

# Actions for the conservation of the Marsican brown bear in the Central Apennines

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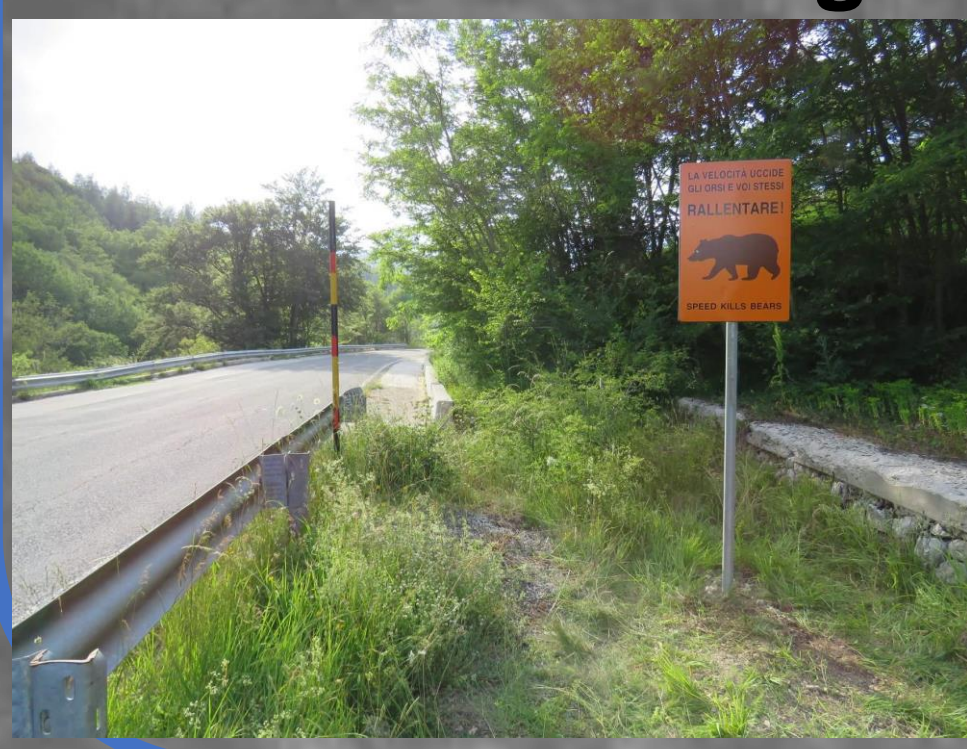
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The brown bear population of the central Apennines in Italy is currently recognized as an endemic subspecies of the brown bear (*Ursus arctos marsicanus* Altobello, 1921). The **Marsican brown bear**, as it has come to be known, is Critically Endangered, numbering fewer than 60 individuals in an extremely restricted range. The main threats to the survival of this bear are direct persecution by humans, habitat destruction and alteration, inbreeding depression and diseases from domestic animals. **Salviamo l'Orso** (Let's save the bear - SLO) is an NGO addressing all these threats to save the Marsican brown bear from extinction. In collaboration with **Rewilding Europe**, SLO is focusing on protecting critical habitat in **wildlife corridors** between protected areas in order to support the recovery of the population.



In the period 2014-2018 SLO installed lower speed limits, optical reflectors, road signs and hold-up systems along the SR 83 "Marsicana" and the SS 17, in areas with high rates of bear-vehicle collisions. **Only one bear was hit and killed during this period, but outside the intervention area [1,2].**



## Bear Vehicle Collisions

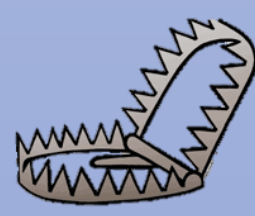


In the period 1970 – 2017 , cars killed 10 bears (11.6 % of total mortality, no=116), while trains killed 7 bears (8.1 %) [3].

To date, SLO has installed over 70 electrified fences within the entire bear range. In the period 2014-2017, in the townships of Pettorano and Rocca Pia were all at-risk properties were protected and the first bear-smart community was established, **bear damage dropped by 99.3% [5].**



## Retaliation poaching



Deliberate and accidental killing by humans account respectively for 45.2% and 27.8% of the fatalities of known origin in the period 1970-2017 [3].

## Infectious diseases



A male bear died in 2012 of suspected pseudorabies, while in 2014 a female bear died of bovine tuberculosis. In 2013 an outbreak of distemper, potentially lethal for bears, killed at least 60 dogs, 20 wolves and 2 foxes in the bear range [3].



Over 2600 sheep dogs were vaccinated in the period 2013-2016 [5]. **No bears died of diseases carried by dogs ever since.**

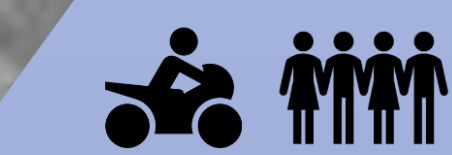
## Habitat loss



Building of new ski-lifts and slopes, paved roads and wind farms in intact and remote habitats has restricted the bear range and its ability to re-colonize its historical range in the Central Apennines.



SLO has legally **contrasted all infrastructure plans with expected unmitigated impacts** on bears and other wildlife and **successfully prevented most of them.**



## Disturbance

Driving on forestry roads, off-road motorcycling, walking and camping in non-authorized areas in core bear habitat can affect bear activity and can pose a risk to people who don't know how to behave in case of a close encounter.



SLO volunteers have restored path signs and, in agreement with local authorities, **closed vehicle access to forestry roads in bear habitat [6].**

## References

1. <http://www.salviamolorso.it/en/projects/road-safety-in-abruzzo-np/>
2. <http://www.salviamolorso.it/en/portfolio-items/lets-take-action-for-the-bear/>
3. [http://www.parcobruzzo.it/pdf/NaturaProtetta\\_RapportoOrso2017.pdf](http://www.parcobruzzo.it/pdf/NaturaProtetta_RapportoOrso2017.pdf)
4. <http://www.salviamolorso.it/wp-content/uploads/2016/11/Bear-Smart-Manual-A5-EN.pdf>
5. <http://www.salviamolorso.it/en/portfolio-items/stray-dogs-prevention-plan-in-the-abruzzo-lazio-and-molise-national-park/>
6. <http://www.salviamolorso.it/en/projects/a-passage-for-the-bear/>



## Next steps

- Camera trap survey and occupancy modelling of bear corridors to identify critical habitat and properties at risk of bear damage
- Installation of up to 150 electric fences in properties at risk of bear damage
- Expansion of roadkill prevention measures across the SS17 road, perpendicular to 3 of the corridors
- Expansion of abandoned fruit trees pruning to increase fruit production and food sources for the bear

