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THE ALKALI RESERVE OF MARINE FISH AND INVERTEBRATES.

THE EXCRETION OF CARBON DIOXIDE.

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INTRODUCTION.

The results of an investigation to determine the carbon dioxide content of the blood and body fluids of such marine forms as were available for study at or in the vicinity of the Marine Biological Station, Departure Bay, Vancouver Island, British Columbia, are herein reported. As the Van Slyke-Cullen (1) apparatus furnishes a convenient and ready means of determining the carbon dioxide content and capacity of blood and thereby the alkali reserve of the same, it was used exclusively in this investigation.

Methods.

The representative forms studied were, for the most part, collected personally. Great care was taken to insure that the individual specimens, the blood or celomic fluid of which was to be examined, should be bled while in a fresh condition. As will appear more fully in a subsequent communication this is a very essential point especially as regards various molluscan types. An endeavor was made to secure specimens representative of as many of the invertebrate phyla and orders of the Pisces as was possible.

The methods employed in obtaining blood or celomic fluid from the forms studied will now be detailed.