## Introduction

The issue of fish welfare has become increasingly important in the United States and other countries. The impact of human activities on fish welfare are not just in biomedical and other laboratory research, but also in aquaculture, fisheries, angling, and public display.

The production of a fish welfare information resource at this moment in history is particularly appropriate, since fish welfare issues are being debated worldwide and are frequently discussed by scientists not working in fish related fields, by the media, and by the press. This subject is being discussed related to angling, aquaculture, general neurophysiology, fisheries, biomedical laboratory research, aquariums, and regulation.

In accordance with the United States Animal Welfare Act, the use of alternative lower phyla animals, including fish, in research that would otherwise use mammalian species, is encouraged. Numerous species of fish are increasingly being used as biomedical models in comparative genomics, gene expression, transgenesis, carcinogenesis, toxicology, pharmacology, infectious disease, neurology, and aging research, as well as in aquaculture and fisheries related research. And in turn, all of the research conducted in these areas increase the knowledge base on the care and use of these fish species in aquaculture, fisheries, and the laboratory.

To date, fish and other cold-blooded animals are not covered by the 1985 Amendments to the United States Animal Welfare Act. But, different funding agencies, such as USDA, the National Institutes of Heath and the Public Health Service require adherence to additional guides and policies. In addition, there are the federally mandated "institutional care and use committees" (IACUC) which review animal use projects so that projects using animals are possible.

All of the different rules and guidelines can be confusing to anyone conducting research with fish or on fish. But, because of the very considerable range of adaptive diversity and husbandry requirements represented by the over 20,000 species of fishes, no concise or specific compendium of approved methods and guidelines for fish research is practical or desirable AFS Policy Statements #16, DeTolla et al. 1995).

The Information Resources on Fish Welfare should assist the many scientists, IACUC members,

producers, administrators, legislators, and regulatory agencies concerned with general fish welfare and well- being. This book also provides relevant information to those in the general public who benefit from fish related biomedical research, who consume aquaculture or fisheries products, engage in recreational fisheries, keep aquariums or visit aquatic animal displays, as well as those belonging to organizations concerned with animal welfare.

The Information Resources on Fish Welfare will thus serve as an essential comprehensive resource and reference book for a very broad audience, and its Editor is to be congratulated on undertaking the task of producing this unique document. All who read this book should find it useful to guide them in preparing and following appropriate procedures for the care and use of fish.

Meryl C. Broussard, Chair Joint Subcommittee on Aquaculture Cooperative State Research, Education, and Extension Service United States Department of Agriculture

## References:

AFS Policy Statement #16. American Fisheries Society (AFS), American Society of Ichthyologists and Herpetologists (ASIH), and American Institute of Fishery Research Biologists (AIFRE) (1987) Guidelines for the Use of Fishes in Field Research. Approved Sept 1987, Winston-Salem, NC. Published Mar-Apr 1988.

 $\underline{http://www.fisheries.org/Public\_Affairs/Policy\_Statements/ps\_16a.shtml}$ 

DeTolla LJ, Srinivas S, Whitaker BR, Andrews C, Hecker B, Kane AS, Reimschuessel R (1995). Guidelines for the Care and Use of Fish in Research. ILAR Journal. 37(4) <a href="http://dels.nas.edu/ilar/jour\_online.asp?id=jour\_online">http://dels.nas.edu/ilar/jour\_online.asp?id=jour\_online</a>

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