



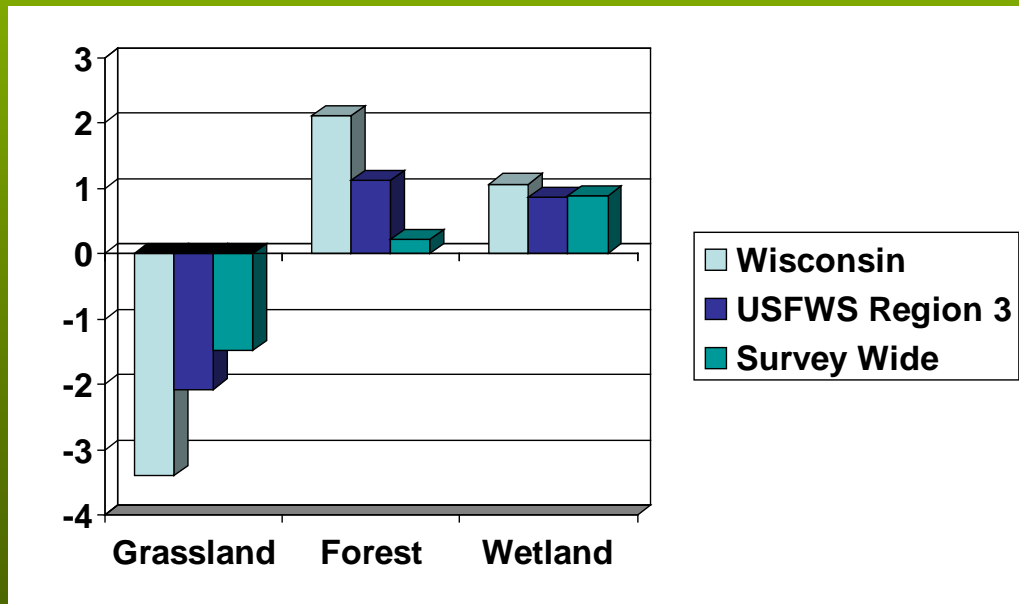
Manufacturing Multitudes of Melodius Meadowlarks

How we got here.....

1. Grassland Symposium and workshops...

Why are we concerned?

- As a breeding guild, grassland and grass-shrub species are declining faster than any other breeding guild in the U.S.



* USGS BBS Data from 1966-2007 (Mean Trend of all species within the guild)

Research in Wisconsin

In southern Wisconsin,

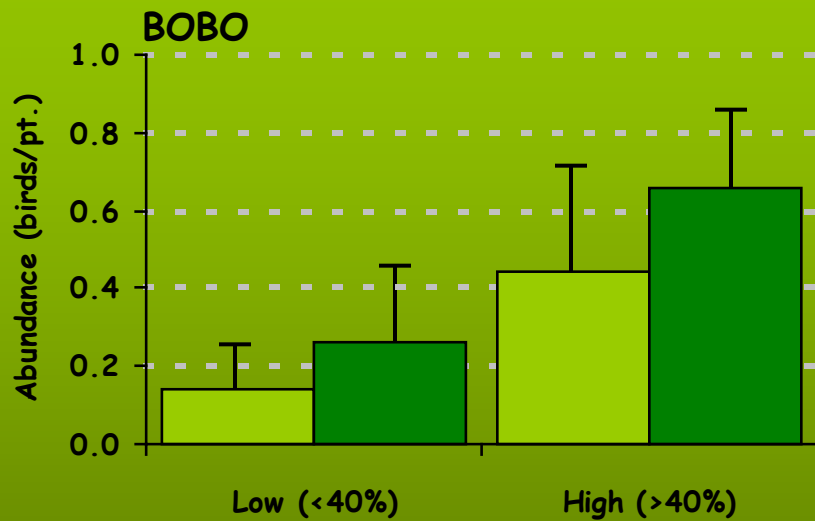
Patch:

- **Habitat type important for some species,**
- **Patch area not associated with densities**

Landscape:

- **Higher density of species on patches in low diversity (high grass) landscapes**
- **Lower densities of species in patches when woodlots are close**

