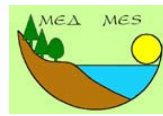







# Conflicts between lynx, other large carnivores, and humans in Macedonia and Albania

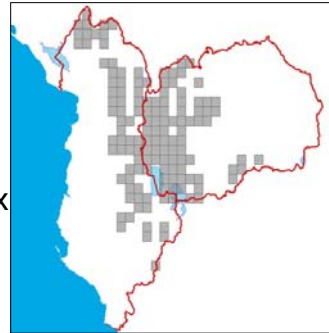
Erjola **Keçi**, Aleksandër **Trajçe**, Gjorge **Ivanov**, Aleksandar **Stojanov**, Dime **Melovski**, Olsi **Qazimi**, Ferdinand **Bego**, Gabriel **Schwaderer**, Annette **Spangenberg**, John **Linnell**, Urs **Breitenmoser** and Manuela **von Arx**



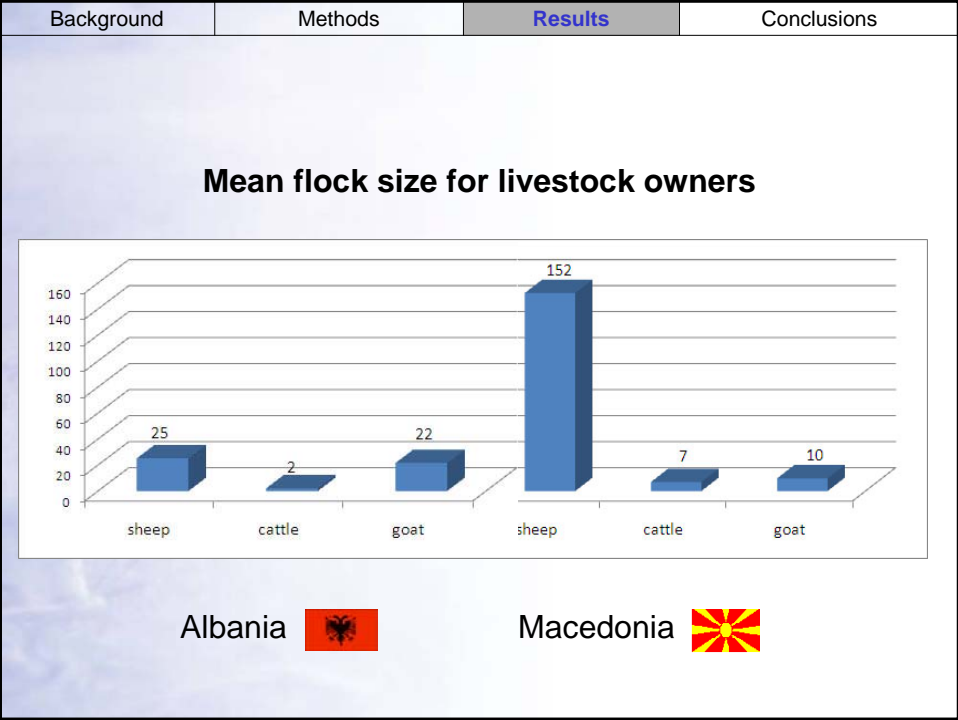
**Sponsors:**  
MAVA  
Research Council of Norway

