

August 16, 1939 #1

Had set up camp at Clayton to get water and supplies so had to run north to pick up a couple of streams that were passed over last night. Mileage 16774

WJK39-08-16-01

Secured the North Canadian river just south of Moos. The water is white and quite turbid although the stream seems to be at its normal level. The width varies from 15 to 25 feet although most ~~are~~ is from 15 to 20 feet. The stream here is largely one long riffle with poorly defined pools. The best one just beneath the bridge, is 4 feet deep & remainder are about 18 inches deep. The riffles are ~~at~~ up to 6 inches deep. The current is moderate to strong. The bottom is largely sand, much of it of the type that lets one down rapidly, boulders are common, some rubble is present. A. 84° to 44° at 9:50 A.M.

Planiterus zebra and Pimpla p. confertus were in the pools. Nothing was found in the riffles.

WJK39-08-16-02

Secured an unnamed tributary ^(probably) of the Dry Cimarron on route 18 several miles north of Moos. This is a small clear stream mostly very shallow although 3 of the pools are large and deep up to 4 feet. Most of the stream is four to seven feet wide and

August 14, 1939 #2

two inches deep. The extremes of size are 3^{feet} wide and 3/4 inch deep to 15 feet wide 4 feet deep. Current moderate to strong. The bottom is largely gravel with some sand, ~~gr~~ rubble and a few boulders. A very small amount of Characeae is present. 82° W 82° 11:05 AM.



Planctonus zebra ads. in pools. & slow ruffles
yg. " " " in ruffles

Princeptales p. confusus in pools.

Notropis girardi ads. in ~~deep~~ pools.

Campostoma anomalum adults in pools.

Had lunch and when I went to take a habitat photo graph saw actions suggestive of spawning in P. zebra.

12:23-12:25 A male pursued a female and at times was very close to her. At these times, they would seem to be nearly touching, the male was above and slightly to one side and the rear of the female. Side view  Dorsal View 

This action was interrupted by another fish, probably a male.

August 17, 1939 #1

Had a wind and thunderstorm last night. Spent part of morning repairing damage to tent and writing notes that could not be worked on during the high wind.

Left camp at Clayton and moved north to the unnamed stream twelve miles north of Mores. (38 mi. north of Clayton). Mileage 16754. Wanted to get more information on the spawning of Platyterus zebra. Arrived shortly before noon and began to watch. Watched for over an hour without seeing any signs of courtship. Males were to be seen in the shallow pools but were not ~~the~~ antagonistic toward one another. A. 82 W 88 at noon. Perhaps 88°F is above their spawning range.

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1:10 PM. A male spotted a female and circled her several times, they then swam tandem as described above and mated. Both tails were kept away from the ground. At the completion of spawning, ~~but~~ they went off tandem apparently intent on spawning again when another or came along and knocked as seemed to knock the pair apart and started a free-for-all. Several times in their travels tandem, the female keritated, apparently picked something off the bottom. At each keritation the male seemed about to assume the spawning position. It may be that she was actually feeding because both sexes fed between the spawning acts.

2:15 No spawning has been seen during the last hour.

Two males have been together without fighting during much of the time.

On the way home saw an animal sitting on the road with his back toward me. It looked like a jack rabbit but when it got up at my approach I saw that it was a bit fox or some such animal. Slammed on the brakes and grabbed my gun and shells but it was out of sight too soon in the bush. Something moved in the bush at my feet and I collected two rattlesnakes instead. 12 miles north of Clayton

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The male then swam in his sinuous manner before the female as they went upstream. Twice he stopped this to swim in circles about her ^(18" in diameter) as if herding her. This performance was disturbed by another male.

12:47 Just saw a ♂ "dancing" in front of a female. (swimming like ~~~). Another male came and attacked the male. Could follow no further.

The males seem to move about most of the time. When they meet, one ^(so far the larger) chases the other for several feet but no actual combats were seen.

1:00 PM. A pair just mated. The tail of the male is bent away from the female ^(not over her back as in the black-nosed case).

A male met a female and began circling about her. After a few revolutions by him, she swam off and ~~he~~ went after her still circling. Another male came along. The female entered the very shallow water and stopped. The first ♂ stopped for a moment near a cobble. The second male seemed about to place himself in a spawning position with the first when the latter moved and all three went off in a mad whirl.

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The males seem to have a vague territory or at least are antipathetic to other males as one chases the other when they meet.

12:29 A male chased a female

12:31 Two adult males are in view. One is essentially stationary behind a small rise in the bottom, the other is actively moving about apparently feeding.

They just came within two feet of one another. Think that they saw each other. If so, then there is no such thing as "territory" because the intruder was definitely within the area guarded by the other.

12:33 A large ♂ just chased a small one.

12:36 Spotted a male just as he found a female on the bottom. He mated with her by pushing himself to her against the ground and shaking. The pair then moved off upstream. The male going first and swimming in a sinuous path before the female



12:42. Just saw them again. The female was lying on her right side on the bottom, the male was lying on her side. Both assumed an S-slope and vibrated.



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