

**Article XI. — A NEW SPECIES OF FOSSIL EDENTATE
FROM THE SANTA CRUZ FORMATION OF
PATAGONIA.**

By BARNUM BROWN.

In the autumn of 1898 the American Museum of Natural History made arrangements with the Princeton University Museum for the writer to accompany the third expedition to Patagonia, under the leadership of Mr. J. B. Hatcher. The expenses of this trip were largely defrayed by Professor Henry Fairfield Osborn.

A large collection, comprising nine nearly complete skeletons and nearly a hundred skulls with skeletal material, was secured by the writer from exposures on the Rio Gallegos, on the seashore south of Rio Coy, and from the bluffs along the coast south of Rio Santa Cruz. This material represents most of the families that lived in such great numbers during the Santa Cruz period, and contains several new species.

By previous arrangement with Professor Scott and Mr. Hatcher, the portion of this material belonging to species already known will be described in the Princeton memoirs, while the new species will be described in the American Museum Bulletin.

***Eucinepeltus complicatus*, nov. sp.**

This species is founded on an adult skull with cephalic shield, No. 9248 of the collection of the American Museum of Natural History. The type was found in the talus of cliffs on Rio Gallegos, near Mr. Felton's residence.

Comparison with the type of the genus, *Eucinepeltus petesatus*, has been possible through the kindness of Professor W. B. Scott, the advance sheets of whose memoir I have examined.

It differs from the type of the genus in the following characters:

	<i>Eucinepeltus petesatus.</i>	<i>Eucinepeltus complicatus.</i>
Pattern of teeth:	1st to 3rd non-lobate.	1st to 3rd-lobate.
Cephalic shield:	9 plates, not all pitted.	11 plates, all pitted.

The cephalic shield is composed of eleven plates in four rows, arranged in the following order from the anterior to the posterior end: 2 in the first, 3 in the second, 4 in the third, and 2 in the fourth rows. Each plate has a central pit which is of pronounced character in the two median plates of the third row. These pits have a circular shape, with raised margin, very rugose sides, and a small cone at the bottom of the pit.

The sutural borders present a prominent ridge, very rugose, with deep paired holes on either side of ridge, excepting the sutures separating the four posterior median plates which are well defined, but do not show raised edge or holes.

The outline of the shield is not as circular as in *E. petesatus*, and the border is more distinctly emarginated at the junction of the first and the second rows. The plates in the first row, also the median plates of the second row, in the present species are smaller than in *E. petesatus*, while the four posterior median plates are relatively larger.

The teeth differ from those of *E. petesatus*, especially in the anterior part of the jaw. The first molar is rather large, of elliptical contour, though the grinding surface is broken away, set obliquely to the dental series so that the anterior teeth of the two rows approach each other more closely than any of the following teeth. M^2 is larger, less elliptical, and obscurely trilobate, only one internal groove being prominent, with faint indication of posterior internal and external grooves. M^3 is much larger and more distinctly trilobate internally. M^4 is distinctly trilobate, the lobes separated by deep sulci; the anterior lobe in each tooth showing a groove on the anterior face near the external border. M^{5-8} are of the same pattern as M^4 .

Most of the sutures are obliterated, so that little can be said of the cranial bones or of their proportions. The cranium is broad and depressed. The forehead is flattened and very wide, ending in a distinct postorbital process. The rostrum is very broad at the base, narrowing rapidly to the narial opening. The muzzle is heart-shaped. The zygomatic arch extends out widely from the skull and is very deep, with