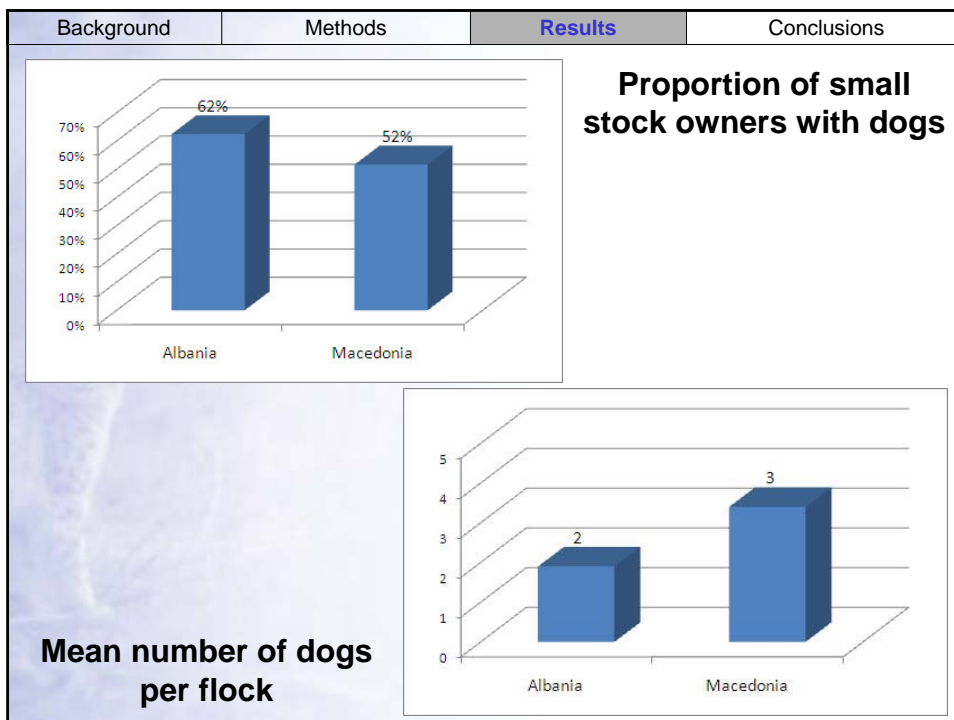
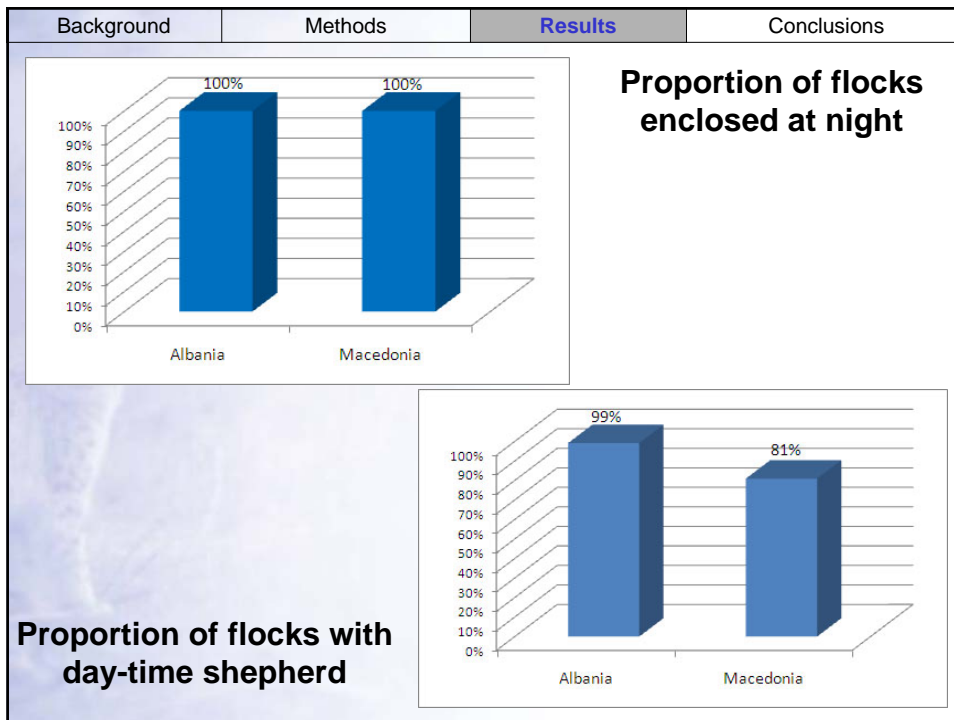
Background	Methods	Results	Conclusions
 		 	

Background	Methods	Results	Conclusions
<ul style="list-style-type: none"> <li>▪ Results from Baseline survey – visits to 136 10x10 km grid cells in potential lynx range – Albanian – Macedonian border</li> <li>▪ 873 systematic interviews with local residents (key informants – not random)</li> <li>▪ Questions about: <ul style="list-style-type: none"> <li>- socio-economic status of the village</li> <li>- livestock husbandry</li> <li>- losses of livestock to wolves, bear, lynx</li> <li>- attacks on people and fear</li> </ul> </li> <li>▪ Interviewee profiles; <ul style="list-style-type: none"> <li>Albania - 95% males – 54% owned livestock</li> <li>Macedonia – 99% males – 55% owned livestock</li> </ul> </li> </ul>			





