

Measurements of transverse series of scutes.

| | M. |
|--|------|
| Height of apex of median keel above the level..... | ·190 |
| Height of centre of inner surface of arch above the level..... | ·125 |
| Width of inner spread of arch below..... | ·236 |
| Average height of apices of keels above inner surface of arch..... | ·072 |
| Basal breadth of the scutes (Nos. 2 and 4) on either side of the median one... | ·075 |
| Basal length of same..... | ·143 |
| Thickness of bone on which the scutes rest, about..... | ·010 |

Belly River series, Red Deer river, 1897.

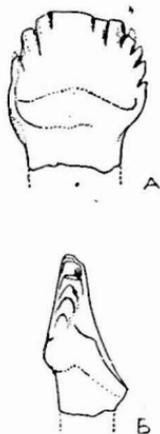


FIG. 12.—*Stereocephalus tutus*. Tooth, from Red Deer river, A, side view; B, end view. Twice the natural size. (Provisionally associated with *S. tutus*.)

The tooth shown in fig. 12, is of the *Stegosaurian* type. It differs from those, of the Red Deer river district, referred to the two species of *Palæoscincus*, and is about twice as large as those of *P. costatus*. It is figured here with the idea that it may eventually prove to belong to *S. tutus*. It was collected below Berry creek, on Red Deer river, in 1901.

A spinous dermal plate of massive proportions, fig. 13, A and B, is referred to this species on account of its similarity, in structure and surface markings, to the postcranial keeled scutes described above. This specimen was collected in 1897. Another large plate similar in general proportions to the above and nearly as large, as well as numerous others of different sizes and of a variety of shapes, were collected in 1901.

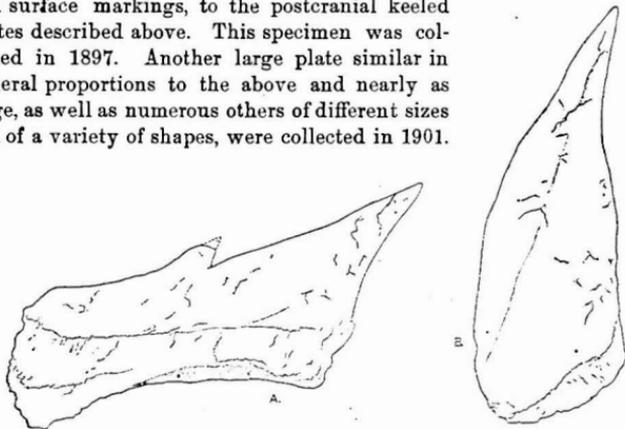


FIG. 13.—*Stereocephalus tutus*. Dermal plate from Red Deer river; one-sixth the natural size. A, side view; B, view from above. (Provisionally associated with *S. tutus*.)

CERATOPSIDÆ.

MONOCLONIUS, Cope.

MONOCLONIUS DAWSONI. Sp. nov.

Plate XVI, plate XIX, figs. 4-6, and plate XX, figs. 3 and 4.

The remains of an apparently undescribed species of this genus, consisting of the skull of one individual and the posterior crest of another, are of especial interest. The

skull when found lay on its right side and although very much crushed, certain parts of it supply definite information as to its structure and size. The two orbits, the right maxilla, a quadrate and the occipital condyle were conspicuous and apparently in place, with a large posterior crest extending to the rear. Somewhat in advance of the orbits a horn core, of large size and apparently symmetrical form, occupied a position suggestive of a nasal origin, the nasal bones and the frontals being probably represented by the fragments filling the space between the orbit and the horn core (see fig. 14, from a measured drawing made before the parts of the skull were removed).

