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"MARINE LIFE LITERATURE SEARCH FOR GULF OF ALASKA
AND GEORGE'S BANK"

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The investigation into marine life possibly affected by explosive severing of-oil wellheads has focused on two areas: (1) the Alaskan Gulf, and (2) George's Bank, with the former receiving greater attention.

After a thorough literature search we have: (1) compiled a fruitful source of conformation on the Alaskan Gulf, (2) located an exceptionally thorough data bank for George's Bank, and (3) established practical limits on the problem of fishes swimbladders.

The Outer Continental Shelf Environmental Program (OCSEAP) was initiated in 1974 by the National Oceanic and Atmospheric Administration (NOAA). Its extensive studies have provided a wealth of information for our purposes and Figure 1 depicts the areas of concern. Table I is an example of data on fish from one of the areas. Figures 2 through 5 represent average catches of crustaceans by area. This information is cited only as an example of the information available from OCSEAP.

Another fertile source is the two volume "Alaska's Fisheries Atlas" published by the State of Alaska Department of Fish and Game. It emphasizes three items of concern: (1) Fish Species Accounts concentrates on each individual species of fish, (2) Area Accounts emphasizes the human-fish interface, and (3) Fish Distribution Maps. A bibliography of further references on Alaska is attached.

Table 2 lists the commercially Important Shell and Fin Fish of the George's Bank. Should this area become the focus of future work, a two volume reference is available from the National Marine Fisheries Service, North East Fisheries Center, Woods Hole, Massachusetts 02543: It is entitled "Summary for George's Bank and Southern New England Fisheries Grounds 1965-1974." This area was subdivided into smaller areas whose dimensions were 1' latitude by 1' longitude and samples of fishes were taken down to depths as great as 1,000 feet. It is by far the most detailed study of this kind encountered in our literature search.

The literature search on the morphology of the swimbladder of fishes, which is needed for fish-kill calculations, resulted in little useful data. Apparently, marine scientists are simply not interested in publishing such data. Dr. Maurice Lynch, Sea Grant Director of the Virginia Institute of Marine Science, concurred in this. However, calculations of fish swimbladders are frequently made by workers in the field utilizing the approximation that the swimbladder volume is between 2% and 10% of the total fish volume. Fortunately, data on the average length and weight of approximately 250 species of finfish and shellfish caught from Cape Hatteras to Nova Scotia can be obtained from Woods Hole. Similar information can be obtained for the region extending from Morehead City, North Carolina, to the Florida Keys, from the National Marine Fisheries Service, Southeast Fisheries Center at Beaufort, North Carolina.