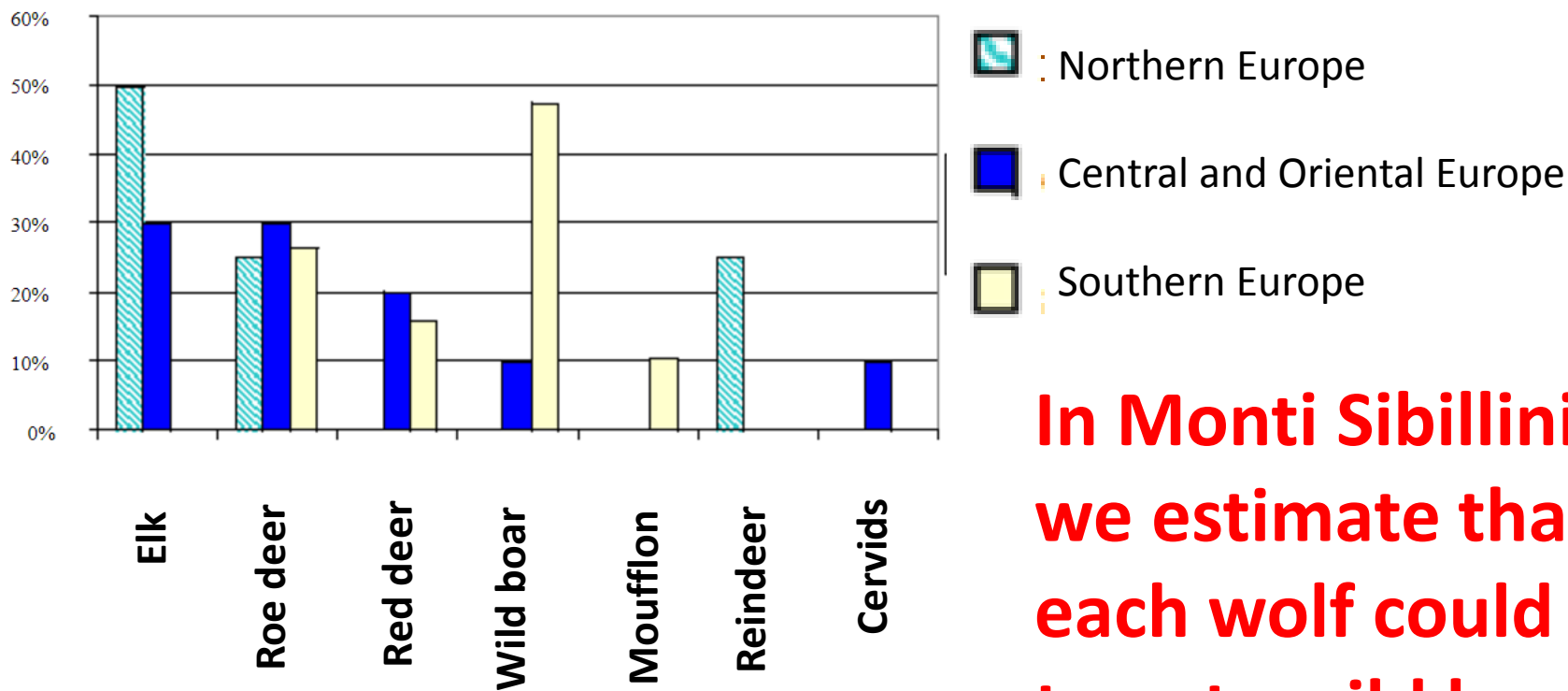
Roe deer 15 %

Red deer 11 %

Other 16 %

What are wolves preys?

