Sturgeon biodiversity and conservation: an introduction

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This volume includes many of the papers presented at the International Conference on Sturgeon Biodiversity and Conservation which took place at The American Museum of Natural History (AMNH), New York, on 28–30 July 1994. The main goal of the Conference was to attract attention to sturgeons and paddlefishes, still the most speciose group of 'living fossil' fishes, but now fast disappearing from our planet (Birstein 1993, Bemis & Findeis 1994, Waldman 1995).

Some presentations at the conference described basic aspects of acipenseriform biology, including evolution, genetics, and life cycles. Others focused on the contemporary status of a particular species or a few species inhabiting the same basin or region; most of these contributions also addressed ongoing conservation efforts. Still other speakers examined current controversies at the interface between science and society, bringing information from a variety of sources to enrich our meeting. These three approaches are reflected by the three part organization of this volume: Part 1, Diversity and evolution; Part 2, Biology and status reports; and Part 3, Controversies, conservation and summary. We hope that the included papers offer a broad perspective about contemporary work on the phylogeny of Acipenseriformes, as well as a review of the worldwide status of almost all of the species constituting this order.

In preparing the materials for publication, we discovered several revisions in the scientific names of some species. Smith & Clugston (1997 this volume)

follow Gilbert (1992), who showed that the name of the American Atlantic sturgeon has been frequently misspelled in the literature and that the original correct spelling is Acipenser oxyrinchus (instead of the commonly used A. oxyrhynchus). Ruban (1997 this volume) returns to the original spelling of the scientific name of the Siberian sturgeon, A. baerii (instead of A. baeri). We standardized the spelling of these species throughout the volume. Also, Birstein et al. (1997 this volume) presented genetic data showing that the Sakhalin sturgeon, usually considered as the same species as the American green sturgeon A. medirostris or as its Asian subspecies A. medirostris mikadoi, is in fact a distinct species, A. mikadoi, as it was described originally (Hilgendorf 1892). Additional treatment of these and other questions is taken up by Birstein & Bemis (1997 this volume).

Because the materials presented in different papers cover a wide geographical range, literally the whole northern hemisphere, we tried to be consistent about geographic names and to follow (insofar as possible) one resource for names. We used the New York Times Atlas (1992) as our guide for unifying geographical names throughout the volume. The biogeography of sturgeons has intrigued zoologists for more than two hundred years, and to unify comments and analyses presented by the authors of the status papers on separate species of Acipenseriformes, we wrote a new contribution overviewing the biogeography of the entire group (Bemis & Kynard 1997).

In addition to our primary affiliations, all three of us benefit from a network of institutions committed to the scientific study of fossil and recent fishes, and wish to thank our colleagues at these institutions by formally noting our courtesy appointments with them. William E. Bemis is a Research Associate in the Department of Ichthyology at the American Museum of Natural History, New York and a Research Associate in the Department of Geology, Field Museum of Natural History, Chicago. Vadim J. Birstein is a senior scientist at the Koltsov Institute of Developmental Biology, Russian Academy of Sciences, Moscow, a visiting scientist at the American Museum of Natural History, New York and Adjunct Professor of Biology at the University of Massachusetts, Amherst. John R. Waldman is a Research Associate in the Department of Ichthyology at the American Museum of Natural History, New York.

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