August 31, 1950 #1 WJK50-08-31-01

Examined the Gila about 10 miles below Cliff. - 1/2 mile alone area collected last year ∴ 1/2 mi.

Agonia too spawned. Redds have eyed eggs & and fry for the most part. Fry coming off redds. Most redds found in a creek-fed side channel.

Side channel.

8 along center of bar that runs through center of a shallow P. ; C 1 ft/sec. Dz -4 cm, Bed & pea gr. & about half & half.

3 redds of fry & eggs collected here. (#1 is misdated Aug 30)

At the head of the bar just mentioned are other redds, some at the head proper and some are in other side channel. B pea gr., C 1/3 ft/sec., Eggs present, not sored.

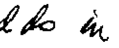
9 redds in an area 2 ft x 3 ft. in the tail of a pool on the head of a riffle ; B pea gr., Dz - 5 cm, C 1 ft/sec., Surface rippled by Cone surface, most unusual, & Portion of P & Rf. may have been altered by recent high water - after redds made - appears that way

August 31, 1950 #2

In an area ten feet above the preceding are 18 redds in an area 4 1/2 x 20 in., D 1-3 cm, Bed - Pgr., C 1/2 ft/sec.

Gila River - main channel.

42 redds in an area 32 x 40 inches along shore at tail of P; just above riffle. D 0-4 cm, C almost 0 - 2/3 ft/sec; B pgr, some to 3 cm. & sd., Coarsest bottom seen thus far. Redds are the smallest 7-12 cm — effect of texture of ~~bottom~~? Vial 4 Small fry over redds & adjacent shore.

59 redds in an 2 ft  6 ft 2 ft shaped area. D 1-4 cm, C 1/3 ft/sec B pgr, covered by sand and some silt. Area on upper side of bar dividing part of riffle, channel slow. Fry over redds.

About 10 feet below 11 are in an area of coarse sand but some otherwise similar conditions. Larger, 12-20 cm across instead of small.

A 81 W 71 T 930.

Examined area about 5 meters below cliff at camp. Nothing found.

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August 31, 1950 #4

32 redds ~~stretched~~ along slope in one 12 ft x 2 ft. D - 3 cm, some with fresh eggs.

25 redds along slope 8 ft x 12 ft. C very slight. Bad. D - 2 cm. Eggs with embryos, eyes barely visible

August 31, 1950 #1

Examined the Gila about 10 miles below Cliff. - 1/2 mile above area collected last year. : 4/2 mi.

Agosia has spawned. Redds have eyed eggs ~~fr~~ and fry for the most part. Fry coming off redds. Most redds found in a creek-sized side channel.

Side channel.

8 along center of bar that runs through center of a shallow P.; C 1 ft/sec. Dz-4 cm, B sd + pea gr., about half + half.

3 vials of fry + eggs collected here (#1 is misdated Aug 30)

At the head of the bar just mentioned are other redds, some at the head proper and some are in other side channel. B pea gr., C 1 1/3 ft/sec., Eggs present, not saved.

9 redds in an area 2 ft × 3 ft. in the tail of a pool or the head of a riffle; B pea gr., Dz-5 cm, C 1 ft/sec., Surface rippled by C over surface, most unusual, ~~po~~ Position of P + Rf. may have been altered by recent high water - after redds made - appears ~~that~~ way

✓

August 31, 1950 #4

32 redds ~~stretched~~ along slope in one 12 ft x 2 ft. D - 3 cm, Some with fresh eggs.

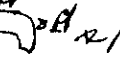
25 redds along slope 8 ft x 2 ft. C very slight. Bad. D - 2 cm. Eggs with embryos, eyes barely visible

August 31, 1950 #2

In an area ten feet above the preceding are 18 redds in an area 4 1/2 x 20 in., D 1-3 cm, Bed - Pgr., C 1/2 ft/sec.

Gila River - main channel.

42 redds in an area 32 x 40 meters along shore at tail of P; just above riffle. D 0-4 cm, C almost 0 - 2/3 ft/sec; B pgr, some to 3 cm. & sd., Coarsest bottom seen thus far. Redds are the smallest 7-12 cm — effect of texture of bottom? Vial 4 Small fry over redds & adjacent shore.

59 redds in an 

shaped area. D 1-4 cm, C 1/3 ft/sec B pgr, covered by sand and some silt. Area on upper side of bar dividing part of riffle, channel slow. Fry over redds.

About 10 feet below 11 are in an area of coarse sand but some otherwise similar conditions. Larger, 12-20 cm across instead of small.

A 81 W 71 T 930.

Examined area about 5 meters below cliff at seep. Nothing found.

Oct. 17, 1950 #2.

Agoria eggs cont.

10 mi. below Cliff. Aug. 31, 50 Vial #3

5.1 - 2.5 = 2.6	6.2 - 4.2 = 2.0	1.1
4.3 - 1.8 = 2.5	5.6 - 3.4 = 2.2	1.2
5.8 - 3.5 = 2.3	6.8 - 5.1 = 1.7	0.9
7.3 - 5.4 = 1.9	4.6 - 2.7 = 1.9	1.1
5.0 - 2.9 = 2.1	8.7 - 6.8 = 1.9	1.1
— — — —		
extremes 2.9 - 0.5 = 2.4	4.4 - 2.3 = 2.1	1.1
4.0 - 2.1 = 1.9	8.5 - 6.7 = 1.8	1.1

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10 mi below Cliff Aug 31, 50 Vial #4

2.6 - 0.7 = 1.9	6.9 - 5.4 = 1.5	1.0
6.6 - 3.9 = 2.7	7.2 - 5.2 = 2.0	1.2
8.2 - 6.4 = 1.8	3.4 - 1.5 = 1.9	1.0
4.5 - 2.1 = 2.3	[redacted] = 0.1 - 7.8 2.3	1.1
5.3 - 3.0 = 2.3	9.3 - 7.1 = 2.2	1.0
— — — —		
extremes 5.9 - 3.9 = 2.0	9.0 - 7.5 = 1.5	

largest included in sample alone

Oct. 16, 1950

Igoria eggs (cont.)

10 mi below Cliff. Aug. 31, 50 V2.

6.6 - 4.3 = 2.3	0.3 - 8.3 = 2.0	1.1
9.6 - 7.5 = 2.1	5.4 - 3.3 = 2.1	1.0
7.8 - 5.8 = 2.0	7.7 - 6.0 = 1.67	1.0
5.6 - 3.2 = 2.4	7.8 - 5.8 = 2.0	1.1
3.5 - 1.3 = 2.2	6.2 - 4.4 = 1.8	1.0

preceding were randomly chosen. Following two were taken as representing extremes.

3.5 - 1.0 = 2.5	4.1 - 3.6 = 2.5	1.1
8.9 - 7.1 = 1.8	7.5 - 9.8 = 1.7	0.9