



CR.SiB

CERTIFICADO
DE REPORTE

1. INFORMACIÓN DEL CERTIFICADO

Número de certificado: **1709D7FDF52**

Fecha de la última actualización del conjunto de datos: **2020-03-03**

URL del conjunto de datos: https://ipt.biodiversidad.co/crsib/resource.do?r=1753_calophysusmacropterus_20200302

Número de registros biológicos reportados: **86**

2. INFORMACIÓN DEL PERMISO

Autoridad

Ministerio de Ambiente y Desarrollo Sostenible

Número del permiso

Artículo 252 de la Ley 1753 de 2015

Titular

Universidad de los Andes

Nit o cédula

860.007.386-1

Fecha de emisión del permiso

2015-06-09

3. INFORMACIÓN DEL RECURSO

Título del proyecto

“Pig in a poke (gato por liebre)”: The “mota” (*Calophysus macropterus*) Fishery, Molecular Evidence of Commercialization in Colombia and Toxicological Analyses

Resumen

Overfishing has affected the population abundance trends of many commercial fish species. In the Amazon, the fishery of a catfish commonly known as “mota” or “piracatinga” (*Calophysus macropterus*) has become an important economic activity in the region as this species has replaced a number of other over-exploited great catfish species in the markets. Due to this high exploitation, ways in which to increase captures have been identified. One strategy is to use decomposing animal carcasses as bait. Such strategy has increased the hunting pressure on endangered species such as caimans and river dolphins. We investigated which catfish species are currently commercialized in Colombian fish markets using DNA barcoding, and measured mercury concentration in the tissues of fish molecularly identified as *C. macropterus*. We

collected 86 fish samples in markets of four Colombian cities. Sixty-eight of these were identified molecularly as *C. macropterus*. The mercury concentration of 29 such samples was analyzed. Samples presented total Hg concentrations higher than the limit for human consumption established by the WHO (0.5 lg/g). These results are worrisome and suggest that (1) *C. macropterus* is a widely used fish species for human consumption in Colombia and (2) *C. macropterus* has high concentrations of total Hg, making its consumption a public health risk. Results presented here suggest that *C. macropterus* has replaced capaz in most Colombian markets. This fishery threatens wild species of river dolphins and caimans, and is also a public health risk given the high mercury levels we found in a subsample of these fishes.

Palabras clave

Calophysus macropterus, DNA barcoding, total mercury, Colombia, Specimen

3.1 Contacto del recurso

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3.3 Proveedor de los metadatos

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3.4 Cobertura geográfica

Colombia CO Amazonas Puerto Nariño Río Amazonas Colombia CO Amazonas Leticia Río Amazonas Colombia CO Guainía Inírida Río Orinoco Colombia CO Meta Puerto López Río Meta Colombia CO Putumayo Puerto Asís Río Putumayo Colombia CO Cundinamarca Bogotá Bogotá Colombia CO Cundinamarca Girardot Girardot Colombia CO Tolima Melgar Melgar Coordenadas: 4°13'5.32"S y 4°37'54.69"N Latitud; 69°56'44.28"W y 74°5'1.62"W Longitud

3.5 Cobertura taxonómica

Peces identificados a especie

Categorías taxonómicas

Especie: *Calophysus macropterus*, *Pimelodus grosskopfii*

3.6 Cobertura temporal

31 de mayo de 2010 - 30 de septiembre de 2010

3.7 Métodos de muestreo

Eighty-six fish specimens were obtained from different sources (fishermen, distributors, and markets) in eight locations in Colombia between June and October 2010. Forty-six of these samples were obtained from “source” localities (a source, defined as places where the fishing activity is done or where fishermen bring their catch to be commercialized), and these samples were morphologically identified using identification guides and species identification was confirmed by taxonomic experts in the field. These specimens were also molecularly identified in order to use them for comparison in further analyses. These specimens were obtained in the Colombian Amazon (Puerto Nariño and Leticia), the Colombian Orinoco (Inírida), Meta Province (Puerto López), and Putumayo Province (Puerto Asís). Forty specimens were obtained from markets in Bogotá, Girardot, and Melgar, where they were sold as “capaz” from the Magdalena

River. The latest two cities are located on the Magdalena River, about 98 km southwest from Bogota . They all were sold at different prices and all were sold under the name “capaz.” A small tissue sample from each specimen was cut and transferred to 70% ethanol and refrigerated at 4C.

La veracidad de este certificado se puede corroborar en la siguiente dirección web:
https://ipt.biodiversidad.co/cr-sib/pdf.do?r=1753_calophysusmacropterus_20200302&n=1709D7FDF52

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