

Coast Seafoods Company: Humboldt Bay Shellfish Culture Permit Renewal and Expansion



Robert M. Smith

Plauché & Carr LLP

Seattle, WA

(206) 588-4188

www.plauchecarr.com

robert@plauchecarr.com

Coast's Humboldt Operations

- * Began farming in Humboldt Bay in the 1950s
- * Owns/leases 4,000 acres in the Bay for shellfish cultivation
- * Historically cultivated up to 1,000 acres
- * Transitioned to off-bottom culture and reduced cultivated acreage from 500 acres to 300 acres after 1997 pending additional research regarding longline culture



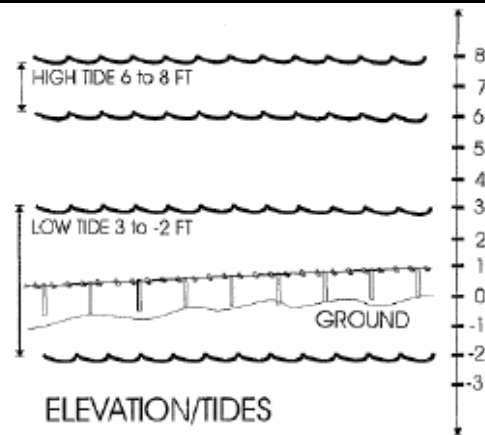
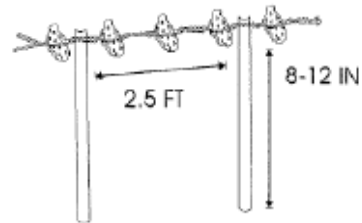
Figure 1. Coast Seafoods Company's shellfish culture leases and ownership in Humboldt Bay, California.

Project Overview

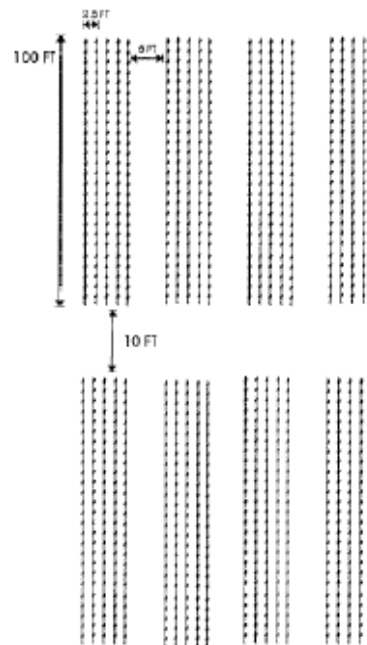
- * Renew permits on existing acreage – no expansion of leased areas
- * Re-permit 622 acres historically in shellfish cultivation (522 cultch-on-longline; 100 acres basket-on-longline / rack-and-bag)
- * Rack-and-bag will not be placed in eelgrass beds
- * Cultch-on-longline will be spaced 5 ft. apart (based on prior Humboldt Bay research)
- * Basket-on-longline will be spaced 5 ft. apart with a 20 foot row between each 3 lines



Figure 2. Areas proposed for continued and expanded shellfish culture.



TYPICAL
BED



Permitting Process

- * Harbor District application submitted
- * CEQA review in process
- * NOP within 2 months
- * DEIR 30-60 days thereafter
 - * Analyses: eelgrass impacts, fish impacts
 - * Includes: eelgrass monitoring plan, proposed mitigation
 - * Concurrent CCC & USACE applications
- * Biological Assessment and EFH Analysis submitted with Corps application

Eelgrass

- * Long history of co-existence with shellfish aquaculture in Humboldt Bay (60+ years)
- * Shellfish aquaculture not a limiting factor
- * Extensive, stable and potentially increasing

