

Golden King Crab Observer Program

2010–2012 season update



Volunteer Vessel Requirements

- ▶ Safety Equipment
 - First aid kit, EPIRB, fire-fighting equipment, life rafts, and survival suits.
 - ADF&G personnel provide own survival suit and life jacket
- ▶ Passed USCG safety inspection
- ▶ Accommodations
 - Sleeping space for 1 ADF&G personnel
- ▶ Travel
 - Arranged with skippers
 - Ferry, tender, float plane, etc.



Goals

- ▶ Observe fishery in all management areas
- ▶ Sample at least 100 pots with 20 of those pots having their escape rings closed per trip
- ▶ Collect data on:
 - Females, sub-legal, and legal males
 - Size at maturity (carapace length and chela height relationship)
 - Female reproductive condition/egg development stage
 - Depth and spatial distribution
 - Size frequencies
 - Parasite prevalence (*Briarosaccus callosus*)
 - Leather back condition (very old crab with soft shell)
 - Bycatch species (pacific cod, sablefish, halibut, rock fish, etc.)
 - Pot locations (confidential) and soak times
 - Bottom temperature



2010–2012 Seasons

- ▶ Majority of management areas sampled
 - East central is troublesome
 - Solution: Sub-sample legal males and focus on sub-legal and female crab
- ▶ Historically data poor areas
 - Icy Strait, Lower Northern, and Southern
- ▶ New and returning volunteer vessels
 - Spatial coverage of population
- ▶ Observer Program Report 1998–2010



2013 Season

- ▶ Observe in all 7 management areas
 - Especially need data from Lower Northern
- ▶ In each area:
 - Sample 100 pots with at least 20 having their escape rings closed
- ▶ Volunteer Vessel Rewards
 - \$100 food reward (prime rib, candy, coffee, etc.)
 - Hat (2010), hoodie (2011), t-shirt (2012), hoodie (2013)



What we know & have learned

- ▶ 20 month reproductive cycle
- ▶ Females have larger and less eggs than RKC
- ▶ Size at maturity & size frequencies vary
 -  North  South
- ▶ Possible pattern in asynchronous reproduction
- ▶ Spine lengths may vary between management areas
- ▶ Parasite prevalence tends to increase as latitude decreases
- ▶ 5–6°C bottom temperature across all SE



COMMERCIAL FISHERMEN

King Crab Barnacle Parasite (*Briarosaccus callosus*)



There is no cure for this parasite and the only way to kill it, is by killing the crab with it.

- No human health concerns with eating crab

system inside the crab (internal).

- Infection occurs mainly in sublegal and female crab.

If found do not throw back in the water, 5 AAC 34.112 HARVEST OF PARASITIZED KING CRAB

“...all king crab, male, female, and sublegal, that have the barnacle parasite *Briarosaccus callosus* or a scar of the parasite under the flap, may be taken for commercial sale during open commercial fishing seasons. The external reproductive organ of the parasite must be removed from all crab before the crab is placed in a live tank and must be retained on board the vessel, out of contact with sea water, and transferred to the processor for disposal.”

For more information & questions contact:
Andrew Olson ADF&G
907-465-4259
andrew.olson@alaska.gov