**2015 July Southeast Alaska Coastal Monitoring (SECM) survey report**

"The contents of this report are mine personally and do not necessarily reflect any position of NOAA."

Joe Orsi

All scheduled stations were successfully completed during the 7-d July SECM project survey (26 July to 02 August). This was the third of four scheduled SECM surveys for 2015. Participating researchers onboard the *Northwest Explorer* included: Joe Orsi (NOAA), Emily Fergusson (NOAA), Cory Fugate (NOAA), Sarah Ballard (NOAA Contractor), Ryan Bare (NOAA Contractor), and Matt Callahan (NOAA Contractor).

Thirty-three sampling events occurred in the marine waters of Southeast Alaska (SEAK). Surface trawling and oceanography was conducted along a four station transect line 65 km offshore of Icy Point, and sampling was also conducted repetitively along two transects situated 3-6 km offshore in Icy and Upper Chatham Straits, major SEAK seaward migration corridors. An additional sampling event occurred for oceanography at the Auke Bay Monitoring station (ABM). Some SECM survey objectives included: 1) the use of a modified Marine Mammal Exclusion Device (MMED) inside the trawl along the offshore transect, 2) the collection of live zooplankton taxa to identify lipid content of salmon prey as an annual ecosystem metric, 3) the examination of stomach contents of larger fish that could be potential predators of juvenile salmon, 4) a midnight squid jigging session offshore to detect for the presence of anomalous squid species, and 5) the examination all Chinook and coho salmon for adipose fin clips to be later examined for the presence of coded-wire tags revealing origin and ocean-age information.

Overall, seawater temperatures (both upper 20-m integrated and 3-m) were ~1ºC above the 19-yr SECM average at both strait and coastal sampling localities. Of the total salmon catch, there were 1,305 juveniles sampled (all five species), 536 adults (483 pink, 16 chum, 15 sockeye, and 11 coho), and 11 immature s (10 Chinook and 1 chum). The salmon abundance trend from June to July indicated numbers of juveniles declined by about tenfold and the number of adults increased by about fivefold. In fact, the number of adult pink salmon sampled this month were the highest ever observed over the 19-yr SECM time series, indicating a strong eminent return of fish consistent with pre-season forecasts. As with the prior survey month, The juvenile salmon sampled this month were ~20% larger than average sizes in the 19-yr SECM time series, suggesting juveniles entered the ocean early in 2015 and were met with favorable growing conditions and rapidly migrated seaward. No evidence of predation on juvenile salmon was found during stomach analysis for any of the 186 fish examined.

**Icy Point**--One hour of experimental squid jigging at midnight was conducted offshore near the end of the Icy Point transect over 1,500 m of water. This effort of jigging by three individuals (3 rod hours) resulted in a single capture of a *Berryteuthis magister*, 35 cm total length and 20 cm mantle length; additionally, a Pacific pomfret (*Brama japonica*) was nearly landed on a squid jig but flipped off at the rail (must be nocturnal feeders). The next morning at the same furthest offshore station of the coastal Icy Point transect (65 km offshore, IPD), a large ocean sunfish (~400 lbs.) was sampled and released (6.6 feet wide and 5.7 feet long), also sampled were 38 Pacific pomfret, 26 juvenile sablefish, and 20 juvenile squid, 4 juvenile coho salmon, one adult pink salmon, and one adult chum salmon. At the three stations fished further inshore on the transect, these fish were sampled: 33 juvenile salmon (11 pink, 14 chum, 4 sockeye, and 4 coho), 16 adult salmon (10 pink, 5 coho, and 1 chum), 5 juvenile sablefish, and 3 spiny dogfish.

**Icy Strait**--Fish catches in 28 surface trawl hauls along the Icy Strait and Upper Chatham Strait transects were: 1,272 juvenile salmon (47% coho, 34% pink, 18% chum, 1% sockeye, and <1% Chinook), 518 adult salmon (91% pink, 3% chum, 3% sockeye, and 2% Chinook, and 1% coho), 137 age-2 walleye pollock, 33 Pacific herring, 23 crested sculpin, 2 Wolf-eel, 1 prowfish, and 1 salmon shark. There were 11 CWT juvenile coho salmon recovered in the Strait transects; all fish originated from hatchery and wild stocks from SEAK. As with the trawl sampling in June, the biomass of juvenile coho has rivaled or surpassed that of and other salmon species, something that happens some years in August.





