

Illinois Conservation Opportunity Areas: Coordination and Planning in Support of the Illinois Wildlife Action Plan

Project Number: T-55-P-1

Annual Report

Reporting Period 1 June, 2009 to 31 July, 2010

A report to:

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Background

Across the United States there is increasing recognition that conservation of natural resources must be focused on protection and management of critical habitats and species in order to preserve the nation's biodiversity (The Nature Conservancy, 2008). Incentives to this directed conservation effort are limited financial and technical resources that are constraining natural resource agencies in their capacity to protect all areas of their jurisdiction. To assist with developing priorities, the State Wildlife Action Plans provide a valuable foundation for guiding the conservation initiatives of the states and their partners.

Illinois' Wildlife Action Plan (IL-WAP) serves as a blueprint for management, protection and recovery of Species in Greatest Need of Conservation (SGNC) and associated habitats. Developed with input from a wide spectrum of conservation partners, this plan is both strategic and prescriptive, describing the broad issues and specific actions to achieve the identified goals and objectives.

From data compiled during development of the IL WAP, the basic findings concluded that four conditions or features were strongly influencing SGNC current and future status. These included: 1) insufficient habitat for sustaining many of the SGNC, 2) degraded conditions for those habitat which are available, 3) an increasing occurrence of invasive species, and 4) changing land use and other factors associated with anthropogenic influences. Yet financial and technical constraints provide that these issues cannot be addressed across the entire landscape and must be focused where actions will achieve the greatest benefits for long-term conservation of biodiversity.

Need

The multiple scales encountered with implementing this WAP promptly lead to recognition of a need for an approach to transition from a statewide perspective to "on-the-ground" implementation. Further, to achieve measurable progress in conservation, this change in scale must be coupled with targeted areas of ecological importance such as high concentrations or metapopulations of Species in Greatest Need of Conservation (SGNC), or critical habitats.

Natural resource management and protection requires the collaboration of many agencies and organizations and Illinois's conservation landscape has many active and productive partners. These groups also work at multiple levels from statewide to local.

Thus, within the framework of the statewide IL-WAP, focusing attention on priority habitats and species, and engaging local partners, requires a directed effort to help guide the application of resources and funding where it can have the most benefit for species and habitats. In the IL WAP, these areas were ranked based upon habitat patch size as well as threatened and endangered species, biodiversity, and regional workshop participants, and are identified as Conservation Opportunity Areas (COAs) (Figure 1).

Objective

The objective of this project is to facilitate communication, coordination, and planning within the proposed Illinois Conservation Opportunity Areas to address the IL-WAP.

Approach

The various needs of these COAs, and associated species and habitats, require coordination and communication among partners to help ensure the most efficient use of resources and proper implementation of best management practices. Within each COA, guided by recommendations from partners, goals and priorities can be established to support protection and management of habitat for

SGNC's.

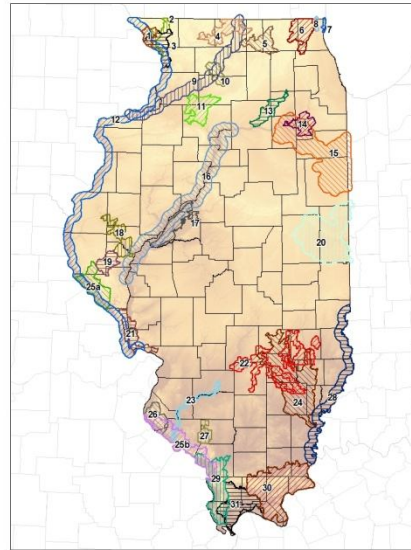


Figure 1: Proposed COA Boundaries

The issues driving each COA are expected to be diverse, thus flexibility in the coordination, communication and planning approach will be critical. For example, conservation initiatives in some COAs may be directed at a particular species or suite of species, or at one or more habitat types. The area of interest (i.e., focus area) may encompass only a small portion of the identified COA. Yet it is expected that these directed efforts can serve to initiate and address broader ecological concerns.

Of interest to this project is the current level of planning and implementation within each COA. Based upon numerous on-going and completed planning efforts of both federal and state agencies, as well as non-governmental organizations, the approach for coordination will vary widely among COAs (Figure 2). To be successful, the project must assess the needs of each COA and in a collaborative approach with the partners, determine the level of involvement.



Figure 2: Anticipated range of planning and development within COAs

Progress To-Date

Job 1. Coordination and Communication

The initial efforts to address this job centered on communicating the purpose of this project with project leaders/contacts and partners. This coordination included ongoing discussions with several Offices within the IDNR including Realty and Environmental Planning, Land Management and Resource Conservation. Developing this network will be critical to success in the COAs as there are many activities that have either been conducted by the IDNR or are currently underway. The purpose of this project is to support these ongoing activities at whatever level is appropriate. This support may range from providing a basic explanation of the project and potential assistance to a more involved level of coordinating and facilitating meetings.

