Microtomographic investigation of a large corpus of cichlids

This manuscript (permalink) was automatically generated from habi/EAWAG-manuscript@a6f4076 on June 30, 2022.

Authors



Mikki Law

None

Kassandra Ford

None

Marcel Häsler

None

Ole Seehausen

None

• Ruslan Hlushchuk

Institute of Anatomy, Unversity of Bern, Switzerland

Abstract

A large corpus of fishes spanning a size range of 6 to 20 cm was nonestructively assessed using micro-computed tomography.

Introduction

History

- Cichlids from Lake Victoria
- Sample 'library' of EAWAG
- Valuable, hence non-destructive imaging is *paramount*

microCT

- Nondestructive imaging of a diverse kind of samples
- Ideal method to provide insight into *these* samples

Materials and Methods

Preparation of fishes

- Collection
- Storage in 75% Ethanol.

microCT imaging

• Scanned on the 1272 (some fishes) and the 2214 (most of the fishes)

Data analysis

Preparation for analysis

- Python code in Jupyter, which is freely available: https://github.com/habi/eawag
- Automatic dissemination/copying of data to the relevant

Extraction of OJ and PJ

• Details needed from Mikki on how she did it exactly

Results

- A lot of fishes
- A lot of scans
- A lot of data

Discussion

The discussion of the results and the outlook to what we'll do i	in the future is going into this file here.

Acknowledgments

We tha	nk the N	/Januhot i	oroject [11 for	helning u	s write this	manuscrin	t collaboratively.
AAC CIIC	IIIN LIIC II	vialiubut	DI OJECL I	1 101	Helping u	3 WHILE HIIS	manuscrip	t Collabol atively.

References

1. Open collaborative writing with Manubot

Daniel S Himmelstein, Vincent Rubinetti, David R Slochower, Dongbo Hu, Venkat S Malladi, Casey S Greene, Anthony Gitter

PLOS Computational Biology (2019-06-24) https://doi.org/c7np

DOI: <u>10.1371/journal.pcbi.1007128</u> · PMID: <u>31233491</u> · PMCID: <u>PMC6611653</u>