

ILLINOIS ENDANGERED SPECIES PROTECTION BOARD

MINUTES OF A SPECIAL MEETING

MIDEWIN NATIONAL TALLGRASS PRAIRIE, WILMINGTON, IL

16 MAY, 2012

(Approved at the 155th meeting, August 10, 2012)

BOARD MEMBERS PRESENT: Chair Dan Gooch, Vice-chair Glen Kruse, Secretary John Clemetsen, Dr. Joyce Hofmann, Dr. John Taft, Dr. Jeff Walk.

BOARD MEMBERS ABSENT: Ms. Susanne Masi, Mr. John Rogner, Ms. Laurel Ross.

BOARD MEMBER VACANCIES: One.

OTHERS PRESENT: Ms. Anne Mankowski (Endangered Species Protection Board) and ESPB technical expert consultants (ESPB TECs) for birds: Ms. Tara Beveroth and Dr. Mike Ward (Illinois Natural History Survey), Dr. Jim Mountjoy (Knox College), Ms. Judy Pollock (Chicago Audubon), and Dr. Doug Stotz (Field Museum).

1 Call to Order Welcome and Introduction of Guests

Chair Gooch called the meeting to order at 10:00 A.M. and asked Board members to introduce themselves and noted that there was a quorum. He then asked ESPB staff and ESPB TECs for birds to introduce themselves.

2 Adoption of Agenda

Chair Gooch asked if there were any changes to the agenda. None were noted and Dr. Walk **moved** to adopt the agenda, Dr. Hofmann seconded the motion, and it was **approved** unanimously.

3 Board Consideration for a Resolution in Support of IDNR's Sustainability Package Legislation

Chair Gooch read the proposed resolution and asked for a motion approving it. Secretary Clemetsen **moved** to approve the resolution and Dr. Walk seconded the motion. Chair Gooch asked if there was discussion and the Board and Director Mankowski reviewed aspects of House Bill 4193, which the resolution supports. When discussion concluded, Chair Gooch asked for a vote and the resolution was **approved** unanimously (Attachment A).

4 Board Approval of 2013 Quarterly Meeting Dates

Chair Gooch reviewed the proposed schedule for 2013 meetings and asked for a motion to approve them. Dr. Walk so **moved**, Secretary Clemetsen seconded the motion, and it was **approved** unanimously. The approved 2013 quarterly meeting dates follow. All meetings begin at 10:00 AM and will be at Midewin National Tallgrass Prairie.

February 8, 2013

May 17, 2013

August 16, 2013

November 15, 2013

5 2014 Illinois List Review: Recommendation for Changes to the List of Illinois Endangered and Threatened Birds

Ms. Mankowski led the presentation of recommendations for changes to the list of Illinois endangered and threatened birds. She began with an overview (see Attachment B) of the Illinois List 5-year review process and schedule including information about legal requirements, individual species' status and distribution data and information that is being considered, and the process by which she and the Board were engaging advice of the ESPB technical expert consultants (ESPB TECs).

She reviewed the list of proposed listing status recommendations for birds (see Attachment C) and engaged the ESPB TECs and Board members in reviewing the data and information compiled for each species for which listing status change was recommended.

Ms. Mankowski reviewed that IDNR Natural Heritage (Biotics 4) Database element occurrence data through 2011 had exceeded the ESPB approved listing status review trigger for considering a change in status from endangered to threatened as established in the Illinois **Barn Owl (*Tyto alba*)** Recovery Plan (2010).

Ms. Mankowski reviewed that IDNR Natural Heritage (Biotics 4) Database element occurrence data through 2010 had exceeded the ESPB approved listing status review trigger for considering a change in status from threatened to delisted due to recovery as established in the ESPB's **Peregrine Falcon (*Falco peregrinus*)** Reclassification Goals (2000) and in ESPB amendments to the goals established in 2009. Several ESPB TECs and Board members Taft and Hofmann indicated that they were not comfortable that the statewide population and productivity numbers previously approved by the Board constituted a viable population in the state and expressed concern about what would happen if those numbers dropped-off following delisting. Ms. Mankowski reviewed that the listing status thresholds established by the ESPB in 2000 will act as triggers for the Board to consider relisting the species if population and productivity numbers fall below those thresholds in the future and that the Board can consider listing actions during its 5-year List reviews or at any interim time if and when sufficient evidence is brought forth. She indicated that prior to the Board finalizing its Illinois List pursuant to the revision ending in 2014, she would review 2011 and 2012 database information for the species to confirm that population and productivity numbers remained above established ESPB thresholds.

Ms. Mankowski reviewed that ESPB TEC Jim Herkert had asked that the ESPB TECs discuss the status of the **Black-crowned Night-Heron (*Nycticorax nycticorax*)** to consider whether the species was more habituated to human disturbance than previously thought based on its continued presence at one highly urbanized location with considerable human activity and whether that should warrant a listing status change from endangered to threatened. Ms. Mankowski noted the Dr. Herkert had not presented evidence relative to his recommendation and then she reviewed the information and data in the individual species review that she had compiled for Black-crowned Night-Heron as part of each currently listed species review that is being prepared as part of the 5-year Illinois List review and revision ending in 2014. Ms. Mankowski indicated that Ms. Pollock had recently sent additional data for the species that may add new records to the Illinois Natural Heritage (Biotics 4) Database and asked Ms. Pollock if she thought the data would support Dr. Herkert's recommendation. Ms. Pollock indicated that she felt the occurrences of the species move around too much from year to year to tease out specific statewide trends and that she felt that neither the database data nor other data gathered to date was sufficient to warrant a recommendation for a change in status at this time, but further evaluation is recommended to better inform the Board's next List review. Dr. Stotz agreed with Ms. Pollock and suggested that better evaluation of site-specific trends in occurrence and productivity from a few of the more persistent and larger known populations would be useful. Ms. Mankowski concluded the species discussion by indicating that currently available data do not support a recommendation for a change in listing status, but gathering additional data and further

analysis of the species as described by the ESPB TECs is warranted for the next 5-year List review or prior if sufficient evidence is brought forth in the interim.

Ms. Mankowski introduced the nominations submitted to her by ESPB TECs Tara Beveroth (**Eastern Whip-poor-will, *Caprimulgus vociferous***) and Jeff Walk (**Chuck-will's-widow, *Caprimulgus carolinensis***) and asked Ms. Beveroth and Dr. Walk to review the information in their respective nominations.

Ms. Beveroth reviewed her nomination for listing as threatened the Eastern Whip-poor-will because it is a species that was formerly more widespread in Illinois, but has shown significant declines which may lead to extirpation from the state due to habitat destruction, collecting, or other pressures resulting from the development of Illinois. The ESPB TECs discussed the data available for the species and several ESPB TECs indicated that they felt the species had declined in at least parts, if not all, of Illinois, but since the species is nocturnal, confirmed or probably breeding occurrence data is limited. Ms. Beveroth explained that she appreciated the discussion and thought that additional years of data from the Monitoring of Owls and Nightjars (M.O.O.N) program that she oversees should provide better information about the species' status in time for the Board's next 5-year List review. Dr. Ward suggested that the spring bird count data that he maintains could be better evaluated for this species by breaking out owling hours. Ms. Beveroth added that another researcher at the Illinois Natural History Survey is currently conducting a comprehensive study of the species' status and the effects of management upon individual populations that will also provide important information in time for the next cycle. Ms. Mankowski concluded the species discussion by indicating that currently available data do not support a recommendation for addition to the Illinois List, but it appears there should be a good deal of additional data available for evaluating the species in the next 5-year List review or prior if sufficient evidence is brought forth in the interim.

Dr. Walk reviewed his nomination for listing as threatened Chuck-will's widow because it is a species that was formerly more widespread in Illinois, but has shown significant declines which may lead to extirpation from the state due to habitat destruction, collecting, or other pressures resulting from the development of Illinois. The ESPB TECs discussed the data available for the species and agreed that based on the data and due to the fact that its distribution in Illinois is restricted to such a small area of the southern part of the state, a recommendation for listing as threatened seemed warranted. Ms. Mankowski confirmed with the ESPB TECs that they could generate element occurrence reports for the species to have entered into the Illinois Natural Heritage (Biotics 4) Database, there was some discussion about limitations of the IDNR element occurrence reporting forms, and then she concluded the species discussion.

Dr. Ward suggested that the Board support research or additional data collection for several species in preparation for the next 5-year List review. Ms. Mankowski noted the suggestions for possible inclusion in the Board's list of research priorities that she maintains. The Board engaged in brief discussion about the concept of maintaining a list of "species of concern" or "watch list species" and agreed that the topic should be addressed as an agenda item at a separate meeting.

Chair Gooch thanked the ESPB TECs for birds for their participation in the Board's List review process and noted that the discussion they had provided during the current meeting constituted valuable advice to the Board. He then asked the Board for a motion relative to the ESPB staff listing status recommendations for birds. Vice-chair Kruse **moved** to approve as Board preliminary approval of revision to the Illinois List the ESPB staff recommendations as presented and Dr. Hofmann seconded the motion. Chair Gooch asked for any additional Board discussion noting that the Board would conduct a vote on any individual amendment that Board members proposed.

Drs. Taft and Hofmann indicated that they did not agree with the recommendation to delist the Peregrine Falcon. Dr. Taft moved to **amend** the current motion so that it did not change the listing status of that species and Dr. Hofmann seconded the motion. Chair Gooch, Vice-chair Kruse, and Dr. Walk all voted to maintain the original recommendation to delist the species and the proposed amendment **was not approved**.

Dr. Walk **moved** to amend the current motion by eliminating the recommendation to add the Eastern Whip-poor-will as threatened. Secretary Clemetsen seconded the motion and it was **approved** unanimously.

There was Board discussion about the recommendation to add the Chuck-will's-widow as threatened with all members indicating agreement with the recommendation and none proposing an amendment.

There was Board discussion about the recommendation to maintain Black-crowned Night-Heron as threatened with all members indicating agreement with the recommendation and none proposing an amendment.

Chair Gooch asked Vice-chair Kruse and Dr. Hofmann if they accepted the amendments to their original motion and they indicated acceptance. Chair Gooch then asked for a vote to approve as Board preliminary approval of revision to the Illinois List the ESPB staff recommendations as amended and presented below and it was **approved** unanimously.

Board preliminarily approved revisions to the Illinois List - birds

<u>Endangered to threatened:</u>	Barn owl, Tyto alba
<u>Threatened to endangered:</u>	None
<u>Remove from endangered:</u>	None
<u>Remove from threatened:</u>	Peregrine falcon, Falco peregrinus
<u>Add as endangered:</u>	None
<u>Add as threatened:</u>	Chuck-will's-widow, Caprimulgus carolinensis

No listing status change recommended:

American Bittern	Botaurus lentiginosus
Bewick's Wren	Thryomanes bewickii
Black Rail	Laterallus jamaicensis
Black Tern	Chlidonias niger
Black-billed Cuckoo	Coccyzus erythrophthalmus
Black-crowned Night-Heron	Nycticorax nycticorax
Cerulean Warbler	Dendroica cerulea
Common Moorhen	Gallinula chloropus
Common Tern	Sterna hirundo
Forster's Tern	Sterna forsteri
Greater Prairie-Chicken	Tympanuchus cupido

King Rail	Rallus elegans
Least Bittern	Ixobrychus exilis
Least Tern	Sternula antillarum
Little Blue Heron	Egretta caerulea
Loggerhead Shrike	Lanius ludovicianus
Mississippi Kite	Ictinia mississippiensis
Northern Harrier	Circus cyaneus
Osprey	Pandion haliaetus
Piping Plover	Charadrius melodus
Short-eared Owl	Asio flammeus
Snowy Egret	Egretta thula
Swainson's Hawk	Buteo swainsoni
Swainson's Warbler	Limnothlypis swainsonii
Upland Sandpiper	Bartramia longicauda
Wilson's Phalarope	Phalaropus tricolor
Yellow-crowned Night-Heron	Nyctanassa violacea
Yellow-headed Blackbird	Xanthocephalus xanthocephalus

6 Public Comment Period (3 minutes per person)

There were no public comments.

7 Other Business (Board members complete travel forms and time reporting sheets)

Board members completed travel forms and time reporting sheets.

8 Adjournment

Dr. Walk **moved** to adjourn, Chair Gooch seconded the motion, and it was **approved** unanimously. The meeting was adjourned at 12:37 P.M.

Resolution 154.5-3

Illinois Endangered Species Protection Board
May 16, 2012

WHEREAS, the Illinois Endangered Species Protection Board (Board) is concerned with the protection and conservation of Illinois' 484 endangered and threatened species and has mandates to advise the State on the protection of endangered and threatened species and the Illinois Department of Natural Resources (Department) on the conservation of endangered and threatened species; and,

WHEREAS, endangered and threatened species improve the quality of life for Illinois citizens by providing aesthetic and utilitarian value in that every species contributes to the stability of the ecosystem of which it is a part, the loss of any native plant or animal diminishes the natural beauty and function of the environment, and individual species can serve as early indicators of environmental problems that are potentially dangerous to humans; and,

WHEREAS, the Board has five statutorily-imposed mandates, and the Department has four statutorily-imposed mandates, under the Illinois Endangered Species Protection Act; and,

WHEREAS, the Board's budget is a line item in the Department's budget which was eliminated from FY 2002-FY 2010 and was partially reinstated in FY 2011 and remains at approximately 35 percent of previous funding, while staffing has also been reduced to 25 percent from a decade ago; and,

WHEREAS, after a decade of significant budget cuts and staff reductions, the Department faces a \$22 million operating deficit in FY 2013, with the Department's general revenue fund appropriation having been slashed from \$107 million in FY 2002 to \$48 million in FY 2012, with staffing levels having dropped by 66 percent during the same time period, and with the FY 2013 introduced State budget further reducing the Department's operating budget by 13.5 percent, the most significant reduction of any State agency;

NOW THEREFORE, the Illinois Endangered Species Protection Board resolves to support measures by the Governor and Legislature to sustain funding for the Department, including House Bill 4193, which would benefit all Department functions and should include some dedicated increase to resources directed to Board and Department duties involving the State's endangered and threatened species and their habitats. The Board further directs that, upon its passage, a copy of this resolution shall be transmitted to the Speaker of the Illinois House of Representatives, the Minority Leader of the Illinois House of Representatives, the President of the Illinois Senate, the Minority Leader of the Illinois Senate, and the Governor of the State of Illinois.

Passed and approved by the Illinois Endangered Species Protection Board this Sixteenth day of May, Two Thousand Twelve.



Chairman
Illinois Endangered Species Protection Board

PowerPoint Presentation – Overview of required 5-year review and revision of the Illinois List of Endangered and Threatened Species, ending in 2014

Illinois Endangered Species Protection Board

Required 5-year review and revision of the
Illinois List of Endangered and Threatened Species,
ending in 2014



ILLINOIS ENDANGERED SPECIES  **PROTECTION BOARD**

One Natural Resources Way, Springfield, Illinois 62702 - 1271, (217) 785-8687; FAX (217) 785-2438

ESPB 2014 Illinois List review and revision

E&T bird list review with ESPB technical expert consultants

ESPB special meeting 05/16/12
Midewin National Tallgrass Prairie
Wilmington, IL



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ESPB 2014 Illinois List review and revision

- Illinois Endangered Species Protection Act – 1972
- First Illinois List of Endangered and Threatened Species – 1981
- There have been 6 revisions of the Illinois List (1984, 1989, 1994, 1999, 2004, 2009), the 2014 revision is the 7th
- 132 technical experts have assisted the ESPB with revisions to date – 2014 revision will bring that total to 146

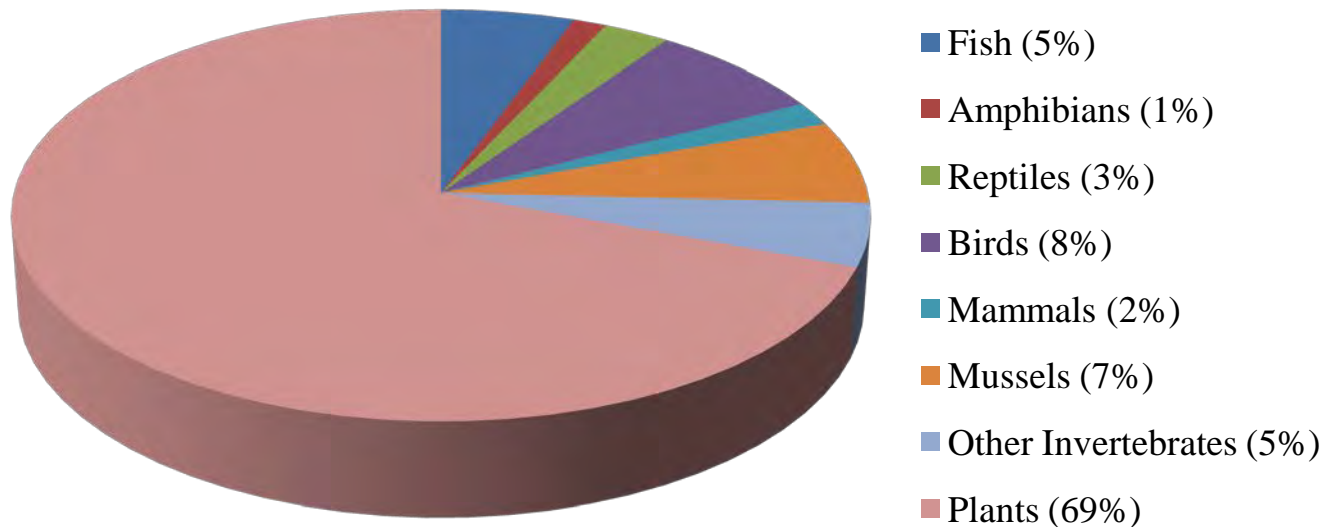


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ESPB 2014 Illinois List review and revision

The ESPB has listed a total 644 species since the first Illinois List.

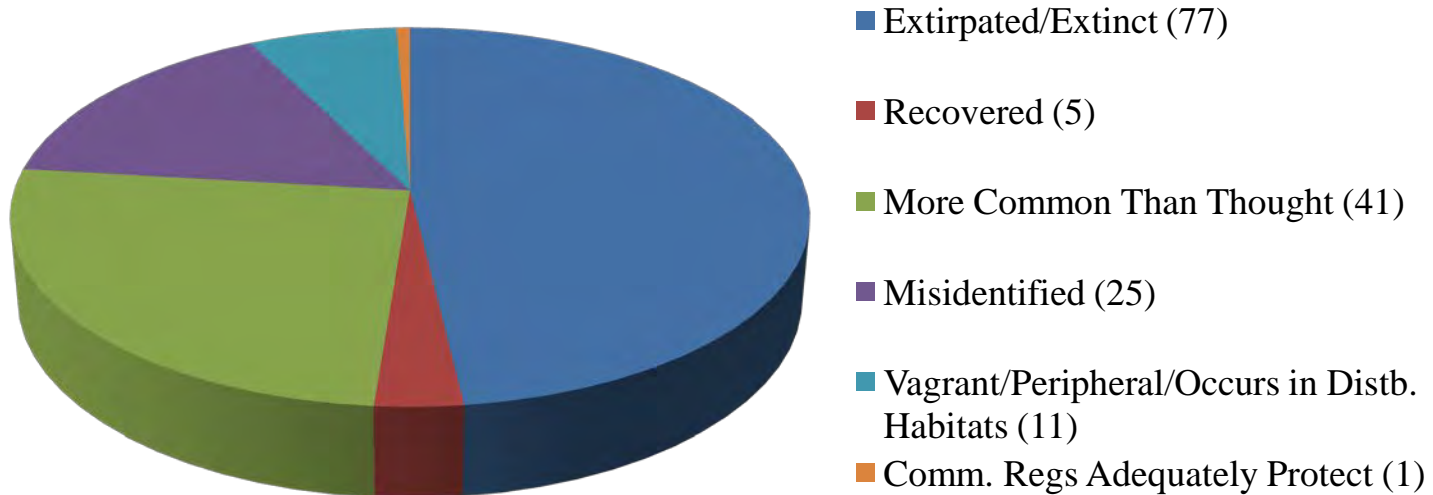


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ESPB 2014 Illinois List review and revision

The ESPB has delisted a total of 160 species since the first revision of the Illinois List.



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ESPB 2014 Illinois List review and revision

The current (2011) Illinois List includes 484 species.

	Endangered	Threatened	Totals
Fish	19	12	31
Amphibians	3	6	9
Reptiles	10	8	18
Birds	25	5	30
Mammals	5	4	9
Invertebrates	43	12	55
Total Animals	105	47	152
Plants	251	81	332
TOTALS	356	128	484



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ESPB 2014 Illinois List review and revision

The ESPA (520 ILCS 10/2) definitions “endangered” and “threatened” species:

“Endangered Species” means any species of plant or animal classified as endangered under the Federal Endangered Species Act of 1973, P.L. 93-205, and amendments thereto, plus such other species which the Board may list as in danger of extinction in the wild in Illinois due to one or more causes including but not limited to, the destruction, diminution or disturbance of habitat, overexploitation, predation, pollution, disease, or other natural or manmade factors affecting its prospects of survival.

“Threatened Species” means any species of plant or animal classified as threatened under the Federal Endangered Species Act of 1973, P.L. 93-205, and amendments thereto, plus such other species which the Board may list as likely to become endangered in the wild in Illinois within the foreseeable future.



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ESPB 2014 Illinois List review and revision

The ESPA (520 ILCS 10/7) also stipulates :

The Board may list, as endangered or threatened, species of animals or plants which have reproduced in or otherwise significantly used, as in migration or overwintering, the area which is now the State of Illinois, if there is scientific evidence that the species qualify as endangered or threatened as these terms are defined in this Act.



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ESPB 2014 Illinois List review and revision

ESPB criteria for listing species as endangered or threatened on the Illinois List

- Species included in the Federal list of Endangered or Threatened species.
- Species proposed for Federal Endangered or Threatened status, which occur in Illinois.
- Species which formerly were widespread in Illinois, but have been nearly extirpated from the State due to habitat destruction, collecting, or other pressures resulting from the development of Illinois.
- Species which exhibit very restricted geographic ranges of which Illinois is a part.
- Species which exhibit restricted habitats or low populations in Illinois.
- Species which are significant disjuncts in Illinois, i.e., the Illinois population is far removed from the rest of the species' range.



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ESPB 2014 Illinois List review and revision

ESPB criteria for delisting species from the Illinois List

- A peripheral species that presently occurs only in disturbed/non-native habitats in Illinois.
- A species now considered to be only a vagrant breeding species in Illinois.
- All native populations are now considered to be extirpated in Illinois.
- Illinois records for this species are now believed to be based on mis-identified specimens.
- Now known to be more common in Illinois than previously thought.
- Commercial fishing regulations determined by the Illinois Department of Natural Resources provide adequate protection for this species in Illinois.
- The species is now considered extinct.
- A species now considered to be recovered from endangerment or the threat of endangerment in Illinois.



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ESPB 2014 Illinois List review and revision

The Illinois List review and revision process:

(in compliance with the ESPA (520 ILCS 10/1) and the Illinois Administrative Procedures Act (5 ILCS 100/1))

1. The Board and its staff review and evaluate available data collected since the original and current List were generated. The Board is required to base listing decision on scientific evidence. When conducting the 5-year review and revision, the Board consults with its technical expert consultants (ESPB TECs).
2. Board staff compile and present recommendations for changes to the List (additions, deletions, or change in status from one category to another) at one or more Board meetings and the Board preliminarily approves a list of proposed changes.
3. The Board holds a public hearing for comments on the proposed changes to the List. The hearing record remains open for two weeks.
4. After considering public comments received, the Board makes final approval of changes at a subsequent meeting and submits the List to the IDNR.



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ESPB 2014 Illinois List review and revision

The Illinois List review and revision process (continued):

(in compliance with the ESPA (520 ILCS 10/1) and the Illinois Administrative Procedures Act (5 ILCS 100/1))

5. IDNR conducts an internal review of the List and submits Administrative Rule changes to the Secretary of State for publication in the Illinois Register and review by the Joint Committee on Administrative Rules (JCAR). This first notice for Administrative Rule changes to the List published in the Illinois Register includes a 45-day comment period.
6. If substantive comments are received during the 45-day comment period, the IDNR, with assistance from the Board, provides a response to comments to the JCAR.
7. JCAR approves the List at a regularly scheduled meeting of its committee.
8. Upon approval by JCAR, the IDNR submits the final Administrative Rule changes to the List to the Secretary of State for publication in the Illinois Register and the List becomes official.



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ESPB 2014 Illinois List review and revision

What are we considering in our review:

- The IDNR Natural Heritage (Biotics 4) Database is used as a primary source of information.
- Information reviewed for each species includes range in Illinois (present and historic), abundance in Illinois (total numbers, if known), number of known populations or locations where it occurs, number of these locations which are known to be protected from disturbance, the types of threats the species faces, and how fragile or sensitive the species is (species biology/ecology).
- For currently listed species, we aren't starting from scratch, but are reviewing whether there has been a change in status and distribution that warrants a change in listing status.



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ESPB 2014 Illinois List review and revision

Our process to date:

1. ESPB TECs recommended species for addition using designated form.
2. ESPB staff reviewed currently listed species against NH Database information and prepared a 1st cut list of recommended changes, including ESPB TEC recommended additions.
3. ESPB TECs reviewed and commented on ESPB staff 1st cut list.
4. ESPB staff and TECs present 1st cut list to Board for consideration.



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ESPB 2014 Illinois List review and revision

- Now we'll look at one currently listed species account as review of the information that has been considered.
- Then review currently listed species proposed for status change and any questions about those not proposed for status change.
- Then review species proposed for addition.



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ESPB 2014 Illinois List review and revision

So, before we move along.....

Any questions?



ILLINOIS ENDANGERED SPECIES  **PROTECTION BOARD**

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2014 Illinois List Review: Staff Recommendation for Changes to the
List of Illinois Endangered and Threatened Birds



ILLINOIS ENDANGERED SPECIES PROTECTION BOARD

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Illinois Endangered Species Protection Board (ESPB) required 5-year review of the Illinois List of Endangered and Threatened Species (Illinois List) ending in 2014:

ESPB staff 1st cut recommendations for Birds

Prepared by Anne Mankowski

04/13/12, updated 05/12/12

Distributed to ESPB technical expert consultants (ESPB TECs) for review and comment: 04/13/2012

ESPB TECs comments due to Mankowski: 04/27/2012

Mankowski distributes next iteration that will be used during agenda item at ESPB May 16, 2012 mtg: 05/02/2012

Contents:

(This is a compilation of otherwise stand-alone documents; I didn't spend a lot of time crafting, so it isn't pretty)

1. List of recommended changes from endangered to threatened, threatened to endangered, remove from endangered, remove from threatened, add as endangered, add as threatened, and species for which not change is recommended.
2. List of species under Federal review – implications to the Illinois List (page 2)
3. Table 1. Currently listed species – last observed, total occurrences, total seen since Jan 2002, # of protected occurrences, # of topographic quads with occurrences (page 3)
4. Table 2. Currently listed species -element occurrences and counties with occurrences for respective 5-year intervals ending in 2011 (begins page 4).
5. Table 3. Currently listed species -element occurrences and counties with occurrences for respective overlapping time periods – meant to replicate what Jim Herkert provided for last review, but the data request got a bit messed-up, so it doesn't quite do it. I included it anyway (begins page 5).
6. Currently listed species individual reviews – species data from Tables 1 and 2, 1982-2011 5-year element occurrence trend graph, 1992-2011 5-year element occurrence dot map, status review triggers (if any) and listing status change recommendation (if any), NatureServe conservation status lower 48, USGS BBS 1996-2009 trend and 1999-2009 annual index data and graphs - information for area outside of Illinois provided as reference (begins page 7).
7. Recommendations for species to be added as endangered or threatened (begin page 101).
8. USGS BBS 1996-2009 trend and 1999-2009 annual index data and graphs use information and legend (begins page 121).

ESPB staff listing status recommendations

<u>Endangered to threatened:</u>	Barn owl, <i>Tyto alba</i> (species review begins page 11)
<u>Threatened to endangered:</u>	None
<u>Remove from endangered:</u>	None
<u>Remove from threatened:</u>	Peregrine falcon, <i>Falco peregrinus</i> (species review begins page 68)
<u>Add as endangered:</u>	None
<u>Add as threatened:</u>	Eastern Whip-poor-will, <i>Caprimulgus vociferous</i> (nomination begins page 101) Chuck-will's-widow, <i>Caprimulgus carolinensis</i> (nomination follows E. Whip-poor-will)

No listing status change recommended: (data do not warrant change)

American Bittern	<i>Botaurus lentiginosus</i>
Bewick's Wren	<i>Thryomanes bewickii</i>
Black Rail	<i>Laterallus jamaicensis</i>
Black Tern	<i>Chlidonias niger</i>
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>
Black-crowned Night-Heron	<i>Nycticorax nycticorax</i>
Cerulean Warbler	<i>Dendroica cerulea</i>
Common Moorhen	<i>Gallinula chloropus</i>
Common Tern	<i>Sterna hirundo</i>
Forster's Tern	<i>Sterna forsteri</i>
Greater Prairie-Chicken	<i>Tympanuchus cupido</i>
King Rail	<i>Rallus elegans</i>
Least Bittern	<i>Ixobrychus exilis</i>
Least Tern	<i>Sternula antillarum</i>
Little Blue Heron	<i>Egretta caerulea</i>
Loggerhead Shrike	<i>Lanius ludovicianus</i>
Mississippi Kite	<i>Ictinia mississippiensis</i>
Northern Harrier	<i>Circus cyaneus</i>
Osprey	<i>Pandion haliaetus</i>
Piping Plover	<i>Charadrius melodus</i>
Short-eared Owl	<i>Asio flammeus</i>
Snowy Egret	<i>Egretta thula</i>
Swainson's Hawk	<i>Buteo swainsoni</i>
Swainson's Warbler	<i>Limnothlypis swainsonii</i>
Upland Sandpiper	<i>Bartramia longicauda</i>
Wilson's Phalarope	<i>Phalaropus tricolor</i>
Yellow-crowned Night-Heron	<i>Nyctanassa violacea</i>
Yellow-headed Blackbird	<i>Xanthocephalus xanthocephalus</i>

Species under Federal review – implications to the Illinois List: Golden-winged warbler. 90-day finding comment period closed 08/01/2011. Not currently listed in Illinois. (comments submitted to USFWS: From 1966 – 2010 (breeding individuals, no specific location given); 1979 -1; 1991–1; 1995–1 (USGS BBS). For the period of 1986 – 1991 there was only one confirmed breeder from southern Cook Co. (Kleen et al, 2004).) If USFWS include IL in the listing, then the species will be automatically added to the Illinois List.

Table1. Currently listed species – last observed, total occurrences, total seen since Jan 2002, # of protected occurrences, # of topographic quads with occurrences.

SCIENTIFIC_NAME	S_PRIMARY_COMMON_NAME	Current Status	Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
<i>Botaurus lentiginosus</i>	American Bittern	E	5/23/2011	14	7	4	15
<i>Tyto alba</i>	Barn Owl	E	9/27/2011	73	58	2	57
<i>Thryomanes bewickii</i>	Bewick's Wren	E	2011	8	1	2	10
<i>Laterallus jamaicensis</i>	Black Rail	E	7/19/2009	3	1	0	4
<i>Chlidonias niger</i>	Black Tern	E	7/25/2008	25	11	6	22
<i>Coccyzus erythrophthalmus</i>	Black-billed Cuckoo	T	2011	14	12	4	14
<i>Nycticorax nycticorax</i>	Black-crowned Night-Heron	E	6/16/2011	71	34	10	44
<i>Dendroica cerulea</i>	Cerulean Warbler	T	6/30/2011	21	20	4	23
<i>Gallinula chloropus</i>	Common Moorhen	E	7/21/2011	57	27	10	51
<i>Sterna hirundo</i>	Common Tern	E	7/2/1905	3	2	0	3
<i>Sterna forsteri</i>	Forster's Tern	E	7/31/2008	3	3	2	3
<i>Tympanuchus cupido</i>	Greater Prairie-Chicken	E	7/3/1905	8	5	4	8
<i>Rallus elegans</i>	King Rail	E	6/28/2008	17	7	5	26
<i>Ixobrychus exilis</i>	Least Bittern	T	5/7/2011	58	33	18	71
<i>Sternula antillarum</i>	Least Tern	E**	7/24/2010	16	13	0	16
<i>Egretta caerulea</i>	Little Blue Heron	E	7/30/2006	10	4	0	7
<i>Lanius ludovicianus</i>	Loggerhead Shrike	E	8/16/2011	119	32	4	137
<i>Ictinia mississippiensis</i>	Mississippi Kite	T	7/29/2011	18	7	1	28
<i>Circus cyaneus</i>	Northern Harrier	E	12/17/2009	24	9	5	26
<i>Pandion haliaetus</i>	Osprey	E	5/9/2011	11	8	0	12
<i>Falco peregrinus</i>	Peregrine Falcon	T	7/8/2010	29	21	2	13
<i>Charadrius melodus</i>	Piping Plover	E**	6/30/2009	1	1	1	1
<i>Asio flammeus</i>	Short-eared Owl	E	7/15/2010	14	7	4	15
<i>Egretta thula</i>	Snowy Egret	E	6/16/2001	2	1	0	2
<i>Buteo swainsoni</i>	Swainson's Hawk	E	2007	15	8	1	6
<i>Limnothlypis swainsonii</i>	Swainson's Warbler	E	7/1/1905	7	2	2	6
<i>Bartramia longicauda</i>	Upland Sandpiper	E	7/8/2011	49	17	8	60
<i>Phalaropus tricolor</i>	Wilson's Phalarope	E	6/30/1905	7	6	2	11
<i>Nyctanassa violacea</i>	Yellow-crowned Night-Heron	E	8/21/2010	23	12	7	19
<i>Xanthocephalus xanthocephalus</i>	Yellow-headed Blackbird	E	5/12/2011	46	24	7	44

Table 2. Currently listed species -element occurrences and counties with occurrences for respective 5-year intervals ending in 2011.

