## **Contents**

<b>Prelude</b> to sturgeon biodiversity and conservation by E.K. Balon	9-11
Sturgeon biodiversity and conservation: an introduction	
by W.E. Bemis, V.J. Birstein & J.R. Waldman Leo Semenovich Berg and the biology of Acipenseriformes: a dedication	13–14
by V.J. Birstein & W.E. Bemis	15-22
Part 1: Diversity and evolution of sturgeons and paddlefishes	
An overview of Acipenseriformes	25 71
by W.E. Bemis, E.K. Findeis & L. Grande Osteology and phylogenetic interrelationships of sturgeons (Acipenseridae)	25–71
by E.K. Findeis	73-126
Phylogeny of the Acipenseriformes: cytogenetic and molecular approaches by V.J. Birstein, R. Hanner & R. DeSalle	127–155
How many species are there within the genus <i>Acipenser</i> ? by V.J. Birstein & W.E. Bemis	157-163
Part 2: Biology and status reports on sturgeons and paddlefishes	
Sturgeon rivers: an introduction to acipenseriform biogeography and life history by W.E. Bemis & B. Kynard	167–183
Past and current status of sturgeons in the upper and middle Danube River by K. Hensel & J. Holčik	185-200
Endangered migratory sturgeons of the lower Danube River and its delta by N. Bacalbasa-Dobrovici	201-207
Present status of commercial stocks of sturgeons in the Caspian Sea basin by R.P. Khodorevskaya, G.F. Dovgopol, O.L. Zhuravleva & A.D. Vlasenko	209-219
Species structure, contemporary distribution and status of the Siberian sturgeon, <i>Acipenser baerii</i>	
by G.I. Ruban	221–230
Endemic sturgeons of the Amur River: kaluga, <i>Huso dauricus</i> , and Amur sturgeon, <i>Acipenser schrenckii</i>	
by M.L. Krykhtin & V.G. Svirskii	231-239
Biology, fisheries, and conservation of sturgeons and paddlefish in China by Q. Wei, F. Ke, J. Zhang, P. Zhuang, J. Luo, R. Zhou & W. Yang	241–255
Biology and life history of Dabry's sturgeon, <i>Acipenser dabryanus</i> , in the Yangtze River	241-233
by P. Zhuang, F. Ke, Q. Wei, X. He & Y. Cen	257-264
Observations on the reproductive cycle of cultured white sturgeon, <i>Acipenser transmontanus</i>	265 270
by S.I. Doroshov, G.P. Moberg & J.P. Van Eenennaam Contemporary status of the North American paddlefish, <i>Polyodon spathula</i>	265–278
by K. Graham	279-289
Life history and status of the shovelnose sturgeon, <i>Scaphirhynchus platorynchus</i> by K.D. Keenlyne	291–298
The status and distribution of lake sturgeon, <i>Acipenserfulvescens</i> , in the Canadian provinces of Manitoba, Ontario and Quebec: a genetic perspective	
by M.M. Ferguson & G.A. Duckworth	299_309

Lake sturgeon management in the Menominee River, a Wisconsin-Michigan boundary water by T.F. Thuemler	311-317
Life history, latitudinal patterns, and status of the shortnose sturgeon, <i>Acipenser brevirostrum</i> by B. Kynard	319–334
Status and management of Atlantic sturgeon, <i>Acipenser oxyrinchus</i> , in North America by T.I.J. Smith & J.P. Clugston Atlantic and shortnose sturgeons of the Hudson River: common and divergent life history attributes	335–346
by M.B. Bain Biological characteristics of the European Atlantic sturgeon, <i>Acipenser sturio</i> , as the basis for a restoration program in France by P. Williot, E. Rochard, G. Castelnaud, T. Rouault, R. Brun, M. Lepage & P. Elie	347 <b>–</b> 358 359 <b>–</b> 370
Part 3: Controversies, conservation and summary	
Sturgeons and the Aral Sea ecological catastrophe by I. Zholdasova	373-380
Threatened fishes of the world Pseudoscaphirhynchus spp. (Acipenseridae) by V.J. Birstein	381–383
Molecular analysis in the conservation of sturgeons and paddlefish by I.I. Wirgin, J.E. Stabile & J.R. Waldman	385-398
Sensitivity of North American sturgeons and paddlefish to fishing mortality by J. Boreman  Alternatives for the protection and restoration of sturgeons and their habitat	399–405
by R.C.P. Beamesderfer & R.A. Farr  Threatened fishes of the world: Scaphirhynchus suttkusi Williams & Clemmer, 1991,	407-417
(Acipenseridae) by R.L. Mayden & B.R. Kuhajda Threatened fishes of the world: Scaphirhynchus albus (Forbes & Richardson, 1905)	418-419
(Acipenseridae) by R.L. Mayden & B.R. Kuhajda	420-421
Sturgeon poaching and black market caviar: a case study by A. Cohen The three transfer of a singular strip field as a group and a strip an	423-426
The threatened status of acipenseriform fishes: a summary by V.J. Birstein, W.E. Bemis & J.R. Waldman	427-435
Species and subject index, by Alice G. Klingener	437-444

## This volume is dedicated to the memory of Leo Semenovich Berg

Logo design by William E. Bemis inspired by the holarctic distribution of sturgeons and paddlefishes

*Numae* is Anishnabe for sturgeon, a painting by the Chippewas of Nawash artist Adrian Nadjiwon of Cape Croker, Lake Huron: "In the painting I wanted to depict the balance that one existed between my ancestors and the sturgeon (the sturgeon being symbolic of all the fish species that the Old People subsisted on) with the fishing line symbolising a spiritual link and balancing point between the man and the sturgeon" (1992).