

Memorandum

To : Fisheries Management
Region 5

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C.V.W.D.

From : Department of Fish and Game - Chino Fish and Wildlife Base

Subject: Fisheries Survey of Salt Creek and the Springs and Seeps in the
Dos Palmas Area

#469

Black

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GEN MGR			
Date: ASST TO GM		January 25, 1980	
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fish

A survey of the Salt Creek drainage and several of the springs and seeps in the Dos Palmas area was conducted on January 7-9, 1980, in order to check for the presence of desert pupfish. Bob Miller (1943) reported collecting desert pupfish from Dos Palmas Spring and several unnamed springs in 1937-39; however, DFG personnel have not found pupfish in this area for many years. As far as I have been able to determine the Salt Creek drainage has never been sampled for desert pupfish, other than that portion west of Highway 111; this was done during quarterly surveys from March of 1978 to January of 1979. Pupfish were sampled only during the summer survey of 1978 from Salt Creek.

Sampling was conducted with minnow traps baited with cat food. Traps were set overnight in Dos Palmas Spring (Township 8S, Range 11E, Section 3), two unnamed springs (Township 8S, Range 11E, Sections 3 and 4) and one seep (Township 8S, Range 11E, Section 8) (Figure 1). Traps were also set along Salt Creek from the intersection of the railroad with the creek (Township 8S, Range 11E, Section 23) and west to the Salton Sea; a distance of approximately 5 km (3 miles, Fig. 1).

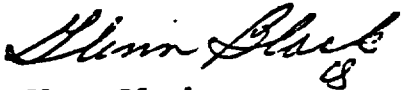
No desert pupfish were observed or trapped in Dos Palmas Spring, the seep, or the two unnamed springs. However, exotic species were present. Twenty-eight sailfin mollies, Poecilia latipinna, 21 mosquitofish, Gambusia affinis, 178 cichlids, Tilapia/Sarotherodon sp., and 53 crayfish, Procambarus clarkii were captured in 12 traps. Traps were set at depths ranging from 10 to 50 cm (4 - 20 inches, Table 1). Water temperatures varied from 25 - 27°C (77 - 81°F).

A total of 14 traps were set along the portion of Salt Creek referred to earlier. Two desert pupfish were trapped (Sites 2 and 3, Figure 1) and another was found dead adjacent to trap site 1 (Figure 1). In addition, one sailfin molly (site 1), two crayfish (sites 9 and 11), and one longjaw mudsucker, Gillichthys mirabilis, (site 14, Figure 1) were captured along the creek. Traps were set in water ranging from 10 - 54 cm (4 - 21 inches) in depth and varying in temperature from 7.5 to 14.5°C (45.5 - 58.1°F). Air temperatures varied from 15° to 18° C (59° - 64° F) and conductivity ranged from 2,500 to 3,500 umhos.

From this survey it appears that desert pupfish no longer inhabit Dos Palmas Spring and several of the other springs and one seep in the area that we sampled. This may be due to the large numbers of exotic species that are established. However, I do think it would be advantageous to trap these areas as well as some of the springs and seeps we did not sample when the water temperatures rise later in the year and pupfish are more active.

It is significant that desert pupfish were found in Salt Creek because this habitat seems similar to that found along San Felipe Creek where pupfish are in good numbers and also because they had never been reported from the section of the creek east of Highway 111. I am planning to do a more extensive survey of the Salt Creek drainage and the springs and seeps in the area on March 17-19, 1980, order to better define the distribution of the desert pupfish within these areas.

I would like to thank Jim St. Amant, Louis Courtois, and Alan Matthews of Cal Fish and Game and Faye Davis and Larry Foreman of BLM for their assistance in conducting this survey.