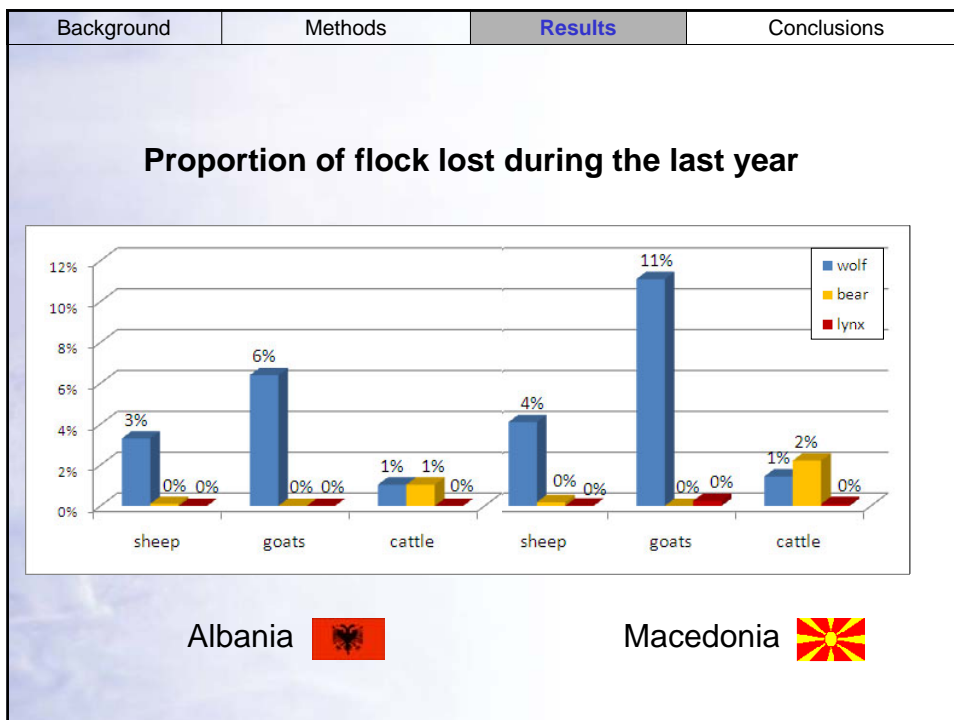
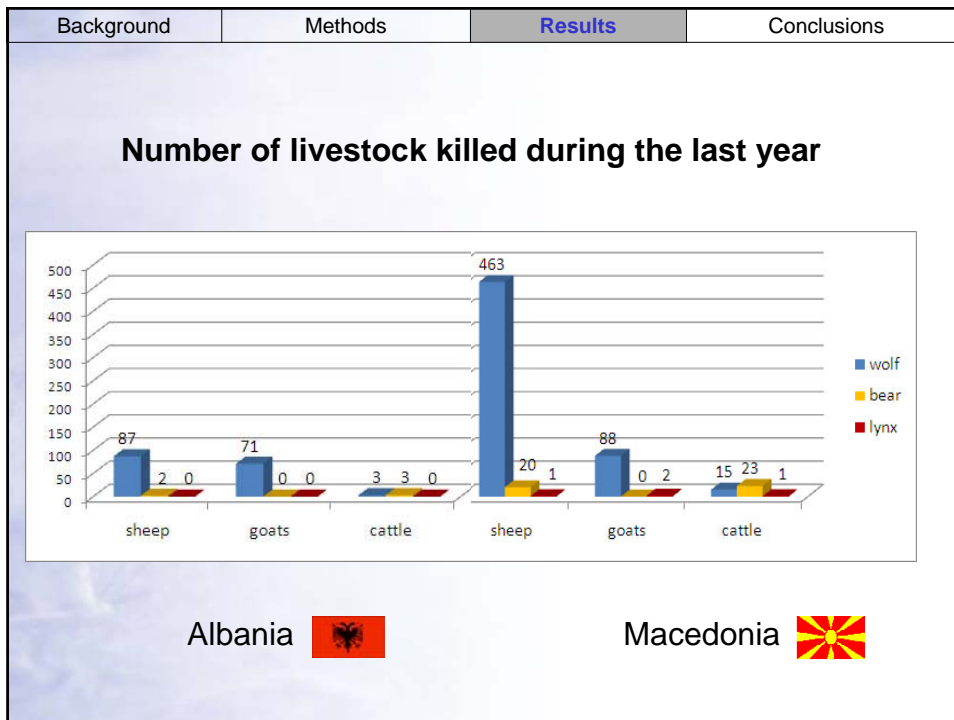
Background	Methods	Results	Conclusions																															
<p><b><u>Livestock – the potential for conflict: Numbers and husbandry methods</u></b></p> <p style="text-align: center;"><b>Trends in livestock in villages</b></p> <table border="1"> <caption>Trends in livestock in villages</caption> <thead> <tr> <th>Country</th> <th>Livestock</th> <th>decrease</th> <th>increase</th> <th>stable</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Albania</td> <td>sheep</td> <td>74%</td> <td>17%</td> <td>9%</td> </tr> <tr> <td>cattle</td> <td>74%</td> <td>16%</td> <td>10%</td> </tr> <tr> <td>goat</td> <td>76%</td> <td>15%</td> <td>9%</td> </tr> <tr> <td rowspan="3">Macedonia</td> <td>sheep</td> <td>93%</td> <td>3%</td> <td>4%</td> </tr> <tr> <td>cattle</td> <td>94%</td> <td>3%</td> <td>3%</td> </tr> <tr> <td>goat</td> <td>90%</td> <td>6%</td> <td>4%</td> </tr> </tbody> </table> <p style="text-align: center;"> Albania  <span style="margin-left: 200px;">Macedonia </span> </p>				Country	Livestock	decrease	increase	stable	Albania	sheep	74%	17%	9%	cattle	74%	16%	10%	goat	76%	15%	9%	Macedonia	sheep	93%	3%	4%	cattle	94%	3%	3%	goat	90%	6%	4%
Country	Livestock	decrease	increase	stable																														
Albania	sheep	74%	17%	9%																														
	cattle	74%	16%	10%																														
	goat	76%	15%	9%																														
Macedonia	sheep	93%	3%	4%																														
	cattle	94%	3%	3%																														
	goat	90%	6%	4%																														







