



Coordinated Bird Monitoring in the Midwest



30 June 2009

Katie Koch and Andy Paulios





Who uses monitoring **information**?

- Agency directors
- Program administrators
- Conservation biologists
- Public and private landowners
- Extension educators
- Public affairs specialists
- Land protection agents
- Lawmakers
- Regulators



A close-up photograph of a person's hands holding a small brown bird. The person is using a silver metal caliper to measure the bird's beak. The bird is held gently in the person's fingers. The background is a blurred field of tall green grass. The title 'Monitoring for Bird Conservation' is overlaid at the top in white text on a dark semi-transparent background.

Monitoring for Bird Conservation

- Status and trend assessment
- Setting population and conservation goals
- Causes of population changes
- Informing management and conservation decision-making

Courtesy of Chris Wood





- Data are **not computerized (!)**
- **No interest in computerizing data (!!!)**
- Data are computerized but **are not Quality Checked**
- Waiting to **publish** first
- **No time/money** to contribute
- **Unwilling** to share
- **No benefit** to my organization
- Need to **check** with partners
- Commercial enterprise **selling** data

What happens to data if we are only focused on collecting them?

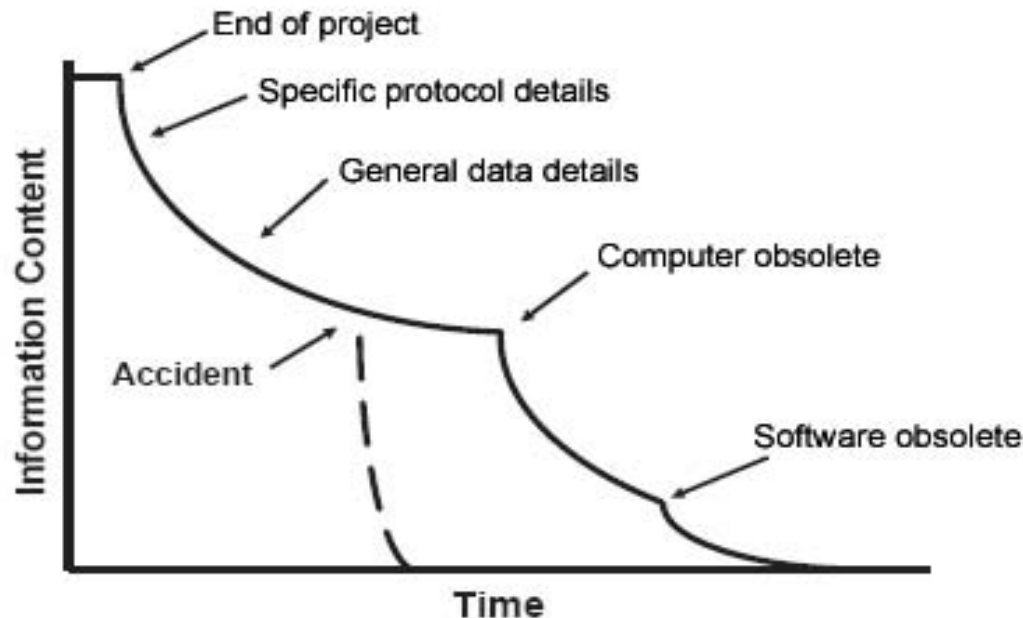


Fig. 1 – Illustration of the natural degradation in information content associated with data and metadata—information entropy (from Michener et al., 1987, by permission of the Ecological Society of America).

