

American Golden-Plover Conservation in Action



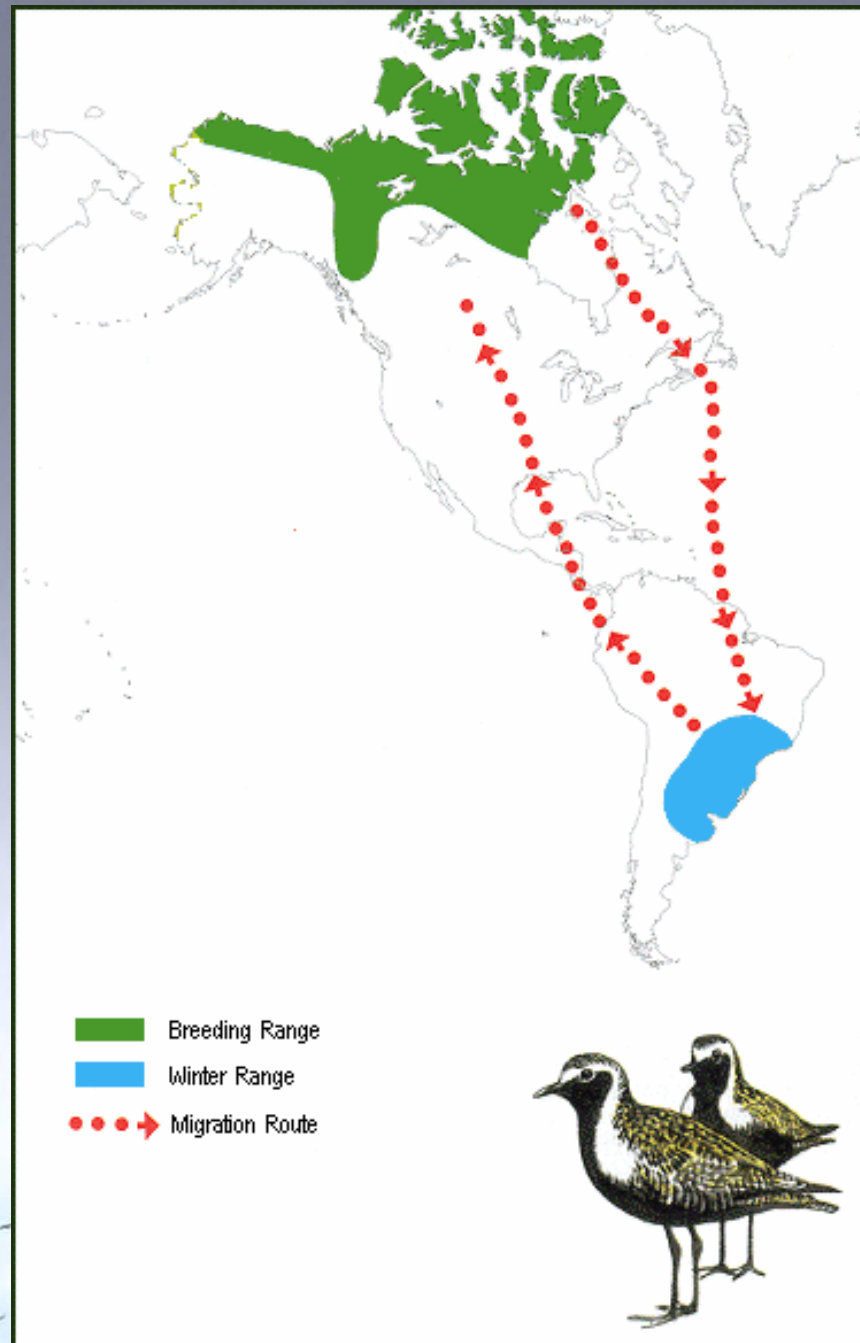
Drew Becker
Fish and Wildlife Biologist
Rock Island Field Office



Background

- Long-distance migrant (5-7K km non-stop)
- Breed in the Arctic and winter in S. Am.
- Population may be declining (Global population estimated 150,000-200,000)
- Substantial portion of the population pass through IL/IN in spring

