



United States Department of the Interior
U. S. Geological Survey/Biological Resources Division

Florida Integrated Science Center
7920 NW 71st Street
Gainesville, Florida 32653

June 1, 2003

Memorandum

To: Steering Committee
Southeast Adaptive Management Group (SEAMG)

From: Russell J. Hall, Center Director

Subject: SEAMG 2003 Annual Report

This memo and the attached compact disk serve as our annual report (and as the 2003 deliverable for the contribution of the Florida Fish and Wildlife Conservation Commission). This document and the documents on the disk also are on the Center for Aquatic Resources Studies website (<http://www.fcsc.usgs.gov/SEAMG/seamg.html>). Members of SEAMG have produced reports, technical presentations, workshops, manuscripts, and numerous consultations with cooperating agency personnel. The SEAMG has focused a great deal of energy this year on various topics, some of which affect the member agencies directly and some indirectly; some of the work is quite basic and only time will tell what may be its ultimate effect. Each of the scientists in SEAMG also has other responsibilities that will not be reported in this documentation.

Fred Johnson's primary U.S. Fish and Wildlife Service assignment is to lead the adaptive harvest management program for North American waterfowl. The SEAMG essentially formed around Fred and the international visibility of his other assignment anchors our own. By virtue of his leadership, he contributes in a major fashion in regional, national and international forums on adaptive management and waterfowl management. We report here only those contributions that relate to SEAMG and not his other considerable duties. Fred is collaborating with Jaime Collazo, North Carolina Coop Unit, Ken Pollock, NC State University, and Jim Nichols, Patuxent Wildlife Research Center (PWRC) on the subject of shorebird management. This project has much potential and the group has stimulated proposals, local meetings and a May 2003 workshop that assembled the major players in shorebird research and conservation. Johnson also successfully teamed with Mike Runge, PWRC, and Maryland Department of Natural Resources collaborators to obtain competitive funding from the USGS Eastern Regional Office State Partnership Program. Thanks to Dr. Kimball, the theme of this year's competition was *adaptive management* and you will see by the end of this letter that the SEAMG was prominent in the awards.

Bob Dorazio spearheaded and catalyzes ongoing SEAMG involvement with principally PWRC and Georgia Coop Unit scientists but also with other key participants in "Adaptive Resource Management (ARM) Conferences." The ARM Conferences largely have been devoted to quantitative developments in adaptive management. There is an unprecedented amount of synergy within the group that has coalesced as a result of those meetings. Bob takes a leadership role in that grouping of top statistical minds. He presented at the most recent ARM-conference in Laurel, MD in April 2003 ("Simulation-based approaches for computing an optimal sequence of

adaptive management decisions”). Bob also worked with Johnson in writing a manuscript this year on Bayesian inference and decision theory. That effort was stimulated by our collective experiences with the FWC’s Goodwin Wildlife Management Area. Bob collaborated with Andy Royle (FWS @ PWRC) on the problem of heterogeneous probabilities in estimating species richness and population size.

Rob Bennetts is supported through Everglades Place-based Funds, and his primary responsibilities are to conduct management-oriented research on avian species of south Florida. Although much of this research is related to SEAMG, we report here only those projects that were directly conducted within the auspices of SEAMG. All SEAMG scientists participated in some manner with the FWC’s Objective-based Vegetation Management Program (OBVM) in the last year. Early in the process, Johnson was requested to write a review of FWC vegetation studies that were, in part, a platform for moving toward OBVM. Bennetts carried the bulk of the load on the project and consulted with FWC staff on putting the conceptual basis of OBVM into an adaptive framework. He coauthored a prospectus on the OBVM with Scott Sanders, FWC. He also coauthored an expanded “agenda” and drafted a workshop directive for the Objective-based Vegetation Management Workshop hosted April 2003 by FWC in Cedar Key. Also, Bennetts directed a collaborative effort involving Sanders, Nick Wiley, Susan Jacobson to successfully compete in the USGS Eastern Regional Office State Partnership Program with a human dimensions project.

Percival worked with Jeff Key (USGS-Florida Integrated Science Center - FISC), Ken Pollock (NC State University), Frank Montalbano, Gil McRae, Holly Edwards, Bruce Ackerman (FWC), and Mike Runge (USGS-PWRC) on proposals on manatee detectability studies for the USGS Eastern Regional Office State Partnership Program. This funding would result not only in a research product but also be a bridge to future linkages with Dr. Pollock, an internationally respected biostatistician.

Note in the attached compact disk the following products (*auxiliary file names in parentheses*):

FWC collaboration on Objective Based Vegetation Management

A review of three FWC vegetation studies (*fwc-veg-study-review.pdf*)

Objective-based Vegetation Management: A program prospectus (*OBVM_Prospectus.pdf*)

Objective-based Vegetation Management Workshop (Cedar Key, FL – April 3-4, 2003)
(*OBVM_Workshop Agenda.pdf*)

Restoration Conference presentation (*Restoration_Conf.ppt*)

Restoration Conference brochure (*RestorationConf BrochureProgram.pdf*)

Adaptive management of shorebirds in the Atlantic Flyway

Shorebird management project prospectus (*shorebird-prospectus.pdf*)

Atlantic Flyway shorebird management workshop announcement
(*shorebird-AF-workshop-agenda.pdf*)

Adaptive management and shorebird conservation-workshop presentation
(*shorebird-Atl-Fly.pdf*)

Adaptive management and shorebird conservation-FWS Region 4 presentation
(*shorebird-conservation-SE.pdf*)

Dynamic models of shorebird management-presentation
(*shorebird-dynamic-models.pdf*)

Adaptive Management Theory

Optimal decision computations manuscript (*BayesExample.pdf*)

4th ARM Conference series agenda (*AM conference series #4 Agenda.pdf*)

Simulation based approaches for computing an optimal sequence of AM decisions-ARM
Conference presentation (*Simulation_Approaches.pdf*)

A Comparison of Optimal Decisions Computed Using Bayesian Updating and Stochastic
Dynamic Programming (*optSequenceReport.pdf*)

Enclosure

Addressees:

Mr. Tim Omeara

Dr. Kenneth Williams

Dr. Suzette Kimball

Mr. Brian Millsap

Mr. Jon Andrew

Cc: F. Johnson

R. Dorazio

R. Bennetts

F. Percival