means of the excellent cliff sections, the suggestion of the occurrence of such deposits. Pre-Pleistocene deposits were found at Third Cliff, twenty miles southeast of Boston, and possibly at Peaked Cliff, southeast of Plymouth.

The section at Third Cliff shows yellow clays at the base conformably overlain by yellow and white sands and succeeded by a bed of bright red sands with an unconformity at their base. On the eroded edges of the red and white beds are deposited dark, glauconitic and lignitic clays and sands. The entire series of beds has a total maximum thickness of sixty or seventy feet, and outcrops for a half mile along the cliff face. Absolutely no erratic material occurs either within the beds themselves or along the lines of unconformity.

The lithologic characters of the lower beds are like those so persistently characteristic of the Cretaceous from Marthas Vineyard to New Jersey; while the upper beds of dark clays appear to be homologues of the Miocene at Gay Head and at Marshfield. This fact, together with the evidence of the unconformities and of the lignites is being examined with a view toward suggesting probable correlations with the deposits worked out at Gay Head by Professor Woodworth (*Bull. Geol. Soc. Amer.*, VIII., 1897, 197–212); although the absence of specific paleontologic evidence renders such correlation merely tentative. The detailed descriptions of the beds and the conclusions inferred with respect to their age will be published in a later paper.

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EXOGLOSSUM IN THE DELAWARE.

The occurrence of the little minnow, *Exoglossum maxillingua* (Le Sueur), in the Delaware basin is of interest. So far as I am aware, it has not been taken in any of the tributaries of the Delaware before the capture of two examples which I caught in the Red Clay Creek, Chester County, Pa., during April of 1904. In this instance I am indebted to Mr. Alfred C. Satterthwait, who assisted me in securing the specimens. When first seen, I was under the mistaken impression that they were simply young unmottled examples of *Catostomus commersonnii*.

In the Susquehanna basin this fish is abundant and I have also met with it in tributaries of the Allegheny in Pennsylvania, especially near Cole Grove, in McKean County.

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SPECIAL ARTICLES.

THE BRAIN OF THE HISTOLOGIST AND PHYSIOLOGIST OTTO C. LOVÉN.

Professor Lovén, the Swedish histologist and physiologist who will be best remembered for his discoveries of the endings of the taste-fibers in the papillæ of the tongue of mammals, as well as of the vaso-dilator nerves, had expressed it as his wish that his brain be preserved after death and studied by his friend and associate, Gustaf Retzius.

With characteristic care and skill Professor Retzius has just published his studies upon Lovén's brain in *Biologische Untersuchungen*, Vol. XII., 1905. The brain exhibits a richness of fissures and these are marked by a superior degree of tortuousness and ramification. The subparietal region is very complex in its surface configuration, while the central (motor) regions are only moderately developed. The cortical centers for speech and language formation are notably large, and Professor Retzius brings this fact into relation with Professor Lovén's notable powers of clear, exact and logical expressions of thought in words; less so in the way of oratorical *finesse* than in the talented use of the best and most adequate expressions. The weight of the brain is not given in this report though its size is said by Retzius to have been well above the average.

Edw. Anthony Spitzka.

APPLES INJURED BY SULPHUR FUMIGATION.

Recently some injured Esopus Spitzenburg apples were received at the New York Experiment Station with a request to diagnose the trouble. They were of the first grade, each fruit wrapped in paper, and packed in a bushel box. The financial loss was important, as a