The principal prey, when that is a wild ungulate, by Europe regions

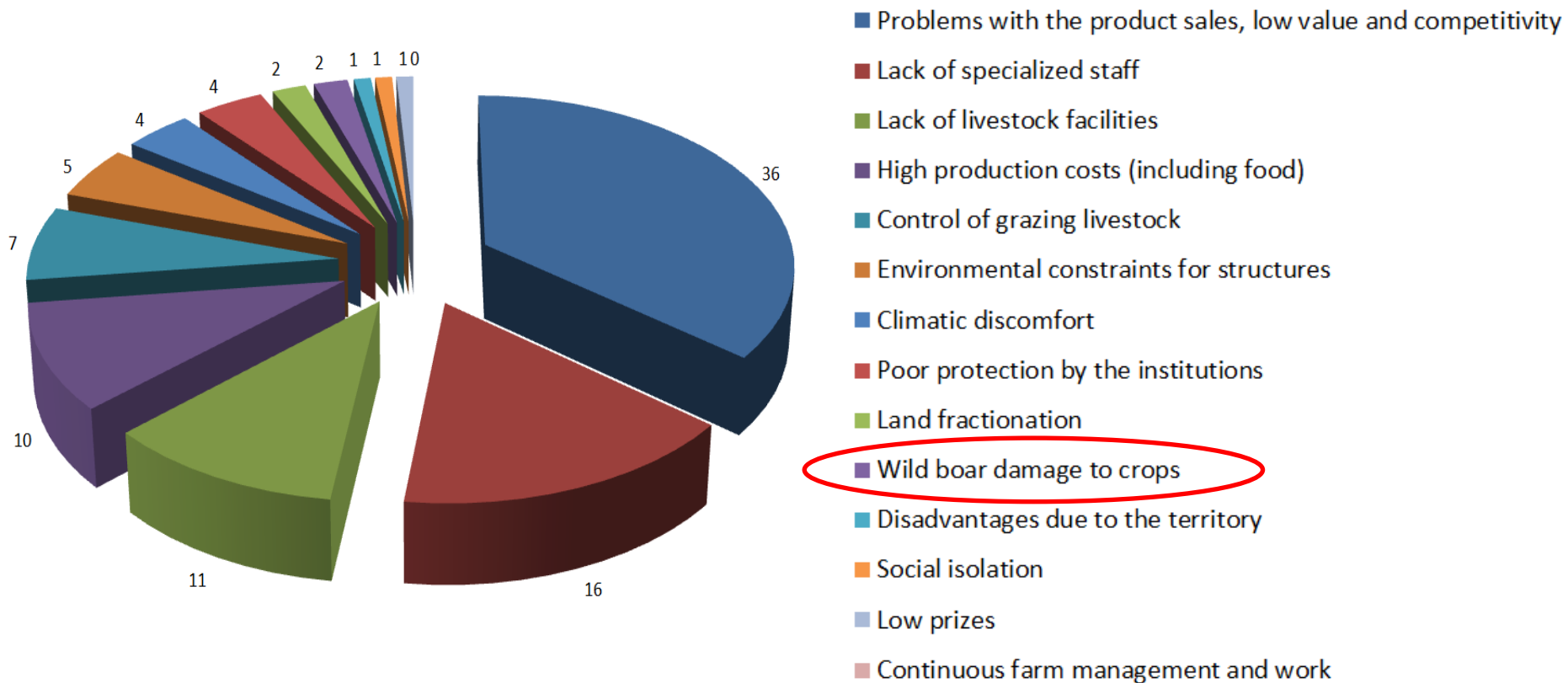


(Marsili 2007)

In Monti Sibillini NP we estimate that each wolf could eat twenty wild boar for year

Short term and medium term strategies

The most important management problems for a farming activity on mountain terrain (survey on 22 farmers) (Angelucci 2017)

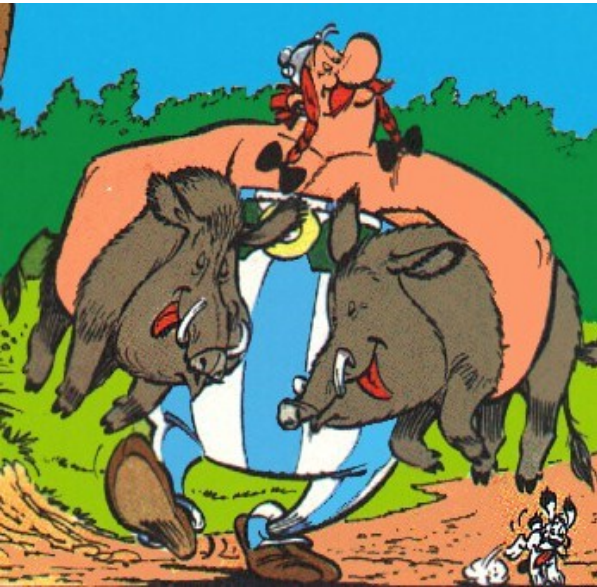


Short term and medium term strategies

We are going to talk over

Observations
Suggestions
Integrations
and Conclusions

in the next workshop steps





Thank you for your attention! Wolves and wild boars of Monti Sibillini look forward to welcoming you!



And to proposing partnership and cooperation projects about fauna management best practices.

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