# NatureServe Conservation Status Assessments: Rank Calculator

Updating Illinois SGCN sRanks - Animals

*To find the species of interest, use the Ctrl + F, then type the common or scientific name

# NatureServe Conservation Status Ranks

## SX Presumed Extirpated

Species believed to be extirpated from the state. Not located despite intensive searches of historical sites and other appropriate habitat. No likelihood of rediscovery.

## SH Possibly Extirpated

Species occurred historically in the state, and there is some possibility that it may be rediscovered.

## S1 Critically Imperiled

Critically imperiled in the state because of extreme rarity (often <=5 occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to state extirpation.

## S2 Imperiled

Imperiled in the state because of rarity due to very restricted range, very few populations (<=20), steep declines, or other factors making it vulnerable to extirpation from the state.

## S3 Vulnerable

Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.

## S4 Apparently Secure

Uncommon but not rare; some cause for long-term concern due to declines or other factors.

## S5 Secure

Common, widespread, and abundant in the nation or state/province.

## SU Unrankable

Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.

## S#S# Range Rank

A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species or community.

## S#? Uncertainty

# Factor Score Ranges

**EOR Values**

| | |
|---|---|
| ZA | 0-5 EORs |
| A | 1-5 EORs |
| B | 5-20 EORs |
| C | 21-80 EORs |
| D | 81-300 EORs |
| E | >300 EORs |

**EOR Range Values**

| | |
|---|---|
| AB | 1-20 EORs |
| AC | 1-80 EORs |
| AD | 1-300 EORs |
| BC | 6-80 EORs |
| BD | 6-300 EORs |
| BE | 6 to >300 EORs |
| CD | 21-300 EORs |
| CE | 21 to >300 EORs |
| DE | 81 to >300 EORs |

**Range Extent Values**

| | |
|---|---|
| ZA | Zero to <100 km2 |
| A | <100 km2 |
| B | 100-250 km2 |
| C | 250-1,000 km2 |
| D | 1,000-5,000 km2 |
| E | 5,000-20,000 km2 |
| F | 20,000-200,000 km2 |
| G | 200,000-2,500,00 km2 |

**Range Extent Uncertainty Values**

| | |
|---|---|
| AB | <100-250 km2 |
| AC | <100-1000 km2 |
| AD | <100-5000 km2 |
| AE | <100-20,000 km2 |
| AF | <100-200,000 km2 |
| AG | <100-2,500,000 km2 |
| BC | 100-250 km2 |
| BD | 100-1000 km2 |
| BE | 100-5000 km2 |
| BF | 100-20,000 km2 |
| BG | 100-200,000 km2 |
| BH | 100-2,500,000 km2 |
| CD | 250-5000 km2 |
| CE | 250-20,000 km2 |
| CF | 250-200,000 km2 |
| CG | 250-2,500,000 km2 |
| CH | 250 to >2,500,00 km2 |
| DE | 1000-20,000 km2 |
| DF | 1000-200,000 km2 |
| DG | 1000-2,500,000 km2 |
| DH | 1000 to >2,500,00 km2 |
| EF | 5000-200,000 km2 |
| EG | 5000-2,500,000 km2 |
| EH | 5000 to >2,500,00 km2 |

# Factor Score Ranges

**Threat Impact Values**

| | |
|---|---|
| A | Very High |
| B | High |
| C | Medium |
| D | Low |
| U | Unknown |

**Threat Impact Uncertainty Ranges**

| | |
|---|---|
| AB | Very High-High |
| AC | Very High-Medium |
| BC | High-Medium |
| BD | High-Low |
| CD | Medium-Low |

**Short-Term Trend Values**

| | |
|---|---|
| AD | Decline of >50% |
| E | Decline of 30-50% |
| G | Relatively Stable <=10% |
| I | Increase of >25% |
| A | Decline of >90% |
| B | Decline of 80 - 90% |
| C | Decline of 70 - 80% |
| D | Decline of 50 - 70% |
| E | Decline of 30 - 50% |
| F | Decline of 10 - 30% |
| G | Relatively Stable (<=10% change) |
| H | Increase of 10 - 25% |
| I | Increase of >25% |
| U | Unknown |

**Short-Term Trend Range Values**

| | |
|---|---|
| AB | Decline of >80% |
| AC | Decline of >70% |
| AD | Decline of >50% |
| AE | Decline of >30% |
| AF | Decline of >10% |
| AG | Decline of >90% to Relatively Stable |
| AH | Decline of >90% to Increase of <25% |

# Factor Score Ranges

## Linear Species (Mussels and Fish)

| Area Occupancy Values | |
|---|---|
| ZA | Zero to 4 1-km2 grid cells |
| A | 1-4 1-km2 grid cells |
| B | 5-10 1-km2 grid cells |
| C | 11-20 1-km2 grid cells |
| D | 21-100 1-km2 grid cells |
| E | 101-500 1-km2 grid cells |
| F | 501-2,000 1-km2 grid cells |
| G | 2,001-10,000 1-km2 grid cells |

| Area Occupancy Range Values | |
|---|---|
| AB | 1-10 1-km2 grid cells |
| AC | 1-20 1-km2 grid cells |
| AD | 1-100 1-km2 grid cells |
| AE | 1-500 1-km2 grid cells |
| AF | 1-2,000 1-km2 grid cells |
| AG | 1-10,000 1-km2 grid cells |
| AH | 1-50,000 1-km2 grid cells |
| BC | 5-20 1-km2 grid cells |
| BD | 5-100 1-km2 grid cells |
| BE | 5-500 1-km2 grid cells |
| BF | 5-2,000 1-km2 grid cells |
| BG | 5-10,000 1-km2 grid cells |
| BH | 5-50,000 1-km2 grid cells |
| BI | 5 to >50,000 1-km2 grid cells |
| CD | 11-100 1-km2 grid cells |
| CE | 11-500 1-km2 grid cells |
| CF | 11-2,000 1-km2 grid cells |
| CG | 11-10,000 1-km2 grid cells |
| CH | 11-50,000 1-km2 grid cells |
| CI | 11 to >50,000 1-km2 grid cells |
| DE | 21-500 1-km2 grid cells |
| DF | 21-2,000 1-km2 grid cells |
| DG | 21-10,000 1-km2 grid cells |
| DH | 21-50,000 1-km2 grid cells |
| DI | 21 to >50,000 1-km2 grid cells |

## Non-Linear Species

| Area Occupancy Values | |
|---|---|
| ZA | Zero to 1 4-km2 grid cells |
| A | 1 4-km2 grid cells |
| B | 2 4-km2 grid cells |
| C | 3-5 4-km2 grid cells |
| D | 6-25 4-km2 grid cells |
| E | 26-125 4-km2 grid cells |
| F | 126-500 4-km2 grid cells |
| G | 501-2,500 4-km2 grid cells |
| H | 2,501-12,500 4-km2 grid cells |
| I | >12,500 4-km2 grid cells |

| Area Occupancy Range Values | |
|---|---|
| AB | 1-2 4-km2 grid cells |
| AC | 1-5 4-km2 grid cells |
| AD | 1-25 4-km2 grid cells |
| AE | 1-125 4-km2 grid cells |
| AF | 1-500 4-km2 grid cells |
| AG | 1-2,500 4-km2 grid cells |
| AH | 1-12,500 4-km2 grid cells |
| BC | 2-5 4-km2 grid cells |
| BD | 2-25 4-km2 grid cells |
| BE | 2-125 4-km2 grid cells |
| BF | 2-500 4-km2 grid cells |
| BG | 2-2,500 4-km2 grid cells |
| BH | 2-12,500 4-km2 grid cells |
| BI | 2 to >12,500 4-km2 grid cells |
| CD | 3-25 4-km2 grid cells |
| CE | 4-125 4-km2 grid cells |
| CF | 4-500 4-km2 grid cells |
| CG | 4-2,500 4-km2 grid cells |
| CH | 4-12,500 4-km2 grid cells |
| CI | 4 to >12,500 4-km2 grid cells |
| DE | 6-125 4-km2 grid cells |
| DF | 6-500 4-km2 grid cells |
| DG | 6-2,500 4-km2 grid cells |
| DH | 6-12,500 4-km2 grid cells |
| DI | 6 to >12,500 4-km2 grid cells |
| EF | 26-500 4-km2 grid cells |
| EG | 26-2,500 4-km2 grid cells |
| EH | 26-12,500 4-km2 grid cells |
| EI | 26 to >12,500 4-km2 grid cells |

# Elktoe (*Alasmidonta marginata*)

Calculated Rank: **S2S3**

Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

Threats:

**10 threats/stressors** identified in IWAP 2015: Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Hosts, Invasive/Exotics, Genetics, Dispersal, Recruitment, Mortality

**AC (Medium-Very High (>4))**

Rarity:

Range Extent: **60,381 to 60,404 km2** range extent per minimum convex polygon

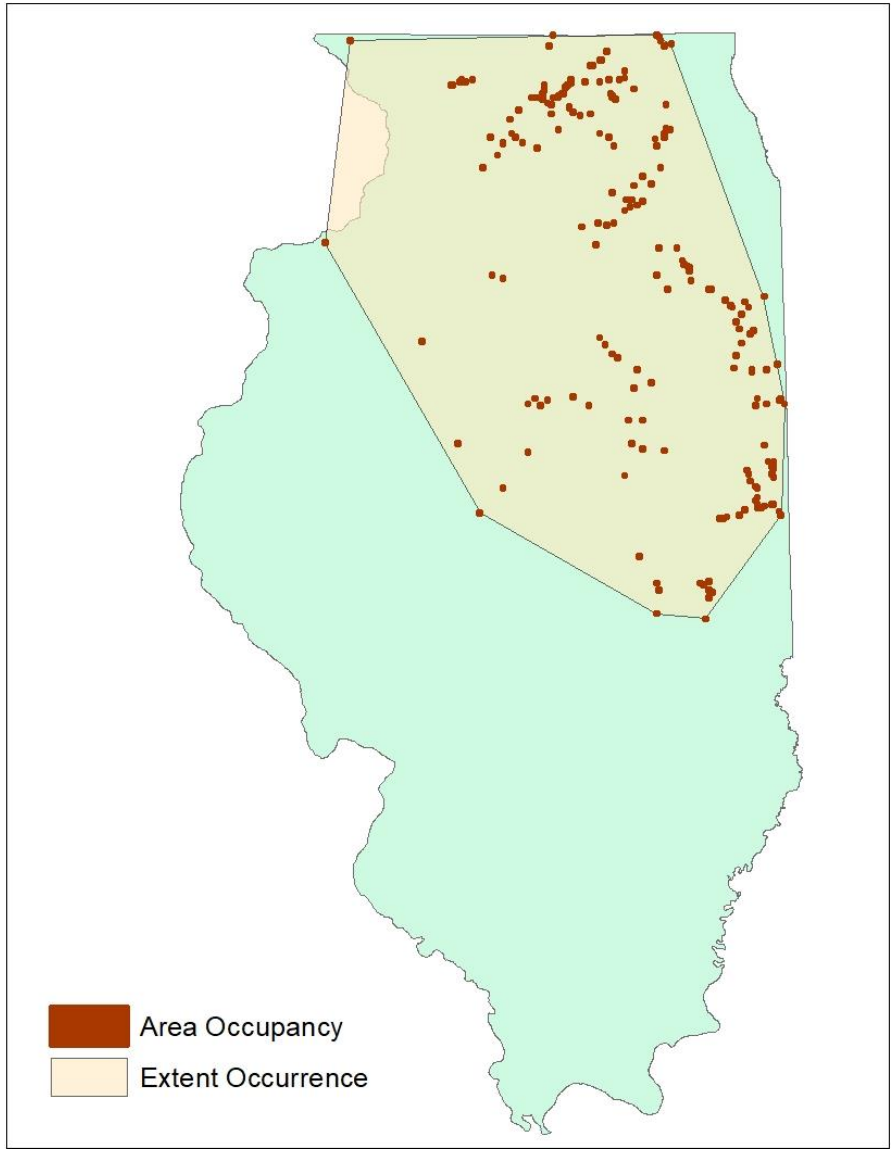
**F (20,000-200,000 km2)**

Area of Occupancy: **201 to 212** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **102 to 141 EORs** observed 2008 to 2017

**D (81-300 EORs)**



# Slippershell (*Alasmidonta viridis*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**7 threats/stressors** identified in IWAP 2015: Distribution/Hydrology, Pollutants-Sediment, Hosts, Recruitment, Mortality, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **55,811.9 to 55,953 km2** range extent per minimum convex polygon

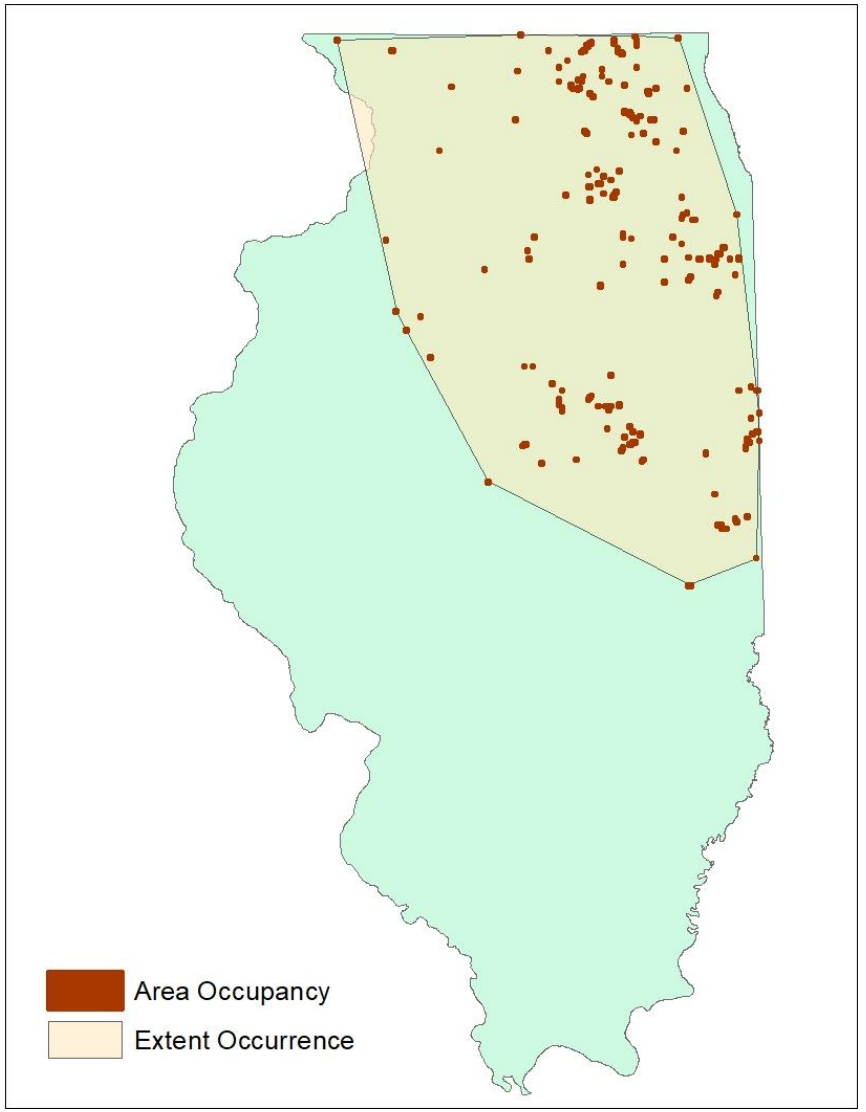
**F (20,000-200,000 km2)**

Area of Occupancy: **208 to 223** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **94 to 96 EORs** observed 2008 to 2017

**D (81-300 EORs)**



# Spectaclecase (*Cumberlandia monodonta*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**11 threats/stressors** identified in the 2015 IWAP: Fragmentation, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Hosts, Dispersal, Recruitment, Mortality, Killing, Disturbance

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **8,988 to 14,267 km2** range extent per minimum convex polygon

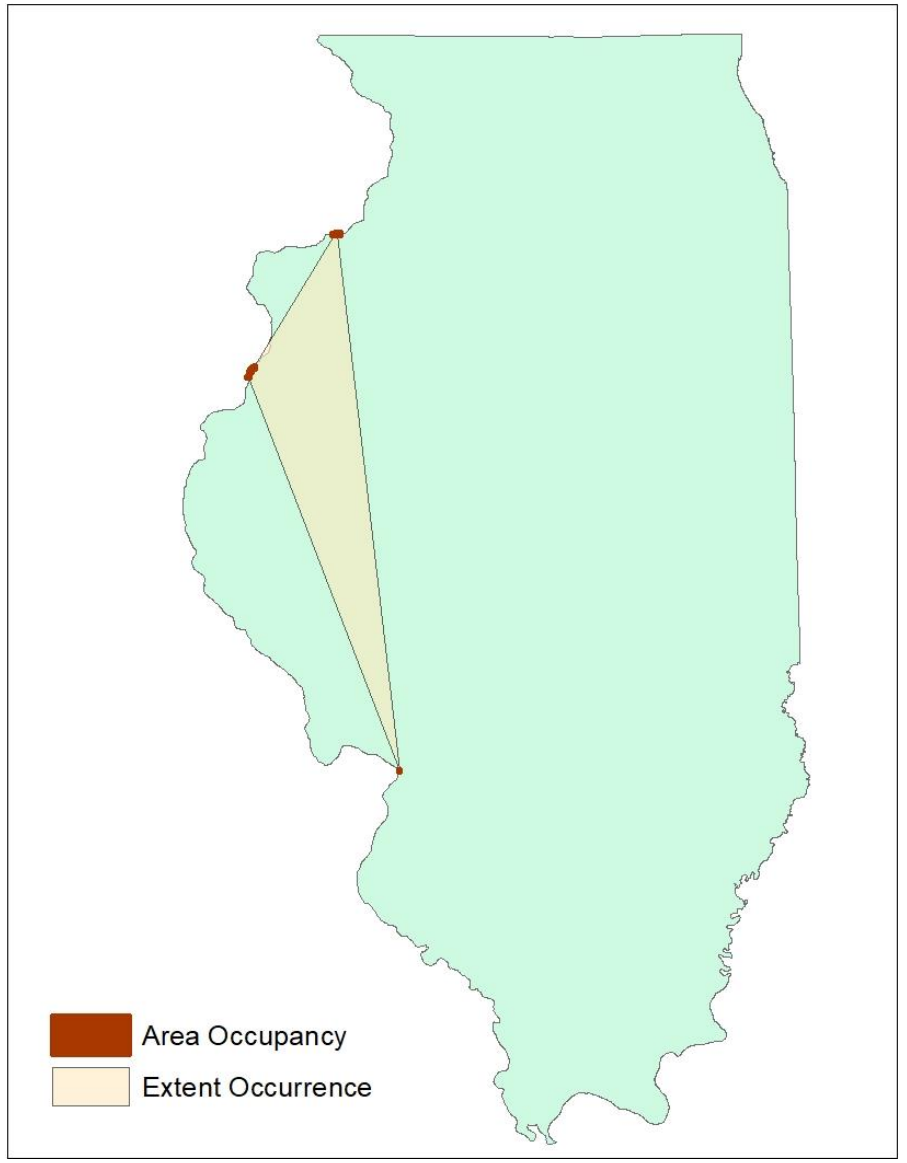
**E (5,000-20,000 km2)**

Area of Occupancy: **17 to 23** 1-km2 grid cells occupied

**C-D (11-100 1-km2 grid cells)**

Number of Occurrences: **3 to 5 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Purple Wartyback (*Cyclonaias tuberculata*)

## Calculated Rank: **S2?**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**9 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Dispersal, Recruitment, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **117,587.4 to 118,235 km2** range extent per minimum convex polygon

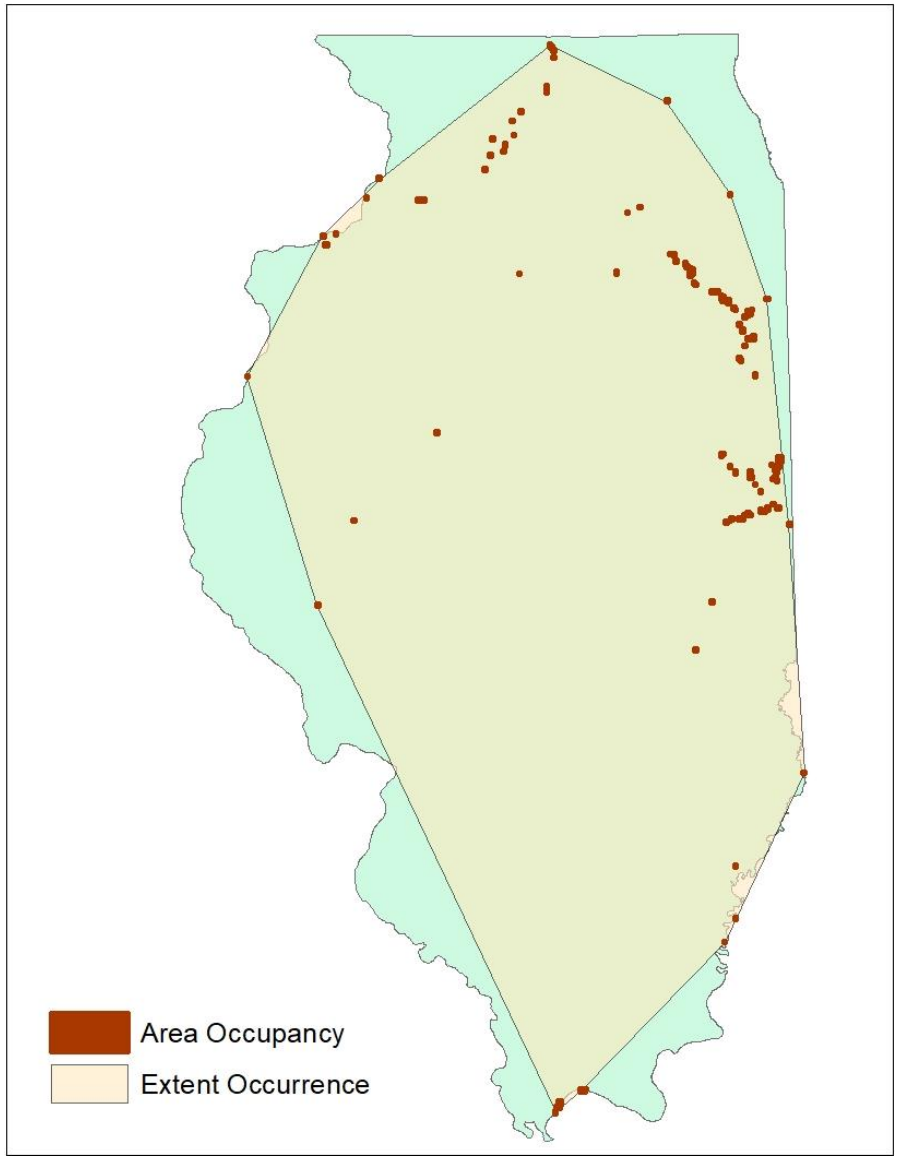
**F (20,000-200,000 km2)**

Area of Occupancy: **150 to 169** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **46 to 51 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Fanshell (*Cyprogenia stegaria*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**12 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Hosts, Invasive/Exotics, Genetics, Dispersal, Recruitment, Disturbance

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range. Additional relic shells in the Wabash River in 2011 and 2012

### Rarity:

Range Extent: **11 to 425 km2** range extent per minimum convex polygon

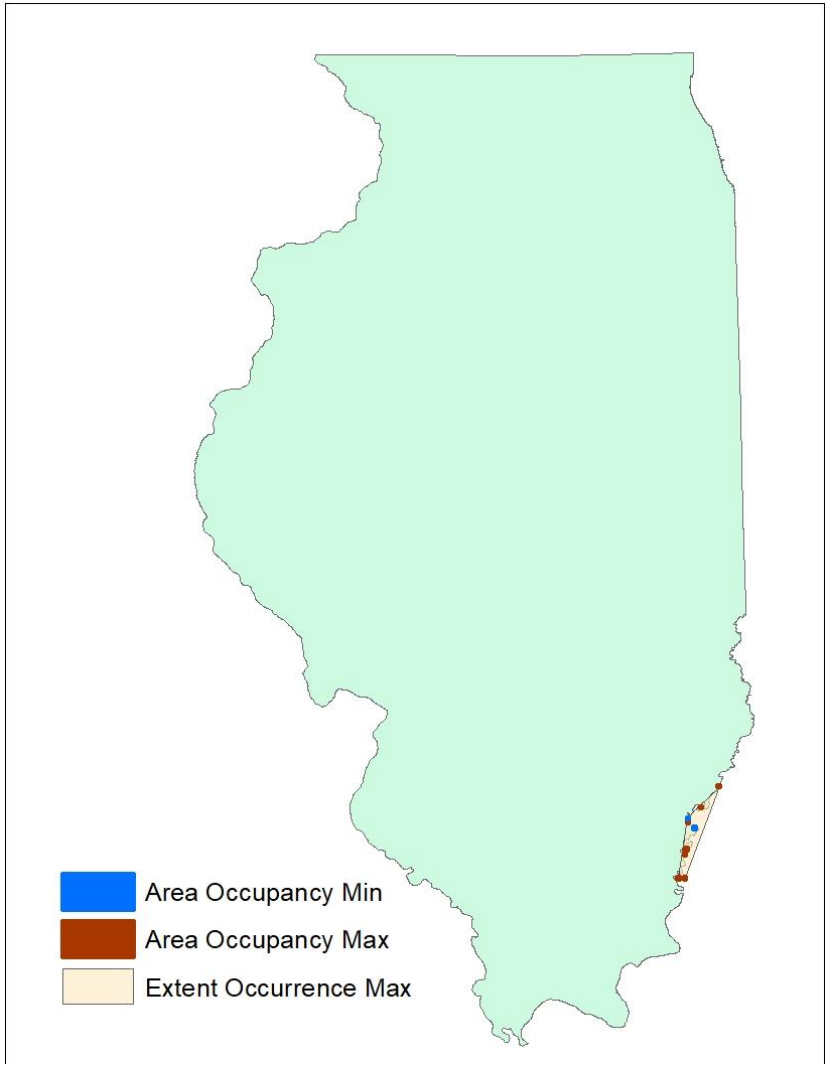
**A-C (<100-1,000 km2)**

Area of Occupancy: **2 to 9** 1-km2 grid cells occupied

**A-B (1-10 1-km2 grid cells)**

Number of Occurrences: **2 to 6 EORs** observed 2008 to 2017

**A-B (1-20 EORs)**



# Butterfly Mussel (*Ellipsaria lineolata*)

## Calculated Rank: **S2?**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**12 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Invasive/Exotics, Dispersal, Recruitment, Mortality, Killing, Disturbance

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **114,579 to 115,848 km2** range extent per minimum convex polygon

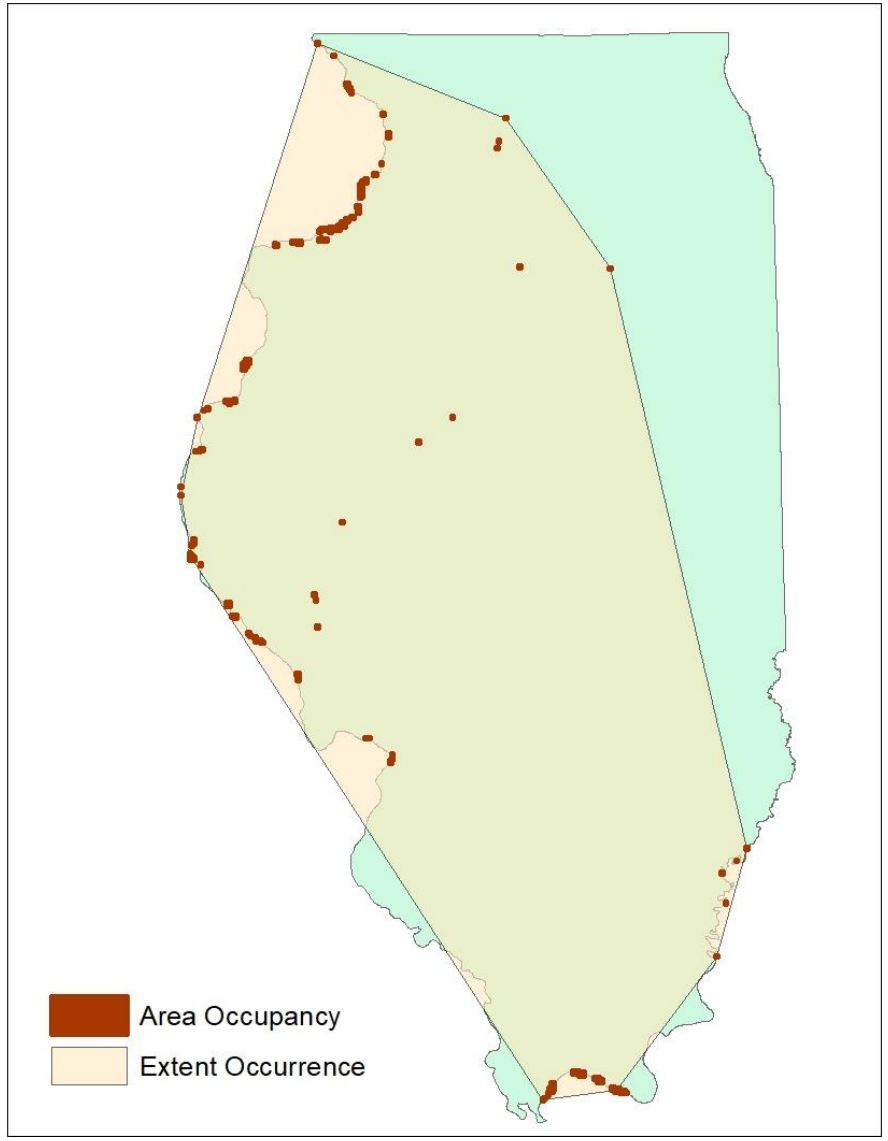
**F (20,000-200,000 km2)**

Area of Occupancy: **206 to 237** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **43 to 44 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Elephant-ear (*Elliptio crassidens*)

## Calculated Rank: **S2?**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**13 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Hosts, Invasive/Exotics, Dispersal, Recruitment, Mortality, Killing, Disturbance

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **109,393.5 to 110,223 km2** range extent per minimum convex polygon

