

Fig. 1. Cranium and left mandible of *Canis*. A, dorsal view; B, ventral view; C, left lateral view. See page 7 for key to features (modified after DeBlase and Martin, 1981).

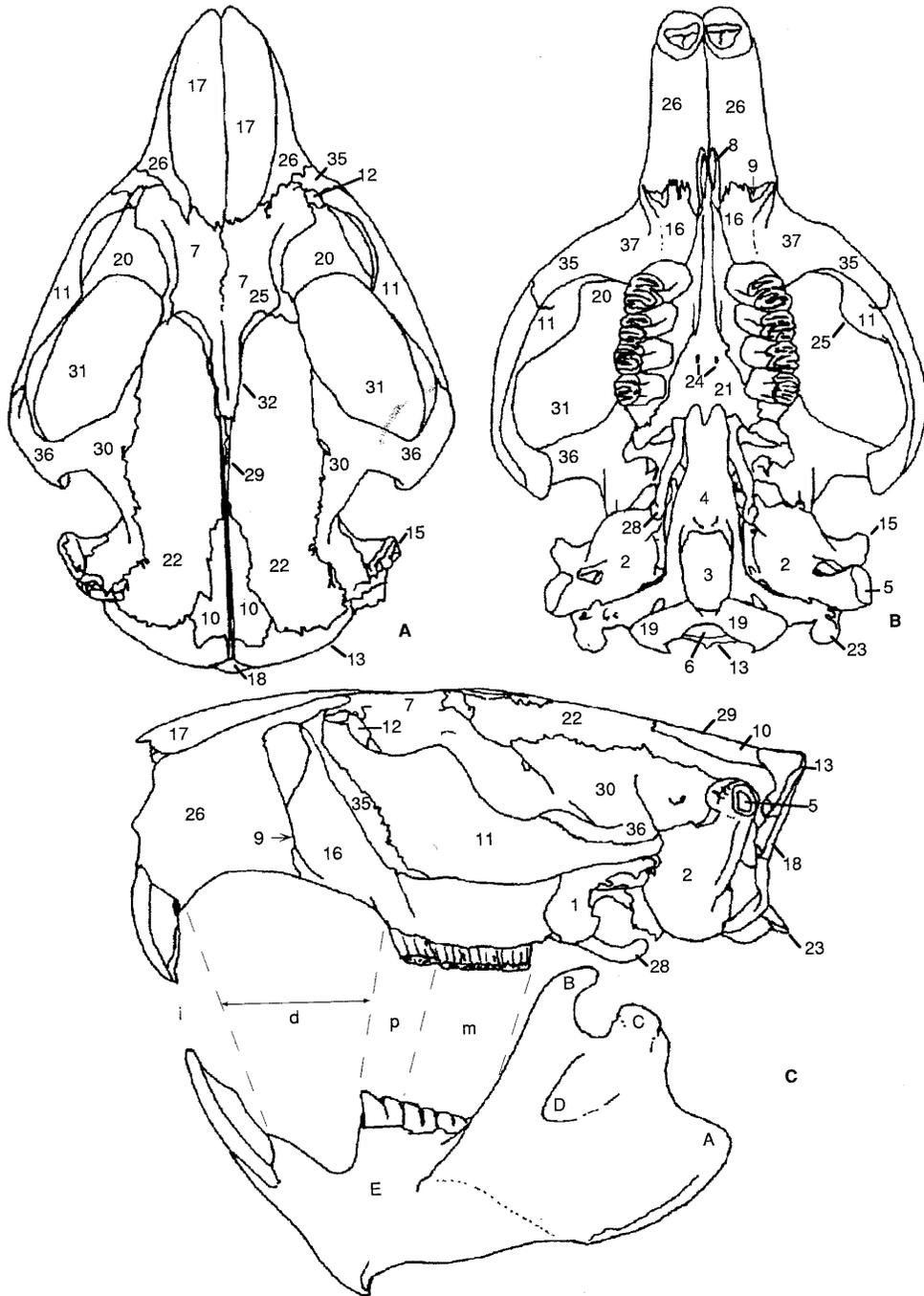


Fig. 2. Cranium and left mandible of Castor. A, dorsal view; B, ventral view; C, left lateral view. See page 7 for key to features.

Major cranial structures (numbers correspond with diagrams):

- | | | |
|----------------------|------------------------------------|-------------------------|
| 1) alisphenoid | 2) auditory (tympanic) bullae | 3) basioccipital |
| 4) basisphenoid | 5) external auditory meatus | 6) foramen magnum |
| 7) frontal | 8) incisive foramen | 9) infraorbital canal |
| 10) interparietal | 11) jugal | 12) lacrimal |
| 14) mandibular fossa | 16) maxilla | 17) nasal |
| 18) occipital | 19) occipital condyle | 20) orbit |
| 21) palatine | 22) parietal | 25) postorbital process |
| 26) premaxilla | 27) presphenoid | 28) pterygoid |
| 29) sagittal crest | 30) squamosal | 32) temporal ridge |
| 34) zygomatic arch | 36) zygomatic process of squamosal | |

Major mandibular structures and dentition (letters correspond with diagrams):

- | | | | |
|-----------------------|-------------|--------------|-----------|
| A) angular process | i) incisors | d) diastema | m) molars |
| C) mandibular condyle | c) canines | p) premolars | |

Useful Terms

orientation

anterior = toward the head or forward projecting
posterior = toward the tail or backward projecting
medial = toward the middle
dorsal = top side
ventral = bottom side
lateral = sides (between dorsum and venter)
proximal/proximate = near or close to
distal/distant = far from

structures

bullae (pl. bullae) = a round vesicle or chamber
condyle = a round bump on a bone that, together with another bone, forms a joint
cusp = a protrusion from the crown of a tooth
diastema = a gap between teeth found in many rodents and ungulates
fenestra (pl. fenestrae) = a small opening or perforation, typically occurring as a group
fossa (pl. fossae) = a depression or trough
foramen (pl. foramina) = a perforation through which a blood vessel or nerve passes
meatus = an opening or passage, similar to a canal
process = a projection or bump, differs from a condyle in not being rounded
suture = a line of union between bones, particularly useful for differentiating structures

common prefixes, suffixes, and roots

audit = pertaining to the ear or hearing
carn = pertaining to meat
derm = pertaining to skin
dont = pertaining to teeth
infra = below
inter = between
mus/mys = Latin/Greek for "mouse"
olf = pertaining to the nose or sense of smell
orbit = pertaining to the eye or sight
pre = in front of or before
post = in back of or behind
supra = above, usually with respect to space
ultra = above, usually with regard to sound or vision (e.g., ultrasonic)