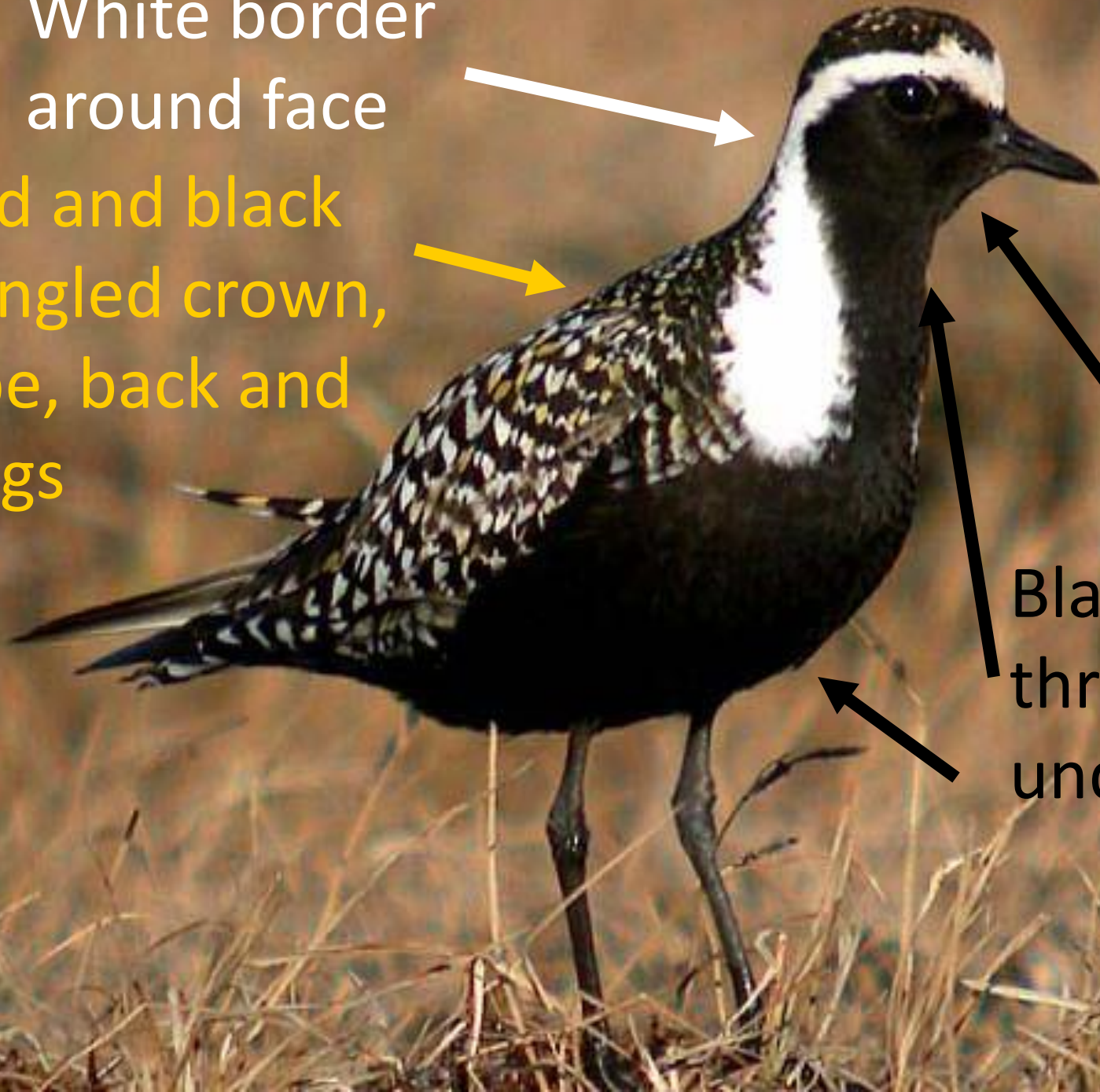




White border
around face

Gold and black
spangled crown,
nape, back and
wings

Black face,
throat, and
underparts



White supercilium

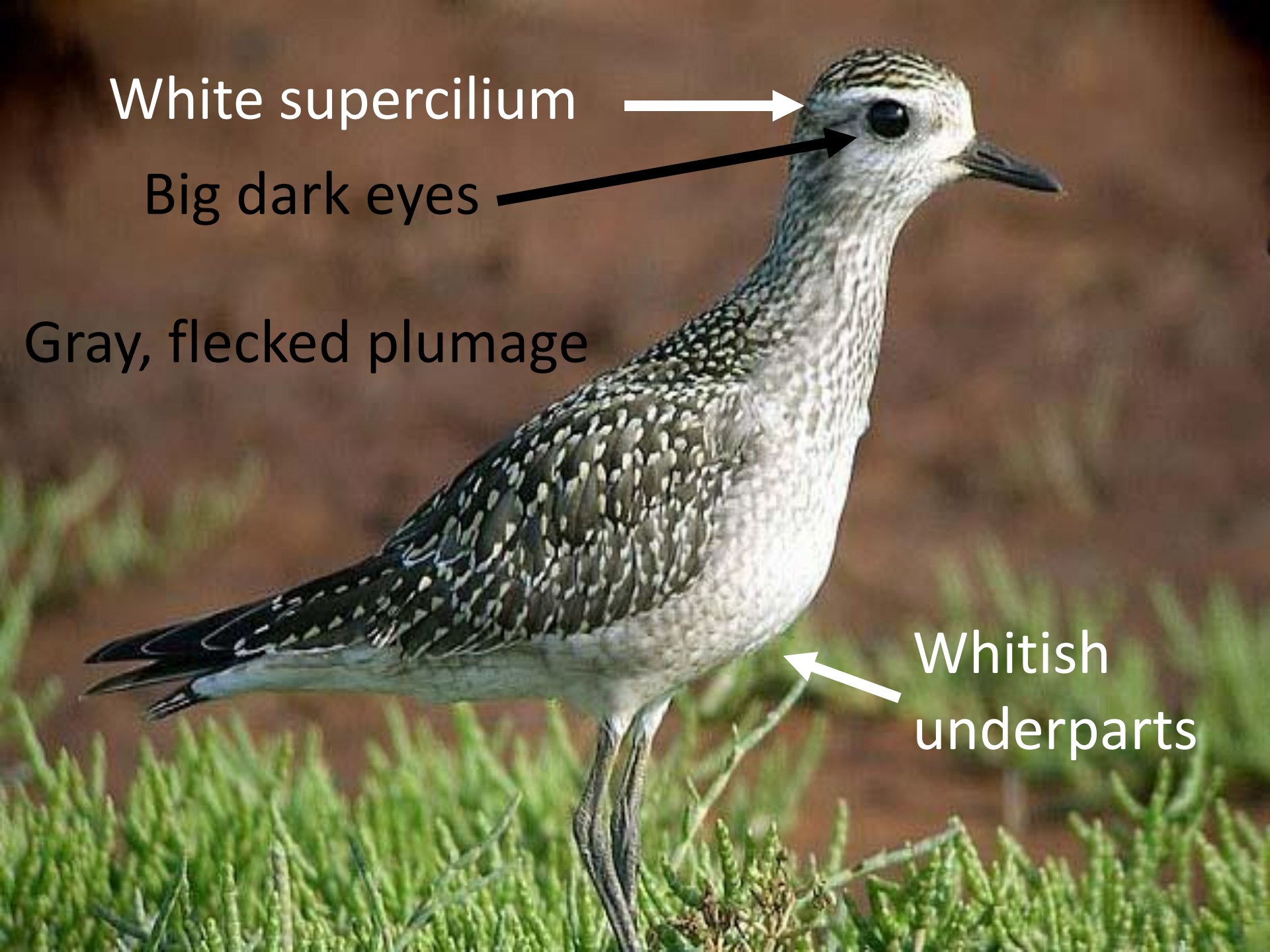


Big dark eyes



Gray, flecked plumage

Whitish
underparts







Stopover Habitat