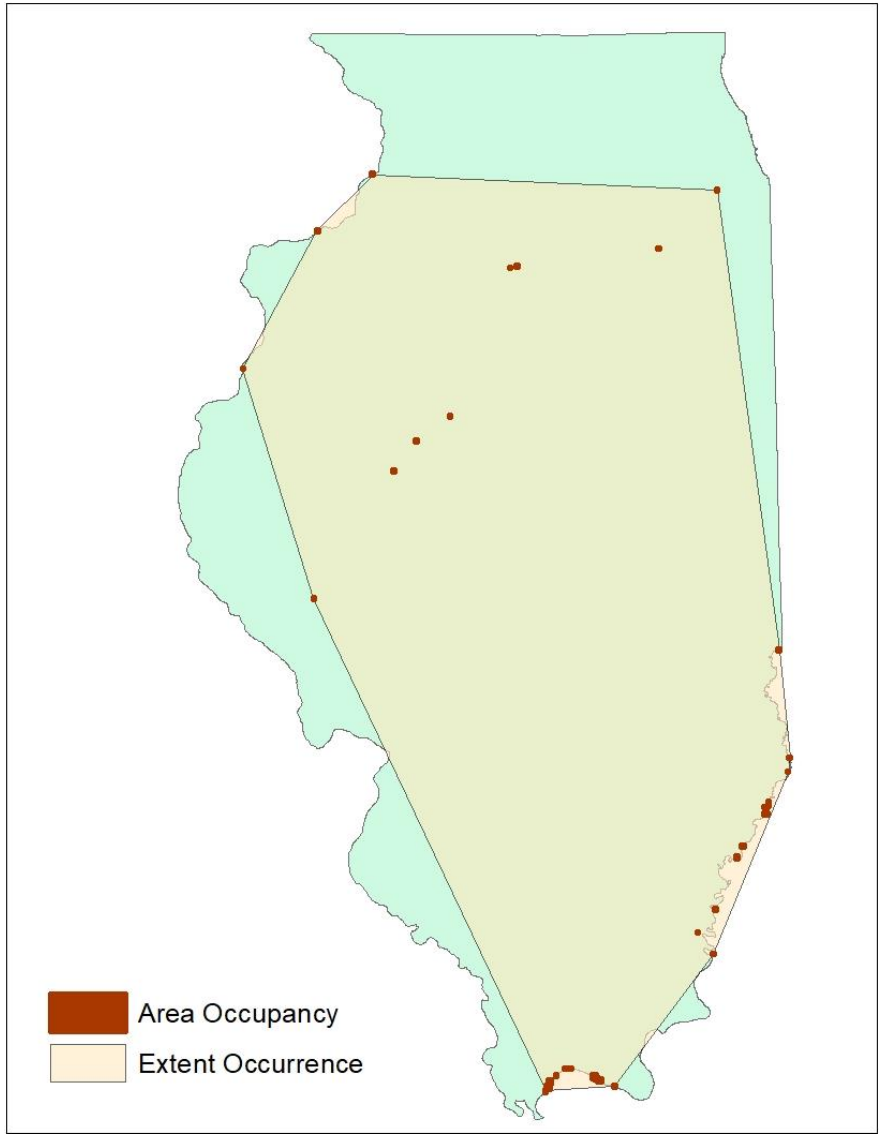
**F (20,000-200,000 km2)**

Area of Occupancy: **52 to 59** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **23 to 24 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Spike (*Elliptio dilatata*)

## Calculated Rank: **S3?**

## Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

## Threats:

**9 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Hosts, Invasive/Exotics, Genetics, Mortality

**AC (Medium-Very High (>4))**

## Rarity:

Range Extent: **130,295 to 131,544 km2** range extent per minimum convex polygon

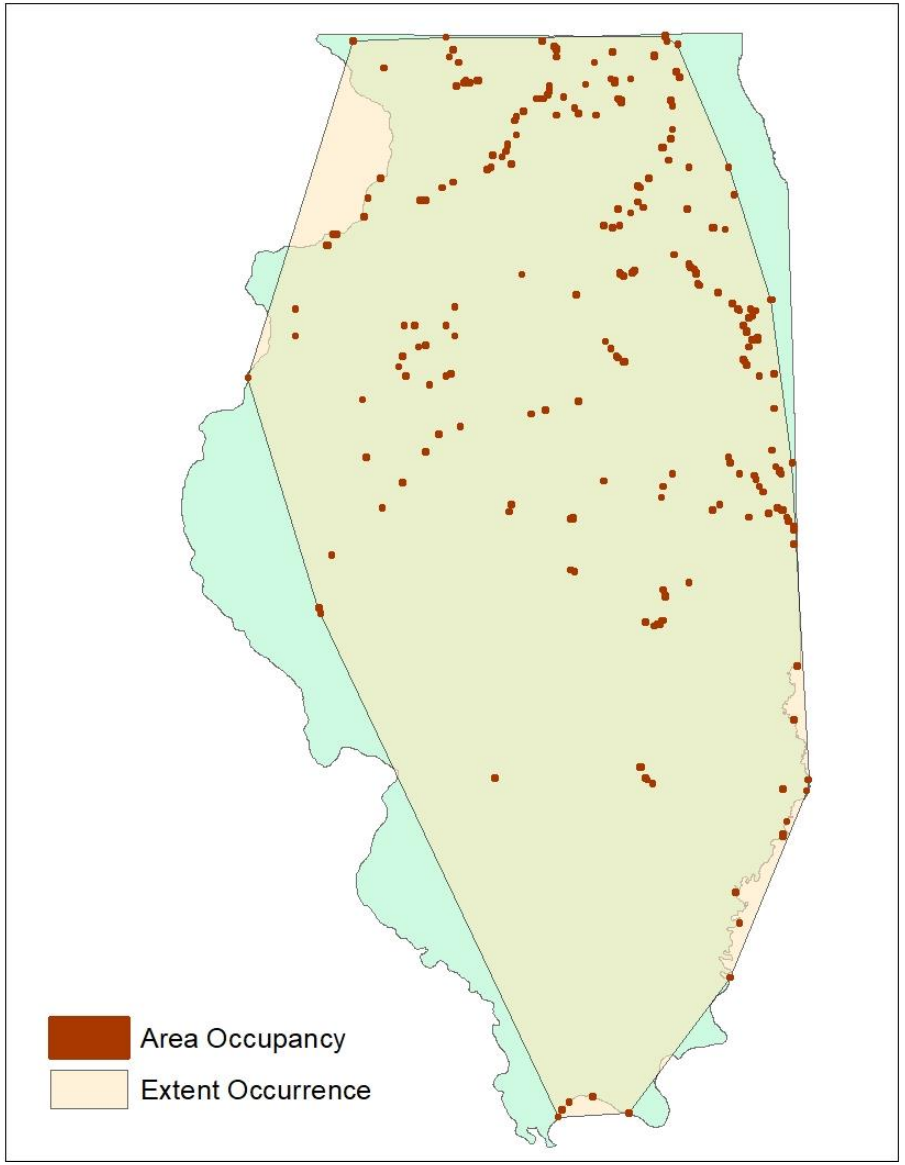
**F (20,000-200,000 km2)**

Area of Occupancy: **238 to 265** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **138 to 148 EORs** observed 2008 to 2017

**D (81-300 EORs)**



# Northern Riffleshell (*Epioblasma rangiana*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**10 threats/stressors** identified in the 2015 IWAP: Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Hosts, Genetics, Dispersal, Recruitment, Mortality, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: Reintroduction of 6 EORS, edge of range.; populations being stocked.

### Rarity:

Range Extent: **378 to 396 km2** range extent per minimum convex polygon

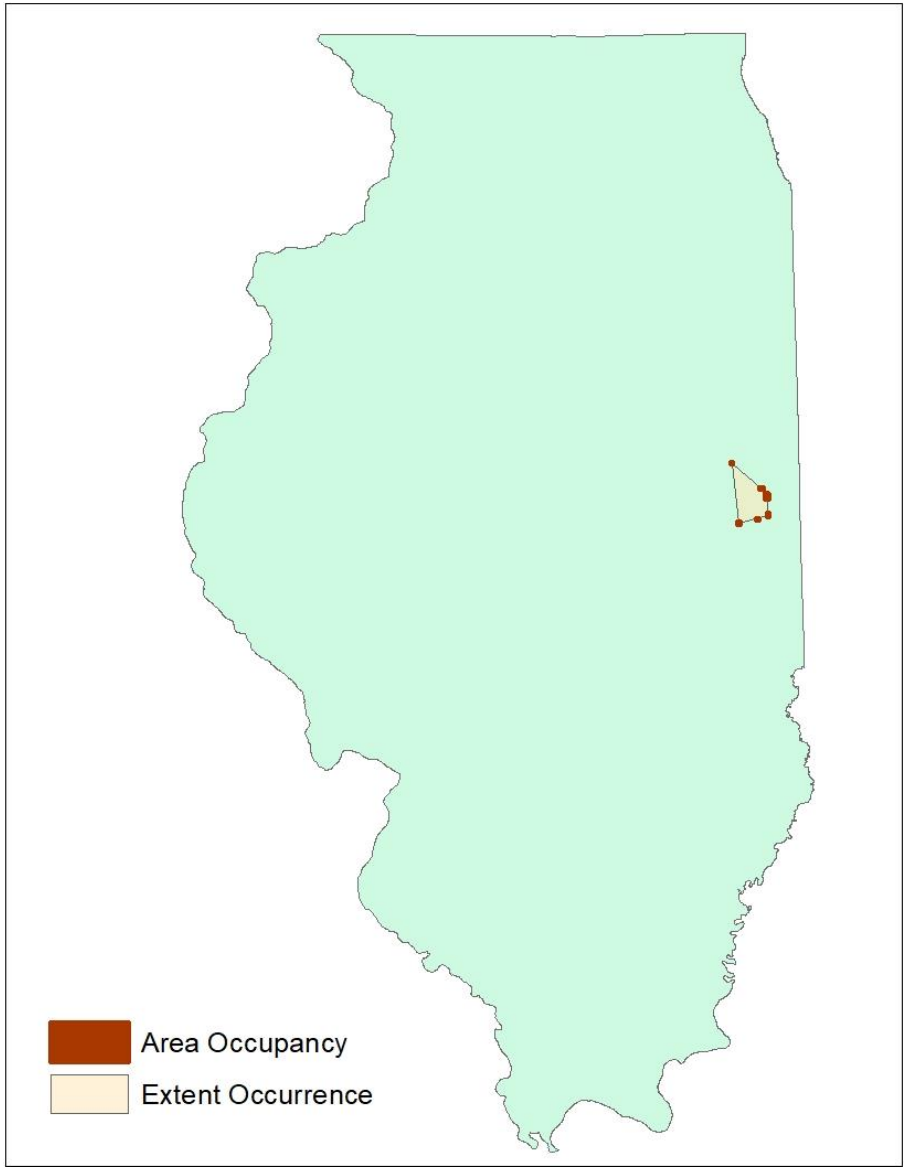
**C (250-1,000 km2)**

Area of Occupancy: **12 to 14** 1-km2 grid cells occupied

**C (11-20 1-km2 grid cells)**

Number of Occurrences: **5 to 6 EORs** observed 2008 to 2017

**A-B (1-20 EORs)**



# Snuffbox (*Epioblasma triquetra*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**11 threats/stressors** identified in the 2015 IWAP: Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Hosts, Genetics, Dispersal, Recruitment, Mortality, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **219 km2** range extent per minimum convex polygon

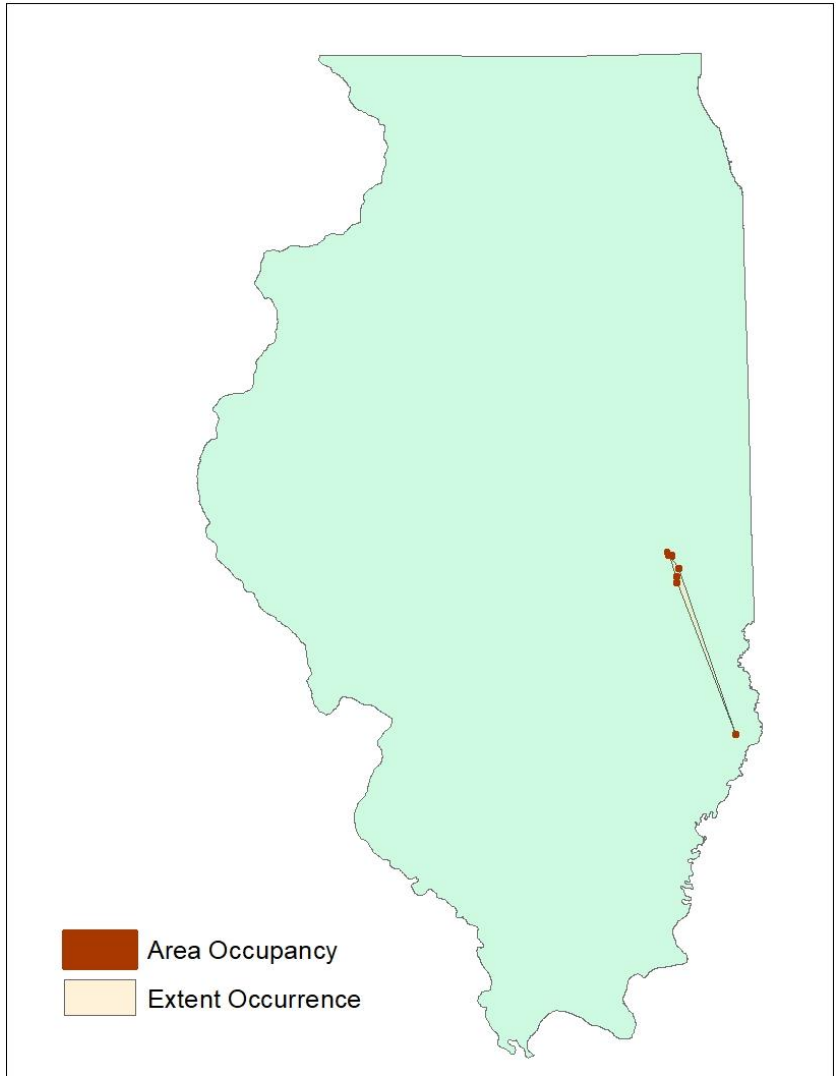
**B (100-250 km2)**

Area of Occupancy: **10** 1-km2 grid cells occupied

**B (5-10 1-km2 grid cells)**

Number of Occurrences: **4 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Ebonyshell (*Fusconaia ebena*)

## Calculated Rank: **S2?**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**12 threats/stressors** identified in IWAP 2015: Fragmentation, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Hosts, Invasive/Exotics, Dispersal, Recruitment, Mortality, Killing, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: Including 1 relocation site

### Rarity:

Range Extent: **100,218.8 to 103,434 km2** range extent per minimum convex polygon

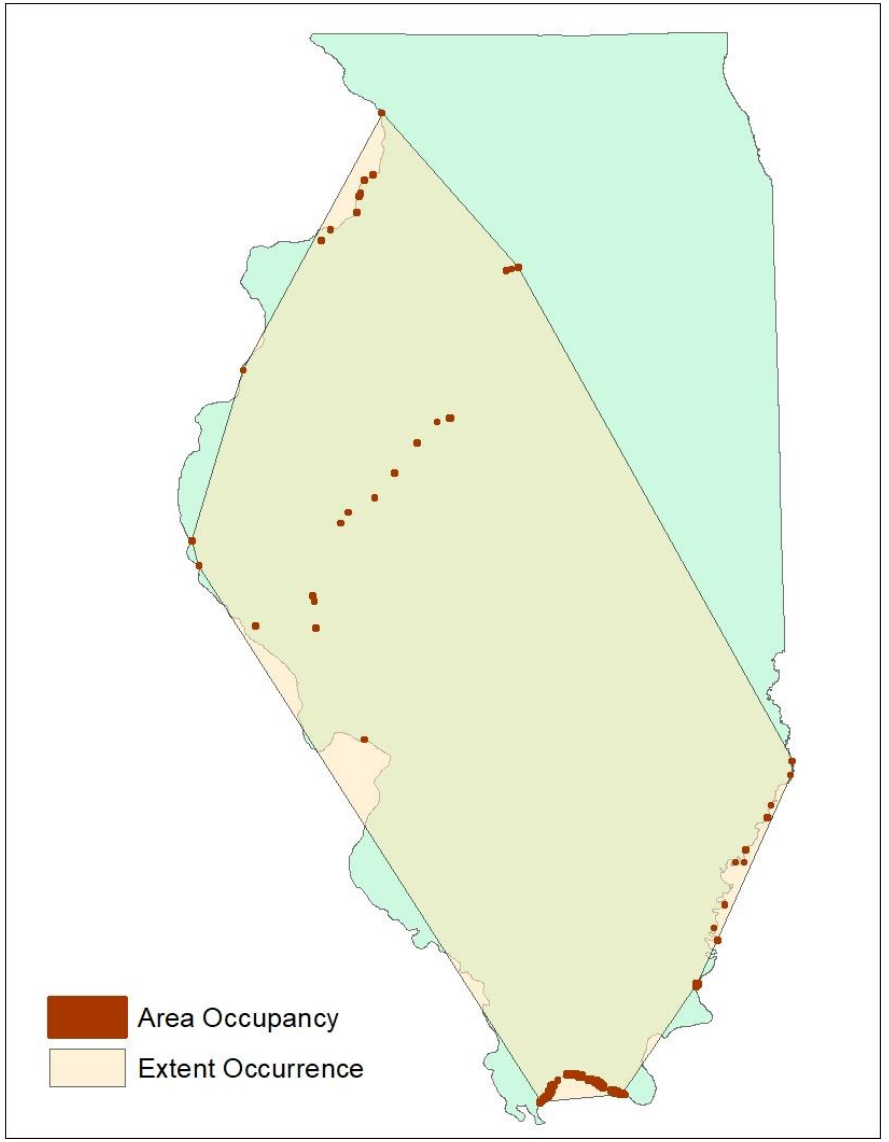
**F (20,000-200,000 km2)**

Area of Occupancy: **120 to 142** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **34 to 37 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Pink Mucket (*Lampsilis abrupta*)

Calculated Rank: **SH**

Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

Threats:

**10 threats/stressors** identified in IWAP 2015: Fragmentation, Distribution/Hydrology, Pollutants-Sediment, Hosts, Invasive/Exotics, Genetics, Dispersal, Recruitment, Mortality, Disturbance

**AC (Medium-Very High (>4))**

Rarity:

Range Extent: **No live records 2008 to 2017**

**ZA (Zero to <100 km2)**

Area of Occupancy: **No live records 2008 to 2017**

**ZA (Zero to 4 1-km2 grid cells)**

Number of Occurrences: **No live records 2008 to 2017**

**ZA (0-5 EORs)**

Additional Notes: One dead shell in the Ohio River in 2011

# Wavy-rayed Lampmussel (*Lampsilis fasciola*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**8 threats/stressors** identified in IWAP 2015: Fragmentation, Distribution/Hydrology, Pollutants-Sediment, Hosts, Dispersal, Recruitment, Mortality, Disturbance

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, S3 in IN, S4 in KY

### Rarity:

Range Extent: **1,247.3 to 1,248 km2** range extent per minimum convex polygon

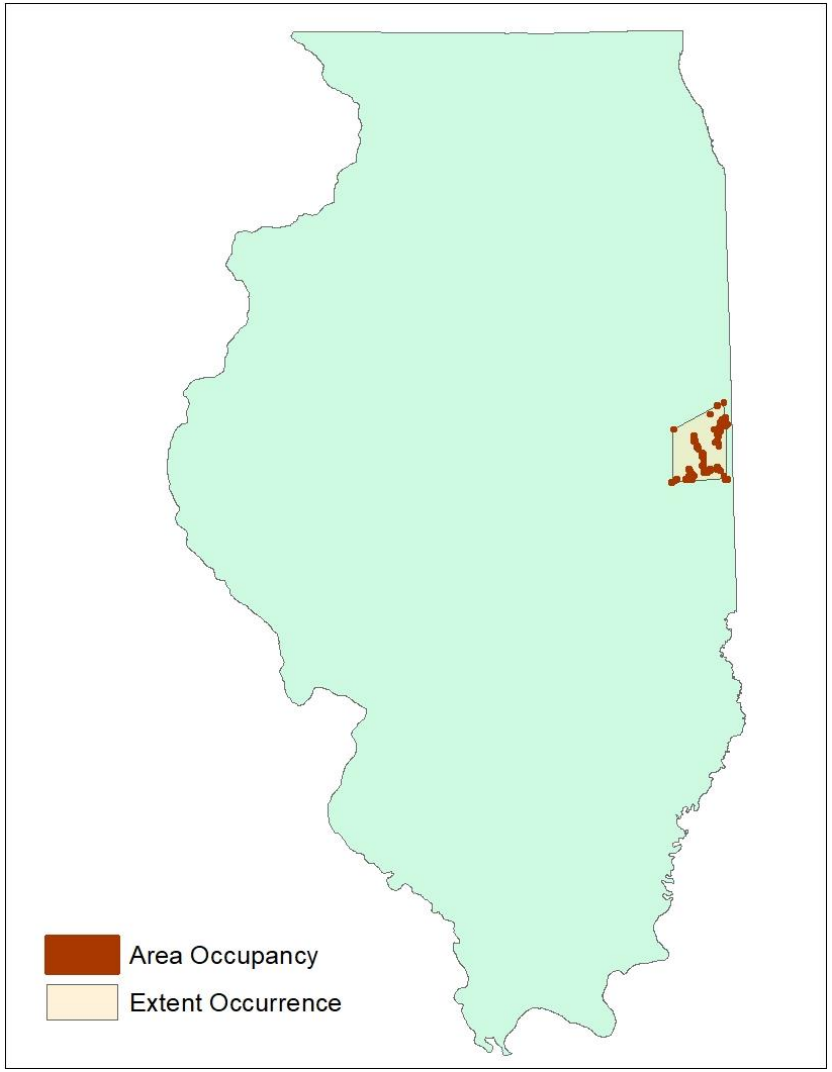
**D (1,000-5,000 km2)**

Area of Occupancy: **67 to 74** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **7 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Higgins Eye (*Lampsilis higginsii*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**9 threats/stressors** identified in IWAP 2015: Invasives/Exotics, Pollutants-Sediment, Competitors, Invasive/Exotics, Genetics, Dispersal, Recruitment, Mortality, Structures/Infrastructure. Threat level high per NatureServe.

**AB (High-Very High)**

### Rarity:

Range Extent: **3,471 to 5,508 km2** range extent per minimum convex polygon

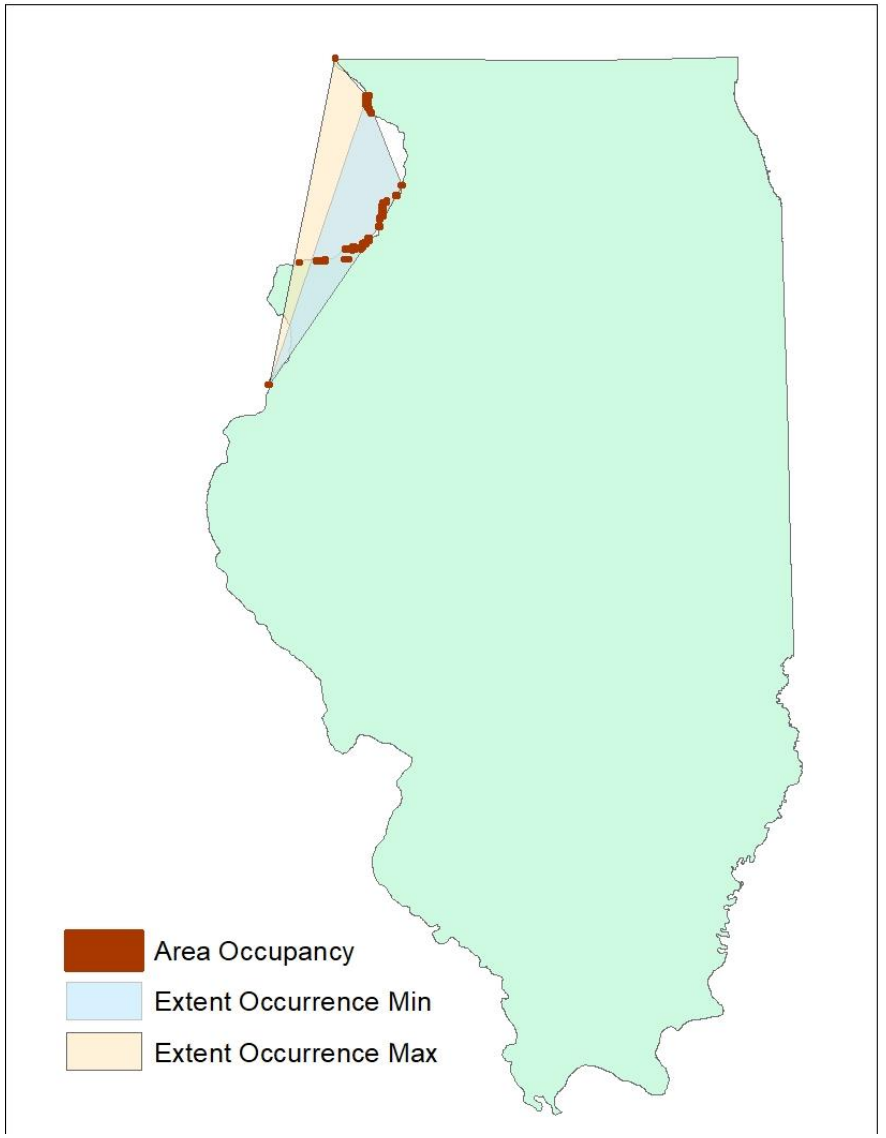
**DE (1,000-20,000 km2)**

Area of Occupancy: **63 to 77** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **10 to 11 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Louisiana Fatmucket (*Lampsilis hydiana*)

Calculated Rank: **S3?**

Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

Threats:

**2 threats/stressors** identified in IWAP 2015: Distribution/Hydrology, Pollutants-Sediment

**BD (Low-High (1-3))**

Rarity:

Range Extent: **21,260 to 21,270 km2** range extent per minimum convex polygon

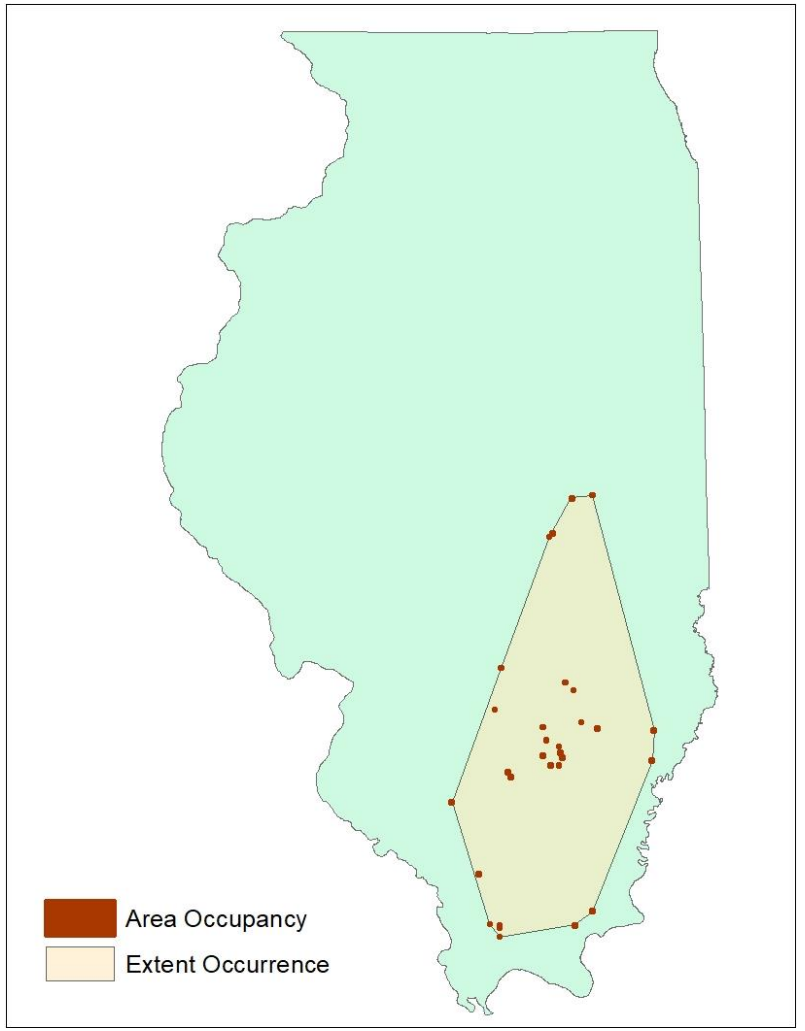
**F (20,000-200,000 km2)**

Area of Occupancy: **29 to 31** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **23 to 28 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Pocketbook (*Lampsilis ovata*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**10 threats/stressors** identified in the 2015 IWAP: Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Hosts, Genetics, Dispersal, Recruitment, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, S2 in IN, S1 in KY

### Rarity:

Range Extent: **10,191 to 10,198 km2** range extent per minimum convex polygon

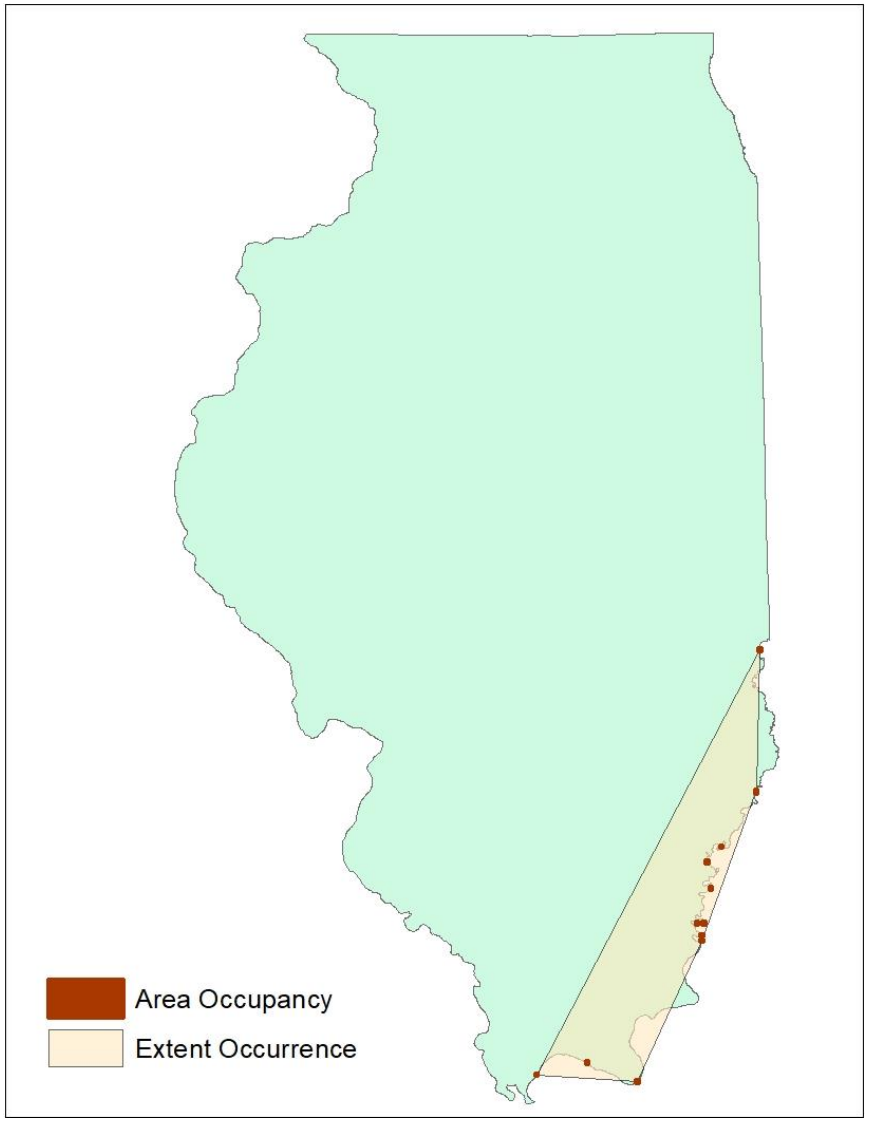
**E (5,000-20,000 km2)**

Area of Occupancy: **13 to 15** 1-km2 grid cells occupied

**C (11-20 1-km2 grid cells)**

Number of Occurrences: **10 to 12 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Creek Heelsplitter (*Lasmigona compressa*)

