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P-Y Quenette, M Jonozovic, A Marinsic, J-J Camarra, M Guinot-Ghestem, J Sentilles, J Steinmetz, Cécile Vanpé, N Alban

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First translocation of females in the French Western Pyrenees: a new step in the long process of brown bear restoration in the Pyrenees Mountains

PY Quenette

IUCN SSC Bear Specialist Group
National Hunting and Wildlife Agency, Unit PAD, Bear team,
Impasse de la Chapelle, 31800 Villeneuve de Rivière, France
Email: pierre-yves.quenette@oncfs.gouv.fr

M. Jonozovic,
Slovenia Forest Service, Večna pot 2 SI-1000
Ljubljana, Slovenia
Email: marko.jonozovic@zgs.si

A. Marincic,
Slovenia Forest Service, Večna pot 2 SI-1000
Ljubljana, Slovenia
Email: anton.marincic@zgs.si

J. J. Camarra
National Hunting and Wildlife Agency, Unit PAD, Bear team
14, rue Marca, 6400
Pau, France
Email: jean-jacques.camarra@oncfs.gouv.fr

M. Guinot-Ghestem
National Hunting and Wildlife Agency, Unit PAD
5 allée de Bethléem, Z.I Mayencin, 38610
Gières, France
Email: murielle.guinot-ghestem@oncfs.gouv.fr

J. Sentilles

National Hunting and Wildlife Agency, Unit PAD, Bear team
Impasse de la Chapelle, 31800
Villeneuve de Rivière, France
Email: jerome.sentilles@oncfs.gouv.fr

Steinmetz J,
National Hunting and Wildlife Agency, Direction Region
Occitanie
18 Rue Jean Perrin, 31100
Toulouse, France
Email: Julien.steinmetz@oncfs.gouv.fr

Vanpé C, National Hunting and Wildlife Agency, Unit PAD,
Bear team
Impasse de la Chapelle, 31800
Villeneuve de Rivière, France
Email: cecile.vanpe@oncfs.gouv.fr

Alban N .
National Hunting and Wildlife Agency, Direction Region
Occitanie
18 Rue Jean Perrin, 31100
Toulouse, France
Email: nicolas.alban@oncfs.gouv.fr

Pyrenean brown bears are considered to be one of the most endangered brown bear populations across Europe (Boitani et al. 2015). At the beginning of 90s, this population was almost extinct with only 5-6 bears in the Western Pyrenees. Translocations of bears originating from Slovenia were conducted in 1996-1997, 2006 and 2016. But for political reasons, those bears were introduced only in the Central Pyrenees [9 bears in total, including 3 males and 6 females in the French side of the Pyrenees and 1 male in Spain (Catalonia)], although several translocation projects were also proposed in the Western Pyrenees over this period (see Figure 1).

Since the disappearance of the last female in 2004 (Camarra et al. 2011), the western core of the population has been virtually extinct with only 2 males remaining. Several scientific studies outlined the vulnerability of the Pyrenean brown bear population and the necessity to urgently translocate females into the western and central nuclei (Chapron et al. 2003, 2009).

From 2010-2016, a new public consultation phase was initiated by the French Government for the conservation of this highly endangered population within the framework of the Pyrenean Strategy of Valorisation of Biodiversity (PSVB). This consultation was driven by the PSVB Committee, which included all the main stakeholders involved in the preservation of brown bears in the Pyrenees (i.e., hunters, foresters, breeders and farmers, nature protection associations, tourist structures, elected representatives and public administrations).

In 2010, the French Government decided to introduce one female into the Western Pyrenees in 2011. But the project was eventually cancelled in May 2011, just few days before the operational phase of the translocation project that was being driven by the Slovenian Forest Service (SFS) and the French National Agency for Hunting and Wildlife (ONCFS). Not surprisingly, in 2013, new scientific expertise requested by the French Ministry in charge of Ecology concluded that urgent first introductions of females in the Western Pyrenees was needed in order to prevent the extinction of the Pyrenean brown bear population (Boitani et al. 2013). During the annual meeting of the PSVB Committee in July 2016, 50% of the participants voted in favour of bear translocations in the Western Pyrenees and 50% voted against.

