XRH Preliminary Report: MBIO12716-FRESH

XCT of whole fish (carp) with focus on imaging the swim bladder

Sample Overview

Assigned Sample ID: MBIO12716-FRESH
Original ID: 1
Species: Common Carp
Tissue: Whole
Condition: Healthy
Storage Requirements: Chilled
Description:
adult female fish - whole

Scans

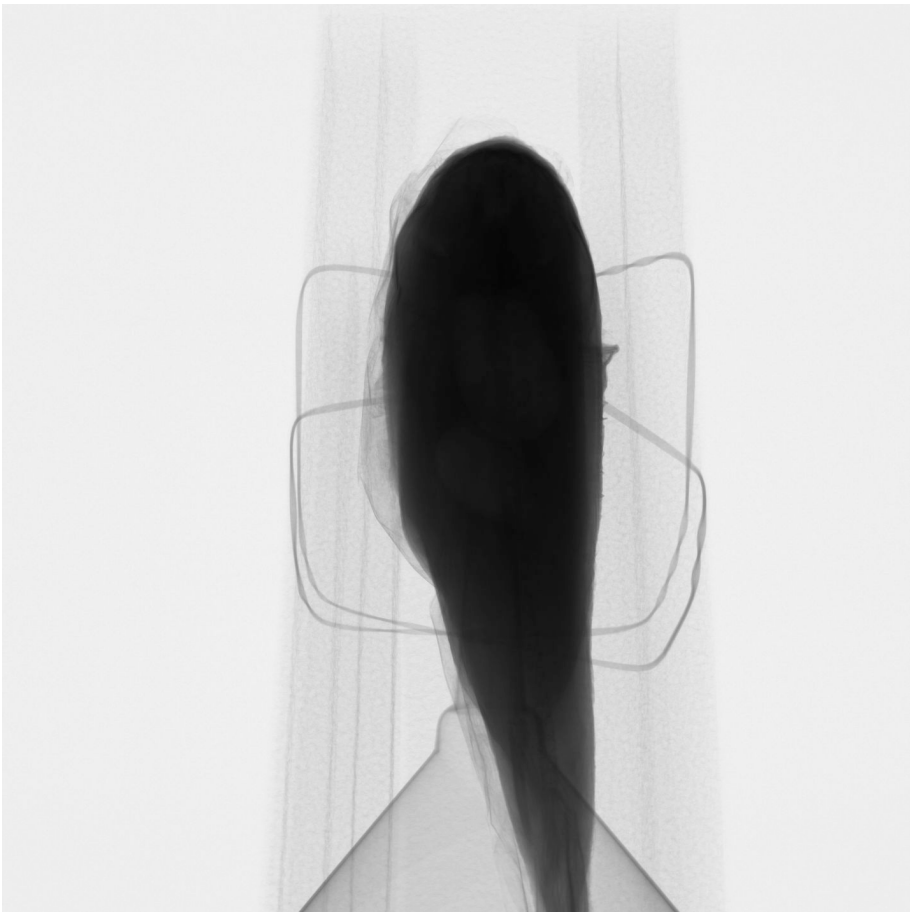
20240514_XRH_4036_OLK_MBIO12716-FRESH_1_overview

