



Coordinated Bird Monitoring in the Midwest



30 June 2009

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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 bird, likely a chick, in a field of tall grass. The person is using a silver metal caliper to measure the bird's beak. The bird has a yellowish-orange beak and brownish feathers. The person is wearing a dark blue jacket. The background is a dense field of green grass.

Monitoring for Bird Conservation

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



- 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?

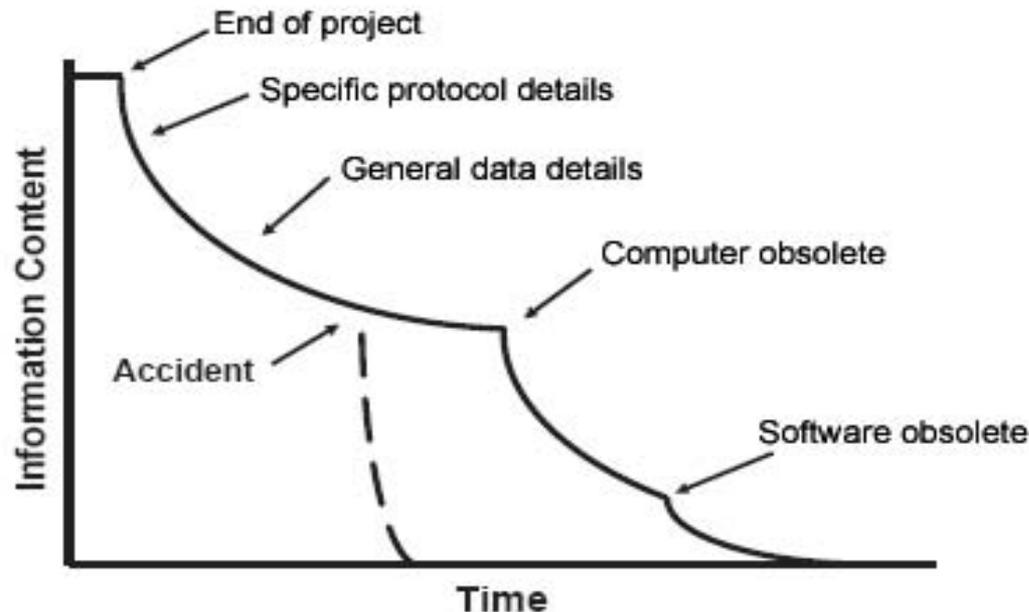


Fig. 1 – Illustration of the natural degradation in information content associated with data and metadata—information entropy (from Michener et al., 1987, by permission of the Ecological Society of America).

