## THURSDAY—NOVEMBER 29

Chairman—ARNIE J. SUOMELA, Associate Director, U. S. Fish and Wildlife Service, Washington, D. C.

## The Status of Scientific Knowledge about the Red Snapper (Lutjanus aya Bloch) and the Economic Importance of this Fishery

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ABSTRACT

Although the red snapper was found to be the third largest fin fishery in the Gulf of Mexico, there was a paucity of scientific information on this animal. Various programs were suggested to fill the gaps of ignorance in order to further develop the industry.

## Biological Investigation of Atlantic Coast Menhaden

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## INTRODUCTION

THE MENHADENS of North America constitute a resource supporting the largest fishery in the Western Hemisphere. In 1955 landings amounted to over 1.8 billion pounds, or roughly 40 per cent of the total fish production in the United States.

The bulk of the catch is taken by purse seine vessels operating from reduction plants located on the Atlantic and Gulf coasts. A small, but significant, quantity also is taken by pound nets in the middle Atlantic region and in Chesapeake Bay. The catch is processed into fish meal, oil, and condensed solubles.

Four species of menhadens occur throughout the range of the fishery; however, the Atlantic form, *Brevoortia tyrannus*, is by far the most important. It comprises an estimated 75 per cent of the combined annual menhaden production. A second species, *B. smithi*, occurs on the Atlantic coast, but it is of no importance to the fishery at present.

The large-scale commercial fishery for menhaden had its beginning in the late 1850s when the mechanical screw press was adopted for recovering the oil. The fishery subsequently grew rather slowly until about 1870 when the use of steam and the hydraulic press for processing the fish enabled the factory stage to become fully developed. The fishery during this period of expansion was centered in the Gulf of Maine and extended southward along the middle Atlantic coast to southern New Jersey. By 1876 the factories processed approximately 310,000,000 pounds of fish to produce nearly 3,000,000 gallons of oil and over 50,000 tons of fertilizer. In the 1880s the center of menhaden produc-