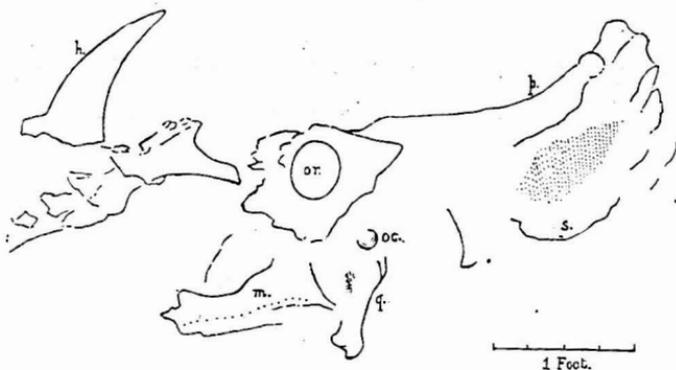


FIG. 14.—Head of *Monoclonius dawsoni*, from a sketch in the field; one-twelfth the natural size. *p*, parietal; *or*, orbit; *oc*, occipital condyle; *q*, quadrate; *m*, maxilla (inner side, showing a row of foramina); *h*, horn core; *s*, squamosal.

The large posterior crest forms the back part of the skull above; its exact shape is fortunately supplied by the admirably preserved specimen shown in outline, from beneath, in fig. 15. The surface of the bone, above the orbit and from there inward for a short distance toward the median line of the skull, is moderately smooth and shows no trace of a horn core.

With the separate posterior crest was found a horn core, similar in shape to, although not as well preserved as, the one belonging to the skull.

The posterior crest is composed of the parietals and squamosals coalesced. The former are represented by a flat, thin, smooth median portion that expands laterally both in front and behind; anteriorly it is deeply concave below and broadly convex above but posteriorly it thickens gradually and dividing to either side is continued forward as the squamosals in a broad curve to meet the anterior expansion. On either side of the median element is included a large supratemporal vacuity or fontanelle.

The posterior crest is somewhat saddle-shaped. Its sides are wavy, with a slight thickening of the bone in the posterior five of the seven corresponding convexities of the periphery, whilst a pair of inwardly directed spurs of bone, with their points turned slightly downward, are developed on its posterior border, one on each side of the median line. The intervacuital element is thickened along its median length and a more decided strengthening of the bone occurs along the posterior border, resembling in this respect

the corresponding part of *Monoclonius belli*, described further on. In all other parts of the crest the bone is thin, more particularly near and at the margin of the fontanelles

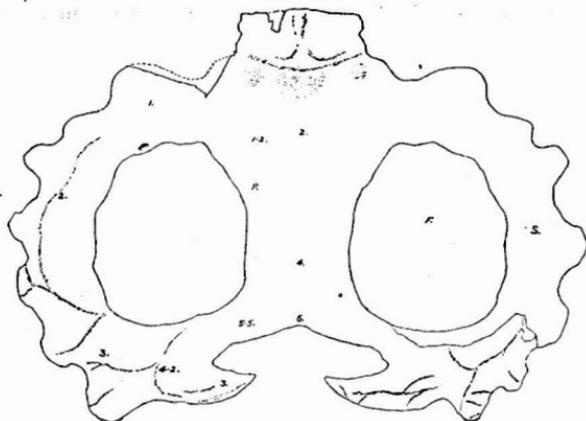


FIG. 15.—Posterior crest of *Monoclonius dawsoni*, viewed from beneath; slightly less than one-eighth natural size. The numbers give the thickness of the bone, in centimetres, at the points indicated. P, parietal; S, squamosal; F, fontanelle.

whilst along the sinuous curves of the sides the edge is sharp except in the emarginations where it is rounded. Vascular markings occur on both surfaces, more particularly on the peripheral projections.

Measurements.

| | M. |
|--|------|
| Height of orbit..... | ·110 |
| Width of orbit..... | ·095 |
| Height of horn core..... | ·331 |
| Circumference at base of horn core..... | ·343 |
| Antero-posterior diameter of base of same..... | ·135 |
| Transverse diameter of base of same..... | ·092 |
| Diameter of occipital condyle..... | ·060 |
| Length of maxilla..... approx..... | ·350 |
| Height of same..... approx..... | ·120 |
| Long diameter of lower face of quadrate..... | ·080 |
| Short diameter of lower face of quadrate..... | ·036 |

Posterior crest

| | |
|--|-------|
| Extreme length from anterior end of specimen (imperfect), medially, to line touching posterior edges of specimen on either side..... | ·616 |
| Length on median line from anterior end to posterior border..... | ·486 |
| Semi-breadth of specimen on curve of under surface..... | ·470 |
| Semi-breadth of specimen horizontally..... | ·439 |
| Vertical drop of lateral edge of specimen below median line of under surface at mid-length..... | ·157 |
| Antero-posterior diameter of fontanelle..... | ·296 |
| Transverse diameter of fontanelle..... | ·248 |
| Circumference of base of left posterior spur..... | ·172. |

The skull and the posterior crest were collected on Red Deer river in 1901.