The second stage in the coordination and communication effort focused on engaging local conservation partners in need of coordination. This would include COAs where conservation planning and development is less sophisticated (Figure 2). Some examples of coordination activities in these cases are: 1) facilitating meetings between conservation partners where goals and priorities are discussed and hopefully agreed upon and 2) helping partners formalize their shared conservation goals under the guidance of the IL-WAP. As the level of development in each COA is different, there is not a set formula for coordination assistance, and it is important to note that the strategy must be adaptable.

Products include:

- a project brochure to disseminate information about the project (see Appendix A).
- an article in the August 2009 issue of Outdoor Illinois highlighting the project.
- development of contact lists for all of the COAs.
- development of a “frequently asked questions” white paper to help IDNR personnel understand the purpose of the T-55 project.
- Support documentation to help local conservation stakeholders engage the IL-WAP in their conservation planning efforts.

The project directed initial efforts towards identifying areas that have strong potential for prompt successes and where these actions could serve as a catalyst for the change necessary to move the local efforts towards on-the-ground activities. To identify these areas, a survey for COA prioritization was developed (See Appendix B and C). The survey was directed at IDNR staff, multiple COA partners and the general public through the IDNR website. In addition to COA prioritization, the survey was developed to increase understanding of diverse needs within the COAs and to gain the public perspective as a foundation for updating the IL-WAP.

Working with SIUC faculty (Dr. Mae Davenport-Forestry), a research component of the project was identified to assess community capacity for conservation within the COAs. This effort will help the IDNR, TNC and other agencies and organizations to identify the

specific needs and thresholds for successful COAs. See Appendix D for a brief description of the proposed research.

Finally, working with the IDNR Geographic Information Systems Analyst (Andrew Hulin), an approach to refining the areas of the COAs was initiated using GAP models and habitat patch size. To provide a more appropriate perspective relative to the ecological values of the COAs and minimize landowner concerns associated with boundaries, a proximity allocation analysis was conducted on the COAs. This approach provides a gradient association with the COAs.

Job 2. Planning

Several of the initial COAs addressed by the project are at various levels of organization and planning. Provided below is an assessment their status.

Middle Mississippi River Corridor Hill Prairie South:

A local organization referred to as “Clifftops” conducted its first annual meeting and has developed a local plan for the area, adapted from the IL-WAP. Goals, challenges, strategies and actions have been identified for the area. The group has a leader and is making progress towards implementing its plan. (Southwestern Illinois Wildlife Action Plan found on Sharepoint Site).

Mason County Sands

Activities in this COA have formed around recovery of the Illinois Chorus Frog. There are several ongoing activities including research and habitat development that are part of different projects, of which greater coordination has been initiated. For this project, numerous data gaps have been identified, including basic distribution data. It is expected that the Illinois Chorus Frog may serve as the catalyst for additional work on other species (e.g., mud turtle, grassland birds, shore birds) and a SWG proposal, currently under development, is anticipated to address this larger Illinois Chorus Frog work. The anticipated role of T-55 will be to provide coordination among the various partners and track progress.

Middle Illinois River

There is considerable interest in the Middle Illinois COA, with the primary emphasis on migratory birds. This is a complex area, often with conflicting issues (e.g., fisheries and waterfowl), so developing clearly identifiable goals and objectives will be essential for successful implementation. Initial coordination efforts were conducted in January.

Cache River (Cache River Wetlands Joint Venture Partnership and Friends of the Cache) Major groups involved in the Cache include the U.S. Fish and Wildlife Service, IDNR, TNC and Friends of the Cache. Both TNC and FWS are developing independent conservation plans, so a role for this project may include facilitation and assistance with planning and determining how these plans may be coordinated.

Crow’s Foot Marsh/Coon Creek/Kishwaukee River

In this COA, there is considerable activity remaining from the C-2000 Ecosystem Partnerships that are still active. The main interests at the moment are the Kishwaukee River watershed, as the driving force in the preliminary COA partnership that has formed is the Kishwaukee River Ecosystem Partnership (KREP). KREP is currently working on bringing more partners into the COA partnership to better represent the whole COA, and they are also compiling suggestions for changing the COA boundaries.

Vermilion & Little Vermilion Rivers

This large COA contains Illinois' only designated Wild & Scenic River, the Middle Fork of the Vermilion River. Conservation stakeholders representing many different perspectives are engaged in this COA. There are prairie enthusiasts (Grand Prairie Friends, Illinois Nature Preserves), game hunters (Pheasants Forever) and lake and stream conservationists (Prairie Rivers Network, the Champaign County SWCD). Some of the most important issues that this group has agreed to work on together are: outreach to private landowners to encourage more enrollment in conservation easements and promoting more responsible urbanization.