SCIENTIFIC_NAME	S_PRIMARY_COMMON_NAME	EO 1982- 1986	EO 1987- 1991	EO 1992- 1996	EO 1997- 2001	EO 2002- 2006	EO 2007- 2011	# Cos with breeding records from 1982- 1986	# Cos with breeding records from 1987- 1991	# Cos with breeding records from 1992- 1996	# Cos with breeding records from 1997- 2001	# Cos with breeding records from 2002- 2006	# Cos with breeding records from 2007- 2011
<i>Botaurus lentiginosus</i>	American Bittern	2	1	0	1	1	3	2	1	0	1	1	3
<i>Tyto alba</i>	Barn Owl	2	6	6	3	12	44	2	6	5	3	12	26
<i>Thryomanes bewickii</i>	Bewick's Wren	2	3	0	1	0	0	2	3	0	1	0	0
<i>Laterallus jamaicensis</i>	Black Rail	0	0	0	2	0	1	0	0	0	2	0	1
<i>Chlidonias niger</i>	Black Tern	0	6	4	3	6	4	0	4	4	3	4	2
<i>Coccyzus erythrophthalmus</i>	Black-billed Cuckoo				3	0	9				3	0	6
<i>Nycticorax nycticorax</i>	Black-crowned Night-Heron	2	8	16	16	16	13	2	5	8	7	7	7
<i>Dendroica cerulea</i>	Cerulean Warbler	1	0	0	0	7	11	1	0	0	0	8	11
<i>Gallinula chloropus</i>	Common Moorhen	3	8	12	10	14	10	4	6	11	5	10	6
<i>Sterna hirundo</i>	Common Tern	0	0	0	2	0	1	0	0	0	1	0	1
<i>Sterna forsteri</i>	Forster's Tern	0	0	0	0	2	1	0	0	0	0	2	1
<i>Tympanuchus cupido</i>	Greater Prairie-Chicken	0	1	1	1	1	4	0	1	1	1	2	2
<i>Rallus elegans</i>	King Rail	0	3	5	3	3	2	0	4	5	3	3	2
<i>Ixobrychus exilis</i>	Least Bittern	2	4	9	14	15	14	2	3	9	10	14	10
<i>Sternula antillarum</i>	Least Tern	0	0	2	0	5	5	0	0	2	0	5	2
<i>Egretta caerulea</i>	Little Blue Heron	1	0	3	4	2	0	1	0	3	3	2	0
<i>Lanius ludovicianus</i>	Loggerhead Shrike	10	49	15	12	13	18	12	37	13	12	14	16
<i>Ictinia mississippiensis</i>	Mississippi Kite	0	2	1	8	2	5	0	3	1	7	3	4
<i>Circus cyaneus</i>	Northern Harrier	1	5	6	3	5	4	1	4	6	3	5	4
<i>Pandion haliaetus</i>	Osprey	1	0	0	2	2	6	1	0	0	2	2	7
<i>Falco peregrinus</i>	Peregrine Falcon	0	2	3	2	1	19	0	1	3	2	1	4
<i>Charadrius melodus</i>	Piping Plover	0	0	0	0	0	1	0	0	0	0	0	1
<i>Asio flammeus</i>	Short-eared Owl	1	3	1	2	1	6	1	2	1	2	1	5
<i>Egretta thula</i>	Snowy Egret	0	1	0	1	0	0	0	1	0	1	0	0
<i>Buteo swainsoni</i>	Swainson's Hawk	1	1	2	0	5	7	1	1	2	0	2	2
<i>Limnolyphs swainsonii</i>	Swainson's Warbler	0	1	2	0	2	1	0	1	3	0	3	1

Table 2, cont.													
SCIENTIFIC_NAME	S_PRIMARY_COMMON_NAME	EO 1982- 1986	EO 1987- 1991	EO 1992- 1996	EO 1997- 2001	EO 2002- 2006	EO 2007- 2011	# Cos with breeding records from 1982- 1986	# Cos with breeding records from 1987- 1991	# Cos with breeding records from 1992- 1996	# Cos with breeding records from 1997- 2001	# Cos with breeding records from 2002- 2006	# Cos with breeding records from 2007- 2011
Bartramia longicauda	Upland Sandpiper	5	7	7	6	7	9	5	6	8	6	7	9
Phalaropus tricolor	Wilson's Phalarope	0	0	0	0	3	2	0	0	0	0	3	1
Nyctanassa violacea	Yellow-crowned Night-Heron	1	1	2	7	2	10	1	1	2	7	2	7
Xanthocephalus xanthocephalus	Yellow-headed Blackbird	0	8	6	11	14	8	0	6	6	4	9	5

Table 3. Currently listed species -element occurrences and counties with occurrences for respective overlapping time periods – meant to replicated what Jim Herkert provided for last review, but the data request got a bit messed-up, so it doesn't quite do it. I included it anyway.

SCIENTIFIC_NAME	S_PRIMARY_COMMON_NAME	EO 1981- 1992	EO 1986- 1997	EO 1990- 2001	EO 1997- 2007	EO 2002- 2011	# Cos with breeding records as of 1981	# Cos with breeding records from 1981- 1990	# Cos with breeding records from 1986- 1995	# Cos with breeding records from 1991- 2000	# Cos with breeding records from 1998- 2006	# Cos with breeding records from 1996- 2005	# Cos with breeding records from 2001- 2010	# Cos with breeding records from 2002- 2011
Botaurus lentiginosus	American Bittern	3	2	5	3	4	4	5	2	4	3	2	5	4
Tyto alba	Barn Owl	8	18	22	23	58	*	9	11	16	17	12	26	32
Thryomanes bewickii	Bewick's Wren	4	3	2	1	1 / 0?	2	9	3	2	1	0	0	1 / 0?
Laterallus jamaicensis	Black Rail	0	1	1	2	1	1	2	1	1	2	1	1	1
Chlidonias niger	Black Tern	17	24	25	12	10	3	4	4	4	5	6	3	5
Coccyzus erythrophthalmus	Black-billed Cuckoo					11						3	6	7
Nycticorax nycticorax	Black-crowned Night-Heron	14	31	33	39	29	5	11	14	14	11	10	12	12
Dendroica cerulea	Cerulean Warbler	*	*	*	9	22	*	*	*	*	10	6	13	16
Gallinula chloropus	Common Moorhen	35	53	56	29	32	2	15	18	16	13	16	15	14
Sterna hirundo	Common Tern	1	1	2	3	0	1	1	1	1	1	1	1	0 / 1?
Sterna forsteri	Forster's Tern	1	3	3	4	3	1	1	1	2	2	1	2	2
Tympanuchus cupido	Greater Prairie-Chicken	13	3	6	6	5	4	3	3	6	5	3	2	4
Rallus elegans	King Rail	*	10	12	7	5	*	*	8	7	7	10	6	5
Ixobrychus exilis	Least Bittern	15	32	56	35	33	11	12	17	22	21	24	21	20

Table 3, cont.		EO 1981- 1992	EO 1986- 1997	EO 1990- 2001	EO 1997- 2007	EO 2002- 2011	# Cos with breeding records as of 1981	# Cos with breeding records from 1981- 1990	# Cos with breeding records from 1986- 1995	# Cos with breeding records from 1991- 2000	# Cos with breeding records from 1998- 2006	# Cos with breeding records from 1996- 2005	# Cos with breeding records from 2001- 2010	# Cos with breeding records from 2002- 2011
SCIENTIFIC_NAME	S_PRIMARY_COMMON_NAME													
<i>Sternula antillarum</i>	Least Tern	3	4	6	11	7	3	2	3	3	5	5	6	7
<i>Egretta caerulea</i>	Little Blue Heron	3	5	6	6	2	1	3	3	3	4	4	3	2
<i>Lanius ludovicianus</i>	Loggerhead Shrike	70	126	91	35	39	38	59	54	41	31	22	27	23
<i>Ictinia mississippiensis</i>	Mississippi Kite	19	21	11	10	8	2	7	9	9	8	8	6	7
<i>Circus cyaneus</i>	Northern Harrier	14	15	19	10	9	2	12	11	13	10	9	9	8
<i>Pandion haliaetus</i>	Osprey	1	2	3	6	11/ 8?	0	1	2	3	7	4	7	8
<i>Falco peregrinus</i>	Peregrine Falcon	1	7	10	17	20	0	1	2	4	3	2	4	4
<i>Charadrius melodus</i>	Piping Plover	0	0	0	0	1	0	0	0	0	0	0	1	1
<i>Asio flammeus</i>	Short-eared Owl	10	7	11	5	7	2	7	6	8	4	2	5	5
<i>Egretta thula</i>	Snowy Egret	2	3	1	1	1	1	2	3	1	1	0	1	1
<i>Buteo swainsoni</i>	Swainson's Hawk	3	6	4	7	9	1	1	2	2	2	2	2	2
<i>Limnothlypis swainsonii</i>	Swainson's Warbler	1	2	2	1	2	4	1	2	2	1	1	2	2
<i>Bartramia longicauda</i>	Upland Sandpiper	36	35	24	17	16	29	25	23	20	17	13	12	14
<i>Phalaropus tricolor</i>	Wilson's Phalarope	1	0	0	2	6	1	1	0	0	2	3	5	5
<i>Nyctanassa violacea</i>	Yellow-crowned Night-Heron	*	4	8	10	12	*	*	3	7	8	7	9	9
<i>Xanthocephalus xanthocephalus</i>	Yellow-headed Blackbird	39	68	66	30	22	4	10	12	12	11	7	11	11

Currently listed species individual reviews – species data from Tables 1 and 2, 1982-2011 5-year element occurrence trend graph, 1992-2011 5-year element occurrence dot map, status review triggers (if any) and listing status change recommendation (if any), NatureServe conservation status lower 48, USGS BBS 1996-2009 and 1999-2009 trend data and graphs, **pages 8 – 99.**

American Bittern	<i>Botaurus lentiginosus</i>
Barn Owl	<i>Tyto alba</i>
Bewick's Wren	<i>Thryomanes bewickii</i>
Black Rail	<i>Laterallus jamaicensis</i>
Black Tern	<i>Chlidonias niger</i>
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>
Black-crowned Night-Heron	<i>Nycticorax nycticorax</i>
Cerulean Warbler	<i>Dendroica cerulea</i>
Common Moorhen	<i>Gallinula chloropus</i>
Common Tern	<i>Sterna hirundo</i>
Forster's Tern	<i>Sterna forsteri</i>
Greater Prairie-Chicken	<i>Tympanuchus cupido</i>
King Rail	<i>Rallus elegans</i>
Least Bittern	<i>Ixobrychus exilis</i>
Least Tern	<i>Sternula antillarum</i>
Little Blue Heron	<i>Egretta caerulea</i>
Loggerhead Shrike	<i>Lanius ludovicianus</i>
Mississippi Kite	<i>Ictinia mississippiensis</i>
Northern Harrier	<i>Circus cyaneus</i>
Osprey	<i>Pandion haliaetus</i>
Peregrine Falcon	<i>Falco peregrinus</i>
Piping Plover	<i>Charadrius melodus</i>
Short-eared Owl	<i>Asio flammeus</i>
Snowy Egret	<i>Egretta thula</i>
Swainson's Hawk	<i>Buteo swainsoni</i>
Swainson's Warbler	<i>Limnothlypis swainsonii</i>
Upland Sandpiper	<i>Bartramia longicauda</i>
Wilson's Phalarope	<i>Phalaropus tricolor</i>
Yellow-crowned Night-Heron	<i>Nyctanassa violacea</i>
Yellow-headed Blackbird	<i>Xanthocephalus xanthocephalus</i>

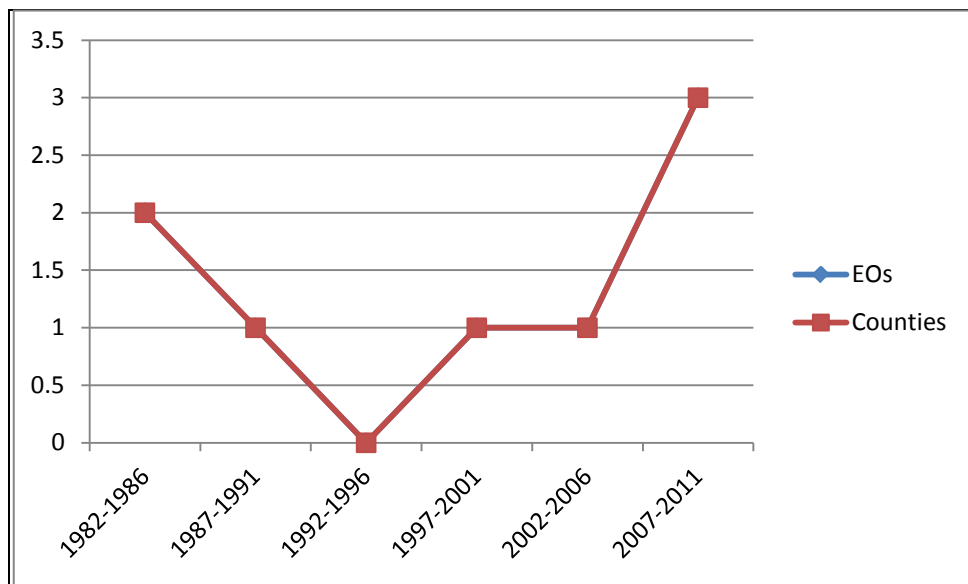
American bittern, *Botaurus lentiginosus* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
5/23/2011	14	7	4	15

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	2	1	0	1	1	3
Counties	2	1	0	1	1	3



Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

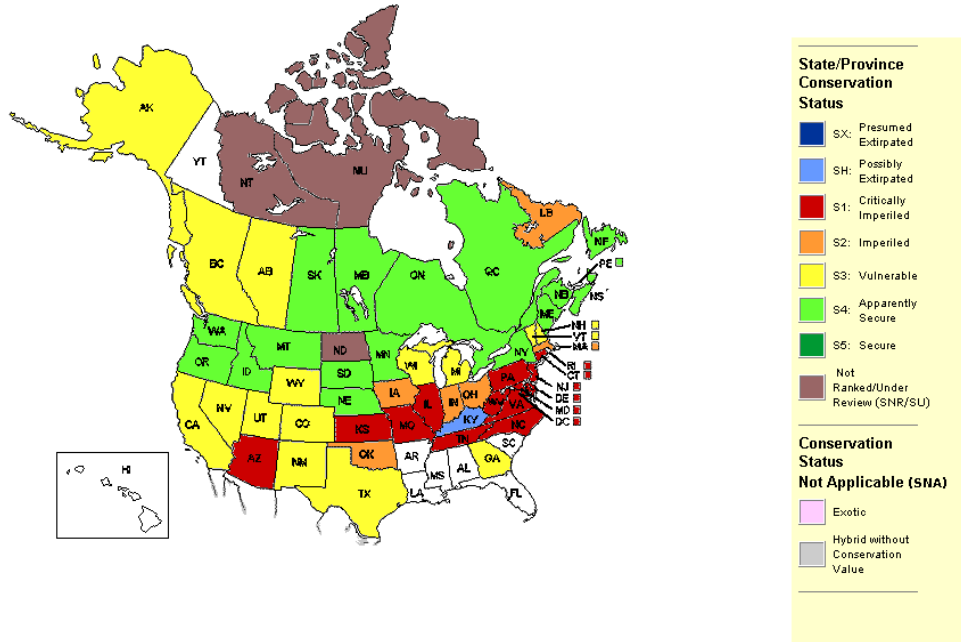


2007-2011



All

Botaurus lentiginosus



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

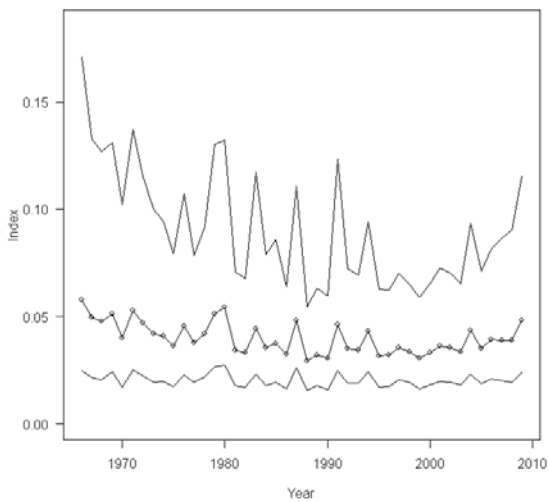
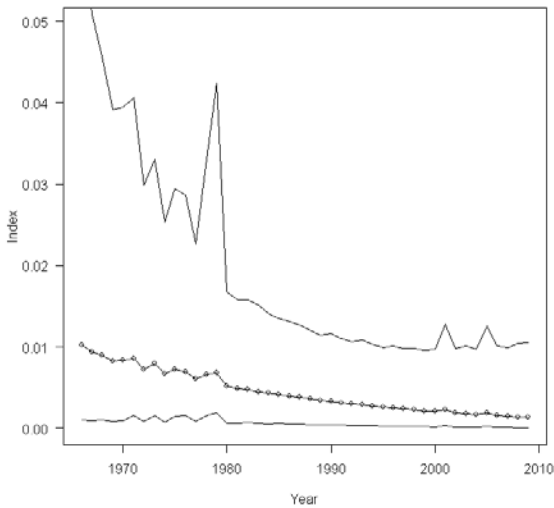
American Bittern *Botaurus lentiginosus*

North American Breeding Bird Survey Trend Results

Region	-----1966-2009 trends-----			-----1999-2009-----		
	N	Trend (95% CI)		Trend (95% CI)	R.A.	
Eastern BBS Region	109	-0.4 (-3.2, 2.3)		4.6 (-2.0, 13.6)	0.0	
Illinois	7	-4.5 (-12.4, 3.2)		-4.4 (-20.0, 12.9)	0.0	

Illinois - credibility red

Eastern Region – credibility red



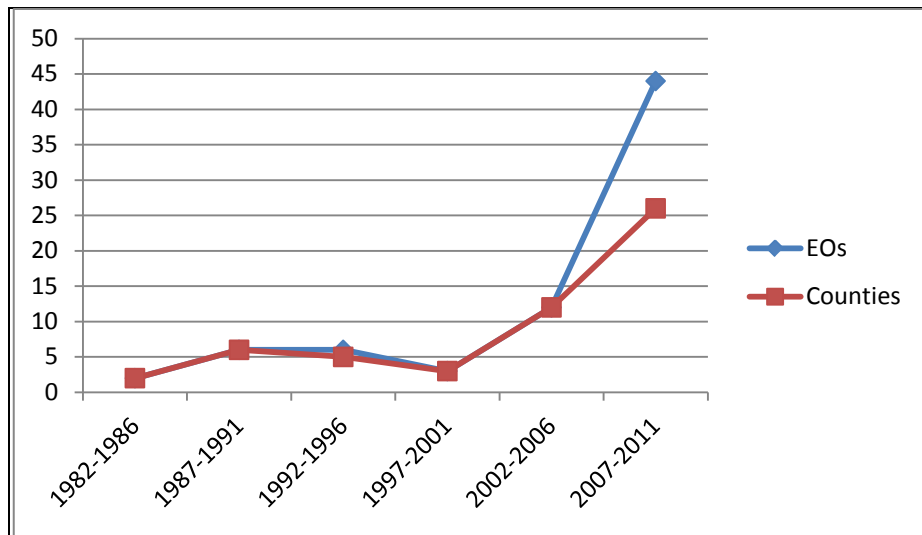
Barn owl, *Tyto alba* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
9/27/2011	73	58	2	57

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	2	6	6	3	12	44
Counties	2	6	5	3	12	26



Status review triggers approved by the Illinois Endangered Species Protection Board upon approval of the Illinois Barn Owl Recovery Plan (2010).

The proposed status review criteria represent measures of distribution and abundance to prompt the Endangered Species Protection Board to review the status of the species and consider a change in status. Status review criteria do not prompt an ‘automatic’ change in status, and the Endangered Species Protection Board may review the status or status review criteria of the species at any time.

We recommend the Illinois Endangered Species Protection Board evaluate the status of the barn owl and consider a change in status from *Endangered* to *Threatened* when 40 active nest sites distributed among at least 15 counties are reported within a 5-year period.

A change in status from *Threatened* to recovered should be considered when 80 active nest sites distributed among at least 30 counties are reported in a 5-year period, and other threats to the population are low.

ESPB staff review, recommendation: Data warrant review for consideration of a change in listing status. Recommend a change in listing status from endangered to threatened.

The status review trigger for considering a change from endangered to threatened is when 40 active nest sites distributed among at least 15 counties are reported within a 5-year period. *This threshold has been exceeded - for the five-year period ending in 2011, there were 44 nest sites in 26 counties.*

Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

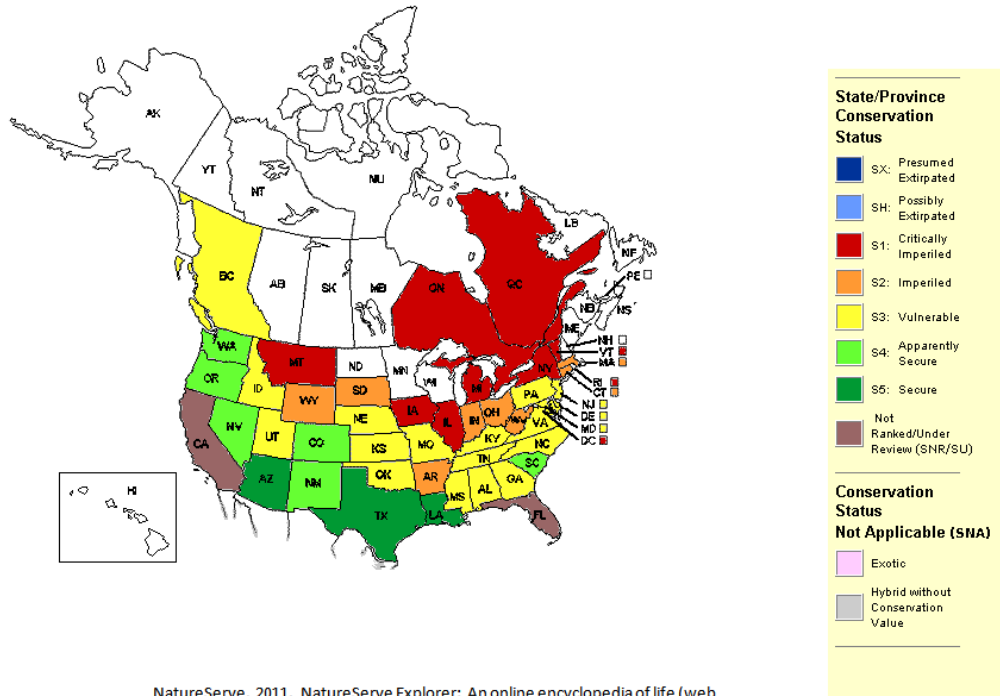


2007-2011



All

Tyto alba



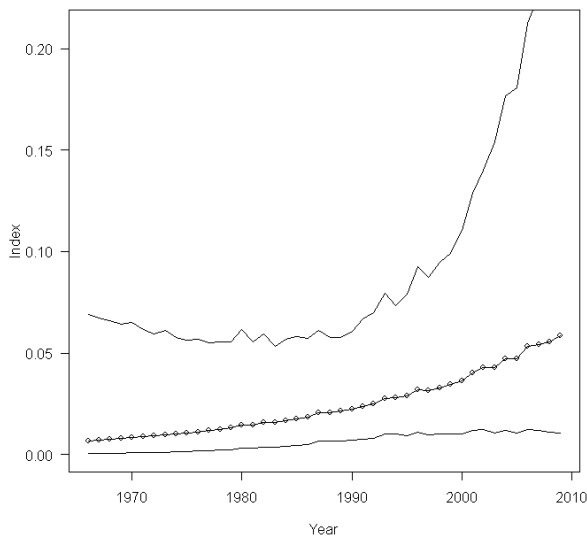
NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

Barn Owl *Tyto alba*

North American Breeding Bird Survey Trend Results

Region	-----1966-2009 trends-----			-----1999-2009-----		
	N	Trend (95% CI)		Trend (95% CI)	R.A.	
Eastern BBS Region	23	4.9 (-3.2, 14.1)		5.3 (-5.5, 18.9)	0.0	

Eastern Region – credibility red



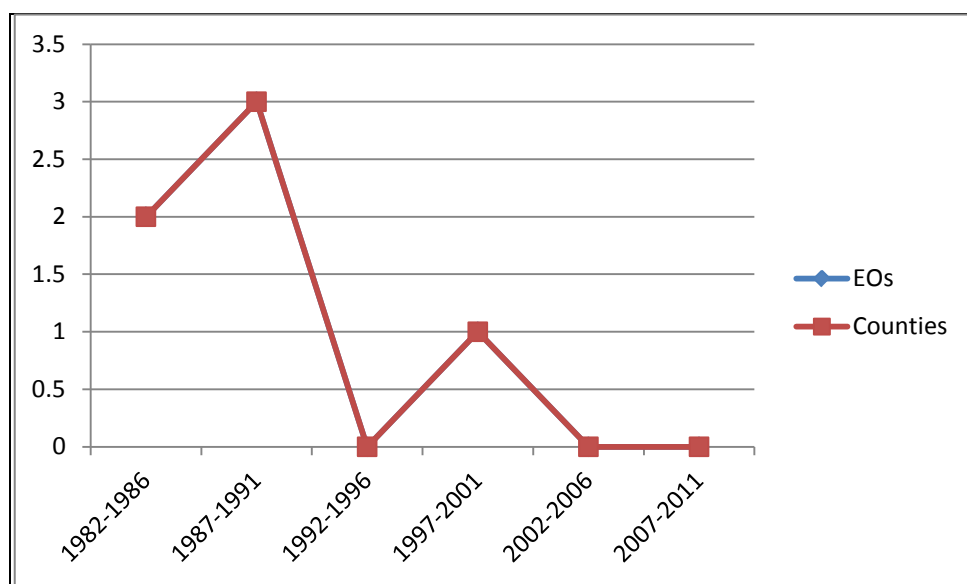
Bewick's wren, *Thryomanes bewickii* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
2011	8	1	2	10

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	2	3	0	1	0	0
Counties	2	3	0	1	0	0



Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

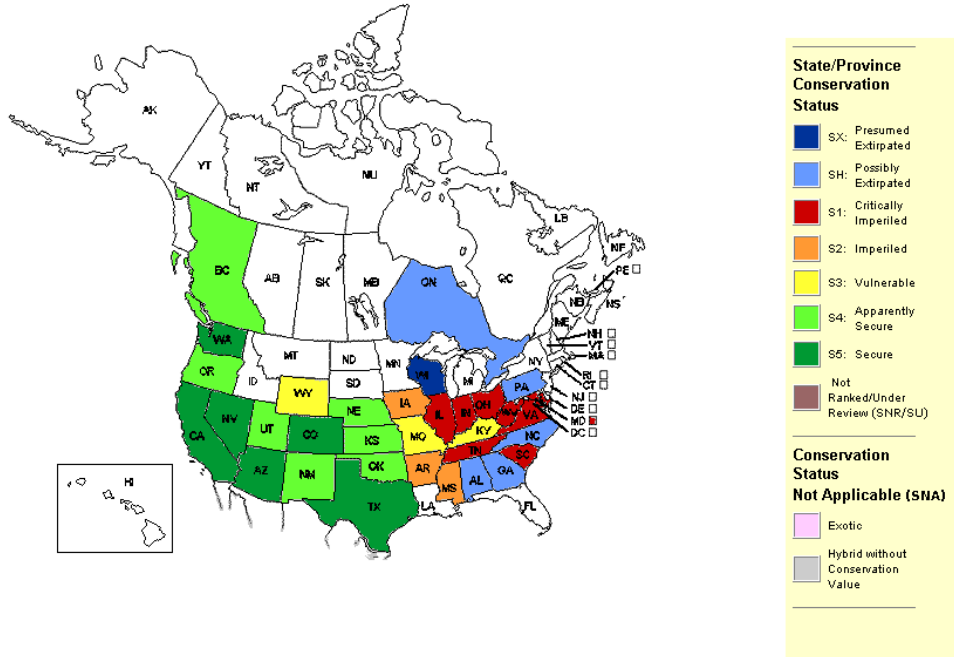


2007-2011



All

Thryomanes bewickii



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

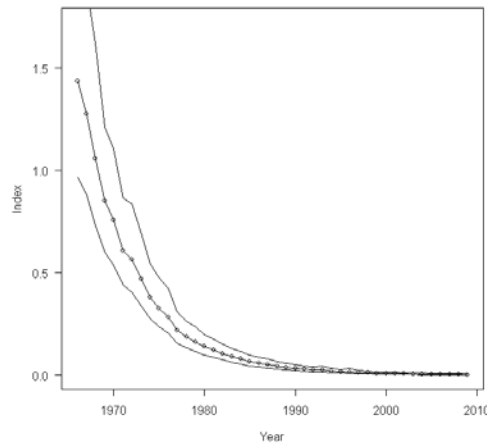
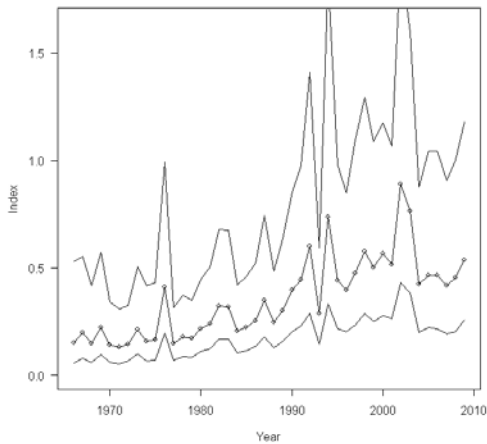
Bewick's Wren *Thryomanes bewickii*

North American Breeding Bird Survey Trend Results

Region	N	Trend (95% CI)	Trend (95% CI)	R.A.
<u>Eastern BBS Region</u>	113	-13.1 (-14.7,-11.3)	-11.6 (-15.2,-5.5)	0.1
<u>Eastern Tallgrass Prairie</u>	35	2.9 (-0.4, 6.0)	0.9 (-7.0, 8.4)	0.3

Eastern Tallgrass – credibility yellow

Eastern Region – credibility yellow



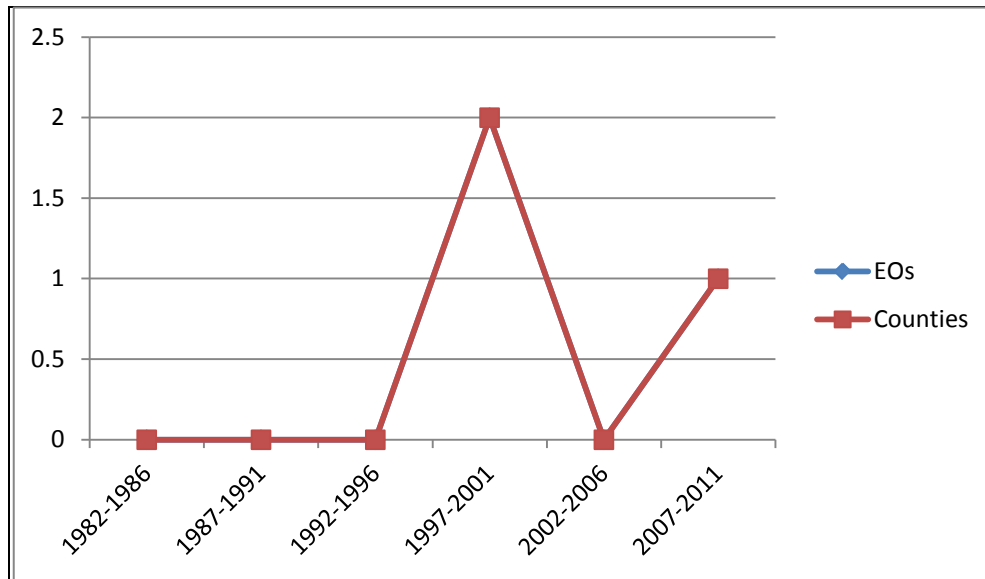
Black rail, *Laterallus jamaicensis* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
7/19/2009	3	1	0	4

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	0	0	0	2	0	1
Counties	0	0	0	2	0	1



Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006



2007-2011



All

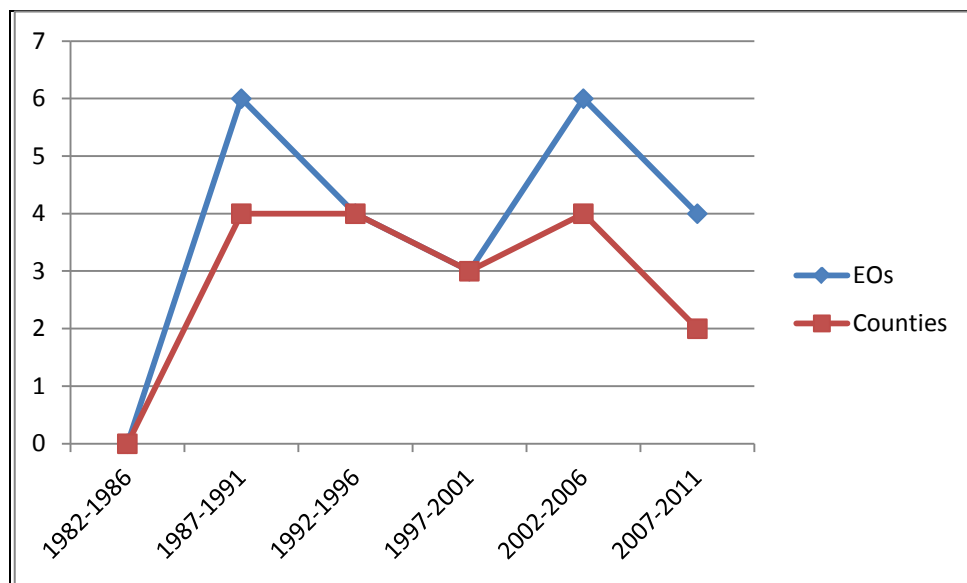
Black tern, *Chlidonias niger* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
7/25/2008	25	11	6	22

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	0	6	4	3	6	4
Counties	0	4	4	3	4	2



Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

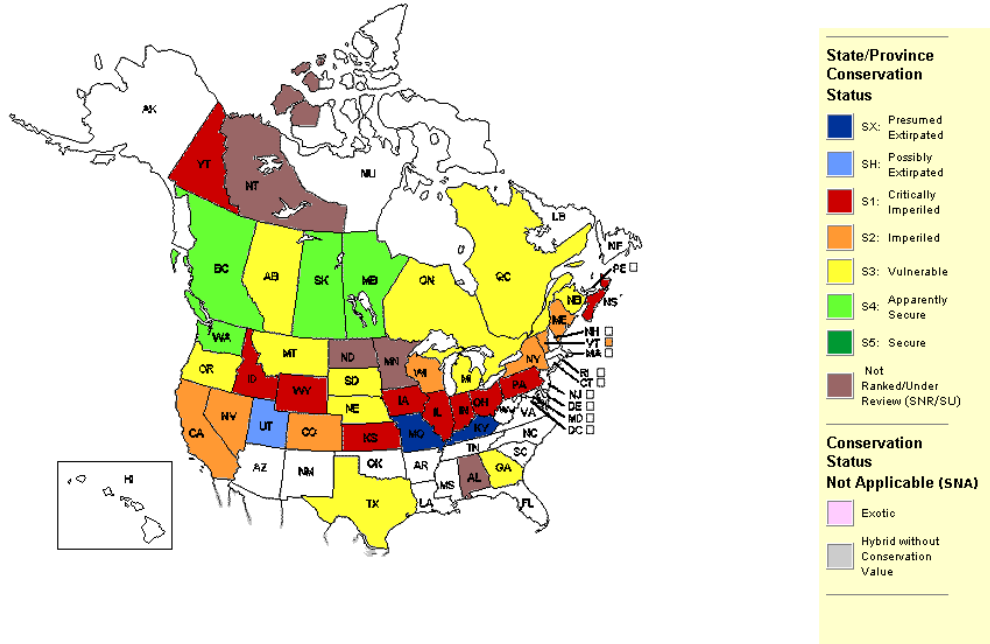


2007-2011



All

Chlidonias niger



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

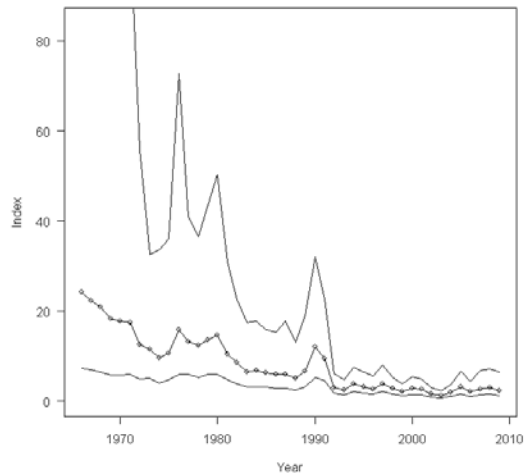
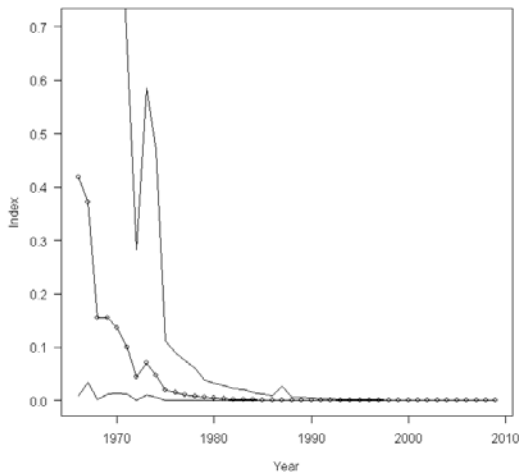
Black Tern *Chlidonias niger*

