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# Reintroductions in Europe : Phylogenetic and Functional Representativeness of Translocated Species

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## Résumé

Ultimately, species reintroductions should aim at restoring spontaneous dynamics of genes and functional traits of the focal species that shape community and ecosystem dynamics. However, reintroduction programs are often criticized for being a species-centred approach biased toward charismatic species, and the contribution of these programs to biodiversity restoration at the functional and phylogenetic levels remains unclear. Focusing on birds and mammals, we identified through systematic research those species that have benefited from at least one reintroduction program in Europe. Based on the results of these data (15% of terrestrial mammals and 10% of breeding birds), we tested for each group the representativeness of reintroduced species to potentially contribute to the conservation of phylogenetic and functional diversities at the European scale. We observe strong taxonomic biases: ungulates and carnivores are overrepresented in mammal reintroductions, and accipitriformes account for nearly one fourth of reintroduced bird species. We show that reintroduced mammals are more evolutionary and functionally distinct than expected by chance, whereas no significant pattern is observed for avian reintroductions. Research is still needed to assess the success of these reintroduction programs, but our results suggest that, despite being biased toward large and charismatic species, avian and mammalian reintroductions in Europe may have potentially helped restore functional and phylogenetic diversity at the continental scale.

**Mots-Clés:** Reintroduction, Phylogenetic diversity, Functional diversity, Restoration, Europe

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