

DESERT FISHES COUNCIL

by Alan M. McCready, Carmichael, California

The Desert Fishes Council (DFC) held its Twentieth Annual Symposium at Death Valley National Monument Headquarters in Furnace Creek, California on November 16-19, 1988.

DFC was originally formed in response to environmental destruction that threatened to eliminate native fishes in Ash Meadows, Nevada (one of the most species-diverse desert oases in North America) and nearby basins in California. Its initial focus was primarily on the pupfishes (Cyprinodon sp.). It now has an international perspective, with Canadian members and a particularly significant involvement by numerous Mexican representatives. Furthermore, focus is now on all components of relevant aquatic ecosystems, including mollusks and other invertebrates, amphibians, and plants.

Over the years, DFC has become a major force in the ongoing battle to preserve species diversity in the water basins of the North American West, from British Columbia to Central Mexico. Headwater species, such as various trout (Salmo* sp.), are included, in addition to the diverse species groups found downstream from and including desert springs and sumps.

More than 200 persons attended the 1988 meeting, representing a broad spectrum of academic, resource management, sport-fishing, aquarist, environmental, and general-interest perspectives. Overall, 42 universities were represented. Status reports were given by Mexico, five U.S. federal agencies (Bureau of Land Management, National Park Service, Bureau of Reclamation, Forest Service, and Fish & Wildlife Service), and seven states (Arizona, California, Kansas, Nevada, New Mexico, Texas, and Utah).

An extremely diverse group of presentations, discussions, and papers was involved. The theme of this commemorative symposium was "Battle Against Extinction: Native Fish Management in the American West." Most of November 17-18 was devoted to it, with numerous individual presentations. In addition, a total of 40 general research and management papers were scheduled, and nearly all were delivered. (Unfortunately, due to funding problems, several Mexican colleagues could not attend and deliver their papers).

Finally, an all-day field trip was conducted to Ash meadows, Nevada on November 19. Ash Meadows National Wildlife Refuge, created in 1984 in response to efforts by DFC, the

*According to Alan McCready and Robert E. Schmidt, members of Salmo are being changed to Oncorhynchus, based on latest taxonomic information; however, the traditional term is retained here. See NANFANEWS this issue.--Ed.

Nature Conservancy, and the U.S. Fish and Wildlife Service, will contain 23,407 acres when land acquisition was complete. It contains 25 species of animals and plants found nowhere else on earth, 12 of which have already been listed as threatened or endangered.

The current plan is to manage this refuge as an ecological preserve, with emphasis on its native fishes. A range of other activities must be considered. I therefore urge other members of the North American Native Fishes Association to obtain a copy of the plan, and to write expressing support for its major purpose--enhancement of the refuge's native aquatic resources--by writing to:

Refuge Manager
Ash Meadows National Wildlife Refuge
U.S. Fish & Wildlife Service
1500 North Decatur Boulevard
Las Vegas, Nevada 89108.

So far, comments in this article have been general in nature. Because of the richness and sheer volume of the symposium papers, and the management implications and discussions involved, only a sample of the items can be discussed below. Some specifically noted by the author follow.

*The Devil's Hole Pupfish (Cyprinodon diabolis), saved in 1976 by a U.S. Supreme Court decision, is the subject of renewed controversy. Gold-mining operations many miles to the north are expected to impact on water levels in Devil's Hole; this will be monitored by several strategically-located test wells, and the mining operations modified or shut down whenever the species is threatened.

*A brochure indicated that considerable progress has been made in rehabilitating populations of the Gila Trout (Salmo gilae). Limited sport-fishing is planned.

*The Woundfin (Plagopterus argentissimus), now restricted to a short stretch of the Virgin River in Utah, is currently threatened by an invasion of Red Shiners (Notropis lutrensis). Some Woundfin have been transferred to Dexter National Fish Hatchery in New Mexico for captive breeding. A subsequent fish-poisoning operation on the Virgin River resulted in a totally unexpected major fish kill of various species within and downstream from the target area; unfortunately it did not kill Red Shiners (which may be developing resistance to Rotenone) in the Woundfin habitat. DFC will send a critical, but constructive, resolution on this operation to the governmental agencies involved.