North American Breeding Bird Survey Trend Results

Region	-----1966-2009 trends-----			-----1999-2009-----		
	N	Trend (95% CI)		Trend (95% CI)	R.A.	
Eastern BBS Region	202	-5.1 (-9.4, -1.8)		0.8 (-5.9, 11.5)	6.1	
Illinois	5	-26.3 (-41.5, -12.3)		-27.1 (-49.9, 5.9)	0.0	

Illinois – credibility red

Eastern Region – credibility yellow

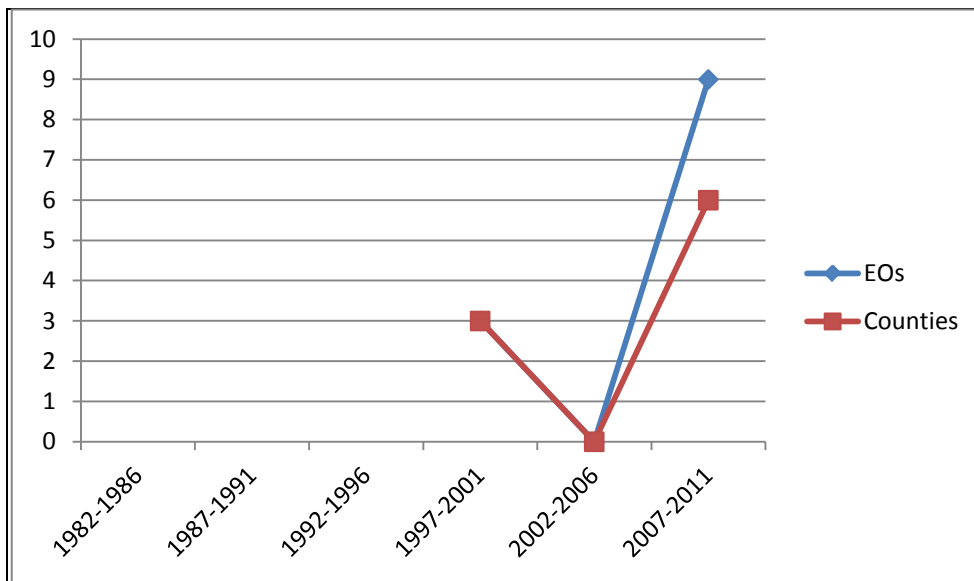


Black-billed cuckoo, *Coccyzus erythrophthalmus* (Illinois threatened)
 (EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
2011	14	12	4	14

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs				3	0	9
Counties				3	0	6



Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

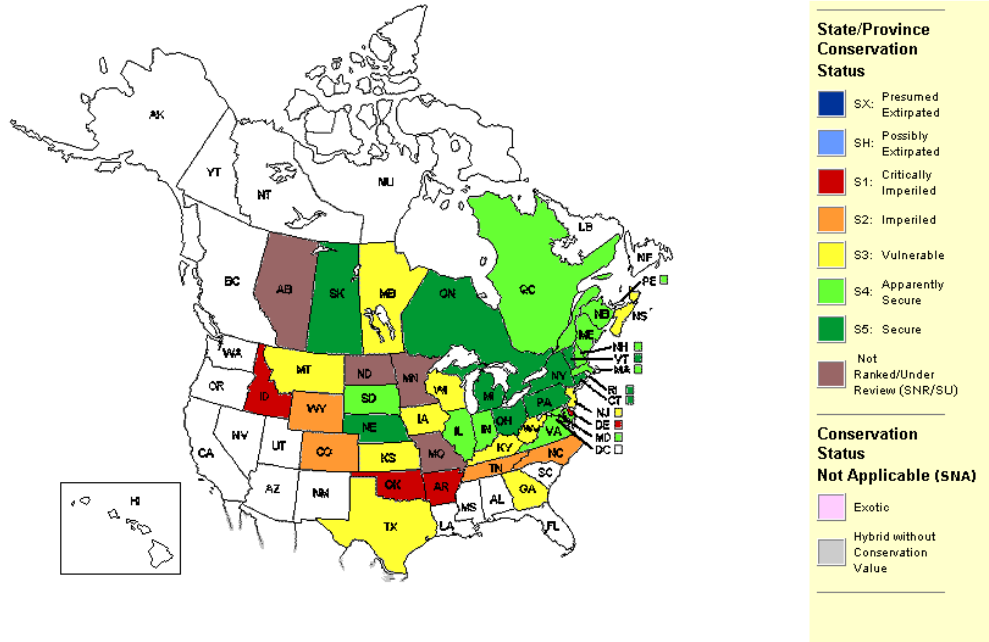


2007-2011



All

Coccyzus erythrophthalmus



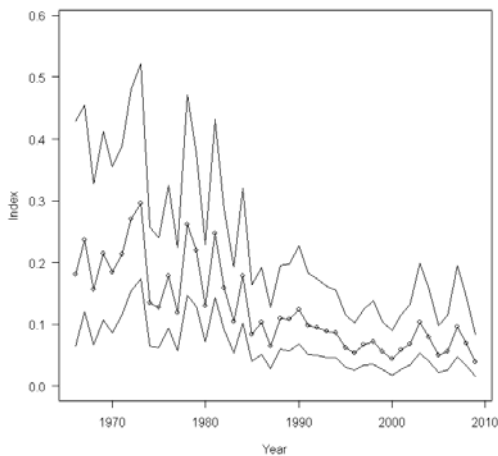
NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

Black-billed Cuckoo *Coccyzus erythrophthalmus*

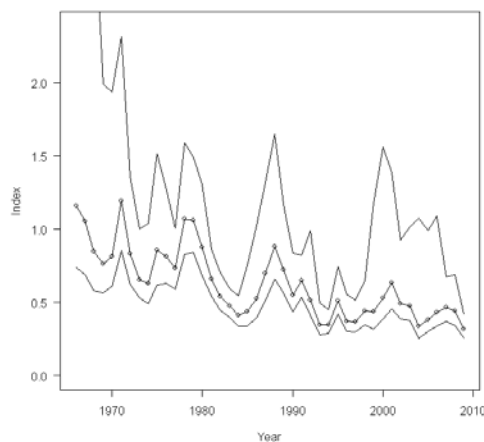
North American Breeding Bird Survey Trend Results

Region	-----1966-2009 trends-----			-----1999-2009-----		
	N	Trend (95% CI)		Trend (95% CI)	R.A.	
<u>Eastern BBS Region</u>	1264	-2.9 (-6.1, -1.7)		-3.1 (-12.5, 0.5)	0.7	
<u>Illinois</u>	57	-3.4 (-6.1, -0.6)		-3.4 (-12.2, 6.0)	0.1	

Illinois – credibility red



Eastern – credibility yellow

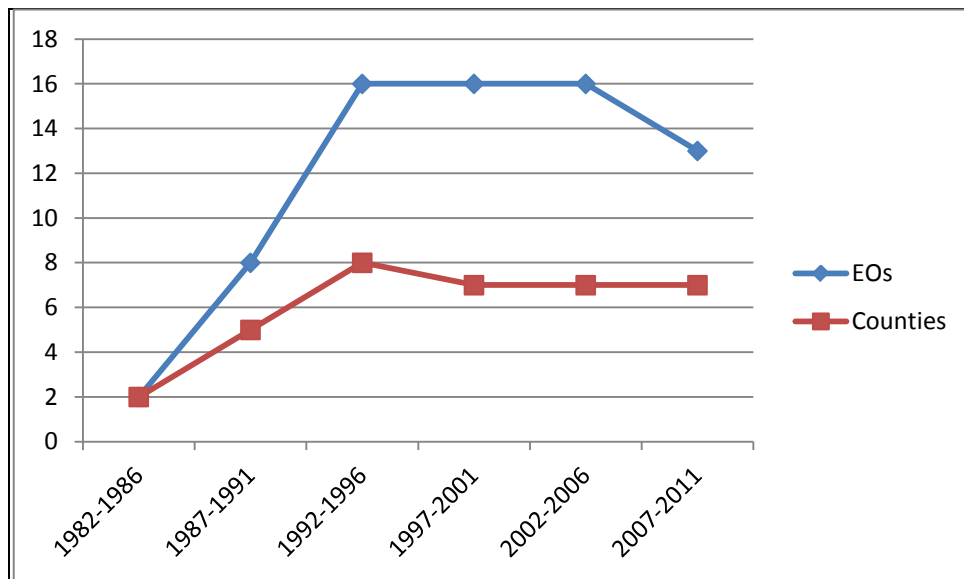


Black-crowned night heron, *Nycticorax nycticorax* (Illinois endangered)
 (EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
6/16/2011	71	34	10	44

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	2	8	16	16	16	13
Counties	2	5	8	7	7	7



Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006



2007-2011



All

Black-crn. Night Heron *Nycticorax nycticorax*

North American Breeding Bird Survey Trend Results



Region

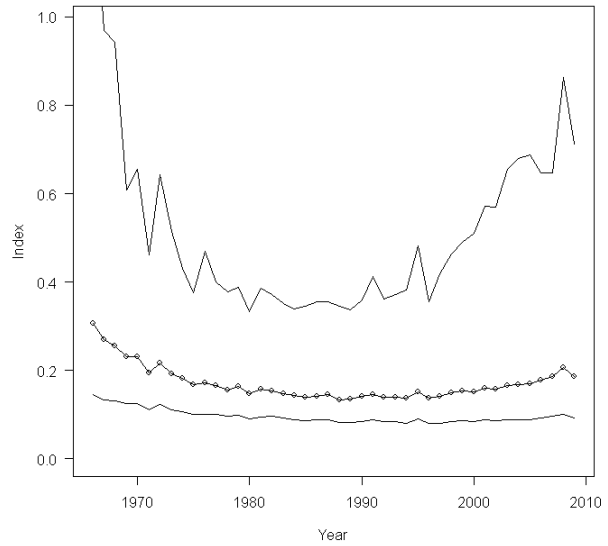
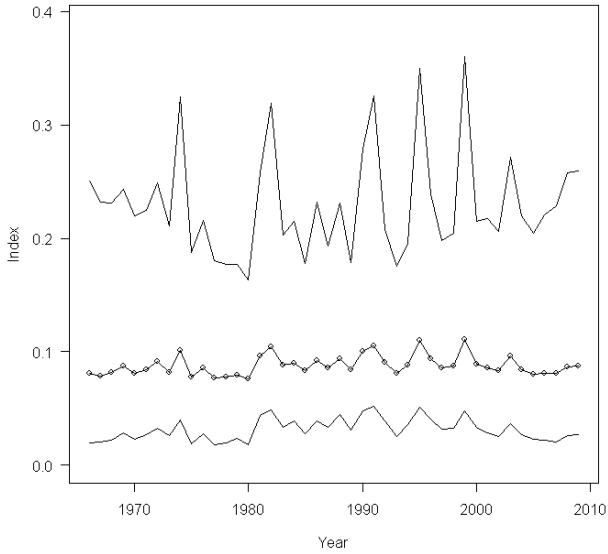
Eastern BBS Region

Illinois

	-----1966-2009 trends-----			-----1999-2009-----		
	N	Trend	(95% CI)	Trend	(95% CI)	R.A.
Eastern BBS Region	318	-1.1	(-4.7, 2.5)	2.1	(-6.6, 10.1)	0.1
Illinois	18	0.2	(-3.9, 4.7)	-1.7	(-16.1, 5.6)	0.1

Illinois – credibility red

Eastern Region – credibility yellow



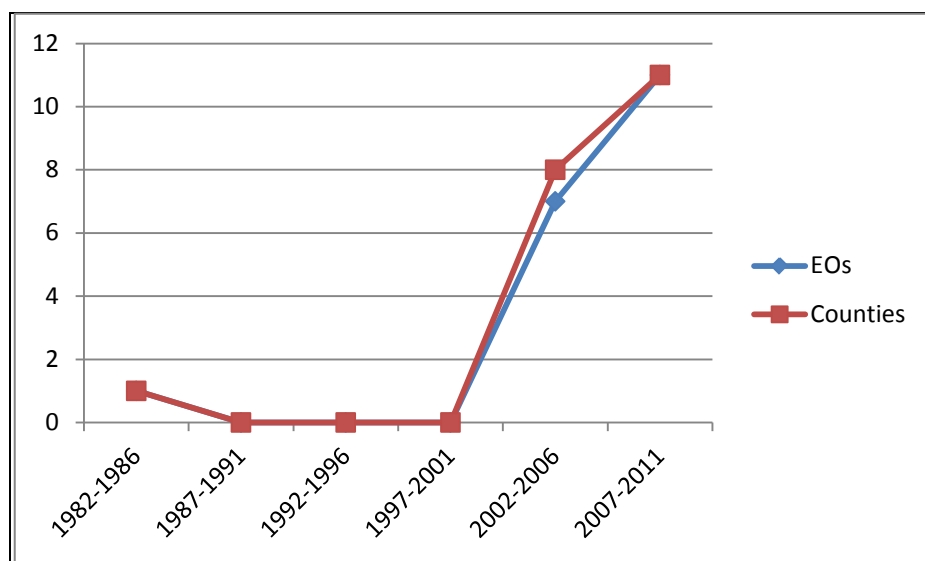
Cerulean warbler, *Dendroica cerulea* (Illinois threatened)

EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
6/30/2011	21	20	4	23

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	1	0	0	0	7	11
Counties	1	0	0	0	8	11



Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

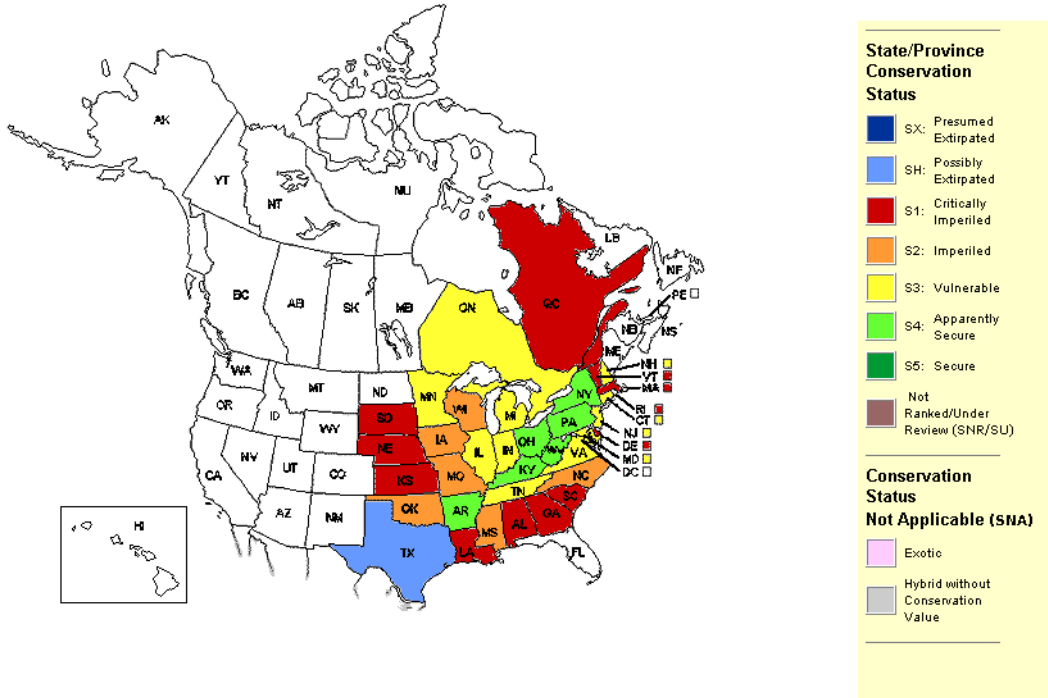


2007-2011



All

Dendroica cerulea



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

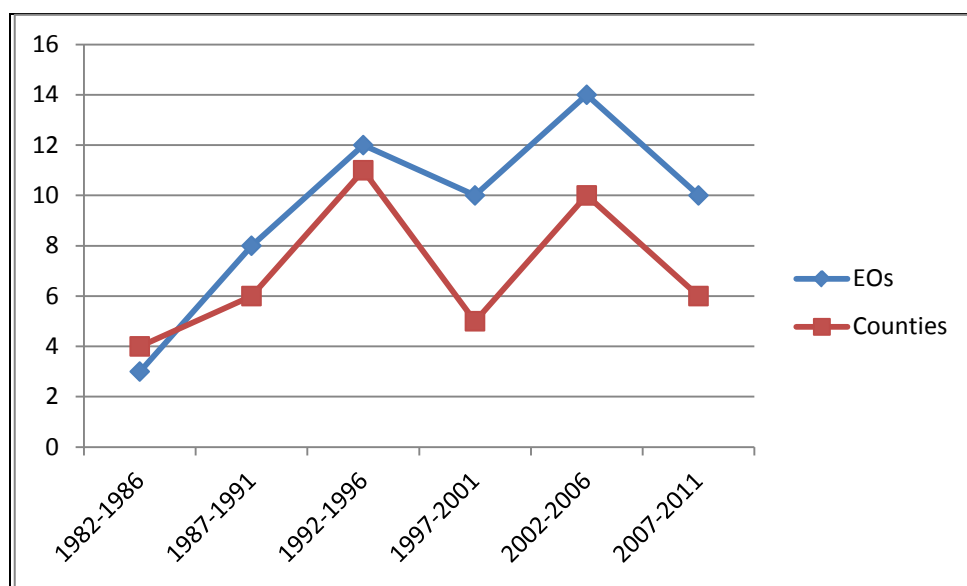
Common moorhen, *Gallinula chloropus* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
7/21/2011	57	27	10	51

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	3	8	12	10	14	10
Counties	4	6	11	5	10	6



Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

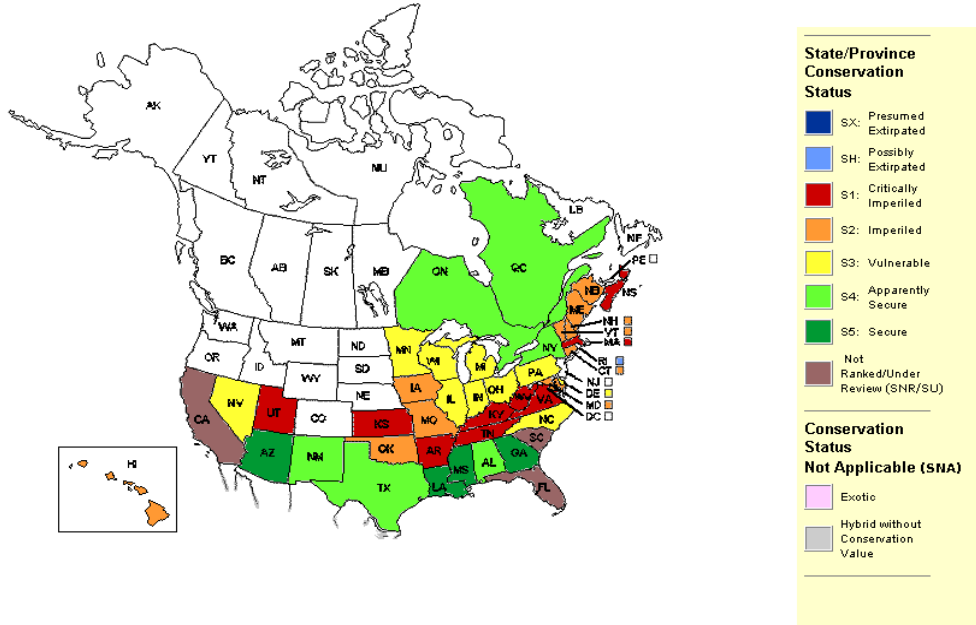


2007-2011



All

Gallinula chloropus



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

Common Moorhen *Gallinula chloropus*

North American Breeding Bird Survey Trend Results

Region

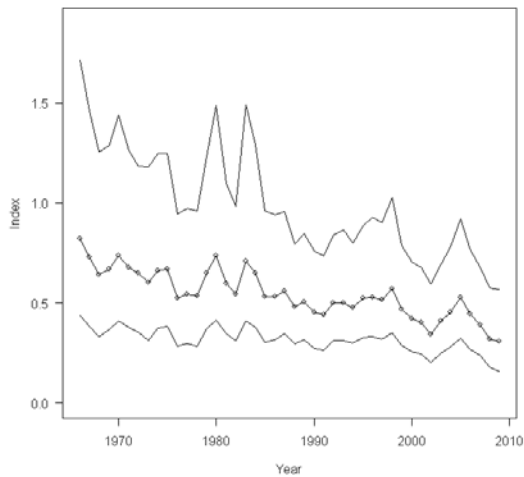
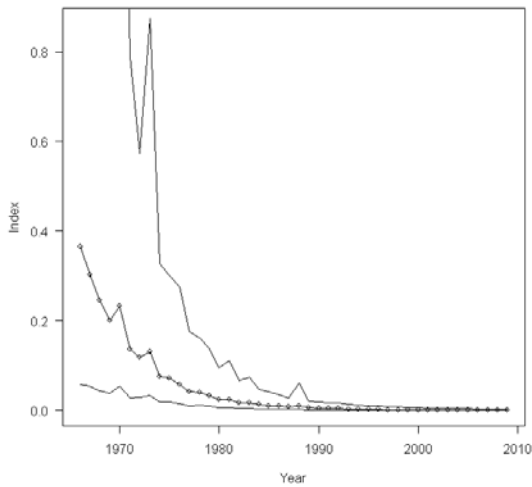
Prairie Hardwood Transition

Eastern BBS Region

	-----1966-2009 trends-----			-----1999-2009-----		
N	Trend	(95% CI)	Trend	(95% CI)	R.A.	
13	-15.4	(-22.0, -9.1)	-14.1	(-26.2, -2.2)	0.0	
166	-2.2	(-4.3, -0.4)	-4.0	(-10.7, 0.9)	0.6	

Prairie Hardwood – credibility red

Eastern Region – credibility yellow



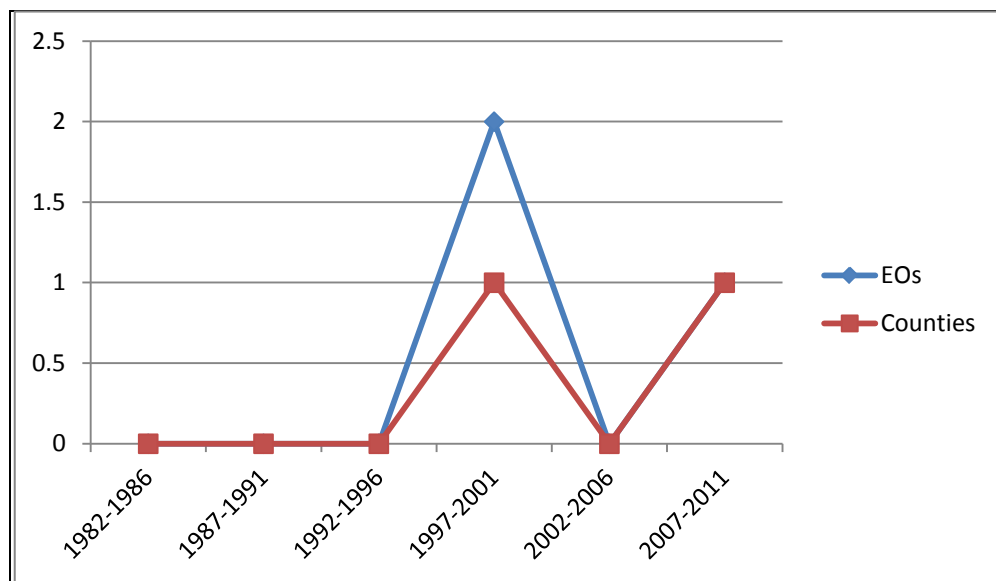
Common tern, *Sterna hirundo* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
7/2/1905	3	2	0	3

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	0	0	0	2	0	1
Counties	0	0	0	1	0	1



Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

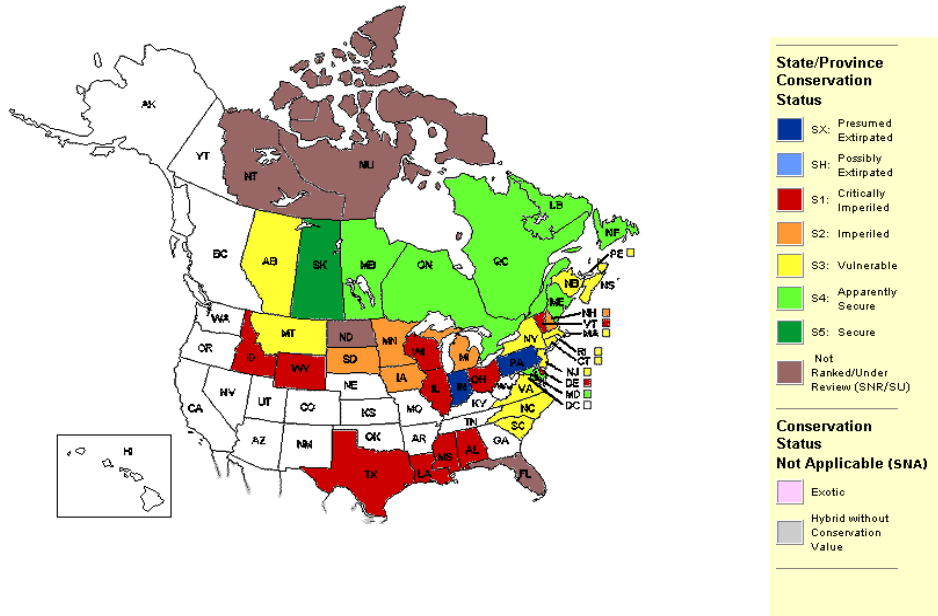


2007-2011



All

Sterna hirundo



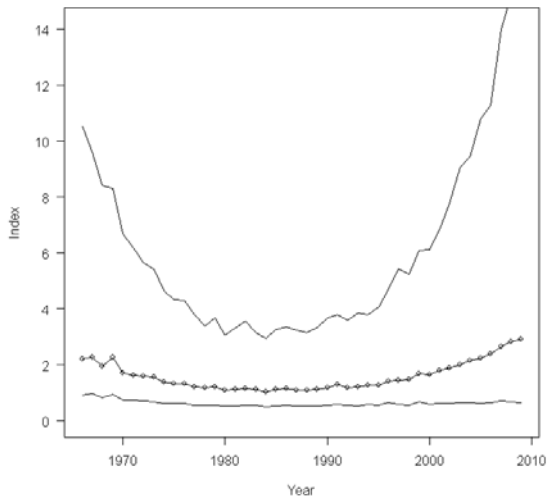
NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

Common Tern *Sterna hirundo*

North American Breeding Bird Survey Trend Results

Region	N	Trend (95% CI)	Trend (95% CI)	R.A.
Eastern BBS Region	172	0.6 (-4.2, 4.8)	5.5 (-5.3, 16.6)	1.1

Eastern Region – credibility yellow



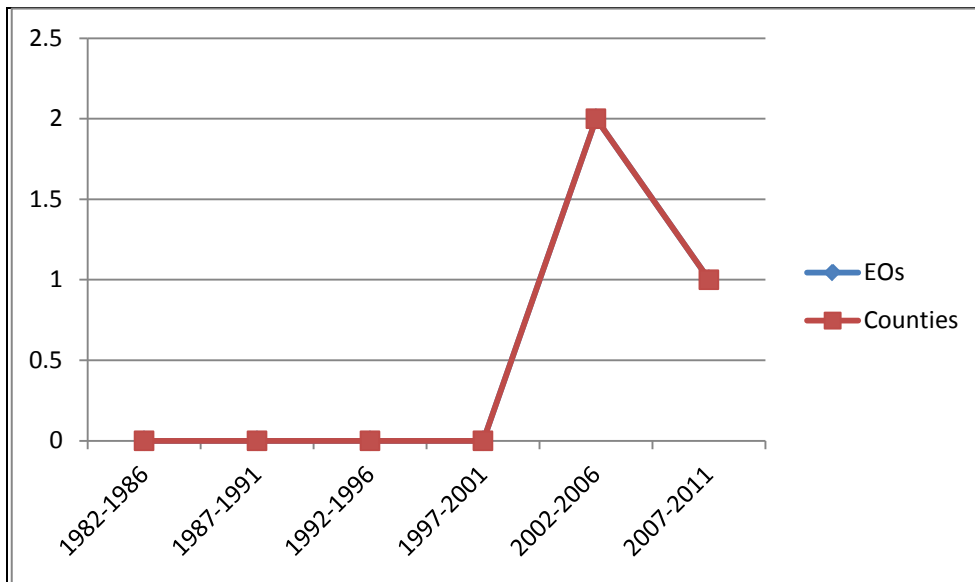
Forster's tern, *Sterna forsteri* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
7/31/2008	3	3	2	3

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	0	0	0	0	2	1
Counties	0	0	0	0	2	1



Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

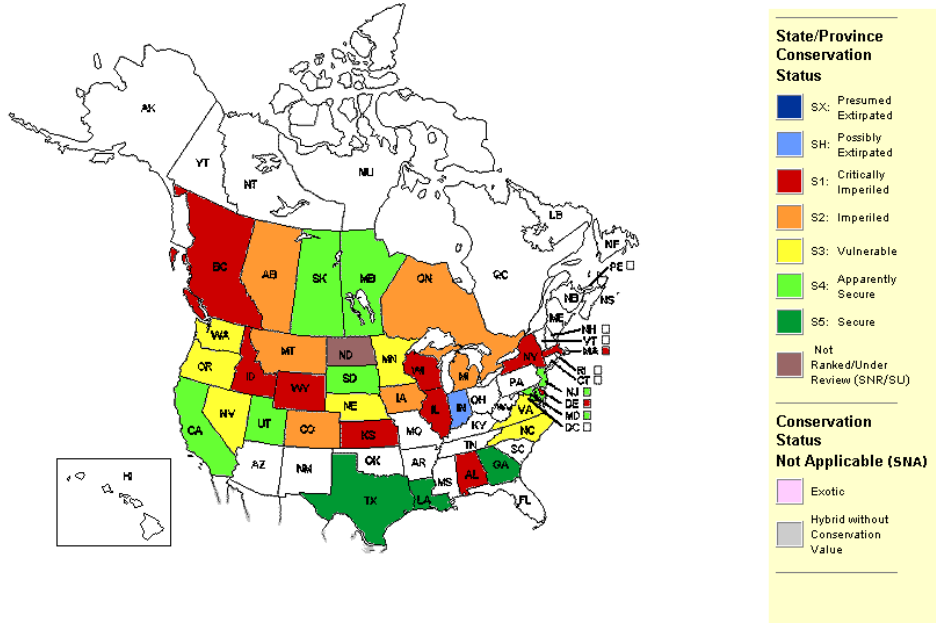


2007-2011



All

Sterna forsteri



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

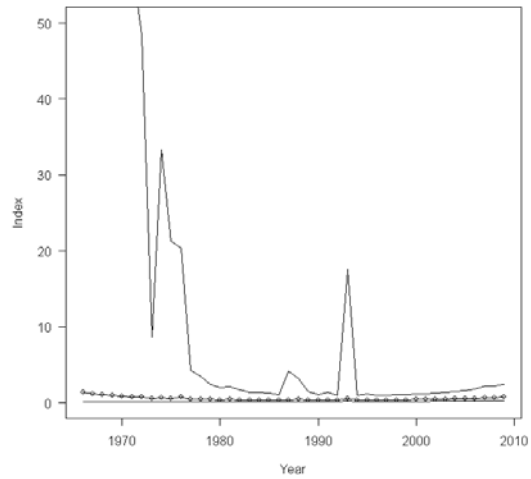
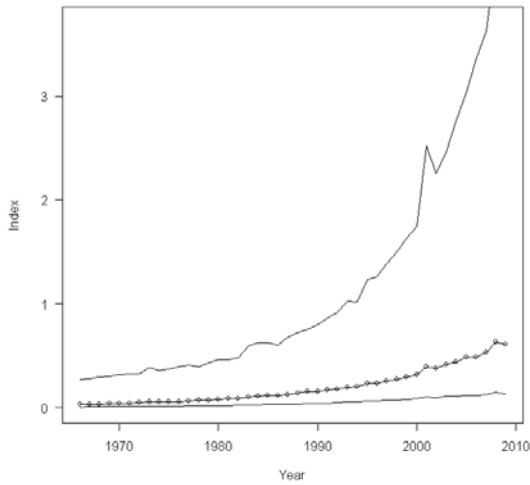
Forster's Tern *Sterna forsteri*

North American Breeding Bird Survey Trend Results

Region	N	Trend (95% CI)	Trend (95% CI)	R.A.
<u>Eastern BBS Region</u>	90	-1.5 (-12.5, 4.0)	6.1 (-0.8, 15.2)	0.4
<u>Prairie Hardwood Transition</u>	12	6.8 (1.4, 12.8)	7.7 (-1.9, 18.7)	0.1

Prairie Hardwood Transition – credibility red

Eastern Region - credibility red



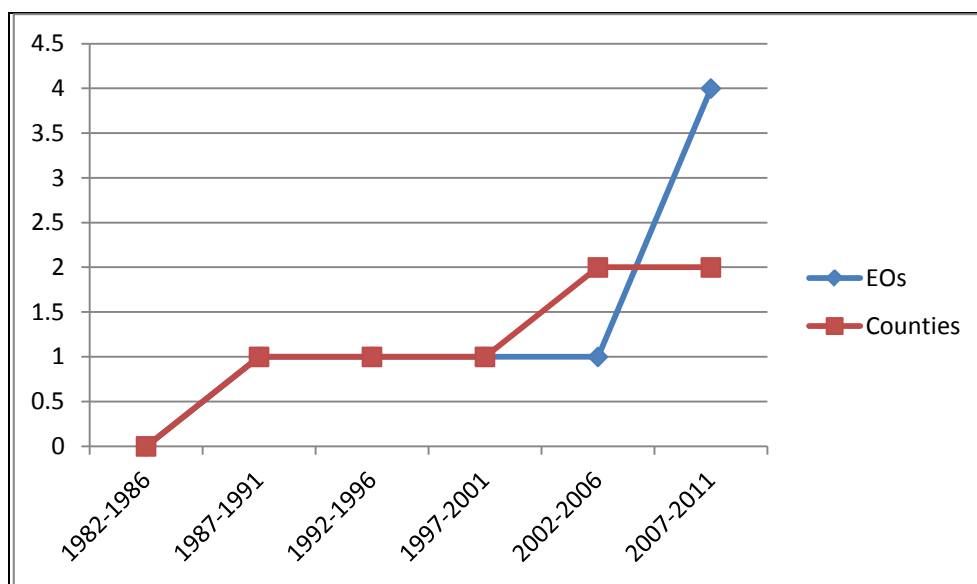
Greater Prairie-Chicken, *Tympanuchus cupido* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
7/3/1905	8	5	4	8

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	0	1	1	1	1	4
Counties	0	1	1	1	2	2



Status review triggers approved by the Illinois Endangered Species Protection Board upon final approval of A Plan for the Recovery of the Greater-Prairie Chicken in Illinois (2004).

The proposed status review criteria represent measures of distribution and abundance to prompt the Endangered Species Protection Board to review the status of the species and consider a change in status. Status review criteria do not prompt an ‘automatic’ change in status, and the Endangered Species Protection Board may review the status or status review criteria of the species at any time.

