Department of Fish and Game Commercial Salmon Fishery Overview

## ADF&G Mission Statement

To protect, maintain, and improve the fish, game, and aquatic plant resources of the state, and manage their use and development in the best interest of the economy and the well-being of the people of the state, consistent with the sustained



yield principle.



## How it works



Escapement goals and allocated harvest levels for each user group are set in regulation by the Board of Fisheries.



ADF&G manages salmon runs inseason, first and foremost, to meet escapement goals and hatchery needs.



#### Our role at ADF&G

Management priorities:

- <u>Escapement</u>: allowing wild salmon to reach the spawning grounds to reproduce and sustain the population
- Subsistence fishery
- Commercial fishery, Personal use fishery, Sport fishery



# Copper River Drainage



- Extends from Summit Lake to the Gulf of Alaska ~300 miles
- 11 major communities
- Encompasses over 24,000 square miles; Alaska's fifth largest river system



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# Limited entry

- Commercial Fisheries Entry Commission (CFEC) was established in 1974.
- Most fisheries are limited entry, e.g., there are 532 drift gillnet, 267 purse seine, and 30 set net permits for Area E (includes the Copper River District).

#### Fisheries Management

- Time and area to ensure:
  - Wild stock escapement
    - Copper River king salmon inside closure line
    - In river run goal
    - Regulatory closed waters
    - Salmon Harvest Task Force Markers
- Hatchery cost recovery and broodstock
  - Daily recommendations from hatchery operators
  - Hatchery subdistricts, THAs and SHAs
- Bound by multiple management plans.
  - Copper River
  - PWS



#### 5 AAC 24.360. Copper River District Salmon Management Plan

(a) The department shall manage the Copper River District commercial salmon fishery to achieve a SEG of 360,000 - 750,000 sockeye salmon into the Copper River.

(b) The department shall manage the Copper River District commercial salmon fishery to achieve an IRRG of salmon, as measured at the sonar counter near Miles Lake, based on the total of the following categories:

- Lower end of sockeye salmon SEG
- 17,500 other salmon
- Glennallen Subdistrict subsistence fishery (61,000-82,500)
- Chitina Subdistrict PU fishery (100,000-150,000)
- Sport fishery (15,000)
- Hatchery broodstock
- Hatchery surplus

### 5 AAC Prince William Sound Management and Allocation Plan

- Reduce conflict by providing a fair & reasonable allocation of the harvest of enhanced salmon among 3 gear groups.
- Maintain historical balances among user groups while acknowledging developments that have occurred since implementation (1991).
  - Exclusive access to specific enhanced salmon stocks based on harvest value inequity.
    - Port Chalmers (drift gillnet)
    - Esther Subdistrict (purse seine)
    - Set gillnet and drift gillnet inequity in Eshamy District is mitigated via time restrictions





## **Fishery Assessment**

#### Escapement Monitoring: sonar, weirs, aerial surveys



#### **Daily Harvest Reporting**

#### Biological Samples: Otoliths, ASL, and Genetics



#### Management Tools- Copper River District example



#### Miles Lake Sonar



## **Aerial Surveys**

- Evaluate escapement in Copper River Delta, upriver, and PWS streams.
- Compared to an expected weekly index to evaluate escapements.



# Management of hatchery stocks vs. wild stocks

#### **Hatchery Stocks**

- Hatchery stocks managed to provide cost recovery & broodstock
- All private non-profit.
- Fish surplus to hatchery needs are available for common property fishing (in PWS, this is mostly commercial fishing).

#### Wild Stocks

- Given priority in statute.
- Wild stocks managed to provide for spawning escapement.
- Fish surplus to
   escapement needs are
   available for common
   property harvest.







## ASL

• Age

• Sex

• Size (length and weight)

#### Why Age Salmon?

- Stock Assessment
- Fisheries Management
- Growth, Demography, & Life History Data RE: Longevity & Survival
- Determine broodyear of hatchery fish that have had similar thermal marks applied over multiple broodyears.





Copper River Sockeye Size

Copper River Drift Gillnet Sockeye Salmon Length-at-Age (1.3)





