

**Scallop Plan Team Research Priorities**

<b>141</b>	<b>Estimate scallop stock abundance</b>
	<b>Status: No Action</b>
	Estimate scallop stock abundance in un-surveyed areas using fishery independent methods including computerized image analysis of current camera sled data.
<b>151</b>	<b>Acquire basic life history information (e.g., natural mortality, growth, size at maturity) for data-poor stocks.</b>
	<b>Status: Partially Underway</b>
	Acquire basic life history information needed for stock assessment, PSC, and bycatch management of data-poor stocks, such as scallops, sharks, skates, sculpins, octopus, grenadiers, squid, and blue king crab (Bering Sea), golden king crabs (Aleutian Islands), and red king crab (Norton Sound). Specifically, information is needed on natural mortality, growth, size at maturity, and other basic indicators of stock production/productivity). Source/sink dynamics for scallop stocks is critical to understanding stock structure [note highest overall priority for assessment]
<b>163</b>	<b>Expanded studies to identify stock and management boundaries</b>
	<b>Status: Underway</b>
	To identify stock boundaries, expanded studies are needed in the areas of genetics, mark-recapture, reproductive biology, larval distribution, and advection. Such boundaries are to be evaluated so that consequences of management and risks are clear. Verify stock structure and source/sink dynamics including physical oceanographic, genetic and life-history studies.[Note refer to 151 as well]
<b>166</b>	<b>Develop age-structured models for scallop assessment</b>
	<b>Status: Partially Underway</b>
	Age structured models for scallop are needed to increase understanding of population dynamics and harvestable surpluses.
<b>154</b>	<b>Conduct multivariate analysis of bycatch data from the scallop observer program</b>
	<b>Status: Completed</b>
	Conduct multivariate analysis of bycatch data from the scallop observer program (haul composition data) and camera sled data.
<b>316</b>	<b>Ocean Acidification and Scallops: monitoring water quality</b>
	<b>Status: No Action</b>
	Seasonal water quality monitoring in known scallop areas
<b>317</b>	<b>Effects of Ocean Acidification on Scallops</b>
	<b>Status: No Action</b>
	Studies to understand the mineralization of scallop shells through life cycle and across spatial variability
<b>106</b>	<b>Improve discard mortality rate estimates for scallop</b>
	<b>Status: Partially Underway</b>
	Field studies estimating Alaskan scallop discard mortality: relationship between capture, release condition and survival of scallops

<b>112</b>	<b>Analyses of fishery effort and observer data for scallop</b>
	<b>Status: No Action</b>
	Assess impacts of temporal and spatial effort by a limited number of vessels on CPUE and observer data for management purposes
<b>160</b>	<b>Develop and evaluate global climate change models (GCM) or downscaled climate variability scenarios on recruitment, growth, spatial distribution</b>
	<b>Status: Underway</b>
	Quantify the effects of historical climate variability and climate change on recruitment, growth, and spatial distribution, develop standard environmental scenarios (e.g., from GCMs) for present and future variability based on observed patterns.
<b>161</b>	<b>Climate and oceanographic information covering a wider range of seasons is needed</b>
	<b>Status: Partially Underway</b>
	There is also a need for climate and oceanographic information that covers a wider range of seasons than is presently available.
<b>315</b>	<b>Area-specific variability in scallop population processes</b>
	<b>Status: No Action</b>
	Investigate area-specific variability in vital population processes including growth, recruitment, natural mortality and movement, including mark-recapture tagging studies.
<b>New</b>	<b>Evaluate causes of variable meat size, undersize meats in scallops</b>
	<b>Status: Pending</b>
	Exploratory tows in the Bering Sea (District Q) and some areas open to harvest around Yakutat (District D) have shown scallops with disproportionately small meats relative to shell height. The cause of this condition as well as potential for recovery is unknown to industry.