Conservation

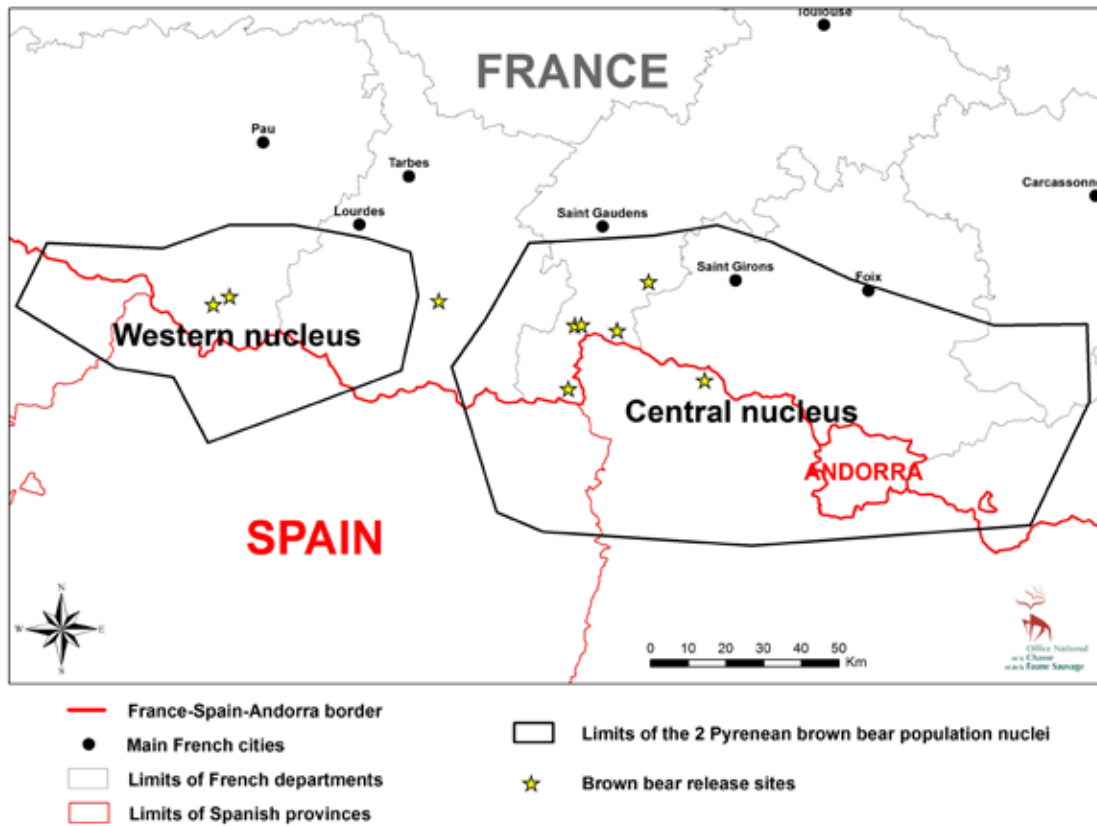


Figure 1. Translocations of bears originating from Slovenia were conducted in 1996-1997, 2006 and 2016.