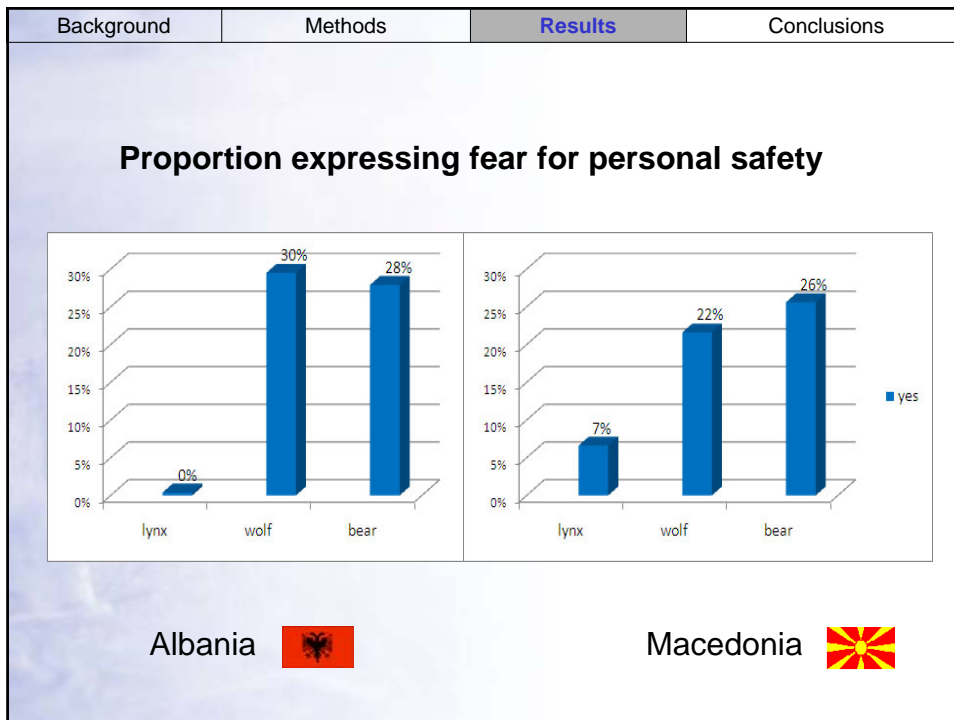
Background	Methods	Results	Conclusions
<p><b><u>Livestock – the potential for conflict: Numbers and husbandry methods</u></b></p> <p><b>Key points:</b></p> <ul style="list-style-type: none"> <li>- Decrease in livestock numbers</li> <li>- Sheep are most abundant species</li> <li>- Dramatic differences in flock size between countries</li> <li>- Traditional husbandry methods still relatively intact</li> <li>- Conflict potential is low to moderate</li> </ul>			

