

September 4, 1950.

WJK50-09-04-01

51 redds this morning. 24 & 39 on previous days. Upper patch of redds has 14; yesterday has 8-9.

Fish on redds at 650. Badly disturbed at 650 when I tried and failed to secure eggs without damaging the redds.
200 & 63 W61 Cloudy, occasional rain.

245 Fish are returning but not in force.

247 A spawning occurred; was followed by a scramble.

249 Fish are moving in more rapidly now.

Rain.

250 Disturbed fish in securing arena from rain.

253 Fish returned and spawned in another redd. Mixed details.

255 A piece of bright yellow stone about 1 cm in diameter is in the otherwise sandy redd of the ♂ that just spawned. He just pushed it part of the way up the side with the upper portion of his snout.

258 This individual and his neighbor seem to have a feud. Each has crossed into the other's redd to do battle - ending
I coughed and they hurried but are returning again.

800 & 73 W62 Rain.

801 Spawned. The ♂ was in a U; mostly on the left side of the female. Vents were in close proximity. I could see much of this ventral surface.

806 ^{situation} Mostly of ♂s chasing each other.

815 Have been following actions of a ♀ for about two minutes. She wandered about from redd to redd. I believe she finally spawned although I am not sure because I lost track of her in a while. A ♂ followed part of the time.

September 4, 1950 # 2.

825 Disturbed then in getting into a better position for swimming - the light is different today. Worked over the seat and made the situation worse but the seat better.

832 ♂s moved in at 830 and are now home their little net-tos as they find their uddo.

835 The attack of a ♂ is usually by a curving or flanking attack.

843 The females are on the uddo guarding but not doing much wandering. On 2 occasions, one now, they were seen to dig.

853 It has been the ♂s ^{fighting} most actively that is most likely to dig.

855 The ♀ wanders, ♂s follow, trouble starts. Csk tsk.

900 A72 W63 1. Cloudy.

Little happening but the usual pickings. Rarely even a good circle fight.

909 The mode of greeting strange fish is all pretty much the same. Circling, an arcing attack or even (chick) nuzzling. Differs in degree. ♂s more violently approached.

911 Disturbed by a saw.

920 Fish returned in fair numbers.

923 Sharp shot startled fish a little.

927 ditto.

942 A Catostomus is taking a beating. These suckers follow Shand's principle of passive non-resistance. Commonly they are not feeding so but lurching and are repeatedly patted above the vent or lifted from below. Act as if dead and latter they get up and move without arguing.

Sept. 7, 1950 #3.

947 Both types of suckers have entered the ^{Agoria} rudds. *Catostomus* is feeding near the tops of the ~~red~~ ridges of the rudds, ^{snags buried in sand} *Pantostomus* just idling.

952 Particularly sharp spots & a resilient reaction. *Agoria* quickly.

1000 A 74 W 64 A little bright but still almost 1. cloudy (94)

The low spots between the rudds allow fish to pass across without backs showing. On high spots they often run aground.

1018 A milling. Was there a spawning. I doubt it.

1043 Just a little wandering and chasing going on.

At frequent intervals and on all days & in all streams on this top fish, suckers & *Agoria*, were seen ~~at~~ rubbing themselves on the sandy bottom; sometimes very vigorously & for half a minute or more.

1100 A 75 W 67 .9-1. cloudy. Little activity.

Older rudds are nearest shore on the center of the mass.

1130 A . W 70 1 cloudy

leaving.