- Utilize agricultural landscape
- Seemingly unlimited habitat
- Concentrate in a few areas
- Favor particular fields
- Specific habitat needs



Previous Work (INHS/UI)

- Spotlight and hand net
- Radio transmitters
- Track by vehicle

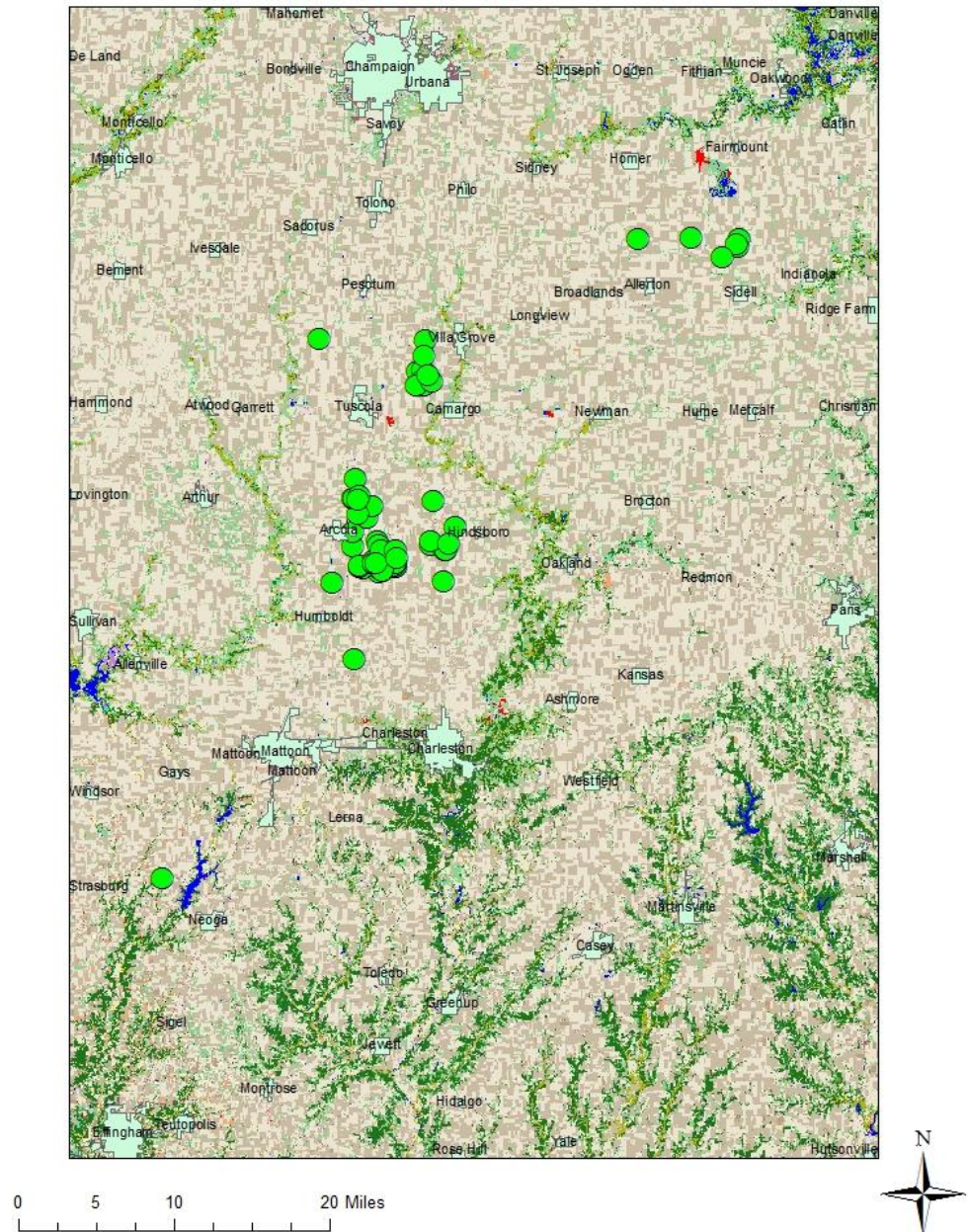


Previous Work (INHS/UI)