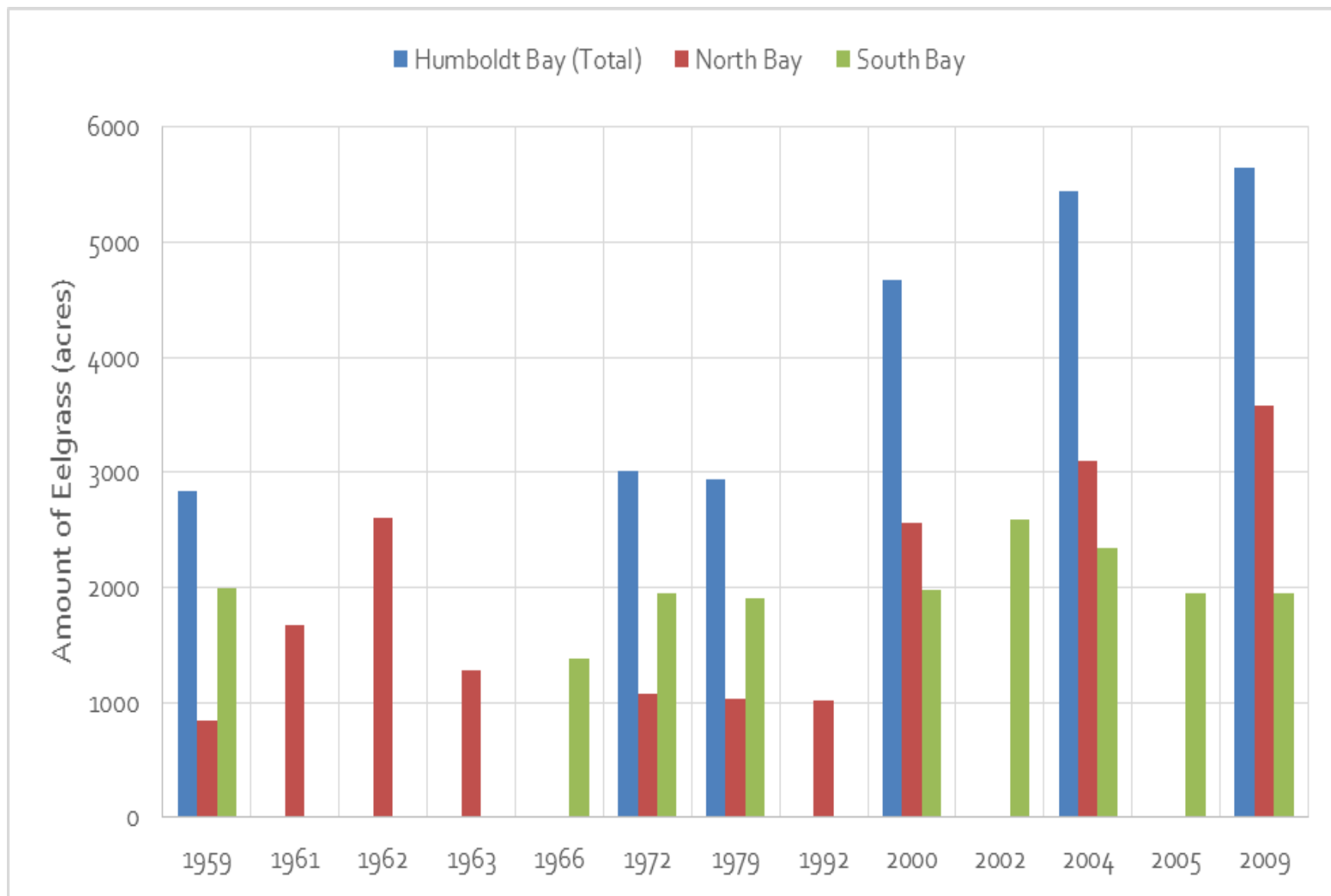


Figure 3 . Amount of Eelgrass in North Bay from 1959 to 2009.

Source: data presented in Table 22 of Schlosser and Eicher (2012)

Note: one error was noted for the Entire Humboldt Bay; value for 1972 should be 3,017 acres

Eelgrass & the Project

- * CAPES program and Dumbauld research suggests unit scale perspective
- * No effects in density or coverage versus control using 5-foot spacing between longlines (Rumrill & Poulton 2004)
- * Some turion loss directly under the longlines but may not result in loss of eelgrass function
- * Effects are both positive and negative
- * Technical report concurrent with DEIR release



Figure 4. Depiction of Width of Effect Directly Under Oyster Longlines.

Source: Dale, pers. comm., 2015

Shellfish Aquaculture and Eelgrass in Humboldt Bay

- Out of 622 acres of Potential Expansion Area:
 - No expected change to eelgrass bed areal extent (e.g., change from dense to patchy bed) but there would be a potential reduction in eelgrass density
 - Only 7% of expansion area includes area that can affect eelgrass
- Out of area with Longlines Present:
 - Potential loss of eelgrass density was calculated from data collected directly under longline plots within six different areas of North Bay
 - Potential loss represents eelgrass density change directly under the lines
 - Total loss of density is equivalent to <1% of eelgrass in North Bay

According to Steve Rumrill: “eelgrass beds and commercial oyster cultivation can coexist in Humboldt Bay, and that implementation of best management practices that include reduced density of oysters (i.e., oyster culture at 5 ft and 10 ft spacing between the longlines) may aid in the conservation of eelgrass communities.”