## Calculated Rank: **S3?**

## Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

## Threats:

**6 threats/stressors** identified in IWAP 2015: Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Dispersal, Recruitment, Disturbance

**AC (Medium-Very High (>4))**

## Rarity:

Range Extent: **63,639 to 63,664 km2** range extent per minimum convex polygon

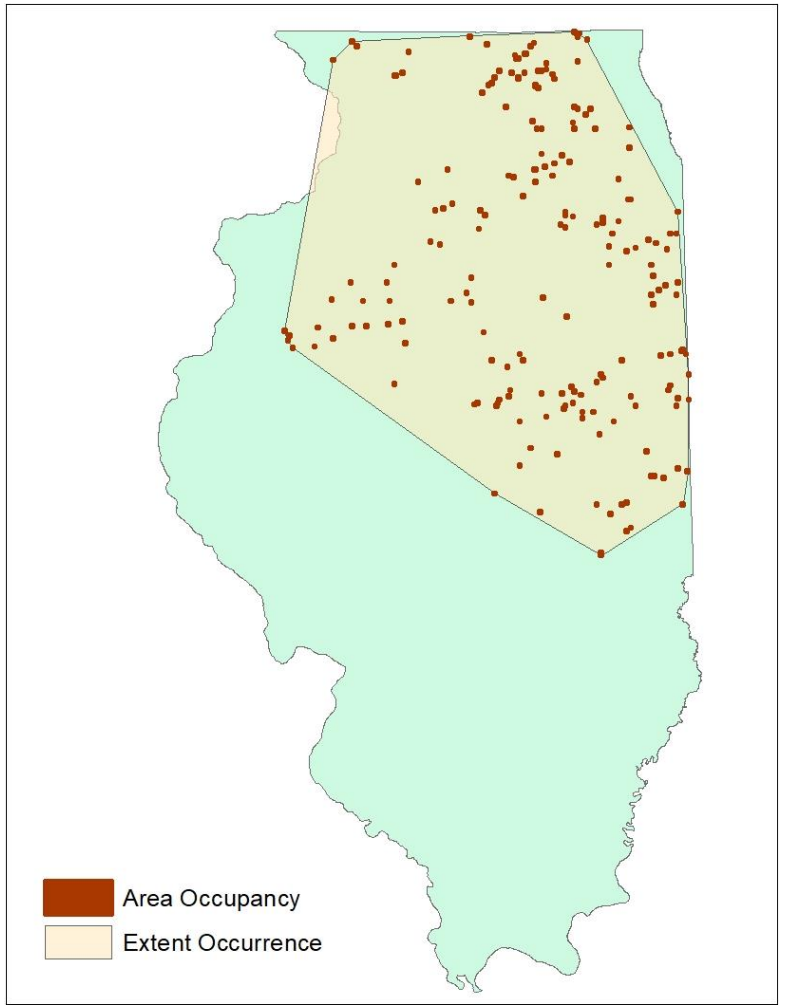
**F (20,000-200,000 km2)**

Area of Occupancy: **194 to 202** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **144 to 168 EORs** observed 2008 to 2017

**D (81-300 EORs)**



# Flutedshell (*Lasmigona costata*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**6 threats/stressors** identified in IWAP 2015: Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Dispersal, Recruitment, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **89,514.2 to 89,840 km2** range extent per minimum convex polygon

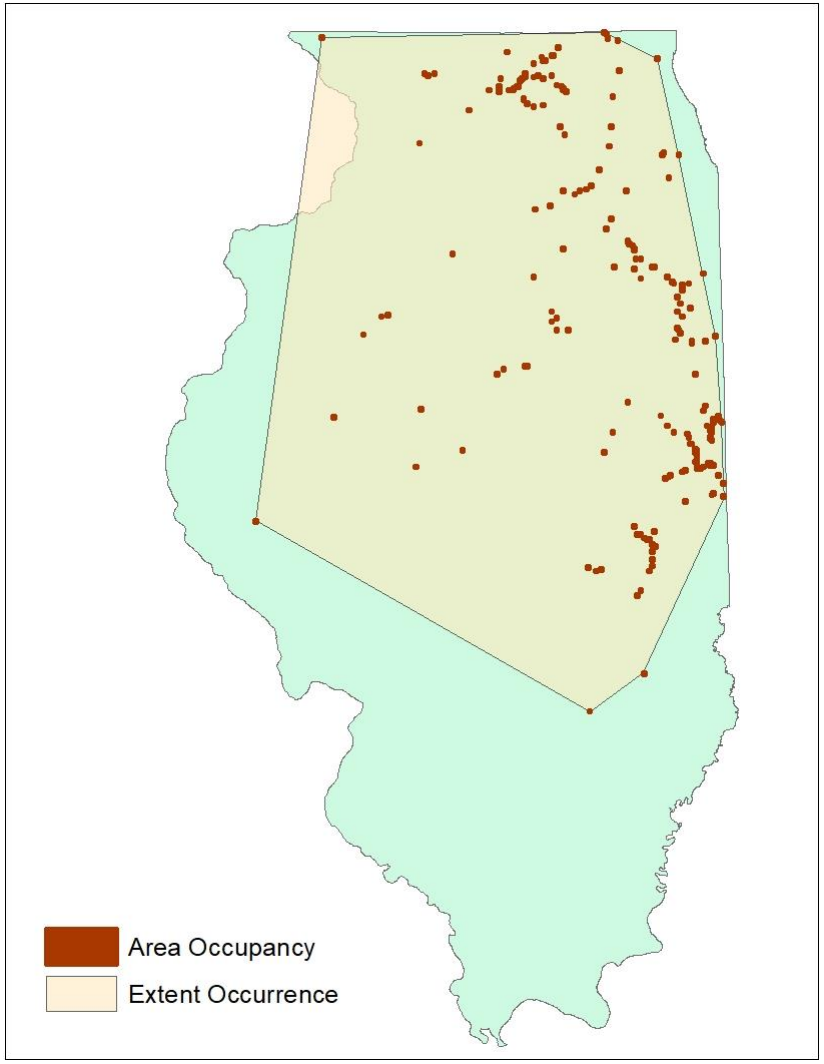
**F (20,000-200,000 km2)**

Area of Occupancy: **203 to 210** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **94 to 127 EORs** observed 2008 to 2017

**D (81-300 EORs)**



# Scaleshell Mussel (*Leptodea leptodon*)

## Calculated Rank: **S1**

## Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

## Threats:

**11 threats/stressors** identified in the 2015 IWAP: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Genetics, Dispersal, Recruitment, Mortality, Structures/Infrastructure

**AC (Medium-Very High (>4))**

## Rarity:

Range Extent: **>1 km2** range extent per minimum convex polygon

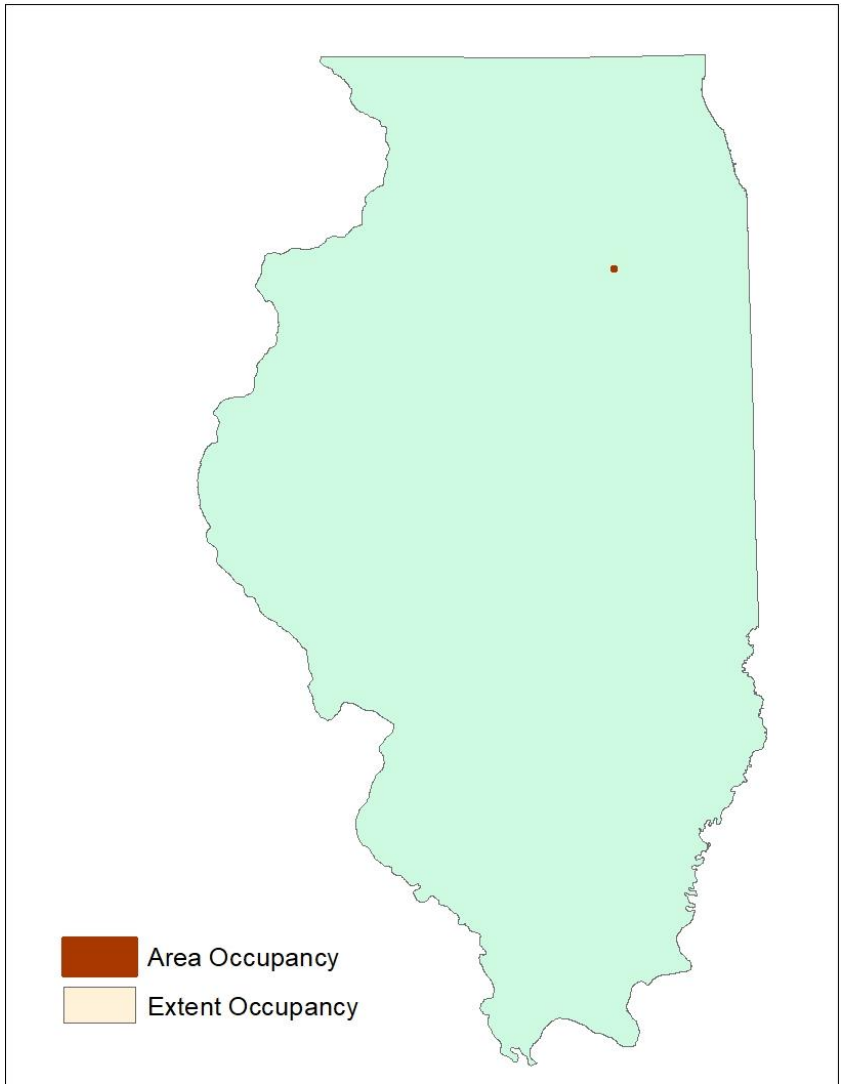
**A (<100 km2)**

Area of Occupancy: **2** 1-km2 grid cells occupied

**A (1-4 1-km2 grid cells)**

Number of Occurrences: **1 EOR** observed 2008 to 2017

**A (1-5 EORs)**



# Black Sandshell (*Ligumia recta*)

## Calculated Rank: **S3S4**

### Short-term Trend:

**Increasing 25 to 50%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**4 threats/stressors** identified in IWAP 2015: Fragmentation, Pollutants-Sediment, Dispersal, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **143,977 to 148,309** range extent per minimum convex polygon

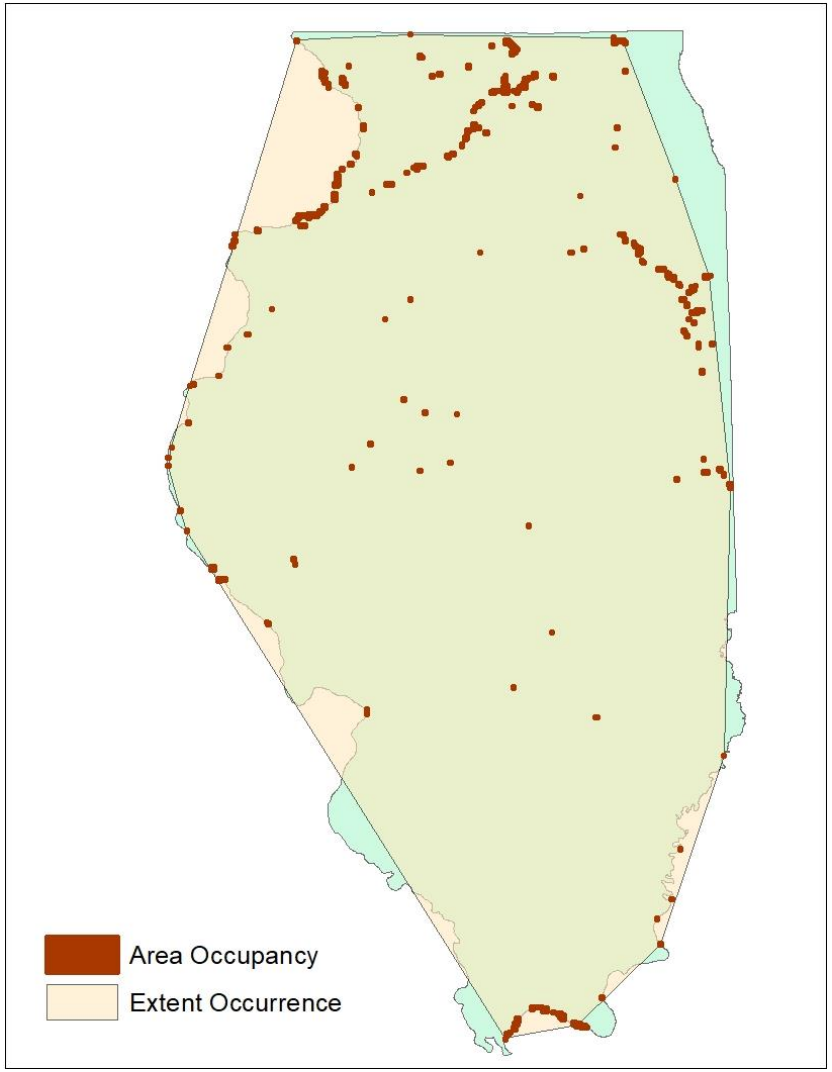
**F (20,000-200,000 km2)**

Area of Occupancy: **342 to 435** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **98 to 103 EORs** observed 2008 to 2017

**D (81-300 EORs)**



# Orange-foot Pimpleback (*Plethobasus cooperianus*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**10 threats/stressors** identified in the 2015 IWAP: Fragmentation, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Hosts, Genetics, Dispersal, Recruitment, Mortality, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **241 km2** range extent per minimum convex polygon

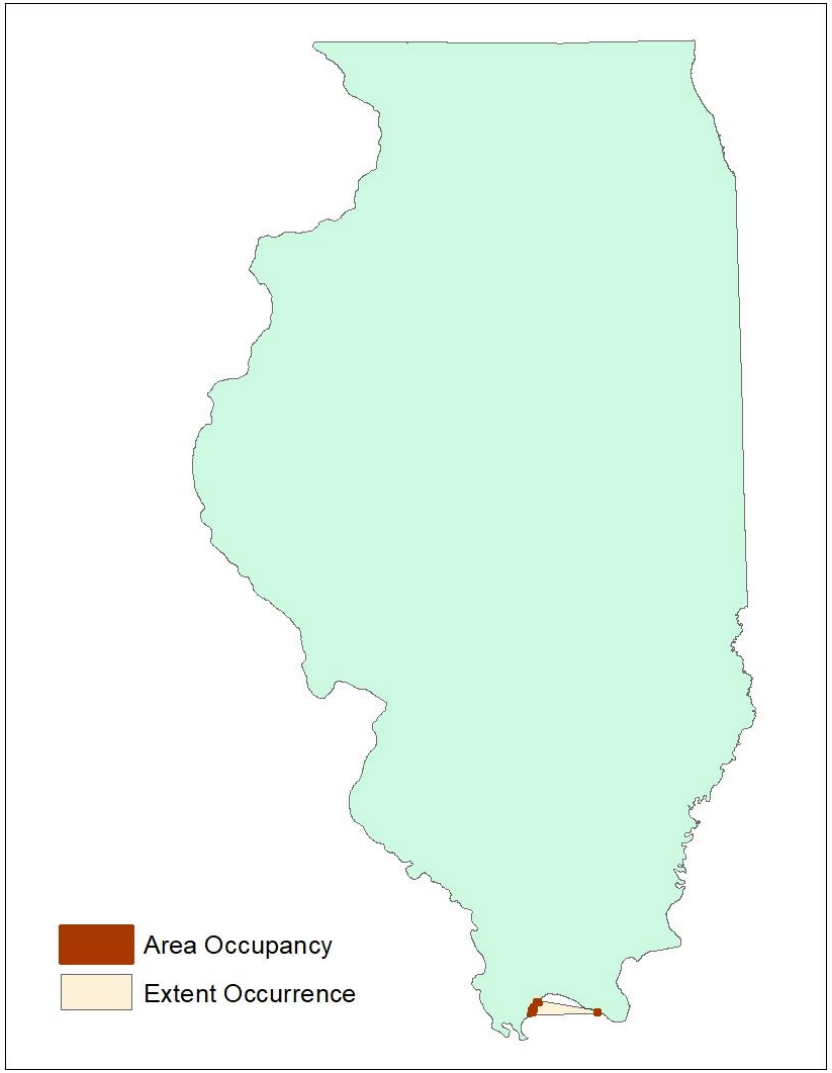
**B (100-250 km2)**

Area of Occupancy: **14 to 21** 1-km2 grid cells occupied

**C (11-20 1-km2 grid cells)**

Number of Occurrences: **2 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Sheepnose (*Plethobasus cyphyus*)

## Calculated Rank: **S1?**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**12 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Genetics, Dispersal, Recruitment, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **63,682 to 97,963 km2** range extent per minimum convex polygon

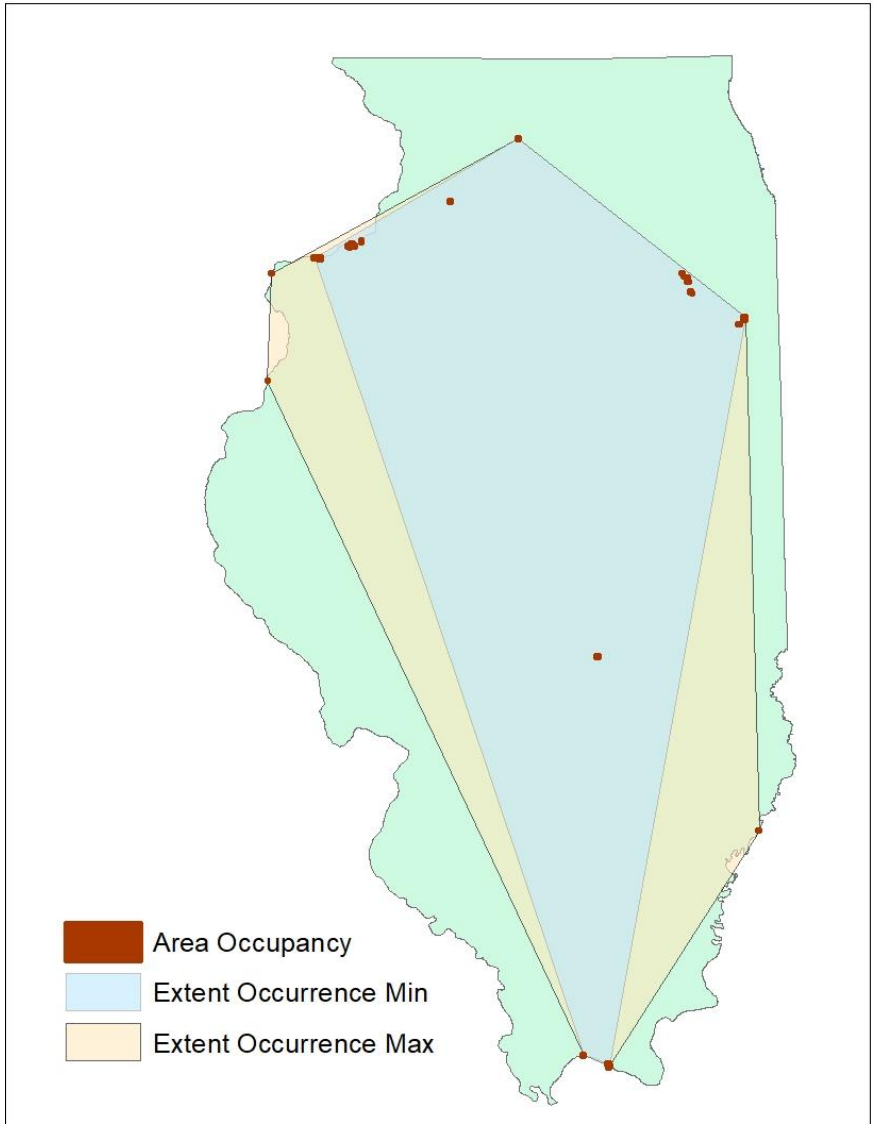
**F (20,000-200,000 km2)**

Area of Occupancy: **37 to 44** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells**

Number of Occurrences: **10 to 13 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Clubshell (*Pleurobema clava*)

## Calculated Rank: **S1?**

## Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

## Threats:

**11 threats/stressors** identified in the 2015 IWAP: Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Hosts, Genetics, Dispersal, Recruitment, Mortality, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

## Rarity:

Range Extent: **6,945 to 7,362 km2** range extent per minimum convex polygon

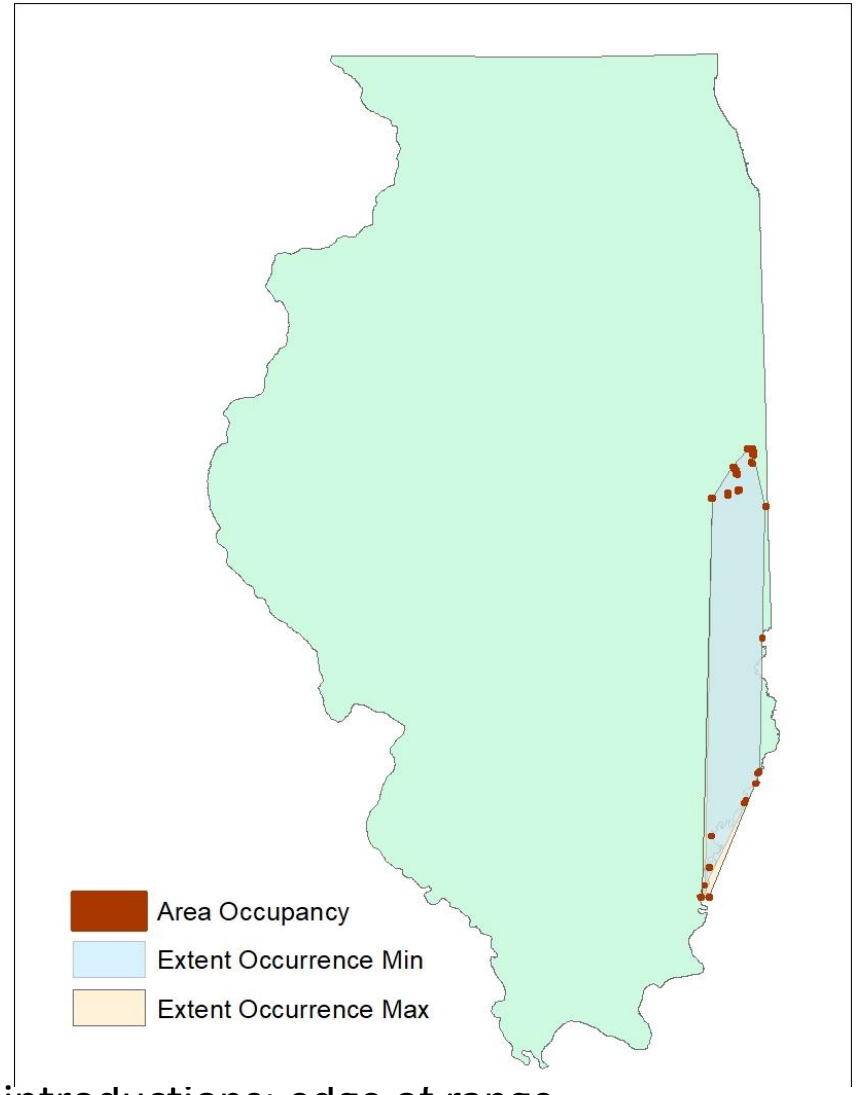
**E (5,000-20,000 km2)**

Area of Occupancy: **29 to 36** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **11 to 14 EORs** observed 2008 to 2017

**B (5-20 EORs)**




Additional Notes: 4 EORs are reintroductions; edge of range. Populations being stocked.

# Ohio Pigtoe (*Pleurobema cordatum*)

## Calculated Rank: **S1?**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**7 threats/stressors** identified in the 2015 IWAP: Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Genetics, Dispersal, Recruitment, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **46,605.7 to 56,237 km2** range extent per minimum convex polygon

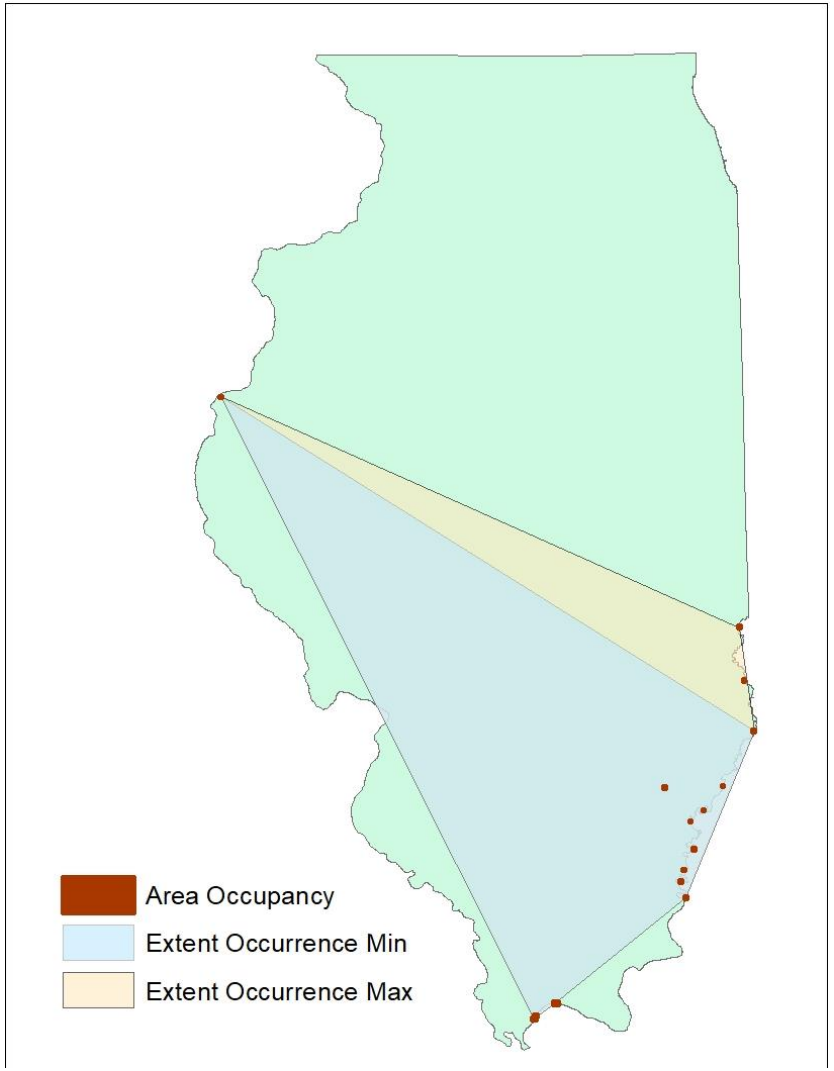
**F (20,000-200,000 km2)**

Area of Occupancy: **18 to 26** 1-km2 grid cells occupied

**CD (11-100 1-km2 grid cells)**

Number of Occurrences: **11 to 14 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Fat Pocketbook (*Potamilus capax*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**8 threats/stressors** identified in IWAP 2015: Fragmentation, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Recruitment, Mortality, Killing, Disturbance

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **5,994 km2** range extent per minimum convex polygon

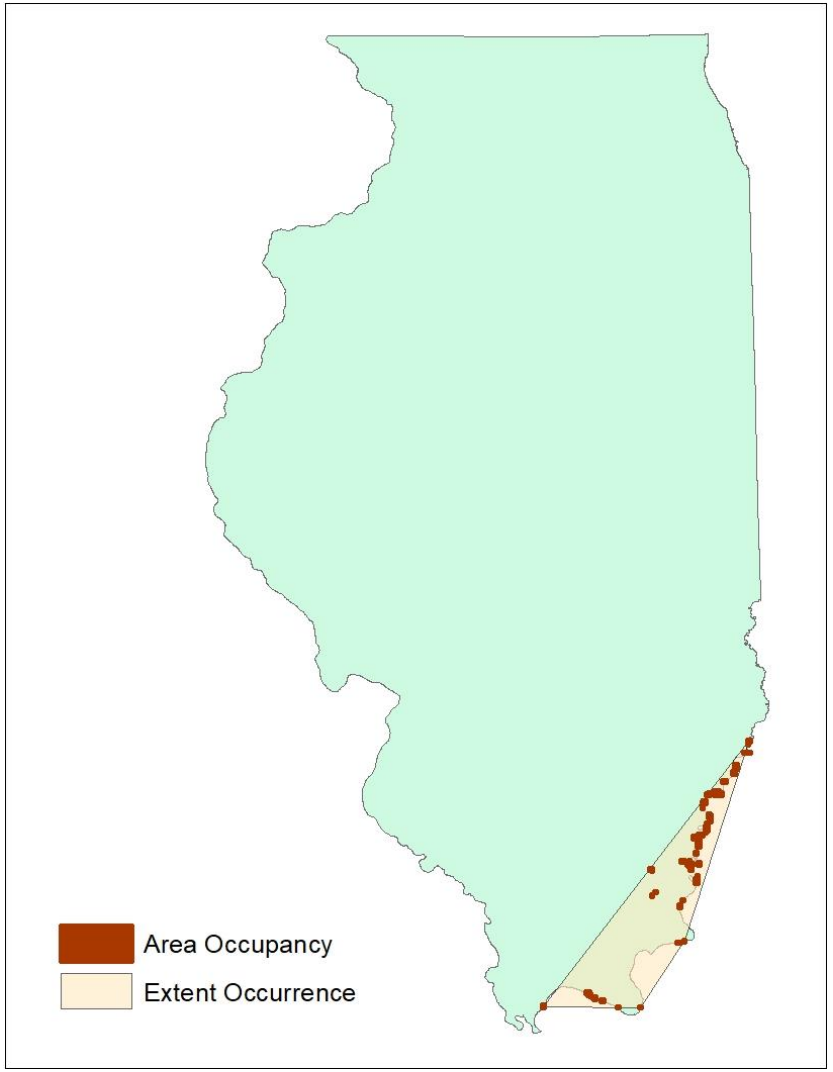
**E (5,000-20,000 km2)**

Area of Occupancy: **99 to 102** 1-km2 grid cells occupied

**DE (21-500 1-km2 grid cells)**

Number of Occurrences: **29 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Bleufer (*Potamilus purpuratus*)