- Determine extent of local movements
- Estimate stopover duration
- Determine extent of local movements
- Model fine-scale habitat associations

- Tracking dates: April 13th - May 10th
- Apparent Stopover Duration= **15 days** (Range=1-27)
- Large home range (1,706 ha to 56,034 ha)

All Plover Locations- 2009 & 2010



1975-2010 Spring Bird Count Averages

Legend

Plovers/Party Hour

plover

<all other values>

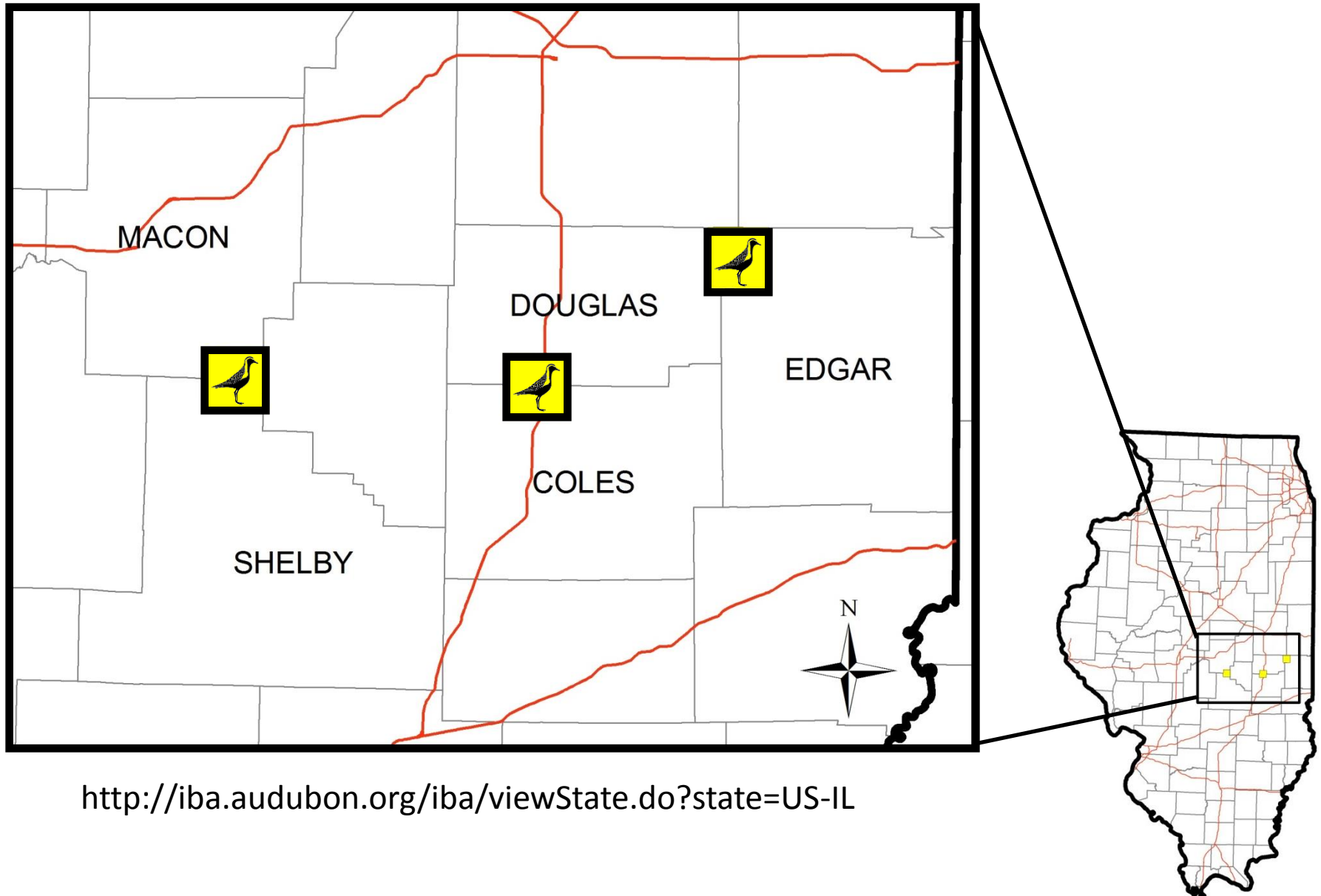
- 0.000000 - 1.000000
- 1.000001 - 4.000000
- 4.000001 - 13.000000
- 13.000001 - 37.000000