With this species are provisionally associated, a scapula and coracoid, a sacrum, an ilium, a rostral bone and a prementary bone, described or referred to in the next succeeding pages.

The scapula with coracoid is figured on plate XIX., fig. 4, viewed from its inner side.

The scapula is long and narrow, slightly concave inward in the direction of its length, stout below, thinning rapidly upward, upper end terminating squarely, breadth decreasing toward mid-length, slightly expanded above, front margin thin, back margin broad below, narrowing to its mid-length then continuing thin upward. A rounded ridge extends upward, on the outer surface, diagonally across from the upper end of the glenoid cavity to the front margin continuing as a decided thickening of the front margin above.

The coracoid is broader than high, emarginated below the glenoid cavity and produced backward below, lower border turned inward, inner surface decidedly concave, back border at emargination thick, border elsewhere rather thin, rounded. Foramen traversing thickness of upper part, directed obliquely downward and outward, with an enlarged outer opening. A small foramen occurs, below the glenoid cavity, in the emargination of the posterior border. Glenoid cavity higher than broad, its curve forming almost a semicircle.

In the specimen figured, the coracoid was probably firmly united with the scapula, the suture between them, extending from the mid-height of the glenoid cavity forward, being only slightly indicated. The union of the two bones may be regarded as an evidence of age in the individual.

The left scapula and coracoid from the Red Deer river district, so similar, in most respects, to that of *Triceratops prorsus*, Marsh, as figured in the Sixteenth Report of the United States Geological Survey, differs in one important particular, viz., in having the lower border of the coracoid turned inward instead of outward.

Measurements of scapula and coracoid.

| | M. |
|--|------|
| Scapula with coracoid (left). Cat. No. 506. | |
| Extreme length of scapula with coracoid in line with back edge of shaft. | .879 |
| Length of scapula | .711 |
| Length across glenoid cavity | .150 |
| Length of glenoid cavity, along curve | .204 |
| Breadth of glenoid cavity at suture between scapula and coracoid | .078 |
| Breadth of glenoid cavity near either end | .096 |
| Breadth of scapula at junction with coracoid; inner surface | .175 |
| Breadth of scapula at junction with coracoid; outer surface | .149 |
| Breadth of scapula at upper end of glenoid cavity | .238 |
| Breadth of scapula at mid-length | .113 |
| Breadth of scapula at upper end | .184 |
| Breadth of coracoid at lower end of glenoid cavity | .223 |
| Thickness of scapula at upper end near front border | .025 |
| Thickness on base of ridge above upper end of glenoid cavity | .060 |

| | |
|--|------|
| Thickness at lower end of glenoid cavity | ·060 |
| Thickness of coracoid in concavity below foramen | ·020 |
| Width of foramen; inner end | ·014 |
| Height of same; inner end | ·030 |
| Width of same; outer end | ·025 |
| Height of same; outer end | ·040 |

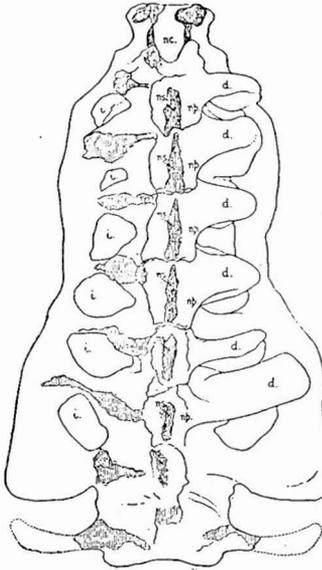


FIG. 16.—Sacrum provisionally associated with *Monoclonius dausoni*, less than one-seventh the natural size; superior view.