OBJECTIVE 2. Downlist the Greater Prairie-Chicken to *Threatened in Illinois*, when the population is no longer in danger of extinction in Illinois.

Criteria. The Greater Prairie-Chicken is not in danger of extinction in Illinois when:

1. The statewide estimated population averages >3,000 birds (1,500 displaying males) for 5 years. The population estimate must be >3,000 birds in three of the five years, and <2,400 birds in none of the five years. And:
2. The statewide population is represented by at least 3 geographically separate, significant populations linked by dispersal among satellite populations and through a suitable dispersal matrix (see Figure 5). And:
3. The habitat supporting at least 3 geographically separate, significant populations is determined to be adequate and secure to maintain existing populations.

OBJECTIVE 3. Recovery of the Greater Prairie-Chicken in Illinois is complete when the species is delisted and not likely to become endangered in Illinois in the foreseeable future.

Criteria. The Greater Prairie-Chicken is not likely to become endangered in the foreseeable future in Illinois when:

1. The statewide estimated population averages >5,000 birds (2,500 displaying males) for 10 years. The population estimate must be >5,000 birds in seven of the ten years, and <4,000 birds in none of the ten years. And:
2. The statewide population is represented by at least 5 geographically separate, significant populations linked by dispersal among satellite populations and through a suitable dispersal matrix. And:
3. The habitat supporting at least 5 geographically separate, significant populations is determined to be adequate and secure to maintain existing populations.

ESPB staff review, recommendation: Data do not warrant review for consideration of a change in listing status; threshold not met for E to T consideration.

Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

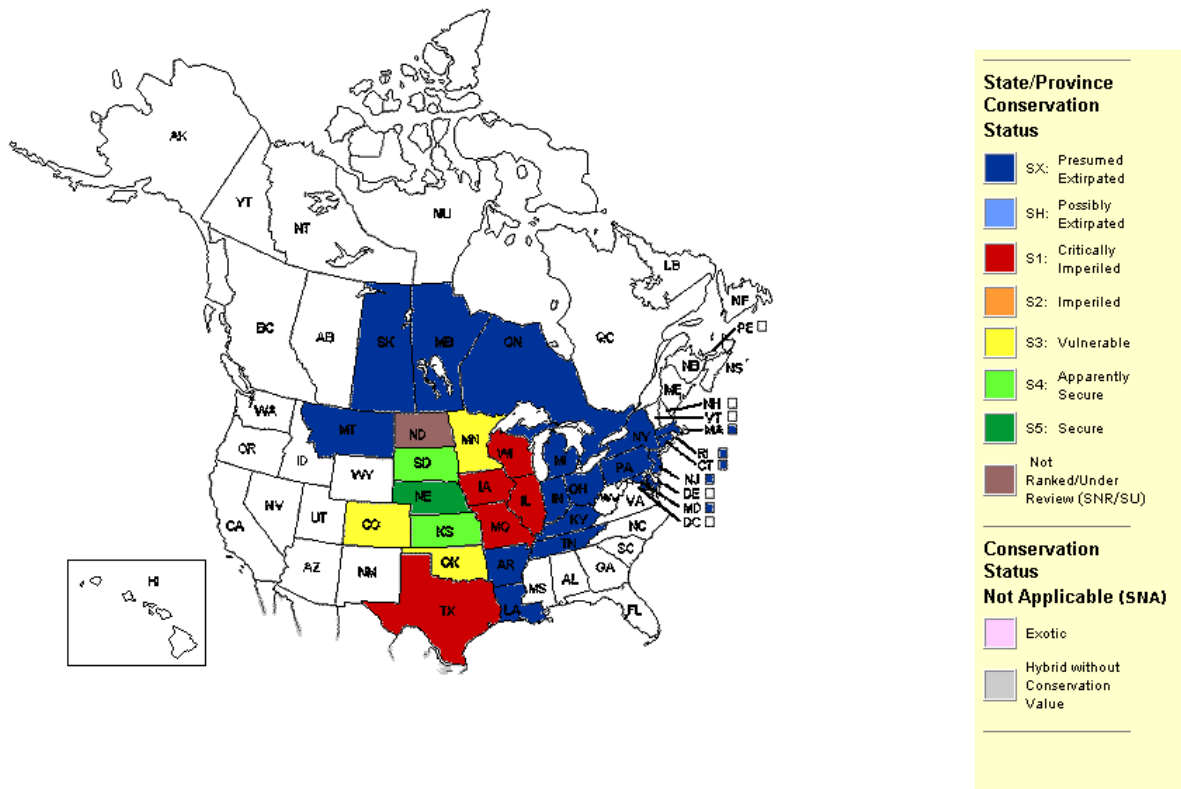


2007-2011



All

Tympanuchus cupido



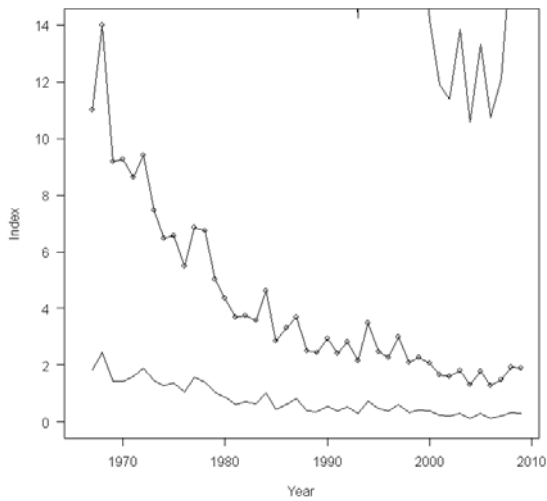
NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

Greater Prairie-Chicken *Tympanuchus cupido*

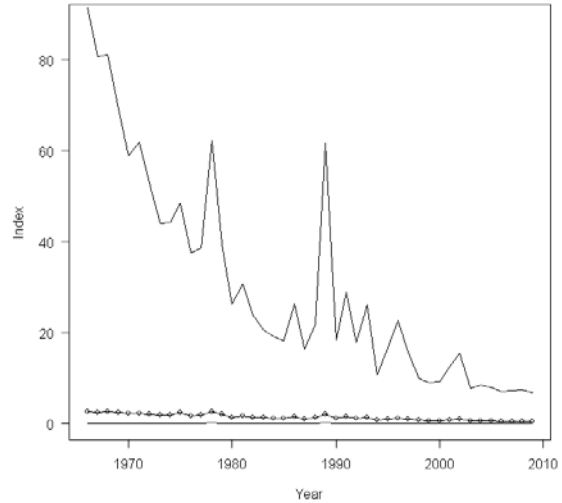
North American Breeding Bird Survey Trend Results

Region	-----1966-2009 trends-----			-----1999-2009-----	
	N	Trend (95% CI)		Trend (95% CI)	R.A.
<u>Eastern Tallgrass Prairie</u>	21	-4.0 (-9.5, 1.7)		-2.3 (-14.0, 15.7)	3.7
<u>Eastern BBS Region</u>	7	-4.3 (-12.3, 4.3)		-5.1 (-27.9, 14.1)	1.1

Eastern Tallgrass – credibility red



Eastern Region – credibility red



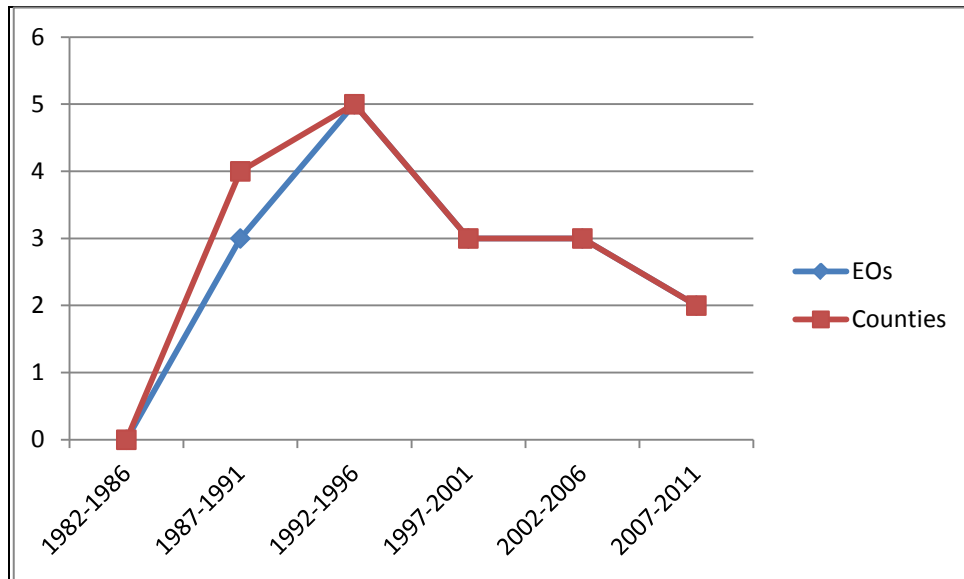
King rail, *Rallus elegans* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
6/28/2008	17	7	5	26

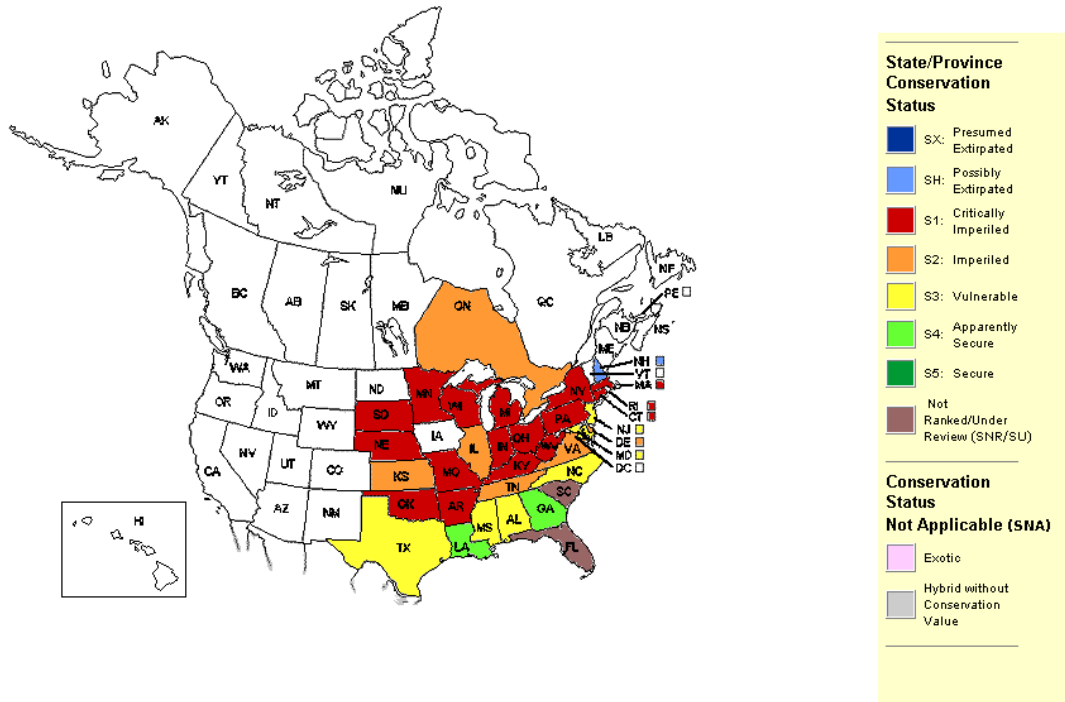
	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	0	3	5	3	3	2
Counties	0	4	5	3	3	2



Element occurrences locations for respective time periods and all.



Rallus elegans



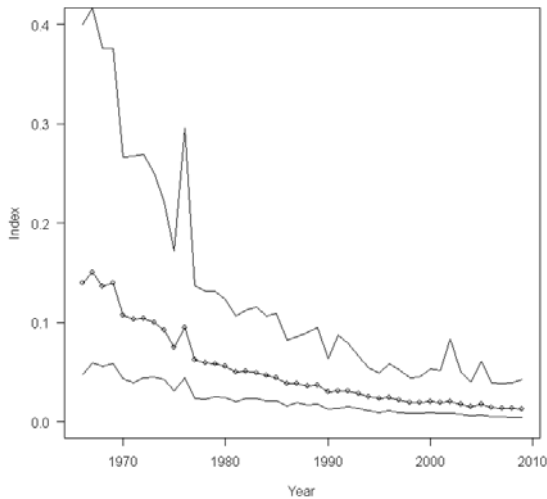
NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

King Rail *Rallus elegans*

North American Breeding Bird Survey Trend Results

Region	-----1966-2009 trends-----		-----1999-2009-----	
	N	Trend (95% CI)	Trend (95% CI)	R.A.
Eastern BBS Region	49	-5.3 (-8.6, -1.6)	-4.1 (-12.1, 6.4)	0.0

Eastern Region – credibility red



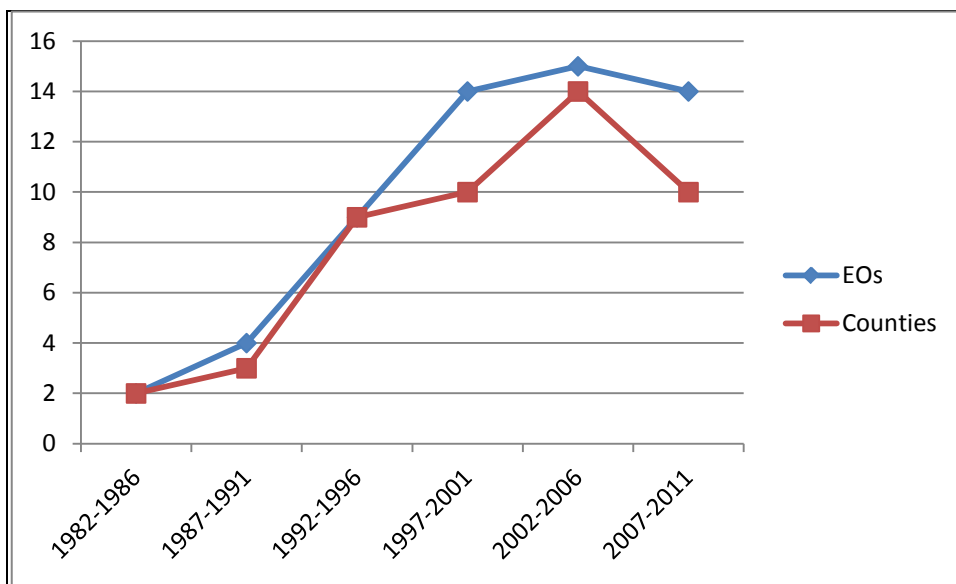
Least bittern, *Ixobrychus exilis* (Illinois threatened)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
5/7/2011	58	33	18	71

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	2	4	9	14	15	14
Counties	2	3	9	10	14	10



Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

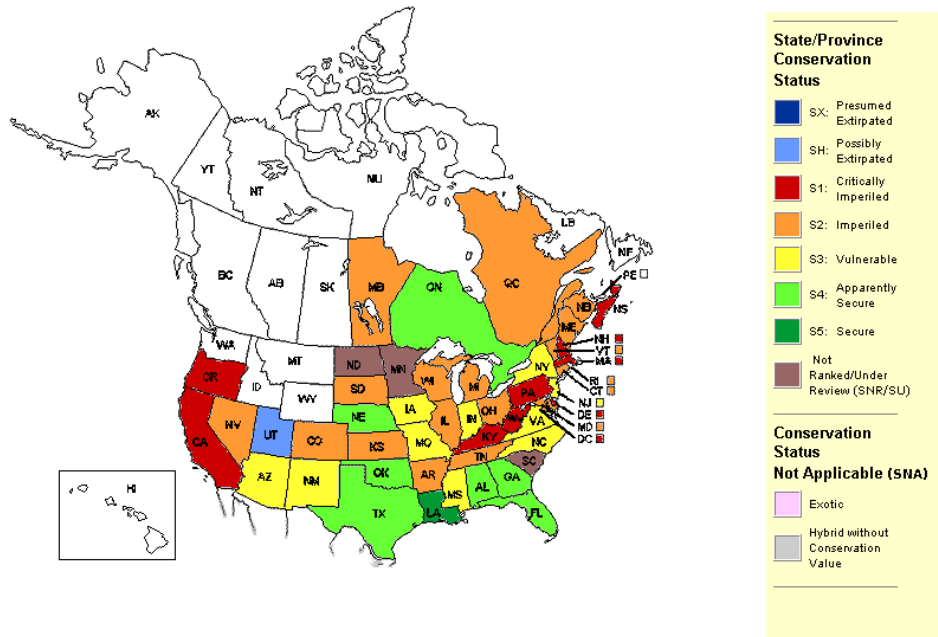


2007-2011



All

Ixobrychus exilis



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

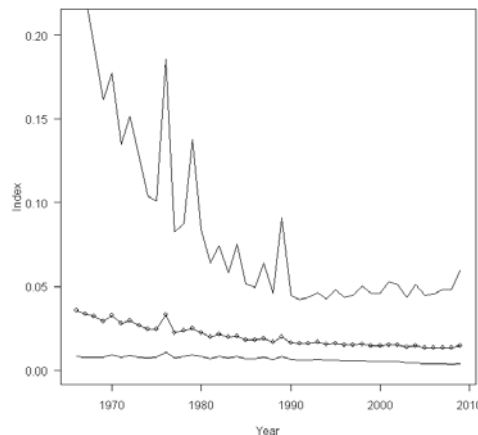
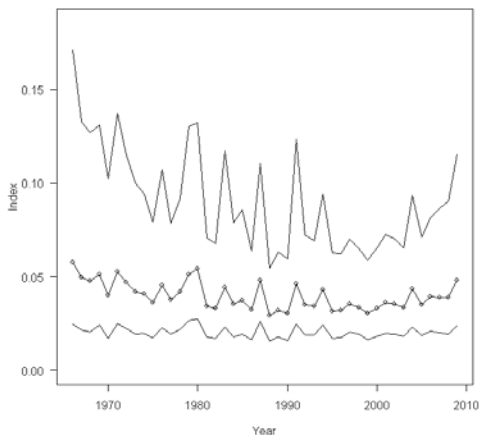
Least Bittern *Ixobrychus exilis*

North American Breeding Bird Survey Trend Results

Region	N	Trend (95% CI)	Trend (95% CI)	R.A.
<u>Prairie Hardwood Transition</u>	18	-2.1 (-7.4, 3.1)	-0.1 (-10.7, 12.6)	0.0
<u>Eastern BBS Region</u>	109	-0.4 (-3.2, 2.3)	4.6 (-2.0, 13.6)	0.0

Eastern Region – credibility red

Prairie Hardwood Transition – credibility red

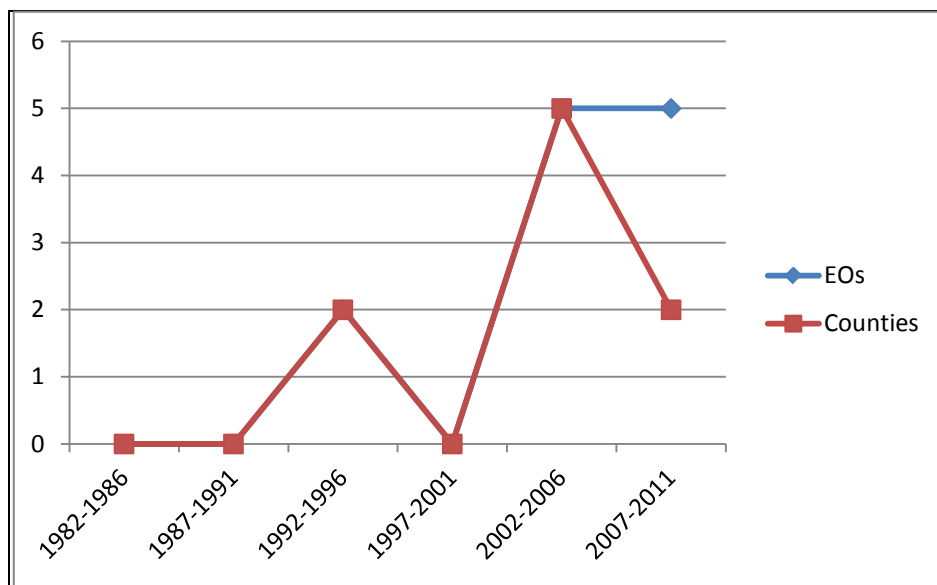


Least tern, *Sternula antillarum* (Illinois endangered, Federally endangered)
 (EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

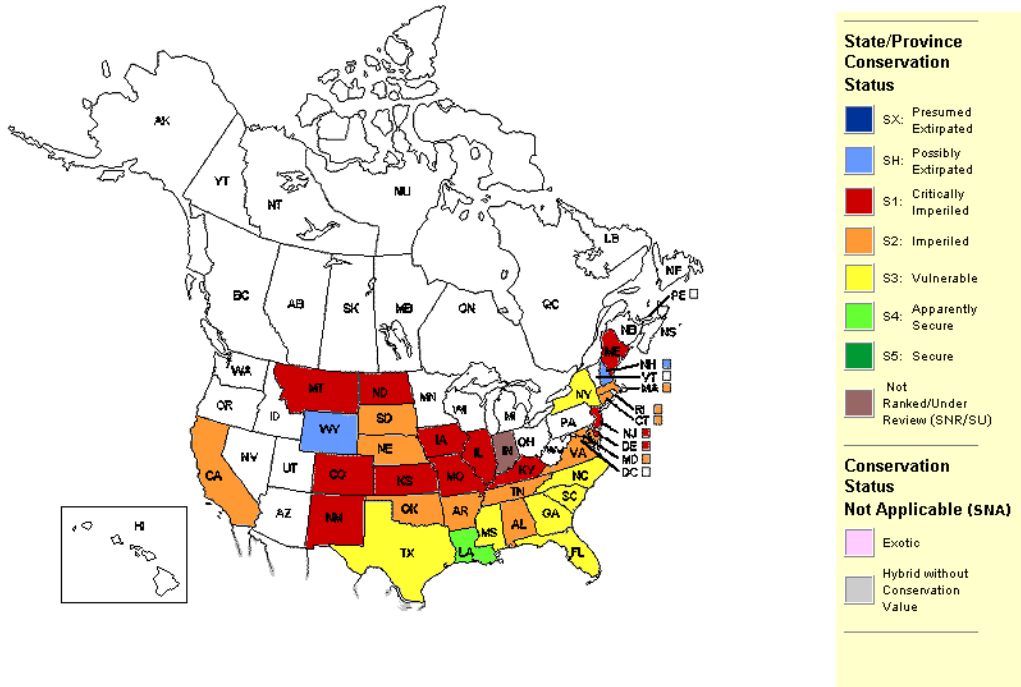
Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
7/24/2010	16	13	0	16

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	0	0	2	0	5	5
Counties	0	0	2	0	5	2



Sternula antillarum



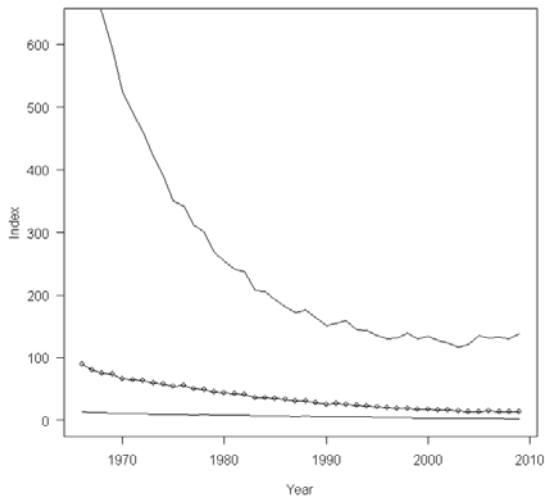
NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

Least Tern Sternula antillarum

North American Breeding Bird Survey Trend Results

Region	N	Trend (95% CI)	Trend (95% CI)	R.A.
<u>Eastern BBS Region</u>	93	-4.3 (-9.5, 1.8)	-3.3 (-10.1, 7.4)	30.3

Eastern Region – credibility red



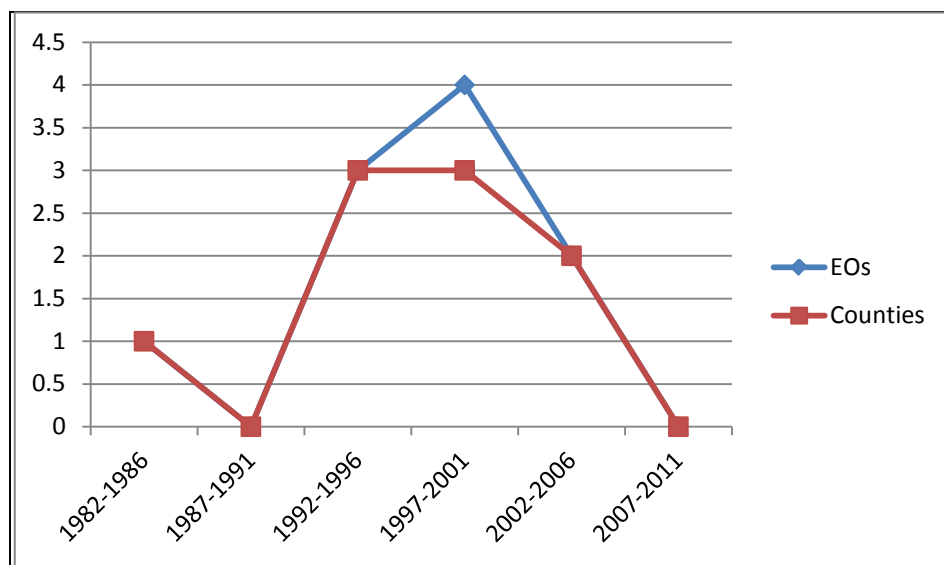
Little blue heron, *Egretta caerulea* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
7/30/2006	10	4	0	7

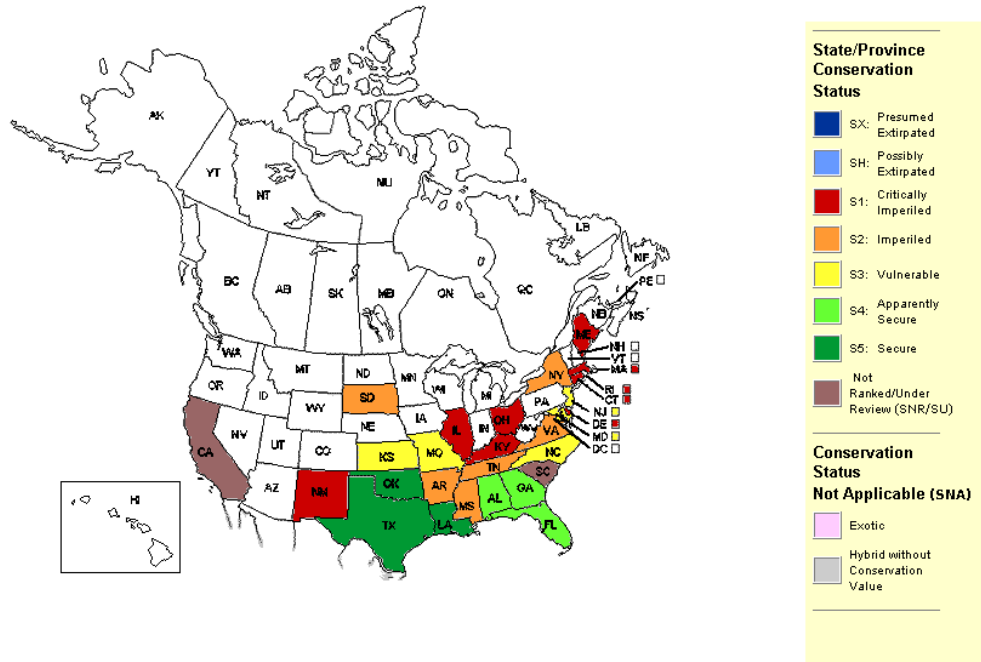
	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	1	0	3	4	2	0
Counties	1	0	3	3	2	0



Element occurrences locations for respective time periods and all.



Egretta caerulea



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

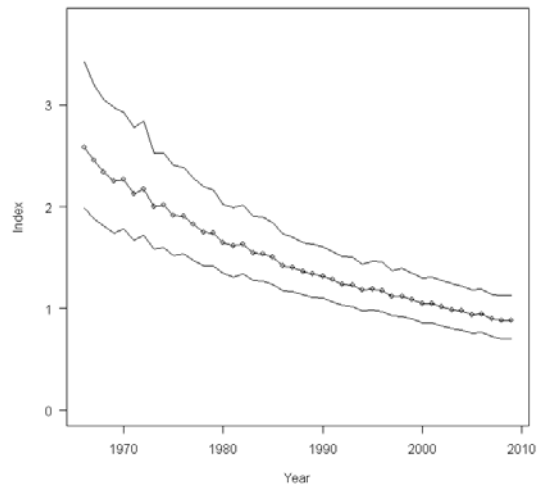
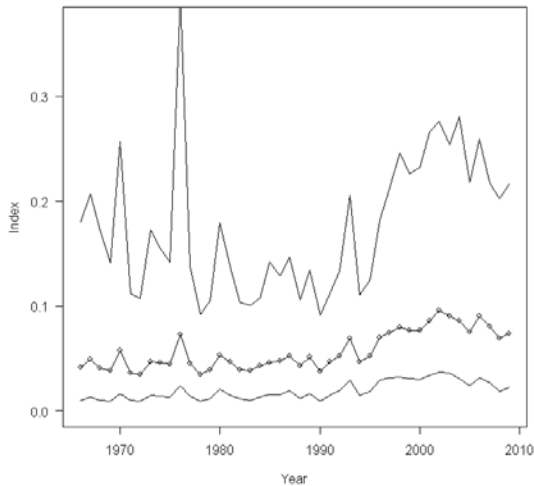
Little Blue Heron *Egretta caerulea*

North American Breeding Bird Survey Trend Results

Region	-----1966-2009 trends-----			-----1999-2009-----		
	N	Trend (95% CI)		Trend (95% CI)	R.A.	
Eastern BBS Region	351	-2.4 (-3.2, -1.6)		-2.1 (-3.6, -0.4)	1.4	
Illinois	11	1.2 (-2.7, 5.3)		0.3 (-13.5, 9.1)	0.1	

Illinois – credibility red

Eastern Region – credibility blue



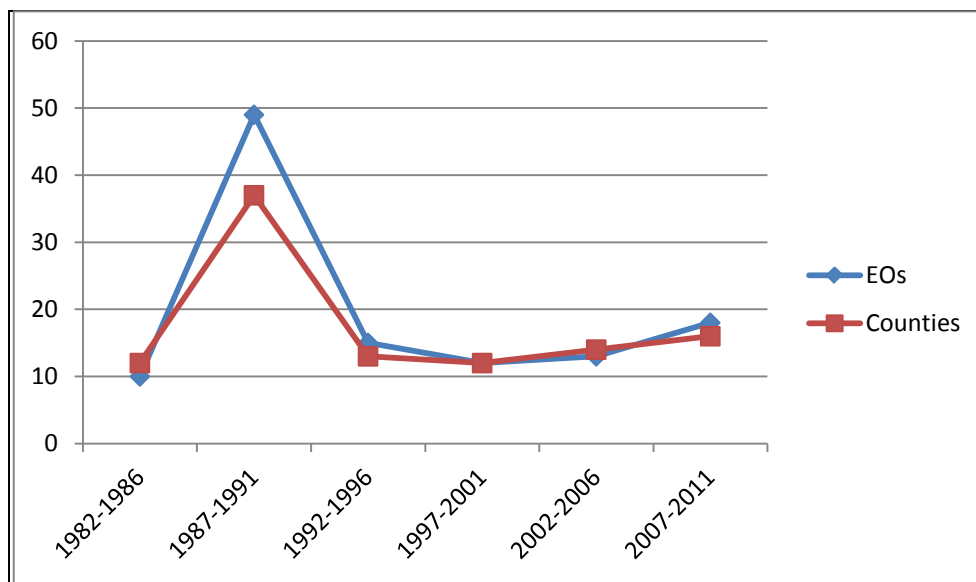
Loggerhead shrike, *Lanius ludovicianus* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
8/16/2011	119	32	4	137

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	10	49	15	12	13	18
Counties	12	37	13	12	14	16



Element occurrences locations for respective time periods and all.