Upper Mississippi River

This massive COA encompasses over half of Illinois' western border. It is obvious that there are widely varying interests represented on and near the Mississippi, and this COA is one of the more difficult to classify. Conservation efforts range from very well developed and long-running (The Upper Mississippi River Refuge System, the Upper Mississippi Forest Partnership Action Plan) to relatively new (The Middle Mississippi River Partnership). Since many large agency interests operate and have jurisdiction in this COA (the USFWS, the ACOE), coordination and outreach efforts have focused on educating conservation professionals about the IL-WAP, and reaching out to smaller groups or individual landowners with property in easement to help them to be more informed about how they can voice their concerns about conservation in the COA.

Conservation Planning

This job also provides for identification of a common planning process. Given the diversity and complexity of these COAs, as well as the minimal amount of time and resources able to be devoted to planning within each COA, a common planning process must be very simple and rapid. It would also be expected that these local COA plans would be updated frequently, thus requiring a very simple process. The Nature Conservancy Rapid Conservation Action Planning process (i.e., Rapid CAP) has formed the foundation of initial efforts. However, the Rapid CAP is a 2-3 day process which, in some situations, may be unacceptably lengthy for some COAs. We expect that plans developed through this project will provide very basic guidance and form the foundation for future coordination. As funding, interests, or needs begin to drive implementation in a COA, we fully expect that the COA and Focus Area plans will be updated to reflect the new information. These local plans will help drive the broader Illinois Wildlife Action Plan.

Job 3. Development of Performance Measures

As part of the T-55 project, Southern Illinois University, Carbondale has begun work on a project assessing the capacity of COAs to contribute to successful ecosystem management in the state of Illinois (Figure 3). The goals of this study are to provide baseline measurements of community capacity and ecological health in COAs, a model for COAs to improve likelihood of achieving conservation success, and a framework for evaluating other community-based natural resource management initiatives. This projects is past the planning stage and has begun the implementation stage with natural resource conservation plan reviews and focus-group meetings planned.

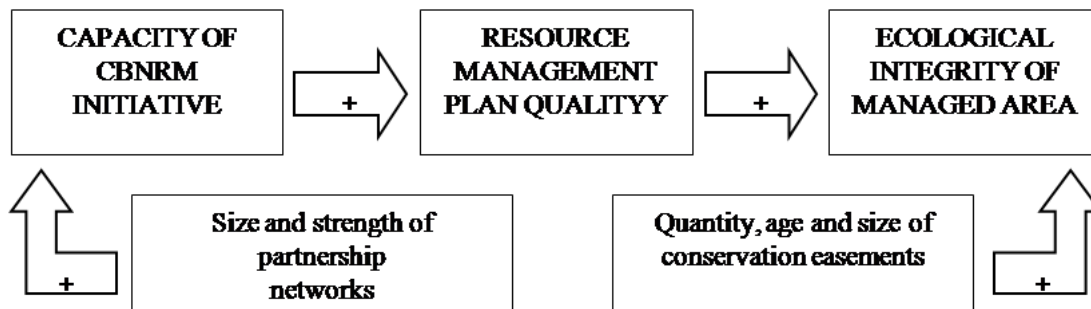


Figure 3. model of hypothesized relationships between Community-based natural resource management (CBNRM) capacity and ecological integrity

Job 4. Report to IDNR

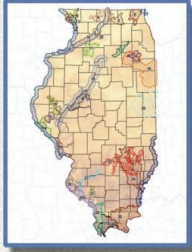
This job was addressed with the first and second annual report and through status meetings convened to track progress.

Illinois Conservation Opportunity Areas:
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Appendix A: COA Brochure

Where are the COAs

The COA's are located throughout Illinois and encompass many habitat types that important to hundreds of species.




Learn more and get involved.
 Each COA is unique and local partners have different needs. How can this project help you make your local partnership more effective?

Project timeline:
 June 2008-June 2011

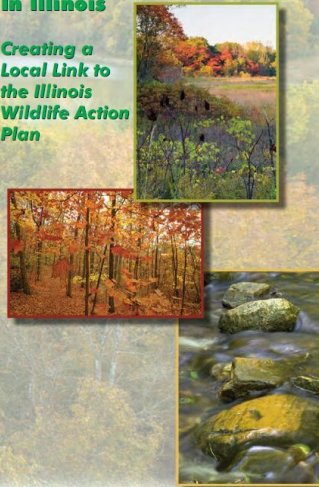
To learn more about the Conservation Opportunity Areas in Illinois project, contact:
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The Conservation Opportunity Areas in Illinois (Project T-55) is funded through U.S. Fish and Wildlife Service, State Wildlife Grants Program administered by the IDNR and with additional generous financial support from The Nature Conservancy and Southern Illinois University-Carbondale.