is this the case with the second and third centra. The distance of the iliac facet from the median, longitudinal line of the sacrum, dependent on the length of the transverse processes and the breadth of the centra, is much greater posteriorly than in front; in its anterior half the facet is directed obliquely downward, possibly with some exaggeration due to distortion in the specimen. The iliac bar at its mid-length bends inward but finally reaches the first vertebra by a convex curve. Seen from the side, the iliac bar is horizontal throughout its length with the exception of an upward bend posteriorly. Diapophyses spring from the neural arches above and are connected along the length of their lower edges with the transverse processes. Proximally the superior surfaces of the diapophyses are expanded laterally so as to form a neural platform, the component parts of which are not coössified. The prezygapophyses remain distinct from the postzygapophyses.

The specimen has been somewhat crushed in a vertical direction. The diapophyses have acted as wedges and have forced apart the halves of the transverse processes near their basal origin. In figure 17, p. 62, the diapophyses are restored to their supposed

The sacrum plate XVI, figs. 1 and 2, is composed of nine coössified vertebrae, of which seven are true sacrals, the anterior one being a lumbo-sacral and the ninth a caudo-sacral. Viewed from above its general outline is seen to be somewhat triangular, the apex of the triangle pointing forward.

The vertebrae have smooth concave sides and under surfaces and are swollen, where they coalesce, so as to form a prominent angularity marking the line of union. The lower surfaces of the last five vertebrae are fluted by a deep, median, longitudinal groove that extends from the mid-length of the fifth vertebra backward to its termination in the ninth, the groove being most pronounced at the vertebral junctions. The first eight vertebrae give off seven transverse, intervertebral processes that coalesce distally so as to produce a strong bar whose outer surface forms the iliac facet. Six openings are thus left between the iliac bar, the vertebral centra and the transverse processes. The posterior vertebra gives off a simple transverse process. The junctions of the second centrum with the third, the sixth with the seventh, and the seventh with the eighth are greatly enlarged by the increased downward extension, at these points, of the neurapophyses from which the transverse processes spring; particularly

proper positions and the neural spines, whose bases are well preserved, are indicated, by dotted lines, of a length equal to that of a spine of a second sacrum of this species, measured in the field. The diapophyses are apparently not long* enough to effect a union

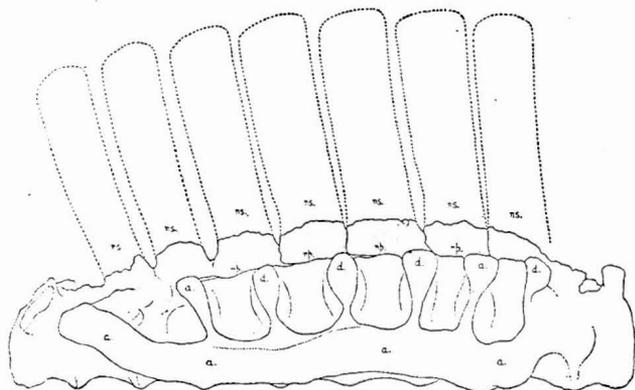


FIG. 17.—The same sacrum; right lateral aspect; about one-seventh the natural size, *a, a*, facet for ilium; *d*, diapophysis; *np*, neural platform; *ns*, neural spine; *i*, interspace.

with the ilium. It is possible that the concave part of the iliac facet entered into the formation of the acetabulum. The articular face of the first vertebra is slightly broader than high but in the face of the last vertebra the excess of breadth over the height is much more apparent; the anterior vertebral face is plane, the posterior one is flat vertically but concave transversely. Viewed from the side, the sacrum is moderately arched above but flat below.

