

Wednesday June 28, 1944 #1

WJK44-06-28-01

Not much accomplished today for various & sundry reasons.

Max-min. thermometer 68-41° F.

Talked with Dave Scott, the forest ranger. He says the high waters wash out the beaver dams and that the beaver do not rebuild until fall - October or sometimes September.

Looked for redds in lower mile of stream.

Redd #1 below old stream improvement dam.

Bottom of fine gravel ^{but} with a large amount of 4-7 cm. flat stones mixed with the smaller 1-3 cm material. Depth 12 cm Current $7\frac{1}{2}$ Excellent pool above.

Stream improvement dam - log dam faced with rough boards. In excellent condition. Some loss of water around end. Pool excellent. Spawning redd mentioned above was at end of pool.

Photo-redd. Upper twig in foreground practically points at nest (in flat plane) between 2 huge flat stones. photos taken of ~~upper~~ stream side of dam.

June 28, 1944 #2

Speaking of stream improvements, most of the structures are washed out or ~~are~~ under cut so they no longer work. A few are in fine condition. One faced with flat stones (as the other was with boards) was in fairly good condition. This has the advantage of looking less artificial.

Photo - V-dam forced apart.

Redd #2 On bar in center of stream in middle of riffle.

Depth 11 cm, Current $3\frac{1}{2}$, Gravel 1-3 some to 7 cm. Stream well covered, no pool for 25 feet.

Redd #3 At edge of riffle. Depth 10 cm, Bottom gravel - 3 cm. (much under 1 cm) Shade for part of day. No pools for 60 feet.

Photo by stick on shore.

Redd #4 On inside of curved riffle. No pools or shade nearby B - 1-2 cm, C. $3\frac{1}{2}$ D 19 cm.

Photo - just above large rock with dark patch of sand on it.

June 28, 1944 #3

Redd #5 2 1/2 feet from shore at edge of riffle with small pools close by. B 1-4 cm, D 13 cm, C 2 1/2

A sulphur spring enters below the elongate stone. Its water does not pass over redd.

Photo - at end of elongate rock on shore (lowermost of rocks on shore)

Photo - Ideal spawning area created by old beaver dam. Several pits but no fish on them.

Redd #6 Under alder, 1 foot from shore. in part shade, no pools nearby. C 2 2/3 D. 7 B 2-6 cm.

Photo by small projecting root (in center of field) on shore.

Went up to mouth of Palisipio after lunch to pick up eggs seen deposited yesterday, and if possible the parents. Fish measured & preserved immediately.

- 1) T.L. 235 Wt. 123.6 - was on redd. (gray huckle)
- 2) 167 42.0 gr - prob. ♀ from yesterday.
taken off redd, looked the same - (warm)
- 3) 177 47.5 gr. without much question
the ♂ from yesterday. (~~ant~~) (ant)
- 4) 150 31.8 (warm)
preceding from same region following from pool below.
- 5) 172 50.0 (warm)

June 28, 1944 # 4

As seen so far, the adds seem to bear the following relations to environmental factors:

Current: surface current seems to be between 1-3 feet per second in almost every case. Such places are found at the tail of pools and at the edges of riffles as a general rule. Occasionally one found on the edge of pool, frequently on bars in center of ~~ref~~ a more or less longitudinally divided riffle.

Depth: practically all ~~are~~ are at depths of 1 foot or less. ^(made) average probably about 7 cm. Some in water so shallow that the fish backs are out of water.

Gravel: An important factor. Probably current and size of gravel are two most important factors. Fine gravel is universally present. A large share of the chosen bottom is composed of pebbles 1-3 cm. in diameter. Finer materials are of course present but not dominant. Coarser materials (other than occasional large stones) up to 7 or 8 cm are common. In only one place did 4 or 5-7 cm. gravel appear to ~~dominate~~ be more prevalent than the smaller. ^{suitable} No gravel patch containing less than 2 square feet appeared to be utilized.

June 25, 1944 # 5

Pools, other than the general effect on current seem to be of no significance

Shade: Redds were found in regions of fairly dense shade and in areas of almost complete lack of shade, apparently at random.

Cover (on bank, etc): as with shade:

~~To summarize: Almost any patch of the fine gravel in a~~

To summarize: Patches of gravel composed largely of stones 1-3 or 4 cm. in diameter and with an area of greater than 2 square feet in a current of approximately 1-3 ft. per second (at the surface) appears to be used. This usually occurs at depths of less than 1 foot.

Enemies of redds:

1. Felling water level. Some redds examined yesterday are out, or nearly out, of water to day - at the surface.

2. Fishermen: areas chosen are frequently convenient places to cross a stream or to stand and fish.

~~3. Herons: Great blue heron tracks are common along the creek.~~

3. Trout - probably not. No attempt was seen made to catch the eggs. Small trout do not congregate below the redds as in the eastern brook trout.

4. Sittling -

June 28, 1944 #6

It should be noted that in making notes on redds, only those presently in use by spawning fish were considered. About as many (somewhat less if anything) non-occupied but suitable places were observed, most or all of which showed signs of use, i. e. clear spots and frequently pits.

Went out between 10 & 10:30 P.M. - cloudy - and looked for fish with the lantern. Saw quite a few. Possibly could be caught with a suitable ^{one-bayded} net. Caught 2 small ones. Preserved.