Plovers/Party Hour
plover

<all other values>

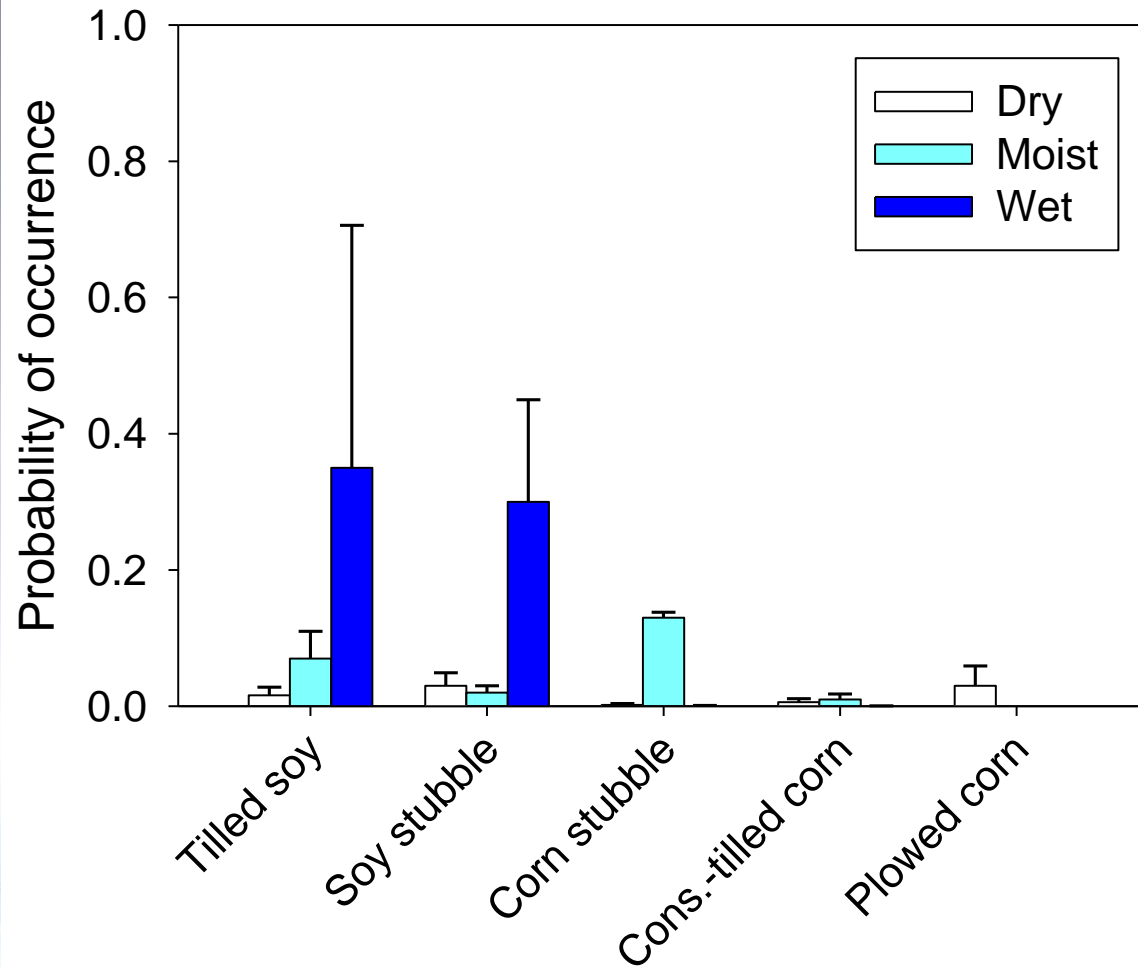
- 0.000000 - 1.000000
- 1.000001 - 4.000000
- 4.000001 - 13.000000
- 13.000001 - 37.000000

Audubon Important Bird Areas



<http://iba.audubon.org/iba/viewState.do?state=US-IL>

Field Types

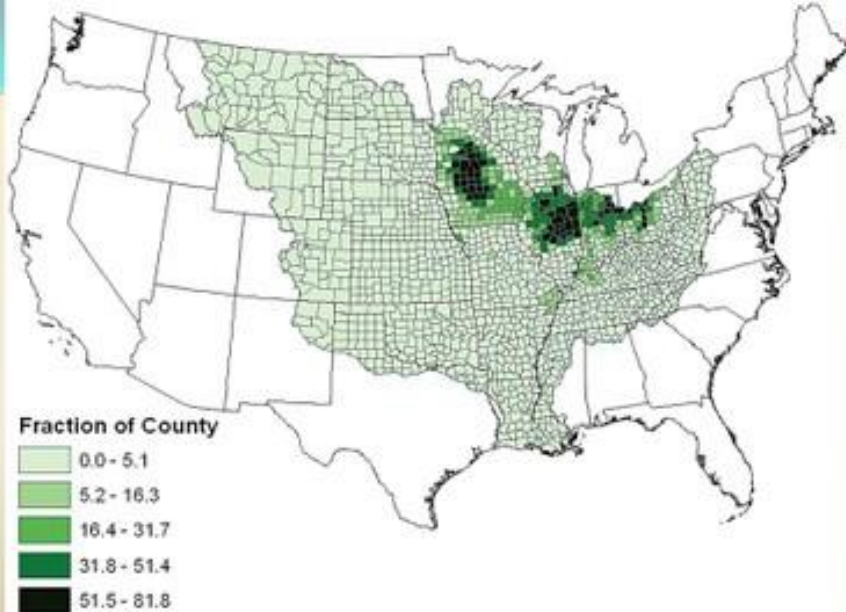


Stopover Habitat Requirements

- Combination of moisture & crop type important
 - Moist or wet soybean stubble and tilled soybeans
- Frequent use of corn fields at night
- Preference for soybean fields during day
- Affinity for moist fields
- Used areas distant from roads
- Selected fields with high invertebrate biomass (conservation tillage)