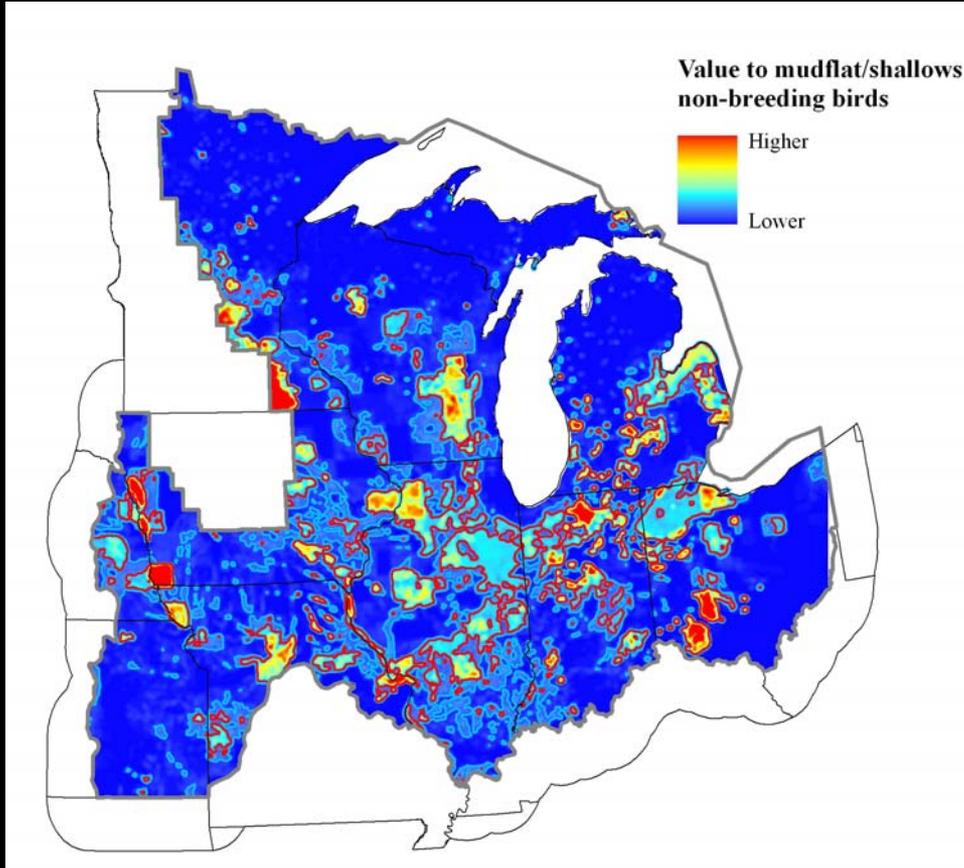


SECRETIVE MARSHBIRDS



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.

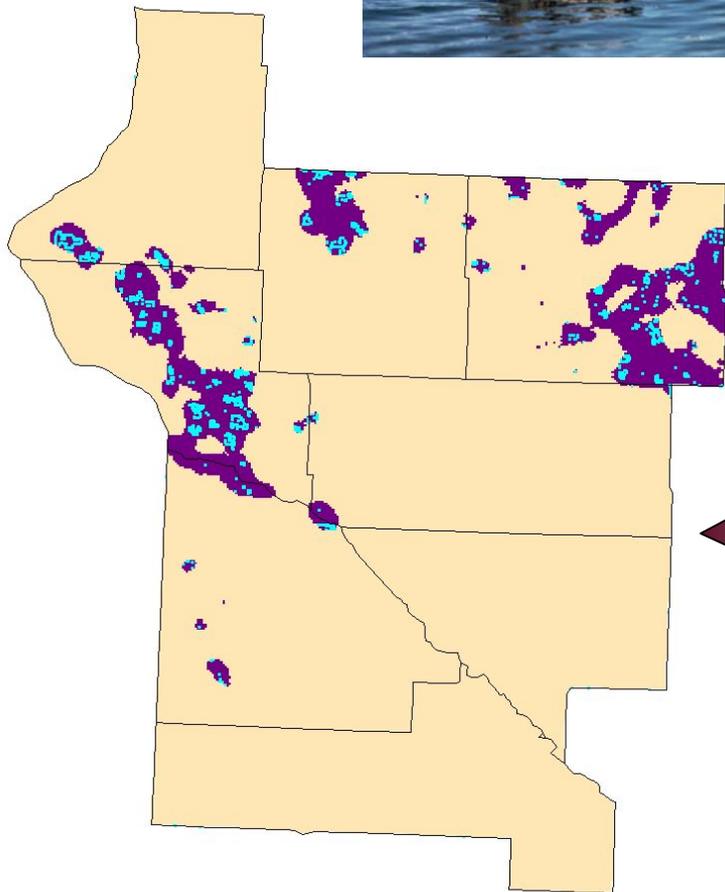


Conservation Planning

- 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?

