



King Salmon



Coho

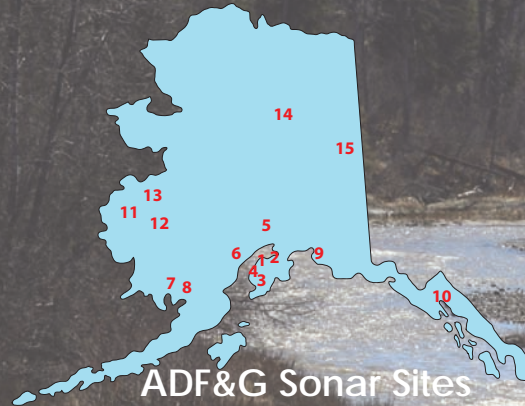
The Anchor River sonar and weir site was established primarily to monitor king salmon, but after the king salmon run is complete we keep the weir in place so that the subsequent coho run can also be monitored.



### When we operate

Sonar operations begin between May 13 and May 15, and generally continue until sometime in early or mid-June, after which the site continues as a weir site. We have been using the sonar and weir site to monitor king salmon since 2004.

Have a question, comment or suggestion?  
Please contact us by phone, e-mail or snail mail.



- ADF&G Sonar Sites**
- |                   |             |                   |
|-------------------|-------------|-------------------|
| 1. Kenai (RM 8.6) | 6. Crescent | 11. Yukon (Pilot) |
| 2. Kenai (RM 19)  | 7. Nushagak | 12. Aniak         |
| 3. Anchor         | 8. Kvichak  | 13. Anvik         |
| 4. Kasilof        | 9. Copper   | 14. Sheenjek      |
| 5. Yentna         | 10. Chilkat | 15. Yukon (Eagle) |

### Upper Cook Inlet Region



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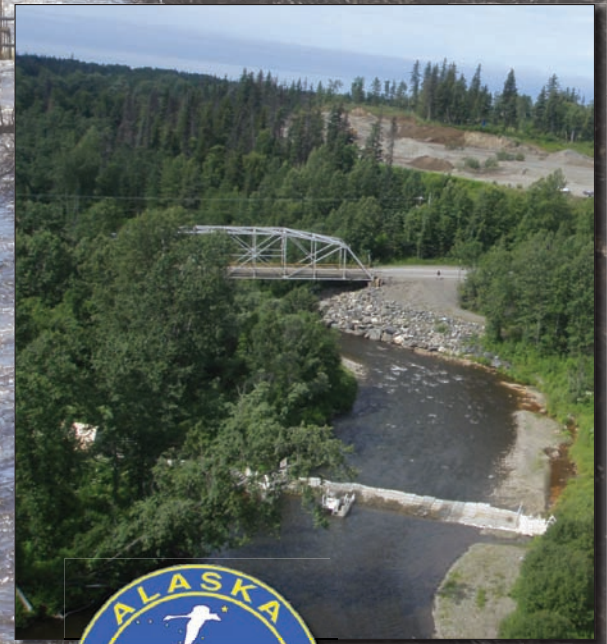
For more information on the Anchor River sonar and weir site and other Alaska Department of Fish and Game fisheries sonar sites visit:  
[www.AlaskaFisheriesSonar.org](http://www.AlaskaFisheriesSonar.org)

