# We're tracking the movement of juvenile salmon...

Mat-Su supports some of North America's most productive salmon fisheries. It's also one of Alaska's fastest developing regions.

*Spawning sockeyes stack up below a road culvert in the Big Lake drainage. Surveys of hundreds of road-stream crossings in Mat-Su show that two out of three culverts block fish at some or all flows.*

Projects to improve the ability of fish to pass through road culverts are ongoing. However, limited resources means only a portion of fish passage barriers get fixed each year.

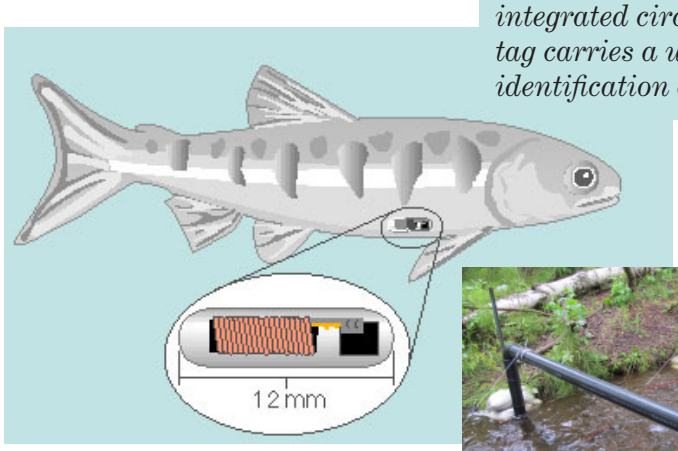
Tracking where and when juvenile salmon are moving and what habitats they're using helps us better prioritize what fish passage improvement projects will provide the biggest benefit.

How do we track their movements? First we have to catch them - we use baited minnow traps.

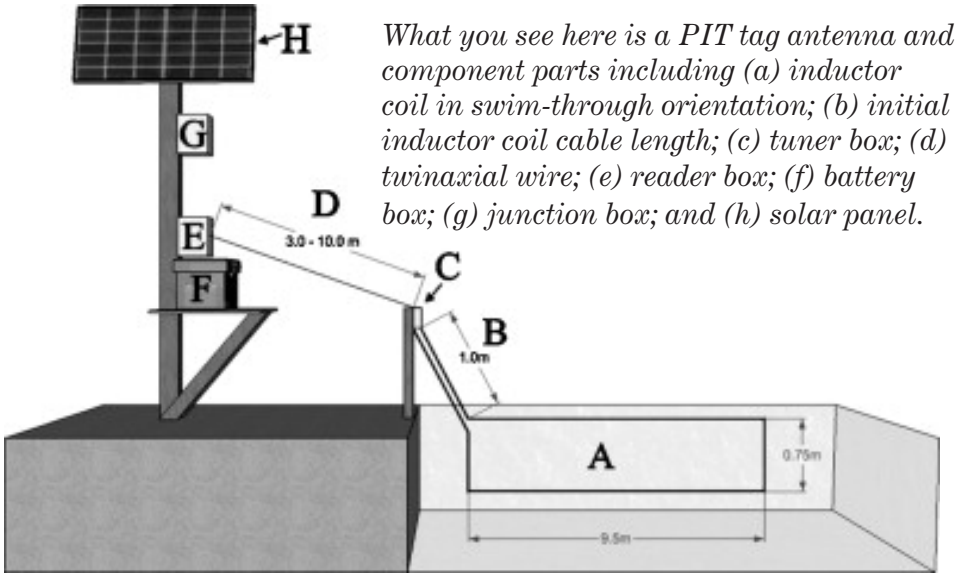
We then implant a tiny Passive Integrated Transponder (PIT) tag in their abdominal cavity (like microchips in pets). Then they're released.

Seven fixed arrays that span different streams in the Big Lake drainage "read" the tagged fish every time they pass through, letting us know which tagged fish passed by and when.

*PIT tags are very small glass tubes containing an antenna and integrated circuit chip. Each PIT tag carries a unique code to enable identification of individual fish.*




*Fixed antennae arrays.*




*What you see here is a PIT tag antenna and component parts including (a) inductor coil in swim-through orientation; (b) initial inductor coil cable length; (c) tuner box; (d) twinaxial wire; (e) reader box; (f) battery box; (g) junction box; and (h) solar panel.*

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