1992-1996



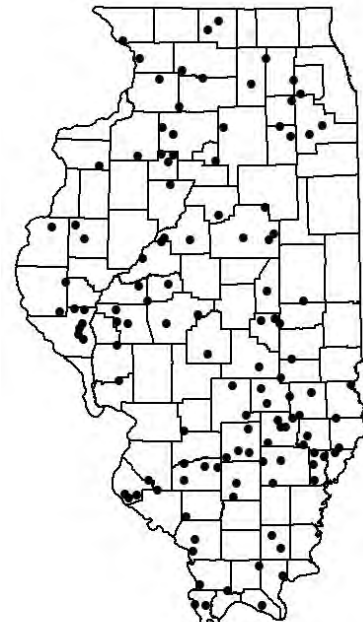
1997-2001



2002-2006

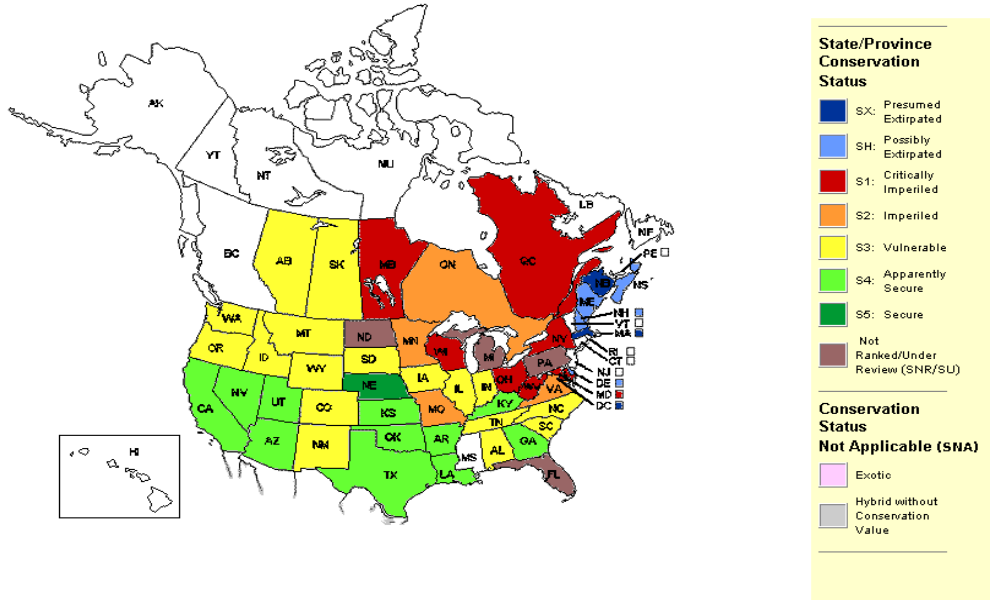


2007-2011



All

Lanius ludovicianus



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

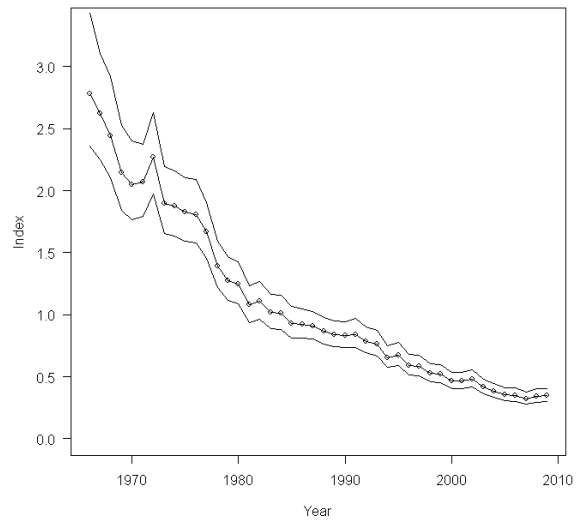
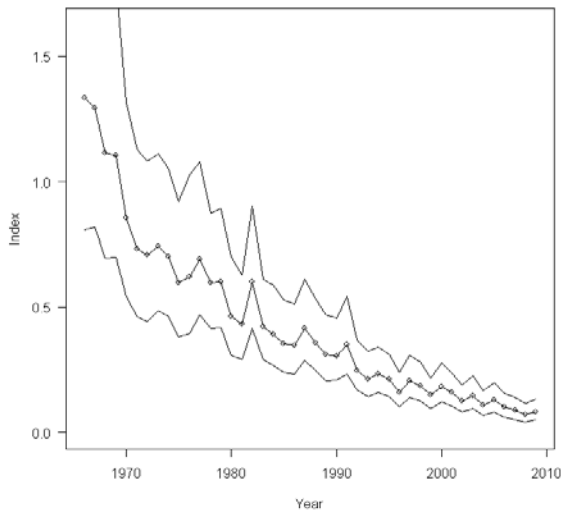
Loggerhead Shrike *Lanius ludovicianus*

North American Breeding Bird Survey Trend Results

Region	-----1966-2009 trends-----			-----1999-2009-----		
	N	Trend (95% CI)		Trend (95% CI)	R.A.	
Eastern BBS Region	615	-4.6 (-5.2, -4.1)		-3.9 (-5.5, -2.3)	0.9	
Illinois	65	-6.1 (-7.7, -4.7)		-5.6 (-10.3, -0.7)	0.4	

Illinois – credibility yellow

Eastern Region – credibility yellow



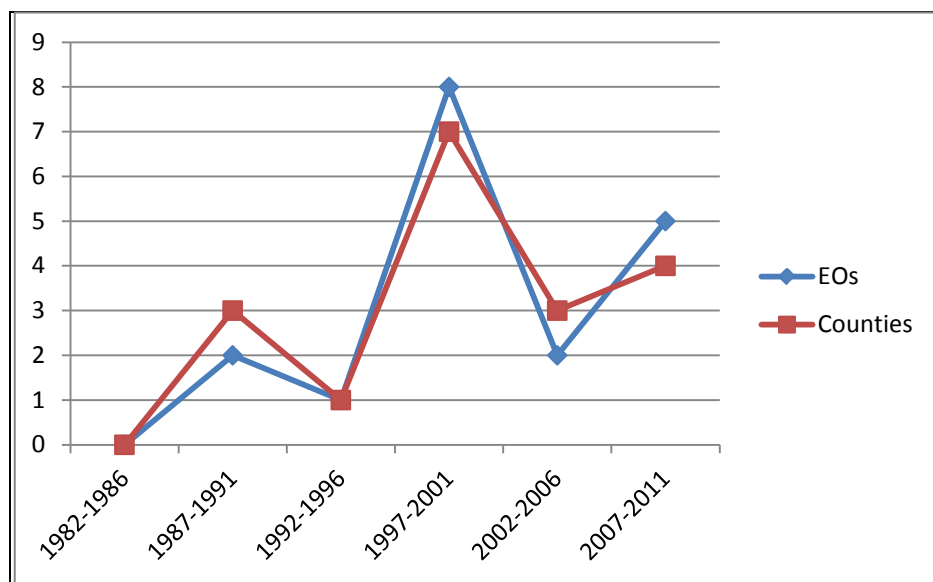
Mississippi Kite, *Ictinia mississippiensis* (Illinois threatened)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
7/29/2011	18	7	1	28

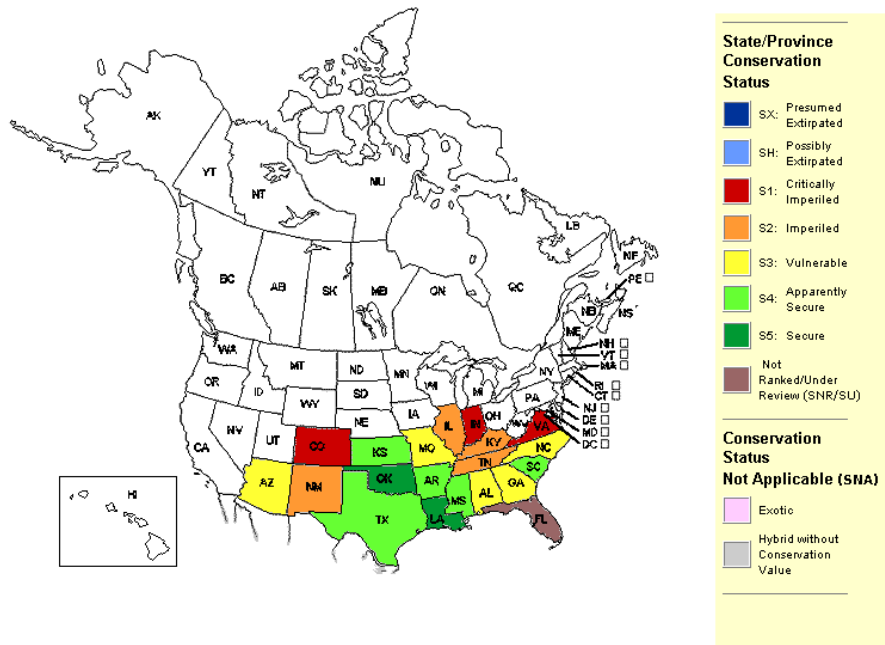
	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	0	2	1	8	2	5
Counties	0	3	1	7	3	4



Element occurrences locations for respective time periods and all.



Ictinia mississippiensis



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

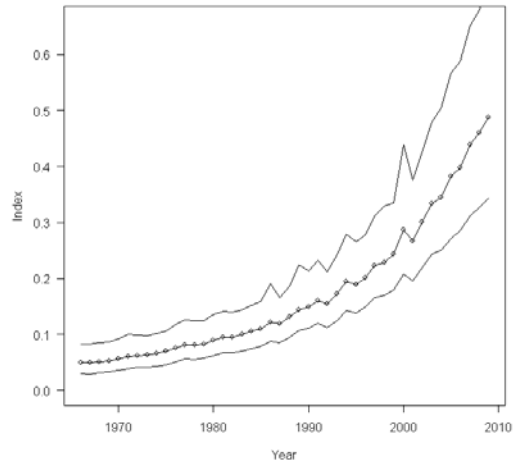
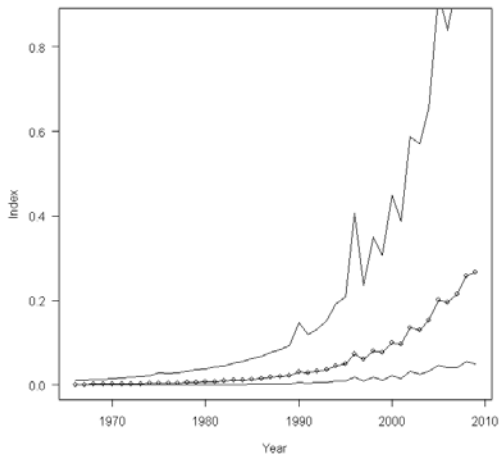
Mississippi Kite *Ictinia mississippiensis*

North American Breeding Bird Survey Trend Results

Region	-----1966-2009 trends-----			-----1999-2009-----	
	N	Trend (95% CI)		Trend (95% CI)	R.A.
Eastern BBS Region	171	5.3 (3.8, 6.9)		7.2 (3.9, 11.0)	0.1
Illinois	5	12.9 (6.9, 20.8)		13.4 (2.1, 30.4)	0.0

Illinois – credibility red

Eastern Region – credibility yellow



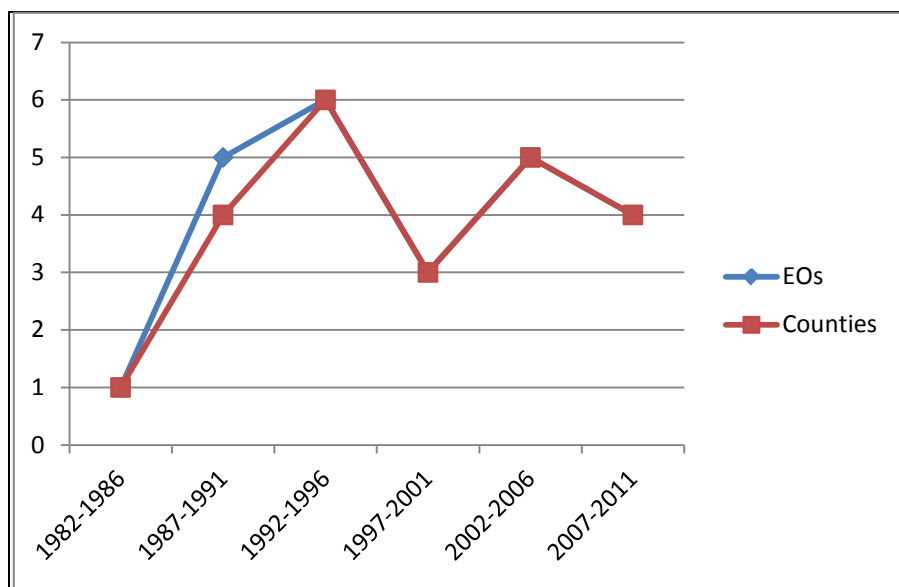
Northern harrier, *circus cyaneus* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
12/17/2009	24	9	5	26

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	1	5	6	3	5	4
Counties	1	4	6	3	5	4



Status review triggers approved by the Illinois Endangered Species Protection Board, at its 145th meeting, February 19, 2010.

The proposed status review criteria represent measures of distribution and abundance to prompt the Endangered Species Protection Board to review the status of the species and consider a change in status. Status review criteria do not prompt an ‘automatic’ change in status, and the Endangered Species Protection Board may review the status or status review criteria of the species at any time.

Evaluate Change in Status to Threatened - Within past 5 years, there are records of *probable* or *confirmed* nesting in the Natural Heritage database from 10 or more Illinois counties, and the average annual population is 25 or more *probable* or *confirmed* nesting pairs.

Evaluate Change in Status to Not Listed as Threatened or Endangered - Within past 5 years, there are records of *probable* or *confirmed* nesting in the Natural Heritage database from 10 or more Illinois counties, AND the average annual population is 50 or more *probable* or *confirmed* nesting pairs.

ESPB staff review, recommendation: Data do not warrant review for consideration of a change in listing status; threshold not met for E to T consideration.
Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

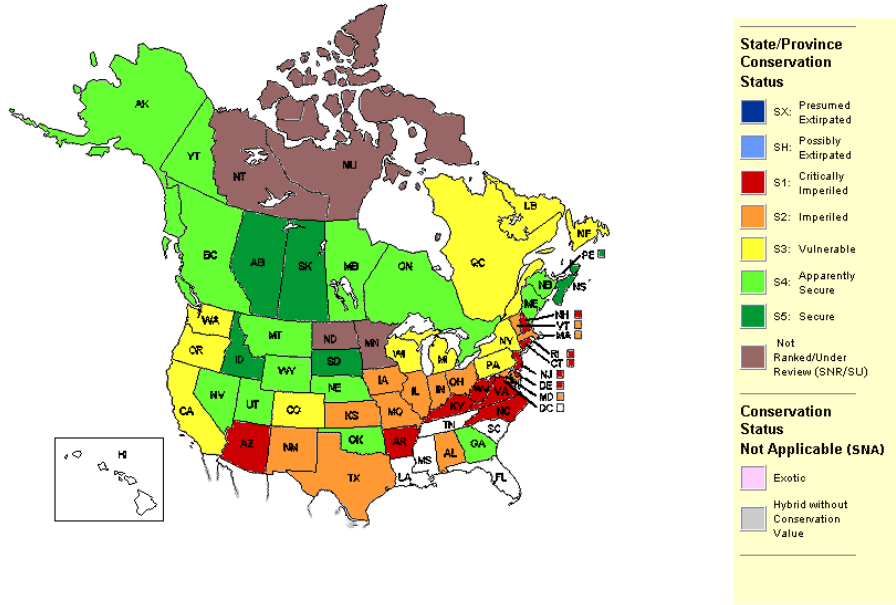


2007-2011



All

Circus cyaneus



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

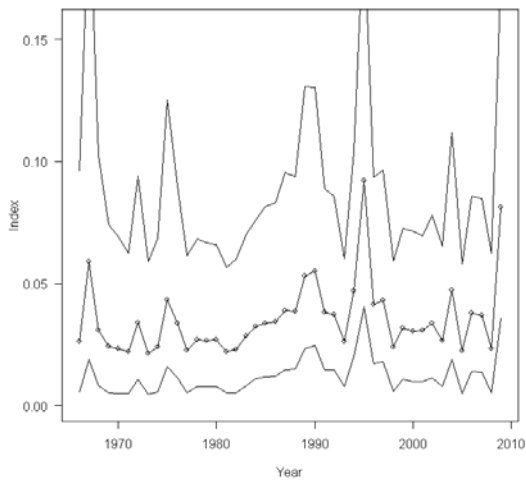
Northern Harrier *Circus cyaneus*

North American Breeding Bird Survey Trend Results

Region	-----1966-2009 trends-----			-----1999-2009-----		
	N	Trend (95% CI)		Trend (95% CI)	R.A.	
Eastern BBS Region	730	-1.7 (-3.2, -0.5)		-0.4 (-3.5, 2.6)	0.2	
Illinois	40	2.6 (-1.0, 7.0)		9.8 (-1.6, 26.1)	0.0	

Illinois –credibility red

Eastern Regions – credibility yellow



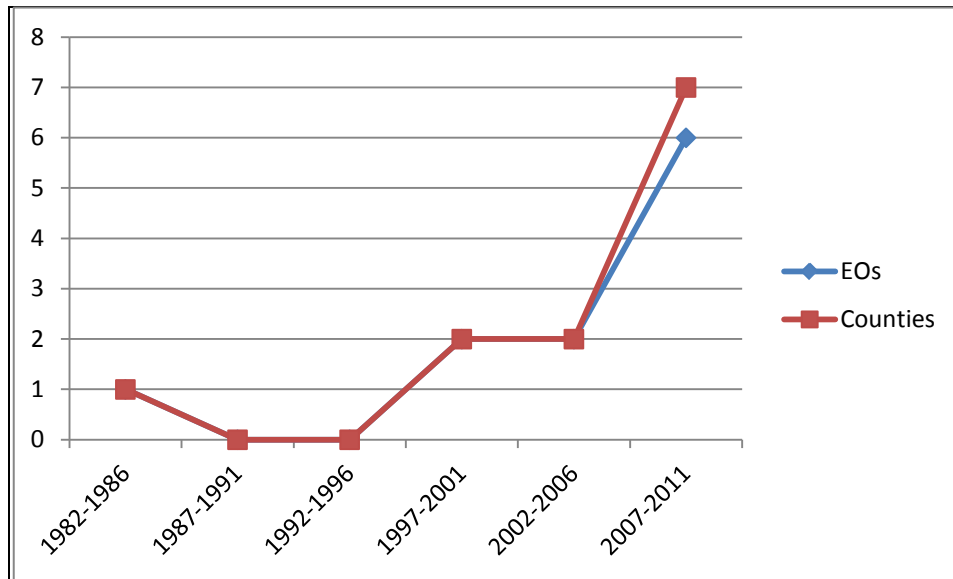
Ospery, *Pandion halieatus* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
5/9/2011	11	8	0	12

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	1	0	0	2	2	6
Counties	1	0	0	2	2	7



Status review triggers approved by the Illinois Endangered Species Protection Board, at its 145th meeting, February 19, 2010.

The proposed status review criteria represent measures of distribution and abundance to prompt the Endangered Species Protection Board to review the status of the species and consider a change in status. Status review criteria do not prompt an ‘automatic’ change in status, and the Endangered Species Protection Board may review the status or status review criteria of the species at any time.

Evaluate Change in Status to Threatened - Over the past 10 years, there are records of an average or 10 or more nests per year in the Natural Heritage database.

Evaluate Removal from the List of Threatened or Endangered Species - Over the past 10 years, there are records of an average or 25 or more nests per year in the Natural Heritage database.

ESPB staff review, recommendation: Data do not warrant review for consideration of a change in listing status; threshold not met for E to T consideration.

Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

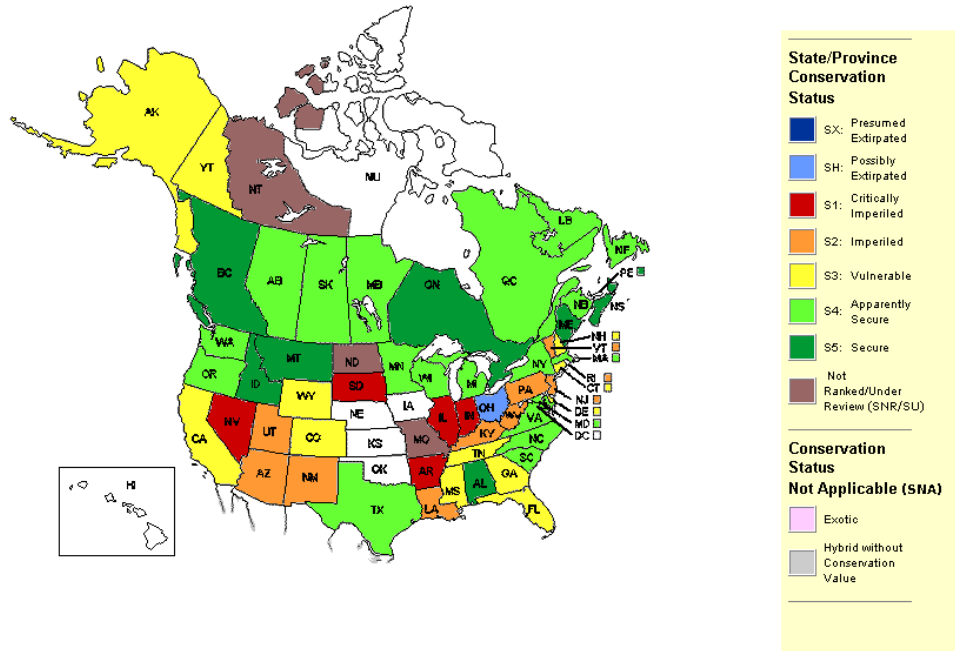


2007-2011



All

Pandion haliaetus



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

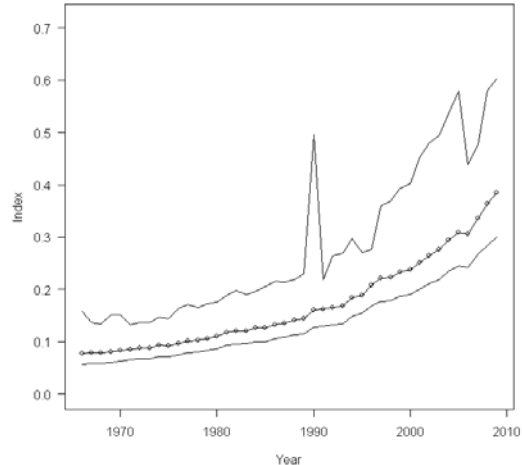
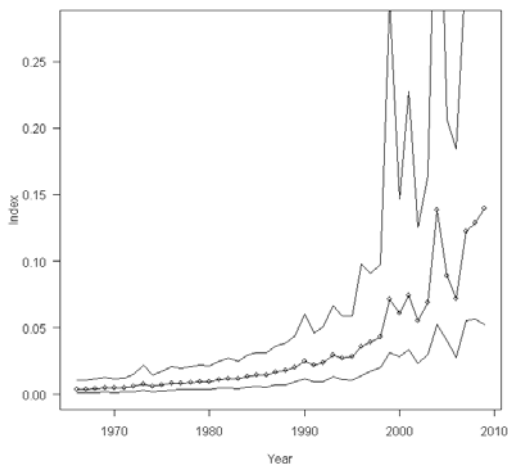
Osprey Pandion haliaetus

North American Breeding Bird Survey Trend Results

Region	-----1966-2009 trends-----		-----1999-2009-----	
	N	Trend (95% CI)	Trend (95% CI)	R.A.
<u>Prairie Hardwood Transition</u>	28	8.6 (5.2, 12.8)	7.1 (-9.1, 21.4)	0.0
<u>Eastern BBS Region</u>	563	3.7 (1.9, 5.1)	5.2 (0.2, 8.7)	0.1

Prairie Hardwood Transition – credibility red

Eastern Region – credibility yellow



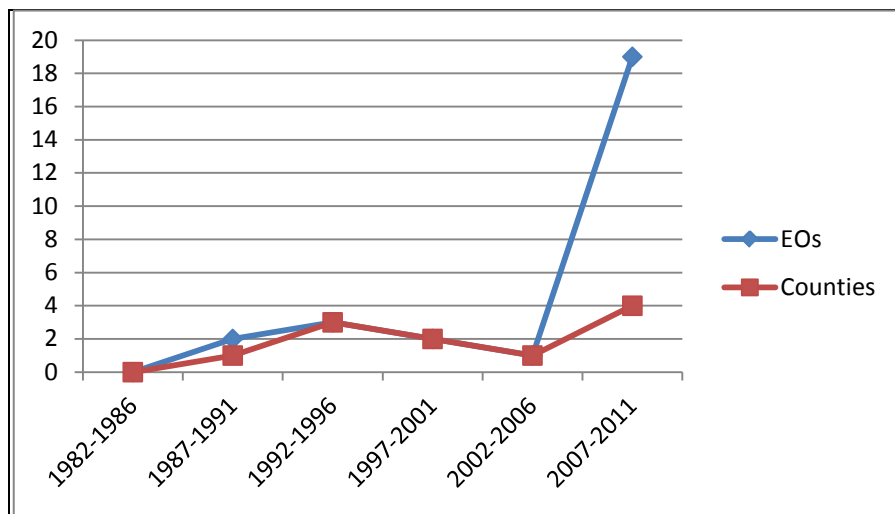
Peregrine falcon, *Falco peregrinus* (Illinois threatened)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
7/8/2010	29	21	2	13

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	0	2	3	2	1	19
Counties	0	1	3	2	1	4



Status review triggers (reclassification goals) approved by the Illinois Endangered Species Protection Board in (Herkert) 2000, with amendment in 2009.

The proposed status review criteria represent measures of distribution and abundance to prompt the Endangered Species Protection Board to review the status of the species and consider a change in status. Status review criteria do not prompt an ‘automatic’ change in status, and the Endangered Species Protection Board may review the status or status review criteria of the species at any time.

Reclassification Goals (2000)

Threatened -- The overall goal for reclassification from endangered to threatened status in Illinois is to maintain a healthy, productive population that is at low risk of statewide extirpation within the foreseeable future. Low risk is hereby defined as a less than 5% chance of statewide population extirpation (as estimated by the population viability models) within the specified planning period; and foreseeable future is defined as the next 50 years. Once this population level is achieved, it should be sustained for a period of at least three years before reclassification is proposed. Peregrine falcon productivity within the state also should equal or exceed productivity averages for the region. Average productivity for the eastern U.S. peregrine falcon population averaged 1.5 young/pair between 1992-1998 (USFWS 1999). Therefore the productivity goal for reclassifying peregrine falcons in Illinois to threatened status is an average of 1.5 naturally produced young/pair (measured as

a 3-year average ending with the most recent year). Fledglings that require human intervention to ensure their survival should not count in this total, since the population must be self-sufficient in order to be considered recovered. Under current conditions this goal would require a stable population of at least 6 pairs of birds naturally producing an average of at least 9 young for a period of at least three years.

Delisted -- The overall goal for delisting the peregrine falcon in Illinois is to maintain a healthy, productive population that is at very low risk of statewide extirpation within the foreseeable future. Very low risk is hereby defined as a less than 1% chance of statewide population extinction (as estimated by the population viability models) within the specified planning period; and foreseeable future is defined as the next 50 years. Once this population level is achieved, it should be sustained for a period of at least three years before delisting is proposed. Peregrine falcon productivity within the state also should equal or exceed productivity averages for the region. Average productivity for the eastern U.S. peregrine falcon population averaged 1.5 young/pair between 1992-1998 (USFWS 1999). Therefore the productivity goal for delisting peregrine falcons in Illinois is an average of 1.5 naturally produced young/pair (measured as a 3-year average ending with the most recent year pair). Fledglings that require human intervention to ensure their survival should not count in this total, since the population must be self-sufficient in order to be considered fully recovered. Under current conditions this goal would require a stable population of at least 12 pairs of birds naturally producing an average of at least 18 young for a period of at least three years.

Amendment (2009)

That the Board would delay listing status review until after a time when the IDNR had in place a post-listing management and monitoring plan.

Nesting peregrine falcon population data in Illinois, 1988-2010.

Year	# Breeding Pairs	Total # of Young Produced	Total # Young Produced/Nest	Total # of Naturally Produced Young	Total # of Naturally Produced Young/Nest
1988	1	2	2.0	N/A	N/A
1989	2	3	1.5	N/A	N/A
1990	1	0	0.0	N/A	N/A
1991	1	0	0.0	N/A	N/A
1992	1	3	3.0	N/A	N/A
1993	1	3	3.0	N/A	N/A
1994	4	6	1.5	N/A	N/A
1995	4	8	2.0	N/A	N/A
1996	5	4?	0.8	2	0.8
1997	5	7	1.4	4	1.4
1998	4	11	2.7	6	1.5
1999	5	11	2.2	9	1.8
2000	8	19	2.4	7	0.9
2001	10	21	2.1	18	1.8
2002	10	21	2.1	16	1.6
2003	10	23	2.3	17	1.7
2004	10	29	2.9	21	2.1
2005	10	26	2.6	18	1.8
2006	12	30	2.5	19	1.6
2007	12	25	2.1	20	1.7
2008	12	24	2.0	19	1.6
2009	13	33	2.5	27	2.1
2010	13	26	2.0	19	1.5

ESPB staff review, recommendation: Data warrant review for consideration of a change in listing status. Recommend delisting the species.

The reclassification goals -

Productivity goal for delisting peregrine falcons in Illinois of an average of 1.5 naturally produced young/pair (measured as a 3-year average ending with the most recent year pair). *This goal has been met - 3-year average ending in 2010 was 1.7.*

Stable population of at least 12 pairs of birds naturally producing an average of at least 18 young for a period of at least three years. *This goal has been met – 3-year average ending in 2010 was 12.6 pairs naturally producing an average of 21.6 young.*

Amendment for IDNR to have in place a post-listing management and monitoring plan. *This has been met. The IDNR completed a post-listing management and monitoring plan, with Board review and comment, in the spring of 2012. The plan calls for using the Board’s previously approved reclassification thresholds for re- listing, should monitoring data warrant such action in the future.*

Element occurrences locations for respective time periods and all.



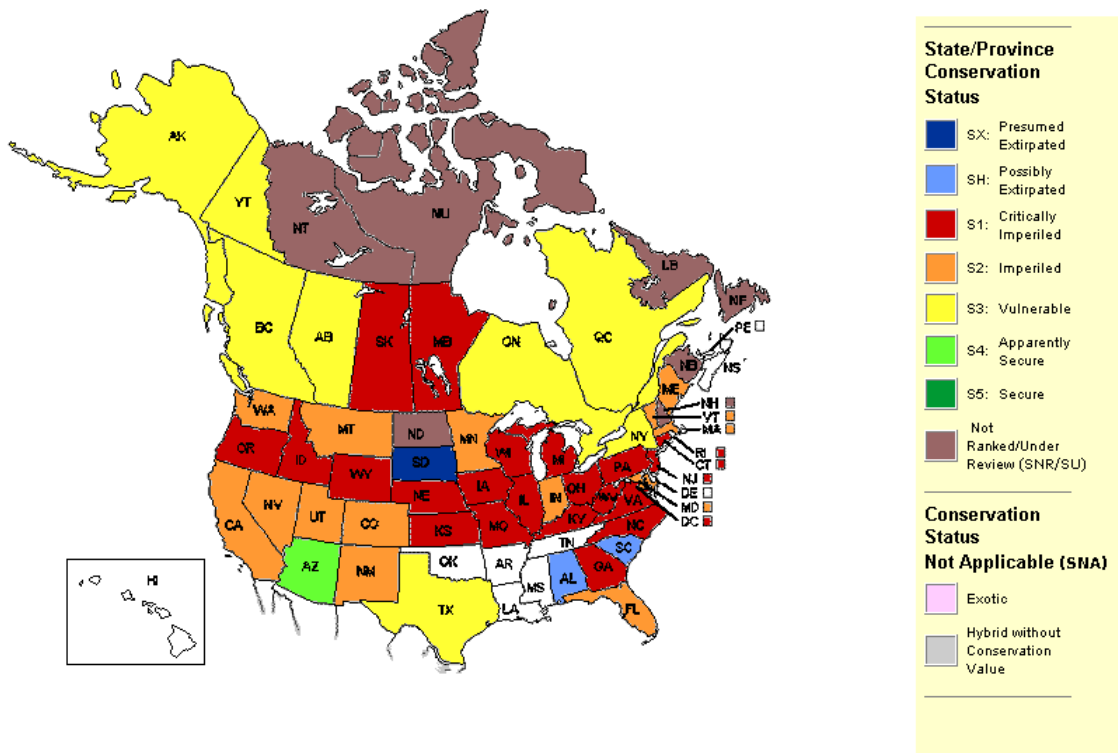


2007-2011



All

Falco peregrinus



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

Peregrine Falcon *Falco peregrinus*

North American Breeding Bird Survey Trend Results



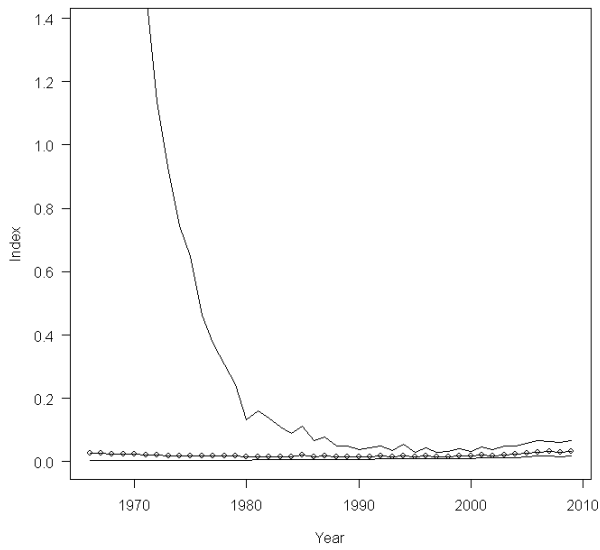
Region

United States

0.0

	-----1966-2009 trends-----			-----1999-2009-----		
N	Trend	(95% CI)		Trend	(95% CI)	R.A.
112	0.5	(-11.0, 5.7)		6.4	(-3.4, 14.3)	

United States – credibility red

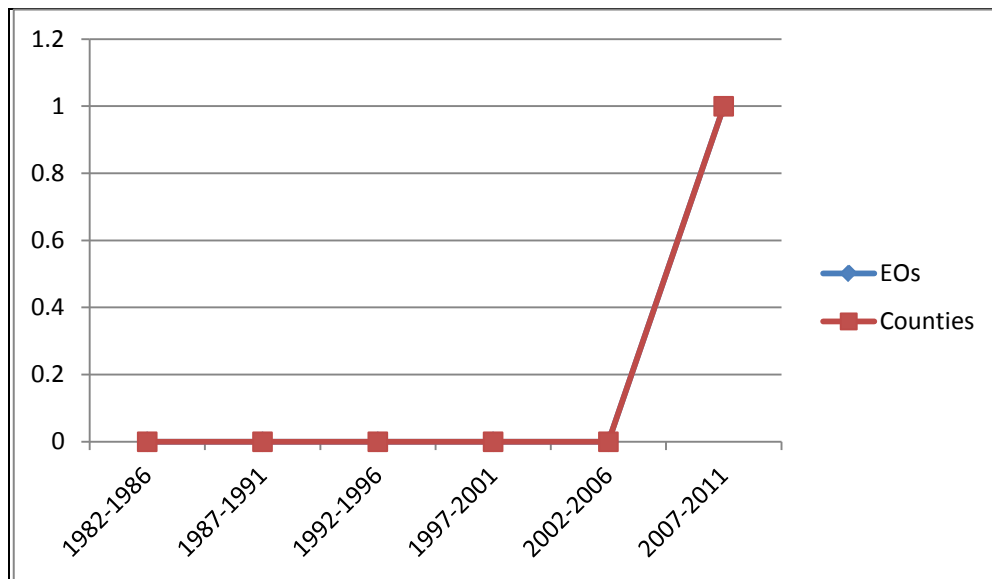


Piping plover, *Charadrius melodus* (Illinois endangered, Federally endangered)
 (EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
6/30/2009	1	1	1	1

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	0	0	0	0	0	1
Counties	0	0	0	0	0	1



Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

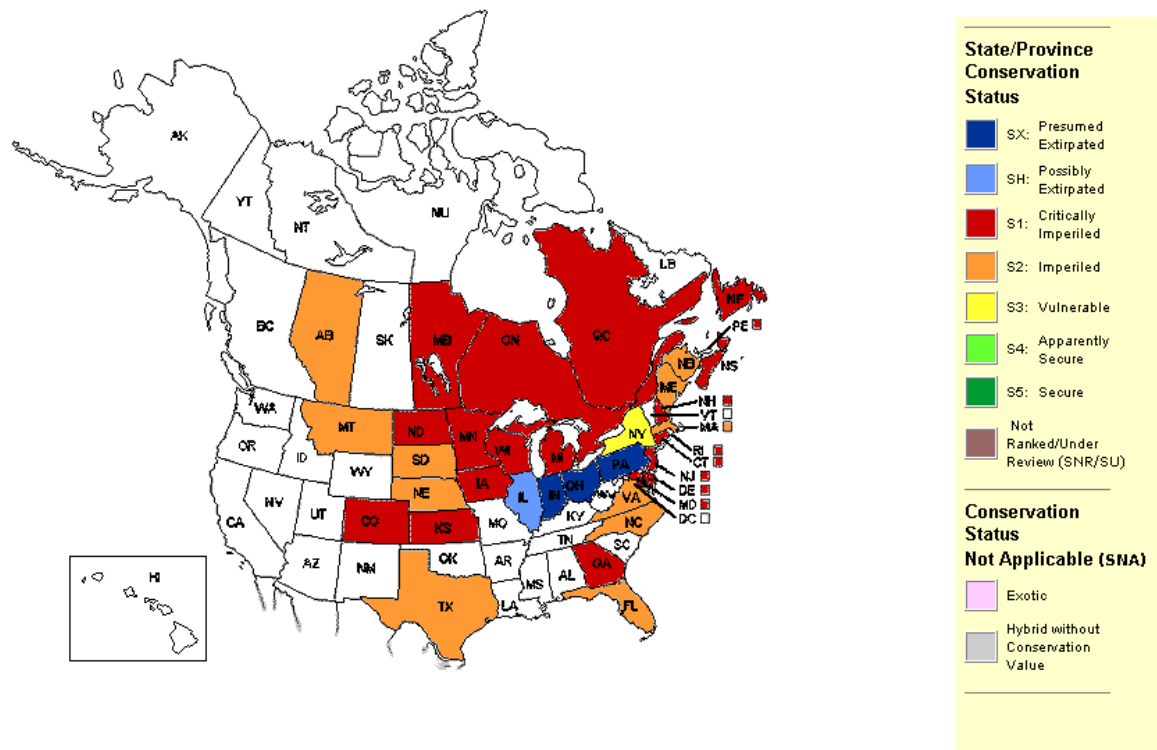


2007-2011



All

Charadrius melodus



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

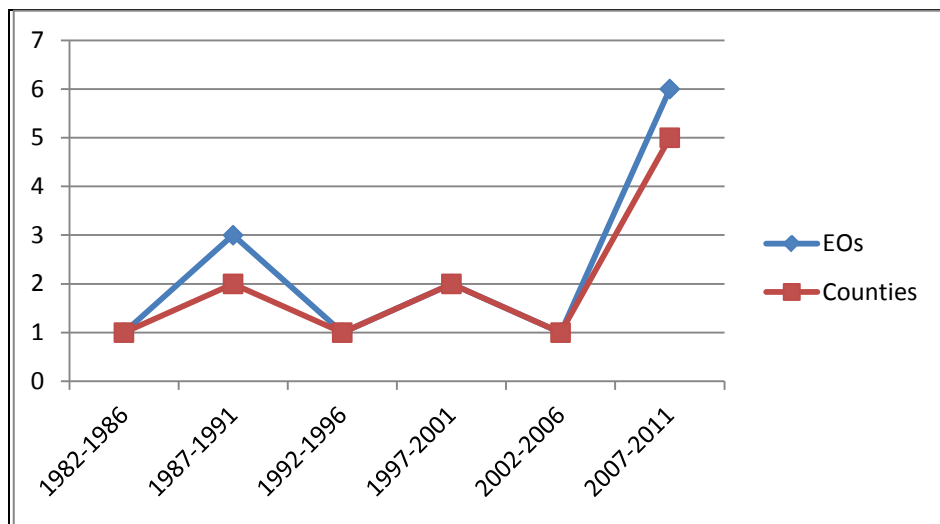
Short-eared owl, *Asio flammeus* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
7/15/2010	14	7	4	15

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	1	3	1	2	1	6
Counties	1	2	1	2	1	5



Status review triggers approved by the Illinois Endangered Species Protection Board, at its 145th meeting, February 19, 2010.

