Resource Summary Report

Generated by NIF on Apr 16, 2025

DigiMorph

RRID:SCR_004416
Type: Tool

Proper Citation

DigiMorph (RRID:SCR_004416)

Resource Information

URL: http://www.digimorph.org/

Proper Citation: DigiMorph (RRID:SCR_004416)

Description: A dynamic archive of information on digital morphology and high-resolution X-ray computed tomography of biological specimens serving imagery for more than 750 specimens contributed by almost 150 collaborating researchers from the world''s premiere natural history museums and universities. Browse through the site and see spectacular imagery and animations and details on the morphology of many representatives of the Earth''s biota. Digital Morphology, part of the National Science Foundation Digital Libraries Initiative, develops and serves unique 2D and 3D visualizations of the internal and external structure of living and extinct vertebrates, and a growing number of ''invertebrates.'' The Digital Morphology library contains nearly a terabyte of imagery of natural history specimens that are important to education and central to ongoing cutting-edge research efforts. Digital Morphology visualizations are now in use in classrooms and research labs around the world and can be seen in a growing number of museum exhibition halls. The Digital Morphology site currently presents: * QuickTime animations of complete stacks of serial CT sections * Animated 3D volumetric movies of complete specimens * Stereolithography (STL) files of 3D objects that can be viewed interactively and rapidly prototyped into scalable physical 3D objects that can be handled and studied as if they were the original specimens * Informative introductions to the scanned organisms, often written by world authorities * Pertinent bibliographic information on each specimen * Useful links * A course resource for our ''Digital Methods for Paleontology'' course, in which students learn how to generate all of the types of imagery displayed on the Digital Morphology site

Abbreviations: DigiMorph

Synonyms: Digital Morphology library, Digital Morphology

Resource Type: database, narrative resource, data or information resource, training material, image, video resource

Keywords: image archive, x-ray computed tomographic scanner, x-ray computed tomography, scientific name, common name, cladogram, dinosaur, tapir, horned lizard, endocast, bat, primate, FASEB list

Funding: NSF

Availability: The images may be used for the personal education of website visitors. Any commercial reproduction, Redistribution, Publication, Or other use of the website content, By electronic means or otherwise, Is prohibited unless pursuant to a written agreement signed by the copyright holder.

Resource Name: DigiMorph

Resource ID: SCR_004416

Alternate IDs: nlx_143746

Record Creation Time: 20220129T080224+0000

Record Last Update: 20250416T063347+0000

Ratings and Alerts

No rating or validation information has been found for DigiMorph.

No alerts have been found for DigiMorph.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 71 mentions in open access literature.

Listed below are recent publications. The full list is available at NIF.

Ledesma DT, et al. (2024) Identification of Late Pleistocene and Holocene fossil lizards from Hall's Cave (Kerr County, Texas) and a primer on morphological variation in North American lizard skulls. PloS one, 19(8), e0308714.

Clark GE, et al. (2024) The specialized inner ear labyrinth of worm-lizards (Amphisbaenia: Squamata). PloS one, 19(11), e0312086.

Young MT, et al. (2024) Skull sinuses precluded extinct crocodile relatives from cetacean-style deep diving as they transitioned from land to sea. Royal Society open science, 11(10), 241272.

Fonseca PHM, et al. (2024) New evidence from high-resolution computed microtomography of Triassic stem-mammal skulls from South America enhances discussions on turbinates before the origin of Mammaliaformes. Scientific reports, 14(1), 13817.

Maho T, et al. (2024) Exceptionally rapid tooth development and ontogenetic changes in the feeding apparatus of the Komodo dragon. PloS one, 19(2), e0295002.

Gaillard C, et al. (2023) Seeing through the eyes of the sabertooth Thylacosmilus atrox (Metatheria, Sparassodonta). Communications biology, 6(1), 257.

Ruiz JV, et al. (2023) Different, but the same: Inferring the hunting behaviour of the hypercarnivorous bush dog (Speothos venaticus) through finite element analysis. Journal of anatomy, 242(4), 553.

Perrichon G, et al. (2023) Ontogenetic variability of the intertympanic sinus distinguishes lineages within Crocodylia. Journal of anatomy, 242(6), 1096.

Martinez Q, et al. (2023) Mammalian maxilloturbinal evolution does not reflect thermal biology. Nature communications, 14(1), 4425.

Puértolas-Pascual E, et al. (2023) Neuroanatomy of the crocodylomorph Portugalosuchus azenhae from the late cretaceous of Portugal. Journal of anatomy, 242(6), 1146.

Tamagnini D, et al. (2023) Conical and sabertoothed cats as an exception to craniofacial evolutionary allometry. Scientific reports, 13(1), 13571.

Das S, et al. (2022) Cranial osteology of Hypoptophis (Aparallactinae: Atractaspididae: Caenophidia), with a discussion on the evolution of its fossorial adaptations. Journal of morphology, 283(4), 510.

Jia J, et al. (2022) Ossification patterns of the carpus and tarsus in salamanders and impacts of preaxial dominance on the fin-to-limb transition. Science advances, 8(41), eabq7669.

Williams C, et al. (2022) A review of the osteoderms of lizards (Reptilia: Squamata). Biological reviews of the Cambridge Philosophical Society, 97(1), 1.

Álvarez-Armada N, et al. (2022) Heterochrony and parallel evolution of echinoderm, hemichordate and cephalochordate internal bars. Proceedings. Biological sciences, 289(1974), 20220258.

Salomies L, et al. (2021) The developmental origins of heterodonty and acrodonty as

revealed by reptile dentitions. Science advances, 7(51), eabj7912.

Kunisch S, et al. (2021) Digital dissection of the head of the frogs Calyptocephalella gayi and Leptodactylus pentadactylus with emphasis on the feeding apparatus. Journal of anatomy, 239(2), 391.

Lafuma F, et al. (2021) Multiple evolutionary origins and losses of tooth complexity in squamates. Nature communications, 12(1), 6001.

Ganpule S, et al. (2020) Biomechanical Analysis of Woodpecker Response During Pecking Using a Two-Dimensional Computational Model. Frontiers in bioengineering and biotechnology, 8, 810.

Scheyer TM, et al. (2020) Colobops: a juvenile rhynchocephalian reptile (Lepidosauromorpha), not a diminutive archosauromorph with an unusually strong bite. Royal Society open science, 7(3), 192179.