Glenn Black
Assistant Fishery Biologist

GB/jmc

Attachments

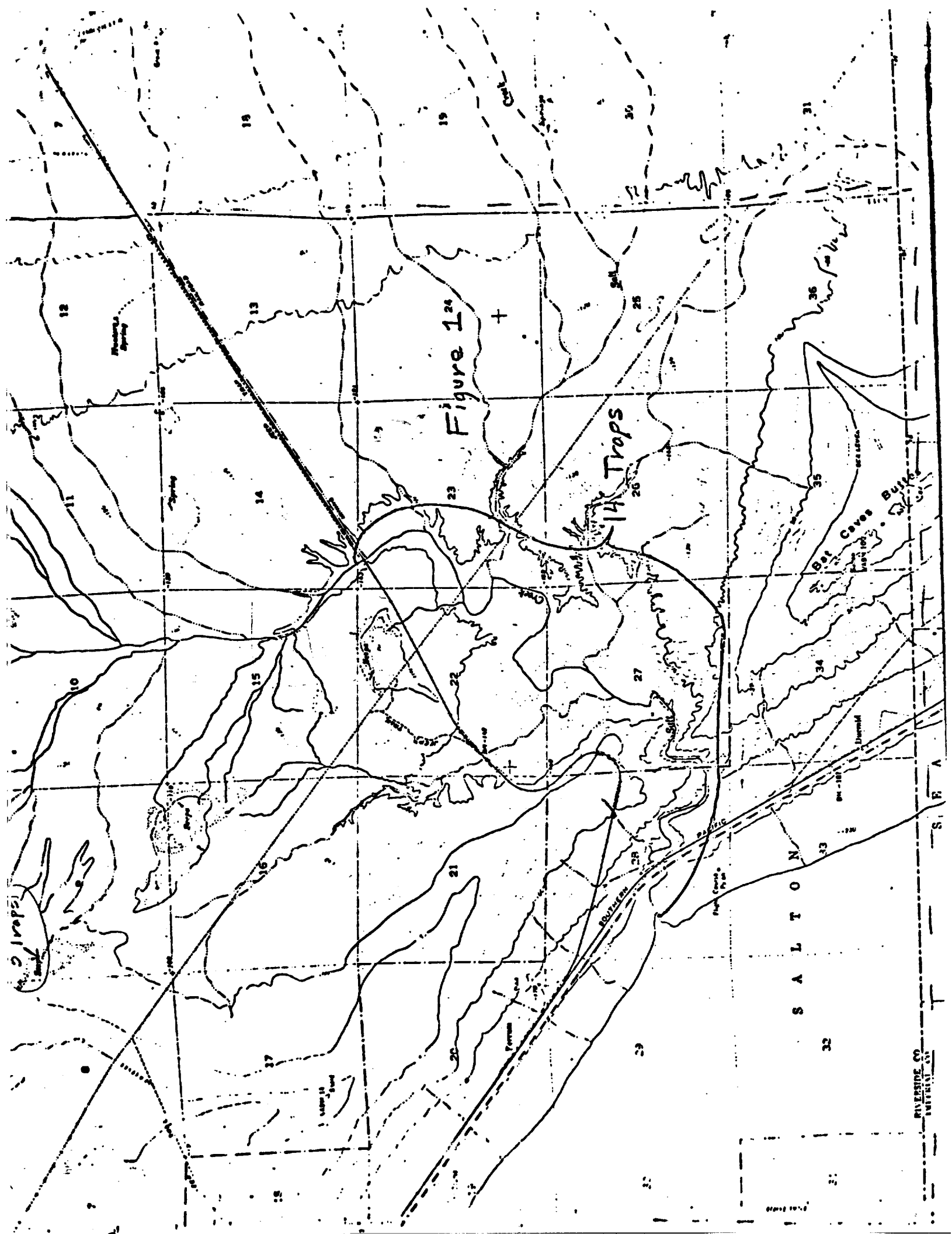


Figure 124

14 Traps

SALTON

RIVERSIDE CO
CALIFORNIA

14 Traps

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