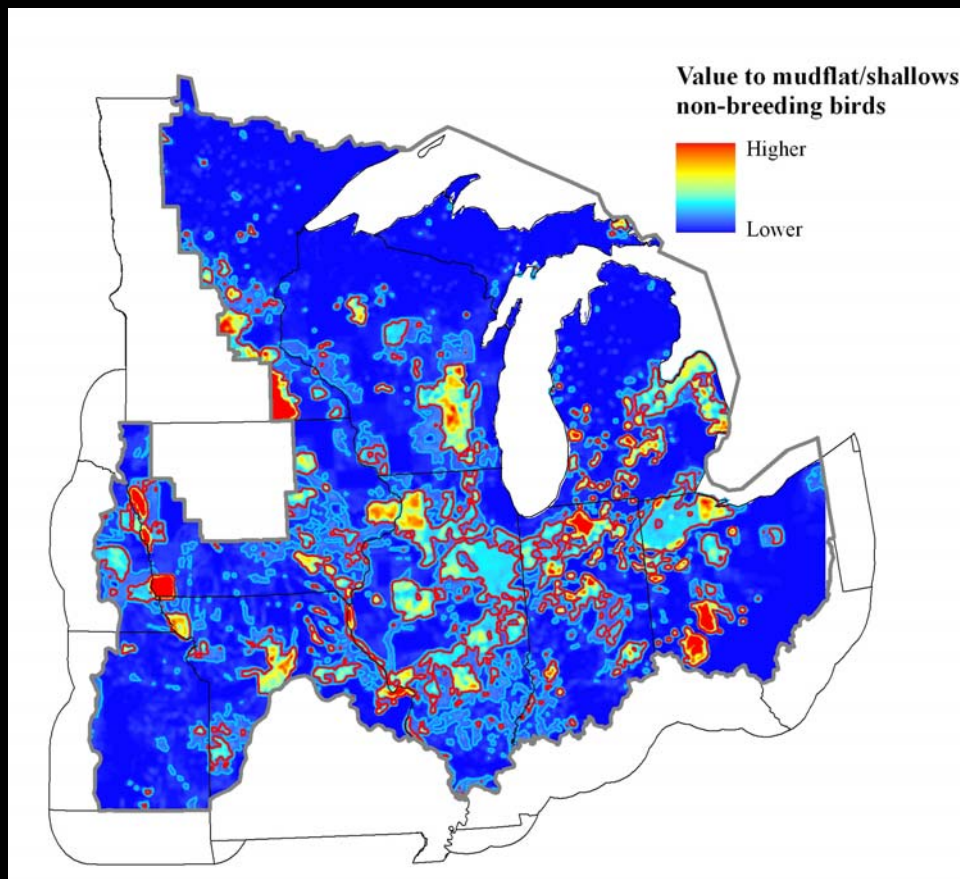


SECRETIVE MARSHBIRDS



Courtesy of Mark Seamans





PROBLEM: Lack of coordination limits our vision

- unclear goals
- inconsistent methods
- gaps in coverage
- redundant data collection
- unrelated databases
- missed opportunities to evaluate management and conservation



NEED: MORE COORDINATED BUSINESS MODEL

- unclear goals
- inconsistent methods
- gaps in coverage
- redundant data collection
- unrelated databases
- missed opportunities to evaluate management and conservation



Key Questions

Some interesting questions have been recently asked in (and of) the conservation community...

- How do we know we are making a difference?
- How do we know we are doing the right things?
- How do we know we are doing things right?!

Accountability and transparency have become critical elements within NGOs, State and Federal Agencies.

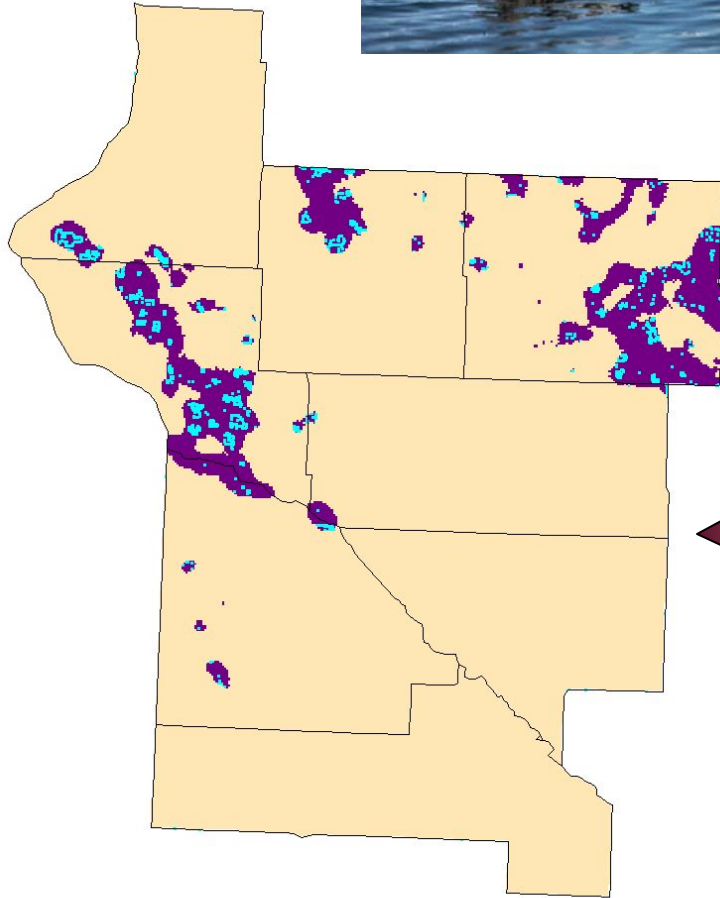


Conservation Planning

- How much habitat do we need to create to see a population increase at a given scale?
- How will management to benefit one species affect populations of another?
- Which design alternative will provide the most benefit for the greatest number of species?