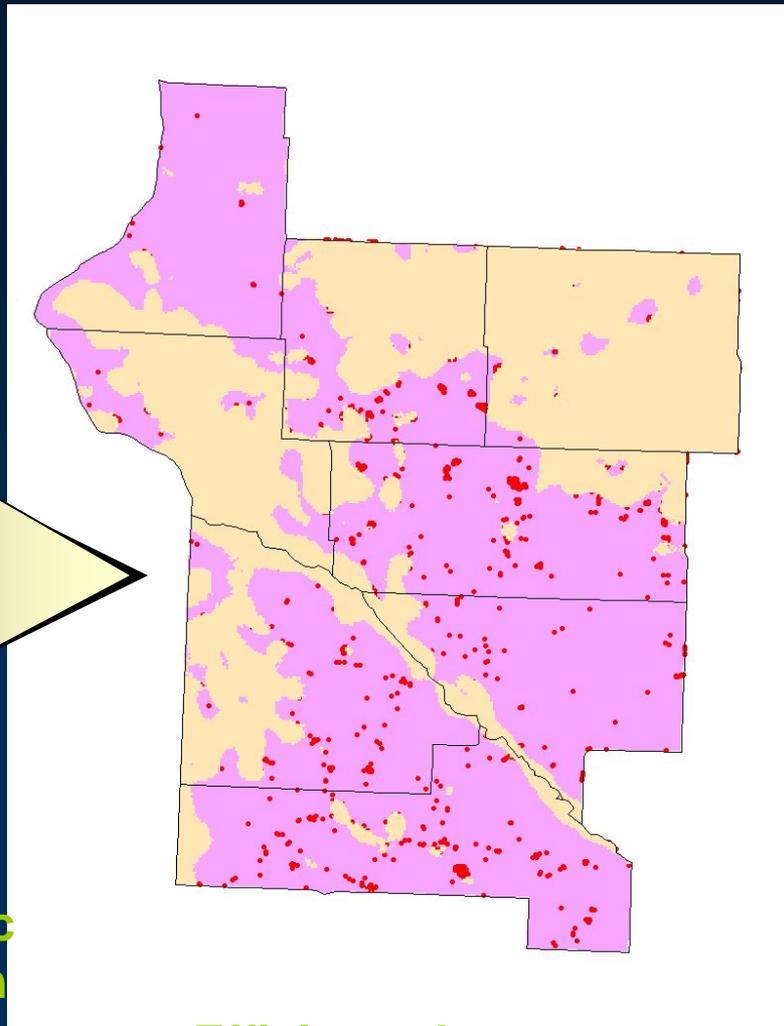


**WMD Goal
32,000 Recruits**



Efficiency Highest

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



Efficiency Lowest

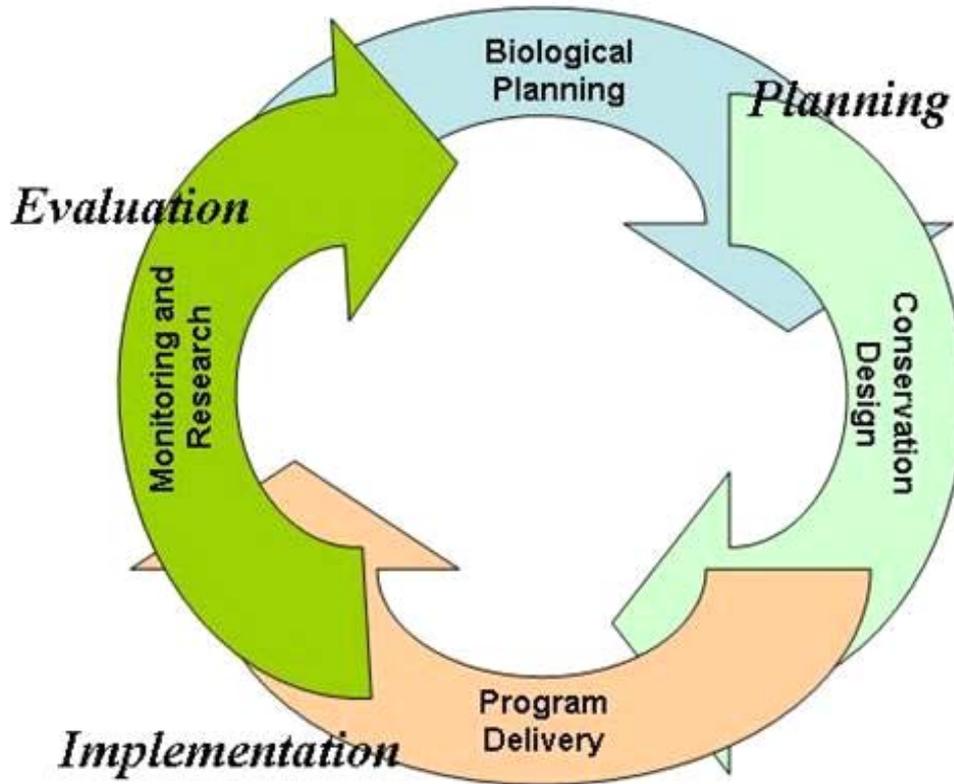
**113,000 acres
2,153 recruits**

**Opportunistic
Conservation**



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

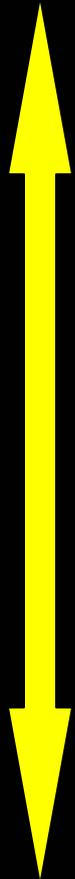
Planning-intense

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



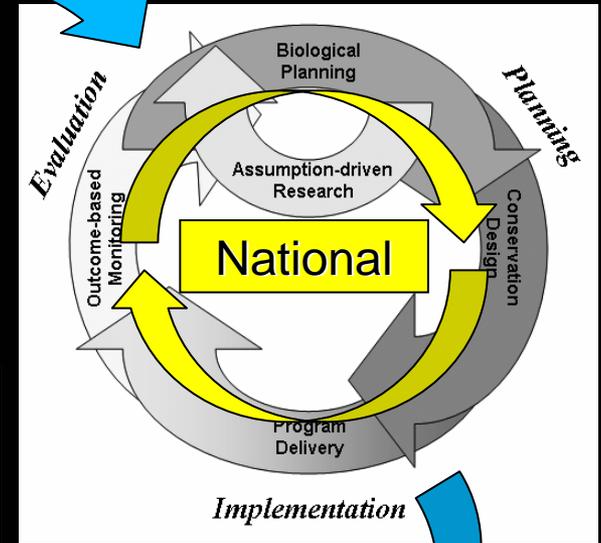