Patch vs. Landscape Effects



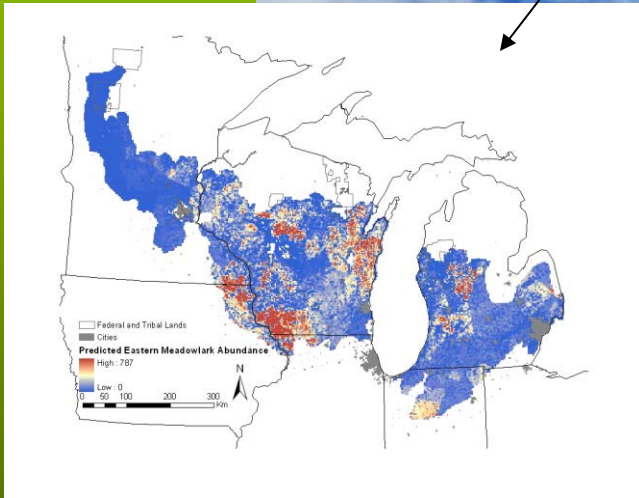
Small Patches (<40 ha)



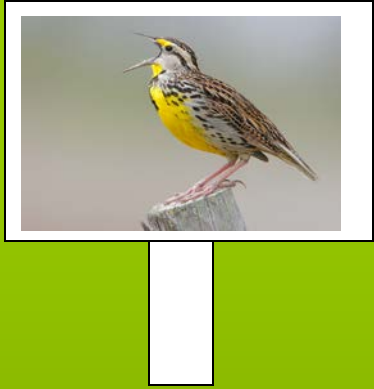
Large Patches (>40 ha)



Meadowlark Realtors, Inc.



LOCATION – LOCATION – LOCATION!



Importance of Landscape Context

1. Not all sites or patches of habitat are created equally!
2. Densities of target species and nesting success are influenced by the landscape context in which the site/patch is located.

How we got here....

Post-conference Questions:

1. Why isn't our work working at a statewide scale?
2. How do we work at the right scale?
3. Are our existing programs capable of being efficient?
4. Don't we have a plan for this????

Grassland – Savanna Strategic Plan

1. Sets measurable population goals for focal species (from JV plan).
2. Relates those goals to habitat goals and an effective landscape design.
3. Focuses work into conservation opportunity areas that will produce source populations of grassland focal species.
4. Builds an outcome-based evaluation plan that will allow us to determine what impacts we are having at multiple scales and generates an adaptive response to changing conditions.

Outline of Process

1. Bird Population Objective

- Stepped down into Priority Program Areas
- How many Meadowlarks in an area?
- This sets habitat objective within an area.
- Underlying goal should be to produce “source” areas/landscapes with $\lambda > 1$
- Other possible goals: Increase abundances of target species by X. Or to increase population trends by X % over a given time period.

2. Conservation Design within a PPA.

- Our goal should be to produce BCA(s).
- # of BCAs and size will be dictated by our population goals.

Long-term grass (20%)