Mitigation

- * Overlap in ideal growing elevations – avoidance is not possible
- * Habitat Committee recommended buffer not supported by research associated with longlines
- * Coast will propose mitigation that will be included in its DEIR

Pacific Herring

- * Spawn primarily in northern end of Bay
- * Likely not limited by eelgrass population – herring uses 10% of available eelgrass surface in North Bay
- * Eelgrass and shellfish aquaculture trends appear unrelated to herring spawning biomass
- * Coast will perform visual surveys for spawning between December-February; 2 week work stop if herring spawn found to permit hatching

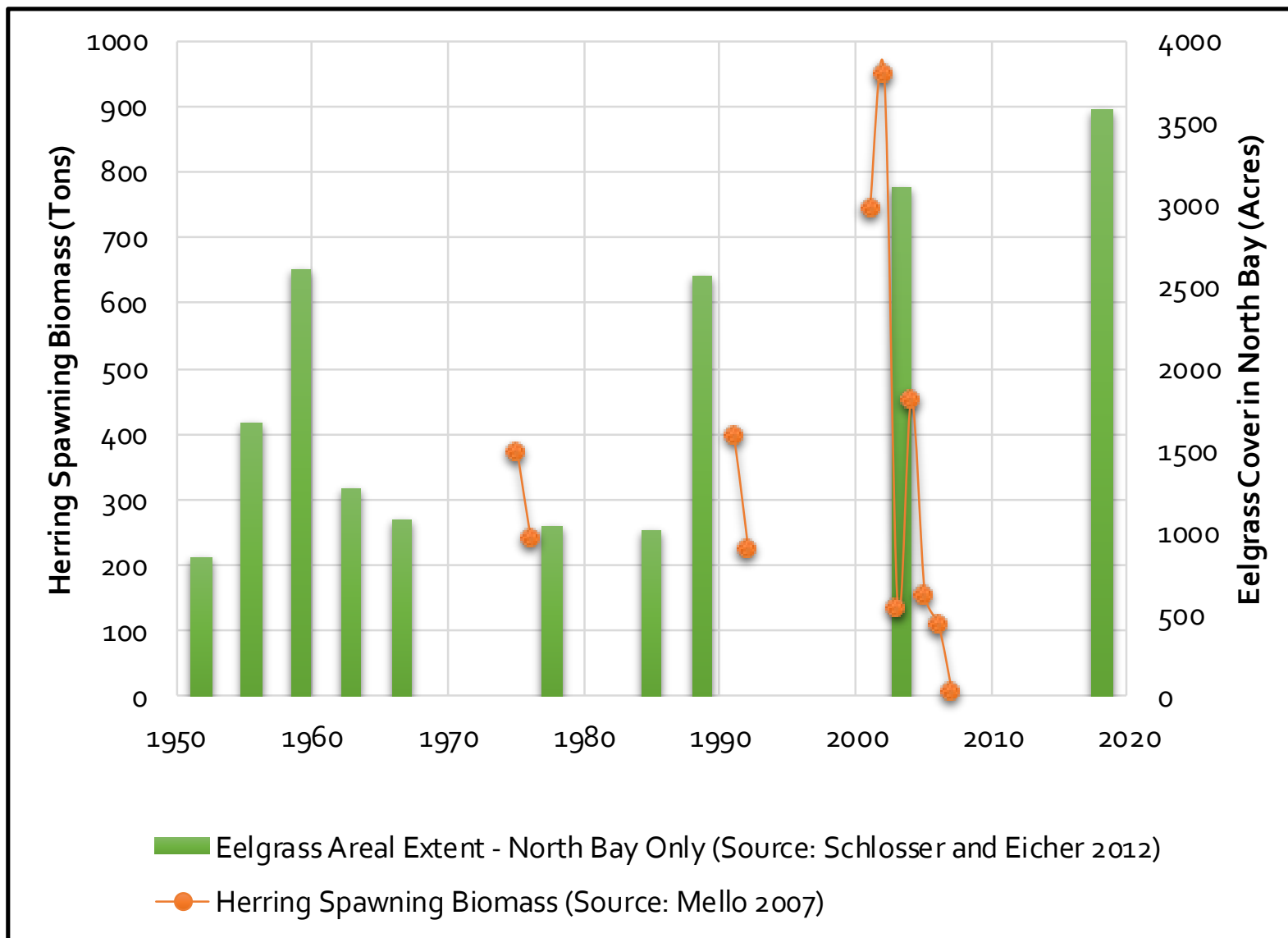


Figure 5. Herring Spawning Biomass and Eelgrass Areal Extent in North Bay (Humboldt Bay).