- Increased Survey EFFICIENCY
- CONSISTENT Methods
- Better Species and Geographic COVERAGE
- Greater POWER to Detect Trends



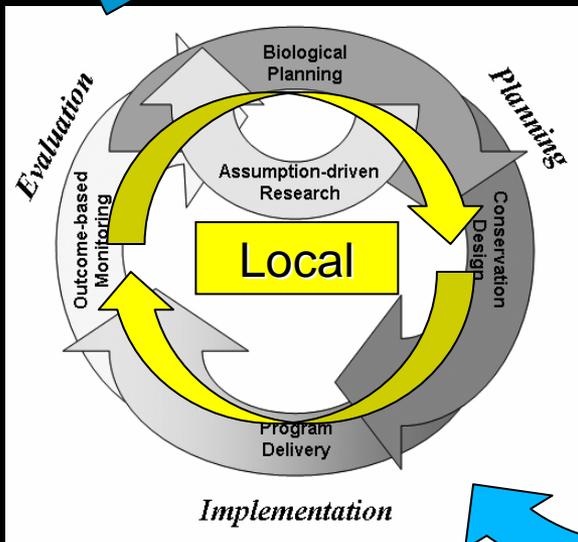
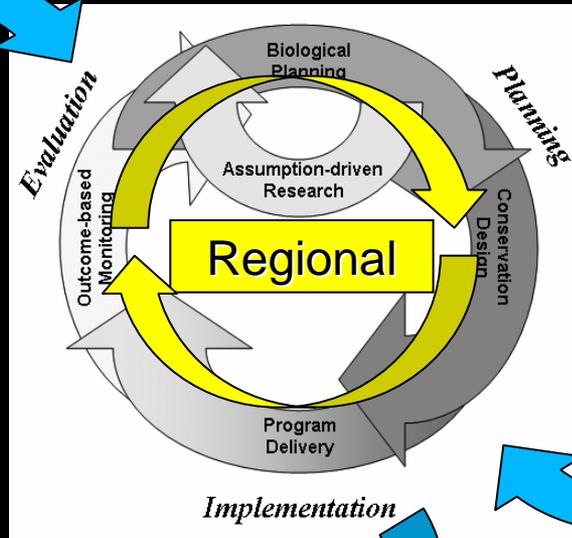
- EVALUATION of Management and Conservation Actions
- IMPROVED Data Management
- REDUCED Cost

Data management
Data analysis tools

Coordinated Partnerships



Information Sharing



Program evaluation
Communication &
Decision tools



Monitoring in Context : Strategic Conservation





VISION :

