

# Imaging wet collections

Andrew Williston

Curatorial Assistant

MCZIchthyology Collection

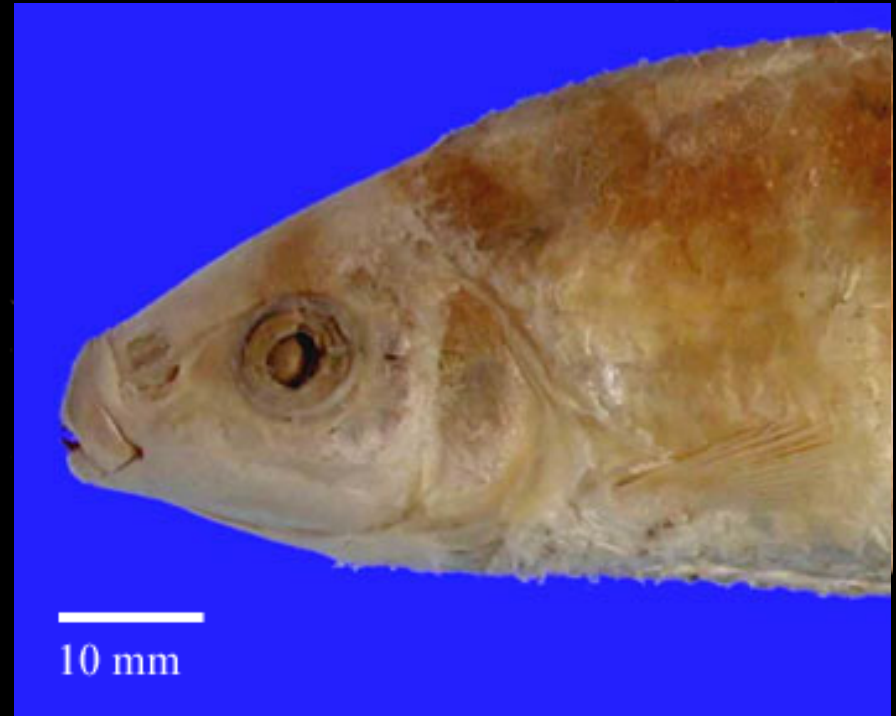


# MCZ Ichthyology Primary Type Imaging

1,500 primary types

2001-2012

Three technicians



# Imaging Setup

Features:

Camera

USB Link/Capture

Fluid tank/Copy Sta



# Imaging Setup

Features:

Camera

USB Link/Capture

Fluid tank/Copy Start





# Imaging Setup

Features:

Camera

USB/Capture

Fluid tank/Copy Stand



# Imaging Setup

Features:

Camera

USB/Capture

Fluid tank/Copy Stand



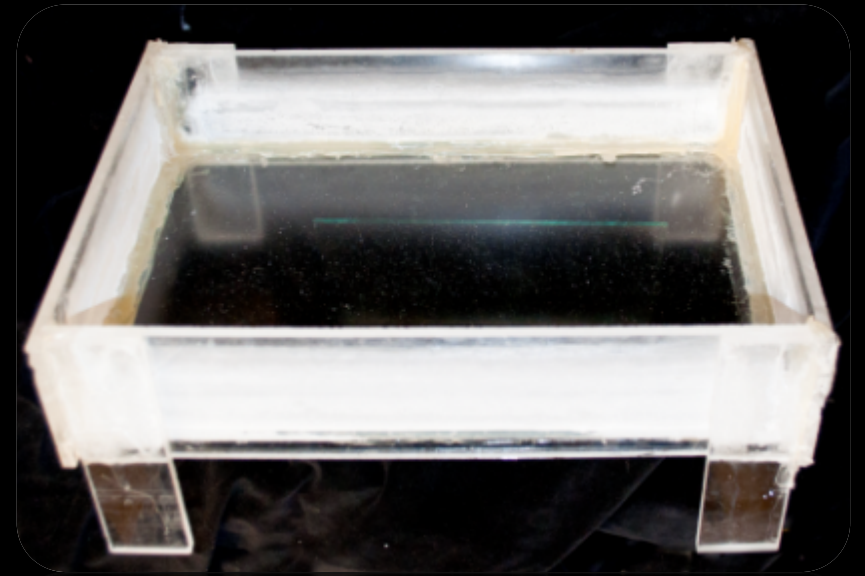
# Imaging Setup

Features:

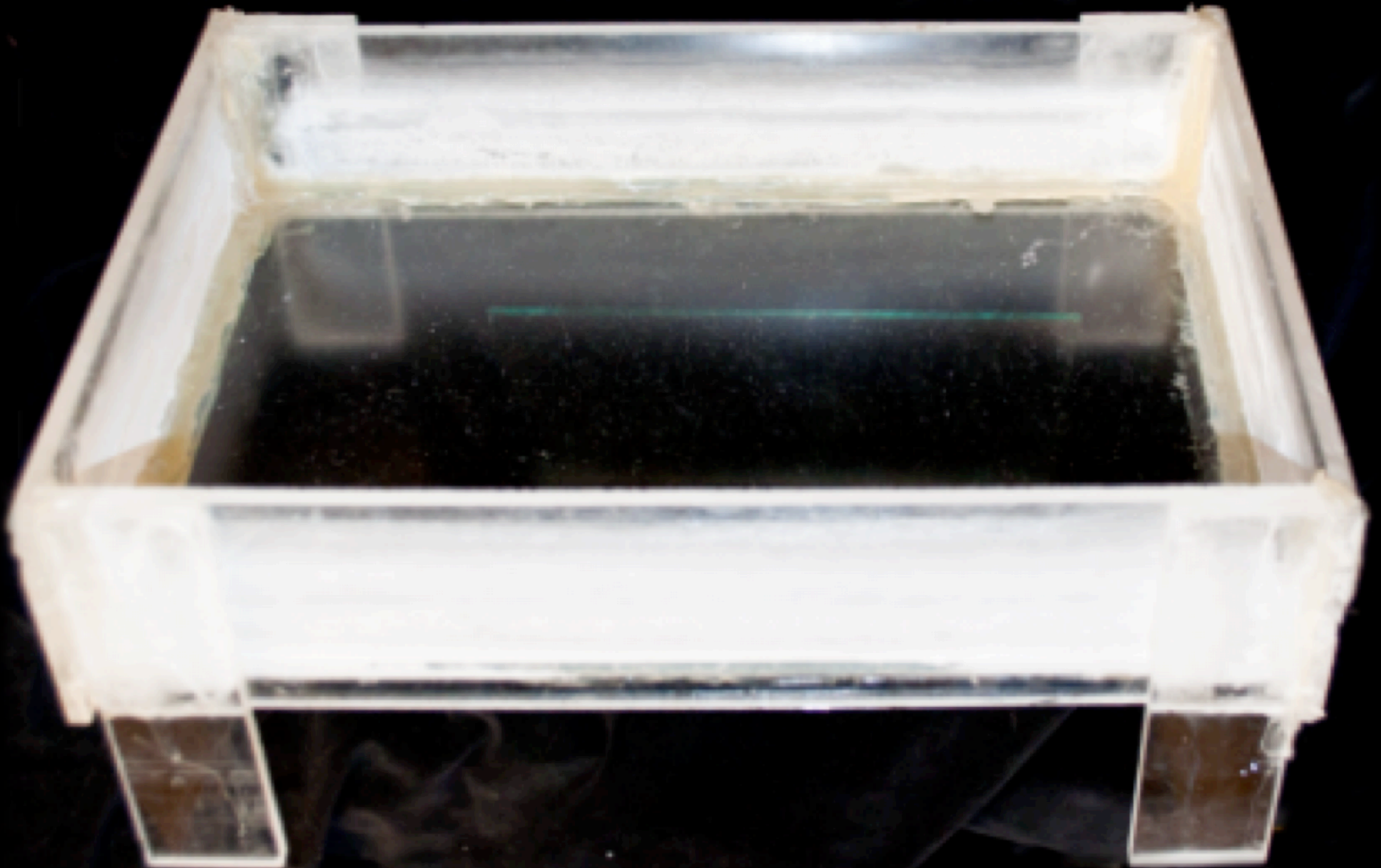
Camera

USB Link/Capture

Fluid tank/Copy Stand



# Fluid Tank



# Copy Stand



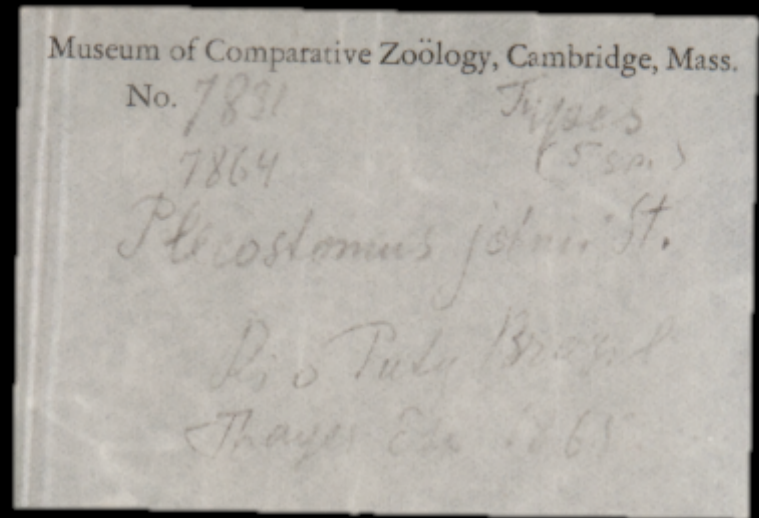


# Workflow

Pre-imaging

Capture

File processing



# Workflow

Preimaging

Capture

File processing



91353\_1\_Bathylagichthys\_HL.nef



# Workflow

Imaging protocol

Capture

File processing



# Workflow

Imaging parameters

Capture

File processing



Archival Raw

# Workflow

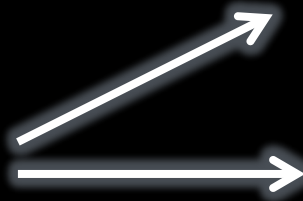
Imaging parameters

Capture

File processing

Archival Raw

Edited .tiff