Measurements of sacrum.

| | M. |
|---|------|
| Extreme length of sacrum ($30\frac{2}{3}$ inches)..... | .766 |
| Basal length of 1st vertebra.....* | .084 |
| “ “ 2nd “..... | .102 |
| “ “ 3rd “..... | .085 |
| “ “ 4th “..... | .092 |
| “ “ 5th “..... | .086 |
| “ “ 6th “..... | .088 |
| “ “ 7th “..... | .088 |
| “ “ 8th “..... | .078 |
| “ “ 9th “..... | .063 |
| Height of articular face of 1st vertebra..... | .110 |
| Breadth of same..... | .123 |
| Height of articular face of 9th vertebra..... | .108 |
| Breadth of same..... | .150 |

* The apparent shortness of the diapophyses may be due in a great measure to the downward crushing to which the specimen has been subjected.

| | |
|---|-----|
| Antero-posterior diameter of base of neural spine of 2nd vertebra..... | 076 |
| “ “ “ “ “ “ 3rd “ | 081 |
| “ “ “ “ “ “ 4th “ | 092 |
| “ “ “ “ “ “ 5th “ | 085 |
| “ “ “ “ “ “ 6th “ | 077 |
| “ “ “ “ “ “ 7th “ | 070 |
| Length of iliac face along its curves..... | 558 |
| “ “ “ “ in a straight line..... | 533 |
| Breadth of same at its anterior end..... | 075 |
| “ “ “ mid-length..... | 056 |
| “ “ “ posterior end..... | 045 |
| Breadth of 1st vertebra at mid-height of its concave sides..... | 103 |
| “ 2nd “ “ “ “ | 096 |
| “ 3rd “ “ “ “ | 079 |
| “ 4th “ “ “ “ | 072 |
| “ 5th “ “ “ “ | 073 |
| “ 6th “ “ “ “ | 088 |
| “ 7th “ “ “ “ | 150 |
| Breadth at junction of 8th with 9th vertebra..... | 187 |
| Distance from centre of neural canal to distal end of diapophysis of 2nd vertebra..... | 118 |
| Distance to same of 3rd vertebra..... | 115 |
| “ “ 4th “ | 112 |
| “ “ 5th “ | 119 |
| “ “ 6th “ | 135 |
| “ “ 7th “ | 195 |

The rostral bone, figured on plate XX, and the small predentary bone (plate XIX, figs. 5 and 6) were found separately and may with some probability of correctness be referred to this species. A large ilium is figured toward the end of this report.

This species is named in honour of Dr. George M. Dawson, C.M.G., late Director of the Geological Survey of Canada.

MONOCLONIUS CANADENSIS. Sp. nov.

Plate XVII, figs. 3 and 4, and plate XVIII, figs. 1-7.

This species is founded on a squamosal, part of a parietal, a jugal, a supraorbital horn core, the left ramus of the lower jaw, and an anterior dorsal vertebra, with some other parts of the skull, not yet fully determined, of one individual. A right ramus of another individual is shown on plate XVIII, and a separate horn core on plate XVII.

A right mandibular ramus, referred to this species on account of its resemblance in form to the one shown above, is described farther on.

The horn core (fig. 18, page 64) rises above the orbit from the postfrontal of which it forms a part. The postfrontal unites behind, by suture, with the squamosal and below with the jugal. The orbit is oval with the longer diameter vertical, its upper curve lying close under the base of the horn core, its margins not ridged. The horn core is small, about 21.6 cent. long from the upper edge of the orbit to its summit and 22.8 cent. in circumference near the base, circular in section and solid.

Squamosal somewhat triangular in shape, flat, moderately thin, its outer edge smooth, rounded, wavy in outline so as to produce six minor convex curves, shorter and more pronounced near the front. Its outer front edge is deeply emarginated, with a shallower concavity limiting the outer termination of the jugal suture (see figure 18),