Scan properties

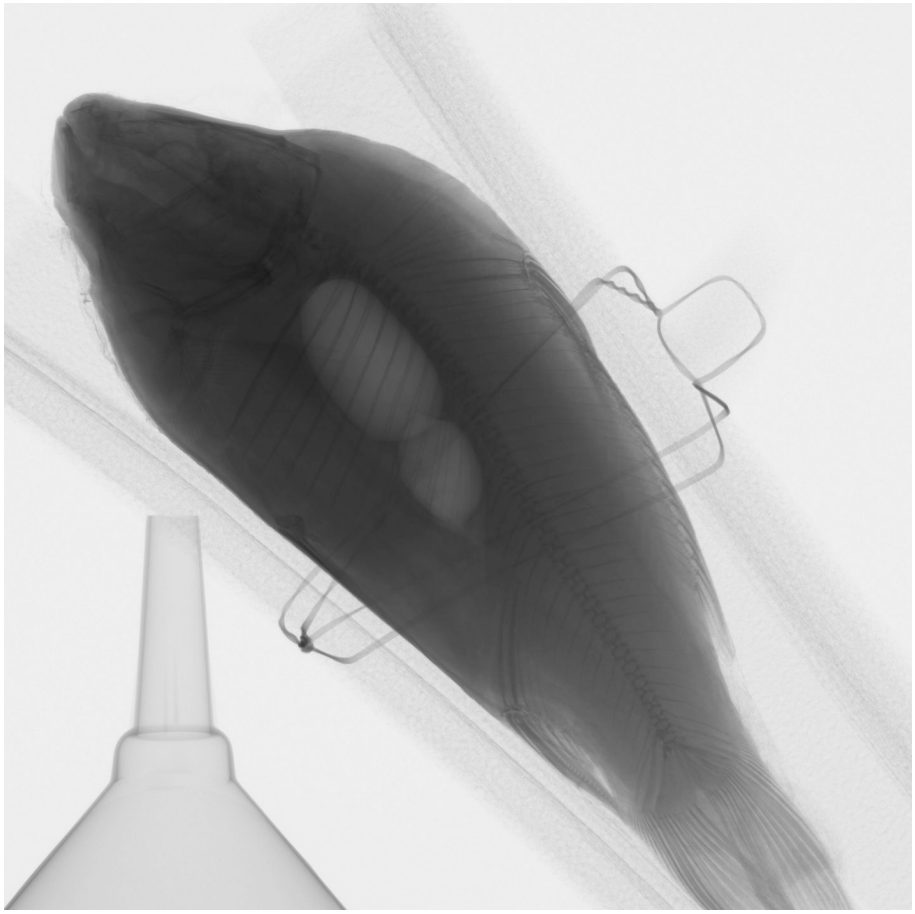
Parameter	Value
Type	CT Scan
Voxels X	587
Voxels Y	1425
Voxels Z	1424
Voxel size X	170.00 µm
Voxel size Y	170.00 µm
Voxel size Z	170.00 µm

These dimensions are for the raw reconstructed volume only, other files may have been processed to have different dimensions.

Images



Raw radiograph of the sample rotated to 0 degrees



Raw radiograph of the sample rotated to 90 degrees

XY slice though the volume

Useful links* and Information

About 3D X-ray Histology

- **Main XRH website:**
  www.xrayhistology.org
- **The XRH team:**
  www.southampton.ac.uk/muvis/xrh/xrh-people.page
- **Basic introduction to 3D X-Ray Histology (XRH):**
  www.southampton.ac.uk/muvis/xrh/xrh-intro.page
- **Publications:**
  www.southampton.ac.uk/muvis/xrh/xrh-publications.page

About your XRH session

- **XRH sessions are governed by a memorandum of collaboration.** The full text is available here: www.southampton.ac.uk/muvis/xrh/xrh-get-involved.page.
- **The work should be planned in anticipation of publication**
  In any publication(s) the collaboration should be recognised with co-authorship of relevant XRH staff according to contemporary publishing practice; eg:www.nature.com/authors/policies/authorship.html
- **XRH Wiki:** Training materials and tips to guide you through understanding, handling and interpreting your XRH data can be found in https://sites.google.com/view/xrayhistologywiki/.

About the facilities

- 3D X-Ray Histology (XRH): www.xrayhistology.org
- µ-VIS X-Ray Imaging Centre: www.muvis.org
- Biomedical Imaging Unit (BIU): www.southampton.ac.uk/biu/

About image analysis and visualisation

There are a number of volume visualisation and analysis software available, some of which are free and others are commercial products. A representative (but by no means exhaustive) list of tools that can be used for XRH can be found in our Wiki, along with step-by-step and getting started instructions.
https://sites.google.com/view/xrayhistologywiki/software

* The University of Southampton cannot accept responsibility for the content of external websites.

Appendix

Additional Information 20240514_XRH_4036_OLK_MBIO12716-FRESH_1_overview

Scan Parameters

Parameter	Value
Scanner used	XRH
Total scan time (approx)	0:08:54
Binning	2x
Acceleration voltage	120 kVp
Current	167 µA
Power	20.04 W
Angular projections	1501
Frames per projection	4
Exposure	89 ms
Analog Gain	30 dB
X-Ray head	Reflection 225 Multi-metal
Filter material	None
Filter thickness	0.0 mm
Shuttling	No