

These three may be varieties of the same species. There are two or three specimens of each species in the Museum, and they appear very distinct.

B. *Tail shorter than the body; back with five dark streaks, the side ones far from the vertebral, and edging a pale lateral streak; face-streak indistinct, white.*

Tamias americanus, Kuhl.

Tamias striatus, S. Baird, M. N. A. 293.

Sciurus striatus, L.

Sc. striatus americanus, Gmelin.

Tamias Lysteri, Richardson.

Eye with a white streak above and below.

Hab. Canada, United States of North America, New York, Washington, Western Missouri. B.M.

C. *Tail shorter than the body, bushy; back with a distinct dorsal streak and an indistinct lateral one on each side.*

Tamias dorsalis, Baird, Proc. A. N. S. Philad. 1855, vii. 332;
Mam. N. A. 300.

Hab. New Mexico (Webster).

LII.—*Descriptions of two new Fossil Cowries characteristic of Tertiary beds near Melbourne.* By FREDERICK M'COY, Prof. of Nat. Science in Melbourne University, and Government Palæontologist for Victoria.

Cypræa (Trivia) avellanoides (M'Coy).

Sp. Ch. Very thin, ovato-globose, transverse sections nearly three-quarters of a circle from the outer lip, the remainder of the inner lip curving more rapidly, obtusely rounded behind, slightly tapering in front to the short, scarcely notched canal; aperture narrow, of nearly equal width throughout (about seven times as long as wide), the outer and inner lips nearly parallel, terminating in a very short, straight channel in front, but abruptly curved to the right, with the thickened outer lip behind; spire not prominent, of three turns and a half; surface crossed by very narrow, sharply defined, very prominent, thread-like ridges, varying from thirty-five at 1 inch long to twenty-three at 4 lines long, very rarely dichotomizing irregularly or stopping short, more often turning abruptly out of their course with a branch-like bend to one side, so as to intercalate short ridges, between a longer pair, separated by sharply defined, broad, flat spaces usually three or four times as wide as the

ridges, faintly indented with transverse, broad, scarcely visible marks; the ridges are usually interrupted by a narrow, shallow, longitudinal, depressed, smooth space along the middle of the back; five, six, or seven pass vertically over the spiral whorls, and on the inner lip they are inflected angularly at the edge of the aperture to form a concave inner lip as wide as the mouth, and terminate in tubercles on its inner edge; the dorsal ends not swollen, sometimes, though rarely, joining from each side, effacing the dorsal sulcus, which, when present, varies irregularly from half a line to a line in width in a specimen of the ordinary size of 10 lines. Greatest length of very large specimen, from anterior canal to most posterior part of outer lip, 1 inch 2 lines, (in proportion thereto) to end of spire $\frac{9.5}{100}$, width $\frac{8.5}{100}$, height $\frac{7.5}{100}$, width of mouth $\frac{1.0}{100}$. A very small specimen, $4\frac{1}{2}$ lines long, has length to end of spire $\frac{9.5}{100}$, width $\frac{9.0}{100}$, height $\frac{8.0}{100}$, width of mouth $\frac{1.5}{100}$, showing the great uniformity of the proportions through all sizes, the very young being slightly more globose.

The greater number of specimens have a very distinctly marked, smooth, longitudinal dorsal scar, half the length of the shell, interrupting the transverse ridging—one specimen, however, having the scar as distinct as usual for a great part of its length, has it obliterated at one point by the alternate extensions of a few ridges from each side a little beyond the middle line; and one large specimen has it entirely absent from some of the ridges alternating with each other and stretching beyond the middle, and others of them joining continuously from side to side; when the outer layer of shell bearing the ridges is absent, the surface is faintly cancellated by narrow, obtuse, obsolete lines, the spiral or transverse ones about as far apart as the ridges of the surface, the longitudinal ones finer, less regular, and rather closer.

This species is so much more globose and has so much fewer and more distant ridges than the *T. australis* living on the Victorian shores, that it is not necessary to make any further comparison. It is an exact representative of the *Trivia avellana* of the European Tertiary beds of the same age as those containing the present species, but is clearly distinguished by its uniformly shorter and more spheroidal form, the nearer identity of length and width, the shorter and wider dorsal sulcus almost always interrupting the transverse ridges, and the greater curvature of the mouth, which is nearly straight in the middle in *T. avellana*, but much arched in the present species, in which the margin of the outer lip is consequently less inflected; the sulcus is also characteristically shorter than in the European *C. avellana* or *C. affinis* of the Suffolk Coralline Crag and Touraine

beds, with which latter it agrees better in its usually naked sulcus; but the ends of the ridges are never dilated, and, in addition to the same differences of the more arched mouth and less inflected outer lip of the Australian species, the shell in it is larger, thinner, and the ridges more elevated, thinner, and further apart.

Very common in the blue Tertiary clays and limestone between Mount Eliza and Mount Martha in the Bay. Very rare, but of large size, in the blue clays of Muddy Creek near Grange Cwm, five miles from Hamilton.

Cypræa gigas (M'Coy).

Sp. Ch. Shell very large, thick; form ovate, back very gibbous, somewhat spheroidally irregularly rounded; base flattened oval, much thickened, extending slightly in thick obtusely rounded margins on each side of the anterior and posterior ends of the shell (not in the middle); inner lip rounded, smooth within, flattened near the anterior channel, slightly concave before joining the tumid outer margin; outer lip inflected, tumid, broad, and the edge smooth in the middle, with nine or ten nearly obsolete obtuse teeth near the anterior end, and a few still fainter near the posterior end. Aperture narrow, moderately curved, widest towards the anterior end, terminating in deep narrow channels at each end, the anterior one reflected at an angle of about 70° from the base, projecting upwards, forming a reentering angle of 65° with the back, the posterior channel reflexed at upwards of 140° , obliquely subtruncate, inclining forward, and adherent to the spire. Spire exposed, of two whorls; apex obtuse, large; surface smooth. Length of large specimens 8 inches, proportional width $\frac{67}{100}$, height $\frac{55}{100}$, height of anterior channel $\frac{32}{100}$, of posterior one $\frac{25}{100}$, diameter of spiral suture at base of spire $\frac{15}{100}$, width of middle of mouth $\frac{7}{100}$.

This gigantic species far exceeds any known cowry in size, and, like the large Eocene Tertiary *C. tuberosa*, is so completely destitute of teeth on the inner lip as almost to belong to *Ovula*. With the very oblique light of a candle, or by a delicate sense of touch, faint indications of teeth may be detected, but scarcely more than, under similar circumstances, may be found in the recent *Ovula ovum*. The flattened base and thickened inner lip forming an obtuse lateral projection at each end of the shell, as well as the strong reflection of the channels, induce me to place the present fossil in *Cypræa*.

In blue clay of Muddy Creek, ten miles south of Hamilton, and in similar beds between Mount Eliza and Mount Martha on the shores of Hobson's Bay.



McCoy, Frederick. 1867. "LII.—Descriptions of two new fossil cowries characteristic of tertiary beds near Melbourne." *The Annals and magazine of natural history; zoology, botany, and geology* 20, 436–438.

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