Strategic Bird Conservation





Melisa Delgado



Northeast Coordinated Bird Monitoring

**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)



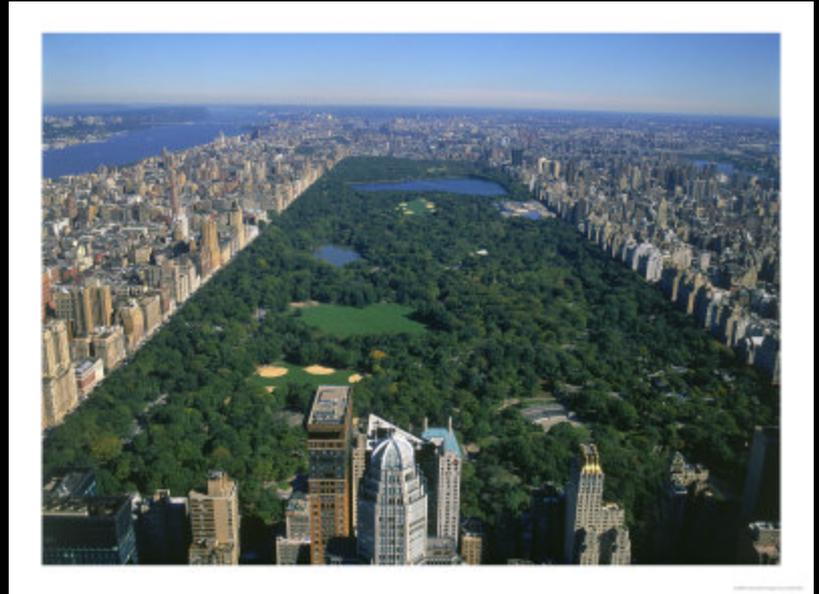
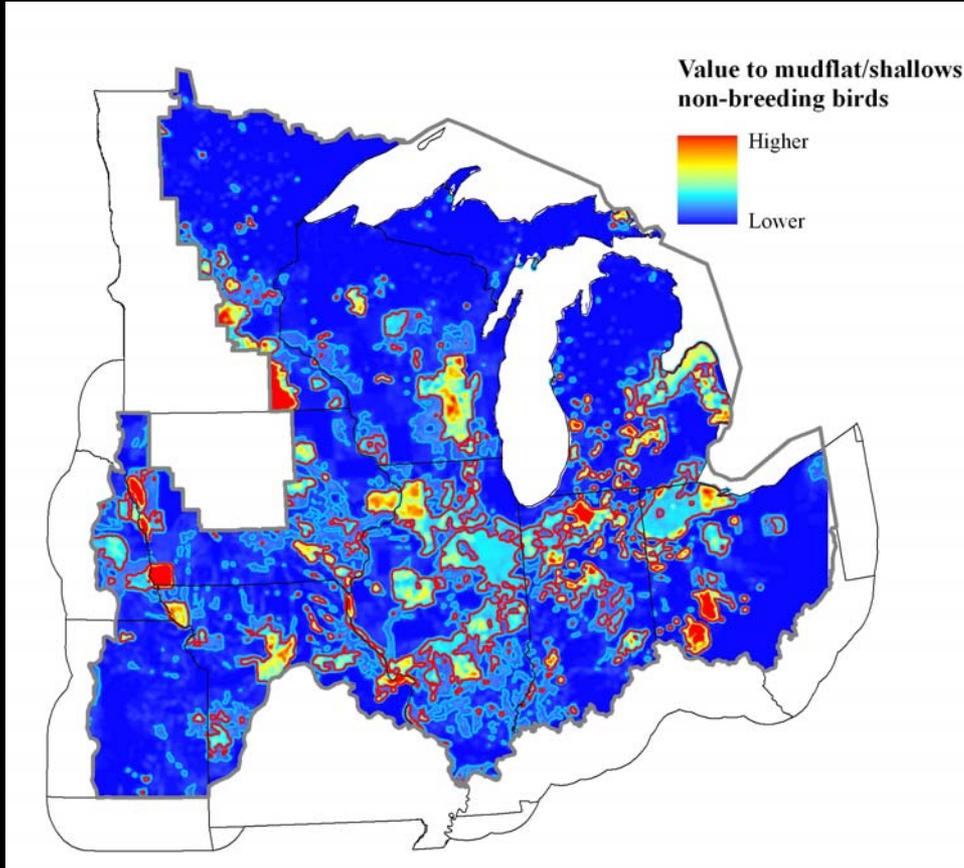