Conservation Opportunity Areas in Illinois

Creating a Local Link to the Illinois Wildlife Action Plan



Equal opportunity to participate in programs of the Illinois Department of Natural Resources (IDNR) and those funded by the U.S. Fish and Wildlife Service and other agencies is available to all individuals regardless of race, sex, national origin, disability, age, religion or other non-merit factors. If you believe you have been discriminated against, contact the funding source's civil rights office and/or the Equal Employment Opportunity Officer, IDNR, One Natural Resources Way, Springfield, IL 62702-1271; 217/785-0067; TTY 217/782-9175. This information may be provided in an alternative format if required. Contact the DNR Clearinghouse at 217/782-7498 for assistance. Printed by the authority of the State of Illinois.

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What is the Illinois Wildlife Action Plan?

The Illinois Wildlife Action Plan (IWAP) is the guiding document for management of fish and wildlife in the state. Every state must have a Wildlife Action Plan accepted by the U.S. Fish and Wildlife Service in order to be eligible for State Wildlife Grant Program funding.

How Does This Plan Help Illinois' Fish and Wildlife?

The IWAP identifies the challenges, opportunities and goals for species in greatest need of conservation (SGNC) and their habitats. The plan provides specific actions for addressing the needs of these species to ensure the natural heritage of Illinois for enjoyment by current and future generations.



What Is Included in the Illinois Wildlife Action Plan?

The IWAP identifies 8 main areas of action including priority habitats known as "campaigns" and high priority areas referred to as Conservation Opportunity Areas (COA's).


What is a Conservation Opportunity Area (COA)?

A COA is described as an area with:

- wildlife and habitat resources of statewide importance
- partners willing to be involved
- financial and human resources
- an agreed-upon conservation purpose and set of objectives

How Were COAs Identified?

An initial set of COAs were identified during development of the Illinois Wildlife Action Plan, and were based upon the location of habitats and species in greatest need of conservation, as well as guidance from participants in workshops.



How Is Illinois Addressing the Needs of COAs?

The Illinois Department of Natural Resources, The Nature Conservancy and Southern Illinois University-Carbondale have teamed up to provide communication and coordination support to local partners in these COA's. Conservation Opportunity Areas will be more successful and competitive for funding when local partners agree upon:

- Their top conservation priorities
- Local challenges and opportunities
- Coordinated on-the-ground activities, and
- How they will measure success.

This project will:

- assist, where needed, with coordination and communication,
- identify a planning process to facilitate goal-setting
- explore performance measures for the COA's
- develop a report with recommendations for the IWAP.




Figure 4: COA brochure

Appendix B: COA Survey (attached as pdf)

Appendix C: COA Survey Results Summary

Representation of COAs

Two-hundred and twenty-six individuals took the COA Survey. Respondents were primarily from state agencies and non-governmental organizations with few respondents in the private stakeholder category. All 32 COAs were represented by at least one respondent (Figure 4).

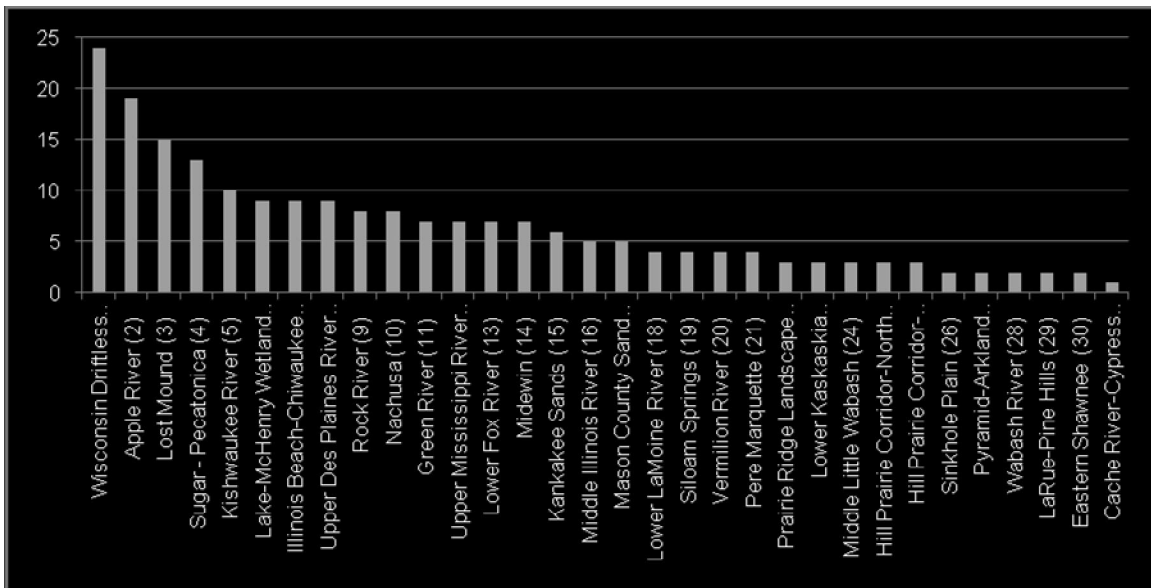


Figure 5: Number of people identifying themselves with each COA

Knowledge of management activities

Significantly more respondents were aware of a resource management plan in their respective COA(s) than not and almost every respondent who knew of a resource management plan also knew of collection/monitoring efforts underway to assess the plan. Most respondents felt the management plan was somewhat effective in managing and protecting fish and wildlife as well as important habitats