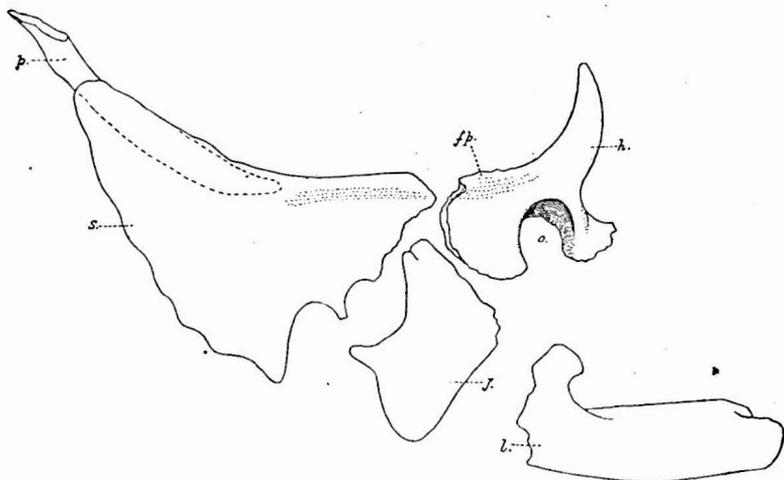


FIG. 18.—*Monoclonius canadensis*; part of the skull from the right lateral aspect, one-eighth natural size. *fp*, postfrontal; *h*, horn core; *o*, orbit; *s*, squamosal; *p*, right lateral extension from parietal; *j*, jugal; *l*, lower jaw.

inside of which is the suture for the union with the postfrontal. The inner border is slightly concave. The lower surface near and parallel to the inner posterior end is broadly and shallowly grooved for the reception of a long, slender bone, triangular in section, that projects backward and inward, its outer edge continuing the curve of the squamosal. Probably this slender bone represents the anterior end of a forwardly bent, side extension of the parietal, such as occurs in the species *Monoclonius belli*, in which case a fontanelle of moderate size might be expected on the inner side of the squamosal.

In figure 18 the underlying bone (imperfect posteriorly) is indicated by a dotted outline under the squamosal beyond which it projects; its outer free edge shows a round edged convexity in continuation of the sinuosities of the squamosal. The proximal inner margin of the squamosal is bent at right angles to the plane in which the remainder of the bone lies and its under surface is deeply excavated in its inner front part for some distance back from the postfrontal suture.

Measurements of squamosal, &c.

| | M. |
|--|-----|
| Length on curve of outer border..... | 576 |
| Length on curve of inner border..... | 573 |
| Length from posterior end to centre of front margin..... | 533 |
| Breadth across front margin..... | 355 |
| Thickness near outer border, at mid-length..... | 028 |

| | |
|---|------|
| Thickness near inner border, at mid-length | ·038 |
| Length of bone underlying the squamosal (imperfect) | ·502 |
| Breadth of same at mid-length | ·064 |
| Greatest thickness at mid-length | ·030 |

With the parts of the head, shown in fig. 18, was also found an anterior dorsal vertebra (fig. 19), of rather small size. The faces of the centrum of this vertebra are slightly concave.

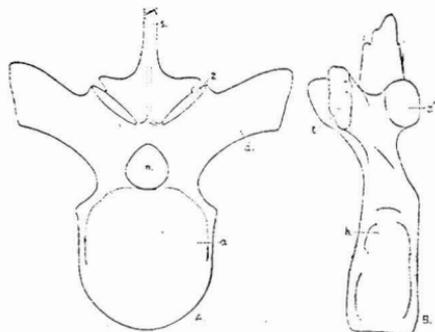


FIG. 19.—Anterior dorsal vertebra of *Monoclonius canadensis*, one-fourth the natural size. A, front view; B, left side view; a, anterior face of centrum; d, diapophysis; a, facet for head of rib; n, neural canal; s, neural spine; t, facet for tubercle of rib; z, prezygapophysis; z', postzygapophysis.

Next following is the description of a right mandibular ramus, found separately in 1897, but agreeing in size with the one depicted in fig. 18.

Ramus of lower jaw (right). Cat. No. 284.

Ramus of lower jaw (plate XVIII, figs. 1 and 2) stout, with an inward bend at mid-length, low and thick behind, elevated and laterally compressed in front where the inner surface is shallowly concave. Excavated posteriorly below for nearly one-third of its length, the excavation extending upward along the back surface of the coronoid process, and anteriorly as the mandibular canal leading forward to the mandibular groove in the lower border. The dentary canal, between the outer alveolar wall and the outer surface,