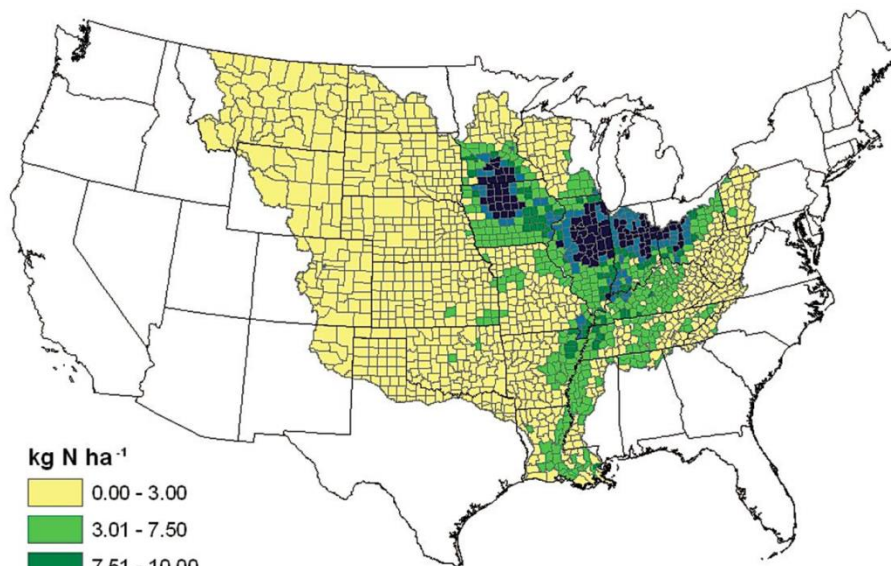






Fraction of county area that is tile drained in the Mississippi River basin.

Ag Drainage Water Management Webinar August 2011

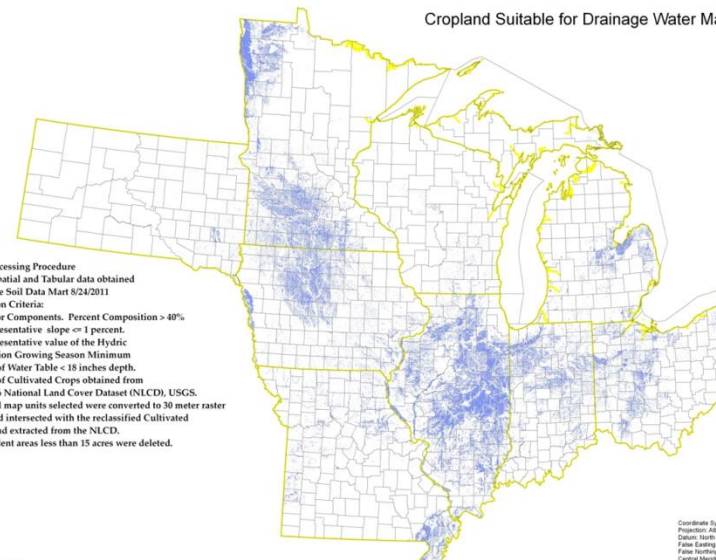


0.00 - 3.00
3.01 - 7.50
7.51 - 10.00
10.01 - 15.00
15.01 - 25.00

Geoprocessing Procedure
Soils Spatial and Tabular data obtained from the Soil Data Mart 8/24/2011
Selection Criteria
1. Major Components, Percent Composition > 40%
2. Representative slope <= 1 percent.
3. Representative value of the Hydric Definition Growing Season Minimum Depth of Water Table < 18 inches depth.
Extent of Cultivated Crops obtained from the 2006 National Land Cover Dataset (NLCD), USGS.
The soil map units selected were converted to 30 meter raster data and intersected with the reclassified Cultivated Cropland extracted from the NLCD.
Coincident areas less than 15 acres were deleted.

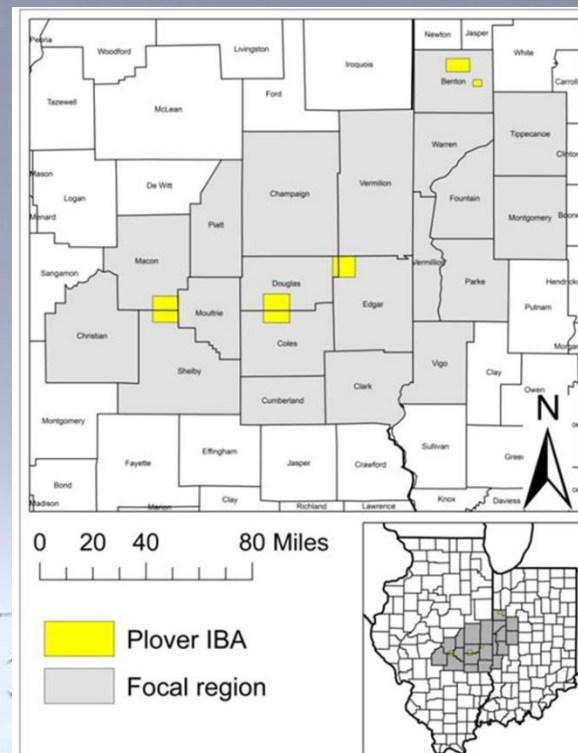
February 1, 2012
Central National Technology Support Center
Fort Worth, TX Map 2012-41

Cropland Suitable for Drainage Water Management



Illinois 10,289,165 Ac
Indiana 2,752,251 Ac
Iowa 4,076,072 Ac
Missouri 1,844,238 Ac
Michigan 1,259,731 Ac
Minnesota 6,308,982 Ac
Ohio 2,146,231 Ac
South Dakota 228,842 Ac
Wisconsin 309,427 Ac