What makes an effective/ineffective management plan?

Respondents were asked to list up to three important factors that contributed to and reduced the success of the resource management plan (Figure 5). Funding and equipment ranked as the most important factor while information and training ranked as the least important.

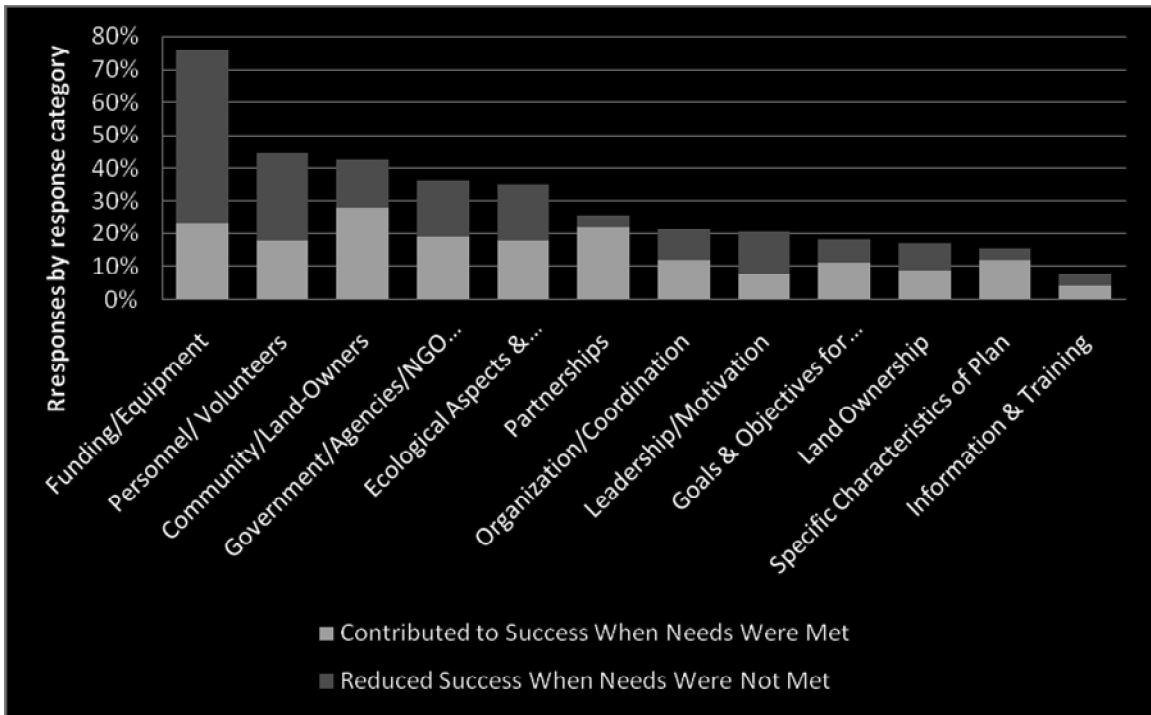


Figure 6: Factors contributing to the success/failure of a management plan

Management priorities

Respondents were asked to rank statements in respect to their need in their respective COA(s) from 1 (lowest priority) to 7 (highest priority) with only one response per statement and without duplicating rankings (Figure 6). The restoration and enhancement of wetlands resulted in the highest priority average while assisting urban areas in development resulted in the lowest priority average.