enters from the upper and anterior part of the excavation by a large opening. Coronoid process stout, upright, hooked forward and flattened laterally above, its outer, upper surface rugosely striated. A broad, low ridge, least defined toward the centre, runs at about mid-height, along the outer side, the surface, in a general way, above and below, retreating obliquely inward. The dental chamber, straight, starting at a low level behind, inclined strongly upward and slightly outward toward the front, its lower edge making an angle of about 20° with the lower border. Alveolar grooves in outer wall of dental chamber, deeply impressed toward their upper ends by a second series of groove terminations, an evidence of two roots in the teeth, belonging to this jaw, such as are characteristic of some of the species of the *Ceratopsidae* (*Agathaumidae*). Height of dental chamber much reduced forward. A number of large foramina present in the outer surface. Front border, as viewed from the side, sinuous, rugose for its union with the prementary bone. Twenty-three alveolar grooves are present in the dental chamber (imperfect posteriorly) of the specimen figured. A small symphyseal surface is present in the front, lower border.

Measurements of ramus of lower jaw.

| | M. |
|---|------|
| Extreme length a* mid-height | ·398 |
| Depth at mid-length | ·116 |
| Distance from upper border, a little in advance of front end of dental chamber, to lower posterior border of symphyseal surface | ·137 |
| Height of facet for articulation of prementary bone | ·096 |
| Distance from top of coronoid process to lower border | ·193 |

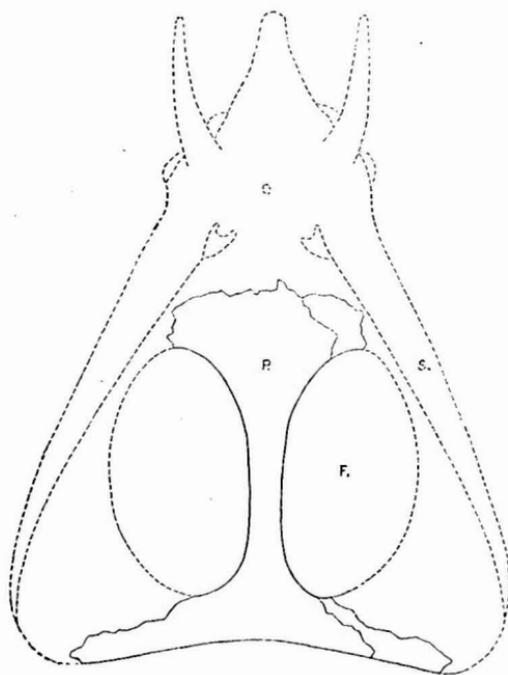
| | |
|---|------|
| Breadth of coronoid process from point of anterior hook backward..... | ·097 |
| Thickness at centre of upper coronoidal expansion..... | ·024 |
| Thickness of coronoid process at its mid-height..... | ·038 |
| Antero-posterior diameter of symphyseal surface..... | ·055 |
| Height of same..... | ·025 |
| Width of larger alveolar grooves at middle of dental chamber..... | ·009 |
| Six grooves in a space of..... | ·072 |
| Height of grooves, from their base to upper edge of outer alveolar wall, at middle of dental chamber..... | ·028 |
| Height of same anteriorly..... | ·044 |

A maxillary bone (not figured) with teeth that are double fanged, is referred to this species. One of the teeth is shown on plate XVIII, figs. 3 and 4.

A separate tooth, presumably from the lower jaw, is also figured on plate XVIII. It was found separately, but on account of its having two roots, agreeing thus with the evidence of the alveolar grooves of the mandibular ramus just described, it is likewise referred to *M. canadensis*.

MONOCLONIUS BELLI. Sp. nov.

Plate XX, figs. 1 and 2.



The bone, figured on the above plate, is interpreted as representing the coalesced parietals of the posterior crest of an undescribed species of *Monoclonius*, probably ancestral to such later forms as *Torosaurus latus* and *T. gladius* of Marsh, from the Laramie, of Wyoming.

To facilitate an understanding of the view held as to the position the parietals probably occupied relative to other bones of the head, a drawing of the bone, has been applied to the figure, slightly modified, of the skull of *T. gladius*, as given by Marsh, in the Sixteenth Annual Report of the United States Geological Survey.

FIG. 20.—Posterior crest of *Monoclonius belli*, from Red Deer river; one-ninth natural size. The dotted lines are from a drawing of the head of *T. gladius*, Marsh, as seen from above. P, Parietal; S, Squamosal; F, Fontanelle.