Background	Methods	Results	Conclusions																															
<p><b><u>Livestock – levels and patterns of depredation</u></b></p> <p><b>Proportion of livestock owners reporting depredation during the last year</b></p> <table border="1"> <caption>Data from the bar chart: Proportion of livestock owners reporting depredation during the last year</caption> <thead> <tr> <th>Country</th> <th>Livestock Species</th> <th>wolf (%)</th> <th>bear (%)</th> <th>lynx (%)</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Albania</td> <td>sheep</td> <td>20%</td> <td>1%</td> <td>0%</td> </tr> <tr> <td>goats</td> <td>9%</td> <td>0%</td> <td>0%</td> </tr> <tr> <td>cattle</td> <td>2%</td> <td>1%</td> <td>0%</td> </tr> <tr> <td rowspan="3">Macedonia</td> <td>sheep</td> <td>38%</td> <td>0%</td> <td>1%</td> </tr> <tr> <td>goats</td> <td>14%</td> <td>0%</td> <td>1%</td> </tr> <tr> <td>cattle</td> <td>3%</td> <td>7%</td> <td>1%</td> </tr> </tbody> </table> <p>Albania </p> <p>Macedonia </p>				Country	Livestock Species	wolf (%)	bear (%)	lynx (%)	Albania	sheep	20%	1%	0%	goats	9%	0%	0%	cattle	2%	1%	0%	Macedonia	sheep	38%	0%	1%	goats	14%	0%	1%	cattle	3%	7%	1%
Country	Livestock Species	wolf (%)	bear (%)	lynx (%)																														
Albania	sheep	20%	1%	0%																														
	goats	9%	0%	0%																														
	cattle	2%	1%	0%																														
Macedonia	sheep	38%	0%	1%																														
	goats	14%	0%	1%																														
	cattle	3%	7%	1%																														



Background	Methods	Results	Conclusions
<p><b><u>Livestock – levels and patterns of depredation</u></b></p> <p><b>Key points:</b></p> <ul style="list-style-type: none"> <li>- Wolves are responsible for most depredation.</li> <li>- Most killed livestock are sheep, but higher proportion of goats are killed.</li> <li>- Depredation levels are low to moderate.</li> <li>- Lynx cause almost no depredation.</li> </ul>			

Background	Methods	Results	Conclusions																								
<p><b><u>Attacks on people and fear</u></b></p> <p><b>Reported attacks on people during the last 5 years</b></p> <table border="1"> <thead> <tr> <th>Country</th> <th>Species</th> <th>Attacked</th> <th>Killed</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Albania</td> <td>lynx</td> <td>0</td> <td>0</td> </tr> <tr> <td>wolf</td> <td>25</td> <td>1</td> </tr> <tr> <td>bear</td> <td>27</td> <td>0</td> </tr> <tr> <td rowspan="3">Macedonia</td> <td>lynx</td> <td>7</td> <td>0</td> </tr> <tr> <td>wolf</td> <td>10</td> <td>0</td> </tr> <tr> <td>bear</td> <td>54</td> <td>0</td> </tr> </tbody> </table> <p>Albania </p> <p>Macedonia </p>				Country	Species	Attacked	Killed	Albania	lynx	0	0	wolf	25	1	bear	27	0	Macedonia	lynx	7	0	wolf	10	0	bear	54	0
Country	Species	Attacked	Killed																								
Albania	lynx	0	0																								
	wolf	25	1																								
	bear	27	0																								
Macedonia	lynx	7	0																								
	wolf	10	0																								
	bear	54	0																								



Background	Methods	Results	Conclusions
------------	---------	---------	-------------

**Attacks on people and fear**

**Key points:**

- Both bears and wolves are believed to attack people
- Only one death
- Levels of fear are low
- Nobody is afraid of lynx



Background	Methods	Results	Conclusions
<p><b>Conclusions:</b></p> <ul style="list-style-type: none"> <li>➤ <b>Livestock are declining - medium sized flocks - traditional husbandry systems are still in place.</b></li> <li>➤ <b>Depredation is widespread.</b></li> <li>➤ <b>Losses are moderate – typical for region.</b></li> <li>➤ <b>Fear levels are low, especially for lynx.</b></li> </ul>			

Background	Methods	Results	Conclusions
<p><b><u>What does this mean for lynx conservation in region?</u></b></p> <ul style="list-style-type: none"> <li>- Livestock conflicts not likely to limit lynx recovery in the region.</li> <li>- BUT... <b>Lynx</b> still get killed.</li> </ul> <p style="text-align: center;"><b><u>Why?</u></b></p> <ul style="list-style-type: none"> <li>- Must look for reasons other than livestock conflicts.</li> </ul>			