

## **Southeast Alaska Coastal Monitoring Survey Plan for 2017**

by

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**Keywords:** juvenile salmon, ocean monitoring, ecology, ecosystem, Southeast Alaska

### **ABSTRACT**

This survey plan details the proposed sampling for the Southeast Coastal Monitoring (SECM) project in May, June, July, and August of 2017. A primary objective of this SECM research to study the habitat use and early marine ecology of juvenile (age-0) Pacific salmon (*Oncorhynchus* spp.) and associated epipelagic ichthyofauna in Southeast Alaska (SEAK) and in the Gulf of Alaska ecosystem. The SECM surveys have been continuous since 1997, and have provided long-term biological and oceanographic data sets associated with all five species of wild and hatchery salmon during a period of climate change. Ecosystem metrics from this SECM time series are currently used to develop pre-season forecast models for pink salmon (*O. gorbuscha*) harvest in SEAK and additionally contribute annual NOAA ecosystem consideration reports for Chinook salmon (*O. tshawytscha*), Sablefish (*Anoplopoma fimbria*), and zooplankton. The SECM project is currently supported by the Alaska Fisheries Science Center, Auke Bay Laboratories, along with supplemental funding from the Northern Fund of the Pacific Salmon Commission.

### **SECM sampling planned for 2017**

This survey plan details the proposed sampling for the Southeast Coastal Monitoring (SECM) project in May, June, July, and August of 2017. Nine stations will be sampled during SECM research surveys during four monthly intervals from May to August, 2017 (Tables 1 and 2). Sampling will be conducted aboard government and chartered research vessels in the

vicinities of Auke Bay and Icy Strait (58° N, 134°W; 58° N, 135°W) and will include surface trawl (Nordic 264) sampling for epi-pelagic fish, bongo net sampling for zooplankton, and CTD sampling for oceanographic data (Figure 1). A primary objective of this SECM research is to study the habitat use and early marine ecology of juvenile (age-0) Pacific salmon (*Oncorhynchus* spp.) and associated epipelagic ichthyofauna in Southeast Alaska (SEAK). SECM surveys have sampled marine habitats in the northern region of Southeast Alaska continuously since 1997, and have provided long-term biological and oceanographic data sets associated with all five species of wild and hatchery salmon. Ecosystem metrics from this SECM time series are currently used to develop pre-season forecast models for pink salmon (*O. gorbuscha*) harvest in SEAK and additionally contribute annual NOAA ecosystem consideration reports for pink salmon, Chinook salmon (*O. tshawytscha*), Sablefish (*Anoplopoma fimbria*), and zooplankton. These surveys are currently supported by the Alaska Fisheries Science Center, Auke Bay Laboratories, along with supplemental funding from the Northern Fund of the Pacific Salmon Commission.

Table 1.—Localities and coordinates of stations scheduled for monthly sampling by the Southeast Alaska Coastal Monitoring (SECM) project in marine waters of the northern region of Southeast Alaska in May, June, July, and August of 2017.

Locality	Station	Latitude	Longitude	Offshore distance (km)	Bottom depth (m)
Auke Bay Monitor	ABM	58°22.00'N	134°40.00'W	1.5	60
Upper Chatham Strait	UCA	58°04.57'N	135°00.08'W	3.2	400
Upper Chatham Strait	UCB	58°06.22'N	135°00.91'W	6.4	100
Upper Chatham Strait	UCC	58°07.95'N	135°04.00'W	6.4	100
Upper Chatham Strait	UCD	58°09.64'N	135°02.52'W	3.2	200
Icy Strait	ISA	58°13.25'N	135°31.76'W	3.2	128
Icy Strait	ISB	58°14.22'N	135°29.26'W	6.4	200
Icy Strait	ISC	58°15.28'N	135°26.65'W	6.4	200
Icy Strait	ISD	58°16.38'N	135°23.98'W	3.2	234

Table 2.—Monthly Southeast Alaska Coastal Monitoring (SECM) project research surveys and vessels (laboratory and chartered) scheduled in marine waters of the northern region of Southeast Alaska in May, June, July, and August of 2017.

