

Contents

Part I Systematics, Ecology, and Evolution of Percids

1	Taxonomy, Distribution, and Evolution of the Percidae.....	3
	Carol A. Stepien and Amanda E. Haponski	
2	Environmental Biology of Percid Fishes	61
	Zachary S. Feiner and Tomas O. Höök	

Part II Reproductive Biology

3	Broodstock Management and Control of the Reproductive Cycle	103
	P. Fontaine, N. Wang, and B. Hermelink	
4	Artificial Reproduction of Percid Fishes.....	123
	D. Żarski, A. Horváth, J.A. Held, and D. Kucharczyk	
5	Sperm Morphology, Physiology, Motility, and Cryopreservation in Percidae	163
	Sayyed Mohammad Hadi Alavi, Andrzej Ciereszko, Azadeh Hatef, Jiří Křišťan, Boris Dzyuba, Sergei Boryshpolets, Marek Rodina, Jacky Cosson, and Otomar Linhart	
6	Evaluation and Improvements of Egg and Larval Quality in Percid Fishes.....	193
	B. Schaerlinger and D. Żarski	

Part III Early Life Stages: Development, Metabolism, and Husbandry

7	Development of the Sense Organs in Percid Fishes	227
	M. Kamaszewski and T. Ostaszewska	

8	Development and Functionality of the Digestive System in Percid Fishes Early Life Stages	239
	Neila Hamza, Teresa Ostaszewska, and Patrick Kestemont	
9	Culture Methods of Eurasian Perch and Yellow Perch Early Life Stages	265
	P. Kestemont, C. Mélard, J.A. Held, and K. Dabrowski	
10	Culture Methods of Pikeperch Early Life Stages	295
	Svend Steinfeldt	
11	Intensive Culture of Walleye from Egg Incubation to Juvenile	313
	Robert C. Summerfelt and J. Alan Johnson	
Part IV Juvenile and Grow-Out Stages: Growth, Metabolism, Behavior and Husbandry		
12	Muscle Protein Characteristic and Its Association with Faster Growth in Percids and Other Teleosts	339
	Karolina Kwasek, Macdonald Wick, and Konrad Dabrowski	
13	The Energy Requirements of Percid Fish in Culture	353
	Anders Alanärä and Åsa Strand	
14	Bioenergetics Modeling of Percid Fishes	369
	Charles P. Madenjian	
15	Behaviour of Percid Fishes in the Wild and Its Relevance for Culture	399
	Carin Magnhagen	
16	Culture Methods of Eurasian Perch During Ongrowing	417
	Tomáš Policar, Azin Mohagheghi Samarin, and Charles Mélard	
17	Intensive Culture Methods of Walleye During Ongrowing	437
	J. Alan Johnson and Robert C. Summerfelt	
18	Large-Scale Production of Yellow Perch, Walleye, and Hybrid Walleye in Ponds	469
	Ruth D. Briland, Cathleen M. Doyle, and David A. Culver	
19	The Ecology of Lifetime Growth in Percid Fishes	499
	Michael D. Rennie and Paul A. Venturelli	
Part V Nutrition, Feeds and Feeding Practices		
20	Nutritional Requirements and Feeding of Broodstock and Early Life Stages of Eurasian Perch and Pikeperch	539
	Patrick Kestemont and Emilie Henrotte	

21	Effects of Dietary Levels of PUFA Fed to Adult Yellow Perch on the Fatty Acid Composition of Eggs and Larvae Characteristics: New Research Directions	565
	Konrad Dabrowski, Jacques Rinchard, Sergiusz Czesny, and Malgorzata Korzeniowska	
22	Feeding and Nutrition of Percid Fishes During Ongrowing Stages	587
	Florian Geay and Patrick Kestemont	
Part VI Genetic Improvement and Domestication		
23	Sex and Ploidy Manipulation in Percid Fishes	625
	Carole Rougeot	
24	Performance of Hybrid Percids	635
	James A. Held, Syaghalirwa N.M. Mandiki, Carole Rougeot, and Patrick Kestemont	
25	Comparative Genetic Diversity, Population Structure, and Adaptations of Walleye and Yellow Perch Across North America	643
	Carol A. Stepien, Osvaldo J. Sepulveda-Villet, and Amanda E. Haponski	
26	Production of Genetically Defined Perch Broodstocks and Their Selection for Fast Growth	691
	Frederick W. Goetz, Daniel R. Rosauer, Michael Grzybowski, Frederick P. Binkowski, and Brian S. Shepherd	
27	Genetic Improvement of Percids	699
	R.J.W. Blonk and J. Komen	
Part VII Stress, Immunology, Diseases and Health Management		
28	Corticosteroids and the Stress Response in Percid Fish	725
	S. Milla, J. Douxfils, S.N.M. Mandiki, and M. Saroglia	
29	Domestication and Responses to Stress	743
	J. Douxfils, S.N.M. Mandiki, C. Mathieu, S. Milla, and P. Kestemont	
30	Immune Status and Immunomodulation in Percid Fish	761
	S.N.M. Mandiki, J. Douxfils, C. Mathieu, S. Milla, E. Henrotte, H. Jansen, and P. Kestemont	
31	Percid Fish Health and Disease	799
	H.D. Rodger and N.B.D. Phelps	

Part VIII Commercial Production, Quality, Marketing and Economics

32	Current Status of Eurasian Percid Fishes Aquaculture	817
	Svend Steinfeldt, Pascal Fontaine, Julia Lynne Overton, Tomáš Polícar, Damien Toner, Bahram Falahatkar, Ákos Horváth, Ines Ben Khemis, Neila Hamza, and Mohammed Mhetli	
33	Concept and Determinism of Quality in Percid Fishes	843
	Marielle Thomas, Guillaume Mairesse, Jean-Noël Gardeur, and Jean Brun-Bellut	
34	The Market for Eurasian Perch.....	865
	Damien Toner	
35	Commercial Production: Factors for Success and Limitations in European Percid Fish Culture.....	881
	Julia L. Overton, Damien Toner, Tomáš Polícar, and Dariusz Kucharczyk	
	Index.....	891

Biology and Culture of Percid Fishes

Principles and Practices

Kestemont, P.; Dabrowski, K.; Summerfelt, R.C. (Eds.)

2015, XVIII, 901 p., Hardcover

ISBN: 978-94-017-7226-6