## Calculated Rank: **S1**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**7 threats/stressors** identified in the 2015 IWAP: Extent, Fragmentation, Distribution/Hydrology, Pollutants-Sediment, Invasive/Exotics, Dispersal, Recruitment

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range

### Rarity:

Range Extent: **1,179 km2** range extent per minimum convex polygon

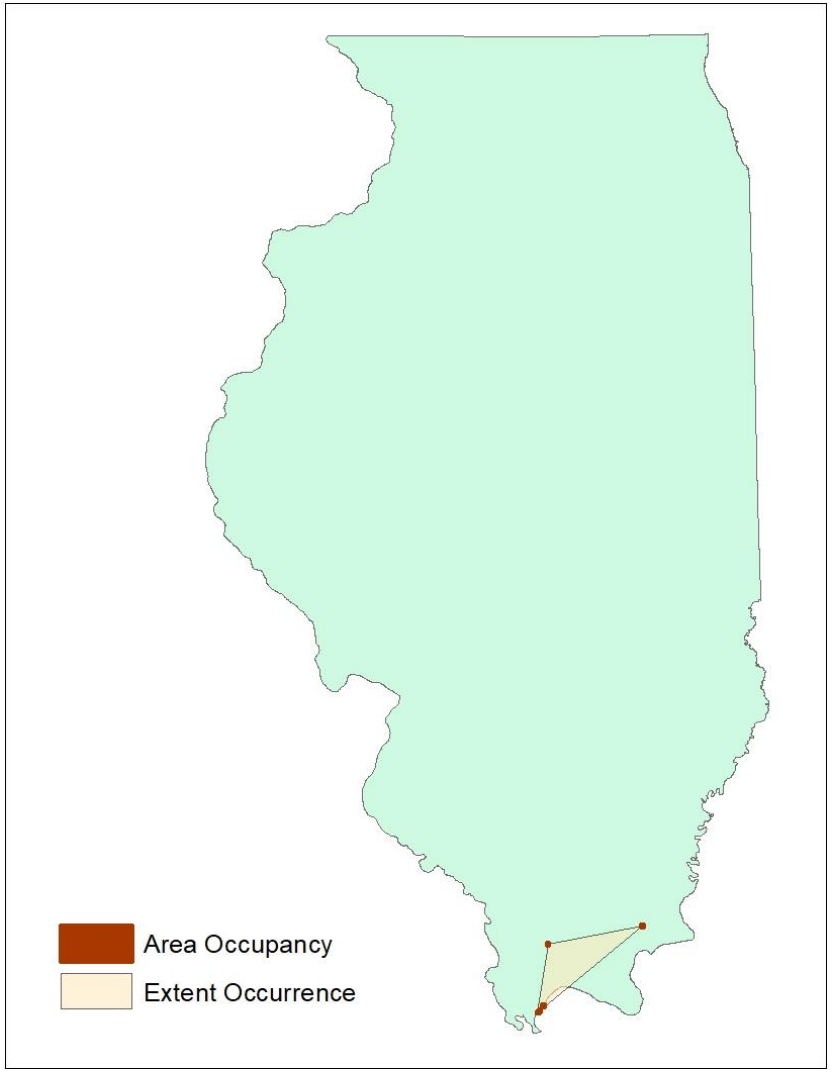
**D (1,000-5,000 km2)**

Area of Occupancy: **5** 1-km2 grid cells occupied

**B (5-10 1-km2 grid cells)**

Number of Occurrences: **4 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Kidneyshell (*Ptychobranchus fasciolaris*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**10 threats/stressors** identified in the 2015 IWAP: Fragmentation, Distribution/Hydrology, Pollutants-Sediment, Hosts, Genetics, Dispersal, Recruitment, Mortality, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, S2 in IN, S4 in KY

### Rarity:

Range Extent: **11,566.9 to 12,319 km2** range extent per minimum convex polygon

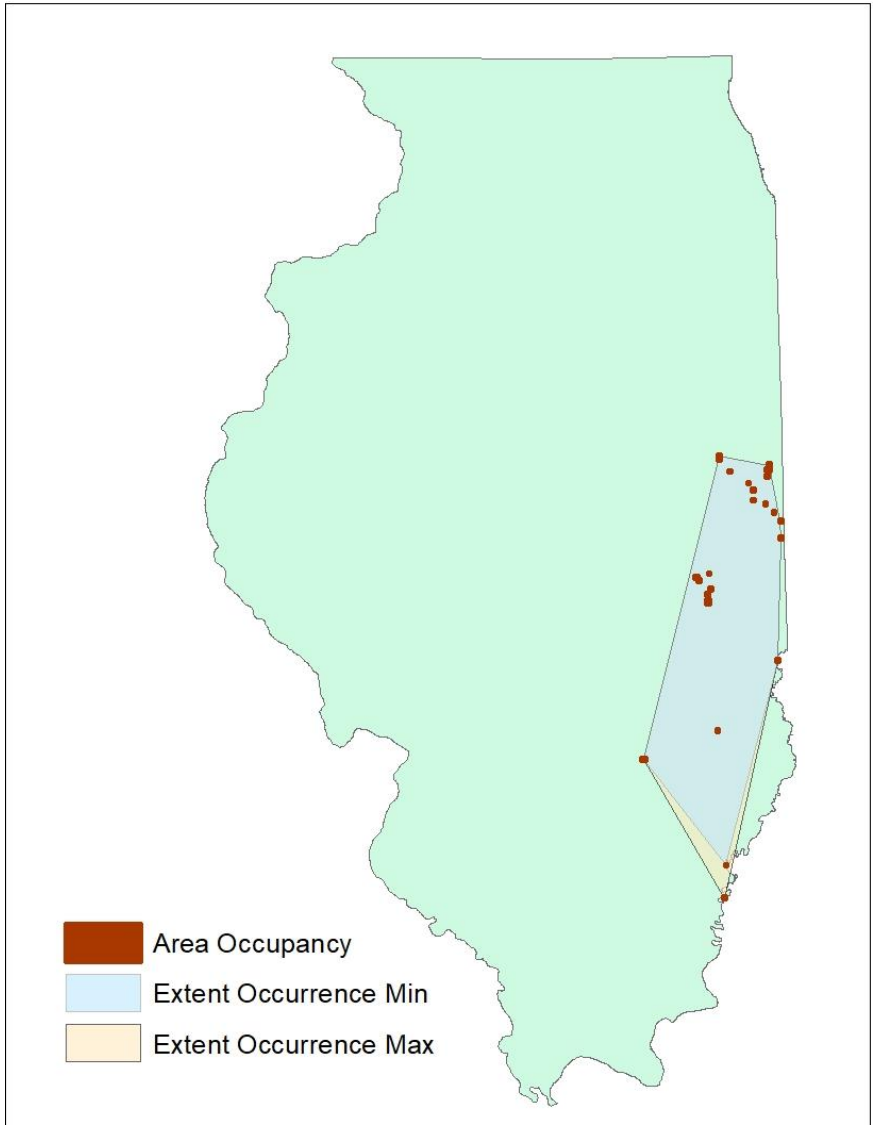
**E (5,000-20,000 km2)**

Area of Occupancy: **31 to 32** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **16 to 17 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Rabbitsfoot (*Quadrula cylindrica*)

## Calculated Rank: **S1?**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**10 threats/stressors** identified in the 2015 IWAP: Fragmentation, Distribution/Hydrology, Pollutants-Sediment, Hosts, Genetics, Dispersal, Recruitment, Mortality, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **13,726.4 to 15,293 km2** range extent per minimum convex polygon

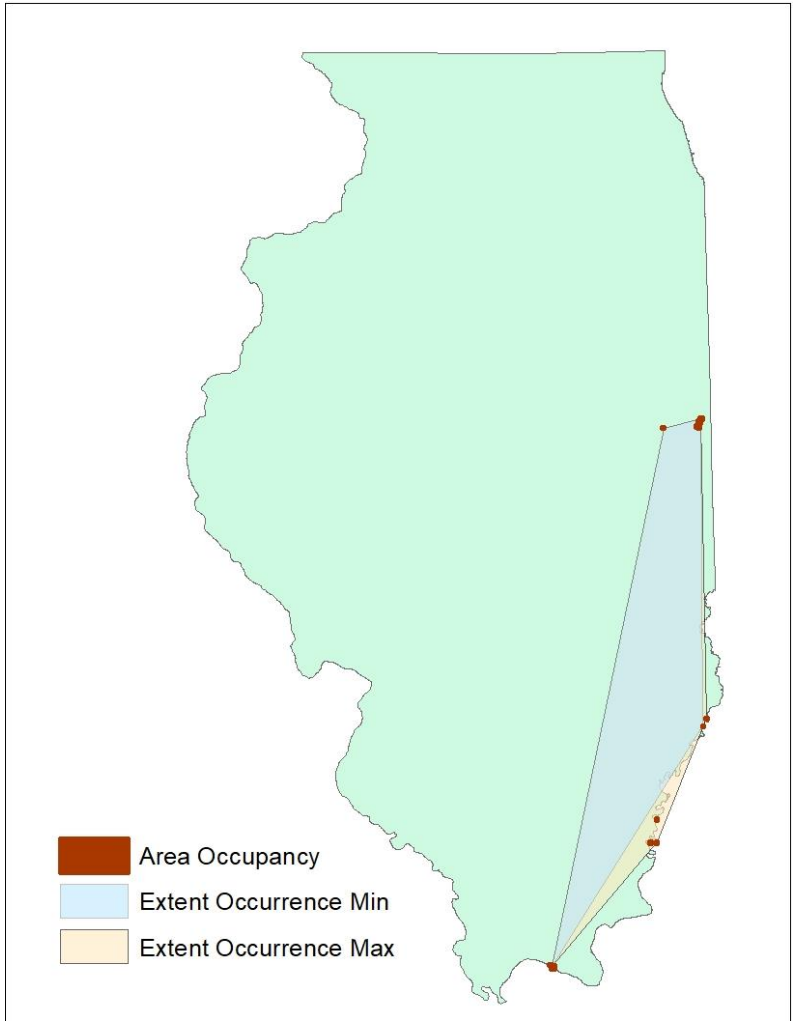
**E (5,000-20,000 km2)**

Area of Occupancy: **16 to 26** 1-km2 grid cells occupied

**CD (11-100 1-km2 grid cells)**

Number of Occurrences: **4 to 7 EORs** observed 2008 to 2017

**AB (1-20 EORs)**



# Monkeyface (*Quadrula metanevra*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**9 threats/stressors** identified in IWAP 2015: Fragmentation, Distribution/Hydrology, Pollutants-Sediment, Hosts, Dispersal, Recruitment, Mortality, Killing, Disturbance

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **124,141 to 131,467 km2** range extent per minimum convex polygon

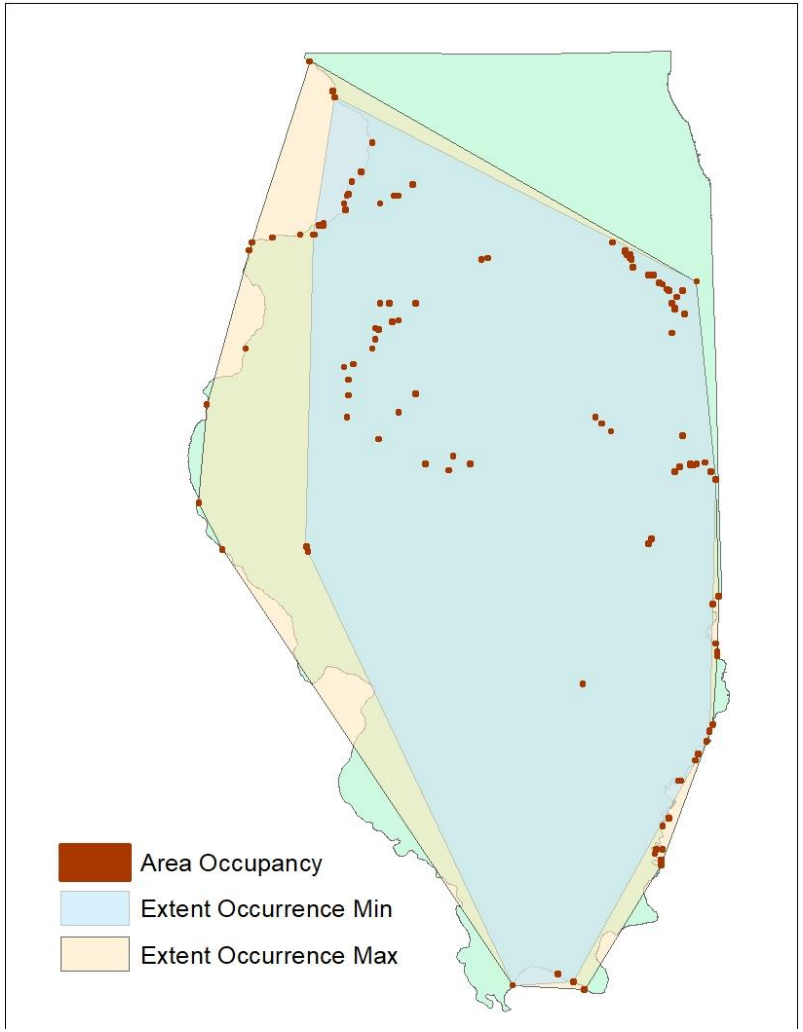
**F (20,000-200,000 km2)**

Area of Occupancy: **99 to 118** 1-km2 grid cells occupied

**DE (21-500 1-km2 grid cells)**

Number of Occurrences: **79 to 81 EORs** observed 2008 to 2017

**D (81-300 EORs)**



# Gulf Mapleleaf (*Quadrula nobilis*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**6 threats/stressors** identified in the 2015 IWAP: Pollutants-Sediment, Hosts, Genetics, Dispersal, Recruitment, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range

### Rarity:

Range Extent: **22,725.6 to 22,737 km2** range extent per minimum convex polygon

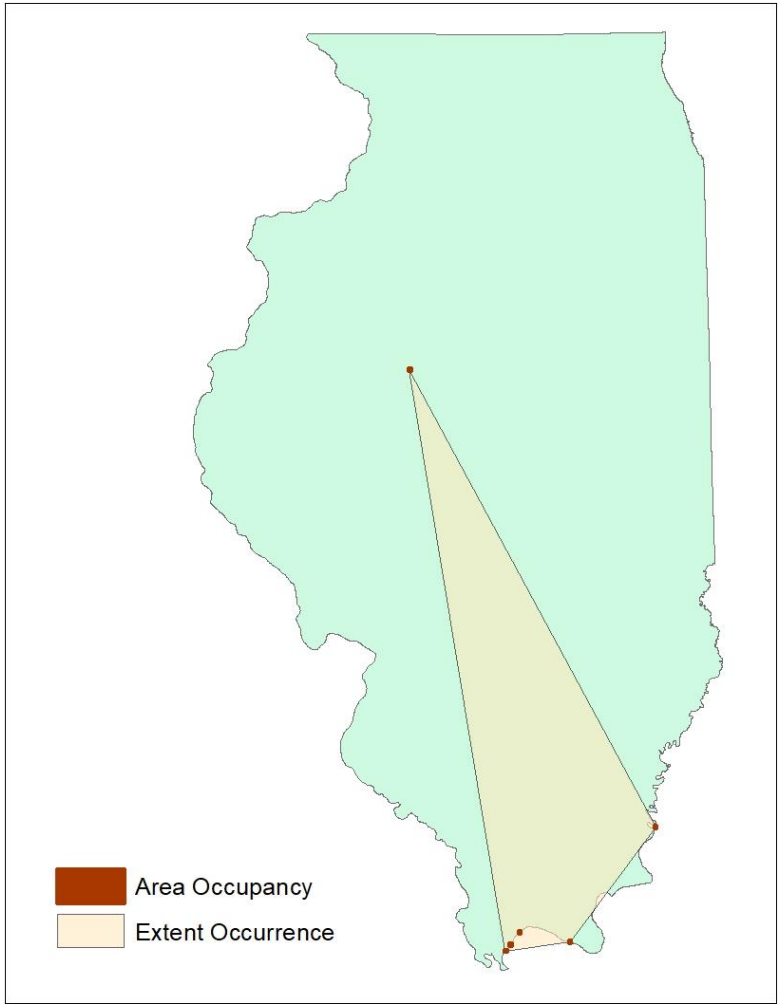
**F (20,000-200,000 km2)**

Area of Occupancy: **6** 1-km2 grid cells occupied

**B (5-10 1-km2 grid cells)**

Number of Occurrences: **6 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Salamander Mussel (*Simpsonaias ambigua*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**9 threats/stressors** identified in the 2015 IWAP: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Hosts, Dispersal, Recruitment, Disturbance

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **273 to 1,548 km2** range extent per minimum convex polygon

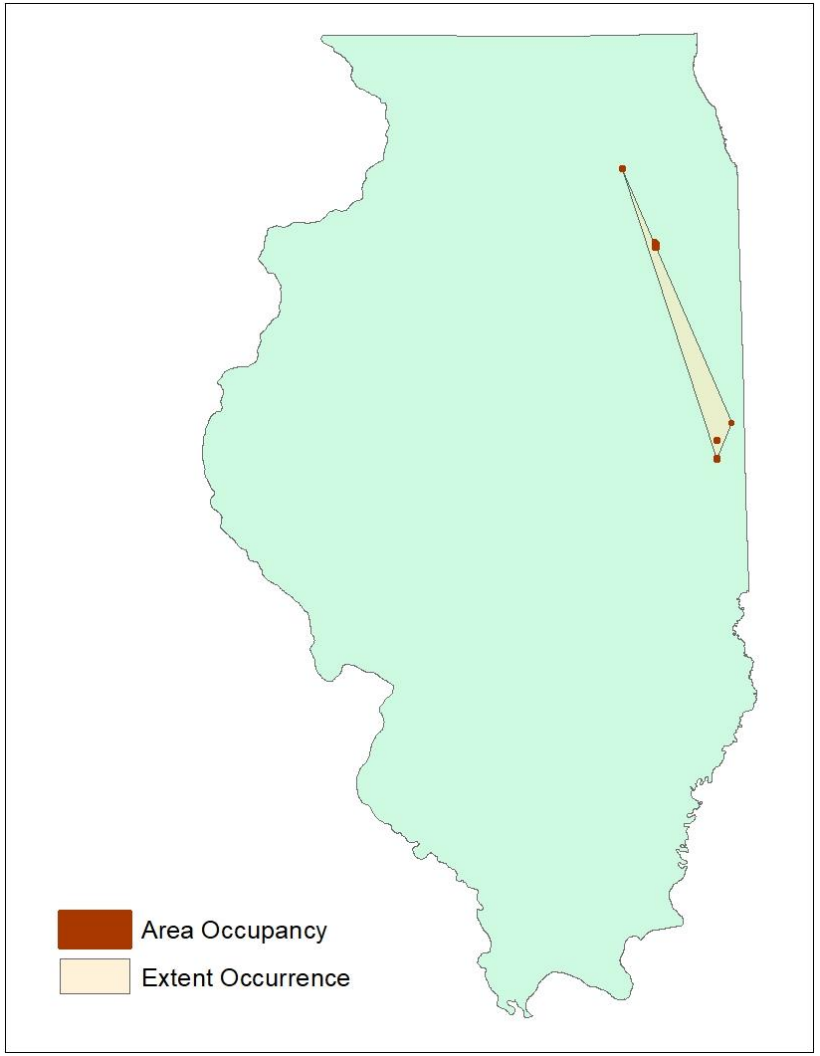
**C-D (250-5,000 km2)**

Area of Occupancy: **9 to 12** 1-km2 grid cells occupied

**B-C (5-20 1-km2 grid cells)**

Number of Occurrences: **3 to 5 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Purple Lilliput (*Toxolasma lividus*)

## Calculated Rank: **S2?**

## Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

## Threats:

**8 threats/stressors** identified in the 2015 IWAP: Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Predators, Dispersal, Recruitment, Disturbance

**AC (Medium-Very High (>4))**

## Rarity:

Range Extent: **10,544.9 km2** range extent per minimum convex polygon

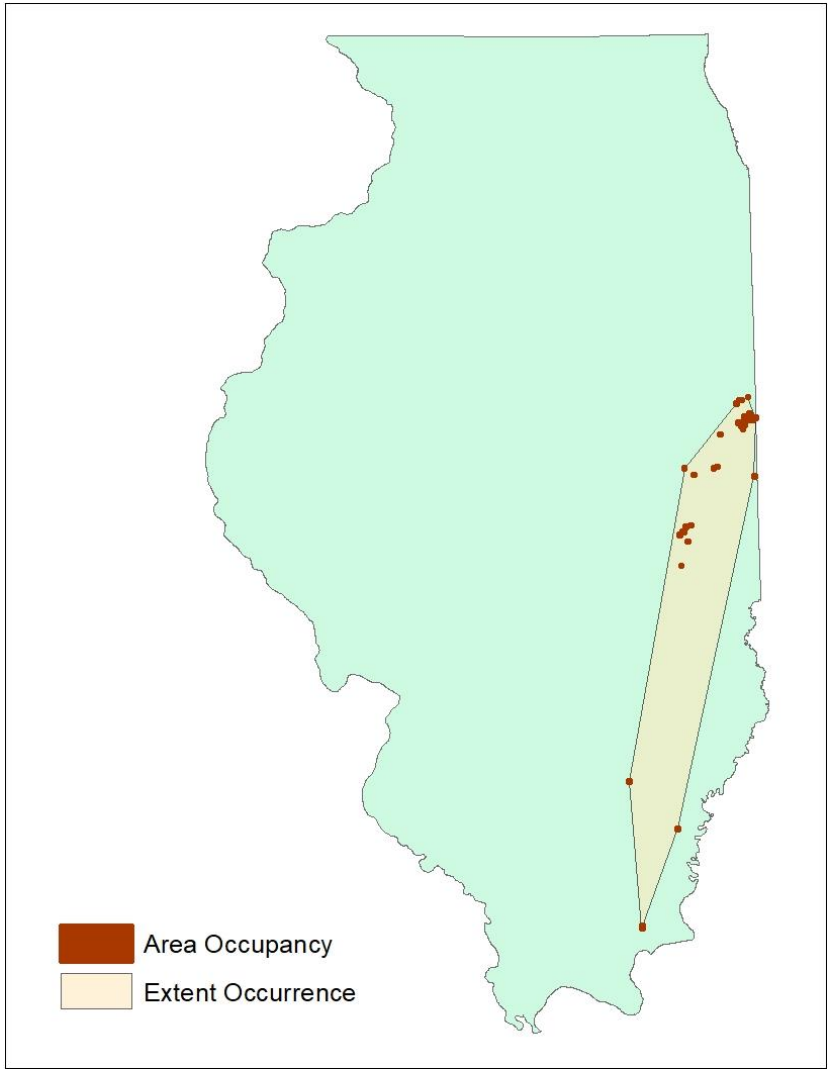
**E (5,000-20,000 km2)**

Area of Occupancy: **39** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **13 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Pistolgrip (*Tritogonia verrucosa*)

## Calculated Rank: **S3?**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**5 threats/stressors** identified in IWAP 2015: Distribution/Hydrology, Pollutants-Sediment, Dispersal, Recruitment, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **117,882.8 to 126,218 km2** range extent per minimum convex polygon

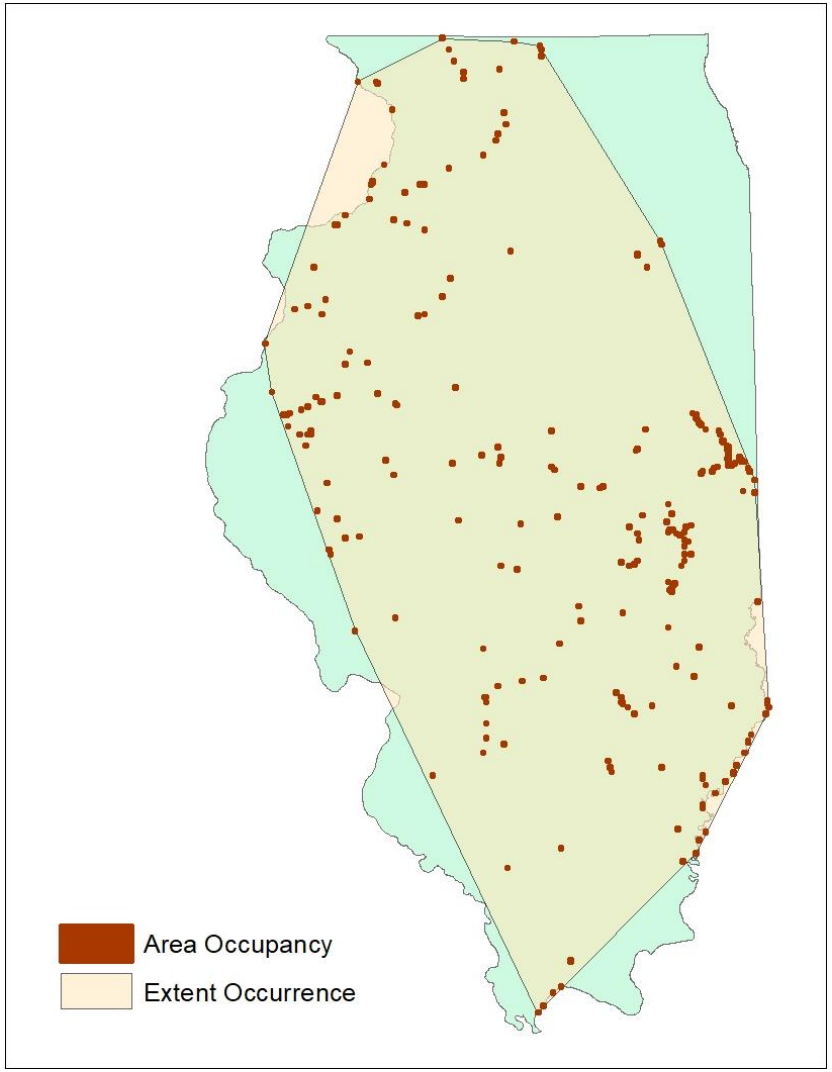
**F (20,000-200,000 km2)**

Area of Occupancy: **242 to 276** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **154 to 174 EORs** observed 2008 to 2017

**D (81-300 EORs)**



# Ellipse (*Venustaconcha ellipsiformis*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**10 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Hosts, Dispersal, Recruitment, Mortality, Disturbance

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **65,498.3 to 67,686 km2** range extent per minimum convex polygon

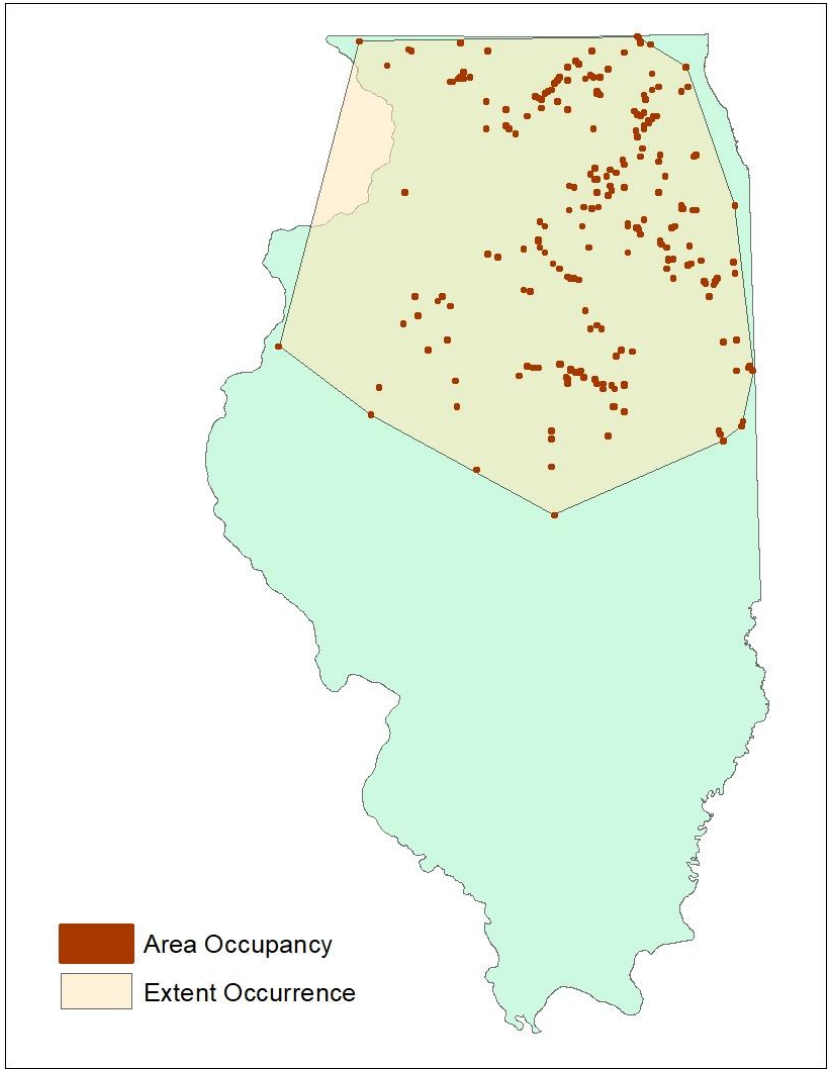
**F (20,000-200,000 km2)**

Area of Occupancy: **221 to 242** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **121 to 161 EORs** observed 2008 to 2017

**D (81-300 EORs)**



# Rayed Bean (*Villosa fabalis*)

Calculated Rank: **SH**

Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

Threats:

**10 threats/stressors** per IWAP 2015: Extent, Fragmentation, Composition/Structure, Distribution/Hydrology, Pollutants-Sediment, Hosts, Genetics, Dispersal, Recruitment, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Rarity:

Range Extent: **No live records 2008 to 2017**

**ZA (Zero to <100 km2)**

Area of Occupancy: **No live records 2008 to 2017**

**ZA (Zero to 4 1-km2 grid cells)**

Number of Occurrences: **No live records 2008 to 2017**

**ZA (0-5 EORs)**

# Rainbow (*Villosa iris*)

## Calculated Rank: **S1?**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**10 threats/stressors** identified in the 2015 IWAP: Fragmentation, Distribution/Hydrology, Pollutants-Sediment, Prey/Food, Hosts, Genetics, Dispersal, Recruitment, Mortality, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **28,968.3to 28,982 km2** range extent per minimum convex polygon