Vessel, survey #	On or about (days)	Research focus	Sampling conducted
<i>RV Sashin</i> SA-17-01	22-23 May (2 days)	Oceanography	CTD, chlorophyll and nutrients, zooplankton 9 stations in Icy/Chatham Straits and Auke Bay
<i>RV Sashin</i> SA-17-02	26 June (1 day)	Oceanography	CTD, chlorophyll and nutrients, zooplankton one station in Auke Bay
<i>RV Sashin</i> SA-17-03	24 July (1 day)	Oceanography	CTD, chlorophyll and nutrients, zooplankton one station in Auke Bay
<i>FV Sashin</i> SA-16-04	28-29 August (2 days)	Oceanography	CTD, chlorophyll and nutrients, zooplankton 9 stations in Icy/Chatham Straits and Auke Bay
<i>FV Northwest Explorer</i> NW-16-02	24 June–01 July (3 days)	Oceanography Fish survey (trawl)	CTD, chlorophyll and nutrients, zooplankton, fish 8 stations with replicate surface trawl hauls in Icy Strait
<i>FV Northwest Explorer</i> NW-16-03	26 July–02 August (3 days)	Oceanography Fish survey (trawl)	CTD, chlorophyll and nutrients, zooplankton, fish 8 stations with replicate surface trawl hauls in Icy Strait

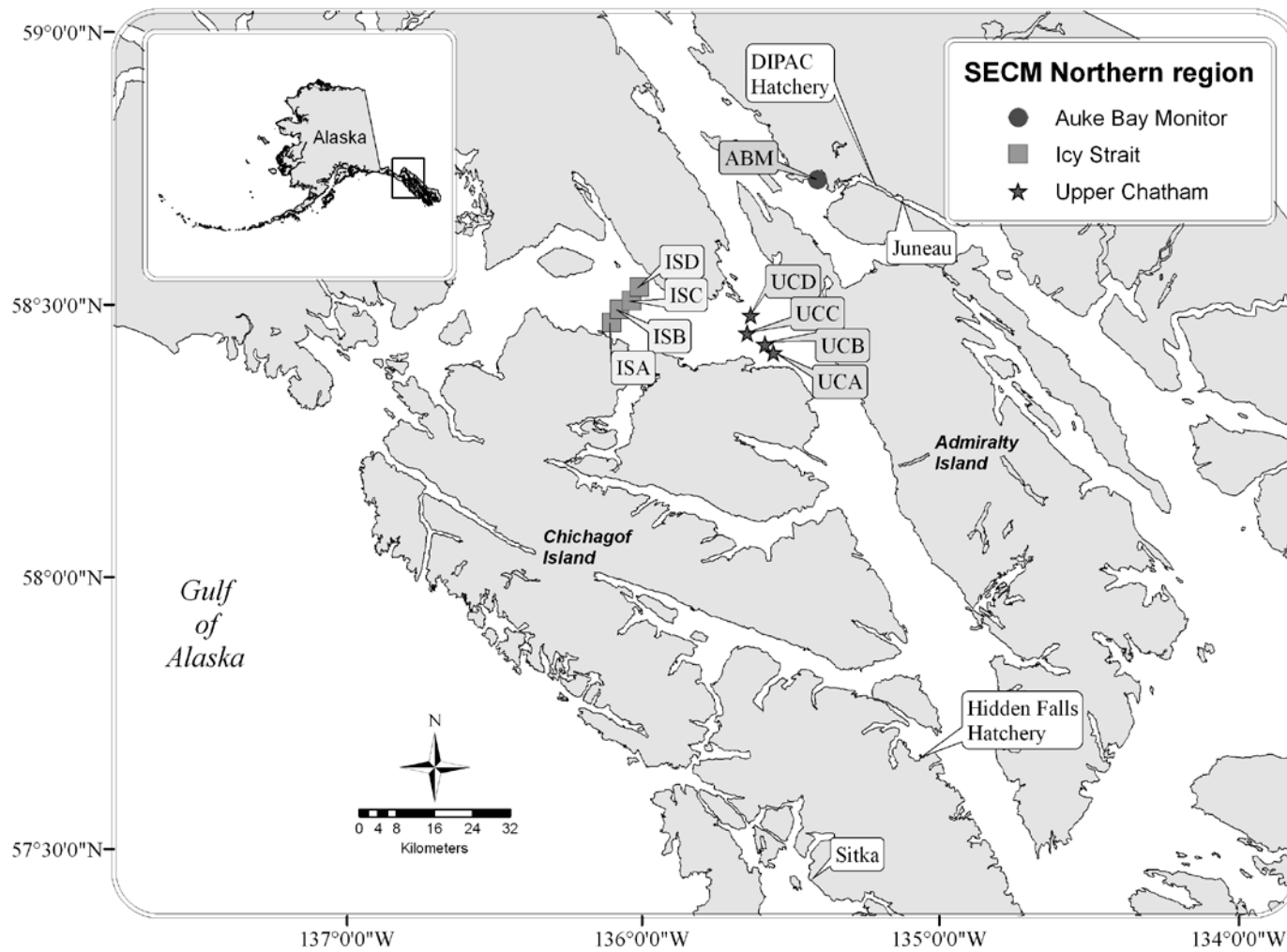


Figure 1.—Stations scheduled for monthly sampling by the Southeast Alaska Coastal Monitoring (SECM) project in marine waters of the northern region of Southeast Alaska in May, June, July, and August of 2017.