

Guidelines for Use of Fishes in Research—Revised and Expanded, 2014

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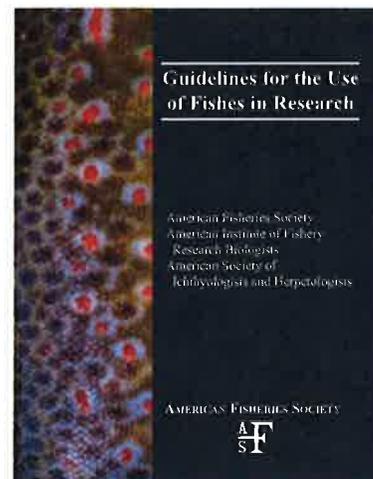
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The *Guidelines for the Use of Fishes in Research* (2014; *2014 Guidelines*), now available through the American Fisheries Society (AFS) website and in print from the AFS bookstore, is a resource to aid researchers and regulatory authorities regarding responsible, scientifically valid research on fish and aquatic wildlife. The *Guidelines for the Use of Fishes in Field Research* (American Society of Ichthyologists and Herpetologists [ASIH] et al. 1987, 1988) emphasized field research and was followed by the *2004 Guidelines* including laboratory research topics. Each version of the *Guidelines* has been jointly endorsed and/or published by the ASIH, the American Institute of Fishery Research Biologists (AIFRB), and AFS—each focusing on the scientific understanding, global conservation, and sustainability of aquatic animals, fisheries, and ecosystems.

Changes with time necessitate revisions to make the *Guidelines* consistent with contemporary practices and scientific literature so to remain relevant as a technical resource. This document provides not only general principles relevant for field and laboratory research endeavors but includes specific requirements for researchers working within the United States and outside of the country. Within the scope of their expertise, the 2014 Uses of Fishes in Research (UFR) Committee members updated and revised sections, resulting in a 90-page *2014 Guidelines* having undergone thorough peer review. As before, topical areas were addressed (see Table of Contents on page 416). Expanded coverage was provided on U.S. and international agencies and programs relevant to research with fishes. The Surgical Procedures and the Marking and Tagging sections were reworked, and the Animal Welfare Considerations section received special focus by a UFR Subcommittee. Feeds and Feeding and the Administration of Drugs, Biologics and Other Chemicals are just some of the newly added topics. The *2014 Guidelines* is user-friendly by way of hyperlinks to external Internet sites, intradocument sections, and tables of acronyms with corresponding terms, low regulatory priority drugs, and Office of International des Epizooties notifiable disease agents. Again, the Institutional Animal Care and Use Committee (IACUC) role is explained, expectations for research are provided, and a brief checklist for IACUC readiness is included. Overall, the *2014 Guidelines* is the taxon-specific resource for our professional societies and is a principal document for standards on the care and use of fish and aquatic vertebrates in research.

The *Guidelines* are frequently cited in protocols developed by fisheries researchers either competing for federal funding or by virtue of their agency rules. These *Guidelines* are consistent with the U.S. Public Health Service (PHS) policy on humane care and use of laboratory animals, which is compliant with the Animal Welfare Act (1970). Recognition by PHS of the *2014 Guidelines* and other taxon-specific guidelines (i.e., for mammalogy and ornithology) as being the appropriate standards for wildlife research would alleviate some IACUC obstacles related to the necessity of applying standards of the *Guide for the Care and Use of Laboratory Animals* (NRC Guide; National Research Council [NRC] 2011) to research involving free-ranging terrestrial and aquatic vertebrates (Sikes et al. 2012). Research



on live vertebrates that is funded by the PHS and some other federal agencies requires compliance with the *NRC Guide*, a suitable standard for biomedical research yet less appropriate for research with wildlife, especially in a natural setting. Notwithstanding, the newly revised *2014 Guidelines* will be a valuable resource for members of the AFS, AIFRB, and ASIH and fisheries and aquatic wildlife researchers at large.

Suggested citation: Use of Fishes in Research Committee (joint committee of the American Fisheries Society, the American Institute of Fishery Research Biologists, and the American Society of Ichthyologists and Herpetologists). 2014. Guidelines for the use of fishes in research. American Fisheries Society, Bethesda, Maryland. fisheries.org/guide-for-the-use-of-fishes-in-research

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- ASIH (American Society of Ichthyologists and Herpetologists), AFS (American Fisheries Society), and AIFRB (American Institute of Fishery Research Biologists). 1987. Guidelines for use of fishes in field research. American Society of Ichthyologists and Herpetologists, Lawrence, Kansas.
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- Sikes, R. S., E. Paul, and S. J. Beaupre. 2013. Standards for wildlife research: taxon-specific guidelines versus U.S. Public Health Service Policy. *Bioscience* 62:830–834.
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