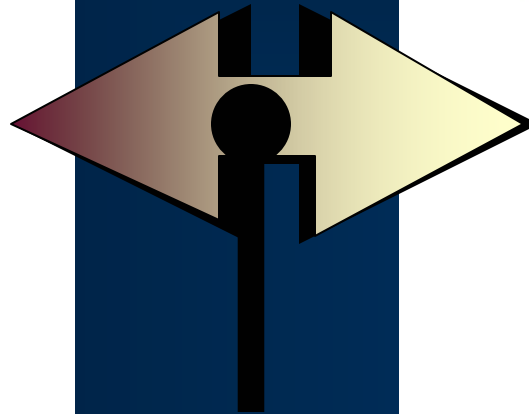


**WMD Goal
32,000 Recruits**

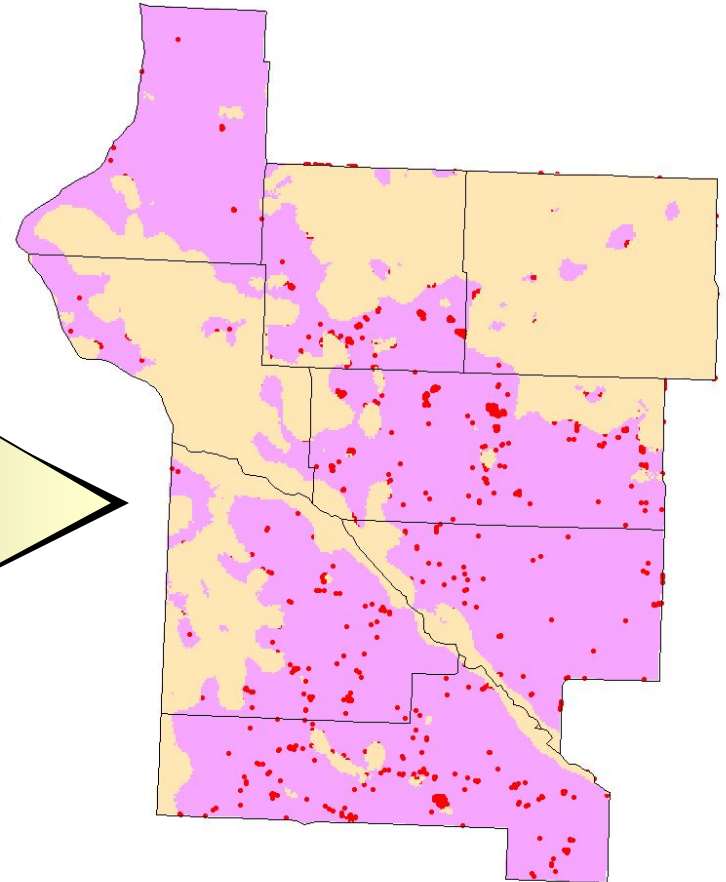


Efficiency Highest

**37,000 acres
7,115 recruits**



**Opportunistic
Conservation**



Efficiency Lowest

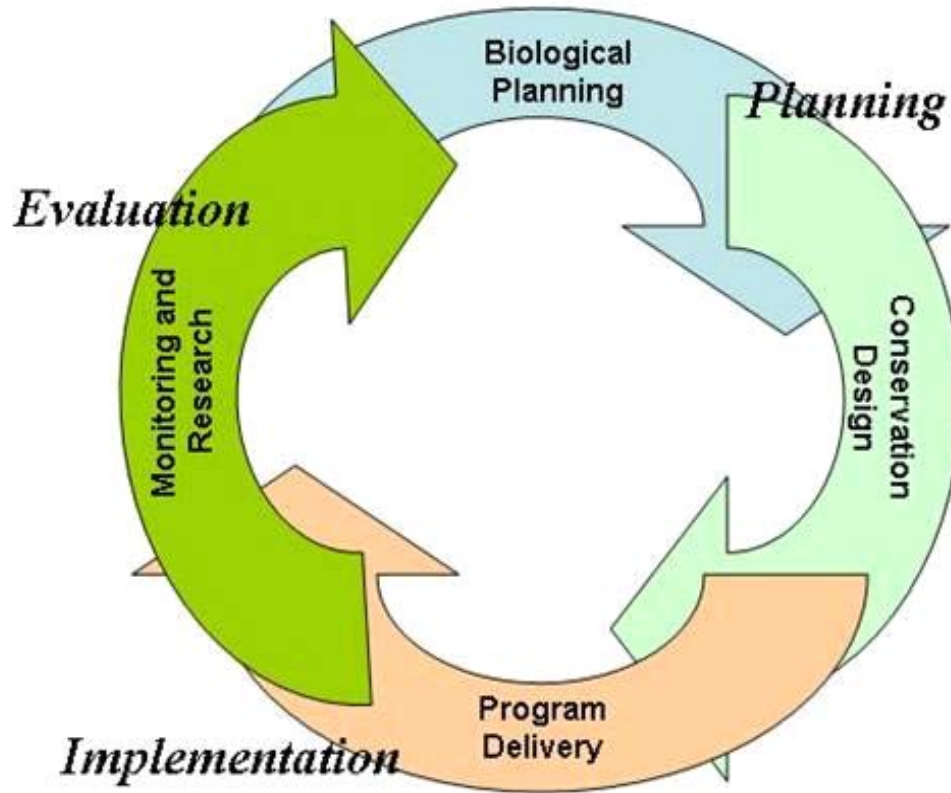
**113,000 acres
2,153 recruits**





Same Mission. Shared Knowledge. Smarter Conservation.

