

June 10, 1954 #1

WJK54-06-10-01

Sawonue

1030 Clear A84 W66.

Lowermost redd:

Pantosteus males are on the redd; a bright q may also be there.

Rhinichthys males ~~are~~ maybe chasing females about. I don't not certain.

Redd by boulder (one first watched)

Males are still bright, but are not on the redd. They are feeding in the pool.

Large Gelas are cruising about, gleaming off the bottom. The ♂s are getting bright.

1130. At lowermost redd. Pantosteus just spawned.

1143 There is a q Gela on the ~~red~~ Pantosteus redd. Even though she is resting on the bottom similar to a q Pan, the ♂ Pan are not making any errors.

1 ♂ Pan occasionally eat from bottom of redd. Egg?

1145 Several Gelas, just red, seem to be loitering about the redd.

~~#~~ The q Pan has been gone for some time. The males are real quiet. They rest, move about slightly, or occasionally feed on the bottom.

June 10, 1954 #2

1154 The g is in another portion of the ~~reef~~ redd where I can not see because of a boulder.

1156 ♀ moved out.

1158 Spawning. Ca. 1/2 around.

1159 ♀ resting
♂s moving back about the ♀; staying to her rear.

1200 Spawning again - about 1/2 around.

♀ resting

1203 ♀ still resting; ♂s moving about.

At times several Gelas are on the redd - juv & small ads - probably not males at least they are not very brightly colored.

There is no fighting by any species.

1204 The ♀ has, and has had, a narrowed streak along the side.

1206 A Rhinckthys ♀ left the pool above & entered the Pantosteus redd.

The ♀ Pan moved a few inches, put her head in the bottom and then the group spawned. This was done in at least one other spawning today.

1207 Spawning again. Could not see mouth
♀ resting

1209 All over and spawned again - very short
Rhin. maybe interested in spawning.

June 10, 1954 #3

1211. Paul spawned.

I moved to other side in order to see better.

1230 Spawned. They were off the bottom. The ♀ did not move her lips immediately before spawning altho she did a few seconds before.

1234 Spawned again.

The ~~p~~ pectorals of the ♀ are spread very wide. She mouthed the bottom about 1 second before spawning.

Between spawnings, the ♀ rests quietly on a portion of the mud not used for spawning. She lies under the ~~pro~~ shelter of some roots.

The males stay near the spawning area or move about in a quiet fashion. There is no parading back and forth as there was the other day. The males occasionally nudge the ♀. The ♀ is larger than the males.

♂s nudged the ♀ and all moved out to the spawning area. She put her head into the gravel and a moment later the ♂s paired with her ~~and~~ and they spawned. The spawning, if it really was a complete act, was very brief.

June 10, 1954 #4

1245 Spawned 5 times without going over to rest.

Each time ~~to~~, with one possible exception, she put her head down as if feeding and seemingly waited for the males to place themselves (a second) and then they spawn.

The dorsals of the ♂ Pan are more erect when near the ♀, whether they are spawning or not, than are the D. of ♀ Pan or Gila in similar situations.

1247. Back on bed again. The ♀ put her head down several times but left without spawning.

1248. Ditto, but spawned.

1250 A Thamnophis equis came along and struck at the spawning Pan but they were too large.

1253. T. equis passed across the redd this time, but did not strike. The Gila + Pan on the redd and in the adjacent part of the pool showed no alarm about the snake. The snake did not strike again. The snake is very conspicuous in all of the situations on land or in the water in which it was observed.

1255 The ♀ moved under the rock at the upper end of the redd where I can not see. The ♂ followed, but returned promptly.

June 10, 1954 #5

Grila ♂ + several ♀ are at the tail of the
riffle apparently feeding.

1300 W 68 A 84 Clear.

1313 The ♀ came down from under the rock
and rested momentarily in the old spot. She
rattled (kept her head down and moved her lips
rapidly) twice. The ♂s came along with the
group spawned. The ♀ moved back under the upper rock.

1320. The center of activity is now under the upper
rock. The change ~~was~~ in locale may be the result
of my becoming conspicuous with a shift in the
angle of the sun which shines full on me now.

1335 They made a lean of me. The ♀ returned
and spawned. She rattled first. She returned above.

Between spawnings, the ♂s occasionally
feed ~~me~~ from the roots and algae on the side of
the rock near the rudd.

1339 They spawned under the rock. I saw the "dent."

1343 The ♀ moved down, the males placed
themselves about her, she rattled ~~to~~ twice with
the ♂s about, but did not spawn. She moved
back up.

June 10, 1954 #6

1350 A small Gela, feeding in the pool near me, takes many mouthfuls from the bottom each minute and spits part out.

Males occasionally nibble (feed?) on the bottom, but other males are not attracted.

1354 Spawned. The ♀ came down, the ♂s joined her, then left her momentarily. She went to "the spot", nibbled, the ♂s gathered round & they spawned. She went back up to the upper end. All within a minute.

The dorsals of the males are erect while near the ♀; that of the ♀ is while she is nibbling.

1400 leaving to gather egg, check on yg. etc before rushing back for commencement.

A 92067 clear.

No prep.

Two Gela looked very dark.

Pantosteus is not spawning at any other place.

Only 1 ♀ was seen to spawn here.