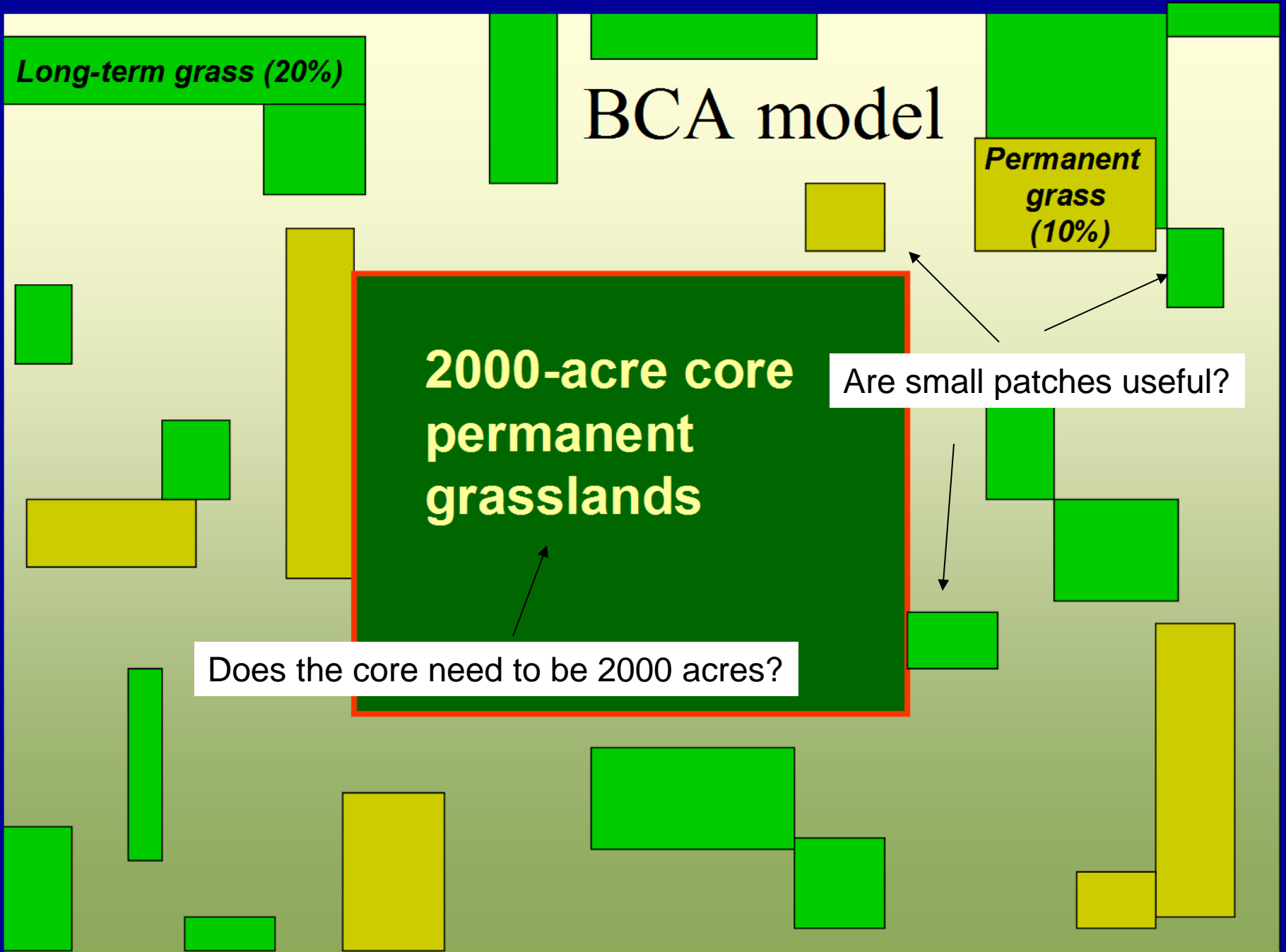
BCA model

Permanent grass (10%)

2000-acre core permanent grasslands

Are small patches useful?

Does the core need to be 2000 acres?



Where should we work in WI?