Strategic Habitat Conservation





The Traditional Paradigm

Agency-specific



Opportunity-driven



Site-oriented



Planning-averse



Management actions
treated as if they
are goals



**Monitoring & Evaluation
dispensable**



The “New” Paradigm

Collaborative

Science-driven

Landscape- or Population-
oriented

Planning-intense

Management actions
based on population
goals and biology

**Monitoring & Evaluation
indispensable**



Status monitoring

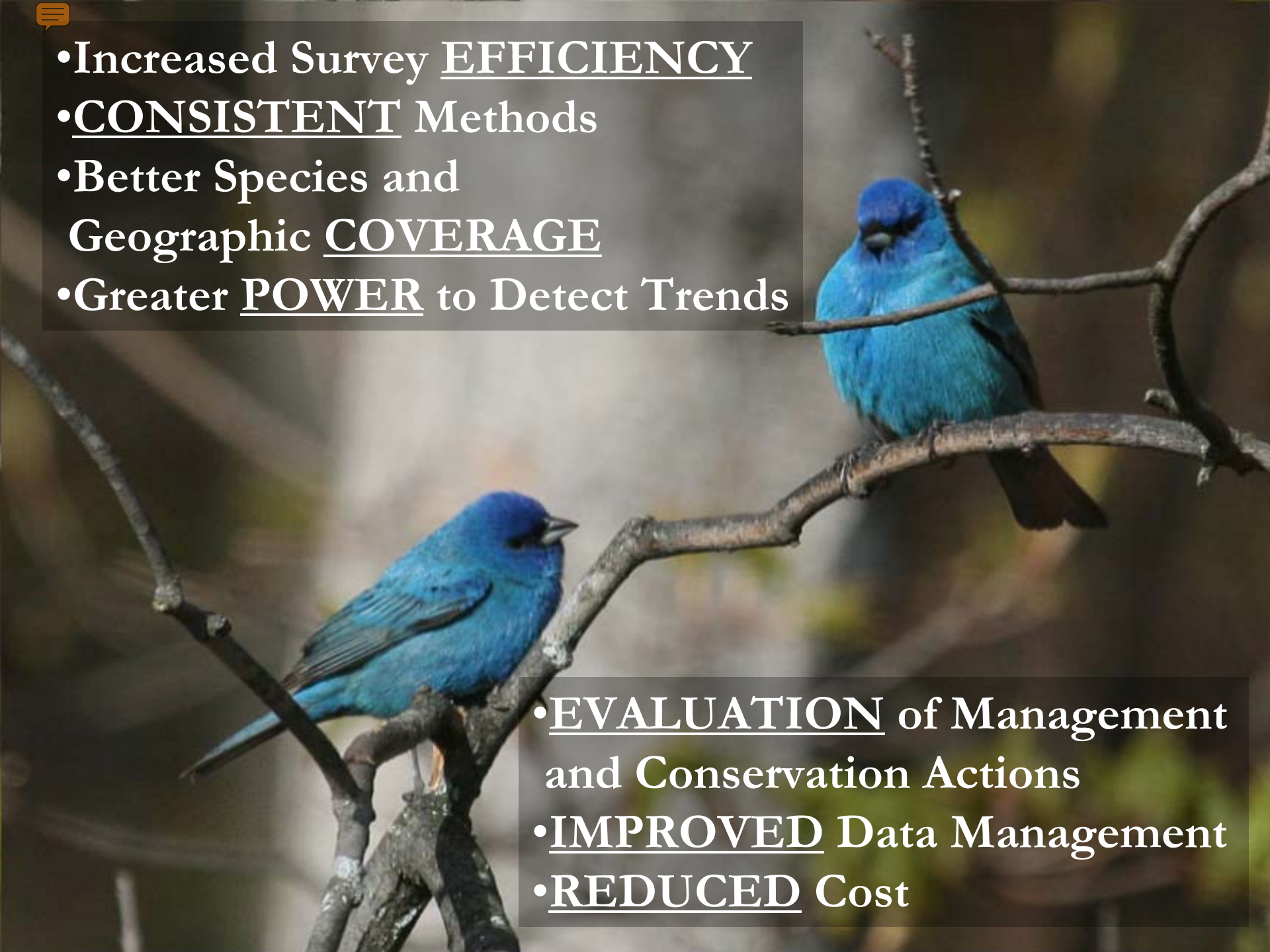


1. **Determine status and trends of populations**
2. **Set population objectives & species priorities**
3. **Determine causes of population change**
4. **Inform management and policies to achieve conservation**
5. **Inform conservation design**
6. **Evaluate conservation efforts**

Effectiveness monitoring



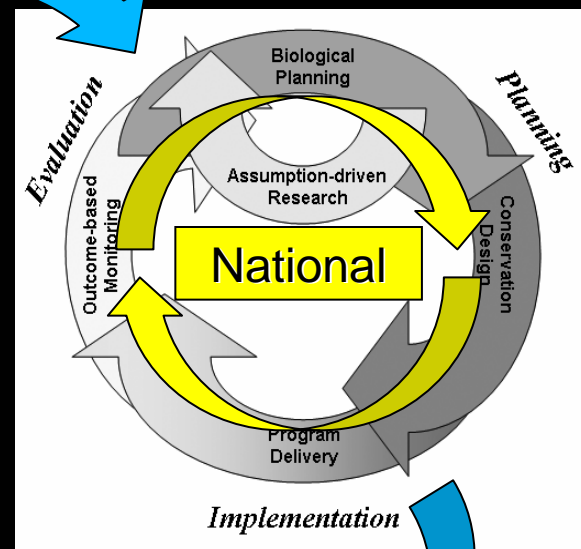
- Increased Survey EFFICIENCY
- CONSISTENT Methods
- Better Species and Geographic COVERAGE
- Greater POWER to Detect Trends

