PERCID MANAGEMENT: CURRENT STATUS AND FUTURE RESEARCH NEEDS
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Twenty papers were presented in the Percis III management session. While the authors participating in this session originated from diverse backgrounds and continents, some dominant themes were evident in their presentations suggesting that fisheries managers across the world are addressing similar obstacles and problems. These themes included the use of stocked fish to supplement natural production, impacts of habitat modification and loss (including pollution), and efforts to accurately estimate mortality rates. Also, following recommendations of workgroups from Percis II in 1995, more management agencies are incorporating results from systems modeling to help address complex management issues. Nearly all presenters emphasized the importance of maintaining long-term monitoring studies to provide an information base useful in developing management plans and assessing their effectiveness.

Several papers in the management session addressed issues related to stocking percids as a fisheries enhancement strategy. Papers by Bolotova et al., Jacobson, Wallace, and Kampa et al. discussed the importance of assessing the contribution of stocked percids to fisheries. Schulze et al. and Pierce talked about the impacts of stocking species on fish community and trophic dynamics in lakes. Ruuhijarvi and Salminen presented a paper describing the effect of pikeperch size at stocking on performance and recruitment to the fishery. Stepien et al.’s paper discussed an analysis of genetic hybridization risk posed by stocking into a historic walleye spawning group. Based on the papers in this session, stocking percids to enhance and restore fisheries is a strategy used around the world to achieve management goals and supported by strategies that assess its effectiveness.

Identifying the effects of habitat perturbation on percid fisheries proved to be a dominant theme among papers presented in the management session. Konovalov et al. discussed the impacts of water pollution by heavy metals and other contaminants on percid physiology and pathology in some impacted Russian lakes. Sass presented a paper that detailed the importance of coarse woody structure in littoral zones as refuge for yellow perch in Wisconsin lakes. The need to conduct more research to explore linkages among and between life-history stage-specific habitats was emphasized in the discussion of these papers.

Estimating accurate natural and fishing mortality rates and the use of population parameters as reference points were addressed in several papers in the management session. Papers by Lester and Morgan drew upon knowledge gained from long-term studies conducted in several dozen Ontario lakes to produce a set of criteria for identifying useful biological reference points to assess walleye populations. Hennessy presented a pair of papers describing statistical properties of natural mortality estimates for walleye in northern Wisconsin lakes. A paper by Prchalova discussed gear selectivity and its potential to impact mortality estimates and catch statistics.

Lastly, papers by Knight et al., Salminen et al., and Beard et al. discussed the importance of interagency cooperation and collaboration to produce and carry out effective management plans. These papers, in addition to those mentioned above, emphasized the importance of standardized long-term monitoring programs supplemented by shorter-term research projects to provide the information necessary to formulate effective management plans. These papers also emphasized the importance of assessment programs that monitor the progress and effectiveness of management strategies.

Based on discussions carried out during and after the management session, several research and management issues were highlighted as important for the future of successful percid management and will hopefully be addressed at Percis IV. While none of these can be called “new,” they remain important, nonetheless. In no particular order, these include: understanding the role of physical habitat and climate on percid population dynamics, using regulations to effectively control fishing mortality, law enforcement strategies in percid management, multivariate methods to analyze data, genetic considerations in stocking and management, gathering and interpreting stakeholder perceptions of management programs, developing standardized assessment methods, impacts of exotic species on percid populations, role and effects of stocking percids, and improving the exchange of information among scientists around the world. In closing, I would like to thank Roger Knight and Dr. Carol Stepien for helping to moderate the management session and also thank the presenters and co-authors for their excellent contributions.