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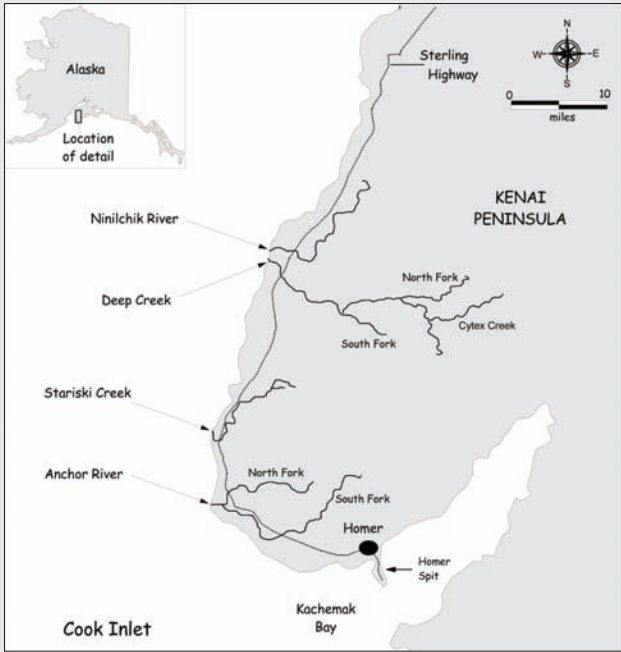
## Anchor River Sonar and Weir Site

How biologists use the sonar and weir site to generate Anchor River king salmon estimates



The Anchor River is one of two rivers on the Kenai Peninsula where we monitor king salmon using sonar. And among the 15 sonar sites we have throughout the state, the Anchor River site is unique in its combined use of DIDSON—the latest generation of fisheries sonar technology, and a weir—a non-sonar tool that has been used to assess fish escapement since well before the introduction of sonar. At this site, old and new technologies complement each other perfectly.

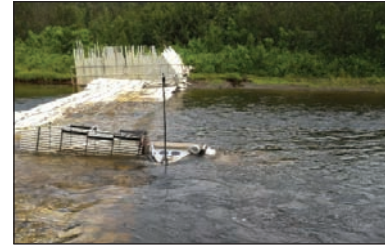
### Where we are located



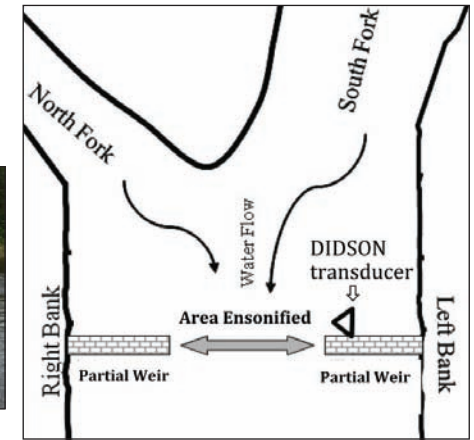
The Anchor River is located on the southern portion of the Kenai Peninsula and empties into lower Cook Inlet just south of Anchor Point. The sonar and weir site is strategically located two miles upstream of the mouth—just below the confluence of the river’s north and south forks, and just upstream of the sport fishery.

## Anchor sonar and weir operations

Whenever possible we prefer to use weirs to monitor migrating salmon because they allow us to get a precise count of every fish by species.



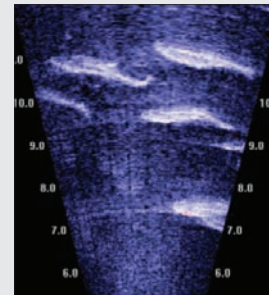
In the Anchor River, water levels are too high to install a weir during the first few weeks of the king salmon run. Sonar enables us to begin our king salmon counts while we wait for water levels to drop to low enough levels to install the weir.



We deploy the DIDSON transducer between two partial weirs that funnel migrating salmon within the detection range of the transducer’s sonar beam.

## Our sonar technology—DIDSON

DIDSON records video of migrating salmon similar to images produced with ultrasound in hospitals.



Sonar doesn’t identify fish by species and we count all sonar-detected fish in the Anchor River as king salmon. We operate sonar when



Sonar site crew deploy the DIDSON transducer into the river each spring.

almost all of the fish in the river’s mainstem are king salmon. Steelhead are also present, but their numbers are small compared

to the number of king salmon and the estimate bias they introduce is minimal. Other species of salmon do not arrive until after we have installed the weir and can easily identify fish by species.



## Sampling

As we monitor migrating salmon, we also capture and release some king salmon to collect length and sex information, and scale samples, which helps us better evaluate population trends.