- 
- A photograph of two vibrant blue birds, possibly Indigo Buntings, perched on a dark, leafless branch. The bird in the foreground is facing right, while the one in the background is facing left. The background is a soft-focus natural setting with green foliage.
- EVALUATION of Management and Conservation Actions
 - IMPROVED Data Management
 - REDUCED Cost

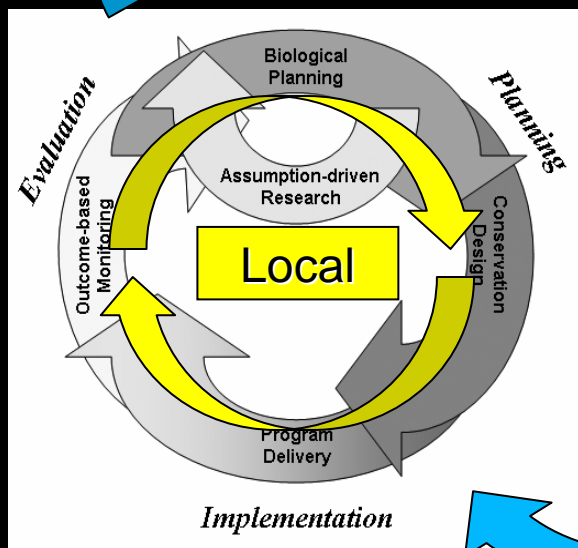
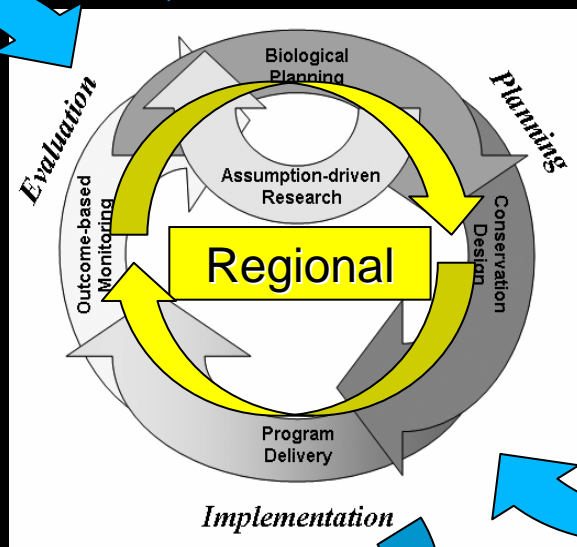


Data management
Data analysis tools

Coordinated Partnerships



Information Sharing



Program evaluation
Communication &
Decision tools



Monitoring in Context : Strategic Conservation





VISION :

Strategic Bird Conservation





Melissa M. Nando



**The Northeast Bird Monitoring
Handbook: 10 Steps to Successful
Bird Conservation through Improved
Monitoring**



Goals

1. Integrate monitoring into bird management and conservation
2. Broaden scope of monitoring for species most at risk and for which we lack adequate information to make effective decisions
3. Coordinate programs among organizations and across spatial scales
4. Improve survey design, field methods, and data analysis
5. Employ modern data management strategies

Methods

- Establish common principles and procedures
- Synthesize information on threats, monitoring priorities, and existing initiatives
- Form multi-state monitoring cooperatives
- Support cooperatives with funding
- Provide ways to share information & ideas

Methods

- Synthesize information on threats, monitoring priorities, and existing initiatives
- Form multi-state monitoring cooperatives



Sub-regional Coordinated Bird Monitoring Workshops

May 13-14, 2009 in Angola, Indiana
Potawatomi Inn at Pokagon State Park
(At the borders of IN, MI and OH)



June 17-18, 2009 in Quincy, IL
Stoney Creek Inn & Conference Center
(At the borders of IA, IL and MO)

July 28-29, 2009 in Onalaska, WI
Stoney Creek Inn & Conference Center
(At the borders of MN and WI)



