Good practice in large carnivore conservation and management

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Conservation success

- Stabilization or even increase of large carnivore population sizes in many parts of Europe (wolf; bear; lynx; wolverine)
- Restoration of large carnivore populations where they have been absent for many decades
- Legislation
- Natura 2000 network
- Attitude change

Conservation challenge

- Large carnivore comeback in European human-dominated landscapes; land-sharing vs. land sparing models
- In areas where large carnivores return, local residents have forgotten how to live with them
- Human-carnivore conflicts
- Rural-urban divide
- Socio-cultural context
Damage prevention measures

LIFE AMYBEAR

LIFE ARCPROM

LIFE AMYBEAR

LIFE DINALP
**Human-carnivore coexistence measures in Rural Development Programmes (RDPs)**

<table>
<thead>
<tr>
<th>Country/region</th>
<th>2007-13 Measure code&lt;sup&gt;b&lt;/sup&gt;</th>
<th>2014-20 Measure code&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Large carnivore species targeted&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>214</td>
<td>10.1</td>
<td>W, B, L</td>
</tr>
<tr>
<td>Croatia</td>
<td>4.4</td>
<td>4.4</td>
<td>W, B</td>
</tr>
<tr>
<td>Finland</td>
<td>4.4, 19</td>
<td>7.6 (8 Regions)</td>
<td>W, B, L, Wn</td>
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<tr>
<td>France&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
<td>W</td>
</tr>
<tr>
<td>Germany&lt;sup&gt;a&lt;/sup&gt;</td>
<td>216, 323 (2 Regions)</td>
<td>4.4</td>
<td>W</td>
</tr>
<tr>
<td>Greece</td>
<td>214, 216</td>
<td>4.4</td>
<td>W, B</td>
</tr>
<tr>
<td>Italy&lt;sup&gt;a&lt;/sup&gt;</td>
<td>121, 216 (3 Regions)</td>
<td>4.1, 4.4, 10.1 (12 Regions)</td>
<td>W, B</td>
</tr>
<tr>
<td>Latvia</td>
<td>4.1</td>
<td>4.1</td>
<td>W</td>
</tr>
<tr>
<td>Lithuania</td>
<td>4.1</td>
<td>4.1</td>
<td>W</td>
</tr>
<tr>
<td>Portugal</td>
<td>10.1</td>
<td>10.1</td>
<td>W</td>
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<tr>
<td>Slovenia</td>
<td>214</td>
<td>10.1</td>
<td>W, B</td>
</tr>
<tr>
<td>Spain&lt;sup&gt;a&lt;/sup&gt;</td>
<td>227 (1 Region)</td>
<td>4.1, 4.4, 10.1 (7 Regions)</td>
<td>W, B</td>
</tr>
<tr>
<td>Sweden</td>
<td>216</td>
<td>4.1</td>
<td>W, B, L</td>
</tr>
</tbody>
</table>

- **Significant increase in the number of RDPs with human-carnivore coexistence measures in the programing period 2014-2020.**
- **Managing Authorities in the Member States with large carnivore populations make use of RDP measures to promote human-carnivore coexistence.**

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Bear Emergency Teams

- Increasing trend of bear population size (>500 ind)
- Bear range expansion (24,100 km²), potentially affecting 160,000 inhabitants in 1,110 villages
- Increase of human-bear interference at about 15 incidents recorded annually
- Bear Emergency Teams established and operating to address emergent cases of bears approaching human settlements/infrastructures

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Bear Emergency Teams

- BETs involve trained members from a broad coalition of stakeholders: Forest Service, Police, Fire Brigade, Civil Protection, Municipalities, eNGOs (CALLISTO, ARCTUROS), Protected Areas’ personnel, Hunters Associations
- BETs intervene when there is an emergency: (1) bears approach human settlements; (2) bears case damage to crops, beehives, and livestock; (3) bears are involved in traffic accidents; and when (4) autopsies are carried out for cases of trapping or poaching, including the use of illegal poisoned baits
- BETs operate according to a protocol that addresses outcome of human-bear interaction and level of food conditioning; use of special equipment (deterrents)
Preventing bear-vehicle collisions

- Identification of hot-spot areas: Prediction of accident risk based on habitat selection by bears and road characteristics
- Installation of wildlife reflectors (1534 devices)
- Installation of a virtual fence with acoustic-optic deterrents (378 devices)
- Zero bear road fatalities after the installation of the virtual fence
Multi-stakeholder platforms for Coexistence between People and Large Carnivores

European Platform on Coexistence between People and Large Carnivores (2015-)

Regional Platforms on People and Large Carnivores
- Spain; Ávila Regional Platform
- Italy; Grosseto Local Platform on Large Carnivores
- Romania; Harghita Regional Platform
- France; Vercors Regional Natural Park Regional Platform
- Germany; Lüneburg Heath Regional Platform
- Sweden; National
Multi-stakeholder platforms for Coexistence between People and Large Carnivores

**LIFE ARCPROM**
- Prespa National Park (Greece)
- Northern Pindos National Park (Greece)
- Rodopi Mountain Range National Park (Greece)
- Maiella National Park (Italy)

**LIFE Bear-Smart Corridors**
- 2 Bear-Smart Communities in Greece (Amyntaio & Trikala-Meteora)
- 16 Bear-Smart Communities in Italy (Gran Sasso e Monti della Laga National Park)
Main lessons learnt and future challenges

- Human-carnivore coexistence is possible in human-dominated landscapes
- The comeback of large carnivores is associated with increase of damage to livestock and crops as well as increased concerns for human safety
- Before implemented, good practice solutions need to be adapted to local contexts by a coalition of stakeholders working together in the ground
- Good practice solutions need to be optimized to account for trends and developments in local contexts
- Collaboration for good practice improves working conditions and trust between stakeholders
- Stakeholder interaction and joint action for human-carnivore coexistence can be institutionalized in multi-stakeholder platforms
- Templates for scaffolding social learning (adapted SWOT template; mixed-motive perspective; participatory scenario development)
- Sustainability of good practice solutions: After LIFE plans; ownership taken over by local stakeholders


