

PROCEEDINGS

OF THE

ACADEMY OF NATURAL SCIENCES

OF PHILADELPHIA.

VOL. VI. 1852, 1853.

PHILADELPHIA.

PRINTED FOR THE ACADEMY,

By Merrihew & Thompson, Merchant street, above Fourth.

1854.

434282

2 [JANUARY,

destruction among fish, was the discoloration of the water of the bay, from a marine green to a dirty milk-white hue, followed by a decided odor of the gas; so much of it being present on many occasions as directly to blacken a clean piece of silver, and to blacken paint work in a few hours.

The fish, during this evolution, rose in vast numbers from the bottom; and after

struggling for some time in convulsions upon the surface, died.

I was particularly struck by this fact, that all of them during the time that they were under its influence, acted in precisely the same manner. The first thing noticeable with regard to its effect upon them, was that on coming near the surface, they seemed to have much difficulty in remaining below it at all. They then rose completely to the surface, struggling vainly to dive beneath. This was followed by violent springing and darting in various directions—evidently without control of direction—for they moved sideways, or upon the back, and sometimes tail first, with great velocity. After a little time their motion became circular, and upon the back, the circle of gyration constantly diminishing, and the rapidity of the motion as constantly increasing, until there was a sudden cessation of all motion. The head then floated about the surface; the body being in a perpendicular position. A few convulsive movements shortly followed, and they were dead.

I have watched thousands of them so dying; and in every instance such was the mode of death. Having taken them at the moment of death and immediately after, a rude examination showed in all the same appearances. The intestines and brain were gorged with blood, much darker than natural. The gills were almost black and the air-bladder ruptured. A premonitory symptom that such destruction was about to occur, was the previous appearance of unaccountable numbers of fishing-birds, especially of the Pelicans. On one occasion, taking the known size of the Island of San Lorenzo as a guide for measurement, we concluded that there was a body of Pelicans five miles long, one mile wide, and 300 feet thick, filling the water and air as closely as possibly they could do. How many were there? Can we wonder at the size of guano deposits?"

Dr. Leidy called the attention of the members to a fossil tooth and a fragment of a second, from the collection made by Mr. Culbertson in Nebraska Territory, which, he observed, belonged to a new species of Rhinoceros, or probably Acerotherium The former specimen is probably a third premolar, the latter a portion of the fourth. A great peculiarity in the teeth is the confluence of the inner lobes with each other, and their separation to the base from the outer lobes. They possess a remarkably strong basal ridge, and indicate an animal larger than any species of existing Rhinoceros: the greatest transverse diameter of the third premolar being $2\frac{1}{2}$ inches; its antero-posterior diameter $1\frac{3}{4}$ inches. For the species the name Rhinoceros Americanus is proposed.

Dr. Leidy also called the attention of the members to the fine mounted specimen of Polar Bear now in the Hall, the skin of which had been

lately presented by Dr. E. K. Kane, U.S. N.

On motion of Dr. Fisher, the letter of Mr. Peale, read this evening,

was referred to the Library Committee, with power to act.

Dr. Fisher announced that the collection of fossil foot-prints and fishes, belonging to Mr. Dexter Marsh, of Greenfield, Mass., was for sale.

On motion of Mr. Moss, the suggestions contained in the Report of the Librarian for 1851, were referred to the Library Committee.