Other Fish Effects

- * Eelgrass provides refugia, foraging, spawning substrate
- * Studies show that aquaculture gear can provide similar functions
- * Fyke Net study shows similarities in fish usage of eelgrass and oyster bed habitat

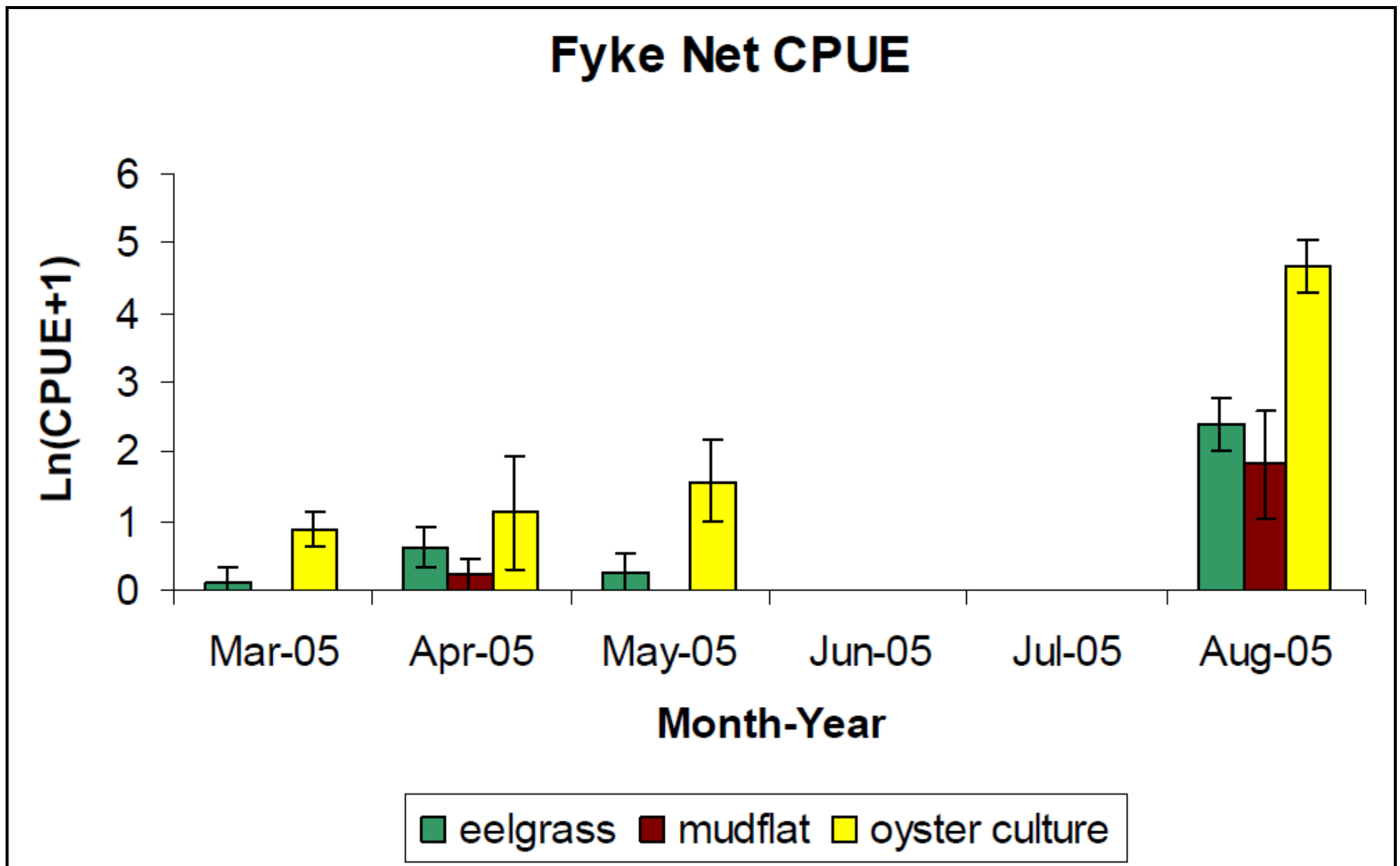


Figure 6. Mean Monthly Natural Log of Catch per Unit Effort (CPUE+1) of Fyke Net Samples Collected in North Bay, March 2005 to August 2005.

Source: Pinnix et al. (2005)

Questions?



Robert M. Smith
Plauché & Carr LLP
811 1st Avenue, Ste 630
Seattle, WA 98104
(206) 588-4188
www.plauchecarr.com
robert@plauchecarr.com