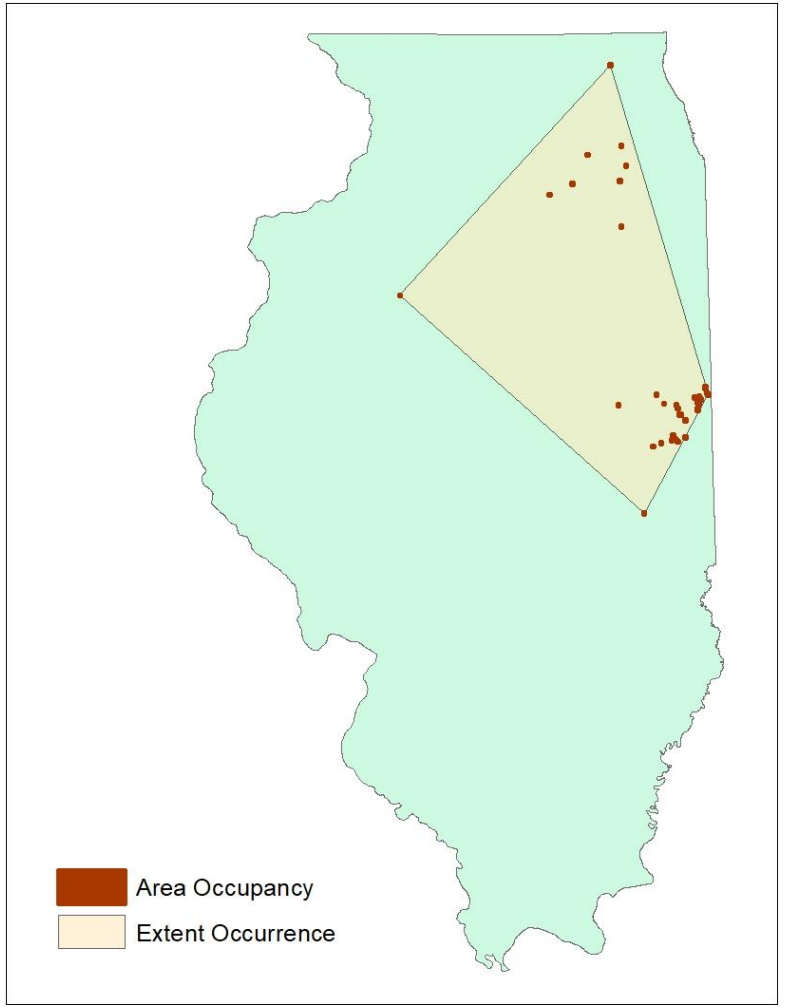
**F (20,000-200,000 km2)**

Area of Occupancy: **44 to 47** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **20 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Little Spectaclecase (*Villosa lienosa*)

## Calculated Rank: **S3S4**

## Short-term Trend:

**Increasing 25 to 50%** per IWAP 2015

**I (Increase of >25%)**

## Threats:

**5 threats/stressors** identified in IWAP 2015: Distribution/Hydrology, Pollutants-Sediment, Recruitment, Mortality, Disturbance

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, S3 in IN, KY, and MO

## Rarity:

Range Extent: **25,257.8to 25,274 km2** range extent per minimum convex polygon

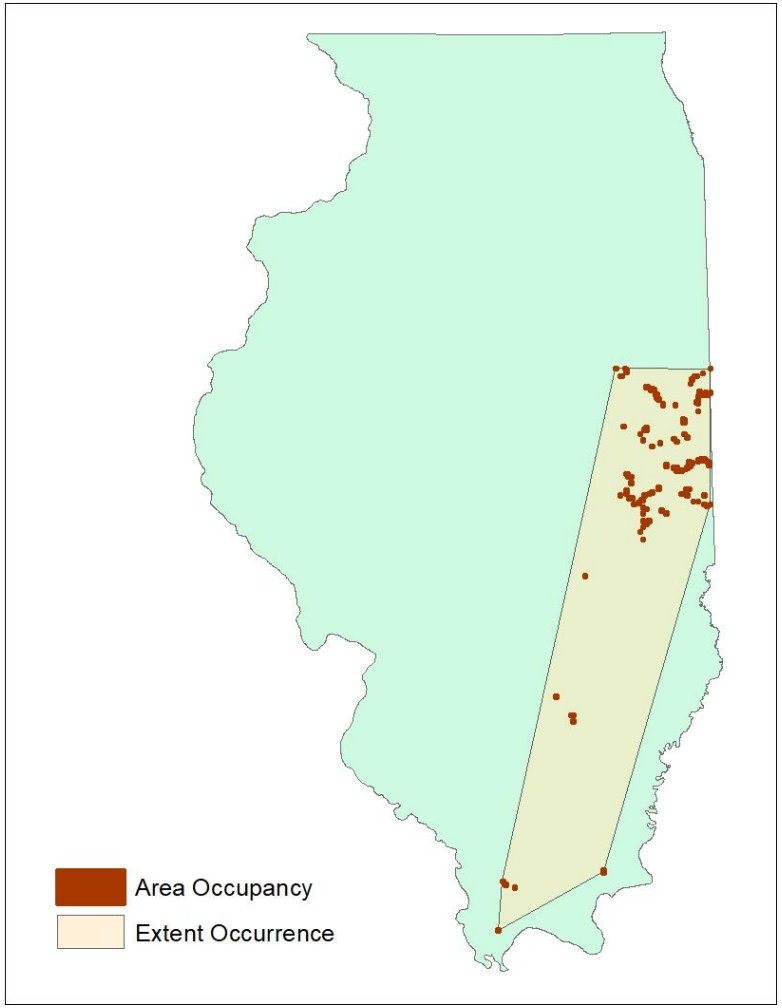
**F (20,000-200,000 km2)**

Area of Occupancy: **137 to 143** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **31 to 32 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Southeastern Myotis **hibernaculum** (*Myotis austroriparius*)

## Calculated Rank: **S2**

### Short-term Trend:

**Stable (-25 to 25%) per IWAP 2015**

**G (Relatively Stable <=10%)**

### Threats:

**Threats are not listed in IWAP**

**U (Unknown)**

Additional Notes: Edge of range, S1 in KY and MO, SH in IN. At least 1,500 individuals hibernating in IL in 2015 (Population Size D (1,000-2,500).

### Rarity:

Range Extent: **2,156 to 3,169 km2** range extent per minimum convex polygon

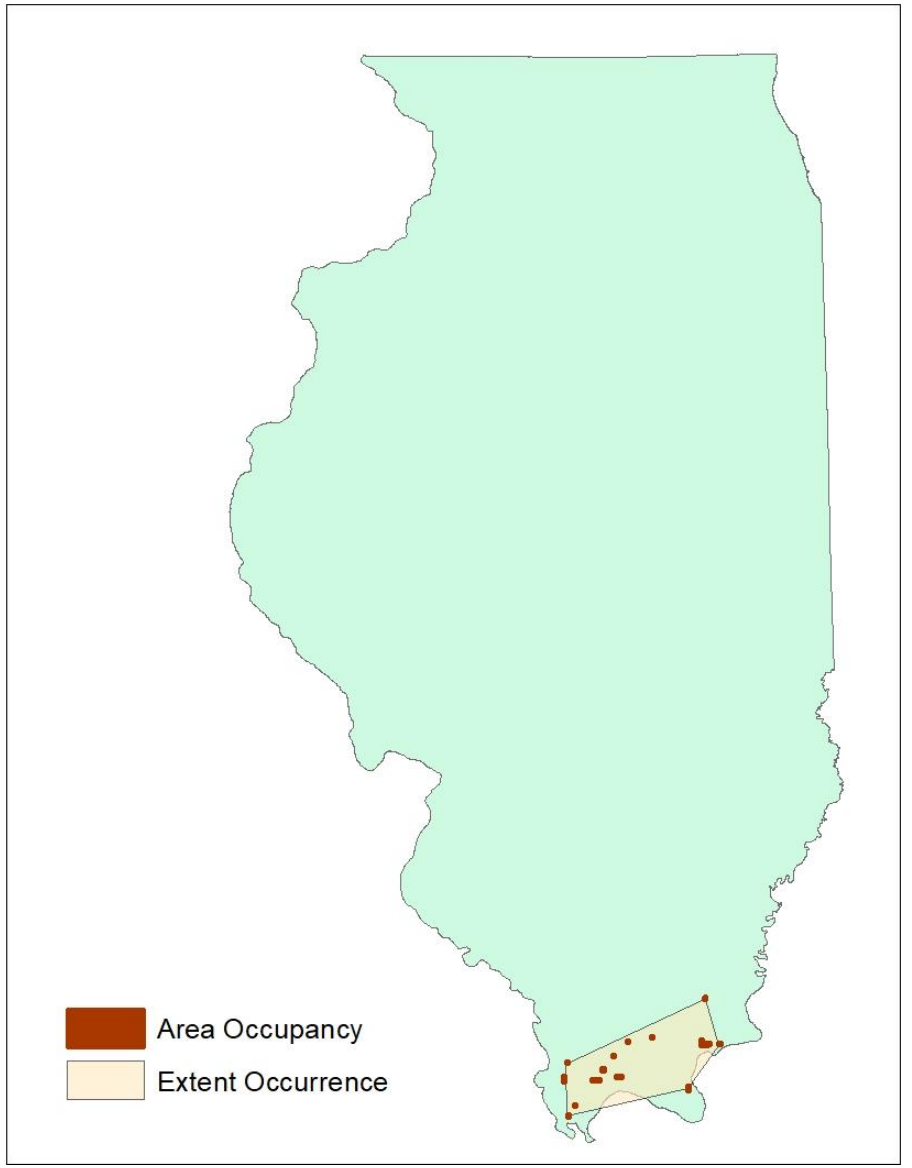
**D (1,000-5,000 km2)**

Area of Occupancy: **7 to 8** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **6 to 8 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Gray/timber Wolf (*Canis lupus*)

## Calculated Rank: **SH**

### Short-term Trend:

**Stable (-25 to 25%) per IWAP 2015**

**G (Relatively Stable <=10%)**

### Threats:

**2 threats/stressors** identified in IWAP 2015: Mortality, Killing

**AC (Medium-Very High (>4))**

Additional Notes: No reproducing populations but transient individuals seen regularly. Edge of range- rescue effect. Transient individuals not being included for sRanks to avoid prioritizing conservation efforts.

Number of Viable Occurrences is A (No occurrences with excellent or good (A or B) viability).

### Rarity:

Range Extent: **Observations from 9,696 km2** area per miminum convex polygon

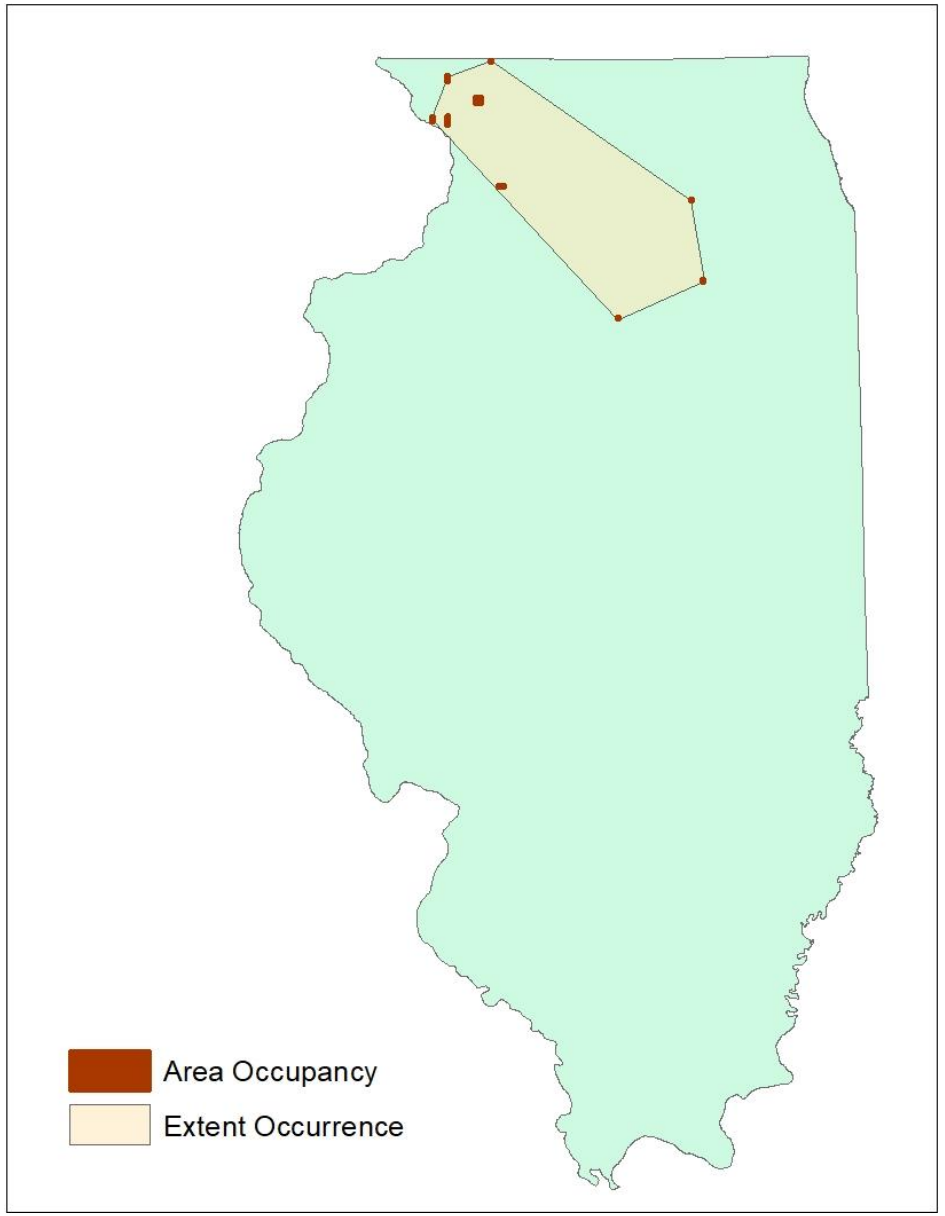
**E (5,000-20,000 km2)**

Area of Occupancy: **15** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **8 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Rafinesque's Big-eared Bat **hibernaculum** (*Corynorhinus rafinesquii*)

## Calculated Rank: **S1**

### Short-term Trend:

**Stable (-25 to 25%) per IWAP 2015**

**G (Relatively Stable <=10%)**

### Threats:

**Threats are not listed in IWAP**

**U (Unknown)**

Additional Notes: Edge of range, SH in IN, S3 in KY

### Rarity:

Range Extent: **<1 km2** range extent per minimum convex polygon

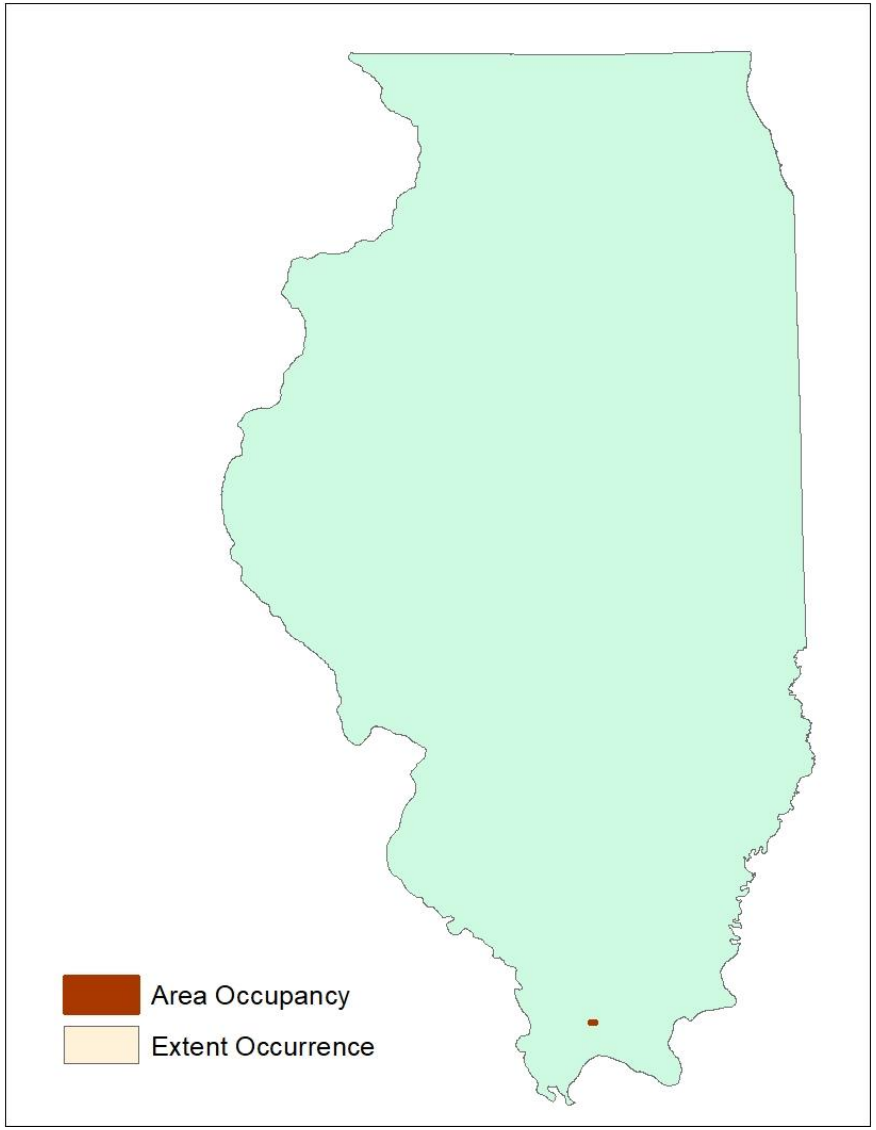
**A (<100 km2)**

Area of Occupancy: **2 to 3** 4-km2 grid cells occupied

**BC (2-5 4-km2 grid cells)**

Number of Occurrences: **1 to 2 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Rafinesque's Big-eared Bat **maternity** (*Corynorhinus rafinesquii*)

Calculated Rank: **S1S2**

Short-term Trend:

**Stable (-25 to 25%) per IWAP 2015**

**G (Relatively Stable <=10%)**

Threats:

**Threats are not listed in IWAP**

**U (Unknown)**

Additional Notes: Edge of range, SH in IN, S3 in KY

Rarity:

Range Extent: **253 to 3,169 km2** range extent per minimum convex polygon

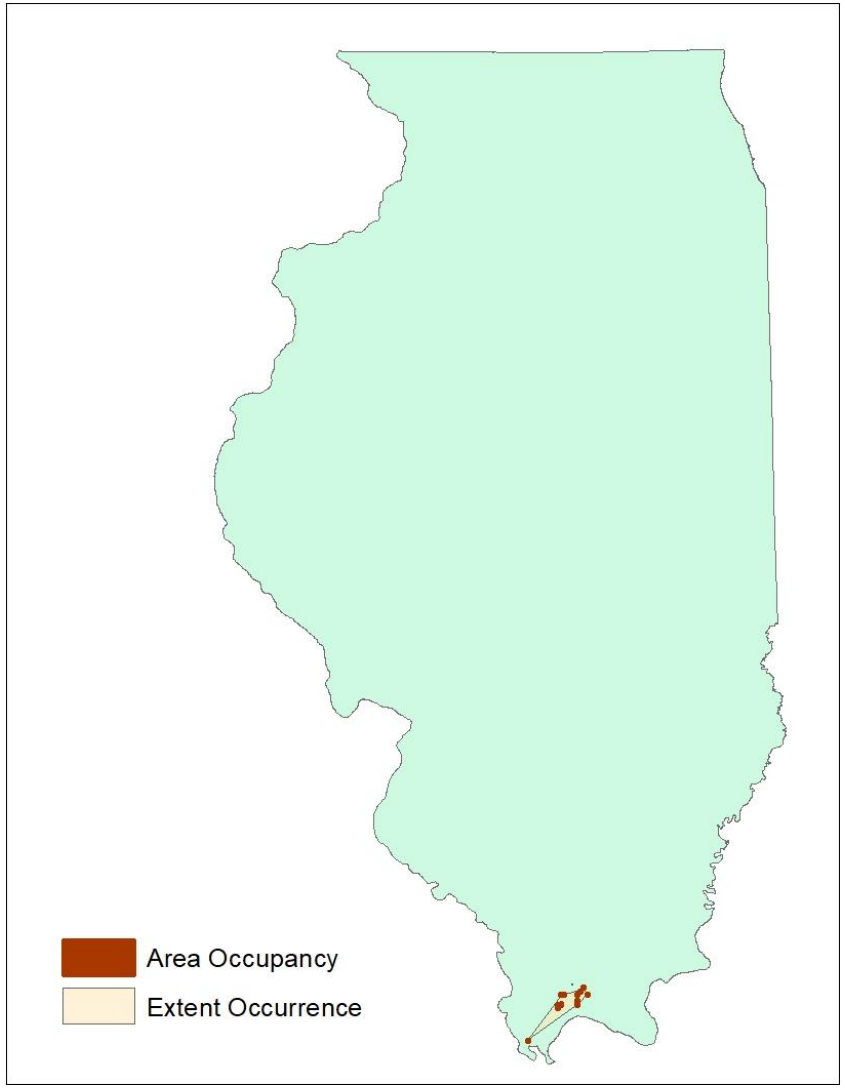
**C (250-1,000 km2)**

Area of Occupancy: **12 to 13** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **5 to 6 EORs** observed 2008 to 2017

**AB (1-20 EORs)**



# Southeastern Myotis **maternity** (*Myotis austroriparius*)

## Calculated Rank: **S2**

### Short-term Trend:

**Stable (-25 to 25%) per IWAP 2015**

**G (Relatively Stable <=10%)**

### Threats:

**Threats are not listed in IWAP**

**U (Unknown)**

Additional Notes: Edge of range, S1 in KY and MO, SH in IN. Acoustic records from Jo Davies and Meridosia island. Consider future methods of utilizing acoustic data.

### Rarity:

Range Extent: **1,285 to 2,253 km2** range extent per minimum convex polygon

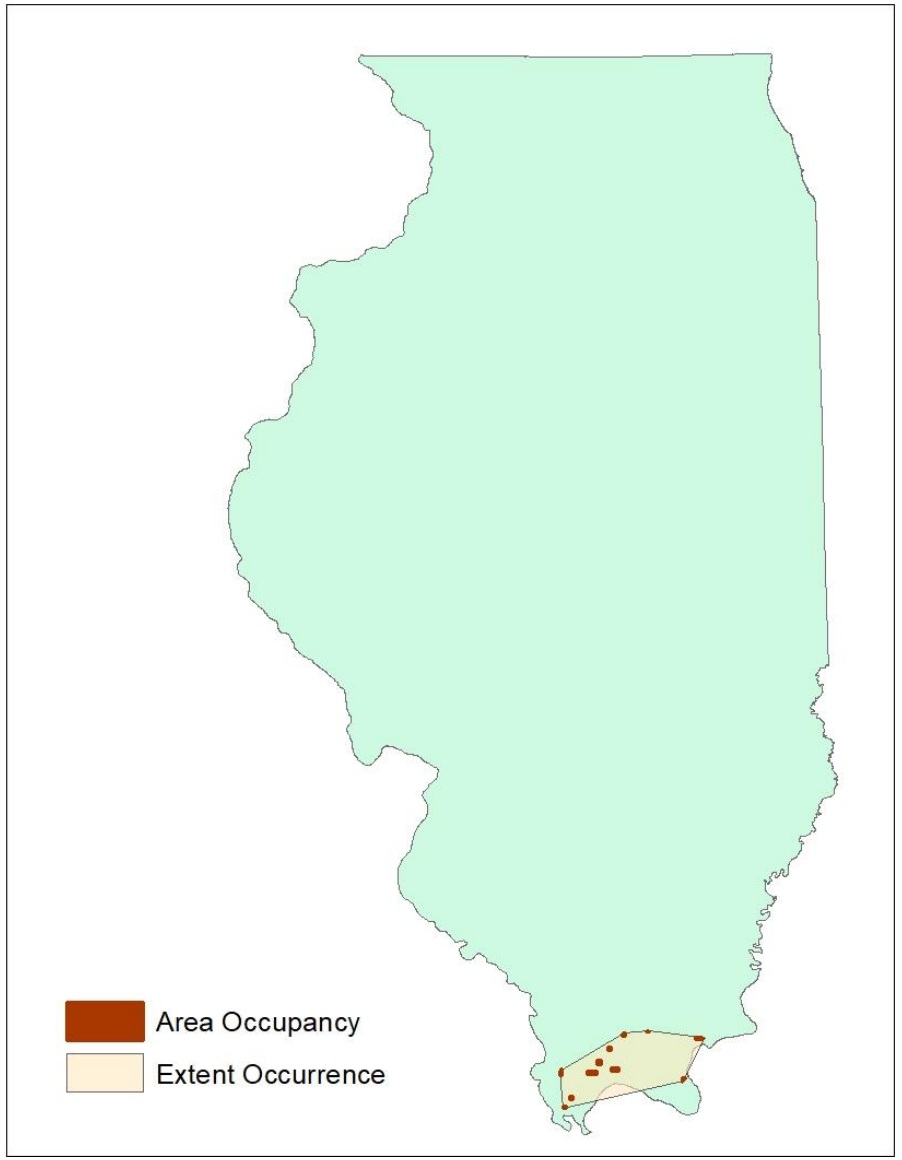
**D (1,000-5,000 km2)**

Area of Occupancy: **13 to 15** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **8 to 10 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Gray Bat **hibernaculum** (*Myotis grisescens*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Stable (-25 to 25%) per IWAP 2015**

**G (Relatively Stable <=10%)**

### Threats:

**Threats are not listed in IWAP**

**U (Unknown)**

Additional Notes: Potential within recovery program to work with IDNR Mines and Minerals to discern whether they have additional information about gray bat hibernacula.

### Rarity:

Range Extent: **2,085 to 5,430 km2** range extent per minimum convex polygon

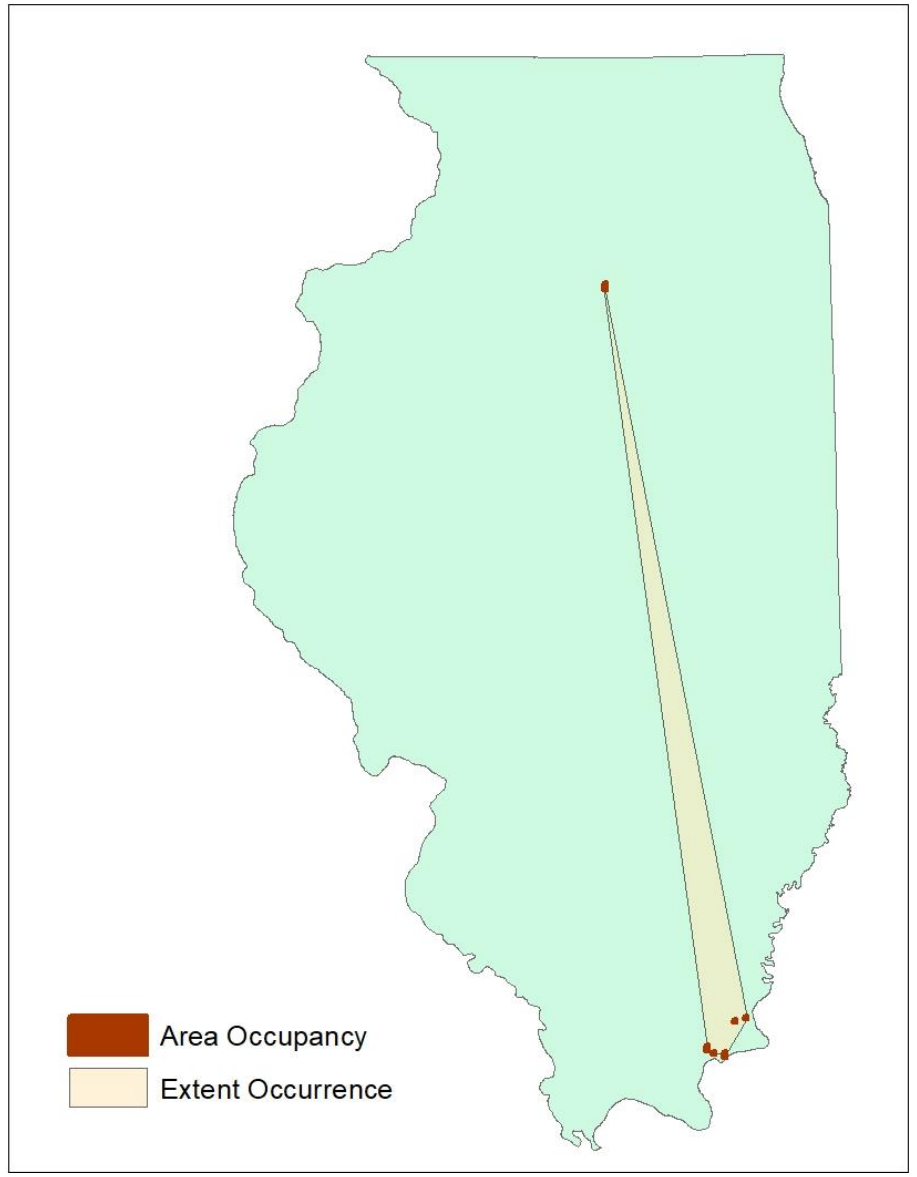
**DE (1000-20,000 km2)**

Area of Occupancy: **5 to 9** 4-km2 grid cells occupied

**CD (3-25 4-km2 grid cells)**

Number of Occurrences: **5 to 8 EORs** observed 2008 to 2017

**AB (1-20 EORs)**



# Gray Bat **maternity** (*Myotis grisescens*)

## Calculated Rank: **S2**

## Short-term Trend:

**Stable (-25 to 25%) per IWAP 2015**

**G (Relatively Stable <=10%)**

## Threats:

**Threats are not listed in IWAP**

**U (Unknown)**

Additional Notes: 3,500 individual bats observed in 2010 (Population Size factor E (2,500 to 10,000 individuals)).

