

FAWN LAKE:

On June 30-July 2, 1980, Fawn Lake, Baranof Island, was surveyed. Minnow trapping, gill-netting and hook and line sampling were conducted. Also, chemical analyses were performed on surface water samples from Fawn Lake.

Fawn Lake is typical of most Southeast lakes in that it is very oligotrophic. Total hardness was only 6 mg/l  $\text{CaCO}_3$ .

The lake supports a population of rainbow trout originally planted in 1938. Spawning takes place in a limited area of outlet, but excellent rearing area in the outlet seems to allow for a high survival rate. The outlet and the log jam area in the outlet end of the lake support a large concentration of rainbow up to 200 mm fork length. Minnow traps in the outlet fished amazingly well. One 4-minute<sup>set</sup> yielded 62 rainbows, and one 3-minute set held 44 rainbows.

Rainbow trout were the only fish found in this non-anadromous lake. There doesn't seem to be a very large population of large rainbow trout. Fish up to 392 mm were sampled and a couple larger ones were sighted but very few over 300 mm were sampled.

Thirty rainbows were sampled for BKD analysis, and 55 scale samples were taken.

Fish sampled near the main inlet to the lake were feeding mainly on terrestrial dipterans and coleopterans. Fish sampled in the outlet were feeding on tricopterans, simuliids and ephemeropterans. A couple fish were feeding on snails, gastropods,

Flesh color on fish sampled was white, indicating a lack of amphipods in the system.

There were fair numbers of caddis nymphs along the shoreline, but littoral area was ~~very~~ limited. The east end of the lake is fairly shallow, but the west part has cliff-like shores ~~d~~ropping into very deep water.

Fish up to 392 mm were sampled and a couple larger ones were observed. <sup>most fish were under 300 mm.</sup> There does not seem to be a large population of big rainbow present in Fawn Lake, and I believe they could be easily overfished during spawning season. <sup>Moderate</sup> Fishing pressure would not have much effect on reproduction, however, due to the large number of 250-300 mm fish that were mature. — valid?

All adult fish sampled were spawned out, and the condition of their gonads and the water temperature (13°C) indicates that spawning probably takes place in May to early June.

~~Age~~ Age analysis of Fawn Lake rainbows indicates that we did not sample any fish over six years old, so there may be a fair population of older larger fish we missed.