Facultative Quadrupedalism and the Proto-Interclavicle in Tridactyls

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Abstract

Recent imaging of tridactyl tetrapod specimens from Nazca, Peru, reveals a proto-interclavicle, an ancestral bone predating bird furculae. With limb proportions and fused bones, it supports facultative quadrupedalism and the provisional clade Nagalomorpha. This study synthesizes anatomical evidence to propose a locomotor hypothesis, illuminating transitional strategies in early tetrapod evolution.

Specimen Identifier Clarification

The tridactyl specimen Victor-Victoria is referenced across reports as NA-05, Ancient0002 (neck tissue DNA), and Ancient0004 (hip muscle DNA). The Abraxas Biosystems report confirms these designations refer to the same individual (Abraxas Biosystems, 2018). This clarification ensures consistency in anatomical analyses, with molecular data secondary to this study's focus.

Introduction

As a xenoanthropologist, I present the Nazca tridactyls, real specimens with CT scan, revealing Nagalomorpha, a new tetrapod lineage with unique anatomy. The tridactyls exhibit a robust, singular midline bone in the upper thorax, ventrally positioned between the forelimbs, termed a proto-interclavicle for its resemblance to early amphibian structures (Carroll, 1988; Romer, 1956). The proto-interclavicle anchors forelimbs, supporting movement, while the urostyle, a fused tailbone, aids posture. Tridactyly denotes three-fingered limbs, and gastralia, or “abdominal ribs”. This structure predates avian furculae, suggesting a basal tetrapod affinity (Ruta et al., 2003).

CT analyses by Dr. Dmitrii V. Galetckii (2019) describe these beings as tetrapods, aligning them with early limb-bearing vertebrates: “The bones of the forearms are fused, and the wrists are immobilized” (Galetckii, 2019, p. 45). Dr. José de Jesús Zalce Benítez (2023) validated their biological integrity via radiographs, confirming no surgical alterations. CT imaging and x-rays of eggs allude to larvae with advanced forelimb development, suggestive of metamorphosis akin to amphibians (Carroll, 1988), pending histological confirmation.

This study proposes Nagalomorpha as a provisional clade of tridactyl tetrapods, characterized by tridactyly, cutaneous respiration, fused skeletal elements (urostyle, proto-interclavicle), gastralia, and likely forelimb-led development. As a potential Lazarus taxon, Nagalomorpha may bridge early amphibians, basal amniotes, and semi-aquatic tetrapods, retaining primitive skeletal strategies adapted to novel biomechanical roles.

Materials and Methods

CT scans of Josefina and Victor-Victoria were performed at 0.5 mm resolution using a Siemens SOMATOM scanner, processed with RadiAnt DICOM for anatomical assessment. Limb proportions and proto-interclavicle dimensions were measured using osteological landmarks (e.g., articulation zones) for morphometric comparison. Comparative data from early tetrapods, marine reptiles, and extant amphibians were sourced from Gauthier et al. (1988) and Benton (2015).

Results

The midline pectoral bone is a single, fused element with broad articulation surfaces, positioned where the interclavicle lies in early amphibians and marine reptiles (Ruta et al., 2003). No paired clavicles or sternum are present. The upper limbs exceed lower limb lengths (Table 1), and wrist bones are fused, limiting rotation but enhancing support. The forearm's fused structure, termed the "ulnius" by Miles (2022), reflects a morphological fusion of radius and ulna, enhancing rigidity for crawling or burrowing, as seen in DICOM models (Galetckii, 2019).

Table 1. Limb Proportions in Tridactyl Specimens

Specimen	Upper Limb Length (cm)	Lower Limb Length (cm)
Josefina	25.4	18.7
Victor-Victoria	22.8	17.2

Note: Measurements, refined from DICOM analysis (2025), confirm forelimb dominance.

Quadrupedalism

Comparative analysis based on DICOM-derived models demonstrates crouched and crawling stances, with the proto-interclavicle and ulnius supporting forelimb-driven locomotion. CT images confirm thoracic bracing, suggesting habitual forelimb weight-loading (Galetckii, 2019). The ulnius limits rotation but enhances rigidity, supporting brace-based or crawling gaits, as seen in salamanders and fossorial reptiles (Miles, 2022).

The relatively long upper limbs, fused wrists, and absent ball-and-socket shoulder joints indicate limited rotational mobility, suggesting a forelimb-dominant strategy. Facultative quadrupedalism likely occurred during early development, environmental navigation, or behaviors like burrowing, with the proto-interclavicle stabilizing the thorax. No prior literature explicitly proposed quadrupedalism, though Miles (2022) noted limb proportions and fused bones. This study first synthesizes these into a locomotor hypothesis, with the proto-interclavicle as a keystone.

Discussion

The proto-interclavicle mirrors basal tetrapod interclavicles, functioning like a turtle's plastron or plesiosaur's coracoids to stabilize the thorax and anchor limb musculature (Coates & Ruta, 2007). In amphibians, forelimbs develop before hindlimbs (Carroll, 1988), and the proto-interclavicle likely served as a muscular anchor during early limb coordination in tridactyls. The term "proto-buckler" captures its structural and evolutionary role. Josefina and Victor-Victoria exhibit consistent proto-interclavicle, ulnius, and urostyle morphology suggesting diverse adaptations within Nagalomorpha that merit further study. Additional comparative analyses (e.g., with lissamphibians) could refine Nagalomorpha's phylogenetic position.

Conclusion

Nagalomorpha is a provisional clade, supported by DICOM evidence from Josefina and Victor-Victoria, with proto-interclavicle, urostyle, and facultative quadrupedalism indicating a basal tetrapod lineage. The absence of a coccyx and the presence of a urostyle structure functionally consistent with a urostyle support posture and locomotor hypotheses. The urostyle, proposed by Casas (2025) for its anuran-like structure, supports posture, pending independent confirmation of sacral fusion. Thoracic bracing and forelimb-driven locomotion predate modern amphibians, reptiles, and amniotes. The evidence specifies that the furcula is better classified as a proto-interclavicle, highlighting its role in quadrupedalism. Further DICOM-based research could refine Nagalomorpha's taxonomic rank and illuminate tetrapod evolution.

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Resources

CT scan data from the Nazca Tridactyl Research Team, accessible via https://the-alien-project.com, corroborated by Galetckii (2019).

Anatomical imaging: Galetckii, D. V. (2019).

Forensic validation: Zalce Benítez, J. J. (2023).

Comparative osteology: Benton (2015), Romer (1956).

Keywords

Tridactyl morphology, proto-interclavicle, facultative quadrupedalism, urostyle, Nagalomorpha, midline skeletal bracing, fused forearm bones, cutaneous respiration, gastralia, basal tetrapods, amphibian-grade development, proto-buckler, pectoral girdle evolution, limb-driven locomotion.