SECRETIVE MARSHBIRDS



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

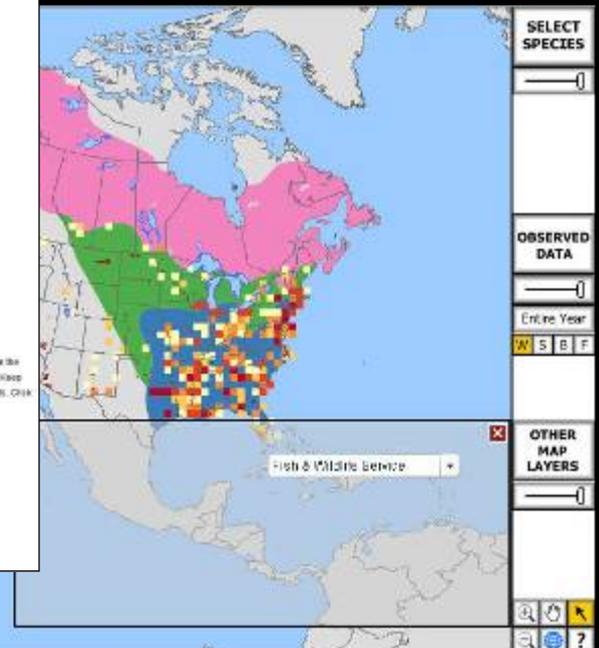
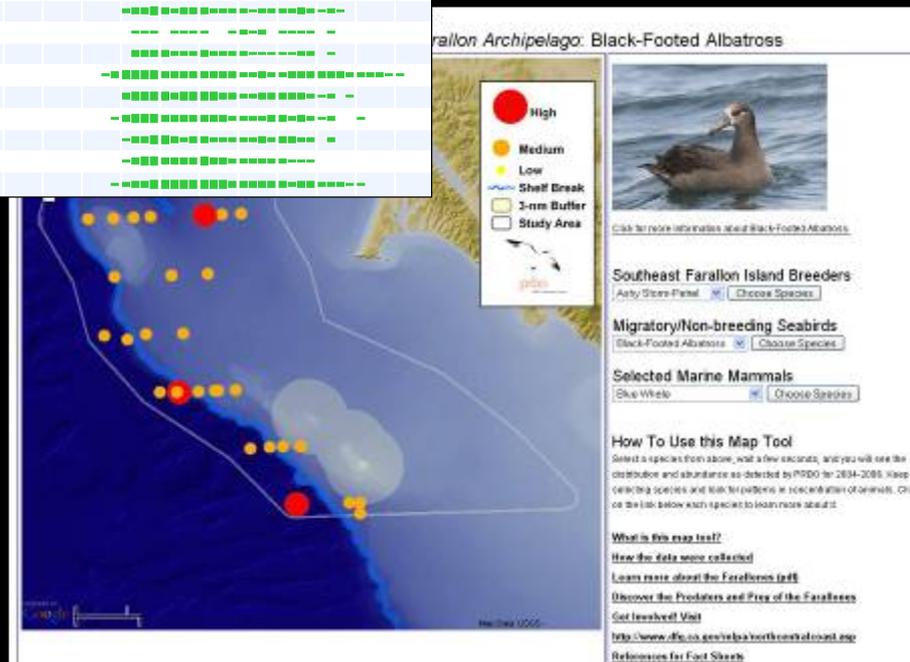


