



The Ozboneviz Project has digitised over 1500 skeletal elements from 172 Australian and New Guinea mammals, birds, reptiles and frogs. Three digitisation modalities have been used—micro-computed tomography (μ CT), structured light surface scanning and photogrammetry. Specimens have been sourced from the biological collections of the South Australian Museum, Museum & Art Gallery of the Northern Territory, Australian Museum, the University of Queensland, the Australian National University, Flinders University and the CSIRO Australian National Wildlife Collection.

The 3D models can be downloaded from [MorphoSource.org](https://morphosource.org). All digital imagery is linked to the Global Biodiversity Information Facility (GBIF) occurrence metadata for each specimen. **Scan the QR code to the left to access.**

The Ozboneviz database has a global impact. Our imagery has been downloaded 761 times by 74 users in 9 countries, across 30+ institutions.

154 mammals



7 birds



8 reptiles



3 frogs

Stage I

Specimen Digitisation

Uses of the Ozboneviz Database

"comparing with fossil deposits"

"lessons on comparative anatomy"

"undergraduate final year project"

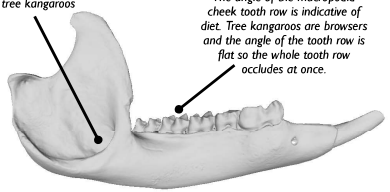
"3D printed for the visually impaired"

"high school physics project"

"research on forelimb biomechanics"

"making digital art"

Tertiary Students



The masseteric canal extends below the posterior molars in tree kangaroos

The angle of the macropodid cheek tooth row is indicative of diet. Tree kangaroos are browsers and the angle of the tooth row is flat so the whole tooth row occludes at once.

We are using the 3D models to create educational resources for tertiary students. Curated collections of Australasian vertebrate cranial and postcranial bones will be annotated with comparative anatomical information drawn from the existing literature.

Hosted on [Sketchfab.com](https://sketchfab.com), these collections will provide an easily accessible, digital resource that highlights taxonomically diagnostic traits for specimen identification.

Stage II

Creating Educational Resources

Primary & Secondary Students



We are collaborating with researchers from La Trobe University, the Australian National University and the University of Wollongong to develop a simulated Australian archaeological excavation and analysis activity for primary & secondary school students.



This hands-on activity aims to fill the gaps in resources available to educators teaching into the new Australian Curriculum.

OZBONEVIZ



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Virtual 3D Databases of Australasian and Pacific Vertebrate Skeletons

Vertebrate skeletal morphology sits at the core of palaeozoology and access to well-curated reference collections is crucial for researchers working in this field.

The Ozboneviz and Fishboneviz databases provide researchers with FAIR and equitable access to high quality and metadata rich, 3D digital comparative skeletal collections.

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The Fishboneviz Project has digitised 215 skeletal elements from 26 genera of Indo-Pacific fish.

Fishboneviz uses existing high resolution computed tomography (CT) scans sourced from the oVert project in the United States.

We have developed a best practice methodology for the segmentation of irregular shaped fish cranial bones.

The 3D models can be downloaded from [MorphoSource.org](https://morphosource.org).

Scan the QR code to the right to access.

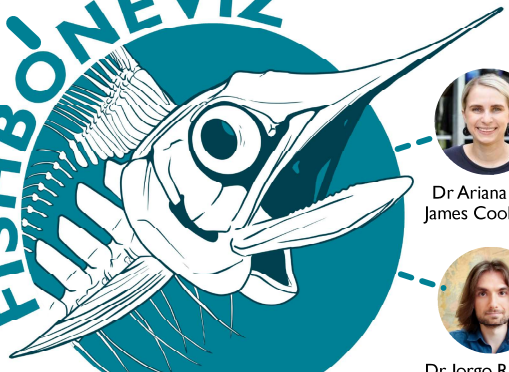
High resolution CT scans

26 Indo-Pacific Genera

215 Digital Bones



FISHBONEVIZ



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