

Memo

To: Santa Ana Sucker Conservation Team
From: Jonathan N. Baskin and Thomas R. Haglund, Principal Senior Scientists
Date: May 19, 2011
Re: Draft - Progress Report - Santa Ana River Larval Sucker Surve

SMEA surveyed several sites in the middle Santa Ana River for Santa Ana sucker larvae during the start of the 2011 breeding season.

April 2 – Several small larvae were found at the mouth of Rialto Drain. None were found further downstream in the main stem (flow from Rialto to RIX) or at the RIX out flow. The mainstem flow was very turbid due to excessive flows being released from Seven Oaks Dam. Sunnyslope Drain was also examined in the area of Rubidoux Nature Center where sucker males in breeding condition were found in March. No larvae were found in Sunnyslope Drain.

April 13 – Numerous larvae were found at the mouth of Rialto Drain, in the flow between Rialto and RIX and in the water flowing out of RIX, indicating that breeding is taking place in the RIX out flow. Larvae were also found in the mainstem in the area of Riverside Drive Bridge. No larvae were found in Sunnyslope Drain at Rubidoux Nature Center. We also explored the flow from Sunnyslope Drain downstream toward the confluence with the mainstem for about 200 meters. No larvae were found, but conditions were poor for breeding as the substrate was mostly mud with some sandy areas and very few places with any gravel.

Water Quality data was taken at the mouth of Rialto Drain at 1:40 P.M.

23.43°C
pH 6.93
ORP 139
Conductivity 0.752 µS
Turbidity 12.8 NTU
Dissolved oxygen 11.03 mg/L
Total Dissolved Solids 0.481
Salinity 0.4 ppt

Water quality in the RIX out flow was taken at 2:15 P.M.

20.94°C
pH 6.25
ORP 147
Conductivity 0.779 µS
Turbidity 11.5 NTU
Dissolved oxygen 14.41 mg/L
Total Dissolved Solids 0.499
Salinity 0.4 ppt

Water quality in Sunnyslope Drain was taken at 5:00 P.M.

22.21°C
pH 7.09
ORP 129
Conductivity 0.891 µS
Turbidity 13.3 NTU
Dissolved oxygen 12.06 mg/L
Total Dissolved Solids 0.570
Salinity 0.4 ppt

April 15 – The mainstem in the area of the railroad bridge was examined and no fry were found. The substrate in this part of the river was all sand. The course of the river upstream of the railroad bridge has shifted northward and is no longer flow against the south bank in the area of Anza Park drain. There is an independent flow out of Anza Park drain extending about 200 meters along the south bank. Fry were found in this flow up to the mouth of the drain. Some gravel patches were found here. This indicates that breeding is taking place in Anza Park drain or in this new 200 meter reach.

Flow from Sunnyslope drain meets the mainstem on the north bank in an area approximately opposite Anza Park drain. A few larval suckers were found in this mouth of Sunnyslope and along the north bank both upstream and downstream of the mouth. This mouth of Sunnyslope drain consisted of a large pool of water with a mud substrate. No gravel patches were found here.

Evan's Lake drain, located on the south (east) bank of the river just upstream of Mission Boulevard Bridge, no longer connects to the mainstem of the river. It flows downstream along the south (east) bank and ends about 100 meters downstream from Mission Boulevard Bridge. The habitat for suckers is poor and no larvae were found.

April 25 – Sunnyslope Drain at Rubidoux Nature Center was again checked for larvae and none were found. Goose Creek Golf Course was also checked and found to be dry. A

large pool deep pool of standing water was found at the mouth. This is poor sucker habitat and no larvae were found here. Also the mainstem flow just outside the mouth was checked for larvae and none were found. Conditions here were mud and sand substrate.

Water quality in Sunnyslope Drain was taken at 3 P.M.

27.10°C
pH 6.99
ORP 135
Conductivity 0.938 μ S
Turbidity 25.4 NTU
Dissolved oxygen 9.90 mg/L
Total Dissolved Solids 0.601
Salinity 0.5 ppt

Water quality at the mouth of Goose Creek was taken at 4:30 P.M.

25.38°C
pH 7.06
ORP 91
Conductivity 0.833 μ S
Turbidity 110 NTU
Dissolved oxygen 6.64 mg/L
Total Dissolved Solids 0.533
Salinity 0.4 ppt