

June 9, 1950

WJK50-06-09-01

Rio San Antonio at La Cuera.

Came up last evening. No signs of spawning of any type. Searched for a while to be certain that Aila did not occur here. Nothing saved.

Made a collection of fry this morning. They were scarce. E. lev. 7369, Weather Clear, Stream 8-20 ft wide, mostly 12 ft; - 2 ft deep, mostly 2-10 miles; condition N; fluctuation mod.; A 65 W 49 T 900; W CW, Am-str; Br, st, lod., Vegetation sparse - Ranunculus; Shore meadow; water shed Y.P., fry net 800-900. 3 vials.

V1 & 2 from shallows

V3 Tadpoles from weedy backwater.

Phrynosoma taken on ground 25 feet from stream. Alder x Y Patent.

Jenny creek - 3 1/2 miles above mouth of Guadalupe Cr.

Temp.	1230	-	A 81	W 70
	1500		A 86	76
	1600		86	76
	1630		85	75
	1700		84	74
	1800		7-	73
	1820		71	70

Data for ref - Rhinichthys sp. - flow.

width 10 ft, depth 10 in, 10 in, 4 1/2 in.
L. 35 feet, Time 14, 20, 18 secs.

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Jersey cr. $3\frac{1}{2}$ miles above mouth of Guadalupe Cr.

Rhinichthys spawning.

Watched from noon till 6:30.

Males greatly outnumber females on redd, probably 10 or more to one. Approximately 75 individuals spawning, possibly six females about, probably less at any one time.

Spawning act.

Females wandered about through the mass of males who pursued her, jockeying for position. Males were below the axis of the female and had their snouts about opposite the tips of her pectoral fins. The males moved forward, apparently running their noses along her side at times, and lock pectoral fins with the female. In $\varnothing\varnothing$ which were less active, the males came forward with such vigor that, as they slid their P. behind that of the \varnothing , they lifted her off the bottom. When ~~the~~ ^{one or} two males mated with a female, ~~no~~ details could be seen. Pairs lie parallel, P fins locked, fins spread & quiver for about half a second.

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Spawning seemed to be repeated at ~~the~~ some spots with considerable frequency. These spots were on the upstream side of pieces of rubble, or such places many, ~~was~~ instead of several, males would surround the ♀ - 2-3 dozen in all sorts of positions all vibrating vigorously. These acts seemed to ~~be~~ last-larger but the end ~~was~~ was not always easy to distinguish from what seemed to be egg eating.

Activities of the ♀
could send way through mass of
♂s to the upper edge of the group and if
mating did not occur would drop down to
pass through again. Commonly several taps
through males before mating. Often started
in the bottom at the ^{lateral} ~~edge~~ or upper edges of
the group. ^{Single} Males would ~~also~~ attempt
mate it with three by moving alongside &
locking fins. Usually unsuccessful, but
not always so. Ditto for two males.

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territories of ♂.

Some maintained territories of small size - 2-3 inches radius. There were, in all cases that could be definitely established, about pieces of rubble. The ♂s nested on the upper side ready to mate or fight.

They would defend their ~~small~~ territories by a ~~simple~~ ~~poorly~~ ~~defined~~ ~~display~~ during vigorously at an intruder, sometimes with ~~by~~ ~~not~~ swimming parallel to intruder (faintly reminiscent of horned dace) and occasionally coming to blows with head or caudal peduncles.

Most males seemed merely to mill about, maintaining ^{a slight amount of} elbow room and chasing females.

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Pattern color description:

Gila nigrescens

Jemez Creek, 3 miles above mouth of Guadalupe Creek. June 9, 1950
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Male: The upperparts down to just below the level of the eye and to just above the insertions of the lower fins are light olive, the head being darker than the body. The lower parts are plain white or, posteriorly, white suffused with red. A plumbeous band about as wide as the orbit extends along the side of the body from the upper angle of the opercle to the base of the caudal becoming more intense on the tail. Beneath this band following the course of the lateral line to the level of the vent, is a pale streak beneath which is a second dark band, narrower than the orbit, that becomes less intense posteriorly, disappearing near the end of the trunk. The upper portion of the pectoral girdle is strongly marked by black, forming a diagonal bar. A red suffusion covers the rictus, cheek, upper angle of the opercle, along the lower sides of the trunk between the paired fins, and along the lower margin of the caudal peduncle. The dorsal

and caudal fins are olive, the rays darker than the membrane. The pectoral fins are olive suffused with red at the base, the anterior rays are somewhat darker. The ventrals are whitish (very pale olive) suffused with red at the base. The anal is whitish with red near the base and a few dusky markings on some of the anterior rays.