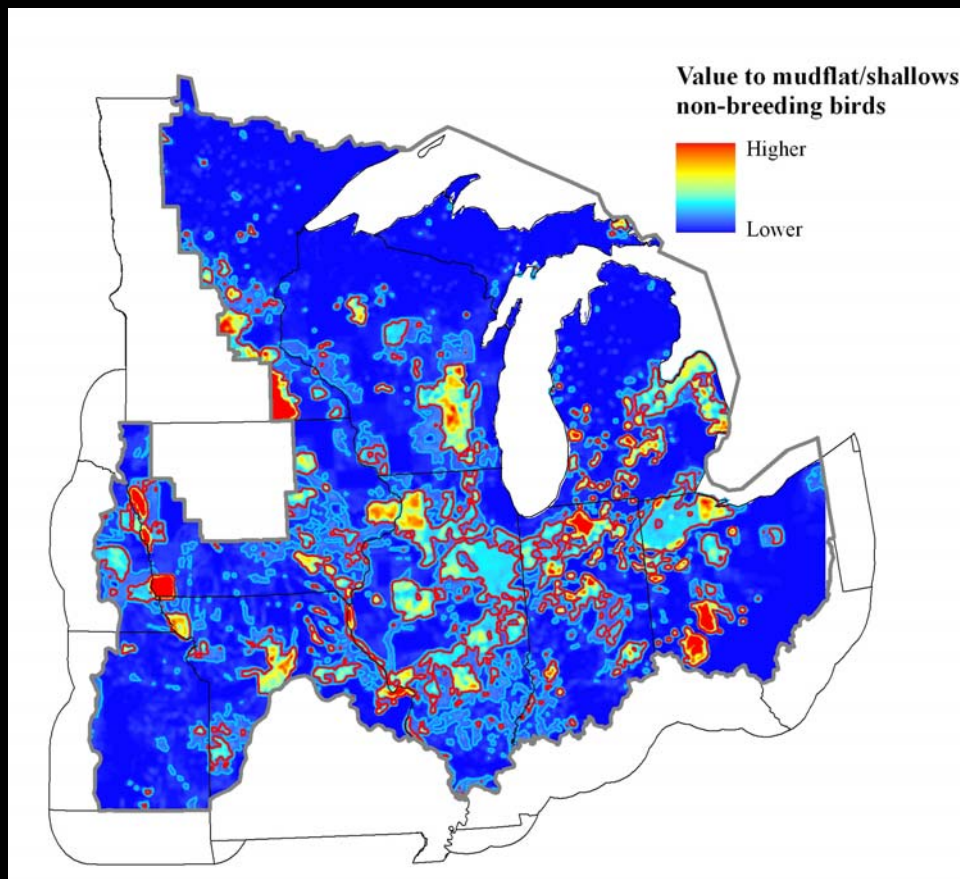


SECRETIVE MARSHBIRDS



Courtesy of Mark Seamans





Methods

- Establish common principles and procedures



Midwest Nightbird Monitoring Partnership

Minnesota (Hawk Ridge Bird Observatory)

Wisconsin (WBCI)

Michigan (MNFI & MiBCI)

Illinois (MOON)

Ohio?? (Ohio BBA II)

Northeast Nightjar Working Group

Bird Studies Canada

US Nightjar Survey



How can I tell if my bird monitoring project is producing useful information?



MONITORING REPORT CARD

Input – monitoring project details

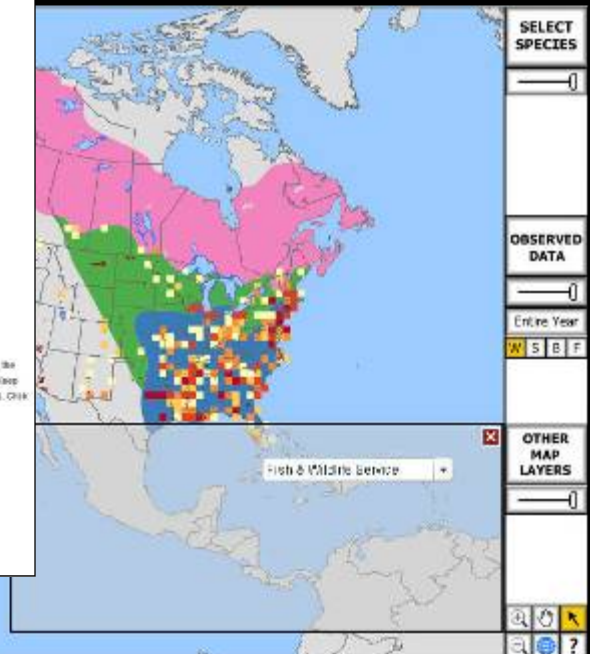
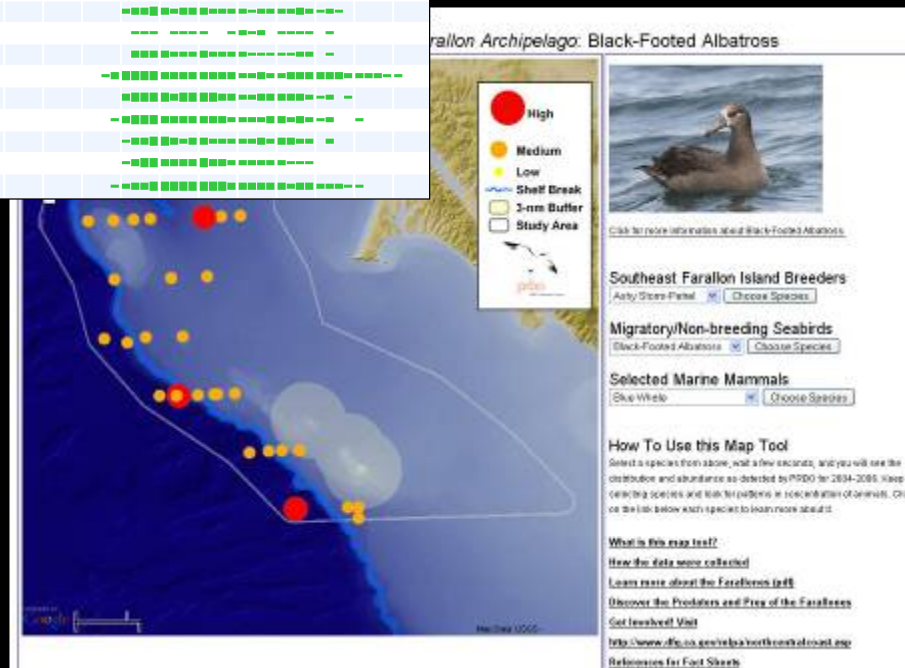
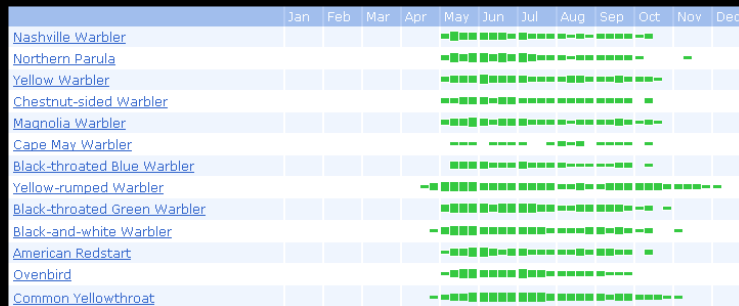
Output – Appropriate uses for data
Suggested improvements