Methods

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

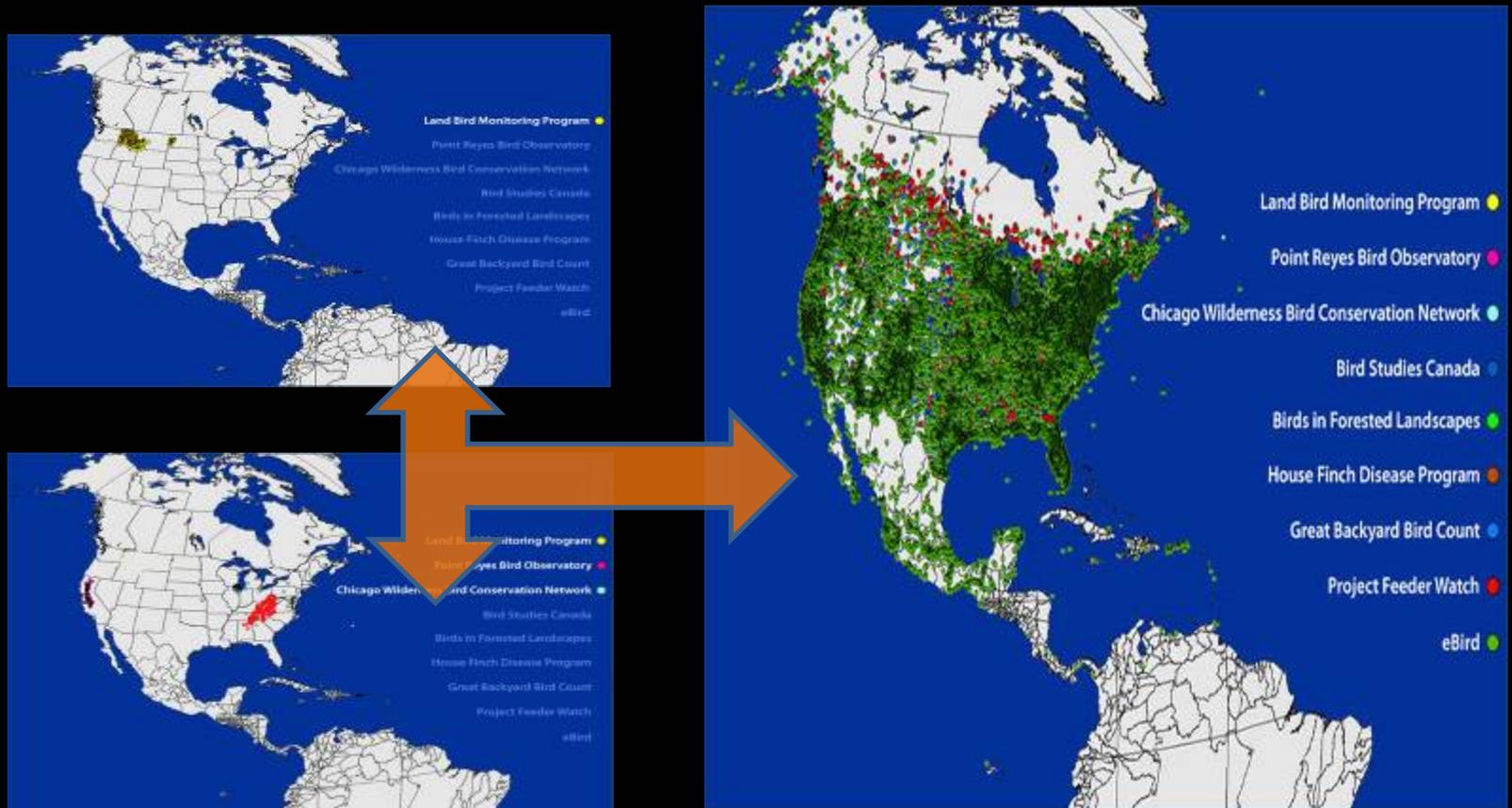
data organization reveals patterns

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Nashville Warbler					█	█	█	█	█	█	█	█
Northern Parula					█	█	█	█	█	█	█	█
Yellow Warbler					█	█	█	█	█	█	█	█
Chestnut-sided Warbler					█	█	█	█	█	█	█	█
Magnolia Warbler					█	█	█	█	█	█	█	█
Cape May Warbler					█	█	█	█	█	█	█	█
Black-throated Blue Warbler					█	█	█	█	█	█	█	█
Yellow-rumped Warbler					█	█	█	█	█	█	█	█
Black-throated Green Warbler					█	█	█	█	█	█	█	█
Black-and-white Warbler					█	█	█	█	█	█	█	█
American Redstart					█	█	█	█	█	█	█	█
Ovenbird					█	█	█	█	█	█	█	█
Common Yellowthroat					█	█	█	█	█	█	█	█