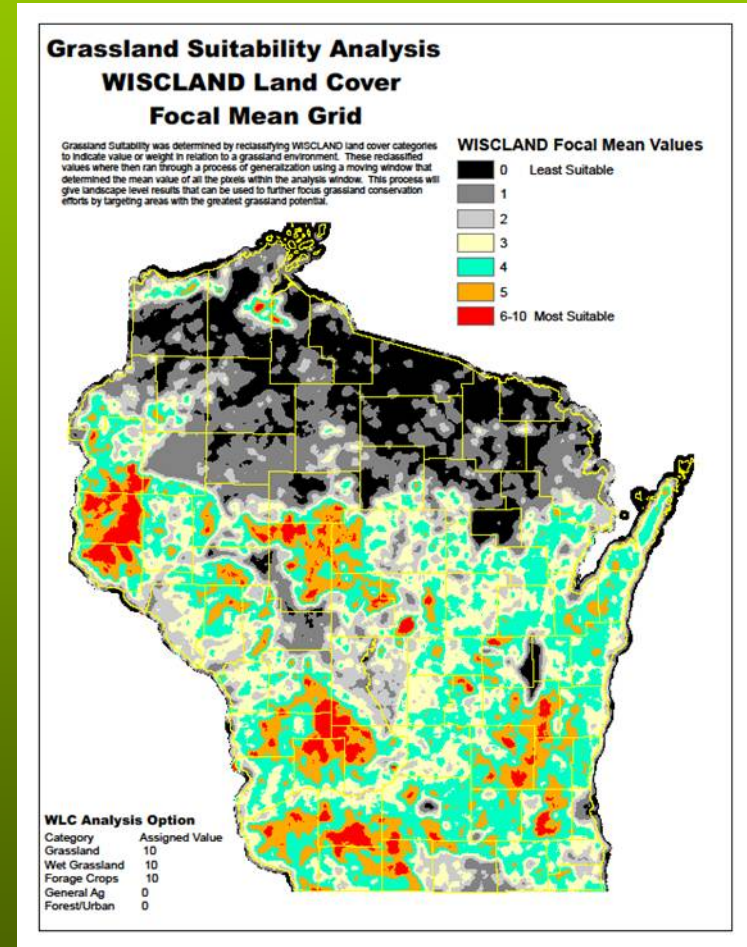
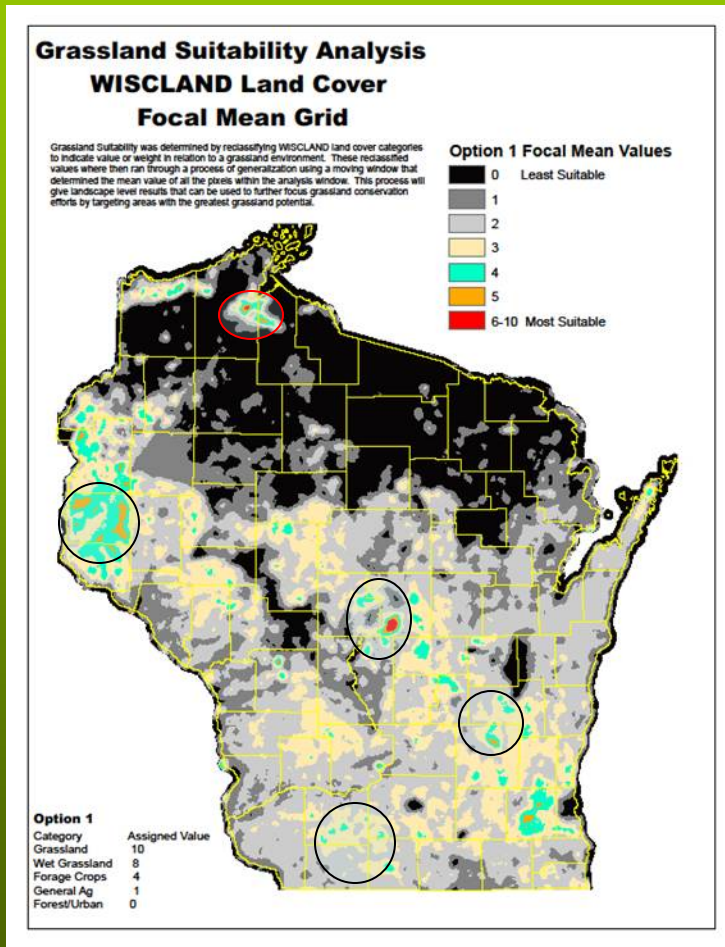
Considerations:

1. Areas that have high % of grass within a larger landscape.
2. Areas that historically were grassland and are now still very open with moderate amounts of grassland or public lands that could be managed for grass.
3. Where we are already working.....public land, applicable Farm Bill programs, etc.
4. Where there is positive momentum on the right scale?

Focal Grassland Model

- Wanted to create a map that mapped the state based on its “grassiness”.
- Bill Ceelen ran a focal mean analysis that characterized each pixel on the following map based on how much grass was in the landscape (approx. 10,000 acres) surrounding the pixel.
- Grasslands, pasture, and wet grassland were all scored as grass and other habitats as non-grass.
- We used 1992 WISCLAND (which has error estimates) and 2001 NLCD (which doesn't).
- This map allows us to compare habitat apples to apples.

Where should we build BCAs?

