

Molecular sexing of *Xenarthra*: A tool for genetic and ecological studies

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Abstract

Although sex assignment is essential to study biology and ecology of a given animal, in *Xenarthra* there is still no standardized assay for gender genetic identification. Here, we evaluate the potential of two nuclear fragments [SRY (~180pb) and Zinc finger (~400pb) genes] for sex identification of specimens who have lost their morphological characteristics because of road-kills. DNA samples from seven *Xenarthra* species were amplified and sequenced for one or both segments. Finally, we performed a case study using tissue samples from road-kill carcasses, which supported the suitability of our markers for poor-quality DNA. The method proved to be efficient for different types of samples and may be especially useful for studies using road-killed and hunted animals.

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