

its parent stock or preferential mating of like forms for an explanation for the origin and continuance of these closely related species in a coincident environment. This is the solution which Darwin proposed to meet this difficulty. De Vries finds that the *coincidentally* appearing new elementary species of *Oenothera* attain their full constancy at once. Isolation plays no part in their origin or continuance.

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NOTE ON A TERTIARY BASIN IN NORTHERN
ALASKA¹

BEDS of Tertiary age are known in various widely separated regions of Arctic and sub-Arctic America. They occur generally in basins of limited area in the older rocks. Such basins are rather widely distributed in Alaska. Brooks² has recently reviewed the literature relating to those in Alaska. A number of isolated Tertiary basins are known in the islands of the Arctic Archipelago³ and others have been reported in the Northwest Territory⁴ east of northern Alaska. The age of nearly all of the Tertiary beds which are known in Arctic America has been determined from plant remains occurring in them, so that we have a very fair knowledge of the plant life of northern America in Tertiary times, but a very meager knowledge of the invertebrate fresh-water fauna which lived in some of the Tertiary lakes of Arctic America. The discovery of such a fauna by the writer during the past summer along the Porcupine River in northeastern Alaska seems, therefore, worthy of record.

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²'The Geography and Geology of Alaska,' professional paper U. S. Geological Survey, No. 45, pp. 237-244, 1906.

³Low, A. P., 'Cruise of the Neptune,' 1906, pp. 226-229.

⁴McConnell, R. G., 'Report on an Exploration in the Yukon and Mackenzie Basins, Northwest Territory,' Can. Geol. Surv., Vol. 4, n. ser., Rept. D, 1890.

Camsell, C., Report on the Peel River and Tributaries Yukon and Mackenzie, Can. Geol. Surv., Vol. XVI., 1906, Pt. C, pp. 27-28.

About one hundred miles above its junction with the Yukon the Porcupine River enters the Yukon Flats, an alluvial plain without topographic relief, through which the Yukon River flows for 200 miles. Before entering the Yukon Flats the Porcupine traverses for about 25 miles a belt of limestones of Paleozoic age having a north and south trend and giving rise to low mountains and hills. Between this belt of elevated country and a similar but wider zone of topographic relief near the international boundary extends a comparatively flat basin having a width of about 25 miles. The north and south extent of this basin, which Maddren has called the Coleen Basin,⁵ after the river draining its northern portion, is unknown. There is good reason to believe, however, that its north and south extent is much greater than its width. The Porcupine traverses this basin in wide sweeping meanders. The migration of the channel of the river along parts of its course through this basin has left in places low banks bordered by recent silts. An older set of sediments, however, constitutes the bulk of the floor of the Coleen Basin. These older sediments are well exposed on the largest meander in this portion of the river, known as the Fish Hook bend, which shows continuous bluffs for two or three miles, 40 to 100 feet high, composed mainly of finely laminated shale or clay. The dominant color of these beds is light lemon yellow, which is varied by patches of yellowish green, pink, and brownish. At the upper end of Fish Hook bend, on the west bank of the river, the following section was measured:

	Feet.
1. Fine sand, soil and muck (top)	1- 5
2. Coarse gravel and sand	10
3. Dark carbonaceous clay and old forest bed	0- 2
4. Coarse gravel and sand	15
5. Soft, finely laminated, drab-colored clay shale, with large ironstone concretions in upper part, containing fresh-water bivalves	70

The fossils which were secured from the ferruginous concretions occurring in divi-

⁵'Smithsonian Exploration in Alaska in 1904 in Search of Mammoth and other Fossil Remains,' *Smithsonian Misc. Coll.*, Vol. 49, 1905, p. 12.

sion 5 of the section were referred to Dr. W. H. Dall, who reports that "One resembles *Unio onariotes* Mayer from the Kenai formation, another *Anadonta athlios* Mayer of the same beds, but they are probably not identical. The beds are probably Oligocene or upper Eocene, like those of Kenai." Considerable interest attaches to these fossils in connection with their bearing on the distribution in Tertiary times of the Naiades, a group represented in the present streams and lakes of lower latitudes in North America by several hundred species.

Maddern^o and McConnell¹ have reported two basins similar to the Coleen, but larger, higher up the Porcupine a short distance east of the international boundary. One of these has an approximate length of 100 miles and a width of 60 miles. No fossils were obtained by McConnell from these upper basins, but the description which he gives of the beds exposed, corresponds so closely to the sections observed by the writer, that it is highly probable that the age of the beds in the basins on the two sides of the boundary is the same. McConnell^o expressed a similar opinion concerning the equivalence of the beds in question, but presented no paleontologic evidence of the age of the beds in either of the basins which he described.

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QUOTATIONS

THE UNIVERSITY OF MAINE

THE movement to remand the State University of Maine to its original purpose of an agricultural college and school of mechanic arts has failed. The University has expanded with a college of liberal arts and has been giving the bachelor's degree, and this the senior colleges of liberal arts in the State, Bowdoin, Bates and Colby, consider to be crowding an already overstocked market for

^o *Smithsonian Misc. Coll.*, Vol. 49, 1905, p. 14.

¹ *Ann. Rept. Geol. Nat. Hist. Surv. Canada*, n. ser., Vol. 4, 1890, p. 128.

^o *Ibid.*, pp. 128, 132.

higher education. Consequently, when the University came to the Legislature this year for an appropriation equal to two fifths of a mill to the valuation of the State, or about \$150,000 a year, with a backing of the majority report of a committee appointed by the last Legislature, and then accepted as a substitute for this an appropriation of \$65,000 a year for two years and \$90,000 for new buildings, the three colleges appealing to the committee of the Legislature on the subject, united under the leadership of President Hyde, had attached to the appropriation as a condition the discontinuance of the University's courses leading to the B. A. degree. In the House this amendment to the appropriation was defeated by the cyclonic vote of 123 to 12. In the Senate, however (which had made a special investigation with a recess committee of the whole subject), the vote was much closer, being, in fact, only 17 to 13 in favor of the University's retention of the right to confer the B. A. degree * * *.

In the heat of the debate the dignity of the university and the quality of its scholarship have been sometimes rather roughly used. The statement made by President Hyde and repeated by ex-Senator Potter of Brunswick, an overseer of Bowdoin, that the liberal arts courses at the University of Maine are inferior to those of the other three colleges is pretty well disposed of by the statistical facts that there are eleven professors at the university holding doctor's degrees conferred by the highest institutions of learning at home and abroad, including Harvard, Johns Hopkins and Cornell in this country and Berlin and Heidelberg universities, a total greater than is found in the faculties of the other three colleges together. Mr. Carnegie, it is believed for the first time, gave the university last year the money for a library building absolutely without conditions, and by energy, thrift and the use of local materials, almost given to the university, a building has been erected for his \$55,000 equal in appearance, it is said, to one costing twice as much. Evidently this sturdy young growth from the Federal land grant known as the Morrill education fund is past all danger of being up-