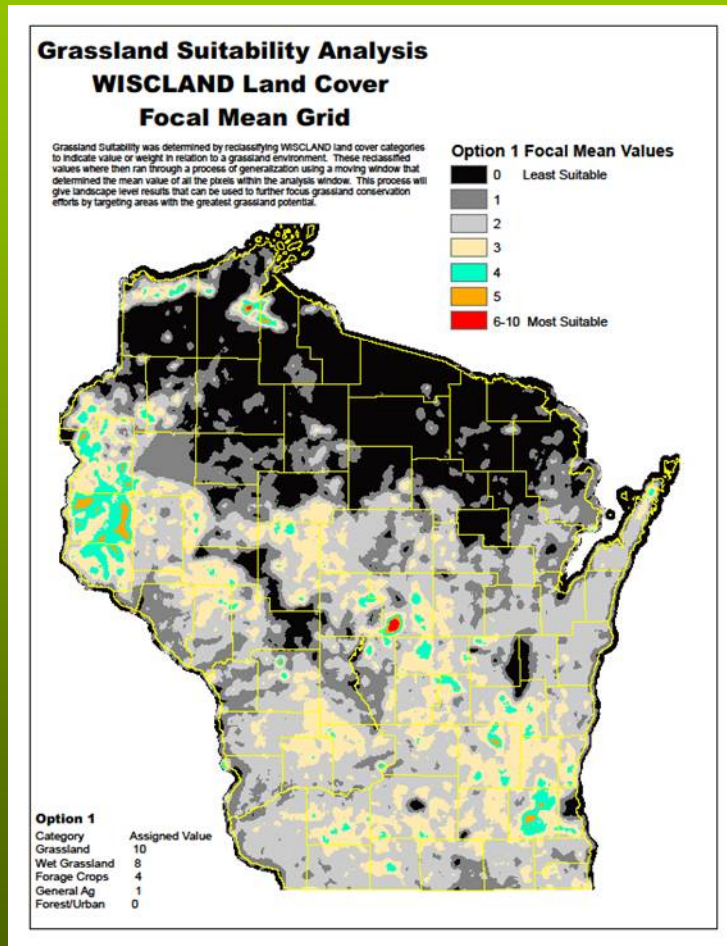


** These are roughly the existing HRAs and Ashland grasslands (COA).

Rationale for Focal Landscapes

1. Grassland modeling was imperfect and there don't appear to be too many choices for potential grassland bird focal landscapes.
2. There is momentum (to some extent) in and around existing HRAs.
3. The four HRAs (plus Ashland??) encompass the variety of grassland habitats (species).
4. We have SAFE areas and other focused conservation delivery tools available to us here (momentum).

What about smaller “sites”



- Fort McCoy, Bong, White River Marsh, etc.
- Proposal: Consider them “maintenance” landscapes. Managers should work to fill out 1 BCA at those sites.
- Included in the plan as such.

Evaluating Our Work

- Key component of this effort is the evaluation and adaptation phase.
- WBCI is planning to pilot an evaluation model for the SW Grasslands project next year.
- In partnership with TNC, WBCI will design a evaluation program to validate our goal setting for the focal landscape and begin to collect data on bird population response to habitat efforts.

Next Steps

1. Set Population and Habitat Goals for each Focal Area.
 - Regional partner meetings. (winter 2010)
 - Draft population goals for committee approval (winter 2010)
2. Population and Habitat Goals for WI.
 - Winter committee meeting (2010).
 - See following slides.
3. Draft Plan (Spring 2010)
 - Committee Approval
 - WBCI Steering Committee Approval (Partner Approval)

Focal Area Goals

Population Goals

- Abundances – Densities
- Trends
- Demographic Goals ($\lambda > 1$)

Habitat Goals

- How much habitat will be required to satisfy the bird pop. goals?
 - Express this number in terms of # of BCAs.
1. Key Question for Regional Partner Meetings: How many BCAs do you have? How many can you efficiently create in X years? Where is the best place to do this?

Statewide Habitat Goal

1. Start with the JV Bird-Habitat Goal
 - What's realistic based on our own modeling from previous slide?
 - Express our goal not just in acres, but in terms of positive conservation design.
 - Ex. double the # acres that score 6 or better?? Or increase the % of grassland that lies within a BCA "context".
 - Publish acreage estimates of grassland types (CRP, pasture, etc.)
2. Report that information back up to the Joint Venture through their Science Team.