

## Memorandum

**To** : Paul M. Hubbell **Date** : October 2, 1973  
Research Supervisor

**From** : **Department of Fish and Game**

**Subject**: Monthly Report for September, 1973 - Coastal Steelhead Study

### Downstream Migrant Trapping

Trapping efforts on the Gualala were reduced this month due to insignificant numbers of steelhead caught per night and reduction in manpower. One overnight set was made September 27, following three days of significant rainfall. The river mouth remained closed during the rain which caused the water level to rise about three feet near the mouth. No steelhead were captured during the September 27 set.

### Rearing Areas

No areas were surveyed during September.

### Cage Rearing

On September 12, 10,000 steelhead averaging 91/lb were put into the floating cage facility in the Hay Pond near Point Arena. The steelhead are South Fork Eel River stock from Mad River Fish Hatchery. Losses have been minimal and the fish are looking good. OMP is being fed by hand three times daily.

### Beach Seining

On September 5, nine seine hauls were accomplished in the lower Gualala: two in the "Park Hole" and seven in the estuary. Respective totals of 87 and 68 steelhead were sampled, and of these, 3 and 6 fish, respectively, had been marked last month with a caudal fin clip. These data yield population estimates for the two areas (Peterson method) of 2,219 and 2,584 fish, respectively. The respective 95% confidence limits (based on Chapman) were 799-5,165 and 571-9,535 fish.

These estimates are based on the assumption that the fish marked in August randomly distributed themselves in the two sample areas. We cannot defend this assumption, however. Based on visual observations of fish in areas not seined, the estuary populations estimate seems too low.

Lengths of steelhead sampled from the two areas indicated fish-of-the-year dominate the upriver area (Park Hole), while yearling and older steelhead dominate the estuary. Considerable length-frequency data were obtained.

Six seine hauls were made September 6, in the Garcia River estuary. Approximately 200 juvenile steelhead were sampled. They averaged about 6-1/2" FL which was about 1-1/2" longer than the steelhead from the Gualala estuary. The brackish water condition in the Garcia accounts for the larger size of the Garcia fish; the Gualala estuary is essentially fresh water. Preliminary scales analysis indicate a greater growth rate in the Garcia estuary. Juveniles up to 10-1/2" FL were sampled in the Garcia.

Also sampled in the Garcia were one adult female pink salmon and one near-record size rubberlip sea perch (about 18"). Pink salmon have been previously recorded from the Garcia. Other euryhaline species encountered included market crabs, starry flounder, pipefish, shiner perch and smelt.

#### Fishery Sampling

##### Mad River:

Creel census efforts were initiated on the Mad River September 15. One Seasonal Aid will be working almost daily through February 28, 1974. During September, one "trout-sized", 5 half-pounder, and 3 adult steelhead were sampled.

The census area extends from the mouth to just above Mad River Hatchery. On the 26th, 133 anglers were observed during one Use Count.

#### Miscellaneous

Our Job Progress Report for the period June 1, 1972-June 30, 1973, was completed and submitted to Portland on September 27.



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