

Perspective

Head-Butting Might be the Key to Early Giraffe Neck Evolution

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Scientists finally found a key driving element in the early giraffe neck evolution mystery, by observing the strange fossils of giraffoids.

For a long, the majority of people believe that neck elongation in giraffes is due to the high foliage, but recently upon close observation, it was found that a long neck also has another vital purpose, which is to serve as a weapon during male courtship competition, this could be the right answer to this endless question.

A giraffe's longer, swaying neck allows it to hurl its large skull, equipped with osteomas and ossicones, at its competition's weak spots. Longer necks cause more damage.

In this study, horn morphology was examined in giraffoids, cattle, sheep, deer, and pronghorns. In comparison to other ruminants, giraffes have a greater diversity of horns, indicating a greater intensity and variety of courtship struggles than other ruminants.

As a result of their elongation, Giraffa was well-suited to feeding on high foliage. Yet, compared to bovids and cervids, their ecological status was necessarily less secure. Because Giraffa inhabits a marginal ecological niche, it may have induced intense intraspecific competition, which then resulted in morphological evolution.

KEYWORDS

Giraffe, evolutionary biology, evolution, fossils, evolutionary developmental biology, adaptive evolution