Methods

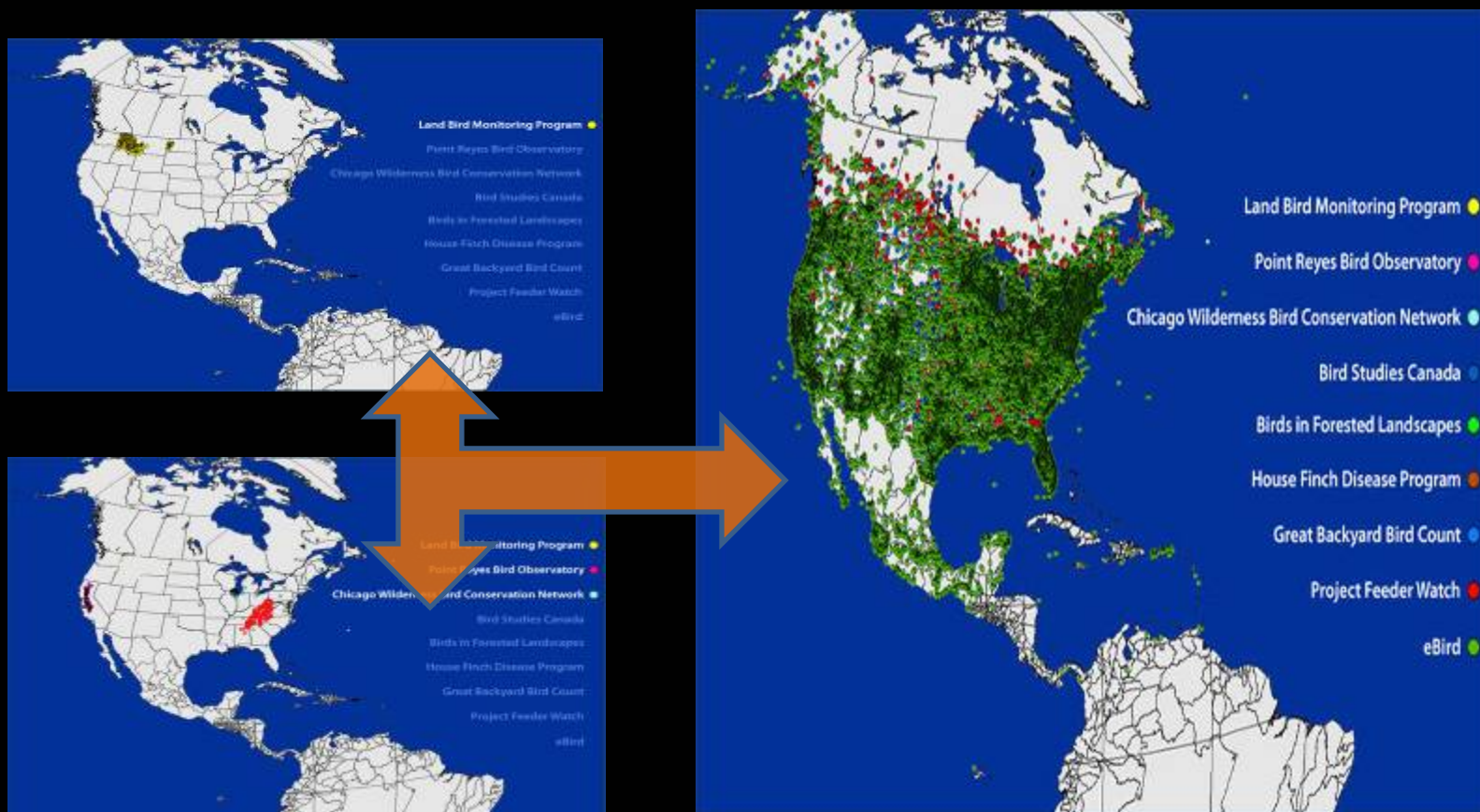
- Support cooperatives with funding
- Provide ways to share information & ideas

