

SUPPLEMENTARY MATERIAL TABLE S2 | Primers used to amplify and sequence every gene in this study.

Gene	Primer	Sequences (5'-3')	Reference
COI	FishF1	TCAACCAACCACAAAGACATTGGCAC	Ward <i>et al.</i> (2005)
	FishR1	TAGACTTCTGGGTGGCCAAAGAATCA	
16S	16Sa-L	ACGCCTGTTTATCAAAAACAT	Palumbi (1996)
	16Sb-H	CCGGTCTGAACTCAGATCACGT	
Cyt B	L14841	AAATCAAAGCATAAACTGAAGATG	Kocher <i>et al.</i> (1989)
	H15915	CAAATTTGCATGGATGTCTTCTCGG	Irwing <i>et al.</i> (1991)

REFERENCES

- **Irwing DM, Kocher TD, Wilson AC.** Evolution of the cytochrome b gene of mammals. *J Mol Evo.* 1991; 32:128–44.
- **Kocher TD, Thomas WK, Meyer A, Edwards SV, Pääbo S, Villablanca FX *et al.*** Dynamics of mitochondrial DNA evolution in animals: amplification and sequencing with conserved primers. *Proc Natl Acad Sci.* 1989; 86(6):6196–6200. <https://doi.org/10.1073/pnas.86.16.6196>
- **Palumbi SR.** Nucleic acids II: The polymerase chain reaction. In: Hillis DM, Moritz C, Mable BK, editors. *Molecular Systematics.* Sunderland: Sinauer; 1996. p.205–47.
- **Ward RD, Zemlak TS, Innes BH, Last PR, Hebert PDN.** DNA barcoding Australian's fish species. *Philos Trans R Soc Lond B Biol Sci.* 2005; 360(1462):1847–57. <https://doi.org/10.1098/rstb.2005.1716>



This is an open access article under the terms of the Creative Commons Attribution License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

Distributed under Creative Commons **CC-BY 4.0**

© 2020 The Authors. Diversity and Distributions Published by SBI



Official Journal of the Sociedade Brasileira de Ictiologia

HOW TO CITE THIS ARTICLE

- **Ochoa LE, Melo BF, García-Melo JE, Maldonado-Ocampo JA, Souza CS, Albornoz-Garzón JG, Conde-Saldaña CC, Villa-Navarro F, Ortega-Lara A, Oliveira C.** Species delimitation reveals an underestimated diversity of Andean catfishes of the family Astroblepidae (Teleostei: Siluriformes). *Neotrop Ichthyol.* 2020; 18(4):e200048. <https://doi.org/10.1590/1982-0224-2020-0048>