the species life stage has been recruited to the survey, investigated through research, officially observed, or reported in a vessel catch log.

Methodology

In addition to scientific information sources analyzed in Alternative 2, the Alternative 3 analysis focused on two significant fishery geographic information data resources: survey (Resource Assessment and Conservation Engineering Division [RACE]) and observer (NORPAC). For adult and late juvenile life stages, each data set was analyzed for 95 percent of the total accumulated population for the species using GIS. For eggs and larvae, the EFH description is based on presence/absence data from surveys. EFH is identified as the areas where eggs and larvae are most commonly encountered in those surveys, which is the best available information regarding habitat use for those life stages. EFH shape files were developed based on these data sets.

For adult and late juvenile life stages of BSAI Groundfish, GOA Groundfish, BSAI Crab, and Scallop FMP species, fishery catch per unit of effort (CPUE) data from the NMFS Observer database (NORPAC, 1990 to 2001) and NMFS trawl survey data from RACE, 1987 to 2002 and, where appropriate, ADF&G survey data were analyzed to estimate the population distribution of each species. Where this information exists, the area described by these data is identified as EFH. The analyzed EFH data and area were further reviewed by scientific stock assessment authors for accuracy. This review ensures that any outlying areas not considered were included, and errors in the data or described EFH area were removed.

For Salmon FMP species, the analysis is broken into three parts: marine, nearshore, and freshwater. Marine and nearshore salmon EFH is generally described to include all marine waters from the mean higher tide line to the limits of the EEZ since science recognizes that salmon are (1) distributed throughout all marine waters during late juvenile and adult life stages, and (2) found nearshore and along coastal migration corridors as early juvenile life stages out migrate and adult life stages return to and from freshwater areas, respectively. Freshwater areas used by egg, larvae, and returning adult salmon will be analyzed as those areas indexed by the state of Alaska's *Catalog of Waters Important for the Spawning, Rearing, or Migration of Anadromous Fishes* (ADF&G 1998a), specifically Pacific salmon species. Freshwater salmon systems are generally defined as those areas above mean higher tide to the upper limits of those freshwater systems supporting salmon and may include contiguous wetland areas, such as those areas hydrologically connected to the main water source via access channels to an adjacent river, stream, lake, pond, etc.

Rationale

Alternative 3 incorporates the same basic rationales to describe EFH as in Alternative 2.

2.3.1.3.1 GOA Groundfish FMP

The following is an example of how Alternative 3 would describe EFH for species included in the FMU of the GOA Groundfish FMP. In this case, the example EFH description is for all life stages of GOA Pacific ocean perch under Alternative 3.

Eggs—No EFH Description Determined
Insufficient information is available.

Larvae
EFH for larval Pacific ocean perch is the general distribution area for this life stage, located in the middle to lower portion of the water column along the inner shelf (0 to 50 m), middle shelf (50 to 100 m), outer shelf (100 to 200 m), and upper slope (200 to 500 m) throughout the GOA as depicted in Figure 2-10.