The proposed status review criteria represent measures of distribution and abundance to prompt the Endangered Species Protection Board to review the status of the species and consider a change in status. Status review criteria do not prompt an ‘automatic’ change in status, and the Endangered Species Protection Board may review the status or status review criteria of the species at any time.

Evaluate Change in Status to Threatened - Within past 5 years, there are records of *probable* or *confirmed* nesting in the Natural Heritage database from 10 or more Illinois counties, and the average annual population is 25 or more *probable* or *confirmed* nesting pairs.

Evaluate Change in Status to Not Listed as Threatened or Endangered - Within past 5 years, there are records of *probable* or *confirmed* nesting in the Natural Heritage database from 10 or more Illinois counties, AND the average annual population is 50 or more *probable* or *confirmed* nesting pairs.

ESPB staff review, recommendation: Data do not warrant review for consideration of a change in listing status; threshold not met for E to T consideration.

Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

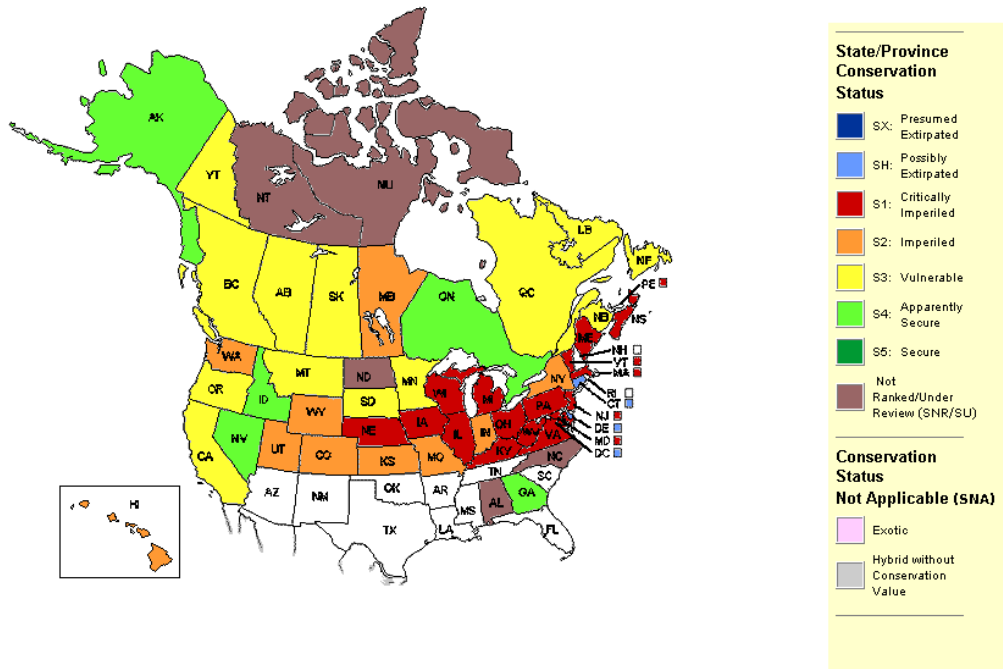


2007-2001



All

Asio flammeus



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

Short-eared Owl *Asio flammeus*

North American Breeding Bird Survey Trend Results

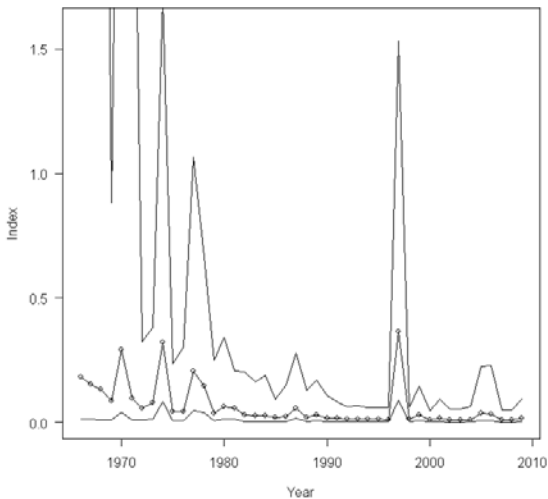


Region

Eastern BBS Region

	-----1966-2009 trends-----		-----1999-2009-----	
N	Trend	(95% CI)	Trend	(95% CI) R.A.
54	-5.0	(-15.7, 1.9)	-4.6	(-22.3, 16.4) 0.1

Eastern Region – credibility red



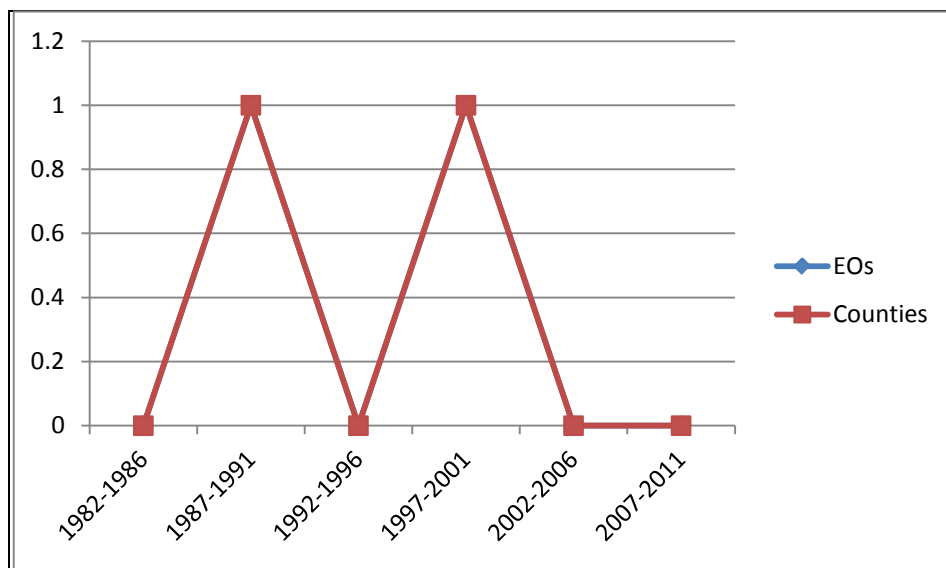
Snowy egret, *Egretta thula* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
6/16/2001	2	1	0	2

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	0	1	0	1	0	0
Counties	0	1	0	1	0	0



Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

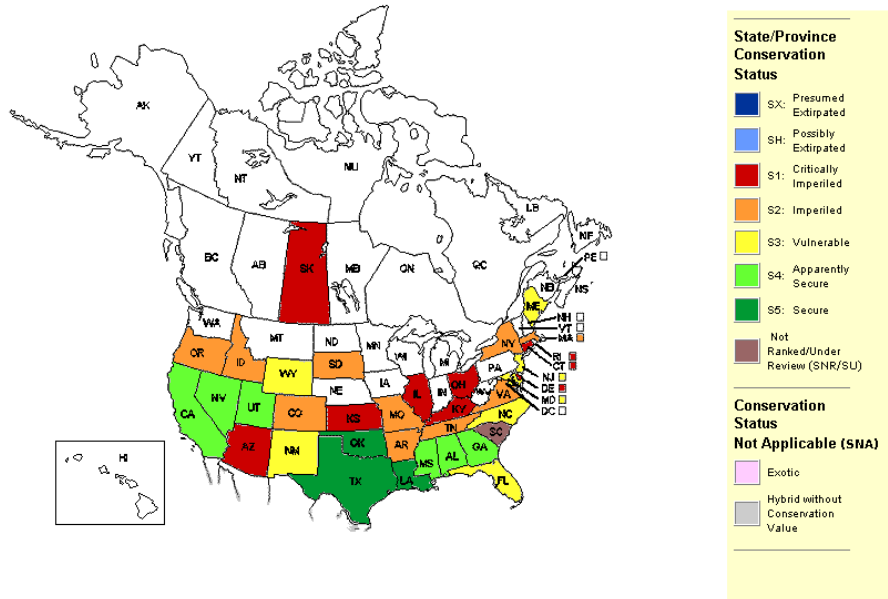


2007-2011



All

Egretta thula



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

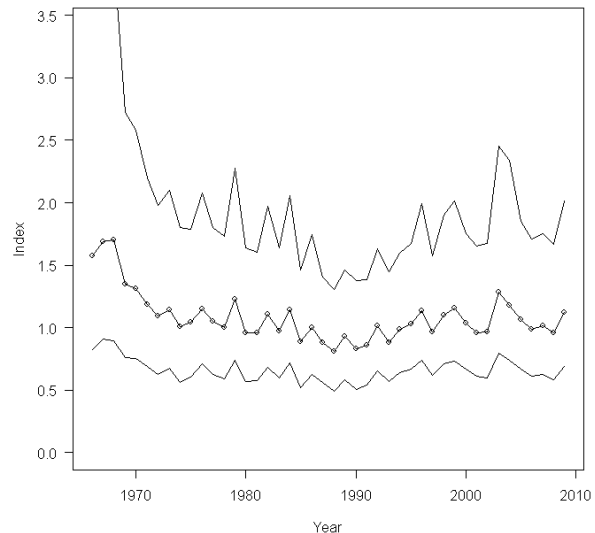
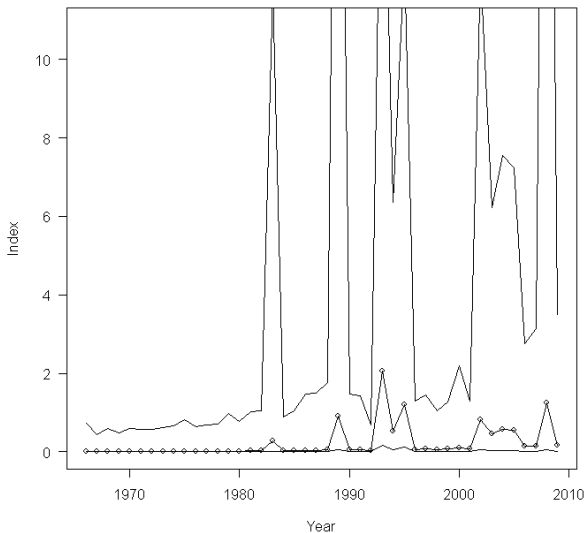
Snowy Egret *Egretta thula*

North American Breeding Bird Survey Trend Results

Region	-----1966-2009 trends-----			-----1999-2009-----		
	N	Trend (95% CI)		Trend (95% CI)	R.A.	
Eastern Tallgrass Prairie	9	8.3 (-7.6, 31.3)		9.2 (-32.3, 85.4)	0.0	
Eastern BBS Region	197	-0.8 (-3.2, 1.1)		-0.1 (-5.6, 4.7)	0.9	

Eastern Tallgrass – credibility red

Eastern Region – credibility yellow



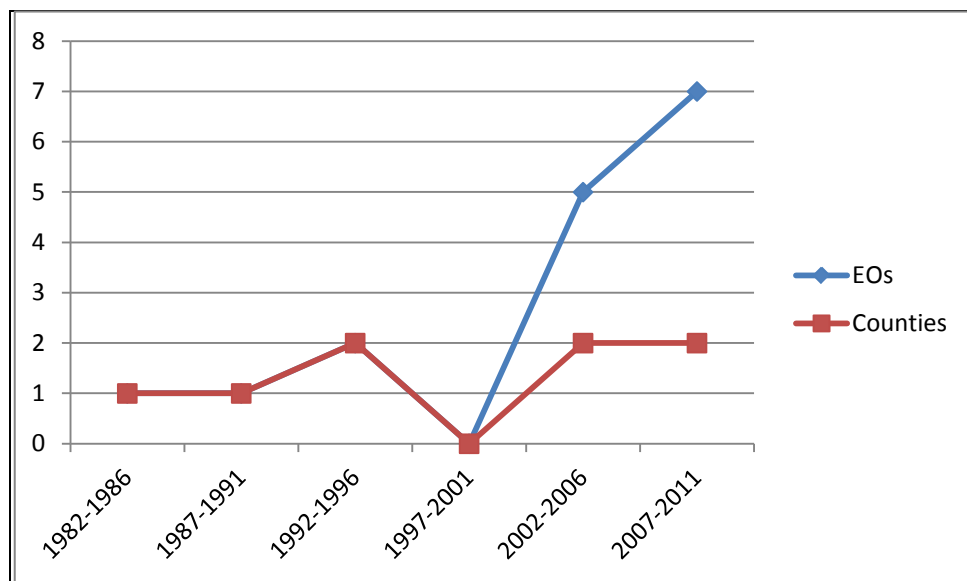
Swainson's hawk, *Buteo swainsoni* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
2007	15	8	1	6

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	1	1	2	0	5	7
Counties	1	1	2	0	2	2



Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

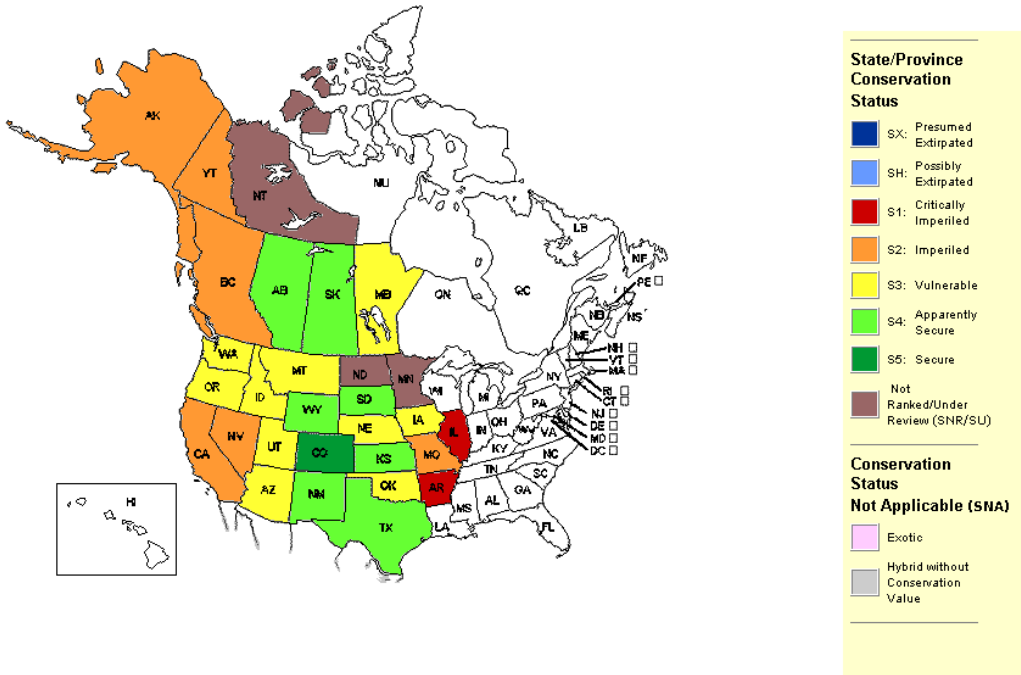


2007-2011



All

Buteo swainsoni



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

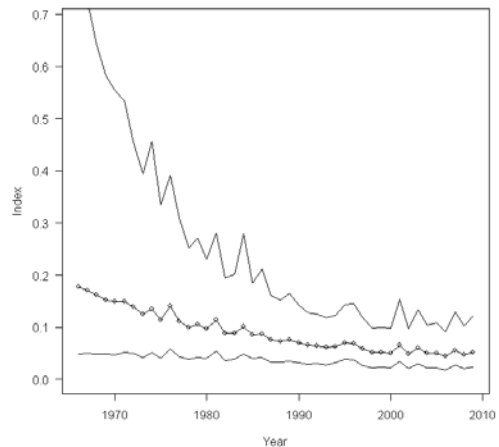
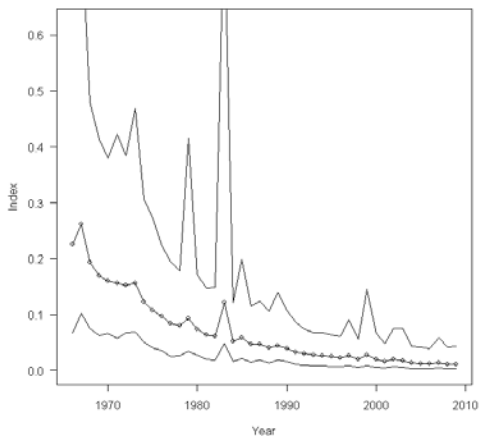
Swainson's Hawk *Buteo swainsoni*

North American Breeding Bird Survey Trend Results

Region	N	Trend (95% CI)	Trend (95% CI)	R.A.
<u>Eastern Tallgrass Prairie</u>	20	-6.7 (-11.1, -2.4)	-8.2 (-25.2, 4.8)	0.0
<u>Eastern BBS Region</u>	38	-2.8 (-6.6, 0.9)	-0.6 (-6.7, 11.4)	0.1

Eastern Tallgrass – credibility red

Eastern Region – credibility yellow



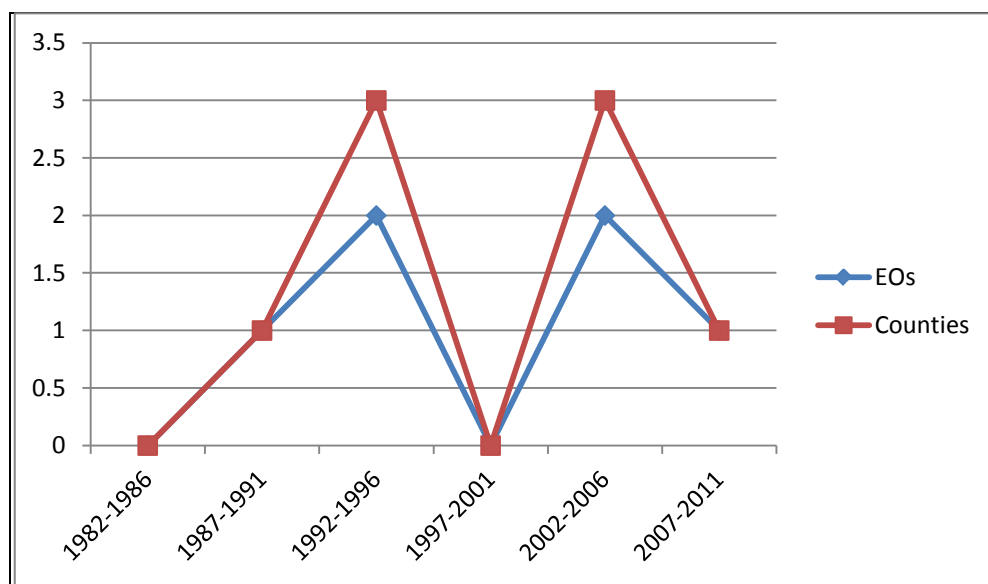
Swainson's warbler, *Limnothlypis swainsonii* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
7/1/1905	7	2	2	6

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	0	1	2	0	2	1
Counties	0	1	3	0	3	1



Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

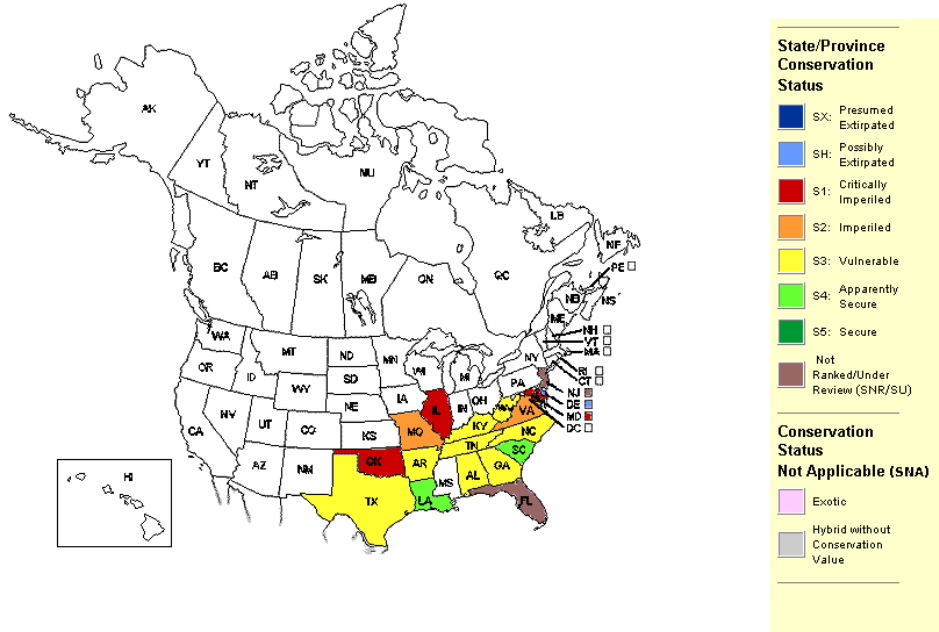


2007-2011



All

Limnothlypis swainsonii



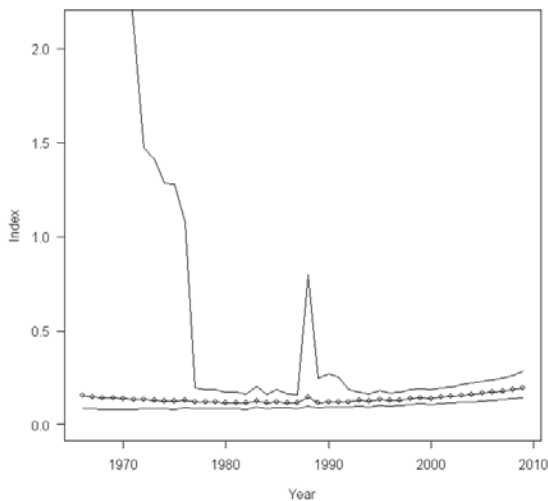
NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

Swainson's Warbler *Limnothlypis swainsonii*

North American Breeding Bird Survey Trend Results

Region	-----1966-2009 trends-----			-----1999-2009-----		
	N	Trend (95% CI)		Trend (95% CI)	R.A.	
Eastern BBS Region	194	0.5 (-7.7, 2.1)		3.2 (0.2, 6.4)	0.1	

Eastern Region – credibility yellow



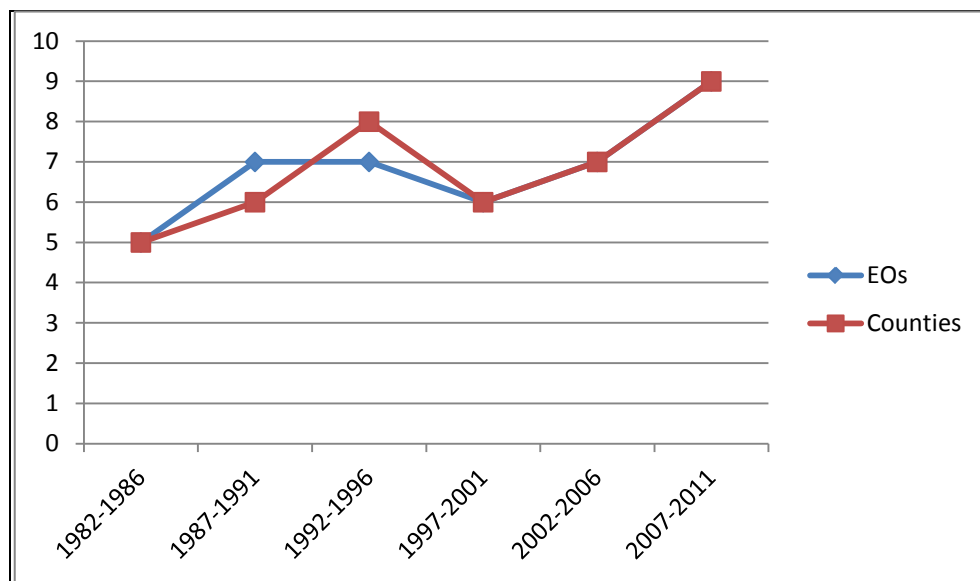
Upland sandpiper, *Bartramia longicauda* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
7/8/2011	49	17	8	60

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	5	7	7	6	7	9
Counties	5	6	8	6	7	9



Element occurrences locations for respective time periods and all.



1992-1996



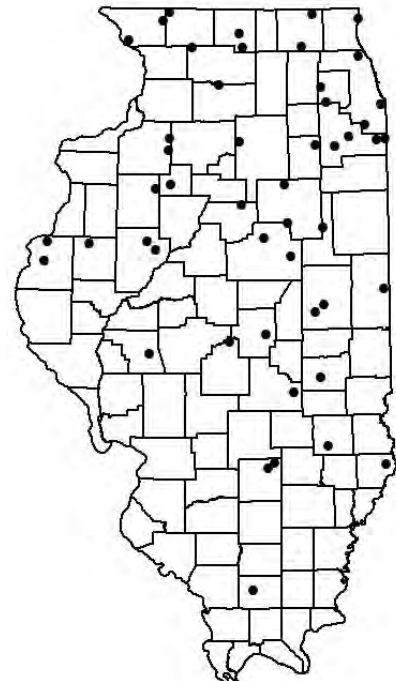
1997-2001



2002-2006

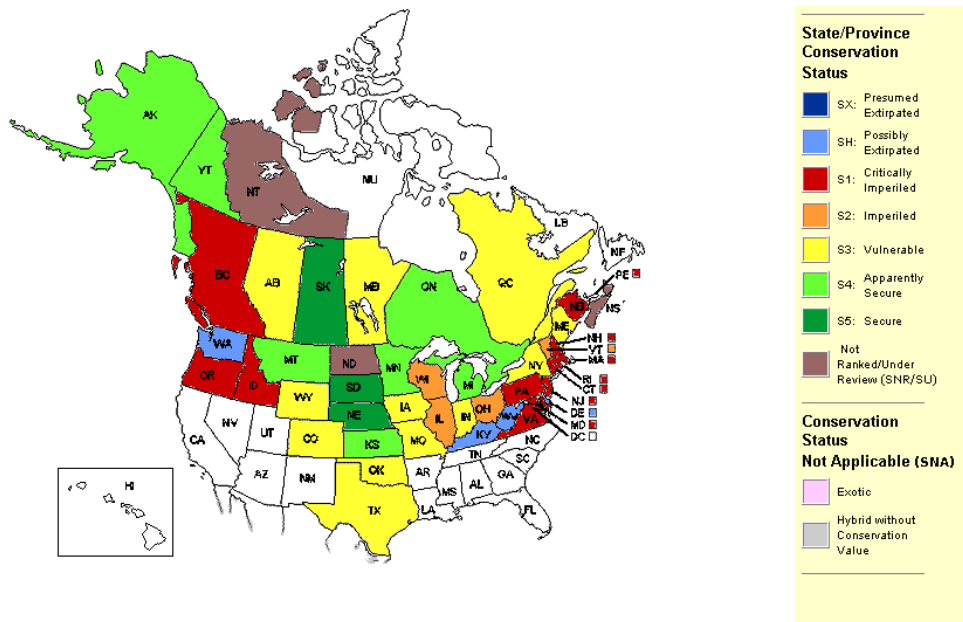


2007-2011



All

Bartramia longicauda



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

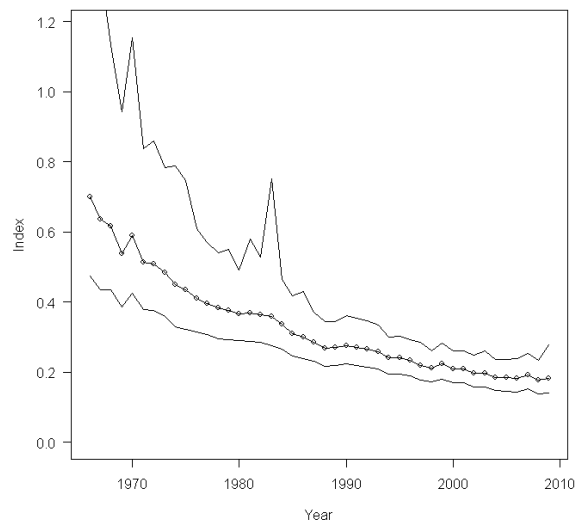
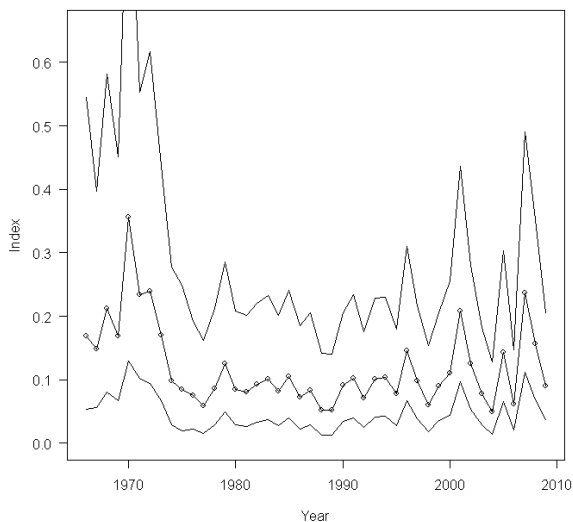
Upland Sandpiper *Bartramia longicauda*

North American Breeding Bird Survey Trend Results

Region	-----1966-2009 trends-----			-----1999-2009-----		
	N	Trend (95% CI)		Trend (95% CI)	R.A.	
Eastern BBS Region	433	-3.0 (-4.7, -1.8)		-2.0 (-4.3, 2.0)	0.3	
Illinois	43	-1.4 (-4.8, 1.8)		0.0 (-10.1, 11.5)	0.1	

Illinois – credibility red

Eastern Region – credibility yellow



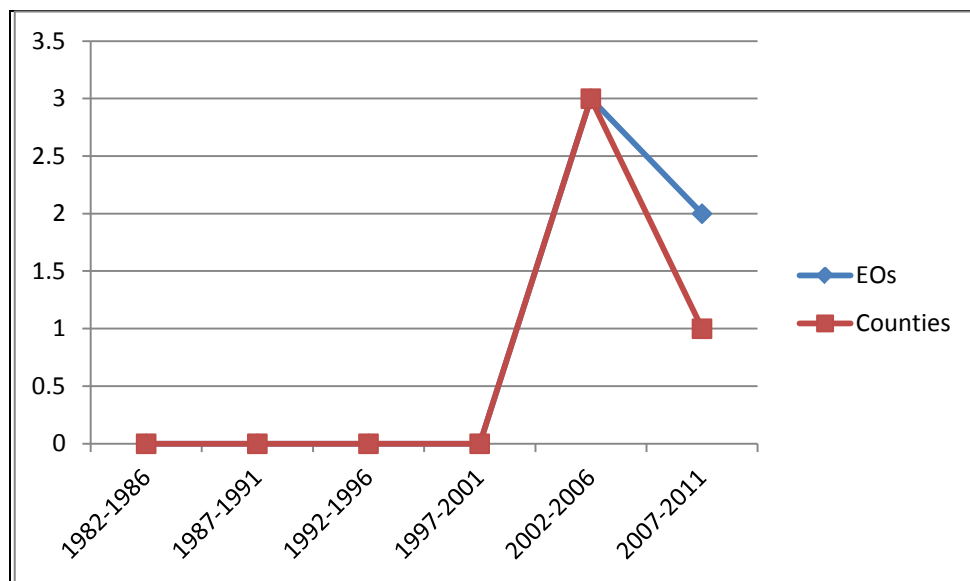
Wilson's phalarope, *Phalaropus tricolor* (Illinois endangered)

(EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
6/30/1905	7	6	2	11

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	0	0	0	0	3	2
Counties	0	0	0	0	3	1



Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

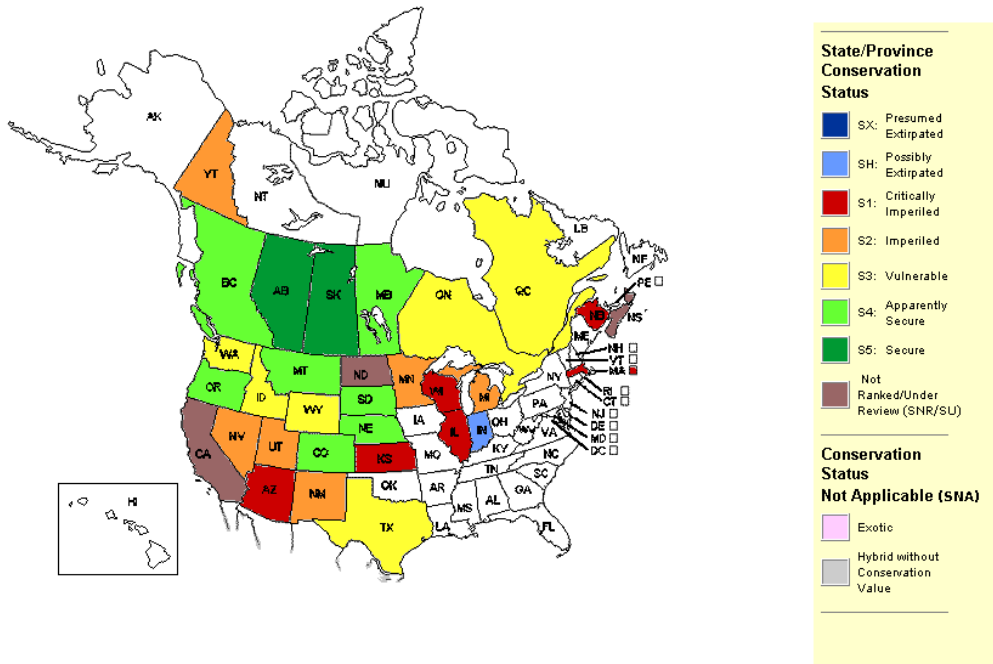


2007-2011



All

Phalaropus tricolor



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

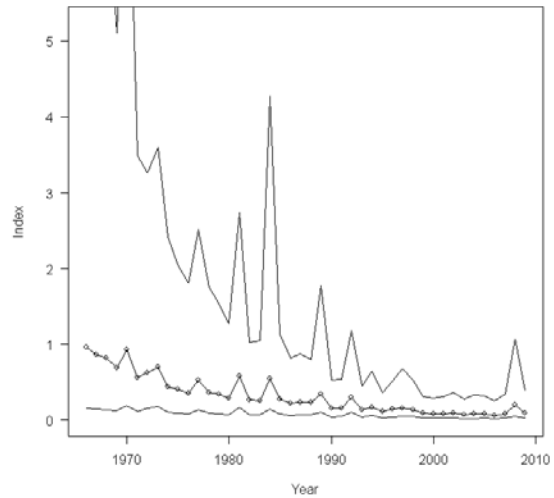
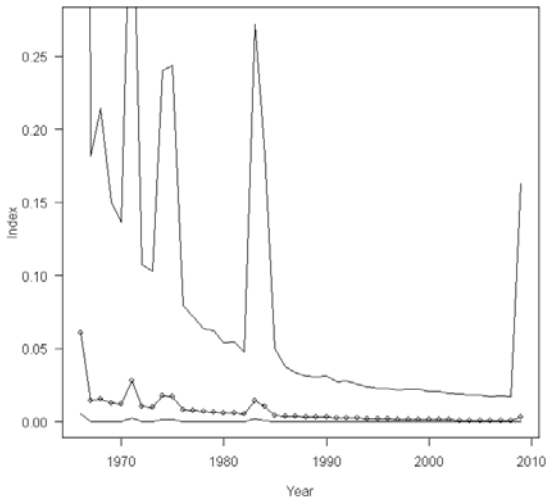
Wilson's Phalarope *Phalaropus tricolor*

