commercial fishery during the late 1960's and early 1970's showed a downward shift in age structure in the Kodiak and Yakutat stocks (see response to Comment 9).

Although a year-round fishery and exploitation during the spawning season could account for higher meat counts, this is not a likely explanation for increased meat counts in the Alaska scallop fishery, because most of the Alaska scallop harvest occurs in the summer months, after the spawning season.

Comment 18. The proposed FMP presents no information on pre-recruits. which would not be observed in the State's mandatory observer program and which could be extremely high. Alaska State regulations and the commercial gear configuration allow escapement of small scallops. Available data indicate the timing and frequency of spawning by weathervane scallops is highly synchronous. Consequently, scallop shell height frequency distributions could be a good indicator of year-class survival or strength for ages 1 to 4. This important information apparently is not obtained by at-sea observers.

Response. Vessels that fish under the authority of Alaska State regulations carry observers. These observers collect data on shell height frequency that is analyzed by ADF&G to assess stock condition and exploitation. Further, commercial fishery data on the abundance of age 3 or 4 scallops may provide an index of future productivity.

Although weathervane scallops can produce gametes by age 3 or 4, these ages may not contribute significantly to reproduction. Data on some related species show that adults do not produce fully viable gametes until several years after age at first maturity. Scientists in British Columbia currently are researching this phenomenon for weathervane scallops. Thus, published information on age-at-maturity may be changing. If mean age of maturity is older than previously thought, current regulations afford less protection for spawning stocks than currently believed and recruitment overfishing is more likely to occur.

Comment 19. Management agencies have not collected information on fishing effort in the Alaska scallop fishery regularly. However, the consensus of scallop researchers is that CPUE is not a valid indicator of the resource abundance of scallops.

Response. Information on CPUE in the Alaska scallop fishery has been regularly collected on ADF&G fish tickets since the 1960's. NMFS generally agrees that average CPUE may not be a valid indicator of resource abundance

for aggregative species like scallops, because concentrations are fished heavily until CPUE drops, and the fleet or a vessel then moves on to a different stock to repeat this pattern. Rather than analyze region-wide CPUE data, the State of Alaska is analyzing detailed area-specific fishery data with geographic information systems to better understand stock distribution and abundance. Further, ADF&G is analyzing biological data collected from the State's observer program to estimate recruitment, growth, and mortality parameters and to increase management agency knowledge of the sustainability of the exploited Alaska weathervane scallop stocks.

Comment 20. The management of the Alaska scallop fishery by ADF&G has contributed to a decline in CPUE. Quotas established by ADF&G are notoriously inefficient and cause vessels to engage in derby-style fishing practices. This type of fishing strategy has been shown throughout the fishery literature to cause a decline in CPUE and to create economic and technical inefficiency. This approach to fishery management violates National Standard 5, because it fails to promote efficiency in the utilization of fishery resources.

Response. NMFS finds that this comment is not relevant to the action being proposed (i.e., a 1-year closure of the scallop fishery in the EEZ). Nonetheless, NMFS notes that establishment by the State of Alaska of management area quotas is an accepted management measure used by fishery management agencies.

Comment 21. The proposed FMP reports an unreasonably high harvest capacity (65,000 lbs, or 29 mt, of shucked scallop meats per week) for the single vessel that had fished Federal waters outside the regulatory authority of the State of Alaska and which precipitated the February 24 emergency closure of Federal waters as well as the proposed FMP.

Response. NMFS disagrees. The draft FMP does not state that the vessel that precipitated the closure of Federal waters had a 65,000 lb (29 mt) harvest capacity. Rather, the FMP reported that when the U.S.Coast Guard personnel boarded the vessel, they were informed by the vessel's crew that the vessel had about 54,000 lbs (24 mt) of shucked scallop meats on board. The point stressed in the proposed FMP and the preamble to the proposed rule to implement the FMP was that this level of catch on board the vessel exceeded the quota for the management area the vessel was operating in by over 100 percent.

Comment 22. The proposed FMP states that it is necessary to close the scallop fishery in Federal waters, because insufficient information is available to regulate the fishery. Yet, scientific literature (Hillborn and Walters, 1992) has shown that little information necessary for resource management can be obtained when the fishery is managed or regulated by extremely conservative strategies (e.g., an area closure). With this in mind, it may not be possible for NMFS to ever reopen Federal waters, if the opening depends upon a plan based on sound scientific information. The interim closure proposed under the FMP limits the collection of information necessary for sound resource management.

Response. NMFS disagrees. Also see response to Comment 10. The FMP does not authorize closure of Federal waters to fishing for scallops because insufficient information is available to regulate the fishery. Rather, the FMP implements an interim closure of Federal waters to prevent overfishing while a Federal management regime is prepared to authorize a controlled fishery for scallops. Until unregulated fishing activity of a single vessel precipitated closure of Federal waters, the scallop fishery was managed with the best information available and it will continue to be managed with the best information available once Federal waters reopen to fishing under a future amendment to the FMP

The cited reference (Hillborn and Walters, 1992) reports that key resource assessment calculations heavily depend on data that can be gathered early in a fishery's development and that a data gathering program should be developed to collect information from subsequent phases of the fishery. If a fishery is left unregulated, species that form large aggregations are easy targets for exploitation and are susceptible to depletion and collapse. This pattern of exploitation and collapse has occurred repeatedly for a number of scallop stocks.

NMFS notes that although the importance of fishery data is clear, the single vessel fishing in the unregulated fishery for scallops in early 1995 carried no observer and did not report its catch to management agencies. As a result, catch information and other fishery data from this vessel are not included in the information base being developed to manage the Alaska scallop fishery Although the interim closure of Federal waters temporarily limits the collection of fishery data, not implementing the FMP and allowing unregulated vessels to fish for scallops in Federal waters would not guarantee that fishery data