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Review: A Guide to California's Freshwater Fishes

By Bob Madgic; Illustrated by William L. Crary.

Reviewed by [Ryder W. Miller](#)

The Aquarium of the Bay, San Francisco, USA

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Bob Madgic. *A Guide to California's Freshwater Fishes*. Happy Camp, CA: Naturegraph Publishers, 1999. 160 pp. ISBN 0-87961-254-1 (paper). US\$19.95

Out of sight and therefore out of mind, except perhaps when an angler is interested in catching a meal, freshwater fish swim through perilous, degraded and often polluted waters. Once truly wild, some fish species, like the salmon, are also approaching domesticated status due to the reliance on hatchery release programs. Wet, smelly and often cold, fish and their preservation and protection may offer a challenge to conservationists, who have an easier time with the warm fuzzy things we don't want to eat.

Intended as a book for the lay person, *A Guide To California's Freshwater Fishes* by author and conservationist Dr. Bob Madgic and illustrator William L. Crary succeeds in clearly telling the sad history of California freshwater fishes, celebrating the diversity of freshwater fish that exists in the golden state, and relaying the efforts needed to protect them.

As Madgic points out, fish are the most important indicator of aquatic diversity; they signal the health of our waterways, and therefore in some ways the state of the planet. Madgic notes that California's history is "reflected in the changing status of its fishes." (p. 7)

Madgic begins by telling the long, bleak story of what has happened to the California fish stock, which used to be one of the world's richest. Millions of salmon once migrated up the state's rivers to spawn. As Madgic relays, "In California's inland waters resided some of the most beautiful fish imaginable - the state's native trout species." (p. 11)

But California's freshwater fish are in trouble. Two-thirds of the 116 native California fishes are now species of special concern. Sixty-six of these species are endemic to the state. Declines have been due to habitat destruction and introduced species. Florida is the only state with more introduced species than California. Introductions of fish for fishing stock, and the desire to stock any fish species in any available water, led to the demise of the local fish, in some cases extirpation of the native fish species. The problem was compounded by agriculture, which consumed a large majority of the state's water supply. The Department of Fish and Game was also a

culprit, being interested primarily with satisfying the fisherman rather than protecting the river ecosystems. "The ongoing practice of introductions, designed to enhance sporting opportunities, led to increasingly artificial environments and fishing experiences. Angling in California became more and more designed, and less and less natural. A reliance on hatchery-produced fish soon became the norm." (p.18)

The Wildlife Conservation Act of 1949 resulted in the modern hatchery system, which strives to meet the angler's demands. In addition to this desire to satisfy anglers, which has led to the dumbing down of the gene pool with artificially reared fish, some of the other threats to freshwater fish include grazing, dams and diversions, agriculture, flood control and channelization, exhaust and chemical emissions, mining, timber harvest, urbanization, recreation, and riverside development.

Fortunately, as Madgic points out, responsible stewardship is also an aim of many fish aficionados. Some of their aims, as he articulates them, include commitment to the wisdom of nature and natural processes; commitment to preserving native creatures; preference for wild fish rather than hatchery specimen; adoption of a land ethic; and protection, restoration and preservation of habitat. Some of the factors that point to a successful outcome of the various efforts to protect fish include The Endangered Species Act, The Public Trust Doctrine, and an environmentally concerned public.

The amount of money involved in these efforts is staggering. One of every one hundred dollars spent in California is fish related. Some indicators of progress are selective removal of dams, opening of spawning areas, "catch and release" programs, rewatering of dry waters, new fisheries, greater concern for resource management, restrictions on grazing and logging, and restoration of native fishes.

With wonderful illustrations of California fish by Crary, and pictures of stream and river habitat, *A Guide to California's Freshwater Fishes* provides a sense of the diversity and wonder that can be found in the fresh waters of California. The magnificent residents include the migrating salmon and the prehistoric sturgeon. Some of the information provided (such as the records of the largest fish caught in the state) beckons the reader to come and fish in California. As Madgic points out, this desire of fisherman to catch fish has resulted in many of the state's efforts to make sure California's fish do not disappear.

Madgic's and Crary's guide helps include fish within the circle of creatures that we should be concerned about.

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