North American Breeding Bird Survey Trend Results

Region	-----1966-2009 trends-----			-----1999-2009-----	
	N	Trend (95% CI)		Trend (95% CI)	R.A.
<u>Eastern BBS Region</u>	40	-5.3 (-11.0, 0.0)		-0.8 (-12.4, 18.7)	0.2
<u>Prairie Hardwood Transition</u>	5	-6.5 (-14.8, 2.4)		2.3 (-16.2, 173.3)	0.0

Prairie Hardwood Transition – credibility red

Eastern Region – credibility red

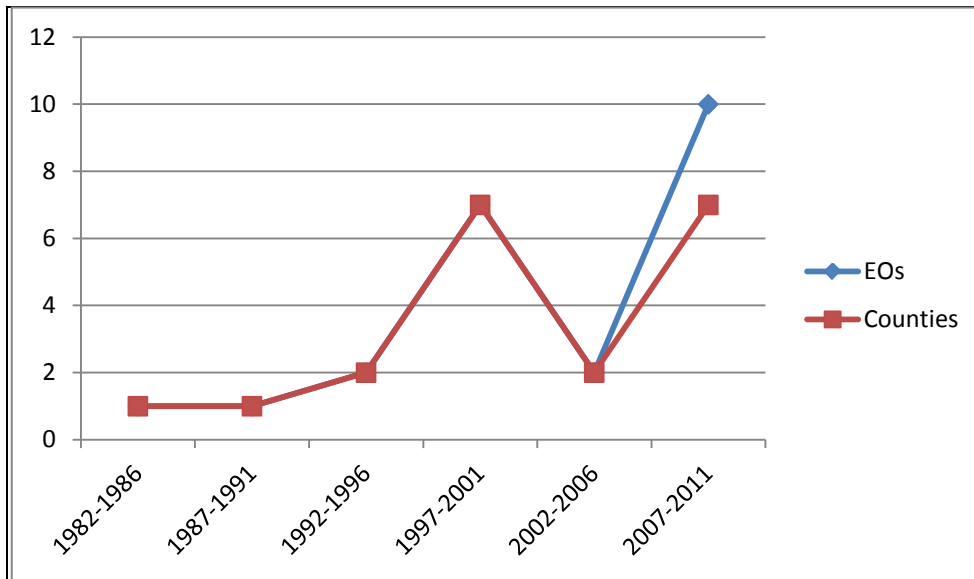


Yellow-crowned night heron, *Nycticorax nycticorax* (Illinois endangered)
 (EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
8/21/2010	23	12	7	19

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	1	1	2	7	2	10
Counties	1	1	2	7	2	7



Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

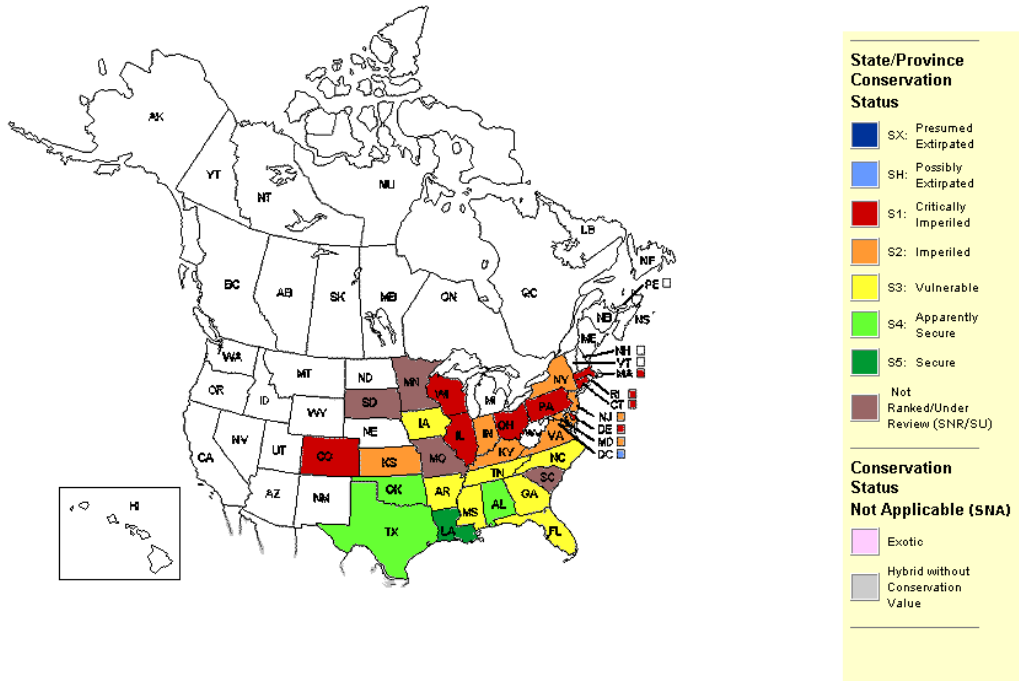


2007-2011



All

Nyctanassa violacea



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

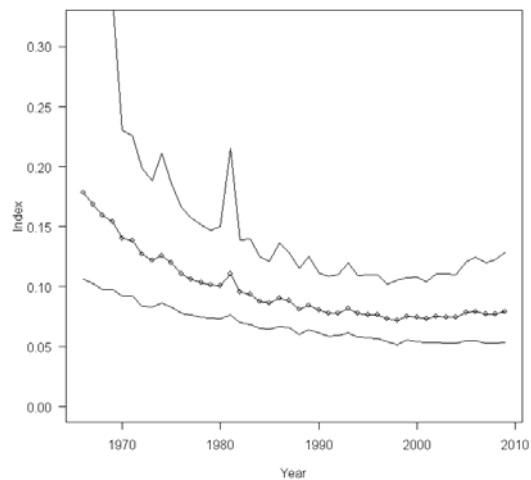
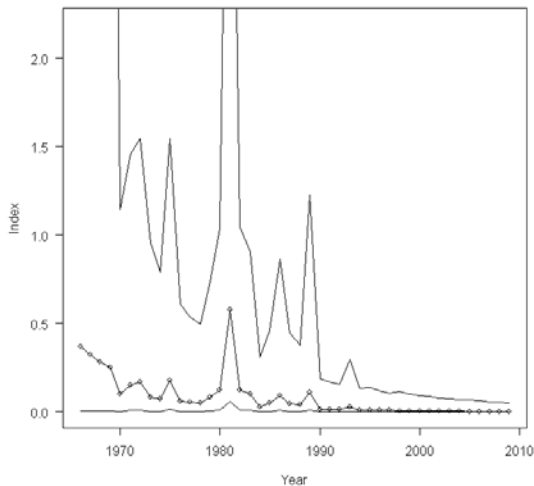
Yellow-crn. Night Heron *Nyctanassa violacea*

North American Breeding Bird Survey Trend Results

	-----1966-2009 trends-----			-----1999-2009-----		
Region	N	Trend (95% CI)		Trend (95% CI)	R.A.	
<u>Eastern BBS Region</u>	202	-1.8 (-4.1, -0.2)		0.5 (-3.0, 4.4)	0.1	
<u>Illinois</u>	5	-10.7 (-23.3, -0.8)		-10.0 (-40.9, 32.4)	0.0	

Illinois – credibility red

Eastern Region – credibility red

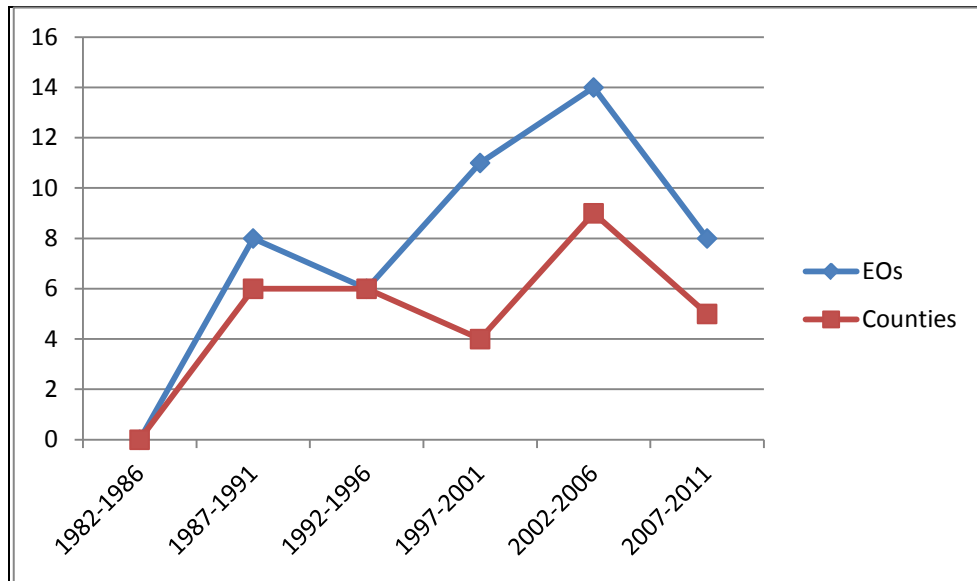


Yellow-headed blackbird, *Xanthocephalus xanthocephalus* (Illinois endangered)
 (EO = element occurrence and is roughly equivalent to a breeding record for one or more local pairs)

Illinois – Natural Heritage (Biotics 4) Database

Last observed	Total # EOs	Total seen since Jan 2002	# protected occurrences	# topo quads
5/12/2011	46	24	7	44

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
EOs	0	8	6	11	14	8
Counties	0	6	6	4	9	5



Element occurrences locations for respective time periods and all.



1992-1996



1997-2001



2002-2006

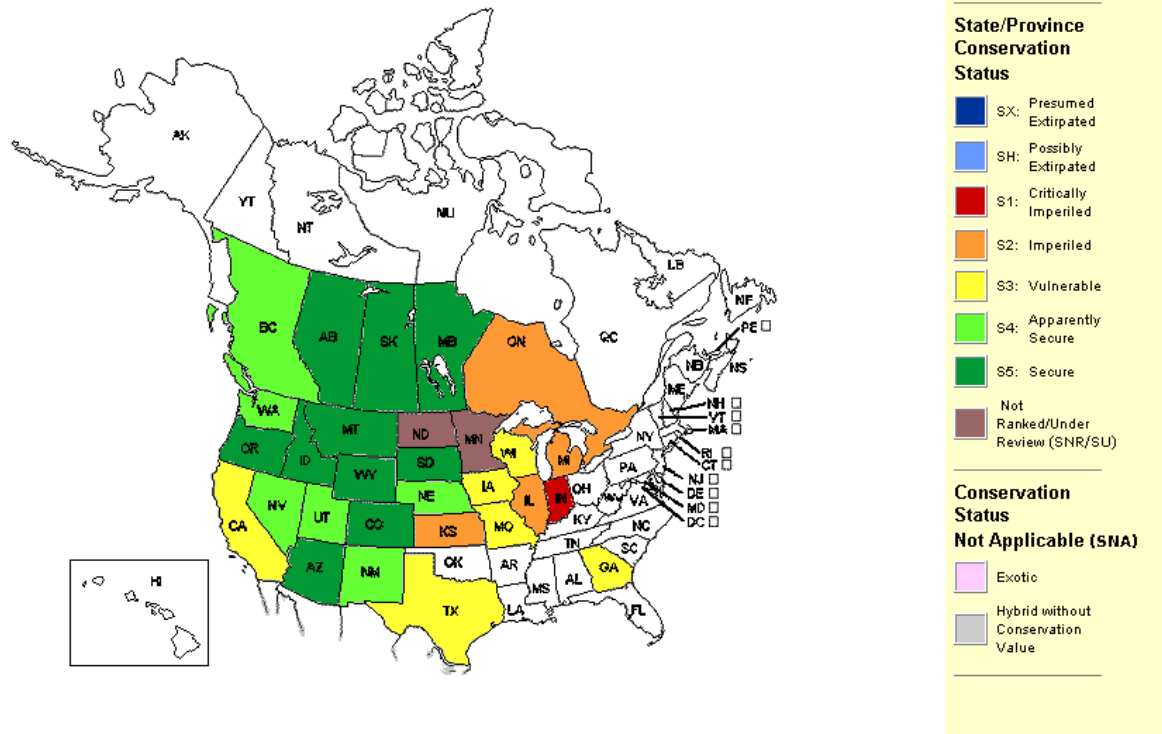


2007-2011



All

Xanthocephalus xanthocephalus



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed March 2, 2012).

Illinois Endangered Species Protection Board (ESPB) required 5-year review of the Illinois List of Endangered and Threatened Species (Illinois List) ending in 2014:

Form for ESPB Technical Expert Consultant (ESPB TEC) recommendation for adding a species to the Illinois List of Endangered and Threatened Species

Prepared by:
Anne Mankowski, Director
Illinois Endangered Species Protection Board
One Natural Resources Way
Springfield, IL 62702-1271
Office phone: 271-785-8687
Email: anne.mankowski@illinois.gov
March 2012

Complete one form for each species nomination. Fill-in all sections to the best of your ability with available information. Return the form and copies of attachments to Anne Mankowski.

A.

Date: 03/30/12

B. Proposer Information

Name: Tara Beveroth

Address: 1816 S. Oak St., Champaign IL 61820

Phone number: 217-265-7303

Email address: beveroth@illinois.edu

Title: Avian Field Specialist

Institution/Organization affiliation: Illinois Natural History Survey, Prairie Research Institute, University of Illinois

C. The scientific and common name, including nomenclature citation, of any species involved (the ESPB may elect to use the common name identified by NatureServe).

Scientific Name: *Caprimulgus vociferus*

Common Name: Eastern Whip-poor-will

Nomenclature Citation: The Auk 127 (3): 726, 2010

D. Identification of the specific listing status recommended – endangered or threatened – and reference to specific ESPB listing criteria that are affecting the species, including where these factors are acting upon the species, the magnitude and imminence of these factors, and whether,

either singly or acting in combination, these factors may cause the species to be an endangered or threatened species (endangered = at risk of extinction in the wild in Illinois; threatened = likely to become endangered in the wild in Illinois within the foreseeable future).

Recommend listing as endangered _____

Recommend listing as threatened X

Identify which ESPB listing criteria are affecting the species and for which your proposal provides supporting evidence:

1. Species or subspecies designated as federally endangered or threatened.
2. Species proposed for Federal Endangered or Threatened status that occurs in Illinois.
3. Species which formerly were more widespread in Illinois but have shown significant declines which may lead to extirpation from the State due to habitat destruction, collecting, or other pressures resulting from the development of Illinois. This includes species which:
 - a. are experiencing reproductive impairment;
 - b. have experienced a range reduction;
 - c. occur in reduced numbers even though range or number of populations remains steady.
4. Species which are low in numbers and for which known or potential threats are likely to cause significant declines, including:
 - a. species which exhibit very restricted geographic ranges, of which Illinois is a part;
 - b. species which exhibit restricted habitats or low populations in Illinois;
 - c. species which are significant disjuncts in Illinois, i.e., the Illinois population is far removed from the rest of the species' range.

E. Biological information on the species (including habitat and life-history traits) that is relevant to determining whether a species may be endangered or threatened.

The Eastern Whip-poor-will is a neotropical migrant that breeds in deciduous and mixed deciduous-coniferous forests with leaf cover. The openness in the forest understory appears to be more important than actual composition of the forest (Wilson 1985). Small isolated woodlots provide poor whip-poor-will habitat and the species has not been found to use this habitat (Reese 1996). Whip-poor-wills are strictly insectivores primarily feeding on moths, beetles, flies, grasshoppers and mosquitoes. They forage most often at dusk and dawn and during moonlit nights. Foraging is completed by sallying after insects from perches and sometimes from the ground. Wilson and Watts found that the high number of habitat openings created by some forest regeneration practices provides Whip-poor-wills with foraging opportunities that would not be present in systems that were not managed intensely (2008). Whip-poor-wills nest on the ground on leaf litter and can have two broods (Cink 2002).

F. A detailed narrative justification for the recommended measure, describing, based on available information, past and present numbers and distribution of the species involved (location information should include lat/long coordinates and other information necessary to add a record to the Natural Heritage (Biotics 4) Database) and any threats faced by the species; it is most helpful if this narrative contains an analysis of the information presented.

The Eastern Whip-poor-will is considered to be rare and declining by the U.S. Fish and Wildlife service. In Canada it has declined so much it is now considered Threatened. Anecdotal reports from birdwatchers throughout the state are that they no longer detect whip-poor-wills. When addressing the public they ask

where the whip-poor-wills have gone. In Illinois it was once considered to be widely distributed throughout the state, but how common it was at the time was unknown. Bohlen at one time referred to the whip-poor-will as a common summer resident throughout the state (1989). The Breeding bird survey shows that the trend estimate as declining (-8.9) based on data from 1966-2010. However, they cannot sufficiently estimate trends for nocturnal species like the Whip-poor-will. Illinois Spring Bird Count data is also insufficient for estimating population trends, since the surveys are primarily completed during daylight hours and do not show any decline in species such as the Whip-poor-will, which we know anecdotally are declining. According to the Illinois Breeding Bird Atlas (2004) the Whip-poor-will was reported from 259 (26%) priority blocks and 21 nonpriority blocks. Breeding was confirmed in only 14 (5%) of the priority blocks, which was among the lowest rates of confirmation for any species reported in more than 10 priority blocks. Presently, nocturnal bird monitoring programs have been put into place throughout the U.S. to try and gain a better estimate of population trends for species such as the Whip-poor-will. Changes in habitat and food supply are thought to be major reasons for this species decline. Many forests are not managed and understory becomes a problem, since they are foragers and need to be able to see and have clearings to forage for insects. Also, agricultural practices that use pesticides may be affecting this species food supply. Little is known about this species wintering areas, but it is also thought that they are also battling habitat loss and food supply problems in these areas. Because this species nests on the ground it also has to worry about increased mortality due to predators such as feral cats and raccoons.

G. Information on regulatory protections and conservation activities initiated or currently in place that may or may not protect the species or its habitat.

The Midwest Nocturnal Bird Monitoring Partnership was initiated to prospect for new information in regard to nocturnal bird population trends. Illinois is part of this group and has been monitoring for nocturnal owls and nightjars since 2008. Habitat loss and degradation are two of the main factors that are suspected to be causing the whip-poor-wills decline. Although reduced insect prey, due to pesticides and shifts in hatching times caused by climate change may also be contributing to whip-poor-will decline. While the forest cover in Illinois has remained relatively stable over the last hundred years, the forest structure has changed (Walk et al. 2010). Whip-poor-wills prefer a forest with little or no understory and unfortunately many of our forest have not been managed and understory vegetation has taken over (Cink 2002). Much of the forest in Illinois are privately owned (90%), so many people may not have the tools or the knowledge to adequately manage their forests. Fortunately in 1983 Illinois passed the Illinois Forestry Development Act. Landowners with approved forest management plans are given a tax incentive. However, it will remain a challenge trying to gain the cooperation of private landowners. The threat of a strong farming economy is something we need to think about as forest landowners will continue to feel the pressures of developing their forests into additional agricultural land.

H. Information regarding the status of the species over all or a significant portion of its range.

This species is considered declining by the U.S. Fish and Wildlife Service and is a species of Conservation Concern. It is a threatened species in Canada.

I. Supporting documentation in the form of copies of reprints of pertinent publications, data, reports or letters from authorities, and maps.

The ESPB may consult information already in our files for a subject species, but will only conduct additional research as time and resources allow when evaluating whether a listing recommendation presents substantial information indicating listing may be warranted. Therefore, to ensure that we will

consider any supporting documentation you reference, you should provide either electronic or hard copies of any supporting materials cited in the recommendation, or valid links to public websites where the cited materials can be accessed; these materials should be in English. If you do not, we may at our option contact you to obtain supporting documentation. However, if you do not provide the supporting documentation, and it is not otherwise readily available in our files, we will be unable to consider this information in making our finding. In addition, we request that you provide literature citations that are specific enough to allow us to easily locate within the documentation the particular information cited in the petition, including page numbers or chapters, as applicable.

Provide specific citations here:

Bohlen, D.H. 1989. The Birds of Illinois. Indiana University Press. 240p

Breeding Bird Survey: <http://www.mbr-pwrc.usgs.gov/cgi-bin/atlas10.pl?04170&1&10>

Cink, C. L. 2002. Whip-poor-will (*Caprimulgus vociferous*). The birds of North America. Number 620.

Kleen, V.M., L. Cordle, and R.A. Montgomery. 2004. The Illinois Breeding Bird Atlas. Illinois Natural History Survey Special Publication No. 25 xviii + 459pp. (PAGE 176)

Reese, J.G. 1996. Whip-poor-will. In: Robbins, C.S., ed. Atlas of the breeding birds of Maryland and the District of Columbia. Pittsburgh, PA: University of Pittsburgh Press: 194-195

Sauer, J. R., J. E. Hines, and J. Fallon. 2007. The North American Breeding Bird Survey, Results and Analysis 1966 - 2006. Version 10.13.2007. USGS Patuxent Wildlife Research Center, Laurel, MD

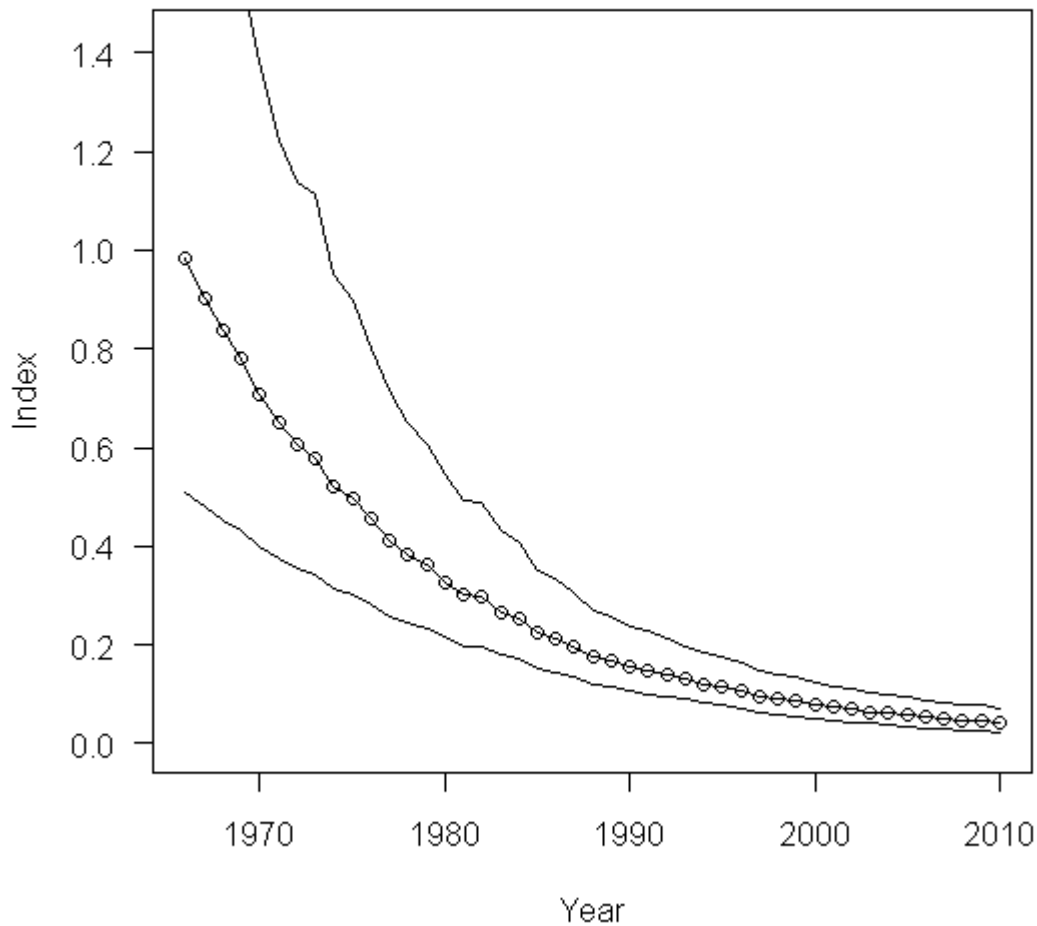
Spring Bird Count Data – INHS & DNR. <http://www.inhs.uiuc.edu/databases/sbc/about.html>

Walk, J.W., M.P. Ward, T.J. Benson, J.L. Deppe, S.A. Lischka, S.D. Bailey, and J.D. Brawn. 2010. Illinois Birds: a century of change. Illinois Natural History Survey Special Publication 31.

Wilson, M.D. and B. D. Watts. 2008. Landscape configuration effects on distribution and abundance of Whip-poor-wills. Wilson Journal of Ornithology 120(4):778-783.

Provide a list of attachments here: SEE BELOW

North American Breeding Bird Survey Trend estimates for Eastern Whip-poor-will from 1966-2010.



Central Hardwoods species trend estimates (See Whip-poor-will)

Species	Central Hardwoods			West Gulf Coastal Plain/Ouachitas		
	Trend	<i>P</i>	<i>N</i> ¹	Trend	<i>P</i>	<i>N</i>
Acadian flycatcher	-0.3	0.56	107	-2.0	0.05	67
American woodcock	-9.1	0.35	3	- ²	-	-
Bachman's sparrow	-	-	-	-7.8	0.00	27
Bell's vireo	-3.2	0.49	18	-4.7	0.03	14
Bewick's wren	-6.5	0.00	61	0.8	0.88	11
Black-and-white warbler	2.3	0.21	50	-2.9	0.01	60
Blue-gray gnatcatcher	-1.0	0.26	118	-0.9	0.36	75
Blue-winged warbler	-4.0	0.01	62	-	-	-
Brown thrasher	-1.4	0.00	125	-1.4	0.01	64

Brown-headed nuthatch	-	-	-	-1.4	0.18	52
Carolina chickadee	0.2	0.70	123	-2.0	0.00	77
Cerulean warbler	-6.3	0.00	34	-9.5	0.00	5
Chimney swift	-2.6	0.00	124	-1.1	0.15	76
Chuck-will's-widow	-0.9	0.19	64	-1.3	0.04	60
Easternwood-pewee	-1.4	0.00	124	-4.9	0.00	75
Field sparrow	-3.2	0.00	125	-3.7	0.01	45
GreatCrested flycatcher	-0.8	0.09	123	-1.3	0.04	77
Hooded warbler	2.7	0.08	31	-3.1	0.35	60
Kentucky warbler	-0.4	0.32	108	-2.2	0.00	73
Louisiana waterthrush	2.6	0.02	66	-1.3	0.49	28
Mississippi kite	16.3	0.16	2	6.4	0.21	16
Northern bobwhite	-3.1	0.00	125	-4.4	0.00	75
Northern parula	3.7	0.00	95	-2.5	0.17	53
Orchard oriole	-0.9	0.01	124	-3.0	0.01	75
Painted bunting	19.8	0.61	5	-0.6	0.48	63
Pileated woodpecker	1.8	0.01	112	-0.9	0.14	72
Prairie warbler	-2.6	0.00	94	-4.4	0.00	60
Prothonotary warbler	0.0	0.98	52	-5.8	0.00	53
Red-cockaded woodpecker	-	-	-	9.0	0.00	6
Red-headed woodpecker	-1.0	0.09	115	-3.2	0.00	68
Swainson's warbler	-	-	-	23.5	0.23	26
Swallow-tailed kite	-	-	-	-	-	-
Whip-poor-will	-1.8	0.05	71	6.6	0.22	11
White-eyed vireo	-0.4	0.20	120	-0.8	0.19	76
Wood thrush	-0.7	0.05	118	-1.4	0.05	67
Worm-eating warbler	0.4	0.77	44	-2.3	0.51	28
Yellow-billed cuckoo	-1.9	0.00	125	-1.1	0.00	77
Yellow-breasted chat	-1.9	0.00	125	1.3	0.01	75
Yellow-throated vireo	0.9	0.25	99	1.1	0.38	62
Yellow-throated warbler	3.8	0.00	76	-0.9	0.65	43

¹ Number of Breeding Bird Survey routes on which trend estimate is based.

² No trend estimate available.

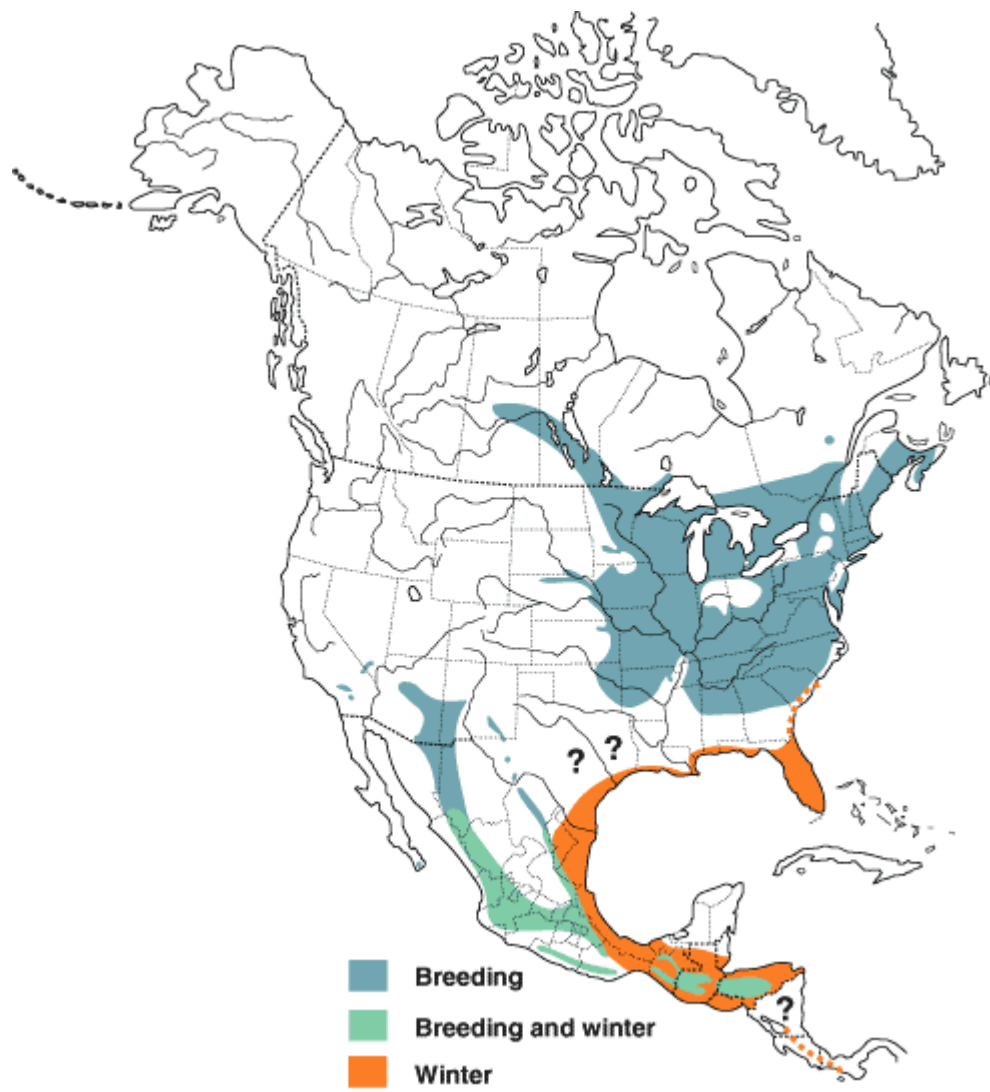
Table 1.—Partners in Flight total breeding score and U.S. Fish and Wildlife Service Bird of Conservation Concern status for forty priority landbird species in the Central Hardwoods and West Gulf Coastal Plain/Ouachitas Bird Conservation Regions.

Species	Alpha Code ¹	Central Hardwoods		West Gulf Coastal Plain/Ouachitas	
		Total breeding score	Bird of Conservation Concern?	Total breeding score	Bird of Conservation Concern?
Acadian flycatcher	ACFL	16	No	17	Yes
American woodcock	AMWO	-	No	-	No
Bachman's sparrow	BACS	20	Yes	20	Yes
Bell's vireo	BEVI	15	Yes	16	Yes
Bewick's wren	BEWR	15	Yes	16	Yes
Black-and-white warbler	BAWW	13	No	16	No
Blue-gray gnat catcher	BGGN	14	No	13	No
Blue-winged warbler	BWWA	19	Yes	-	No
Brown thrasher	BRTH	15	No	13	No
Brown-headed nuthatch	BHNU	19	No	19	Yes
Carolina chickadee	CACH	15	No	16	No
Cerulean warbler	CERW	19	Yes	19	Yes
Chimney swift	CHSW	16	No	15	No
Chuck-will's-widow	CWWI	14	No	16	Yes
Eastern wood-pewee	EAWP	15	No	16	No
Field sparrow	FISP	17	No	15	No
Greatcrested flycatcher	GCFL	13	No	13	No
Hooded warbler	HOWA	13	No	16	No
Kentucky warbler	KEWA	18	No	19	Yes
Louisiana waterthrush	LOWA	15	Yes	18	Yes
Mississippi kite	MIKI	14	No	16	No
Northern bobwhite	NOBO	16	No	15	No

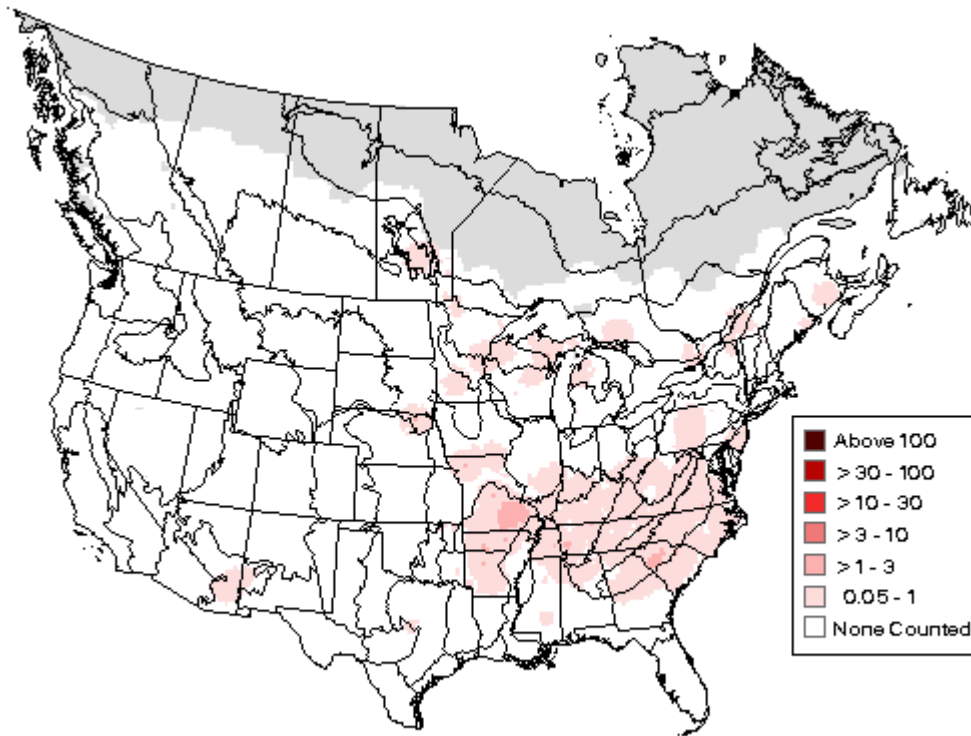
Northern parula	NOPA	12	No	13	No
Orchard oriole	OROR	17	No	18	Yes
Painted bunting	PABU	16	No	17	No
Pileated woodpecker	PIWO	13	No	16	No
Prairie warbler	PRAW	18	Yes	18	Yes
Prothonotary warbler	PROW	14	No	17	Yes
Red-cockaded woodpecker	RCWO	21	No	21	No
Red-headed woodpecker	RHOW	16	Yes	17	Yes
Swainson's warbler	SWWA	20	Yes	20	Yes
Swallow-tailed kite	STKI	19	No	18	Yes
Whip-poor-will	WPWI	17	Yes	13	No
White-eyed vireo	WEVI	15	No	16	No
Wood thrush	WOTH	16	Yes	15	Yes
Worm-eating warbler	WEWA	18	Yes	15	Yes
Yellow-billed cuckoo	YBCU	13	No	15	No
Yellow-breasted chat	YBCH	16	No	13	No
Yellow-throated vireo	YTVI	16	No	15	No
Yellow-throated warbler	YTWA	15	No	16	No

¹Pyle and DeSante (2003).

