

## AFSC/ABL: Juvenile rockfish DNA species identification

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Many pelagic juvenile rockfish (*Sebastes*) were collected in juvenile salmonid surveys in the Gulf of Alaska (GOA) from 1998 to 2002. Often species identification of rockfish is difficult or impossible at this stage of development (20 to 40 mm), and the juveniles of only a few species indigenous to Alaska waters have been described. These collections are samples of the first large aggregations observed in GOA waters and provided an opportunity to document the occurrence of several species of rockfish. Using mtDNA markers developed to identify rockfish species, we were able to identify unequivocally four species (*Sebastes alutus*, *S. aleutianus*, *S. borealis*, *S. reedi*) from subsamples of the collections. Other individuals were assigned to groups of two or three species. Using morphological data alone, we identified *S. borealis*, *S. crameri*, and *S. reedi*. The other species were initially indistinguishable by their morphology from *S. alutus*. The combined genetic and morphological data successfully resolved the other species as *S. entomelas* and probably *S. ciliatus/variabilis*, although *S. polyspinis* cannot be ruled out. In addition to documenting the presence of these species in the GOA, the results provide useful information for identifying pelagic juvenile rockfishes in surveys targeting this early life history stage.