## Rarity:

Range Extent: **24 to 87 km2** range extent per minimum convex polygon

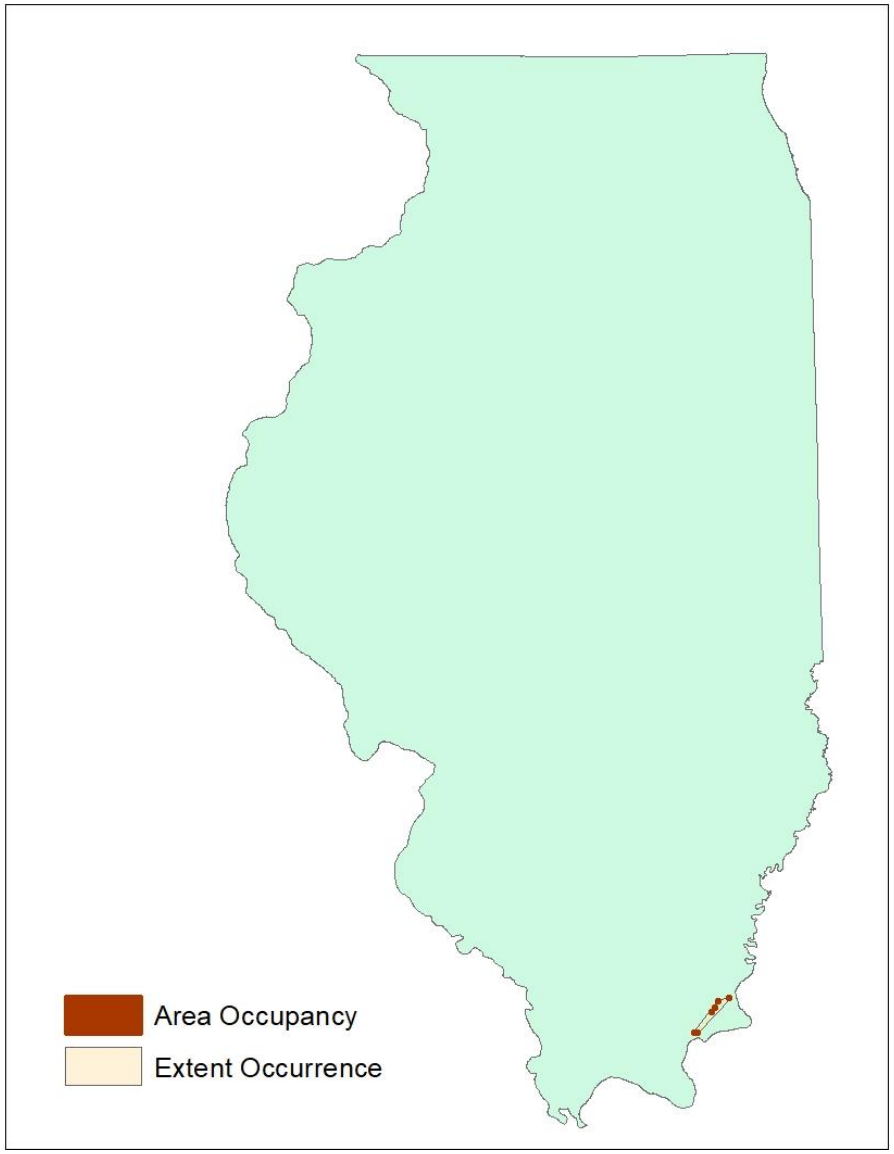
**A (<100 km2)**

Area of Occupancy: **4 to 6** 4-km2 grid cells occupied

**CD (3-25 4-km2 grid cells)**

Number of Occurrences: **2 to 4 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Eastern Small-footed Myotis **hibernaculum** (*Myotis leibii*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Stable (-25 to 25%) per IWAP 2015**

**G (Relatively Stable <=10%)**

### Threats:

**Threats are not listed in IWAP.**

**Medium-low per NatureServe.**

**CD (Medium-Low)**

Additional Notes: Edge of range, S2 in KY

### Rarity:

Range Extent: **0 to 213 km2** range extent per minimum convex polygon

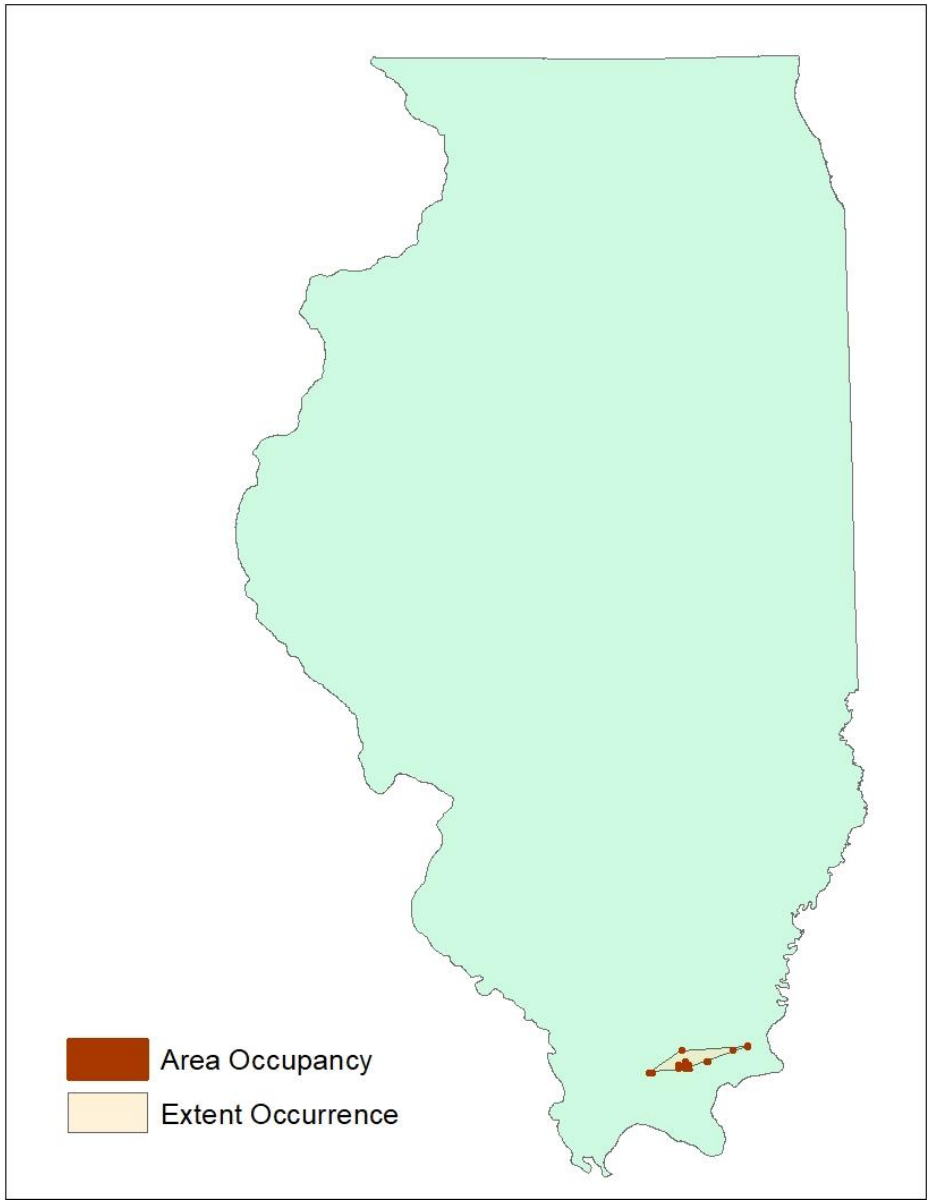
**AB (<100-250 km2)**

Area of Occupancy: **0 to 5** 4-km2 grid cells occupied

**AC (1-5 4-km2 grid cells)**

Number of Occurrences: **0 to 4 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Eastern Small-footed Myotis **maternity** (*Myotis leibii*)

## Calculated Rank: **S2?**

### Short-term Trend:

**Stable (-25 to 25%) per IWAP 2015**

**G (Relatively Stable <=10%)**

### Threats:

**Threats are not listed in IWAP.**

**Medium-low per NatureServe.**

**CD (Medium-Low)**

Additional Notes: Edge of range, S2 in KY. Acoustic records from Jo Davies, Edgar and Carrol counties.

### Rarity:

Range Extent: **67 to 285 km2** range extent per minimum convex polygon

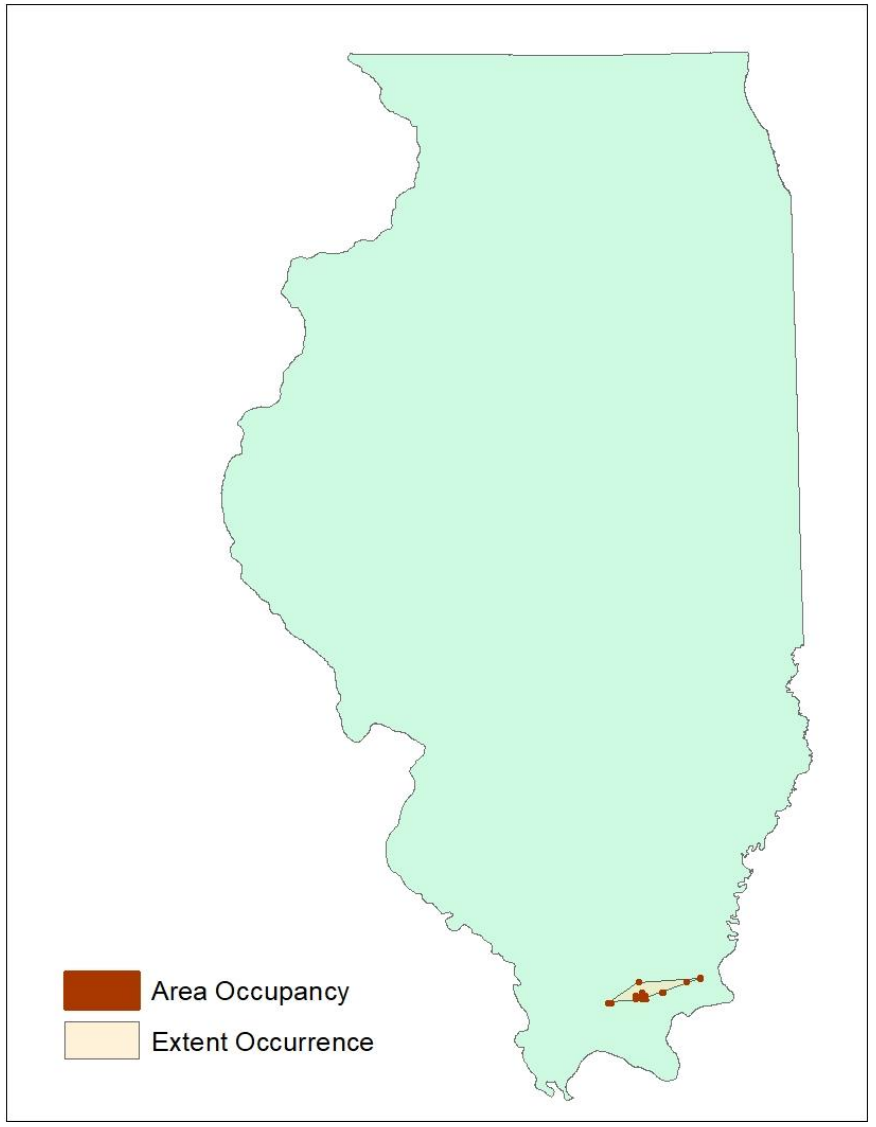
**AC (<100-1000 km2)**

Area of Occupancy: **8 to 13** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **2 to 6 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Northern Long-eared Myotis **hibernaculum** (*Myotis septentrionalis*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 30% or more per IWAP 2015**

**AE (Decline of >30%)**

### Threats:

**Threats are not listed in IWAP**

**A (Very High)**

### Rarity:

Range Extent: **82,760 km2** range extent per minimum convex polygon

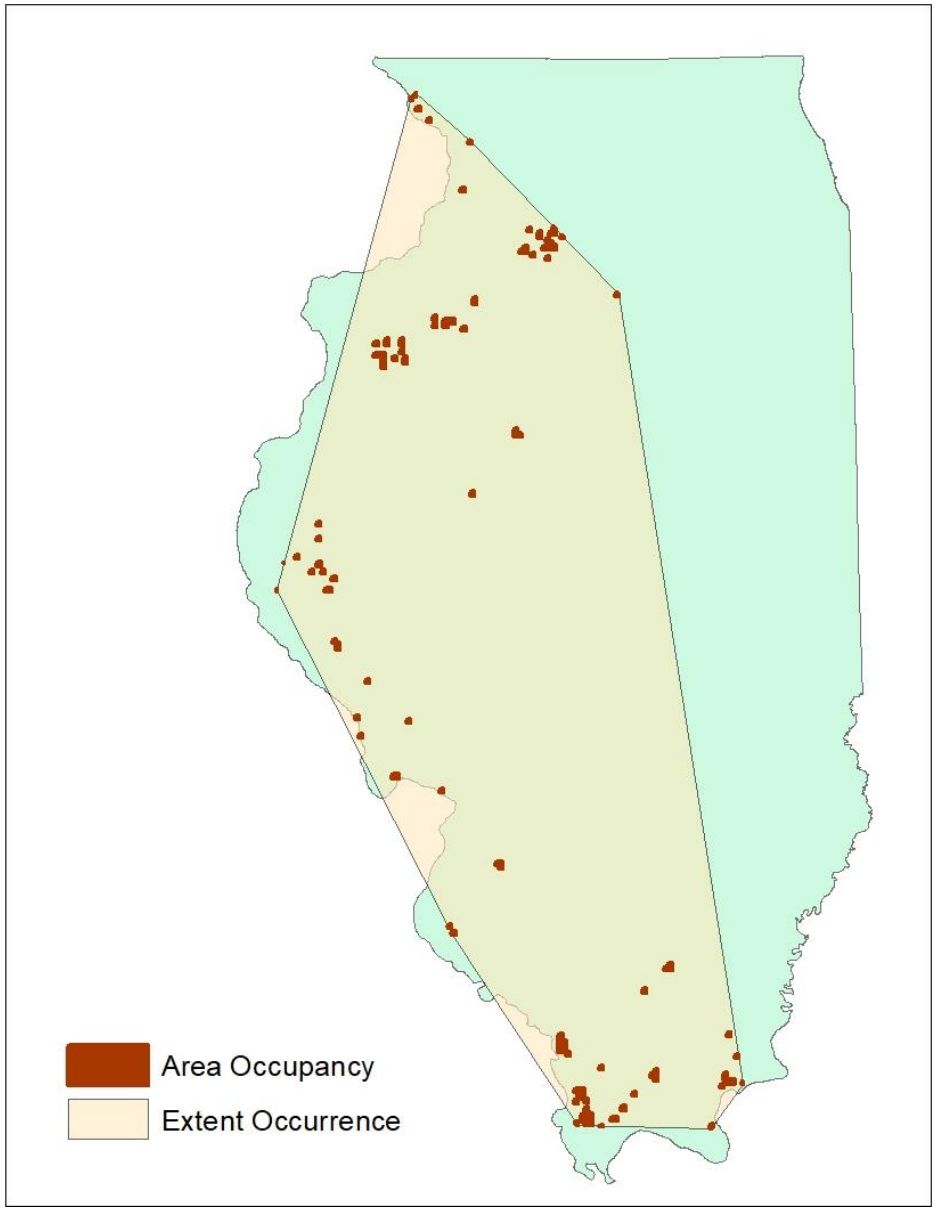
**F (20,000-200,000 km2)**

Area of Occupancy: **33**4-km2 grid cells occupied

**E (26-125 4-km2 grid cells)**

Number of Occurrences: 1**6 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Northern Long-eared Myotis **maternity** (*Myotis septentrionalis*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Declining 30% or more per IWAP 2015**

**AE (Decline of >30%)**

### Threats:

**Threats are not listed in IWAP**

**U (Unknown)**

Additional Notes: Global rank G1G2.

### Rarity:

Range Extent: **124,488 to 134,213 km2** range extent per minimum convex polygon

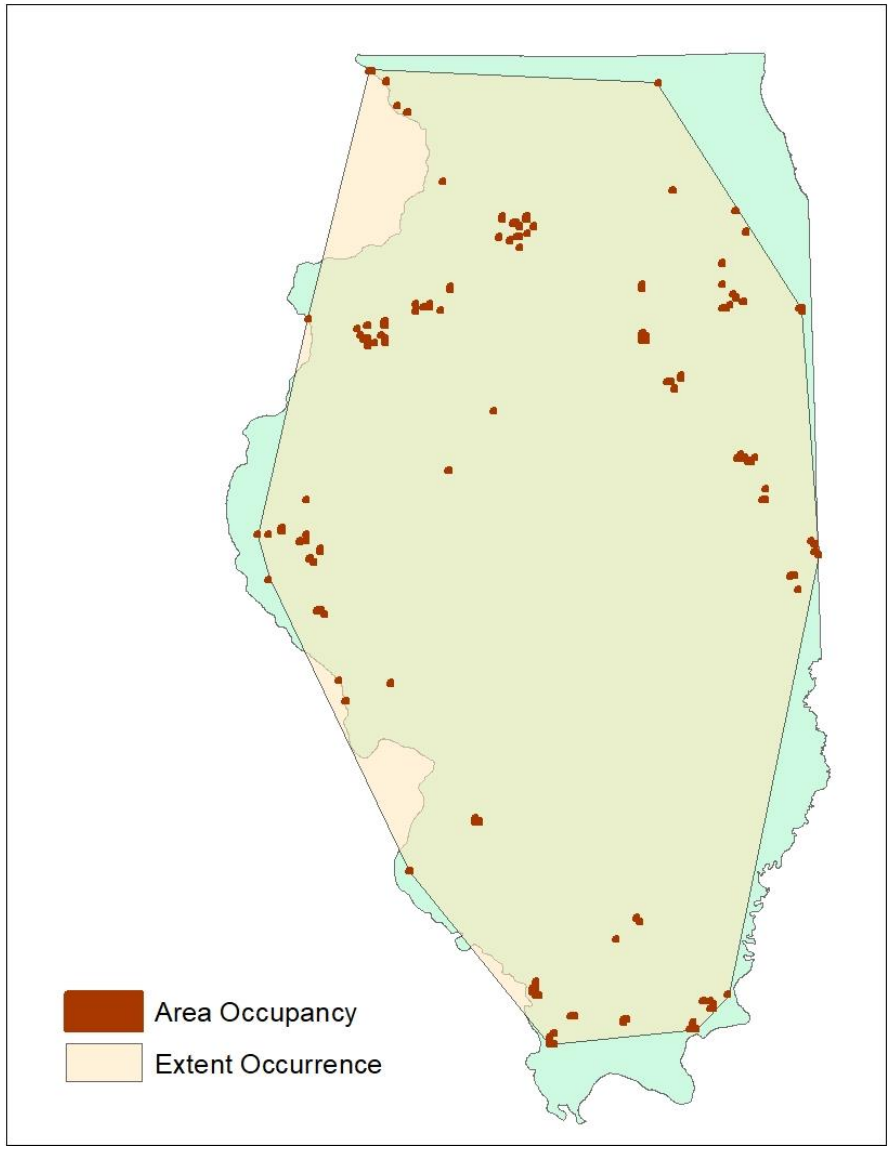
**F (20,000-200,000 km2)**

Area of Occupancy: **126 to 141** 4-km2 grid cells occupied

**F (126-500 4-km2 grid cells)**

Number of Occurrences: **51 to 63 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Indiana Bat **hibernaculum** (*Myotis sodalis*)

## Calculated Rank: **S2**

### Short-term Trend:

**Stable (-25 to 25%) per IWAP 2015**

**G (Relatively Stable <=10%)**

### Long-term Trend:

**D (Decline of 50 to 70%)**

### Threats:

**Threats are not listed in IWAP (2015). White-nose syndrome is a severe threat affecting hibernating bats.**

**A (Very High)**

### Rarity:

Range Extent: **67,335 to 109,477 km2** range extent per minimum convex polygon

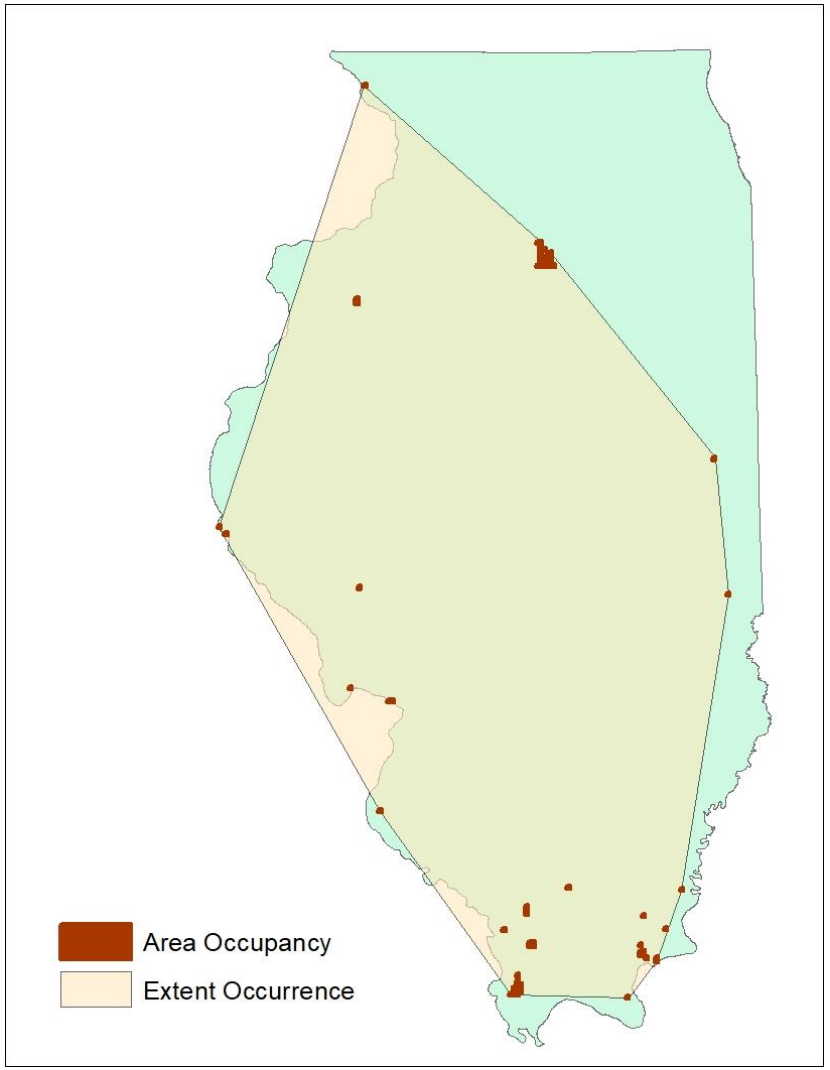
**F (20,000-200,000 km2)**

Area of Occupancy: **30 to 65** 4-km2 grid cells occupied

**E (26-125 4-km2 grid cells)**

Number of Occurrences: **13 to 24 EORs** observed 2008 to 2017

**BC (6-80 EORs)**




Additional Notes: One Priority 1 and six Priority 2 hibernaculum in Illinois (USFWS 2007). Population Size factor E (10,000 to 100,000 individuals). Number of viable occurrences BC (Very few to few (1-12) occurrences with good viability).

# Indiana Bat **maternity** (*Myotis sodalis*)

## Calculated Rank: **S2**

### Short-term Trend:

**Stable (-25 to 25%) per IWAP 2015**

**G (Relatively Stable <=10%)**

### Long-term Trend:

**D (Decline of 50 to 70%)**

### Threats:

**Threats are not listed in IWAP (2015) but include habitat loss from reduced forest cover and interrupted snag production.**

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **110,278 to 113,314 km2** range extent per minimum convex polygon

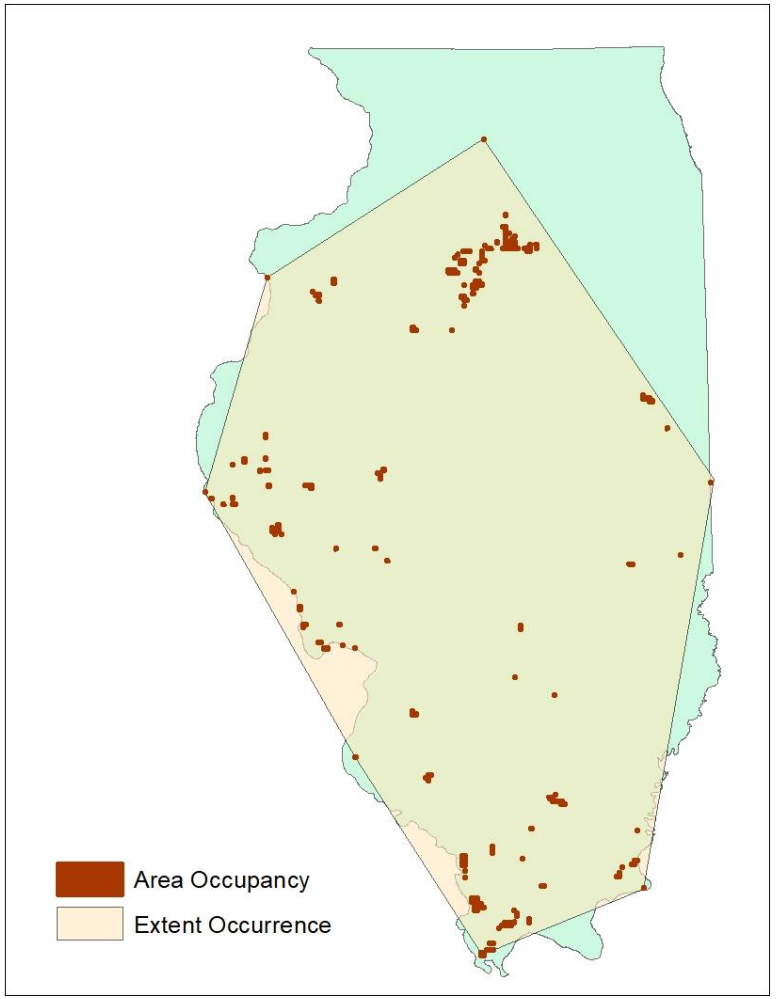
**F (20,000-200,000 km2)**

Area of Occupancy: **192 to 229** 4-km2 grid cells occupied

**F (126-500 4-km2 grid cells)**

Number of Occurrences: **58 to 69 EORs** observed 2008 to 2017

**C (21-80 EORs)**




Additional Notes: Global rank G2

# Eastern Wood Rat (*Neotoma floridana*)

## Calculated Rank: **S2?**

### Short-term Trend:

**Stable (-25 to 25%) per IWAP 2015**

**G (Relatively Stable <=10%)**

### Threats:

**5 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Parasites/ Disease, Dispersal, Recruitment

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, S4 in MO.

### Rarity:

Range Extent:

**2,066km2** range extent per minimum convex polygon

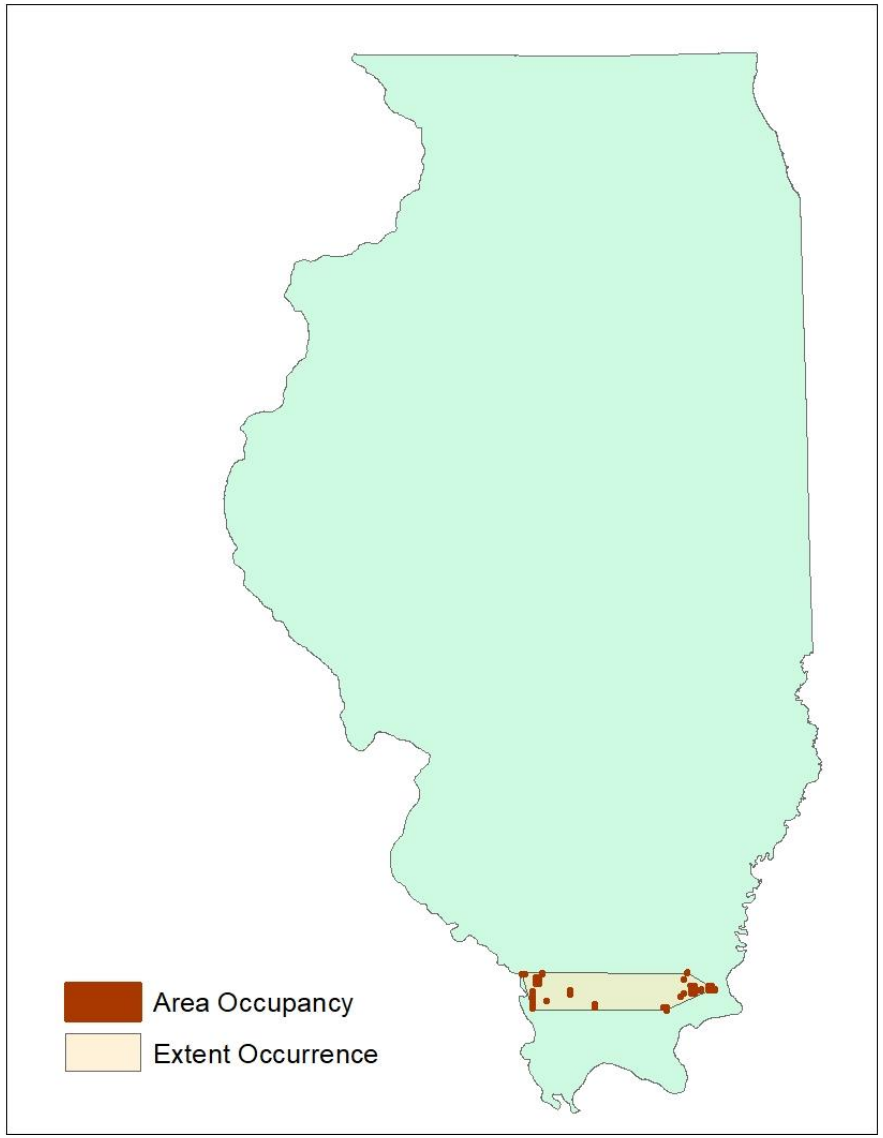
**D (1,000-5,000 km2)**

Area of Occupancy: 3**7 to 40** 4-km2 grid cells occupied

**E (26-125 4-km2 grid cells)**

Number of Occurrences: **9 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Franklin's Ground Squirrel (*Poliocitellus franklinii*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Declining 50 to 100% per IWAP 2015**

**AD (Decline of 70%)**

### Threats:

**6 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Dispersal, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, S1 in KY and MO, SH in IN. More surveys needed in IL.