data **organization** reveals patterns





data **exchange** is better for science and
better for birds





Effective Communication

Public Environment

**Science
Environment**

*Sound
Science*

Simple, clear
public message

Highly
Aggregated
Indices

Indicators, Indices
and Information

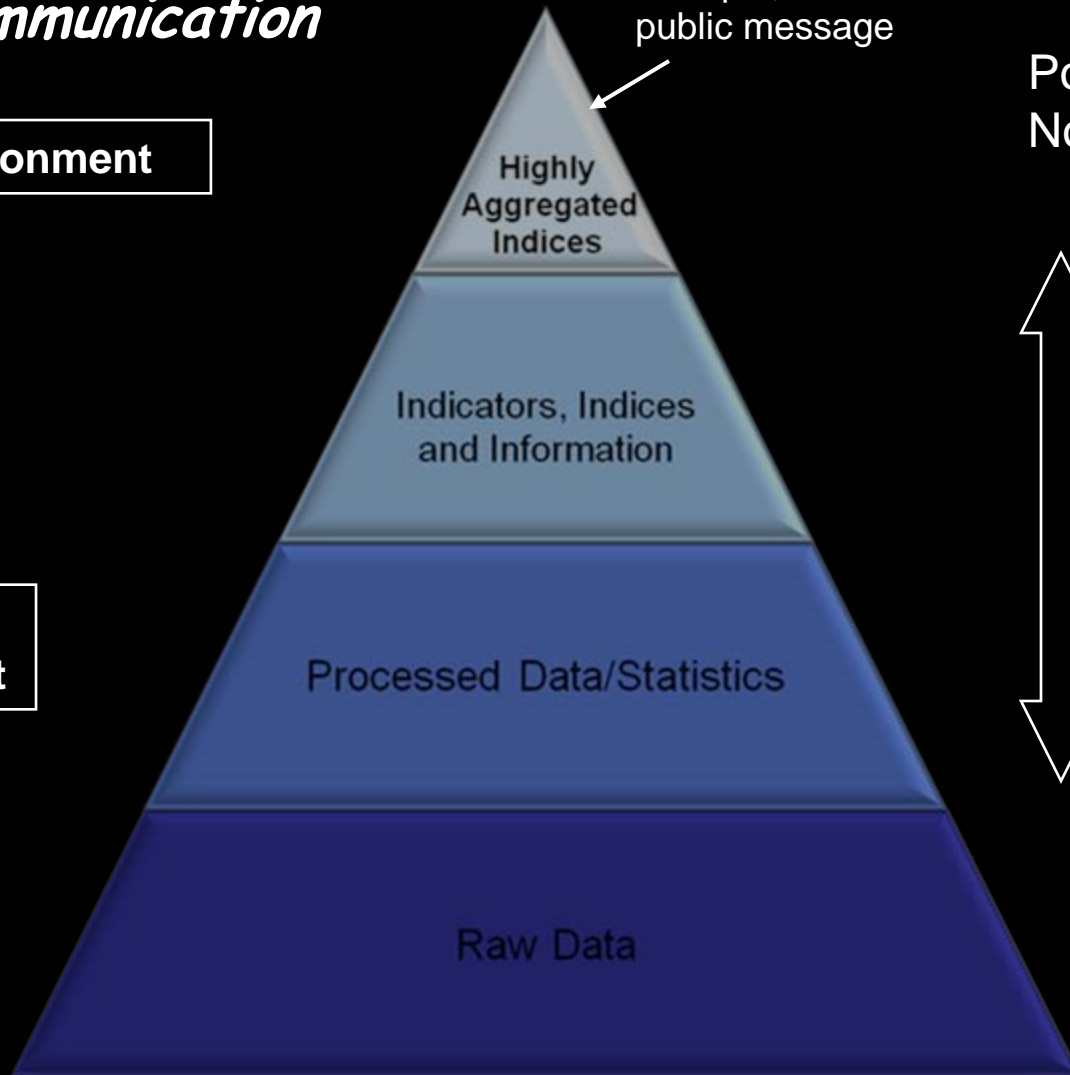
Processed Data/Statistics

Raw Data

Policy makers,
Non-Scientists

Use Assessment
by experts to
translate scientific
findings for policy
and decision-
making

Scientists,
Field-level
Practitioners





Midwest Fish and Wildlife Conference

- December 6-9 2009
- Springfield IL
- Midwest CBM Symposium
 - Top 4-5 priorities
 - Midwest CBM Updates
 - Invited Speakers
 - Generate enthusiasm!
 - Further data node development



QUESTIONS



Katie Koch, USFWS

Phone: 906-226-1249

Email: katie_koch@fws.gov

Andy Paulios, WI DNR

Phone: 608-264-6137

Email: andy.paulios@wisconsin.gov