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





Effective Communication

Simple, clear
public message

Public Environment

Highly
Aggregated
Indices

Policy makers,
Non-Scientists

Indicators, Indices
and Information

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

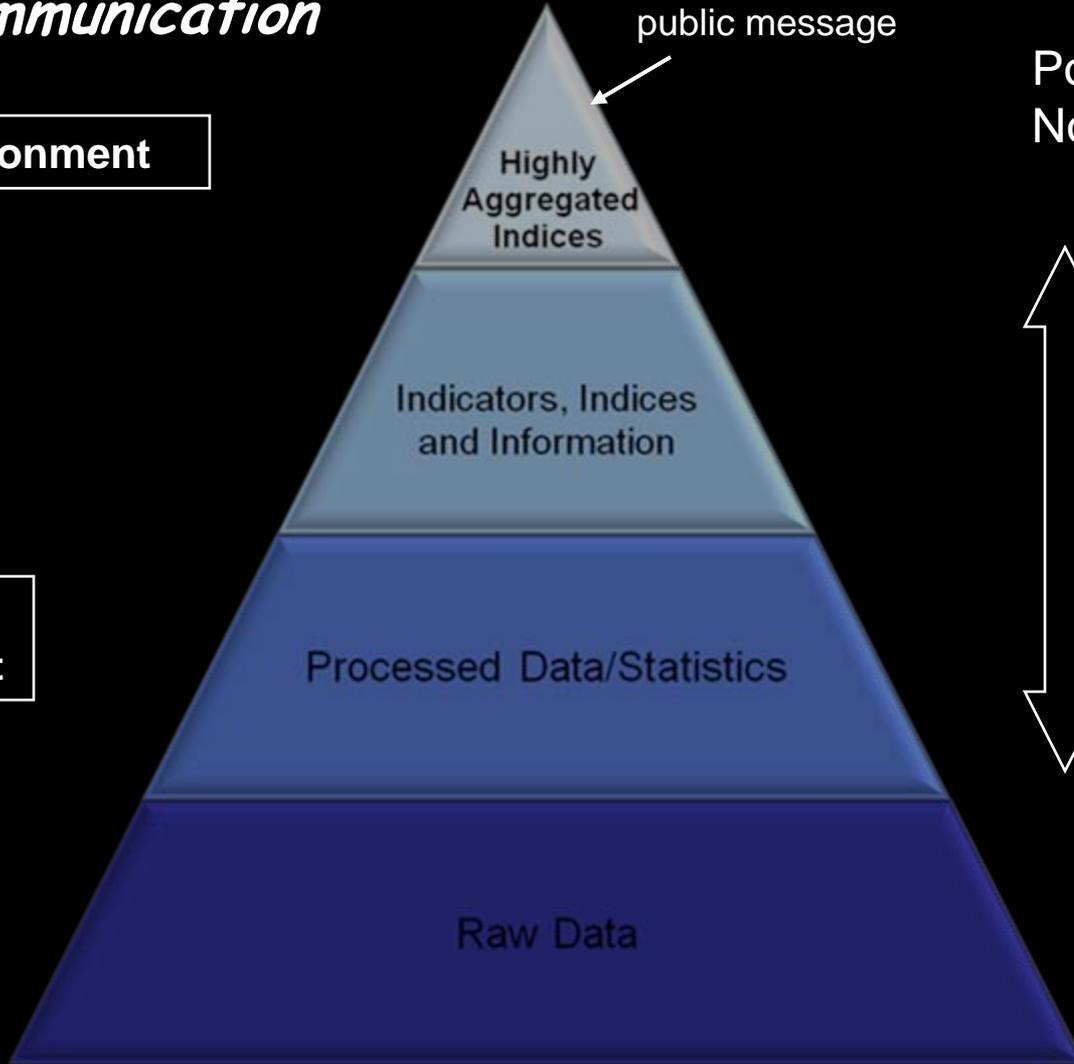
**Science
Environment**

Processed Data/Statistics

*Sound
Science*

Raw Data

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



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