### Rarity:

Range Extent: **47,632km2** range extent per minimum convex polygon

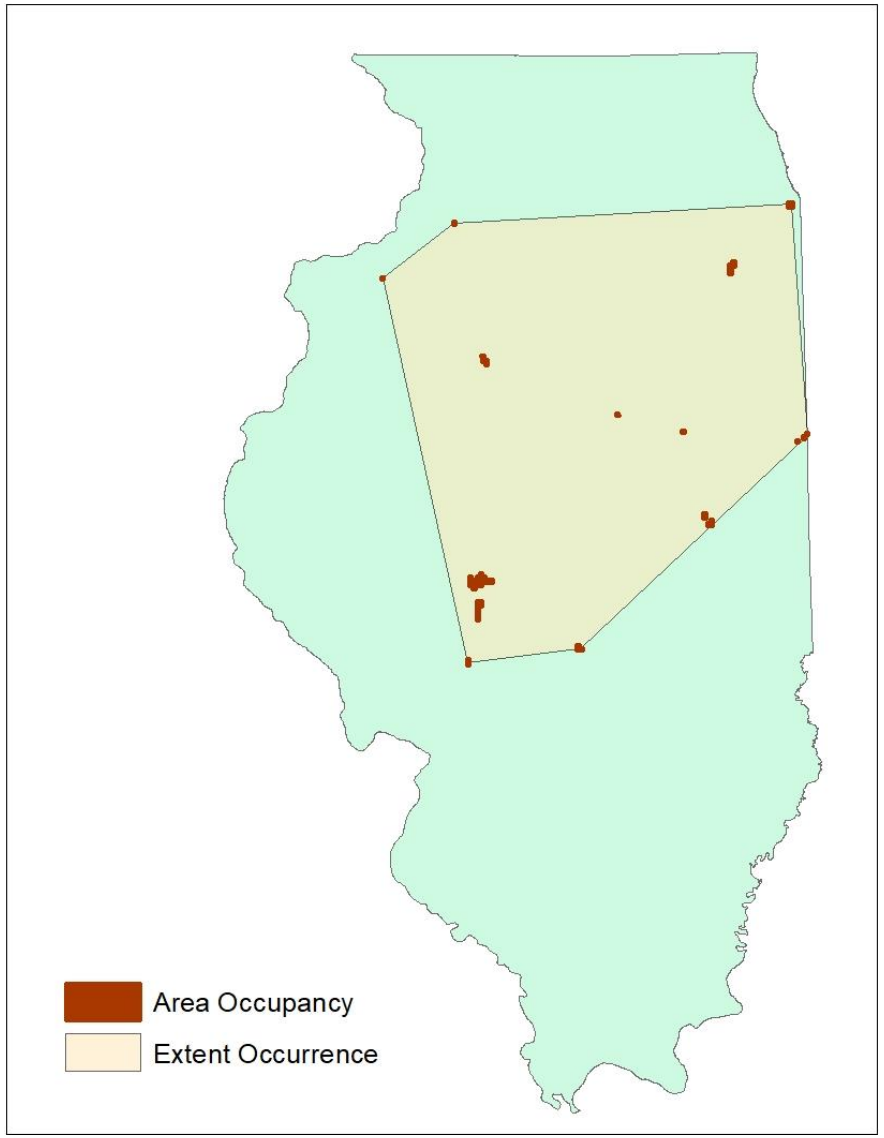
**F (20,000-200,000 km2)**

Area of Occupancy: **54** 4-km2 grid cells occupied

**E (26-125 4-km2 grid cells)**

Number of Occurrences: **15 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Packard's Cave Amphipod (*Crangonyx packardi*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 50 to 100%** per NatureServe 2003.

**AD (Decline of >50%)**

### Threats:

**No threats identified in IWAP 2015**

**U (Unknown)**

### Rarity:

Range Extent: **<1 km2** range extent per minimum convex polygon

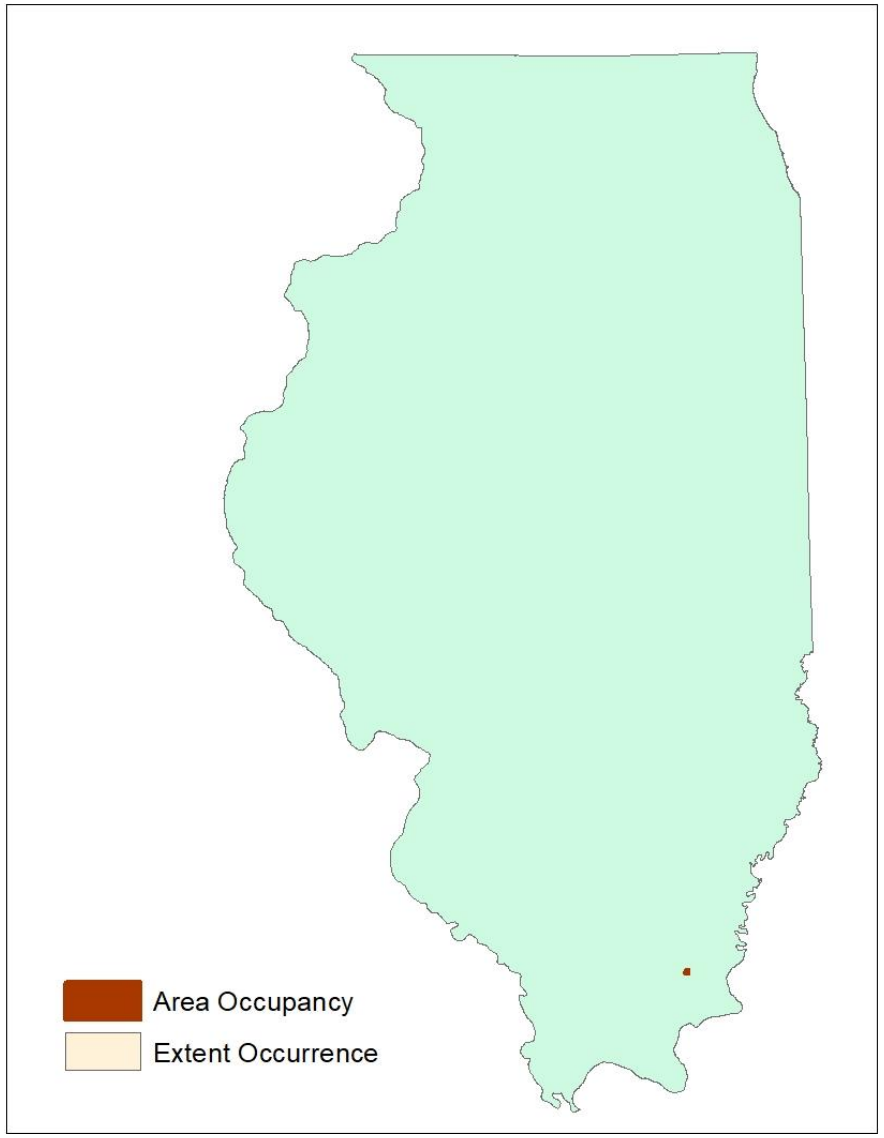
**A (<100 km2)**

Area of Occupancy: **1** 4-km2 grid cells occupied

**A (1 4-km2 grid cells)**

Number of Occurrences: **1 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Illinois Cave Amphipod (*Gammarus acherondytes*)

## Calculated Rank: **S1S2**

### Long-term Trend:

**Declining 30-50% per NatureServe (2008)**

**E (Decline of 30-50%)**

### Threats:

**6 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **179 km2** range extent per minimum convex polygon

**B (100-250 km2)**

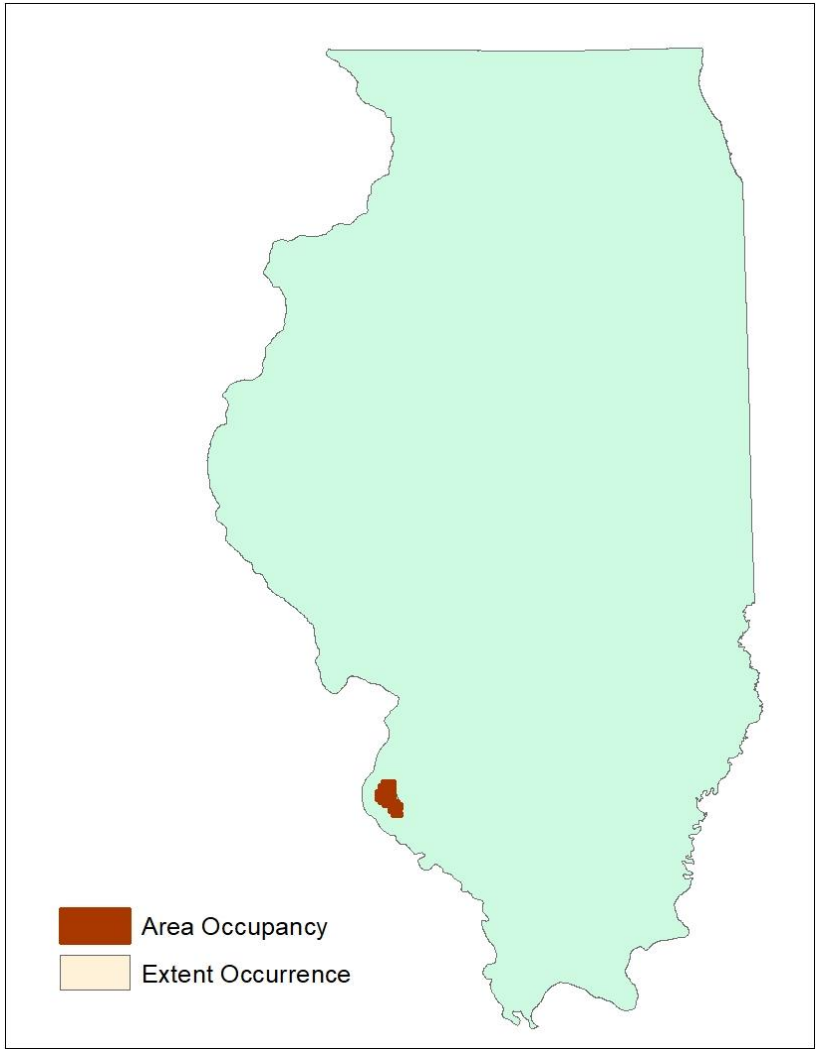
Area of Occupancy: An occupied cave system is divided into 7 units with low to medium locational certainty. **The system is a minimum of 7 4-km2 grid cells and at most 54 4-km2 grid cells.**

**DE (6-125 4-km2 grid cells)**

Number of Occurrences: **7 EORs** observed 2008 to 2017

**B (5-20 EORs)**

Additional Notes: Historically known from six caves or cave systems in Monroe and St. Clair Co., but a 1995 survey by Webb found it only in Monroe Co. at only three of the original six sites.



# Kentucky Crayfish (*Orconectes kentuckiensis*)

Calculated Rank: **S1**

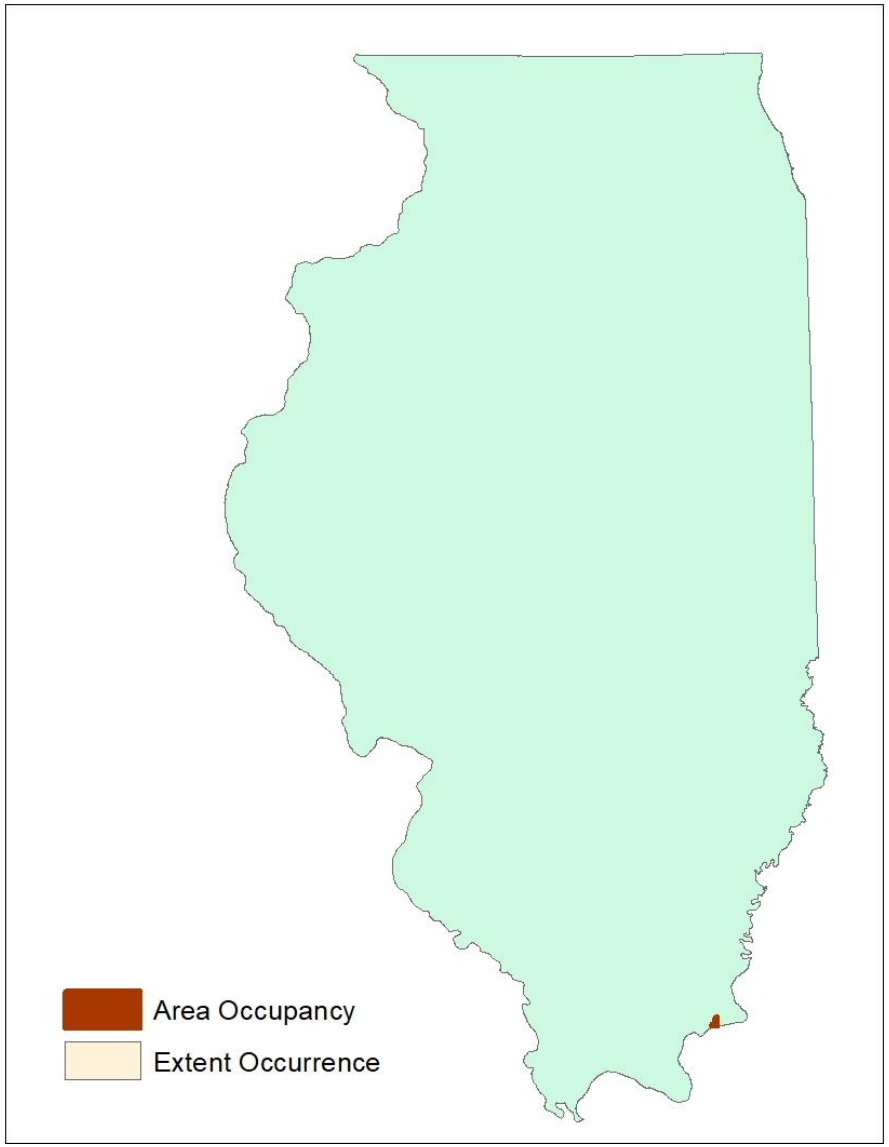
Short-term Trend:
**Trend Unknown**
**U (Unknown)**

Threats:
**3 threats/stressors** identified in IWAP 2015: Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment
**BD (Low-High (1-3))**

Rarity:
Range Extent: **6 km2** range extent per minimum convex polygon
**A (<100 km2)**

Area of Occupancy: **8** 1-km2 grid cells occupied
**B (5-10 1-km2 grid cells)**

Number of Occurrences: **2 EORs** observed 2008 to 2017
**A (1-5 EORs)**



# Indiana Crayfish (*Orconectes indianensis*)

Calculated Rank: **S2?**

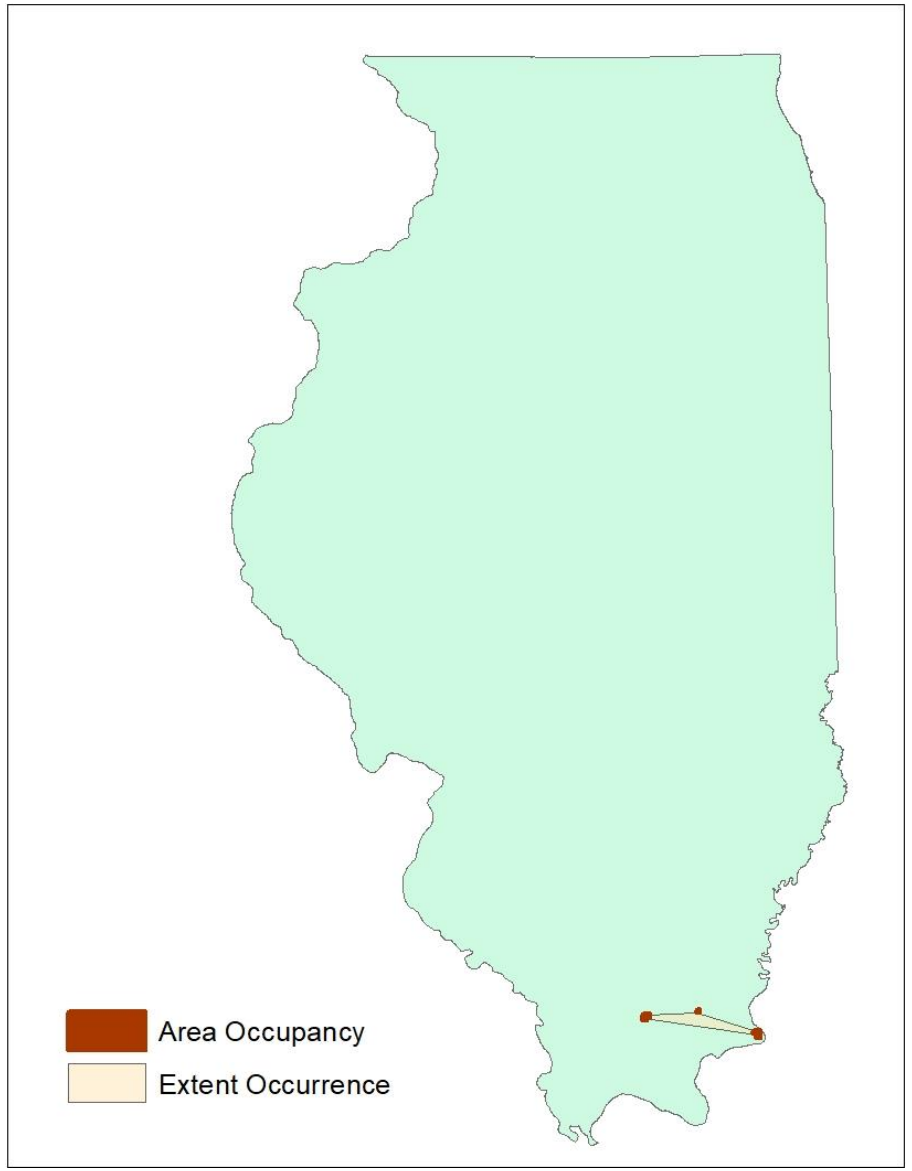
Short-term Trend:
**Trend Unknown**
**U (Unknown)**

Threats:
**3 threats/stressors** identified in IWAP 2015: Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment
**BD (Low-High (1-3))**

Rarity:
Range Extent: **290 km2** range extent per minimum convex polygon
**C (250-1,000 km2)**

Area of Occupancy: **11** 1-km2 grid cells occupied
**C (11-20 1-km2 grid cells)**

Number of Occurrences: **4 EORs** observed 2008 to 2017
**A (1-5 EORs)**



# Bigclaw Crayfish (*Orconectes placidus*)

## Calculated Rank: **S1**

### Short-term Trend:

**Trend Unknown**

**U (Unknown)**

### Threats:

**3 threats/stressors** identified in IWAP 2015: Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment

**BD (Low-High (1-3))**

Additional Notes: Edge of Range

### Rarity:

Range Extent: **26 km2** range extent per minimum convex polygon

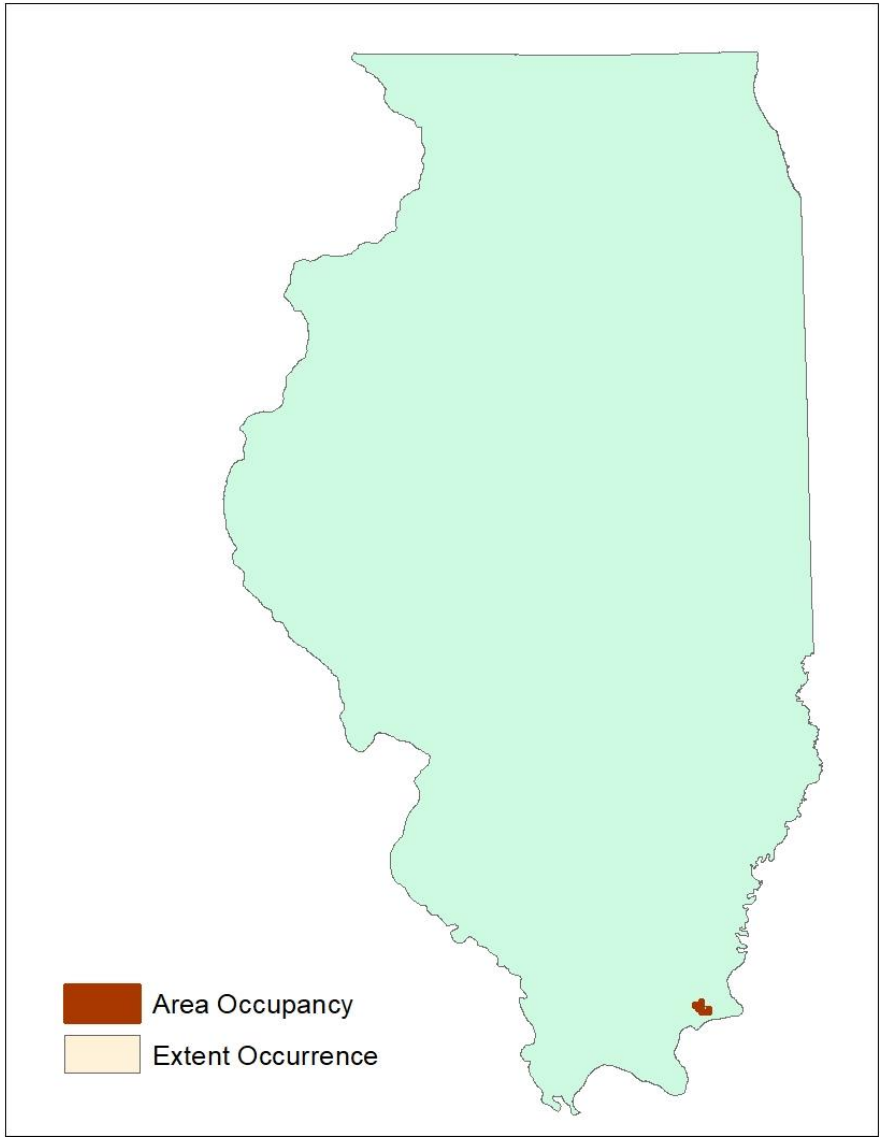
**A (<100 km2)**

Area of Occupancy: **22** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **1 EOR** observed 2008 to 2017

**A (1-5 EORs)**



# Hoary Elfin (*Incisalia polios*)

## Calculated Rank: **S1**

### Short-term Trend:

**Trend Unknown**

**U (Unknown)**

### Threats:

**6 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Recruitment**.**

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, Species name is *Callophrys polios* in IWAP

### Rarity:

Range Extent: **2.6 km2** range extent per minimum convex polygon

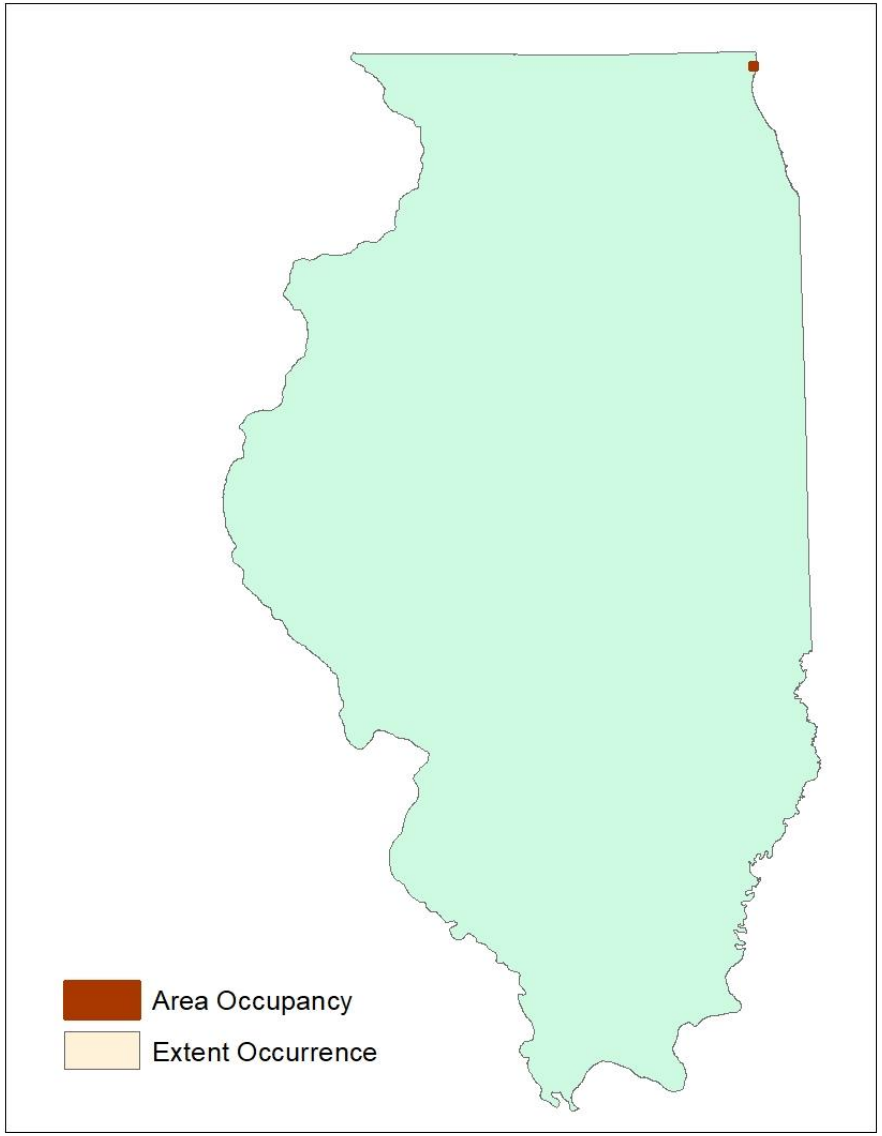
**A (<100 km2)**

Area of Occupancy: **4 or fewer** 4-km2 grid cells occupied, EOR mapping has low certainty

**A (1 4-km2 grid cells)**

Number of Occurrences: **1 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Swamp Metalmark (*Calephelis muticum*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Trend Unknown**

**U (Unknown)**

### Threats:

**11 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Prey/Food, Hosts, Genetics, Dispersal, Recruitment

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **574 km2** range extent per minimum convex polygon

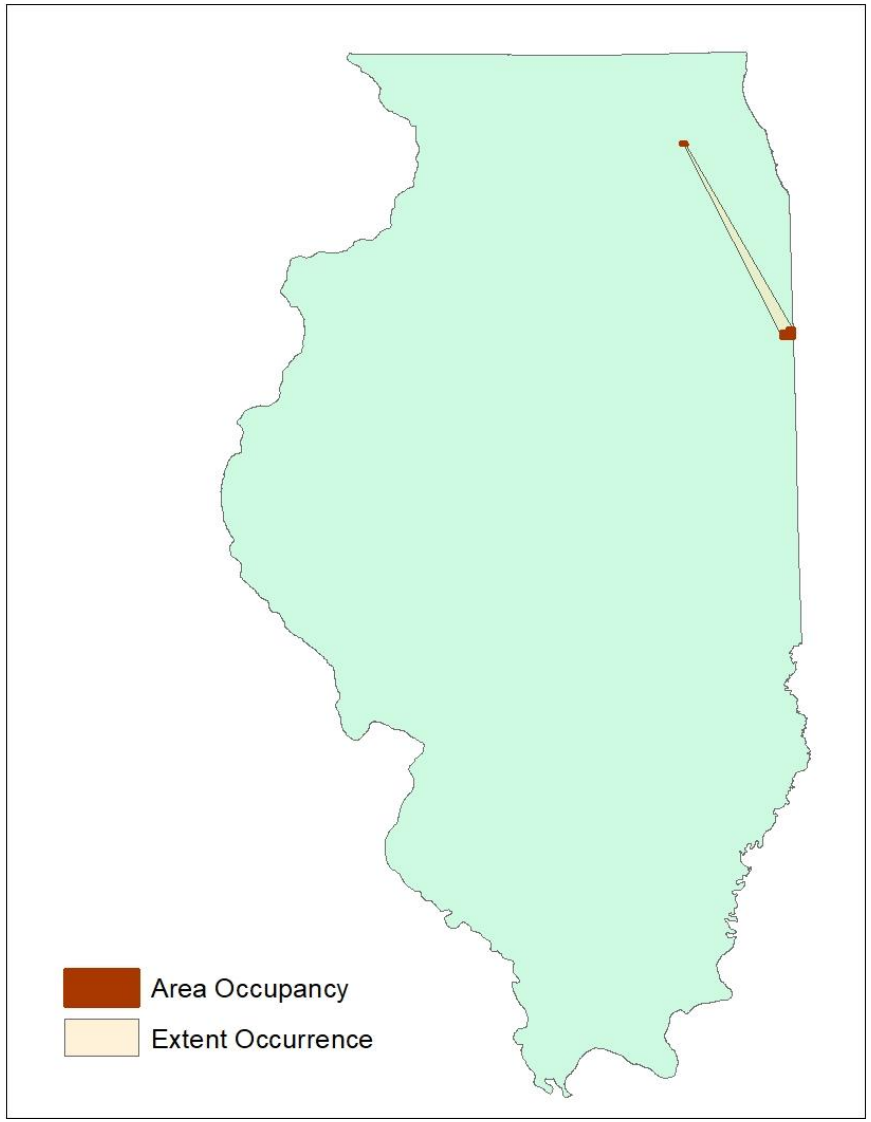
**C (250-1,000 km2)**

Area of Occupancy: **11** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **2 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Regal Fritillary (Speyeria idalia)

## Calculated Rank: **S1S3**

### Short-term Trend:

**Declining >10%** per guidance document (Swengel and Swengel 2016).

**AF(Decline of >10%)**

### Threats:

**11 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Prey/Food, Hosts, Genetics, Dispersal, Recruitment, Mortality

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **40,642 km2** range extent per minimum convex polygon

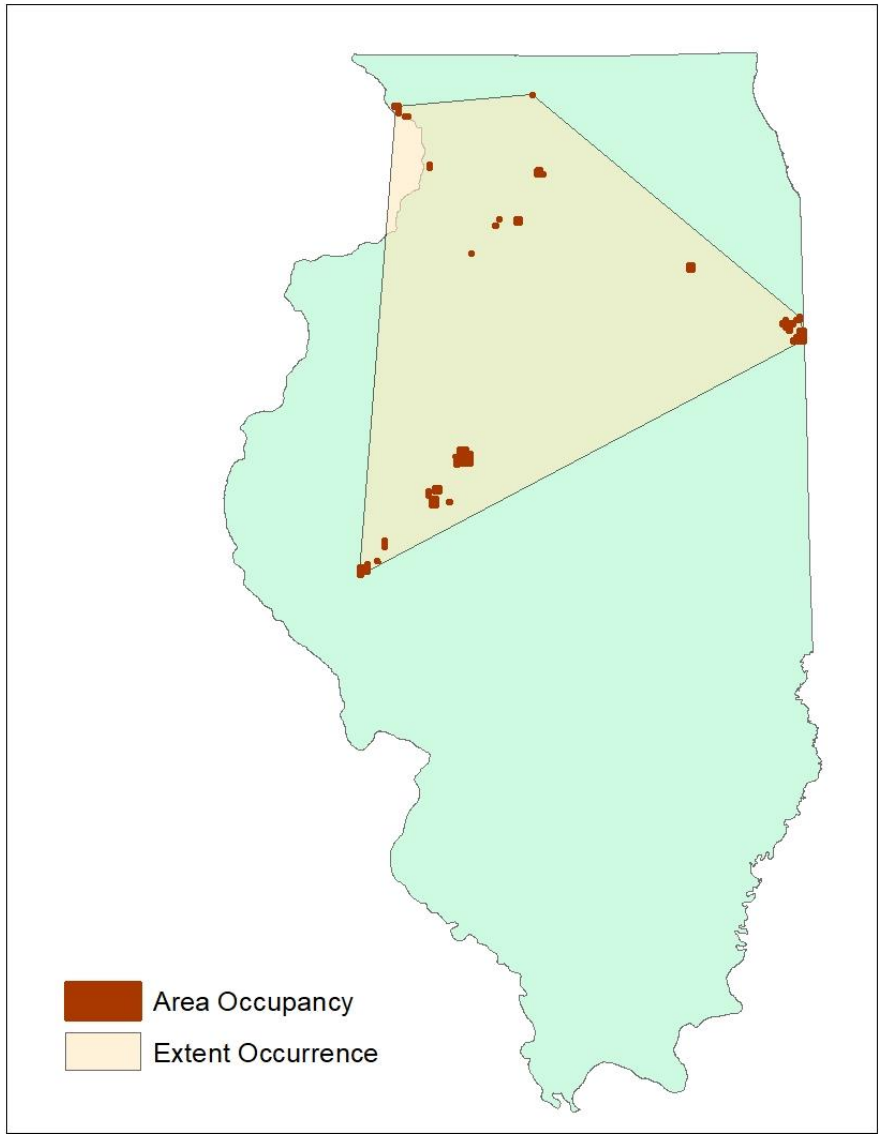
**F (20,000-200,000 km2)**

Area of Occupancy: **74 to 81** 4-km2 grid cells occupied

**E (26-125 4-km2 grid cells)**

Number of Occurrences: **16 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Eryngium Stem Borer (*Papaipema eryngii*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Trend Unknown**

**U (Unknown)**

### Threats:

**6 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment

**AC (Medium-Very High (>4))**

Additional Notes: Global rank G1G2. More surveys needed in IL.