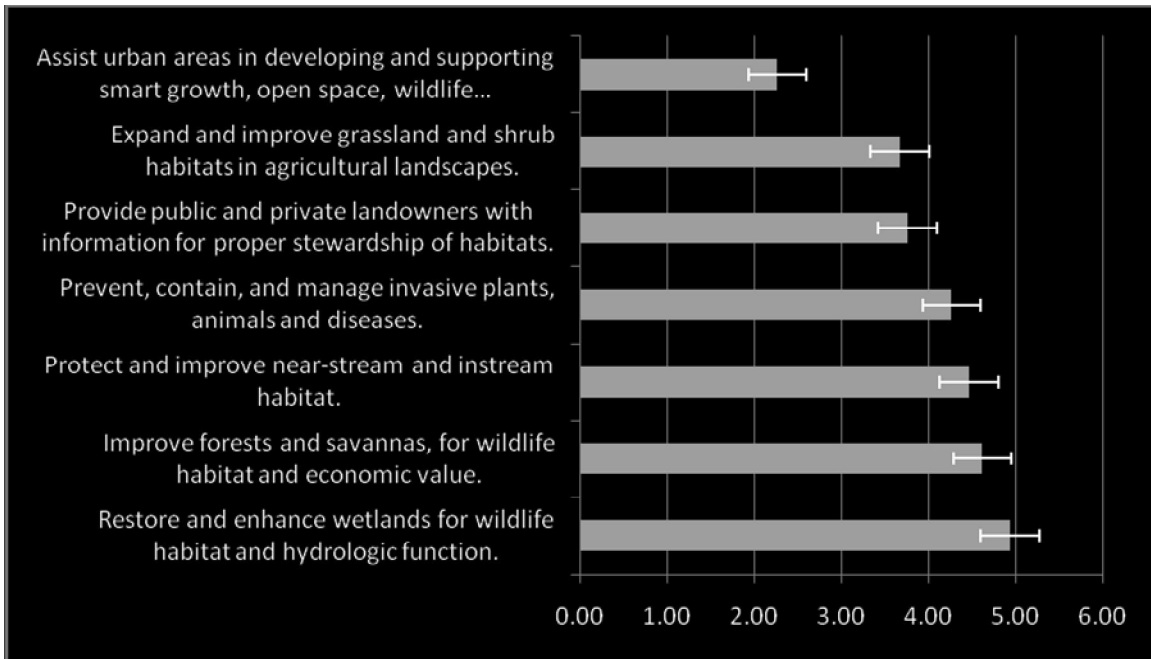


Figure 7: Average priority rankings for all COAs

Priority threats

Respondents were asked to rate the threat of various conditions on their respective COA(s) from 1 (no threat) to 5 (extreme threat). Average threat scores were calculated and invasive species scored as the most threatening condition while poaching scores as the least threatening (Figure 7).

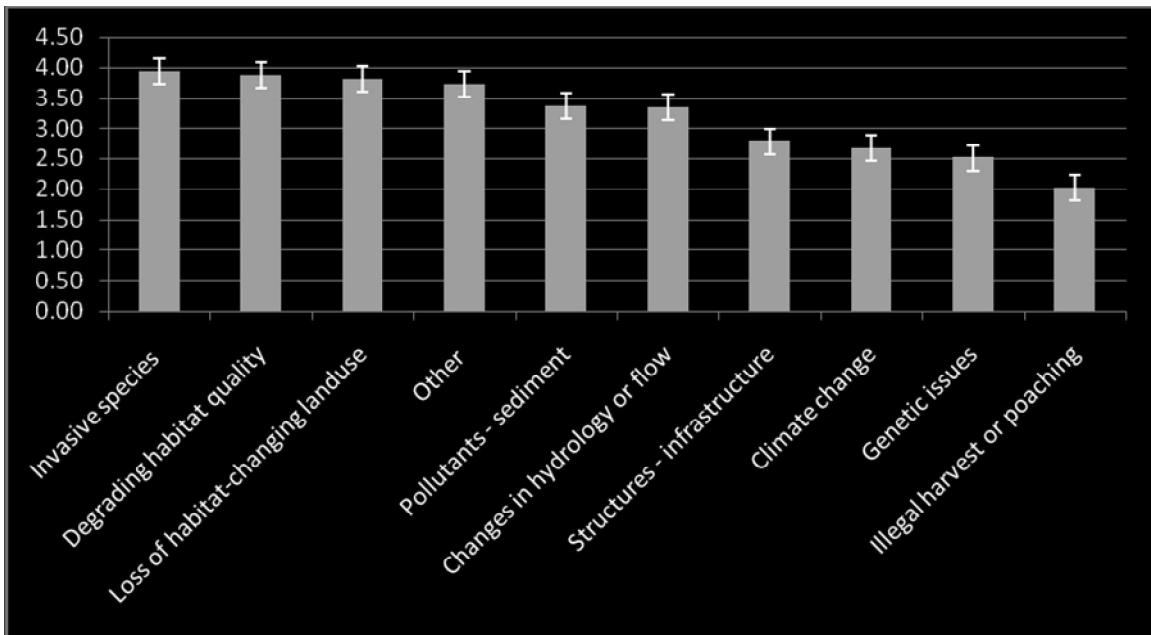


Figure 8: Average threat scores for all COAs

Exotic species

Respondents were asked to list up to three exotic species threatening their COA (s). Responses were coded and garlic mustard, canary grass and common reed were species of most concern (Figure 8).

