

GENASAURS

ANATOMICAL CHARACTERISTICS Very variable. Head large, heavily constructed, back of head broad, forms at least incipient crest, beaks narrow, eyes not very large. Tail long to fairly short. Fully bipedal to quadrupedal, arms and legs flexed and able to run. Fingers five to three, tipped with small blunt claws or hooves. Leg not gracile so speed potential moderate, four long toes.

HABITS Low- to medium-level browsers. Defense included running and aggressive combat.

PACHYCEPHALOSAURIDS

SMALL TO LARGE MARGINOCEPHALIANS OF THE CRETACEOUS OF THE NORTHERN HEMISPHERE.

ANATOMICAL CHARACTERISTICS Fairly uniform. Head deep, massively constructed, beak small, skull roof thickened, may be domed in all adults, dome may be better developed in males in at least some species; adorned with rows of small hornlets, main tooth rows short, teeth small. Vertebrae heavily constructed. Trunk fairly long. Belly, hips, and base of tail very broad to accommodate enlarged belly. Tail long, base sweeps down from hips, last two thirds stiffened by a dense basket-weave lattice of ossified tendons. Fully bipedal. Arm and hand small, five grasping fingers tipped with small blunt claws. Four long toes tipped with blunt claws.

HABITAT Variable, from semiarid to well-watered forests.
HABITS Defense included running and possible head butting. Competing males may have engaged and used domes for competitive displays. May have butted flanks of competitors and predators, high speed head-to-head butting unlikely because of lack of a broad impact surface that provides stability.

NOTES Pachycephalosaurs are usually segregated into two flat-headed and dome-headed groups, but it is probable that the former are immature examples of a dome-headed group, or females.

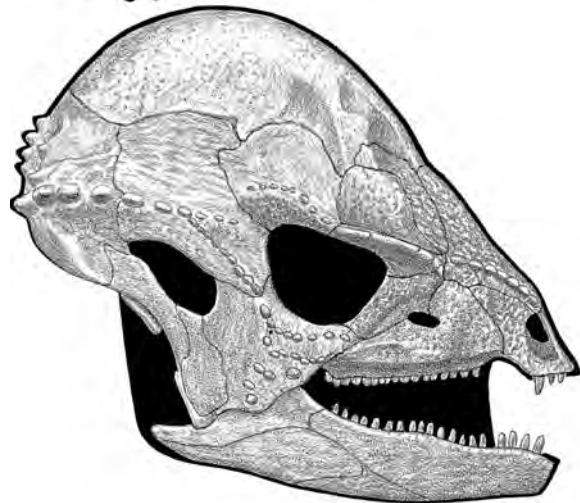
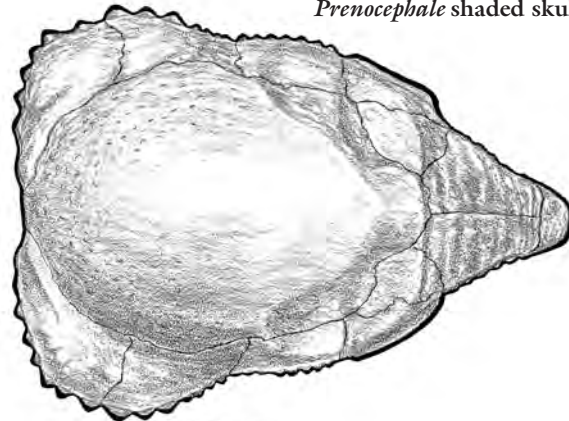
Stenopelix valdensis

1.4 m (4.5 ft) TL, 10 kg (20 lb)

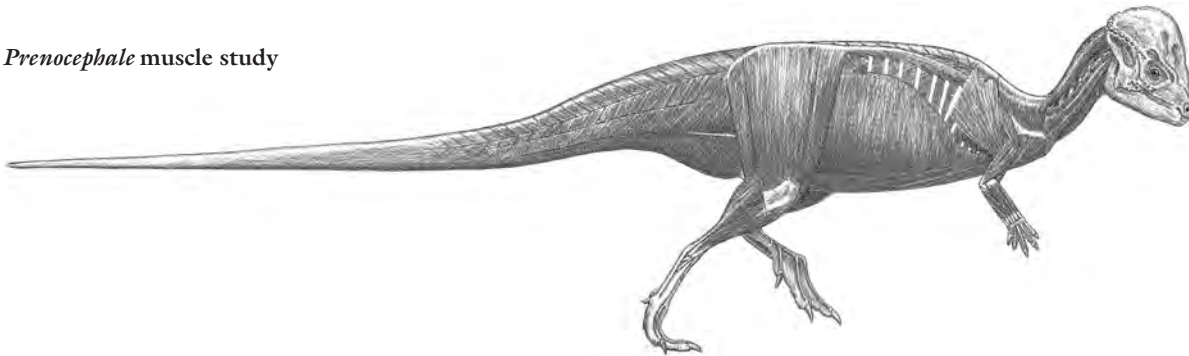
FOSSIL REMAINS Majority of skeleton.