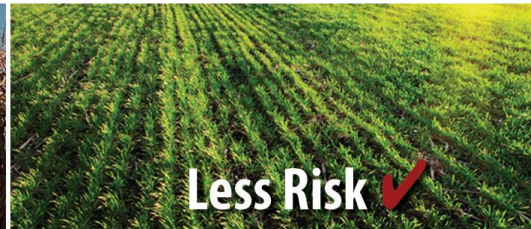
Coordinate System: USA Contiguous Albers Equal Area Conic USGS version
Projection: Albers
Datum: North American 1983
False Easting: 0.000
False Northing: 0.000
Central Meridian: -96.0000
Standard Parallel 1: 29.5000
Standard Parallel 2: 45.5000
Latitude of Origin: 23.0000
Units: Meter
1:6,000,000



Drainage Water Management



More Production ✓



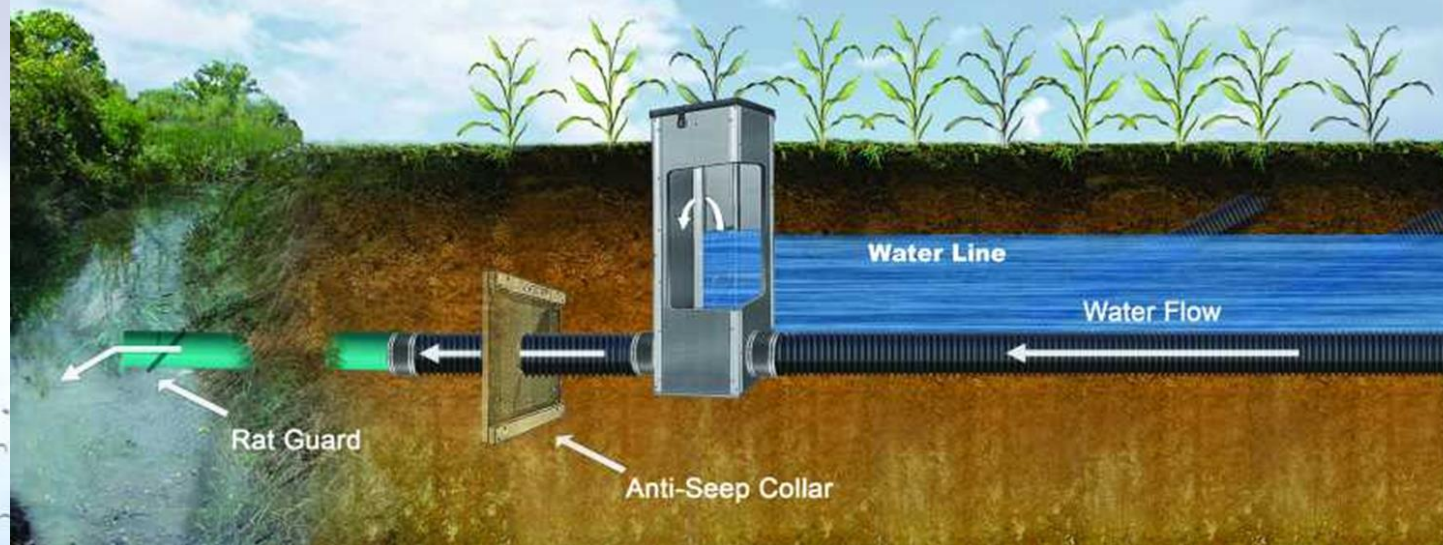
Less Risk ✓

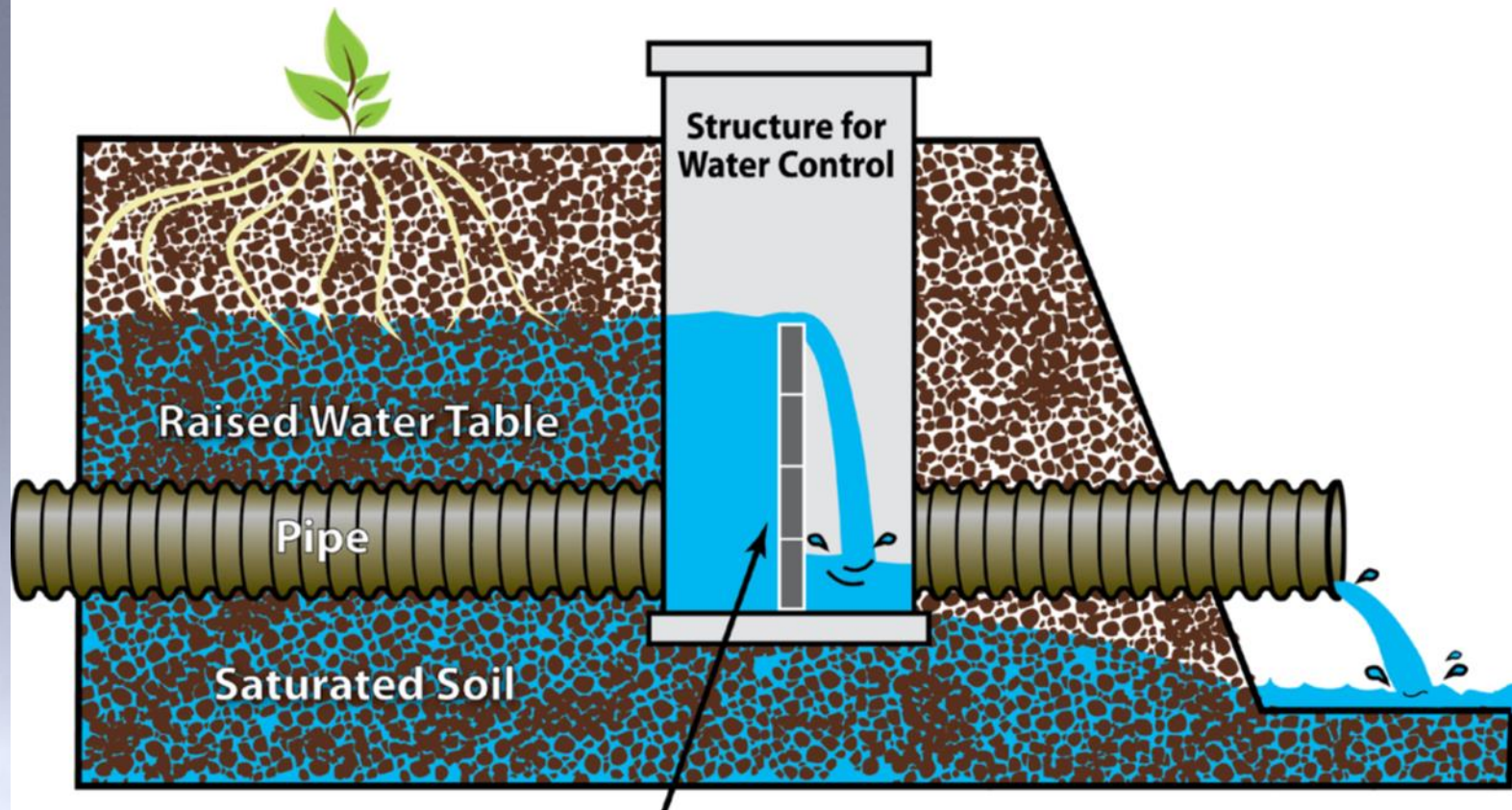


Cleaner Water ✓

TYPICAL DRAINAGE WATER MANAGEMENT INSTALLATION

Inline Water Level Control Structure

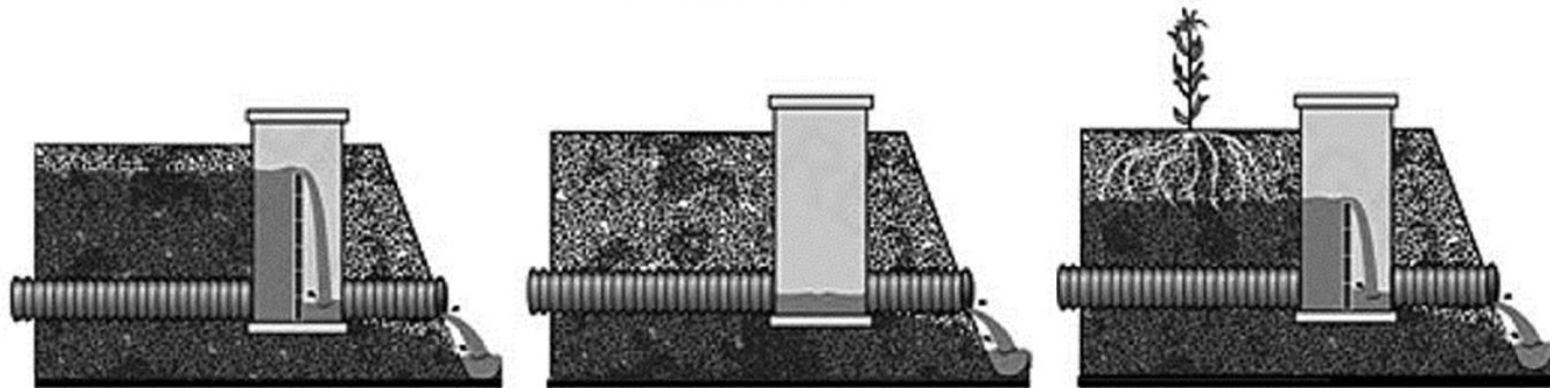




After harvest

Flow Control Mechanism
Before planting
or harvest

After planting



Workshops



RCPP

Regional Conservation Partnership Program

Coming Together for Conservation: New Approach, More Partners

USDA Natural Resources Conservation Service

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Regional Conservation Partnership Program is a new program that mobilizes partnerships to multiply investments and reach common conservation goals.

Collaborating Partners

- University of Illinois (Mike Ward)
- Illinois Natural History Survey (Kirk Stodola, T.J. Benson)
- Franklin College (Ben O'Neal)
- Lewis and Clark Community College/National Great Rivers Research and Education Center (Richard Warner, Jake Hendee)
- Illinois Department of Natural Resources (Wade Louis, Mark Alessi)
- US Fish and Wildlife Service (Drew Becker, Kraig McPeck, Robert Clevensline)



Shorebird Conservation Acreage via Drainage Water Runoff Control (SCARC)

- The lead partner NRCS will work with is the Department of Natural Resources and Environmental Science (NRES) at the University of Illinois.
- Creating temporary wetlands in strategic locations through NRCS's drainage water management (DWM) program will provide valuable conservation acreage for many migratory bird species.
- DWM provide numerous other benefits, including reductions in nitrogen and phosphorous runoff, improved water quality, and potential increases in crop production for the producer.
- The RCPP partnership aims to **double annual implementation of DWM in Illinois.**



Questions?