*An annual fish count is being planned to assess trends of species in designated areas in the Western United States. It is being patterned somewhat after the Audubon Christmas Bird Count. The fact that harvesting is advocated for the retention of count samples is quite controversial.

*Texas is developing recovery plans for all its threatened and endangered native fishes.

*Mexico, while continuing to experience major economic problems, is making very commendable strides toward preserving its unique aquatic heritage. Presentations made at the symposium show that major problems continue, but a week earlier, a meeting of the Sociedad Ictiológica Mexicana had drawn 19 institutions to La Paz, and 129 papers were given.

*About 60 percent of California's native fishes are extinct, endangered, threatened, or of special concern. Entire fish faunas of some areas of the state are in trouble.

*Introduction (presumably via bait buckets) of the Sheepshead Minnow (Cyprinodon variegatus) has severely impacted the native Pecos Pupfish (C. pecosensis) by hybridization in much--perhaps most--of the Pecos River.

*Genetic studies confirmed the appropriateness of the decision by the U.S. Fish and Wildlife Service to use the most genetically diverse population of the Sonora Topminnow (Poeciliopsis occidentalis) for restocking purposes.

*Cutthroat Trout (Salmo clarkii), currently described in a large number of subspecies, are genetically more appropriately classified and grouped into the Coastal, Westslope, and Lahontan subspecies, plus a highly variable Rocky Mountain subspecies with various diverse populations.

*The Southern California coastal form of the Threespine Stickleback (Gasterosteus aculeatus microcephalus) has seriously declined. The presenter suggested that the California Department of Fish and Game periodically re-evaluate populations of native fishes typically considered ubiquitous.

*The Leopard Darter (Percina pantherina) typically occurs in pools, though it migrates to riffles to spawn.

*A very interesting (in the opinion of this author) series of papers were presented on the history of discovery of desert fishes in the late 19th and early 20th century, the Desert Fishes Council itself, and DFC's very significant role in the formation of water-rights case law and policy in the United States for the protection of rare and endangered fishes and their habitats.

*Finally, numerous papers were given on the management status of rare fishes, including reintroduction programs, captive propagation, and the creation of preserves.

A comprehensive history plus a very detailed description of present and future plans for rehabilitation of Ash Meadows was given at the November 19 field trip (not attended by this author). Ash Meadows National Wildlife Refuge will become the very first federal refuge in the United States which has as its primary focus rare and endangered nongame freshwater fishes.

The Desert Fishes Council has become a very significant force in the preservation of native fishes in the arid Southwestern portion of this continent. Membership in this nonprofit organization is open to anyone, and is a real bargain. Individuals who cannot attend these annual meetings (which rotate among Death Valley, California and other very interesting places in the Western United States and Mexico) will find copies of the symposium proceedings extremely interesting and valuable references.

Membership information can be obtained by writing to:

Desert Fishes Council
507 West Line Street
Bishop, California 93514

SOUTHEASTERN FISHES COUNCIL

Southeastern Fishes Council, a group of ichthyologists, recently wrote up NANFA and gave membership info. Thanks to SFC for the PR. Among members of both NANFA & SFC mentioned in the latest newsletter: Bob Jenkins, Pres., Werner Wieland, Secy-Treas., and James D. Williams. There are other dual members.

SFC meets in conjunction with ichthyological conventions. Proceedings is SFC's newsletter. Some articles might interest non-professionals as well as ichthyos--on fishes of particular s.e. drainages, for instance, or color variations among Bluespotted Sunfish in Gulf states. There are news items and progress reports on forthcoming books or studies. On the other hand, some non-specialists might find articles on different ways of storing preserved fish esoteric. The newsletter's irregular. Cost: \$10/yr. For further info, contact Werner Wieland, Dept. of Bio. Science, Mary Washington College, Fredericksburg, VA 22401-5358.