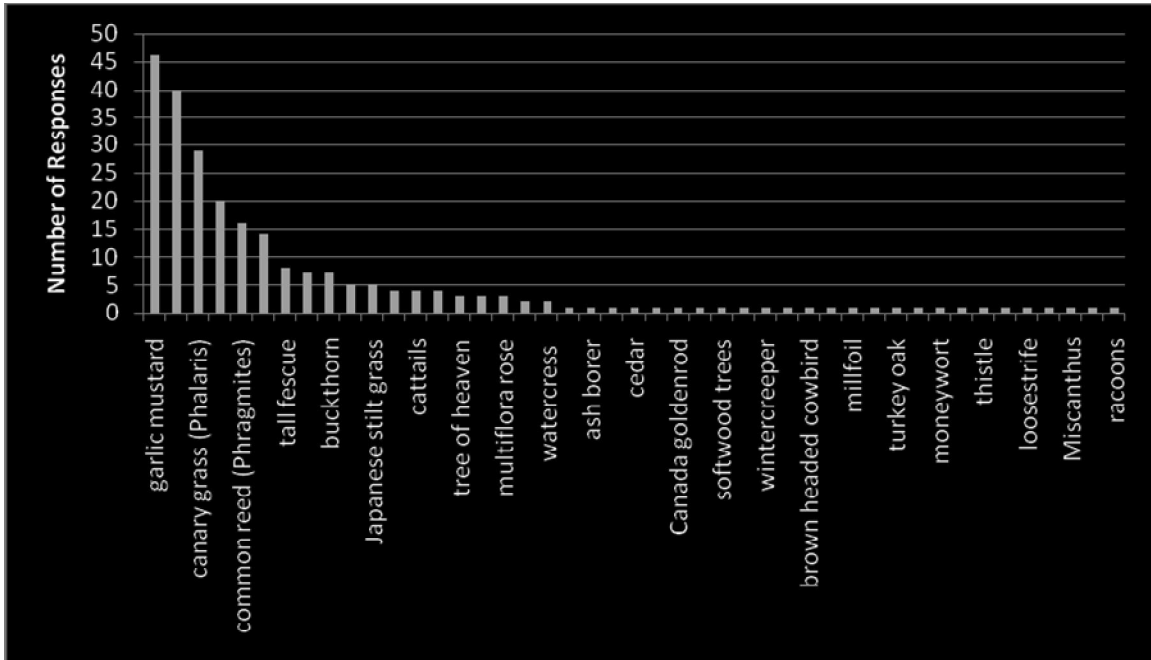


Figure 9: Exotic species perceived as threats to biotic integrity within COAs

Importance vs. satisfaction

Respondents were asked to rate the importance (1- extremely unimportant to 5-extremely important) and their level of satisfaction (1- extremely unsatisfied to 5- extremely satisfied) with ten statements. The corresponding means were calculated for each (Table 1). The rank difference between the importance and satisfaction means was calculated for each statement. Statements with negative rank differences ranked high on the importance scale but low on the attainment scale. Statements with positive rank differences ranked low on the importance scale but high on the satisfaction scale. Funding for COAs was of high importance to respondents and of low satisfaction giving it a rank difference of -9.

Table 1: Importance of experiences and the satisfaction with those experiences

Experiences	Importance				Satisfaction				RD++
	N	Mean ^a	SD	R+	N	Mean ^b	SD	R+	
Funding for COA conservation projects.	120	4.57	0.99	1	125	2.17	1.11	10	-9
Partners with a shared vision and participating in conservation actions.	125	4.53	0.99	2	127	3.47	1.16	1	1
Availability of core habitats and corridors for fish and wildlife populations.	124	4.52	0.94	3	130	3.22	1.07	5	-2
Strong leadership from natural resource management agencies.	123	4.51	0.92	4	129	2.91	1.31	9	-5
Availability of scientific data on species or important habitats.	126	4.48	0.94	5	127	3.33	1.18	3	2
Monitoring the status of fish, wildlife and habitats.	125	4.41	0.90	6	126	3.10	1.14	7	-1
Strong leadership from local partner organizations.	124	4.26	1.00	7	126	3.25	1.13	4	3
Availability of public lands within the COA.	128	4.12	1.11	8	125	3.37	1.15	2	6
Outreach to stakeholders.	126	4.11	0.99	9	119	2.97	1.05	8	1
Sharing of physical resources (e.g., equipment, supplies, etc.).	127	3.65	0.97	10	117	3.17	0.92	6	4

^a Responses based on a 5 point scale from 1 (extremely unimportant) to 5 (extremely important) and excludes point 6 (unsure)

^b Responses based on a 5 point scale from 1 (extremely unsatisfied) to 5 (extremely satisfied) and excludes point 6 (unsure)

