FISHERIES SESSION

CURRENT PROBLEMS & FUTURE OUTLOOK IN FISHERIES MANAGEMENT

Richard H. Stroud, Panel Chairman
Sport Fishing Institute, Washington, D.C.

INTRODUCTORY REMARKS

It was a pleasure for me to receive the kind invitation of Program Chairman William Keith to organize and chair this Conference Theme Session Panel on "Current Problems and Future Outlook in Fisheries Management." Although briefly considered, it was decided at an early date not to waste your time or that of the distinguished panelists assembled here today, who graciously consented to participate, in reviewing any past history of fisheries management practices. The Panel discussion takes as its point of departure the well known historical review, published in 1970 by the American Fisheries Society, entitled, "A Century of Fisheries in North America." You are referred to that excellent treatise for an assessment of past practices.

The principal overall fisheries resources of the United States are supported for the most part in a total of about 137 million acres of inland or fresh water (about 73.5 million acres), estuarine or brackish water (about 26.3 million acres), and coastal salt water to 12 miles off shore (about 37.3 million acres). If we were to include the broad expanse of ocean waters that lie superjacent to the submerged Continental Shelf areas, surrounding the U.S. land mass, the total would be very much larger, indeed — perhaps triple.

During 1973, about 647 million angler-days will have been expended on fresh water and about 128 million angler-days on salt water. This averages out to a little under 9 angler-days per acre of fresh water and about 2 angler-days per acre of salt water. Correspondingly, fresh-water anglers harvested about 11.4 pounds of fish per acre, and salt-water anglers harvested about 14 pounds per acre [assumes no significant change from the 1.3 and 7.0 pounds per angler-day for fresh water and salt water, respectively, estimated for 1960 in ORRRC Study Report 7.]

Today's discussion, of course, will be in the context primarily of this particular region rather than the entire country. There are about 14 million surface acres of fresh water (19% of U.S. total) in the Southern Division States, including 3.5 million acres of rivers and streams, 2.0 million acres of farm ponds (10 acres and less), 3.5 million acres of natural lakes and ponds, and 5 million acres of reservoirs (greater than 10 acres). These waters will have supported an estimated 220 million angler-days during 1973, with about 30 per cent of the angling pressure occurring on rivers and streams, 20 per cent on farm ponds, 13 per cent on natural lakes and ponds, and 37 per cent on reservoirs. There are also about 30 million acres of salt water (47% of U.S. total), including an estimated 9.9 million acres of estuaries and 20.1 million acres of coastal salt water to 12 miles off shore. These waters will have supported an estimated 65.6 million angler-days during 1973, with about half that effort on estuaries and half on coastal waters. [NB: The foregoing estimates are to be considered only as rough approximations of both saltwater area and fishing pressure.]

With fishing pressure increasing currently at the rate of about 3.0 per cent annually on fresh water and about 4.1 per cent annually on salt water, the big questions are: how long and by what means can such accelerating use be accommodated without irreparable damage to the resource base? Here to identify

the major inherent problems and suggest the directions in which the possible solutions lie are a number of the region's outstanding fisheries scientists. In order of their appearance on the program, they are: Dr. William Davies, Auburn University, who will speak in the context of ponds and community lakes; Mr. George Fleener, Missouri Department of Conservation, who will speak in the context of rivers and streams; Mr. Robert Jenkins, Bureau of Sport Fisheries and Wildlife, who will speak in the context of large lakes and reservoirs; and Dr. Edwin Joseph, South Carolina Wildlife and Marine Resources Department, who will speak in the context of estuaries and coastal waters. Dr. Richard Anderson, University of Missouri, will summarize and analyze the Panel presentations.

As we commence, I wish to express my personal thanks for the willingness of the Panelists to participate in this challenging Theme Session. I am especially appreciative of their cooperation in completing drafts of their papers several weeks ago in order to furnish advance copies to our distinguished Summarizer, to permit him to develop a more meaningful discussion.

Let us proceed.....

MANAGING SMALL IMPOUNDMENTS AND COMMUNITY LAKES

by

W. D. Davies
Auburn University Agricultural Experiment Station
Department of Fisheries and Allied Aquacultures
Auburn, Alabama 36830

ABSTRACT

Farm ponds and community lakes continue to attract a large number of fishermen. The manageability of these waters for increased fish production offers opportunities for substantial gains in terms of benefits to fishermen from management input costs.

Intensive culture of channel catfish, tilapia and mirror carp can provide sport fishing opportunities, especially where fishing pressure is intense. Almost a ton of channel catfish per acre has been harvested by sport fishermen from intensively managed ponds. Problems associated with intensive culture are nutrition, disease, and the diminished aesthetics of fishing an intensively managed pond.

Present management practices for bass-bluegill ponds are adequate, but intense study of optimum rates of exploitation and fertilization should provide for more efficient techniques.

Strategy and tactics for the future should consider energy flow patterns in fish communities. Study of how these patterns are altered and what are the losses when fishing or other stresses are applied, should provide new management concepts. Stability in fish populations requires further study. In this respect, base-line data on stable and unstable multi-species fisheries need to be developed.