PRINCE WILLIAM SOUND (PWS)
Shrimp Pot Fisheries

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Presentation Outline

• Biology and Life History
• How we come up with Guideline Harvest Levels
• Shrimp Pot Fisheries
  • Commercial
  • Noncommercial
Biology of Pandalid Shrimp

- Five species of Pandalid Shrimp in PWS
  - Northern or Pink
Biology of Pandalid Shrimp

- Five species of Pandalid Shrimp in PWS
  - Humpy
Biology of Pandalid Shrimp

- Five species of Pandalid Shrimp in PWS
  - Sidestripe
Biology of Pandalid Shrimp

- Five species of Pandalid Shrimp in PWS
  - Coonstripe
Biology of Pandalid Shrimp

- Five species of Pandalid Shrimp in PWS
  - Spot

Don’t Worry... There is no test..

-> They are all the same on the harvest report
Life Cycle of Pandalid Shrimp

Protandrous Hermaphrodites

**Spawn** in Fall

**Eggs** hatch in Spring

**Age 3-10:** all individuals are females

**Sex change from male to female**

**Age 1-2:** all individuals are males

**Larval Stage:** free-swimming, planktonic

**Juveniles:** settle to bottom in mid-summer
Ecology: Habitat by Species

• Northern, Humpy, and Sidestripe Shrimp
  ▫ Deep, flat muddy terrain, 60 – 5000 ft
  ▫ Range; throughout the polar regions; Bering Sea to Oregon

• Spot and Coonstripe shrimp
  ▫ Shallow to moderate depths 20 – 2000 ft
  ▫ Rocky terrain with steep drop offs
  ▫ Moderate to strong currents
  ▫ Ranges; AK. peninsula to Southern California
Ecology: What shrimp eat

- Opportunistic scavengers: Use antennas to actively search for food: invertebrates, algae, detritus....
Guideline Harvest Level (GHL) Development

• Surplus Production Model
  ▫ Relative survey abundance
  ▫ Survey CPUE
  ▫ Total catch weight
  ▫ Previous year’s harvest from commercial and noncommercial fisheries

• Model provides total allowable harvest (TAH) and GHLs for commercial (40%) and noncommercial fisheries (60%)
PWS ADF&G
Spot Shrimp
Survey Site
Locations
PWS Spot Shrimp Survey Results

- Mean number per pot
- Mean number per pot (≥32mm)
- Mean weight per pot (lb) (all shrimp)
- Mean weight per pot (lb) (>32 mm)
2015 Shrimp Pot Guideline Harvest Levels

- Total Allowable Harvest: 167,000 lb
- Commercial fishery: 67,000 lb
- Noncommercial fishery: 100,000 lb
PWS Commercial Shrimp Pot Fishery
Management Components

1) Total allowable harvest must be at least 110,000 lb for a commercial fishery to open

2) Allocation is 40% of total allowable harvest

3) Season dates April 15 through September 15

4) Fishery-dependent gear limits (100 pot maximum)
   • Set at between 20 and 50 pots
5) Limited hours of gear operation

6) Stringent reporting requirements

7) Fishery rotates among three areas

8) No more than 50% of GHL from any one statistical area
   (changed from 25% to 50% at the 2015 BOF meeting)
PWS Commercial Shrimp Pot Fishery
Area Boundaries and Statistical Areas
PWS Commercial Shrimp Pot Fishery
Harvest and Effort
PWS Noncommercial Shrimp Pot Fishery
NGC Area: PU Only

Cape Fairfield

Open for shrimping

Gore Point
PWS Noncommercial Shrimp Pot Fishery Management Components

1) Noncommercial fishery includes Subsistence, Sport, and Personal Use.

2) Sport license is required for sport and personal use, but not for subsistence

3) All saltwaters are open to shrimp fishing with the exception of subsistence use in the Valdez Nonsubsistence Area

4) There is no threshold that must be met in order for this fishery to take place.

5) Allocation is 60% of total allowable harvest
6) Season dates April 15 through September 15

7) Pot limits set at 5 pots/person/vessel with no bag, possession, or annual harvest limit

8) Harvest/Effort tracked through Shrimp Permit/Recording form ~90% returns

9) No inseason management
Fishery Dynamics: Non-comm. Harvest

<table>
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<th>Harvest</th>
<th>Rank</th>
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<tr>
<td>Whittier</td>
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<tr>
<td>Unakwik</td>
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<td>Port Wells</td>
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<tr>
<td>Port Nellie Juan</td>
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<table>
<thead>
<tr>
<th>Pot Days (Effort)</th>
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Permits are Mandatory for **ALL** non-commercial users

They are FREE!

Available at ADFG offices in Anchorage and Cordova as well many vendors
Can you keep anything other than shrimp?  

- **Yes**  
  Is there a bag limit on shrimp?  
  → **Good news... No**

Can you buy, sell, or trade your shrimp?  

→ **No**
Regulations for Pot Construction

• **Pot design**

  - Two adjacent (touch each other) vertical sides or half of pot must be webbing *(a 7/8 in. dowel must pass through the mesh)*
    - Top and bottom can be covered by anything **allows for juvenile escape**

  - Escape panel tied with cotton string = No “Ghost Pot”
Regulations for Pot Construction

700 pots were lost last year!
Regulations on Buoys

• Buoy marking pot line
  ▫ Must have name, home address, DOT Boat number or boat name (see reg booklet)
  ▫ Recommend putting your phone number on your buoy to aid enforcement officials
Regulations

- Pick up a regulation booklet
Catching Shrimp
Catching Shrimp: Variability within an Area

- Availability of Food and Cover
- Prevalence of Predators
- Competition with other scavengers
- Season
Catching Shrimp: Pot Soak Time

Below average catches beyond a 30 hour soak time
Use Your Chart and keep good records
Catching Shrimp: Maximize your Catch

- Be Adaptive
  - Try new areas
  - Use a variety of baits
  - Adjust depth with seasons
  - Adjust your soak times by number of hours and time of day
  - Find what works for you but stay adaptive
PWS Commercial Shrimp Pot Fishery
Harvest and Vessel Participation
1960-1992

- First GHR of up to 145,000 lb (exceeded)
- Second GHR of up to 200,000 lb (exceeded)

Specific areas closed
Gear limits imposed
Fishery closed