ERRATUM

Erratum to: Fish Species Composition and Distribution from 2015 to 2019 in the Ibulao River, Ifugao, Cordillera, Philippines

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The authors would like to correct the error and add supporting paragraphs and table in the publication of the original article. The corrected detail is published with this erratum for your reading.

The data collected were analyzed using standard taxonomic keys based on morphometric characteristics.

Fisherfolk collected samples in the identified landing centers and preserved them for identification. The samples not identified morphologically were preserved in 95% ethanol and sent to the Genetic Fingerprinting Laboratory (GFL) of the National Fisheries Research and Development Institute (NFRDI) for DNA identification. Approximately 100mg of fish tissue was obtained for DNA Extraction following the Chelex Extraction Protocol (Walsh et al. 1991). An approximately 600 bp mitochondrial DNA covering part of the mtDNA region Cytochrome oxidase subunit 1 (CO1) was amplified (Polymerase Chain Reaction) using the primers identified as follows: VF2_t1 (5' - TGT AAA ACG ACG GCC AGT CAA CCA ACC ACA AAG ACA TTG GCA - 3'), FishF2_t1 (5' - TGT AAA ACG ACG GCC AGT CGA CTA ATC ATA AAG ATA TCG GCA C - 3'), FishR2 t1 (5'- CAG GAA ACA GCT ATG ACA CTT CAG GGT GAC CGA AGA ATC AGA A – 3'), and FR1d_t1 (5' - CAG GAA ACA GCT ATG ACA CCT CAG GGT GTC CGA ARA AYC ARA A - 3'), and (Ward et al. 2005, Ivanova et al. 2007). The cycling parameters employed in this study are as follows: Initial denaturation at 94˚C for 2 minutes, denaturation at 94˚C for 30 seconds, annealing at 52˚C for 40 seconds, extension at 72˚C for 1 minute, and a final extension at 72˚C for 10 minutes for 35 cycles. In addition, amplification of the D-loop region was also carried out using primers: CB3R420 (5'-CCCCCTAACTCCCAAAGCTAGG-3') and 12SAR430 (5'-GCCTGCGGGGCTTTCTAGGGCC-3'). Amplified DNA was subjected to gel electrophoresis using 1% Agarose gel together with a DNA ladder and positive control) and viewed under a gel documentation system (Syngene G:Box). Amplicons with approximately 600bp were considered positive and ready for sequencing. All positive amplicons were outsourced to 1st Base for Sequencing. Sequences obtained were aligned and edited using Geneious (version 6.1 created by Biomatters, available from http://www.geneious.com) while clustering analysis utilized a free online software MEGA6.06 applications.

Eighteen finfishes that belong to 12 families were collected and identified in the Ibulao River. Eleven of them are introduced species which comprise 61.11% of all the fishes recorded in the Ibulao River. In addition, this river supports four endemic and two native fish species. The endemic species constitute 22.22%, while the native species constitute 11.11% of all fishes recorded in the Ibulao River. A list of the fish and invertebrate species identified morphologically and genetically in the Ibulao River is presented in Table 1. The specific percent identity of fish species identified using DNA barcoding is presented in Table 2.

ACKNOWLEDGEMENT

Table 2. List of the freshwater finfishes and invertebrates identified through DNA Barcoding in the Ibulao River from 2015-2016

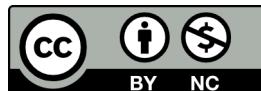| Status	Local Name	Common Name	Sample Code	GENBANK Percent Identity	Scientific Name
Native	Igat	Giant mottled eel	Ibulao 14	99.13%	*Anguilla marmorata*
Introduced	Bunog	Goby	Ibulao 08	99.47%	*Rhinogobius giurinus*
Introduced	Bunog	Goby	Ibulao 13	98%	*Rhinogobius giurinus*
Endemic	Susay	Halfbeak	Ibulao 9	94.07%	*Zenarchopterus philippinus*
Endemic	Susay	Halfbeak	Ibulao 10	94.14%	*Zenarchopterus philippinus*
Endemic	Susay	Halfbeak	Ibulao 11	92.11%	*Zenarchopterus philippinus*

Table 3. Number of fish species recorded per year in the three landing centers included in the study

Landing Center	Number of Fish Species Recorded					
	2015	2016	2017	2018	2019	Total Numbers of Species
Kiangan	10	6	8	13		16
Lagawe	14	14	12	14	14	19
Lamut	14	15	11	8	8	17

Table 4. Fish species recorded per year in the three landing centers included in the study

Fish Species/Label	2015			2016			2017			2018			2019	
	Kiangan	Lagawe	Lamut	Kiangan	Lagawe	Lamut	Kiangan	Lagawe	Lamut	Kiangan	Lagawe	Lamut	Lagawe	Lamut
Anguilla marmorata		X			X	X		X	X	X	X	X	X	X
Awaous melanocephalus	X	X	X	X	X	X			X					X
BFARCAR_Bunog02_154			X			X	X	X	X	X	X	X	X	X
BFARCAR_Gourami_041						X								
Carrasius carrasius						X						X		
BFARCAR_Kiwet_009	X	X	X		X	X	X			X	X		X	
Plicofollis magatensis		X	X											
BFARCAR_Silap_019			X			X		X	X		X	X	X	X
Channa striata	X	X	X		X	X	X	X	X	X	X	X	X	
Clarias batrachus	X	X	X											
Clarias gariepinus		X	X		X	X		X	X	X	X	X	X	X
Cyprinus carpio	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Gambusia affinis	X	X	X		X	X		X		X	X		X	
Leiopotherapon plumbeus	X	X	X		X	X		X	X		X		X	X
Nomorhamphus sp.					X		X			X	X		X	
Oreochromis niloticus	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Rhinogobius giurinus	X	X	X	X	X	X	X	X		X	X		X	
Zenarchopterus philippinus	X	X	X	X	X	X	X	X	X	X	X		X	