Trap Equipment

* Two in-line 8-foot diameter rotary screw traps

Current Trap Location

* Sacramento River (River Mile 88.5) near Knights Landing, California

Monitoring Schedule

* September through June
* Continuously trapping except under high flows and unsafe working conditions
* Serviced daily approximately every 24 hours, more often, if needed, due to high debris amounts or fish catch
* Trapping ceases when conditions are unsafe

Daily Environmental Data

* Flow (cubic feet per second), recorded from the CDEC Gauging station: Sacramento River Below Wilkins Slough (WLK)
* Water temperature (Celsius)
* River depth (meter)
* Turbidity (nephelometric turbidity units)
* Dissolved oxygen (percent)
* Conductivity (microSiemens per centimeter)
* Velocity (meters per second)
* Light penetration (centimeter)

Fish Measurements

* Fork length measurements to the nearest mm are recorded for all Chinook salmon and steelhead
  + Chinook salmon: 100 randomly selected salmon per run: spring-, fall-, winter- or late fall-runs. Run assigned by Length at Date criteria (Fisher 1992).
* Non-salmonid fish: first 10 measured for total length and recorded to the nearest mm

Fish Counts

* All fish not measured are tallied by hand

Trap Efficiency Trials

* Utilize trap-captured Chinook salmon falling within size criteria for unmarked: fall-run, spring-run and late fall-run
* Utilize trap-captured Chinook salmon falling within the size criteria for hatchery origin fish: fall-run and late fall-run
* If trap captures are too low for efficiency trails, fall-run Chinook salmon are obtained from Coleman National Fish Hatchery (CNFH)
* Frequency of once per week from December to May across variable flow and environmental conditions as catch totals and/or hatchery availability allows
* A minimum of three consecutive days of fishing after the release date is required for a release to be included in analyses
* Mortality between the release point and the trap is assumed to be negligible
* Release site approximately 0.5-mile upstream of the trapping site

Trap Efficiency Marks

* Salmon captured in the RSTs are marked with Bismarck Brown Y (BBY) or Methylene Blue whole body stain.
* Salmon obtained from CNFH are marked with a Visible Implant Elastomer (VIE) Tag

References

Fisher, F. W. 1992. Chinook salmon, *Oncorhynchus tshawytscha*, growth and occurrence in the Sacramento-San Joaquin River system. Draft report dated June 1992. Sacramento, CA: Inland Fisheries Division, California Department Fish and Game. 42 p.