+ Rank by means

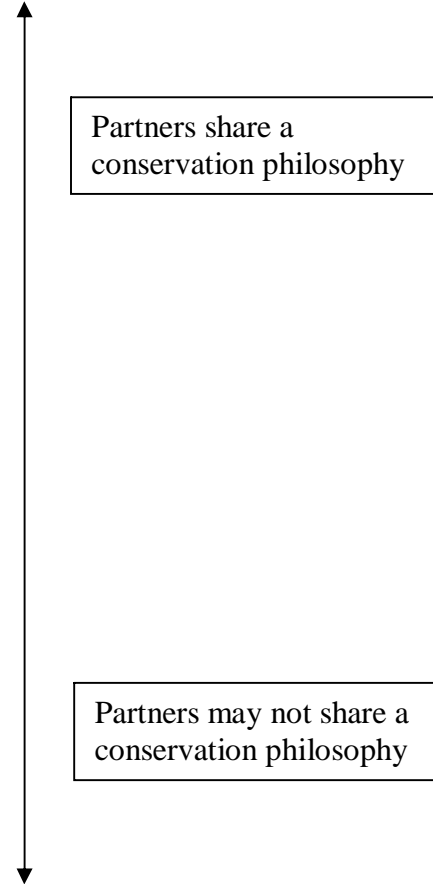
++ Rank difference between importance and satisfaction means

Do COAs have an agreed upon philosophy?

COAs are expected to have “an agreed-upon conservation purpose and set of objectives”, which is difficult to measure. Selected questions reveal representatives’ level of agreement about the effectiveness of the resource management plan, the needs of and threats to their COA, and the most important characteristics for success. The average standard deviation of responses to these questions (Table 2) in each COA can provide insight. To determine standard deviation at least two representatives had to answer the majority of selected questions. The COAs of Nachusa, Siloam Springs and Sinkhole Plain did not have enough representatives for their standard deviations to be calculated. One caveat to keep in mind with these results is that the standard deviation of responses may be artificially inflated when there are fewer responses targeted at an individual COA. Also, many of the COAs have vastly different habitats in them (e.g. streams and prairies) and so a high standard deviation of responses may indicate that potential partners are focused on one type of management, not aware or concerned with the other habitat types. This is a good indication of an area that may need coordination to introduce potential partners to each other.

Table 2: Average standard deviation of selected responses as an indicator of a shared philosophy

COA	AVG SD
Middle Little Wabash (24)	0.43
Hill Prairie Corridor-South (25.5)	0.66
Lower LaMoine River (18)	0.69
Wabash River (28)	0.74
Apple River (2)	0.77
Illinois Beach-Chiwaukee Prairie (7)	0.79
Eastern Shawnee (30)	0.85
Pyramid-Arkland Landscape (27)	0.86
Kishwaukee River (5)	0.87
Wisconsin Driftless Forest (1)	0.88
Vermillion River (20)	0.93
Upper Des Plaines River Corridor (8)	0.94
Hill Prairie Corridor-North (25)	0.97
Lower Kaskaskia Bottomlands (23)	0.98
Midewin (14)	1.03
Prairie Ridge Landscape (22)	1.06
Sugar - Pecatonica (4)	1.07
Mason County Sand Areas (17)	1.11
Cache River-Cypress Creek (31)	1.11
Pere Marquette (21)	1.15
LaRue-Pine Hills (29)	1.16
Upper Mississippi River (12)	1.18
Rock River (9)	1.21
Middle Illinois River (16)	1.22
Lake-McHenry Wetland Complex (6)	1.22
Lower Fox River (13)	1.32
Green River (11)	1.32
Kankakee Sands (15)	1.36
Lost Mound (3)	1.80



Appendix D: Doctoral student assigned to the COA project at Southern Illinois University, Carbondale

Natalie Mountjoy is the graduate student from SIUC working with Dr. Mae Davenport the COA project. She received her Master’s of Science in biology from Western Kentucky University in 2007. Her research centered on evaluating the potential for community-based conservation in the Kasigau region of southeast Kenya.

She began analysis of the COA Stakeholder Survey in July of 2009 and completed the full report in October of 2009. The report will supply important information on the overall status of COAs across the state. Data from the survey will allow for targeted assistance from the IDNR by providing details regarding the strengths and needs of individual COAs. Stakeholders from various COAs can also use the report to identify

COAs who have experienced successes where they are struggling, allowing them to collaborate and share strategies.

The report will also provide a starting place for Ms. Mountjoy's research. She will be selecting approximately five COAs that best represent the variation across the state, for detailed case studies. Major questions she would like to explore are: what defines a successful COA, what factors encourage or impede that success and how does the landscape and biodiversity of a COA impact success? Through her research Ms. Mountjoy aims to provide the IDNR with recommendations for successful COAs, while creating a research-based model for successful community-based conservation that can be implemented in other regions with interested stakeholders.