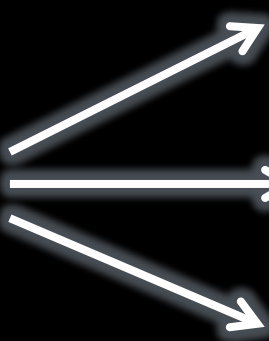


# Workflow

Imaging parameters

Capture

File processing



Archival Raw

Edited .tiff

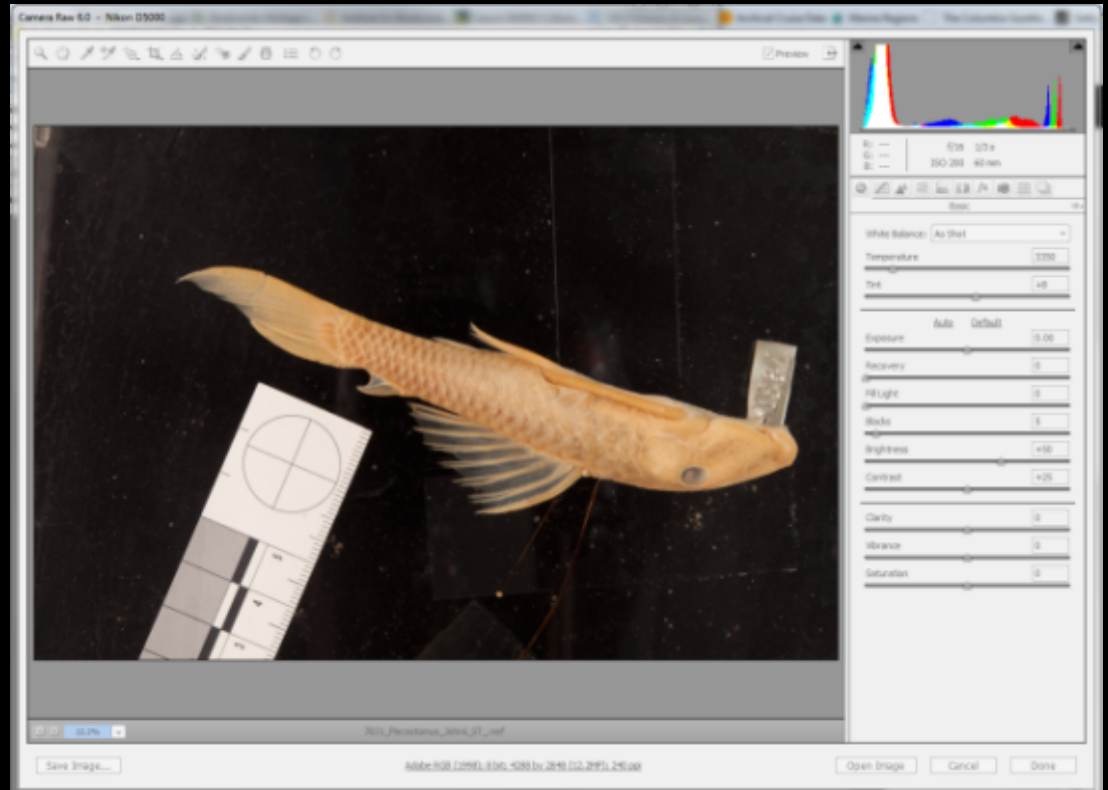
Edited .jpeg

# Raw

uncompressed

metadata

archival



# Raw

uncompressed

metadata

archival

subject info

date/time

settings

photographer

copyright

Raw

uncompressed  
metadata  
archival





# Is “Raw” Archival

uncompressed

metadata

archival?

Nikon: .nef

Cannon: .CRW (now .CR2)

Olympus: .orf

Nikon: .nef

Cannon: .CRW

(now .CR2)

Olympus: .orf

# Is “Raw” Archival

uncompressed  
metadata  
archival?

