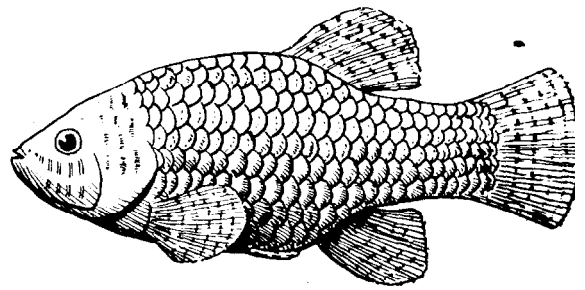


# *Desert Fishes Council*



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*"Dedicated to the Preservation of America's Desert Fishes"*

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SPAWN RECOGNITION BY MALE Cyprinodon macularius californiensis

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Sexually active male C. m. californiensis were found to behave differently toward eggs fertilized by themselves and those fertilized by other males, eating significantly more of the alien eggs than of their own. Ability to recognize their own spawn was not influenced by altering the spawning substratum within which they were presented or their position within the spawning substratum. Rendering a resident male anosmic by blocking his nares with an oral adhesive eliminated any differences in response to the two classes of eggs, indicating that recognition is effected by chemical cues. It is suggested that the ability to recognize his own eggs allows a male to selectively prey upon eggs deposited within his territory by non-territorial peripheral males, simultaneously reducing their fitness and enhancing his own by allowing him to exploit a high-quality food resource present within its boundaries. These observations also require that C. m. californiensis be regarded as a species that engages in deliberate rather than incidental parental behavior toward its spawn.