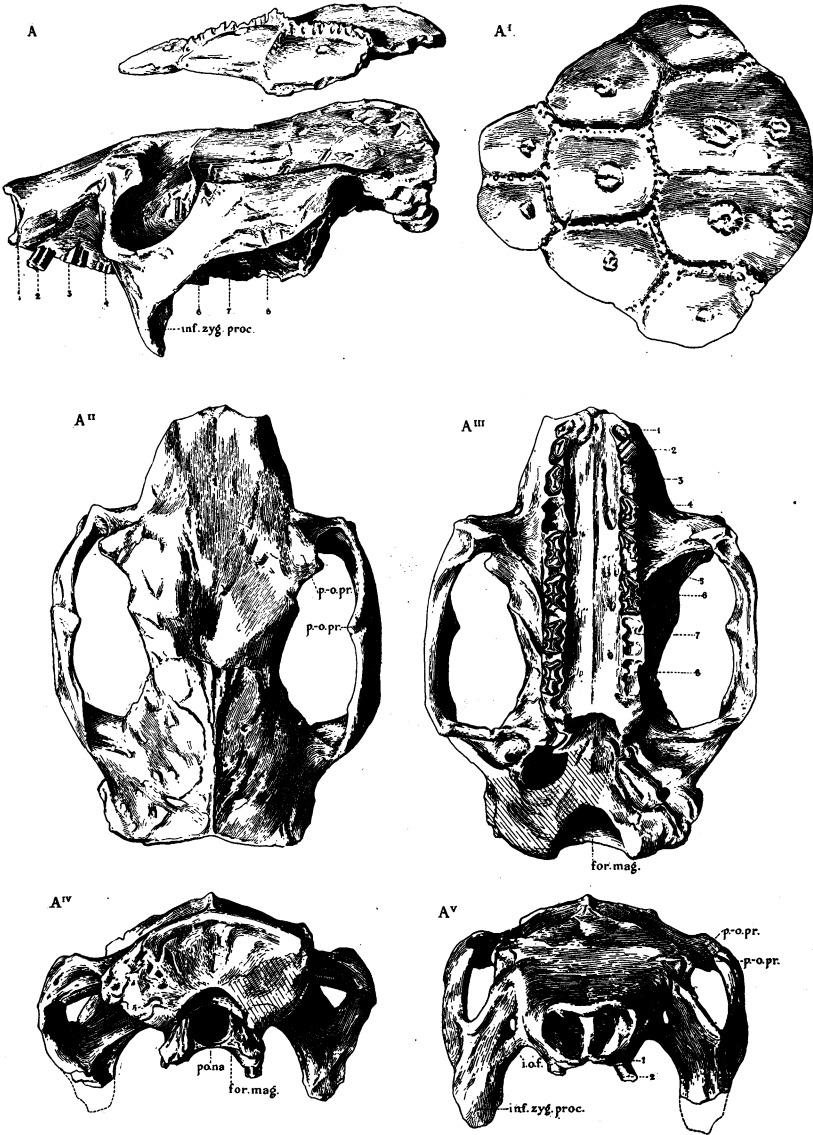


Fig. 1. *Euclipeptus complicatus*. Type skull and casque. (No. 9248.) $\times \frac{1}{3}$.

prominent postorbital process. The descending process is triangular at the base. The parietals are very rugose, pitted with large foramina, gently convex transversely and longitudinally. The sagittal crest is prominent. The lambdoidal

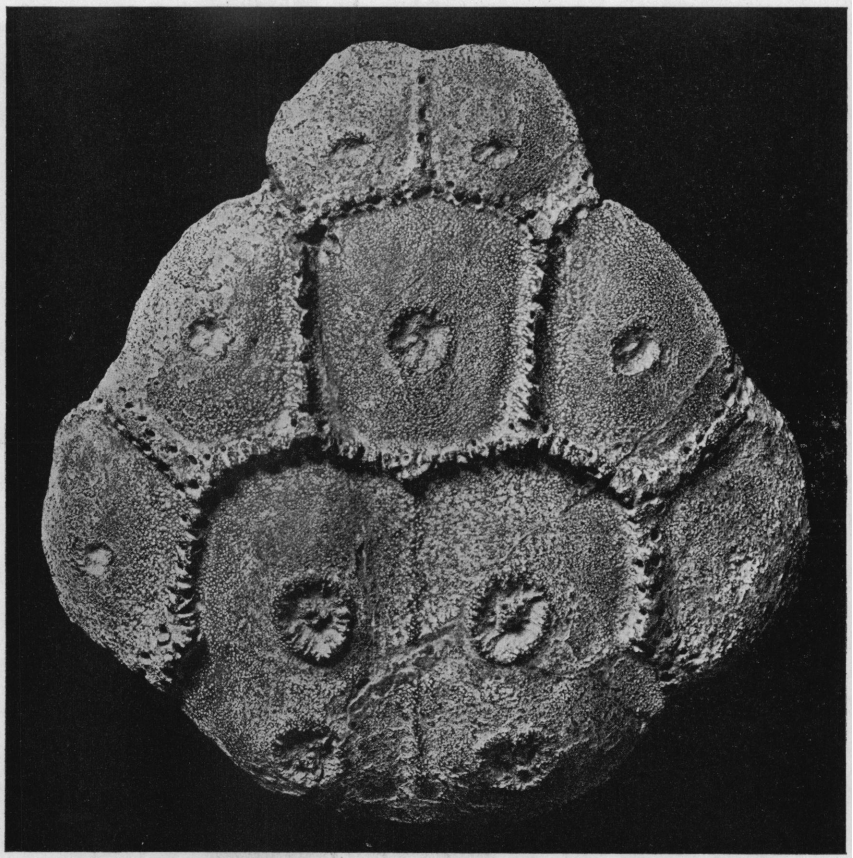


Fig. 2. *Encinepeltus complicatus*. Type casque. (No. 9248.) $\times \frac{2}{3}$.

crest extends out over the occipital plane in a heavy ridge, curving in to join the sagittal crest. The occiput is about half as high as wide; deeply incised for foramen magnum. The bony palate is perforated by numerous large foramina,

with a large foramen opposite the posterior of M⁴. This foramen leads into a deep canal, extending forward nearly to the premaxillary. The palate is straighter than in *Propalæohoplophorus australis*, and forms with the superior line of the skull a more acute angle than in the last named genus.

Measurements.

Cephalic shield: length in median line.....130 mm.
 " " greatest width..... 133

Teeth.

M ¹	Length.....	8 mm.	width.....	4 mm.
M ²	"	9	"	5
M ³	"	12	"	6.6
M ⁴	"	13	"	7
M ⁵	"	15	"	7
M ⁶	"	15	"	7.8
M ⁷	"	14.4	"	7.8
M ⁸	"	14	"	7.8

Upper dental series, length.....	109 mm.
Skull, extreme length.....	176
" length of median basal line.....	156
" " occ. condyle to anterior end of premaxillary...	175
Cranium, length to anterior rim of orbit.....	125
" width behind zygomatic arches.....	102
Skull, maximum width over zygomatic arches.....	135
Occiput, height vertically.....	48
" width.....	89
Zygoma, extreme length inside.....	77
" maximum vertical diameter.....	28
" length of descending process.....	45
" breadth " "	20.5
Palate, length in median line.....	117
" width at M ¹	14
" " at M ⁸	25
Rostrum, length.....	43
" width at base.....	63
" " at anterior end.....	41
Cranium, width at postorbital constriction..	49
Face, length.....	53
Forehead, width across postorbital process.....	91