3fr, .ari, .arw, .bay, .crw, .cr2,  
.cap, .dcs, .dcr, .dng, .drf,  
.eip, .erf, .fff, .iiq, .k25, .kdc, .  
mdc, .mef, .mos, .mrw,  
.nef, .nrw, .obm, .orf,  
.pef, .ptx, .pxn, .r3d,  
.raf, .raw, .rwl, .rw2,  
.rwz, .sr2, .sr2, .srf,  
.srw,  
.x3f

Nikon: .nef

Cannon: .CRW (now .CR2)

Olympus: .orf



.dng



- Adobe
- Open license
- Convertible
- Lossless
- Royalty Free
- ISO?

# Editing workflow



# Open RAW



RAW

.tiff

.jpeg

# Save As .tiff



RAW

.tiff

.jpeg

# Rotate



RAW

.tiff

.jpeg



# Background clean-up



RAW

.tiff

.jpeg

# Background clean-up



RAW

.tiff

.jpeg

# Straighten



RAW

.tiff

.jpeg

# Crop & Scalebar



RAW

.tiff

.jpeg

# Resize—full size and thumbnail



RAW

.tiff

.jpeg

# Availability

[Taxa](#)
[Accn](#)
[Pick New Coll Event](#)
[Locality](#)
[Agents](#)
[Relations](#)
[Parts](#)
[Part Locs.](#)
[Attributes](#)
[Other IDs](#)
[Media](#)
[Incumbrances](#)
[Catalog](#)

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***Plecostomus johni*** Steindachner, 1876  
Animalia Chordata Craniata Gnathostomata Actinopterygii Neopterygii Ostariophysi Siluriformes Loricariidae Plecostomus johni  
 Identified by [no agent data]  
 Nature of ID: migration  
 Remarks: [MUSE DETERMINER: ]

**Citations**  
[Steindachner 1877](#), Page 559, Syntype of *Plecostomus johni*  
species capitalized in publication. [pages: 559-559]

**Continent/Ocean:** South America  
**Country:** Brazil  
**State/Province:** Piaul  
**Specific Locality:** RIO PUTY, THEREZINA [Rio Poti (tributary of Rio Paranaíba) at Teresina]  
**Locality Remarks:** Coordinates approximate.  
**General Habitat:** [SALINITY: F]  
**Collecting Source:** wild caught  
**Coordinates:** 5° 5' S 42° 49' W (unknown) , Error: 115 km  
[no agent data] 2010-03-19: unknown  
Coordinate Remarks: Lat. seconds and Long. seconds blank in MUSE (Fish). Set to 30. Maximum Error set to 115 km. In MCBase  
**Collecting Date:** 0/12/1865-0/12/1865 (1865-12-01 - 1865-12-31)  
**Ich. Field Number:** THAYER104

**Collectors**  
 Thayer Expedition to Brazil  
 Orestes H. St. John

**Identifiers**  
 field number: THAYER104  
 group number: 276

Part Name	Condition	Disposition	#	Label	Remarks
whole animal (alcohol)	unchecked	in collection	1	Type Case 15-2	

**standard length:** 97 mm ,  
[no agent data] 2010-03-19: muse migration  
**age class:** adult  
[no agent data]

**Remarks:** In: Sb Akad Wiss Wien math-naturw Cl. 74:691-692. Original lot w/ 2 ex; mixed w/ 7864.(No MCZ ref;loc & coll check.). Det specimen from this lot with metal number tag 7831 has been split into its own jar.  
**Entered By:** HH on 1989-03-01  
**Last Edited By:** Karsten E. Hartel on 2015-04-24

**Accession**  
 0

**Media**




image (image/jpeg)  
[Media Details](#)  
 Media Preview Image




image (image/jpeg)  
[Media Details](#)  
 Media Preview Image




image (image/jpeg)  
[Media Details](#)  
 MCZ Ichthyology Fish  
 005001-012000, pg.74




image (image/jpeg)  
[Media Details](#)  
 Media Preview Image




image (image/jpeg)  
[Media Details](#)  
 Media Preview Image




image (image/jpeg)  
[Media Details](#)  
 Media Preview Image




image (image/jpeg)  
[Media Details](#)  
 Media Preview Image

# Availability

Cat Num: 27266

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## In the latest image

[Plecostomus carinatus](#)

TRUSTED

## Source information



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Creator: Museum of Comparative Zoology, Harvard University

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4 stars  0

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Thanks and appreciation

Karsten Hartel & George Lauder

Chris Kenaley & Anne Holmes

Linda Ford, John Woodward &  
Collections operations at the MCZ