Birds of North America distribution map of the Eastern Whip-poor-will



Eastern Whip-poor-will BBS summer distribution map, 2006-2010



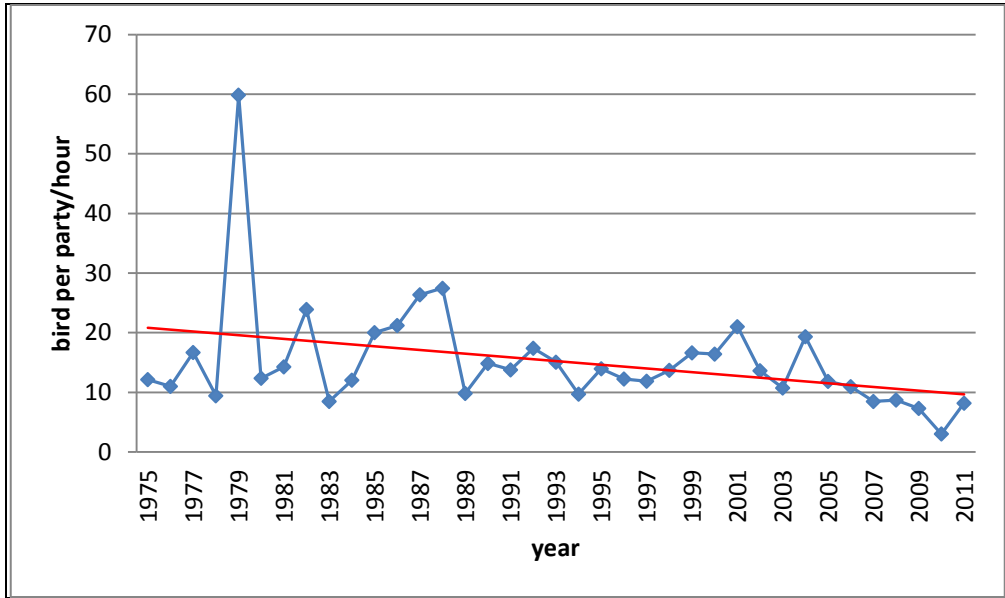
Whip-poor-will , *Caprimulgus vociferus* (Additional info and data, Mankowski 05/12)

Recommended for listing as Illinois-threatened

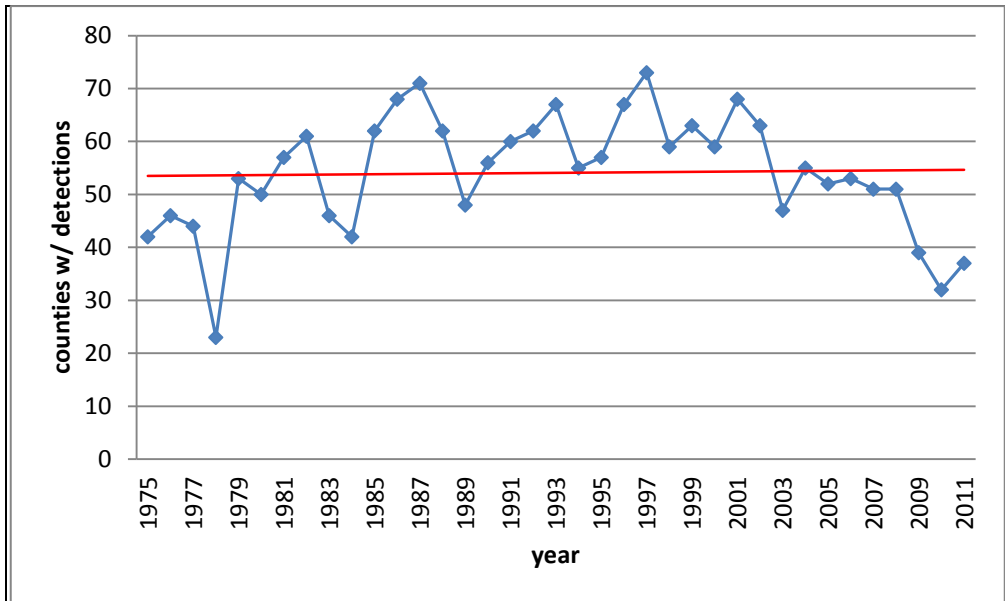
From Illinois Spring Bird Count data,

(I know some of this data is problematic in using for nocturnal birds, but.....did it anyway)
 data from INHS, I summed all counties for each year and generated these.

Blue line = birds per party/hour, statewide
 Red line = linear trendline



Blue line = counties with detections, statewide
 Red line = linear trendline



Breeding season records from *Meadowlark: A Journal of Illinois Birds* (Bailey, INHS) for the past 3 years are summarized below. Unless noted, records are for single individuals detected. Records represent at least 7 sites, including at least 4 IDNR sites (Bailey 2009, 2010, 2011 in press).

2009

JoDaviess Co (28); Iroquois Co (18); Calhoun Co (10); Iroquois County CA (7); Illinois Beach SP North, Lake Co (6); Kankakee Co (6); Illinois Beach SP South, Lake Co; Chicago, Cook Co; Nachusa Grasslands, Lee Co; Lively Grove Twp, Washington Co.

2010

Big River SF, Henderson Co (20); Green River CA, Lee Co (6); Cretaceous Hill, Pope Co (6); Pere Marquette, Jersey Co (5); Carlyle Lake, Clinton Co (4); Illinois Beach SP South, Lake Co (2); Nachusa Grasslands, Lee Co; Marion Co.

2011

Hamilton Co (17); Crab Orchard, Williamson Co (12); Ferne Clyffe, Johnson Co (7); Sam Dale, Wayne Co; Hutchins Creek, Union Co (5); Illinois Beach SP North, Lake Co; Goose Lake Twp, Grundy Co; Jefferson Co.

MOON (Monitoring of Owls and Nightjars, in Illinois) Reports (Beveroth, INHS) 2008, 2009, 2010, 2011

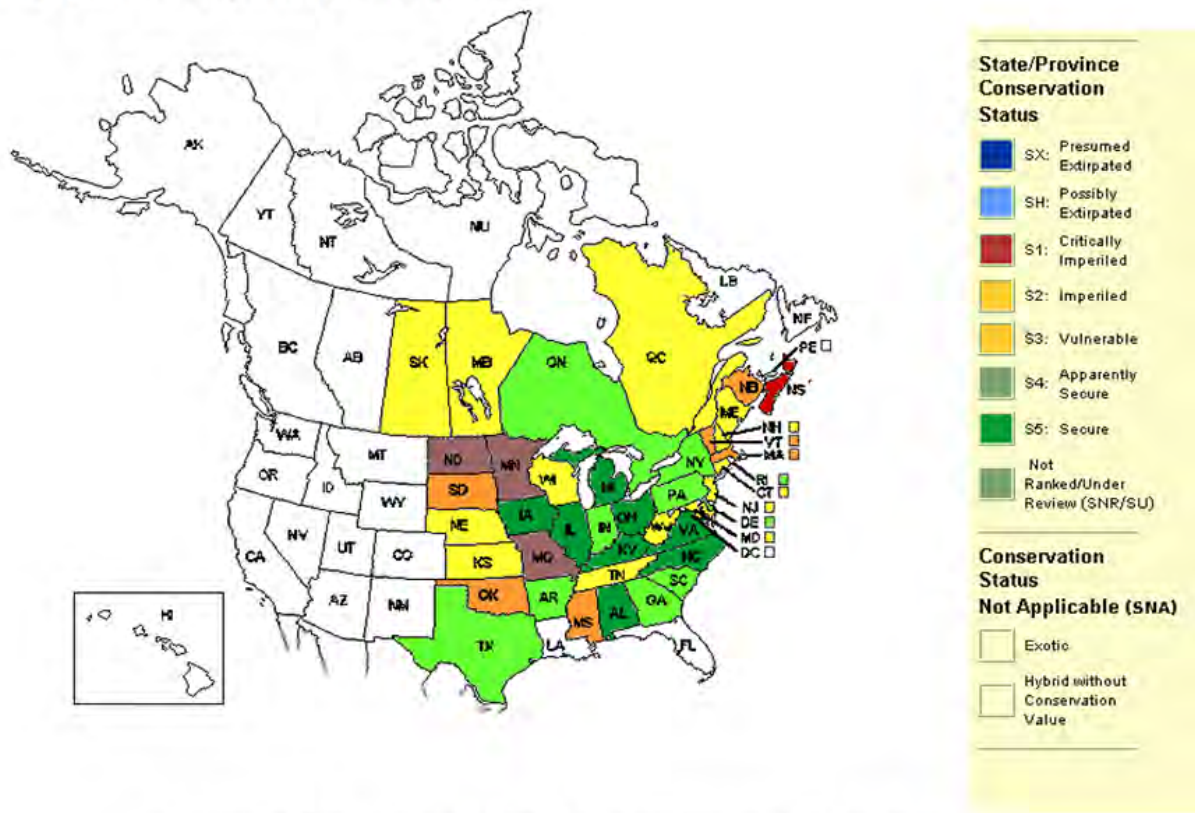
2008 – 184 detects, 7 routes, 6 counties

2009 – 135 detects, 10 routes, 10 counties

2010 – 137 detects, 10 routes, 9 counties

2011 – 77 detects, 11 routes, 9 counties

Whip-poor-will *Caprimulgus vociferus*



NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life (web application). Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed May 2, 2012).

Whip-poor-will *Caprimulgus vociferus*

North American Breeding Bird Survey Trend Results

|-----1966-2010 trends-----|

|-----2000-2010-----|



Region

Eastern BBS Region

N Trend (95% CI)

36 -6.8 (-8.9, -4.9)

Trend (95% CI) R.A.

-6.4 (-9.6, -3.3) 0.2

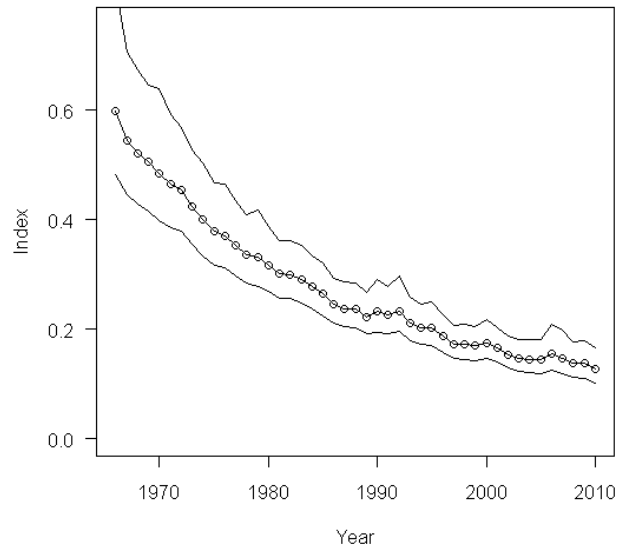
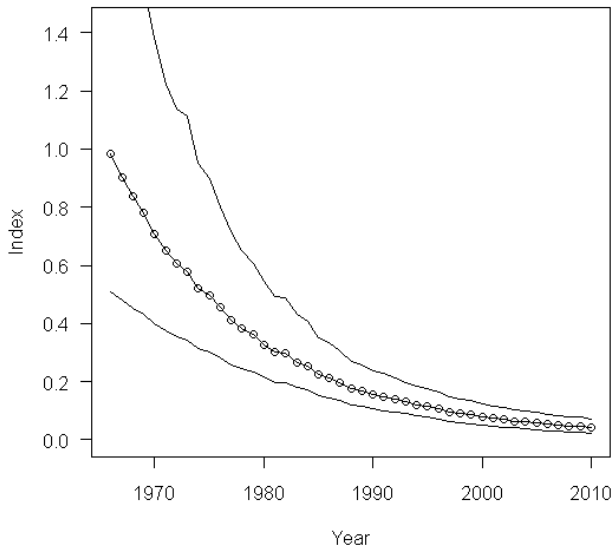
Illinois

703 -3.4 (-4.2, -2.7)

-3.2 (-5.4, -1.0) 0.2

Illinois – credibility yellow

Eastern Region – credibility blue



Illinois Endangered Species Protection Board (ESPB) required 5-year review of the Illinois List of Endangered and Threatened Species (Illinois List) ending in 2014:

Form for ESPB Technical Expert Consultant (ESPB TEC) recommendation for adding a species to the Illinois List of Endangered and Threatened Species

Prepared by:
Anne Mankowski, Director
Illinois Endangered Species Protection Board
One Natural Resources Way
Springfield, IL 62702-1271
Office phone: 271-785-8687
Email: anne.mankowski@illinois.gov
March 2012

Complete one form for each species nomination. Fill-in all sections to the best of your ability with available information. Return the form and copies of attachments to Anne Mankowski.

A. Date: 3 April 2012

B. Proposer Information

Name: Jeffery W Walk

Address: 301 SW Adams St, Suite 1007, Peoria, IL 61602

Phone number: 309-636-3327

Email address: jwalk@tnc.org

Title: Director of Science

Institution/Organization affiliation: The Nature Conservancy

C. The scientific and common name, including nomenclature citation, of any species involved (the ESPB may elect to use the common name identified by NatureServe).

Scientific Name: Caprimulgus carolinensis

Common Name: Chuck-will's-widow

Nomenclature Citation:

D. Identification of the specific listing status recommended – endangered or threatened – and reference to specific ESPB listing criteria that are affecting the species, including where these factors are acting upon the species, the magnitude and imminence of these factors, and whether, either singly or acting in combination, these factors may cause the species to be an endangered or threatened species (endangered = at risk of extinction in the wild in Illinois; threatened = likely to become endangered in the wild in Illinois within the foreseeable future).

Recommend listing as endangered _____

Recommend listing as threatened X

Identify which ESPB listing criteria are affecting the species and for which your proposal provides supporting evidence:

3. Species which formerly were more widespread in Illinois but have shown significant declines which may lead to extirpation from the State due to habitat destruction, collecting, or other pressures resulting from the development of Illinois. This includes species which:
 - a. are experiencing reproductive impairment;
 - b. have experienced a range reduction;
 - c. occur in reduced numbers even though range or number of populations remains steady.

E. Biological information on the species (including habitat and life-history traits) that is relevant to determining whether a species may be endangered or threatened.

Chuck-will's-widow ("chucks") are found in open pine-oak woodlands and upland deciduous forests, often in drier, more open situations such as savannas and barrens (Straight and Cooper 2000). In spite of ca. 1.5 million acres additional forest cover in Illinois over the past 90 years (e.g., compiled in Walk et al. 2010), the species has continued declining in recent decades (see below). The related effects of decline of oaks and increase maples, fire suppression, and low levels of timber harvest leading to more closed-canopy, more mesic forests may be affecting habitat quality for chucks. Due to their nocturnal habits, cryptic coloration, and inconspicuous nesting on the forest floor, chucks are not well sampled by programs such as the Breed Bird Survey (BBS), nor is nesting readily confirmed where individuals are detected.

F. A detailed narrative justification for the recommended measure, describing, based on available information, past and present numbers and distribution of the species involved (location information should include lat/long coordinates and other information necessary to add a record to the Natural Heritage (Biotics 4) Database) and any threats faced by the species; it is most helpful if this narrative contains an analysis of the information presented.

Historically and presently, occurrence of chucks decreases from south to north (Bohlen 1989, Kleen et al. 2004). Bohlen (1989) describes chucks as "uncommon" in southern Illinois, decreasing northward. Few chucks are detected on BBS routes in Illinois (route index of 0.00 to 0.02 for 1999-2009), though detections have declined (-10.7% per year from 1968-2009, 95% CI of -17.5 to -4.0 %/year). The Illinois Breeding Bird Atlas detected chucks in 32 of 1286 blocks sampled; nesting was confirmed in just one block (Kleen et al. 2004). From 2008-2010, the Illinois Monitoring of Owls and Nightjars project has detected chucks in 2 of 4 years, on no more than 1 route/year (<http://www.inhs.illinois.edu/research/MOON/>).

Breeding season records to *Meadowlark: A Journal of Illinois Birds* for the past 3 years are summarized below. Unless noted, records are for single individuals detected. Records represent at least 7 sites, including at least 4 IDNR sites (Bailey 2010, 2011, in press).

2009

Stephen A Forbes Sate Park, Marion County (**nest**); Ferne Clyffe State Park, Johnson County (21); Big River State Forest, Henderson County (2)

2010

Big River State Forest; Hardin Township, Pike County; Ferne Clyffe State Park (3)

2011

Hamilton County (5); Ferne Clyffe State Park (3); Goose Lake Township, Grundy County; Big River State Forest (2); Stephen A Forbes State Park; Sam Dale State Fish & Wildlife Area, Wayne County

G. Information on regulatory protections and conservation activities initiated or currently in place that may or may not protect the species or its habitat.

In 2005, chuck-will's-widow was identified as a "Species in Greatest Need of Conservation" in the Illinois Wildlife Action Plan, due to low population size and/or significantly decreased abundance from historical levels. To my knowledge, conservation actions (such as forest management) have not been undertaken explicitly with the intent of benefiting this species.

H. Information regarding the status of the species over all or a significant portion of its range.

Across the US, BBS data suggest a decline of 2.0%/year, 1966-2009. Chucks are not listed as endangered or threatened in any other state.

I. Supporting documentation in the form of copies of reprints of pertinent publications, data, reports or letters from authorities, and maps.

The ESPB may consult information already in our files for a subject species, but will only conduct additional research as time and resources allow when evaluating whether a listing recommendation presents substantial information indicating listing may be warranted. Therefore, to ensure that we will consider any supporting documentation you reference, you should provide either electronic or hard copies of any supporting materials cited in the recommendation, or valid links to public websites where the cited materials can be accessed; these materials should be in English. If you do not, we may at our option contact you to obtain supporting documentation. However, if you do not provide the supporting documentation, and it is not otherwise readily available in our files, we will be unable to consider this information in making our finding. In addition, we request that you provide literature citations that are specific enough to allow us to easily locate within the documentation the particular information cited in the petition, including page numbers or chapters, as applicable.

Provide specific citations here:

Bailey, SD. 2010. Field notes: the 2009 breeding season. *Meadowlark: A Journal of Illinois Birds* 19:14-44.

Bailey, SD. 2011. Field notes: the 2010 breeding season. *Meadowlark: A Journal of Illinois Birds* 20:10-40.

Bailey, SD. In press. Field notes: the 2011 breeding season. *Meadowlark: A Journal of Illinois Birds* 21:xx-xx.

Bohlen, HD. 1989. The birds of Illinois. Indiana University Press.

Illinois Monitoring of Owls and Nightjars (MOOM): <http://www.inhs.illinois.edu/research/MOON/>

Kleen et al. 2004. The Illinois breeding bird atlas. Illinois Natural History Survey Special Publication 26.

Sauer, J. R., J. E. Hines, J. E. Fallon, K. L. Pardieck, D. J. Ziolkowski, Jr., and W. A. Link. 2011. *The North American Breeding Bird Survey, Results and Analysis 1966 - 2009. Version 3.23.2011* [USGS Patuxent Wildlife Research Center, Laurel, MD.](http://www.mbr-pwrc.usgs.gov/bbs/) <http://www.mbr-pwrc.usgs.gov/bbs/>

Straight, Carrie A. and Robert J. Cooper. 2000. Chuck-will's-widow (*Caprimulgus carolinensis*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu.bnaproxy.birds.cornell.edu/bna/species/499>

Walk et a. 2010. Illinois Birds: A century of Change. Illinois Natural History Survey Special Publication 31.

Provide a list of attachments here:

Bailey, SD. 2010. Field notes: the 2009 breeding season. *Meadowlark: A Journal of Illinois Birds* 19:14-44.

Bailey, SD. 2011. Field notes: the 2010 breeding season. *Meadowlark: A Journal of Illinois Birds* 20:10-40.

Bailey, SD. In press. Field notes: the 2011 breeding season. *Meadowlark: A Journal of Illinois Birds* 21:xx-xx.

Chuck-will's-widow, *Caprimulgus carolinensis* (Additional info and data, Mankowski 05/12)

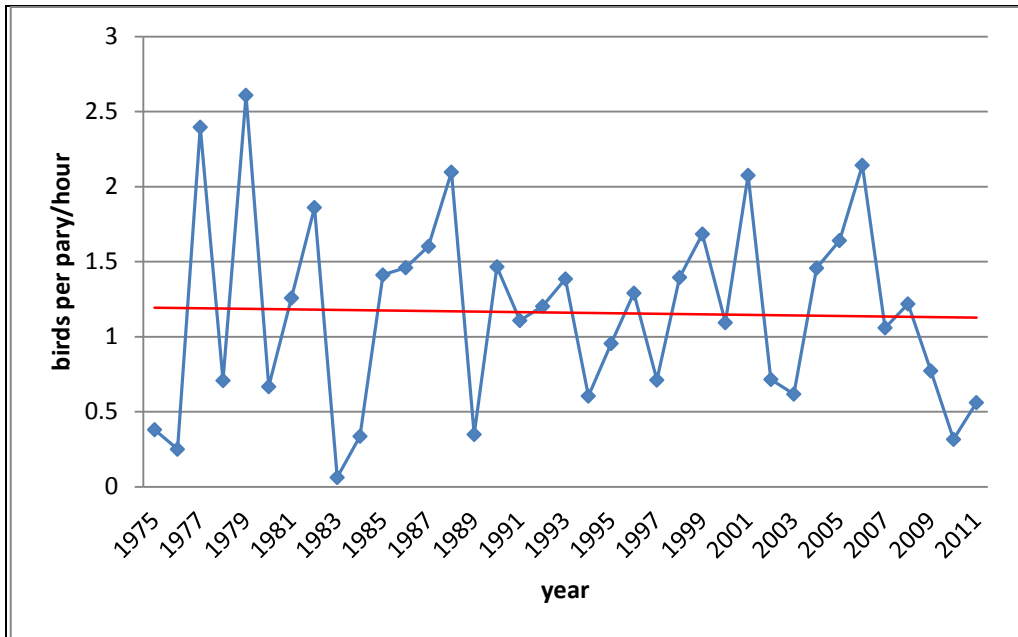
Recommended for listing as Illinois-threatened

From Illinois Spring Bird Count data,

(I know some of this data is problematic in using for nocturnal birds, but.....did it anyway)
data from INHS, I summed all counties for each year and generated these.

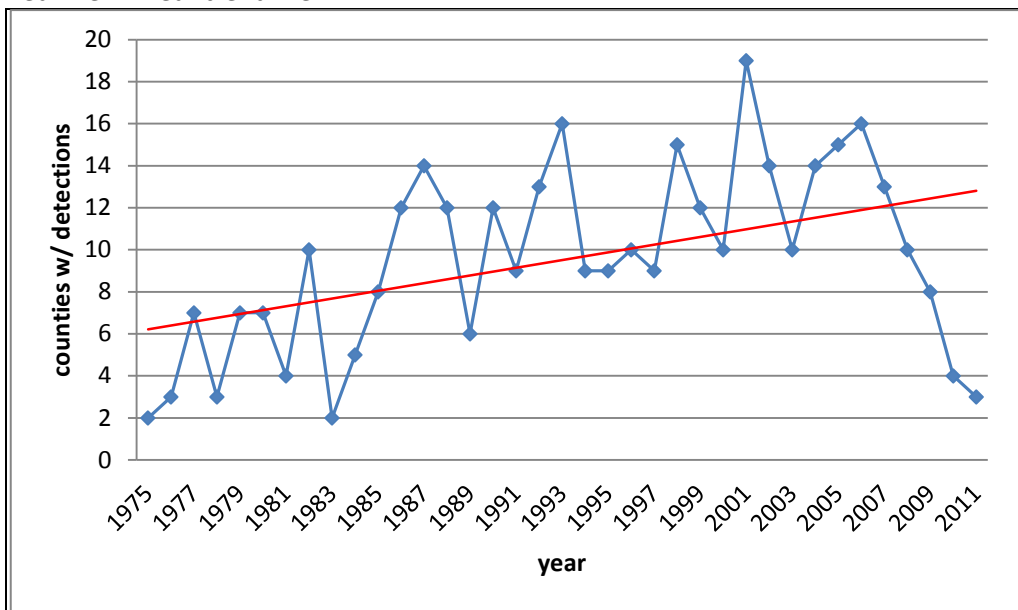
Blue line = birds per party/hour, statewide

Red line = linear trendline



Blue line = counties with detections, statewide

Red line = linear trendline



Chuck-will's-widow *Caprimulgus carolinensis*

North American Breeding Bird Survey Trend Results

|-----1966-2010 trends-----|

|-----2000-2010-----|



Region

Eastern BBS Region

Illinois

N Trend (95% CI)

494 -2.5 (-2.9, -2.1)

4 -10.8 (-17.8, -3.8)

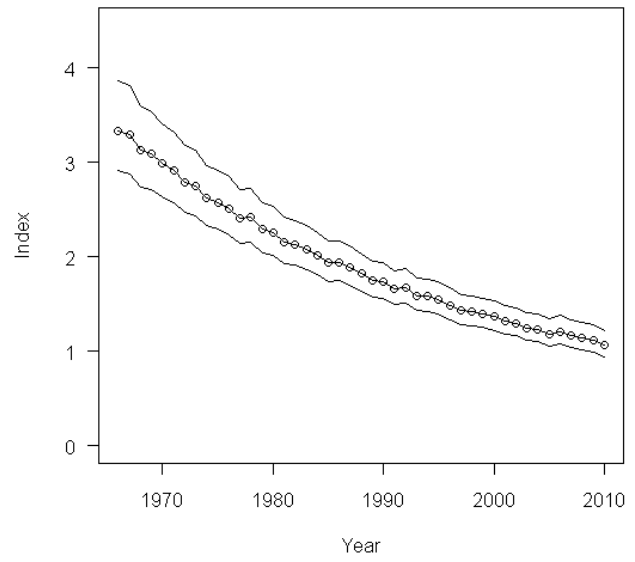
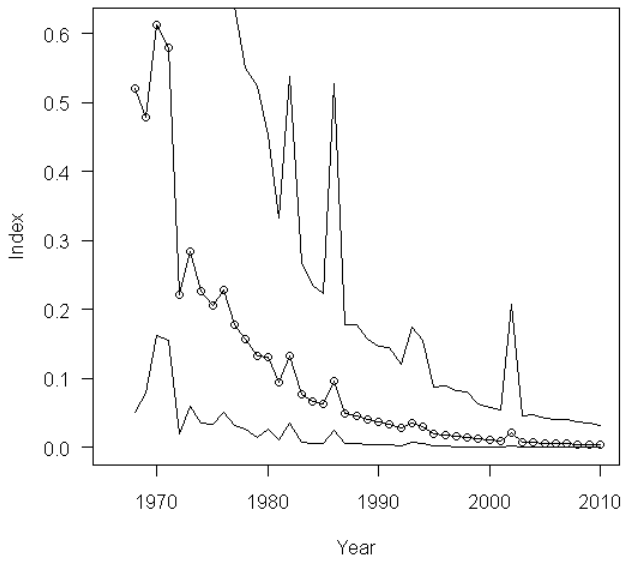
Trend (95% CI) R.A.

-2.4 (-3.2, -1.6) 1.9 0.3

-10.6 (-27.5, 14.4) 0.0

Illinois – credibility red

Eastern Region – credibility blue



Sauer, J. R., J. E. Hines, J. E. Fallon, K. L. Pardieck, D. J. Ziolkowski, Jr., and W. A. Link. 2011. *The North American Breeding Bird Survey, Results and Analysis 1966 - 2009. Version 3.23.2011* [USGS Patuxent Wildlife Research Center, Laurel, MD](#)




Patuxent Wildlife Research Center



Trend and Annual Index Information

Population trend estimates are the simplest measure of population change over a time period. They are expressed as a percent change per year, and in these Tables they are presented for many regions (or species) and two time periods.

Here is the header and one line of data for a "typical" trend output:

[Help file](#)

Check out our [Regional Credibility](#)  measure

	-----1966-2009 trends-----			-----1999-2009-----		
1	2	3	4	5	6	7
 Region	N	Trend	(95% CI)	Trend	(95% CI)	R.A.
 Northern Pacific Rainforest 8	36	-0.9	(-3.4, 1.8)	-0.8	(-7.9, 5.1)	0.3

1. Regions (or Species)

This column defines the group for which the trend is defined. Regions presented in this analysis are states, Provinces, Bird Conservation Regions (BCR), BBS Regions, Canada, US (lower 48 states), and Survey-wide (excluding data from Alaska and NF).

Bird Conservation Regions are used as the primary physiographic strata for the analysis. BCRs were developed to provide a coherent spatial framework for conservation planning efforts under the [North American Bird Conservation Initiative \(NABCI\)](#). These regions were derived from existing physiographic strata (see map and explanation at the Bird Studies Canada [BCR site](#). [BBS regions](#) are groups of physiographic strata. The Eastern Region (EA) is composed of strata east of the Mississippi River in the lower 48 US, but also includes forested strata in central Canada. The Central Region (CE) extends from the Mississippi River to the edge of the Rocky Mountains. The Western Region includes all strata to the west of the Central and Eastern Regions. Note that Alaska, Newfoundland, Yukon, and areas clearly to the north of the survey area are not included in any regional summary. The BBS regions were first defined in a paper by Danny Bystrak (Bystrak, D. 1981. *The North American Breeding Bird Survey*. Studies in Avian Biology 6:34-41, Figure 1). The present regions cover similar areas, but exact boundaries are based on Bird Conservation Regions rather than the BBS physiographic regions used in earlier analyses. [This map](#) shows the regions as groups of BCRs (Green=Eastern, Yellow=Central, Red=Western).

2. Sample Size

This number represents the number of survey routes on which the species was encountered during the long-term (1966-2009) interval. We note that earlier summaries of BBS data defined sample size slightly differently, as the number of routes for which trends could be calculated.

3. 1966-2009 Trend Estimates

These are trend estimates calculated as the ratio of endpoints from the annual indices produced in the hierarchical model analysis (See 8, below). They are presented as a yearly percentage change.

4. 1966-2009 Credible Interval for Trend Estimate

These values represent the 2.5% and 97.5% percentiles of the posterior distribution of trend estimates. These values replace the precision estimates and p values presented in earlier analyses. If the credible interval does not contain 0, the result could be judged significant, and in these tables significant results are indicated by red (for declining populations) or blue (for increasing populations) print.

5. 1999-2009 Trend Estimates

These are trend estimates calculated as the ratio of annual indexes from 2009 and 1999, presented as a % change/year. This 10 year interval describes recent patterns of population change.

6. 1999-2009 Credible Interval for Trend Estimate

These values represent the 2.5% and 97.5% percentiles of the posterior distribution of trend estimates. If the credible interval does not contain 0, the result could be judged significant.

7. Relative Abundance

The value is the annual index for the region from year 22. The quantity differs from the relative abundance measure provided in earlier analyses as it is model-based, produced as part of the hierarchical model analysis. As such, it is a predicted index for year 22, that is adjusted for observer and other effects. Earlier abundance measures were simple route averages within state-strata areas, area-weighted to get regional means.

8. Annual Indexes

Annual indexes are linked to the region (or species) names. Clicking on the name will provide a graphic of the annual indices and their credible intervals. Note that the graphics were produced to ensure that the annual indexes were visible with axes that permit observation of pattern in the indices. This scaling occasionally cuts off extreme values in the upper credible intervals.

Regional Credibility Measures

Although the BBS provides a huge amount of information about regional population change for many species, there are a variety of possible problems with estimates of population change from BBS data. Small sample sizes, low relative abundances on survey routes, imprecise trends, and missing data all can compromise BBS results. Often, users do not take these problems into account when viewing BBS results, and use the results inappropriately.

To provide some guidance to interpretation of BBS data, we have implemented a series of checks for some attributes that we view as cause for caution in interpretation of BBS results. We categorize BBS data in 3 credibility categories:



This category reflects data with an important deficiency. In particular:

- 1. The regional abundance is less than 0.1 birds/route (very low abundance),
- 2. The sample is based on less than 5 routes for the long term (very small samples), or
- 3. The results are so imprecise that a 5%/year change (as indicated by the half-width of the credible intervals) would not be detected over the long-term (very imprecise).



This category reflects data with a deficiency. In particular:


- 1. The regional abundance is less than 1.0 birds/route (low abundance),
- 2. The sample is based on less than 14 routes for the long term (small sample size), or
- 3. The results are so imprecise that a 3%/year change (as indicated by the half-width of the credible intervals) would not be detected over the long-term (quite imprecise), or



This category reflects data with at least 14 samples in the long term, of moderate precision, and of moderate abundance on routes.

Note:

- 1. Due to changes in the way N of samples (in this analysis, it is defined as the N of routes on which the species occurred), relative abundance (taken directly from the hierarchical model results), and the precision (half-width of the credible intervals), these categories are slightly different than those used in earlier analyses. We will refine these groupings based on user comments and our evaluation of the limitations of the hierarchical model analysis.

- 2. Even data falling in the  category may not provide valid results. There are many factors that can influence the validity and use of the information, and any analysis of BBS data should carefully consider the possible problems with the data.
- 3. We are occasionally asked to identify which deficiency is causing the flag. However, the point of the codes is to provide a quick and simple set of cautions to users, and we are resisting the notion of setting up a complicated series of codes. To determine why the code exists, look at the results. All of these deficiencies (abundances, precisions, etc) will be evident from the results we present.