

Job Report

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Marine Biologist

Project No. M-8-R-3 Date August 31, 1961

Project Name: Biological Survey and Developmental Experiments  
in the Waters of Region M-8

Period Covered: August 1, 1960 to July 31, 1961 Job No. A-4a

Artificial Insemination and Development of Eggs of Common Fish

Objectives: To determine the possibility of fertilizing ova of common fishes so that eggs and young taken in routine sampling might be recognized.

Procedure: Ripe fish were obtained with nets and returned alive to the laboratory. There the eggs were stripped by various methods, fertilized and retained for examination. Eggs were examined hourly for six hours and then were examined every eight hours. Drawings were made if development occurred and eggs from each stage were preserved for later photography.

Results: No eggs were hatched although division did take place in many of those examined. Bacterial action was severe after four to six hours. When ova and milt were taken from living fish most of the eggs stuck together since slime from the parent fish could not be eliminated. To combat this, the following method was used and worked well. The freshly killed fish was wiped dry with a rough cloth and was then incised so that the gonads could be removed. There were in turn incised and the ova placed in a shallow watch glass with just enough water to keep them moist. Milt was added and the mass was stirred lightly. Enough water was then added to barely cover the eggs. Some ova were retained in the watch glass; others were placed in a one gallon aquarium half filled with filtered boiled sea water. Air was added slowly. Some ova were retained for five days but showed no development after the first day.

Developing eggs were obtained for black drum, sea trout, and croaker. These are being photographed and will be placed in the permanent file at the Marine Laboratory, Rockport, Texas.

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Accepted by Terrance R. Leary