



# Implementation status of non-invasive methods in wildlife genetic sampling

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The Earth's biodiversity is currently experiencing immense pressure from habitat loss, overexploitation, global climate change, and invasive species, which escalate the global extinction crisis [1]. Comprehensive knowledge of the extent and impact of biodiversity loss is therefore critical for determining species vulnerability and prioritizing conservation goals. An integral part of wildlife conservation research and management has become genetic sampling. Animal DNA has been traditionally obtained invasively, from blood or tissues, however public concerns over animal welfare require that animals are affected as little as possible during research [2]. One of the ways to minimize the impact on animal welfare is to use non-invasive genetic sampling [3,4]. Even though non-invasive genetic sampling techniques have been developed for many animal species, it is however not clear how often they are being implemented. Here, we present an overview of recently published articles on genetics in amphibians, birds, carnivores, molluscs and rodents, for which we examined whether they used a lethal, invasive or non-invasive DNA sampling technique. Disappointingly, only 22% of the identified relevant studies implemented the available non-invasive genetic sampling method. With this review we highlight the need for bet-

ter implementation of non-invasive DNA collection methods in wildlife research.

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## References

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