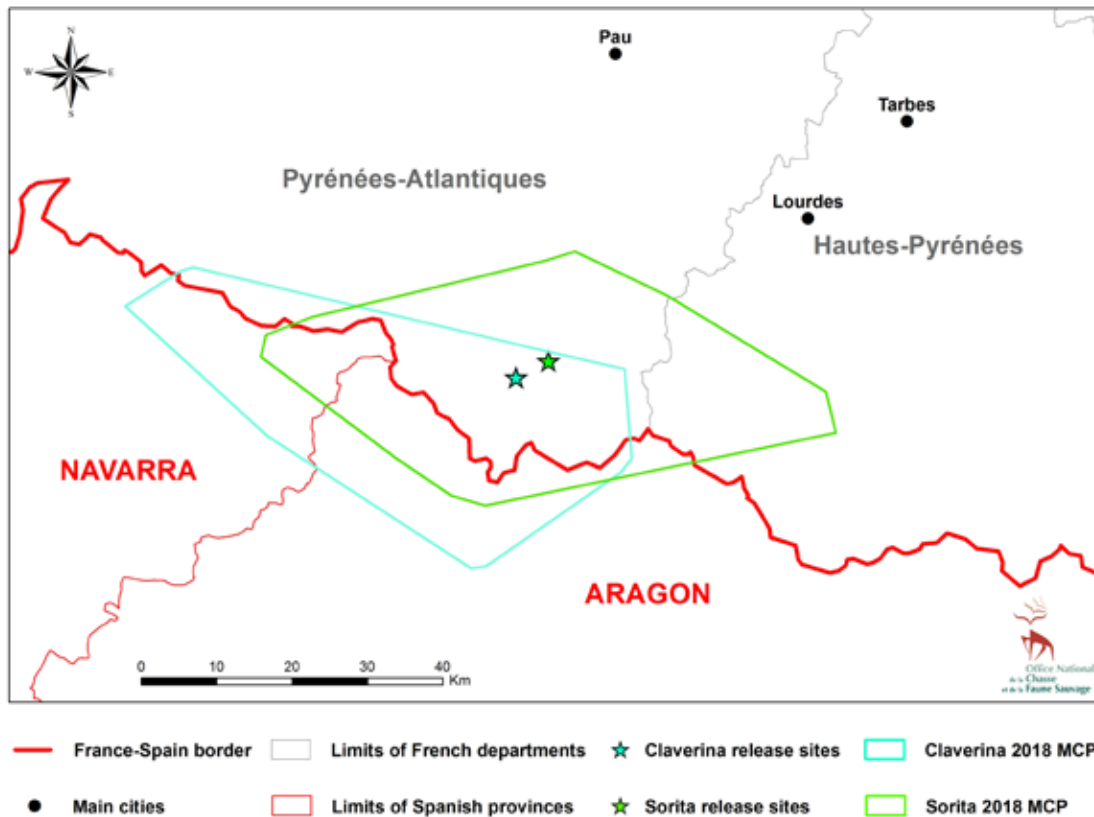


Figure 2. Home ranges of two females, Claverina and Sorita between release and 14th December.

In March 2018, the French Government eventually approved the introduction of 2 brown bear females in the Western Pyrenees. Two adult females were thus successfully translocated from Slovenia to the French side of the Western Pyrenees by ONCFS in collaboration with SFS on the 4th and 5th of October 2018.

The two females, named Claverina and Sorita, were both 5 years old and weighed respectively 140 kg and 150 kg. They were both fitted with a GPS/Iridium collar with drop-off system (Vectronic Vertex Plus) scheduled to record 15 locations per day (1 location per hour between 7 p.m and 7 a.m and 1 location every 3 hours during daytime). Similarly, as in the case of other introduced bears in the Pyrenees (Quenette et al 2001), the 2 females moved a lot during the first few weeks after the release, especially in a west-east direction, as the main orientation of the Pyrenees. Claverina and Sorita moved up to 52 km and 40 km far away from their release site, respectively, and covered very similar distances (the sum of the Euclidian distances between successive locations from release time to the 14th of December is 539 km and 526 km, respectively). Den entrance was estimated to be on the 28th of December and on the 13rd of December 2018, respectively. The home range estimated between release up to 14th December using 100% MCP are similar for the two females (Claverina, MCP=1378 km²; Sorita, MCP=1483 km²) (see Figure 2).

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