ANATOMICAL CHARACTERISTICS Tail base not as broad as other pachycephalosaurs.

Prenocephale shaded skull



Prenocephale muscle study



ORNITHISCHIANS

AGE Early Cretaceous, Berriasian.
DISTRIBUTION AND FORMATION Central Germany;
Obernkirchen Sandstein.

Wannanosaurus yansiensis

Adult size not certain

FOSSIL REMAINS Majority of skull and minority of skeleton, probably immature.

ANATOMICAL CHARACTERISTICS Insufficient information.

AGE Late Cretaceous, Campanian.

DISTRIBUTION AND FORMATION Eastern China; Xiaoyan.

NOTES Probably an immature specimen.

Stegoceras? brevis

1.5 m (5 ft) TL, 10 kg (20 lb)

FOSSIL REMAINS Skull domes.

ANATOMICAL CHARACTERISTICS Head not heavily adorned.

AGE Late Cretaceous, Early and/or Middle Campanian.

DISTRIBUTION AND FORMATIONS Alberta; Oldman, possibly Foremost.

HABITAT Well-watered, forested floodplain with coastal swamps and marshes, cool winters.

NOTES May include *Colepiocephale lambei*.

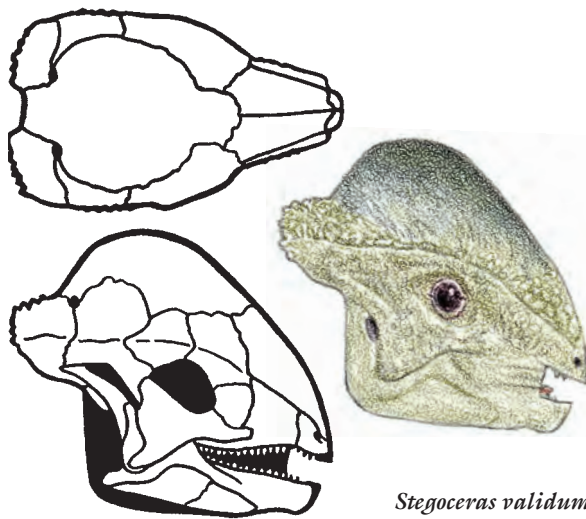
Stegoceras validum

2.2 m (7 ft) TL, 40 kg (80 lb)

FOSSIL REMAINS Skull domes, possibly complete skull and minority of skeleton.

ANATOMICAL CHARACTERISTICS Head not heavily adorned.

AGE Late Cretaceous, Late Campanian.



Stegoceras validum

DISTRIBUTION AND FORMATION Alberta; Dinosaur Park.

HABITAT Well-watered, forested floodplain with coastal swamps and marshes, cool winters.

NOTES Based on inadequate remains, and level of many specimens not certain; it is possible that more than one species existed, may include *Hanssuesia sternbergi*, probably not present earlier or later than Dinosaur Park Formation.

Stegoceras? edmontonensis

2 m (6.5 ft) TL, 40 kg (80 lb)

FOSSIL REMAINS Skull domes.

ANATOMICAL CHARACTERISTICS Head not heavily adorned.

AGE Late Cretaceous, Early Maastrichtian.

DISTRIBUTION AND FORMATION Alberta; Horseshoe Canyon.

HABITAT Well-watered, forested floodplain with coastal swamps and marshes, cool winters.

Goyocephale (or Stegoceras) lattimorei

Adult size not certain

FOSSIL REMAINS Partial skull and skeleton.

ANATOMICAL CHARACTERISTICS Standard for homalocephalids.

AGE Late Cretaceous, Late Santonian and/or Early Campanian.

DISTRIBUTION AND FORMATION Mongolia; unnamed.

HABITAT Well-watered woodland with seasonal rain.

Tylocephale (or Stegoceras) gilmorei

2 m (6.5 ft) TL, 40 kg (80 lb)

FOSSIL REMAINS Partial skull.

ANATOMICAL CHARACTERISTICS Insufficient information.

AGE Late Cretaceous, Santonian or Campanian.

DISTRIBUTION AND FORMATION Mongolia; Baruungoyot.

HABITAT Semidesert with some dunes and oases.

NOTES Shared its habitat with *Ceratonykus* and *Bagaceratops*.

Prenocephale (or Stegoceras) prenes

2.2 m (7 ft) TL, 40 kg (80 lb)

FOSSIL REMAINS Complete skull with minority of skeleton.

ANATOMICAL CHARACTERISTICS Head not heavily adorned.

AGE Late Cretaceous, Late Campanian and/or Early Maastrichtian.

DISTRIBUTION AND FORMATION Mongolia; Nemegt.

HABITAT Well-watered woodland with seasonal rain.