The parietal element from Red Deer river is symmetrical, T shaped, with a sub-cylindrical shaft expanding rapidly both in front and behind. Anteriorly the expansion is concave below, strengthened above by a median, rounded ridge in continuation of the central shaft, and thinning out laterally. Posteriorly the shaft divides, nearly at right angles to itself, to either side, so as to form a strong transverse bar slightly concave at mid-length above and convex below, thin at its front edge and thickest behind. The posterior border is angularly rounded.

The space on either side of the shaft represents the inner halves of the supra-temporal fontanelles. The bone missing from the specimen would complete the outer border of the fontanelles and effect a union with the inner margins of the squamosals. The lower face of the anterior expansion, on either side of the median line, is striated by distinct furrows that follow down the lower lateral sides of the shaft, as deep grooves, and curve outward on to the transverse bar. The anterior upper surface also exhibits similar grooves that do not, however, pass beyond the mid-length of the shaft.

The parietal, imperfect at its anterior end, is about one-third the size of that of *T. gladius* and would probably represent a proportionately smaller animal, an earlier and more generalized form of the genus with larger fontanelles than its later Laramie successors.

Measurements of parietal bone.

| | M. |
|--|-----|
| Extreme length of specimen (imperfect anteriorly) along median line | 584 |
| Breadth of front expansion from median line to left edge of specimen | 173 |
| Breadth of posterior border from median line to left edge of specimen | 305 |
| Circumference of shaft at mid-length | 180 |
| Breadth of same at mid-length | 065 |
| Thickness of same at mid-length | 053 |
| Thickness of anterior expansion at centre on median line | 041 |
| Thickness at anterior end of specimen on median line | 018 |
| Thickness on median line midway between posterior border and narrowest part of shaft | 035 |
| Antero-posterior diameter of fontanelles | 416 |

Belly River series, Red Deer river, 1898.

This species is dedicated to Dr. Robert Bell, the administrative head of the Geological Survey.

COMPARATIVE TABLE OF HORN CORES, &c., OF SPECIES OF MONOCLONIUS AND POLYONAX.

| | <i>Monoclonius crassus</i> . | <i>Polygonax mortuarius</i> . | <i>Monoclonius recurvicornis</i> . | <i>Monoclonius sphenoceras</i> . | <i>Monoclonius dawsoni</i> . | <i>Monoclonius canadensis</i> . | <i>Monoclonius belli</i> . |
|---------------|--|----------------------------------|--|---|--|---|---|
| Nasal horn. | | | Robust, depressed, curved forward. | Long, straight laterally compressed, upright. | Slender, long, very slightly curved backward. | | |
| Orbital horn. | Very small, upright, flattened on outer side. | Supposed horns long and slender. | Robust, short, flattened on outer side, upright. | | None | Moderate size, slender, curved obliquely inward and backward; base overhangs orbit. | |
| Squamosal. | Narrow, and thin with scalloped border; ossified with parietals. | | | | Thin, with scalloped border; fewer emarginations than in <i>M. crassus</i> . | Plate like; lower posterior border slightly scalloped. | |
| Parietals. | Thin, expanded posteriorly and anteriorly; smooth behind. | | | | Thickened posteriorly; with two incurved hooks on back border. | Known only from the posterior right lateral extension partly underlying squamosal. | Reversed T-shaped, shaft subcylindrical, anterior expansion thin, posterior expansion bar-like. |
| Teeth. | ? Single fanged. | | | | ? Single fanged. | Double fanged. | |

STEGOCERAS. Gen. nov.

STEGOCERAS VALIDUS. Sp. nov.

Plate XXI, figs. 1-5.

The two symmetrical, compact bones, represented on plate XXI, were found separately. The lower portions of their sides, as well as their ends, consist of sutural surfaces, indicating that other bones were firmly united to them and completely surrounded them. A transverse suture divides each almost equally into an anterior and a posterior half. On the lower surface there is evidence of a line of coalescence in a longitudinal direction and extending from end to end. The upper surface of each specimen is dome shaped.