### Rarity:

Range Extent: **9,984 km2** range extent per minimum convex polygon

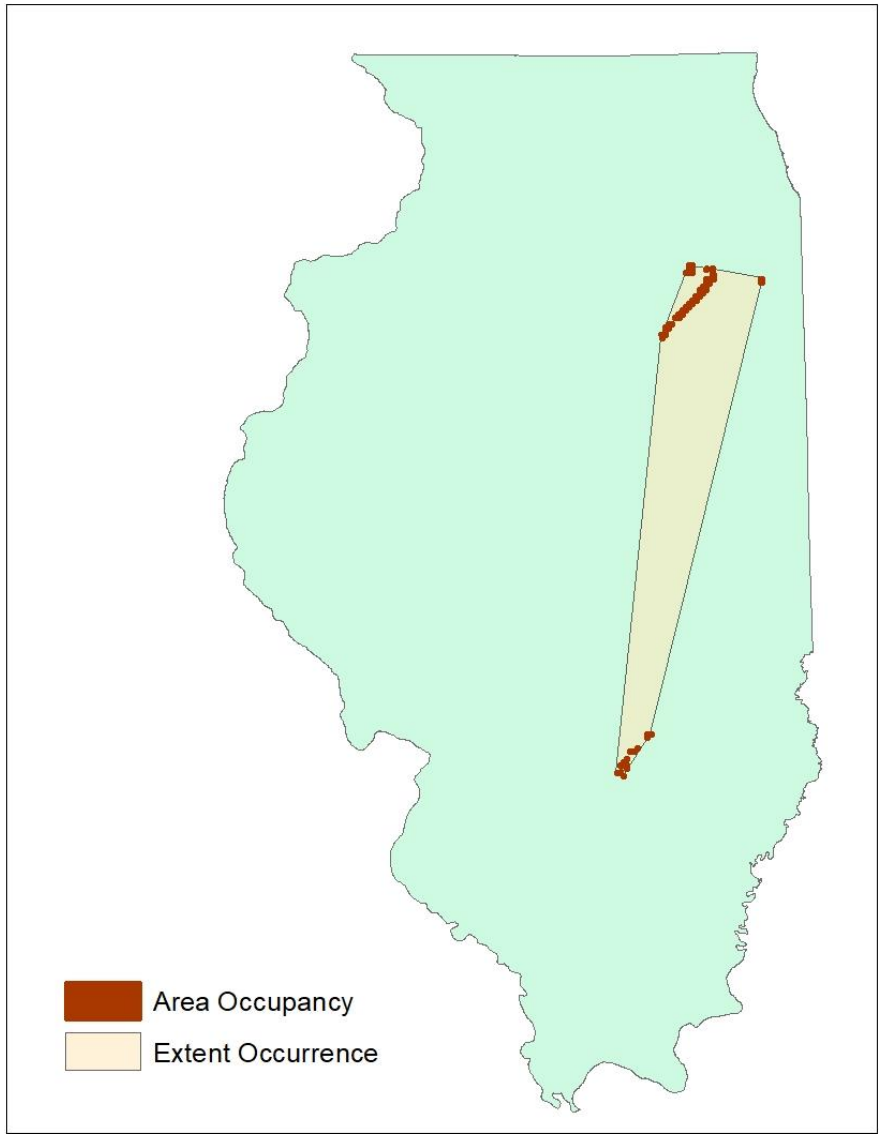
**E (5,000-20,000 km2)**

Area of Occupancy: **62** 4-km2 grid cells occupied

**E (26-125 4-km2 grid cells)**

Number of Occurrences: **9 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Hine's Emerald Dragonfly (*Somatochlora hineana*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Trend Unknown**

**U (Unknown)**

### Threats:

**6 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **807 km2** range extent per minimum convex polygon

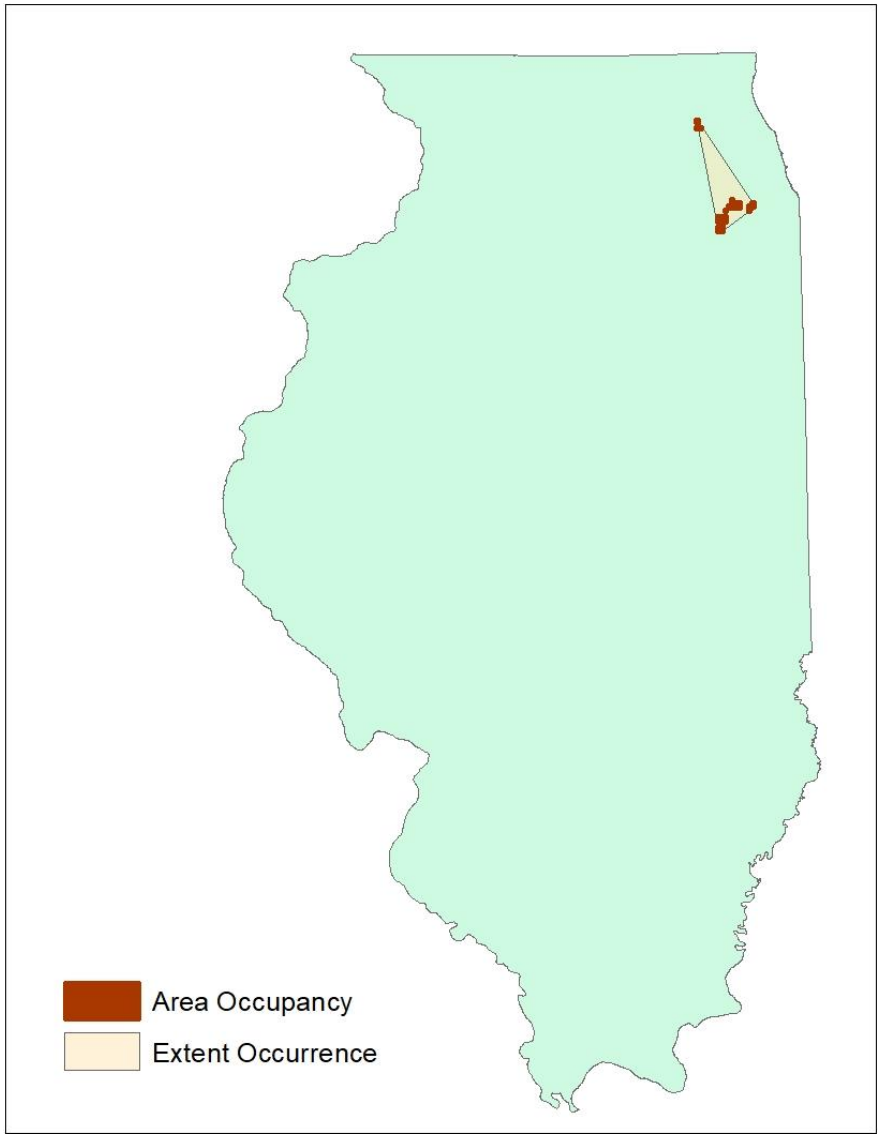
**C (250-1,000 km2)**

Area of Occupancy: **24** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **7 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Elfin Skimmer (*Nannothemis bella*)

## Calculated Rank: **S1?**

### Short-term Trend:

**Trend Unknown**

**U (Unknown)**

### Threats:

**6 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment

**AC (Medium-Very High (>4))**

Additional Notes: Edge of Range

### Rarity:

Range Extent: **93 km2** range extent per minimum convex polygon

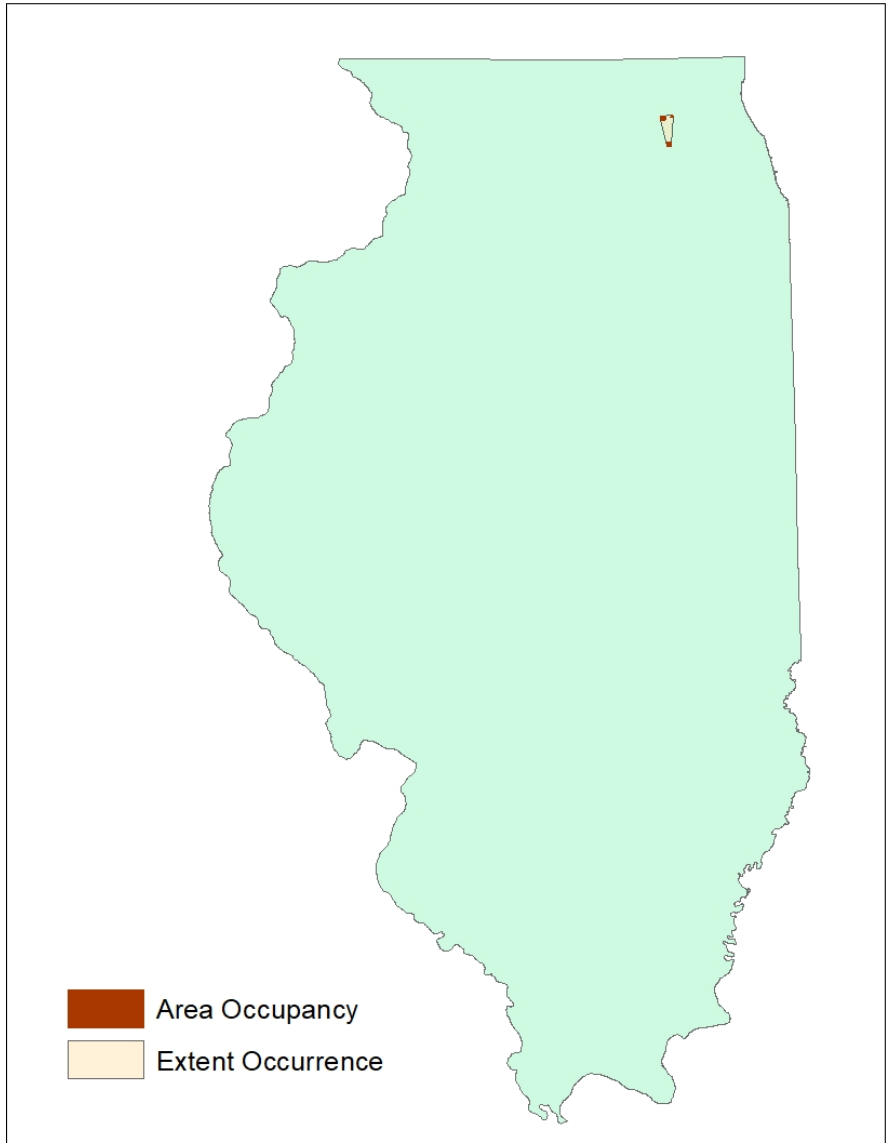
**A (<100 km2)**

Area of Occupancy: **3** 4-km2 grid cells occupied

**C (3-5 4-km2 grid cells)**

Number of Occurrences: **3 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Robust Springfly (*Diploperla robusta*)

## Calculated Rank: **S1**

### Short-term Trend:

**Trend Unknown**

**U (Unknown)**

### Threats:

**3 threats/stressors** identified in IWAP 2015: Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment

**BD (Low-High (1-3))**

Additional Notes: Possibly edge of range

### Rarity:

Range Extent: **<1 km2** range extent per minimum convex polygon

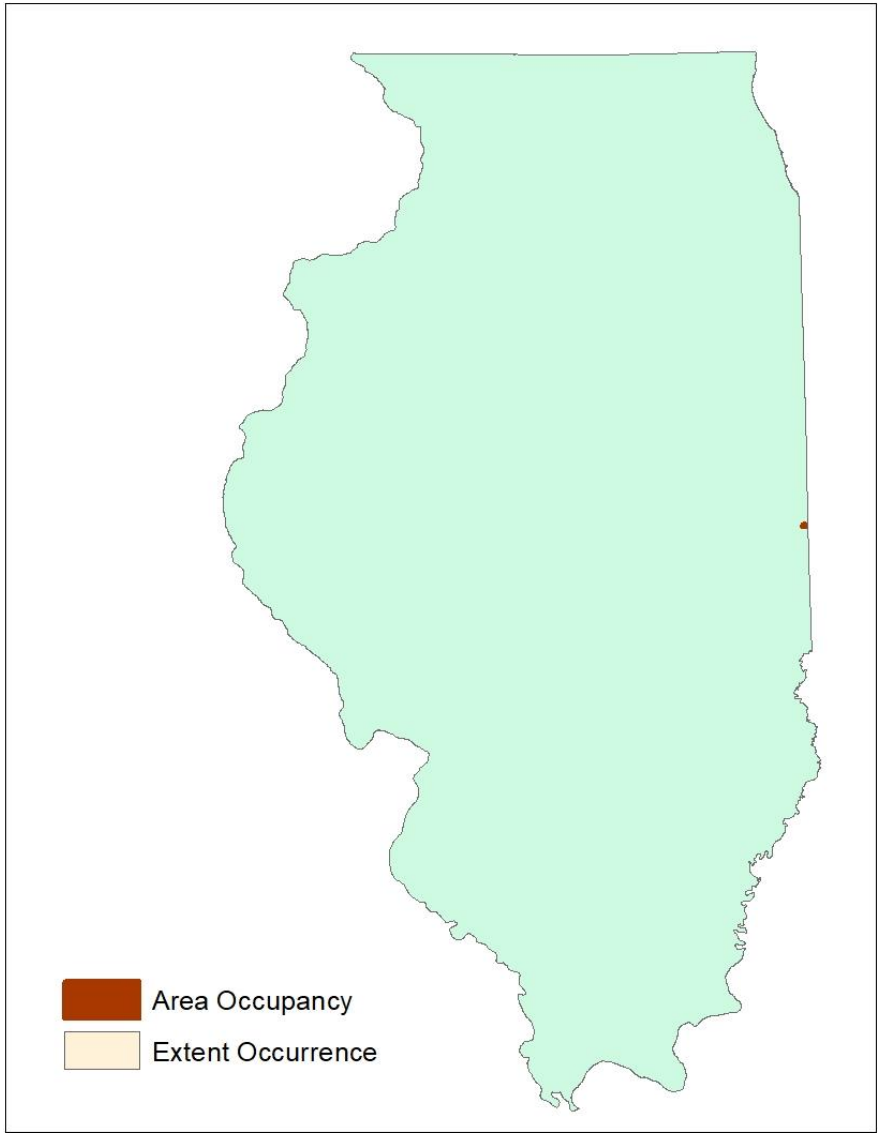
**A (<100 km2)**

Area of Occupancy: **1** 4-km2 grid cells occupied

**A (1 4-km2 grid cells)**

Number of Occurrences: **1 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Common Striped Scorpion (*Centruroides vittatus*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Trend Unknown**

**U (Unknown)**

### Threats:

**3 threats/stressors** identified in IWAP 2015: Composition-structure, Invasives/Exotics, Dispersal

**BD (Low-High (1-3))**

Additional Notes: Edge of range

### Rarity:

Range Extent: **19 km2** range extent per minimum convex polygon

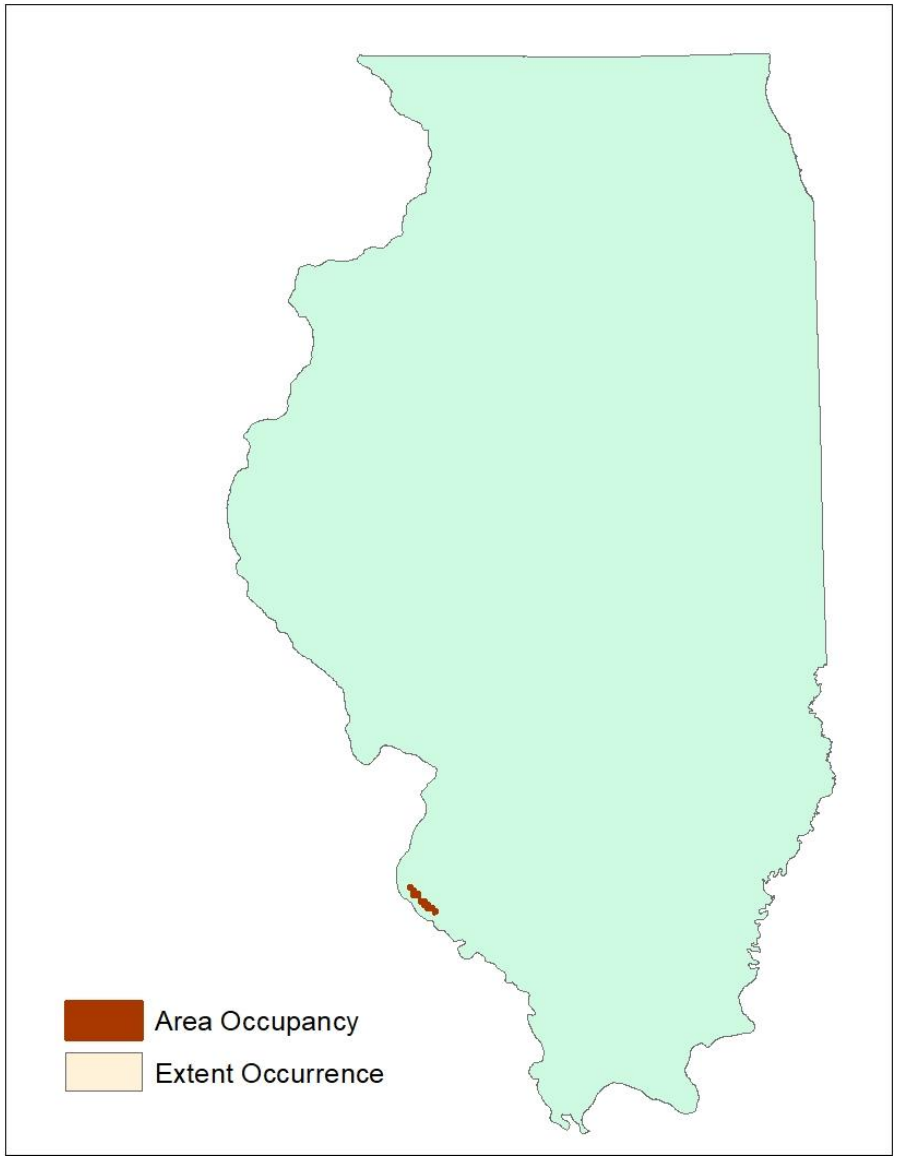
**A (<100 km2)**

Area of Occupancy: **10** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **2 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Hydrobiid cave snail (*Fontigens antroecetes*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**9 threats/stressors** identified in IWAP 2015: Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Genetics, Dispersal, Recruitment, Mortality, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: Common name is Missouri cave snail in IWAP

### Rarity:

Range Extent: **24 km2** range extent per minimum convex polygon

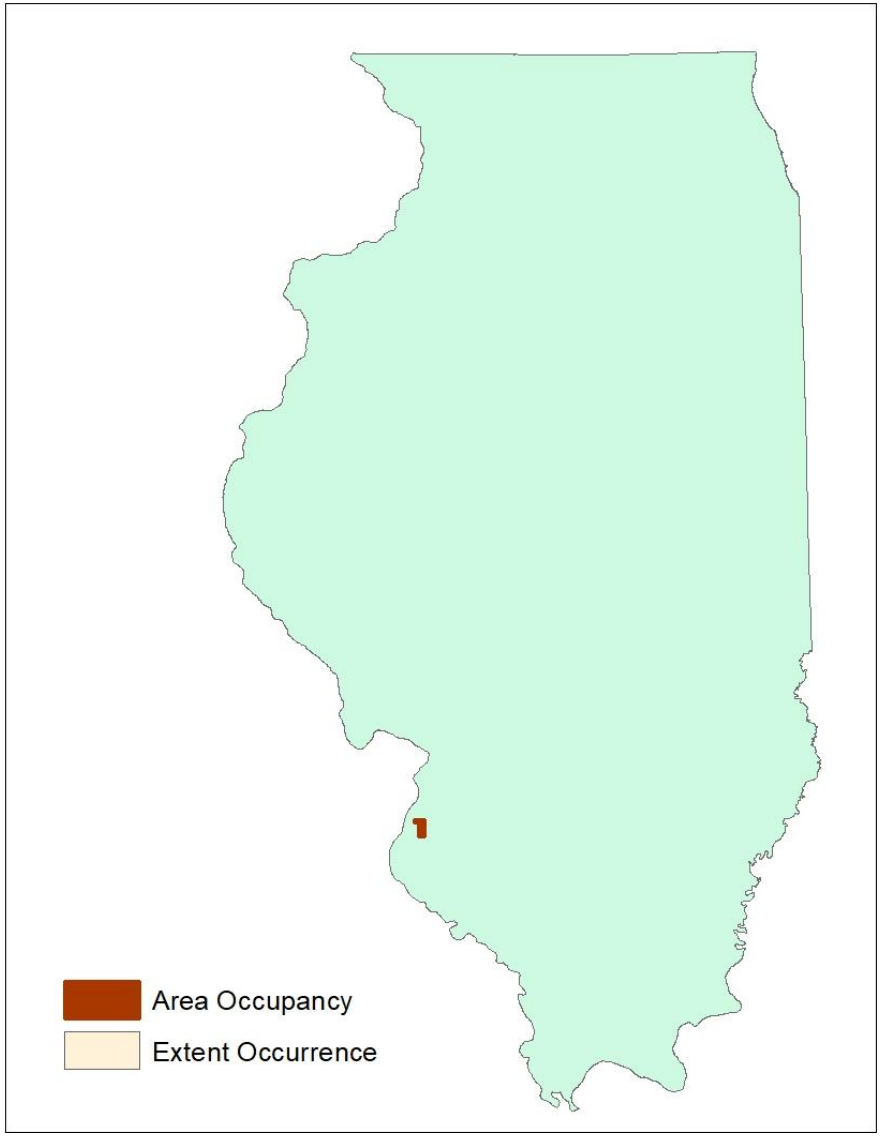
**A (<100 km2)**

Area of Occupancy: **11** 4-km2 grid cells occupied

**CD (3-25 4-km2 grid cells)**

Number of Occurrences: **1 EOR** observed 2008 to 2017

**A (1-5 EORs)**



# Shawnee Rocksnail (*Lithasia obovata*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**11 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Invasive/Exotics, Genetics, Dispersal, Recruitment, Mortality, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: Most historic EORs have not been revisited.

### Rarity:

Range Extent: **104 km2** range extent per minimum convex polygon

**B (100-250 km2)**

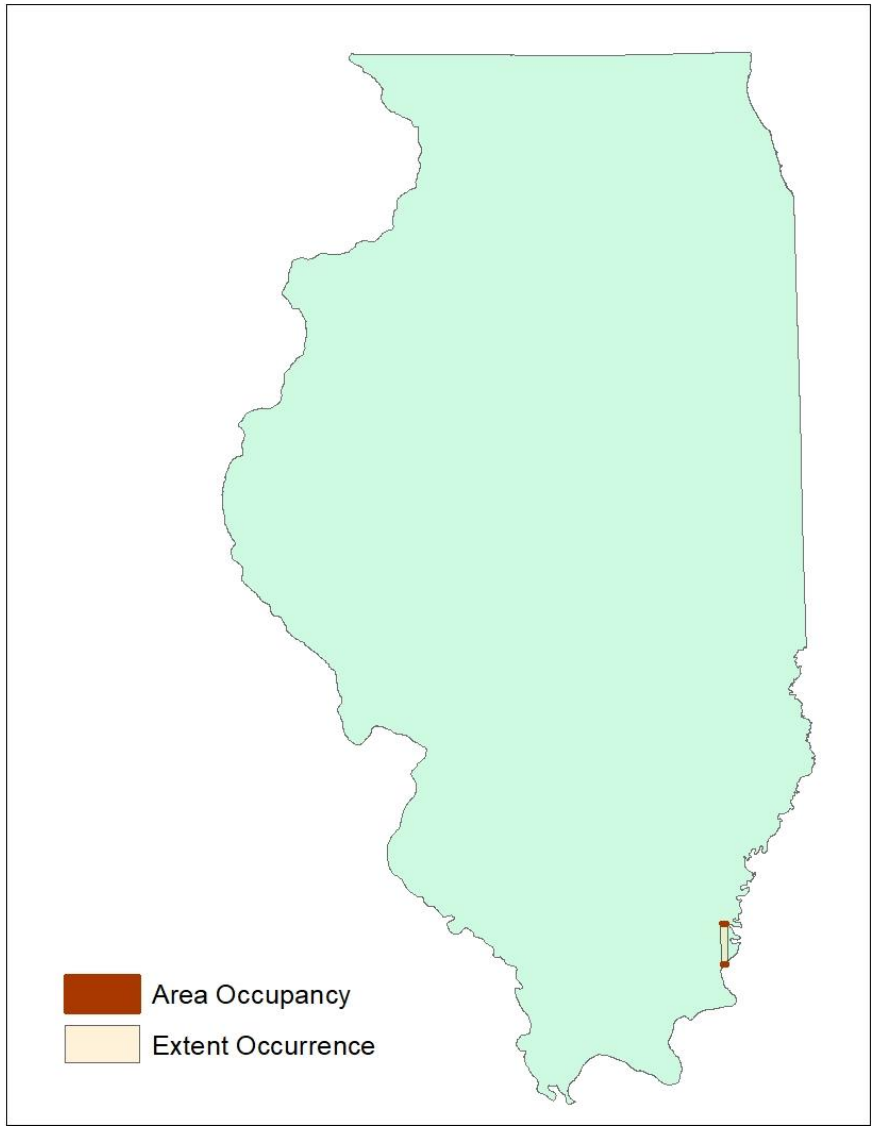
Click to add text

Area of Occupancy: **6** 1-km2 grid cells occupied

**B (5-10 1-km2 grid cells)**

Number of Occurrences: **2 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Lake Sturgeon (*Acipenser fulvescens*)

## Calculated Rank: **S1?**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**5 threats/stressors** identified in IWAP 2015: Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Mortality, Structures/Infrastructure

**AC (Medium-Very High)**

### Rarity:

Range Extent: **74,041 km2** range extent per minimum convex polygon

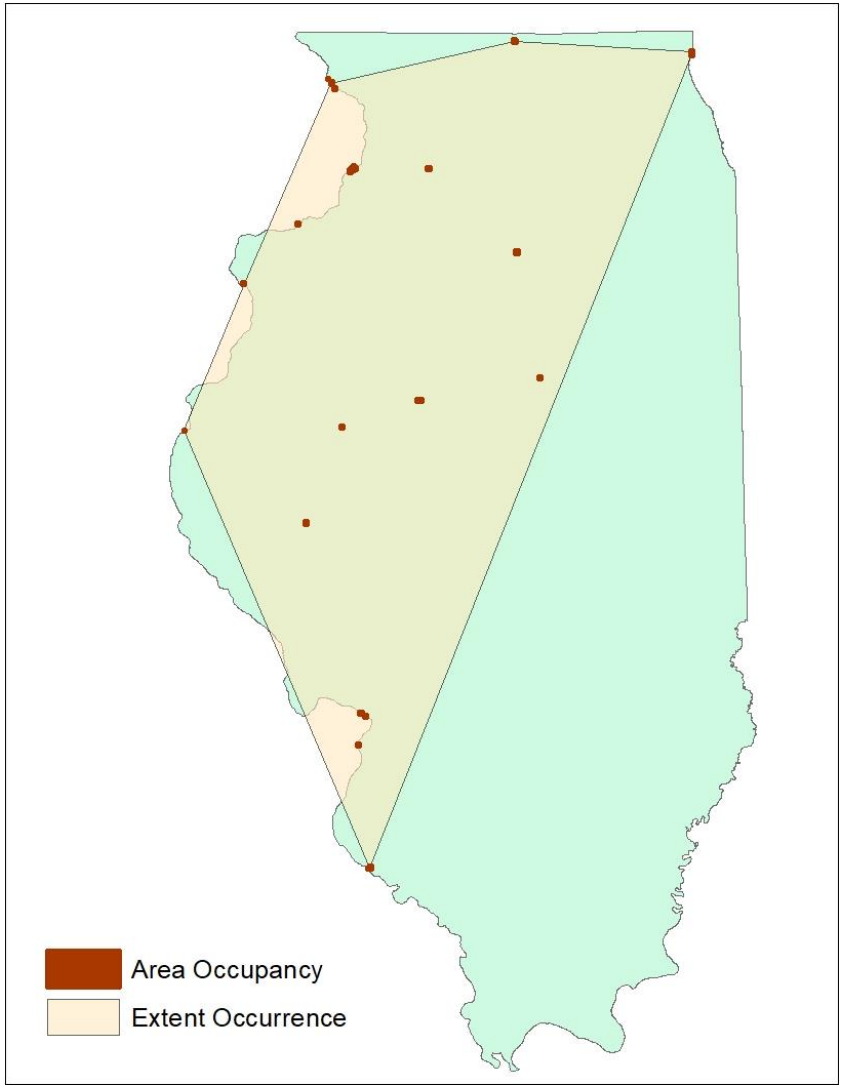
**F (20,000-200,000 km2)**

Area of Occupancy: **40 1-km2** grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **18 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Alabama shad (*Alosa alabamae*)

Calculated Rank: **SH**

Short-term Trend:
**Declining 50 to 100%** per IWAP 2015
**AD (Decline of >50%)**

Threats:
**3 threats/stressors** identified by IDNR staff: Structures, Sedimentation, Chemical Pollutants.
**BD (low-High)**

Additional Notes: Two old Mississippi records from 1930 and 1962 (Smith 1979)

Rarity:
Range Extent: **No observations in last ten years.**
**ZA (Zero to <100 km2)**

Area of Occupancy: **No observations in last ten years**
**U (Unknown)**

Number of Occurrences: **No observations in last ten years.**
**ZA (0-5 EORs)**

# Brown Bullhead (*Ameiurus nebulosus*)

## Calculated Rank: **S3S4**

### Short-term Trend:

**Increasing 25 to 50%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**3 threats/stressors** identified in IWAP 2015: Extent, Composition-structure, Pollutants-Sediment

**BD (low-High)**

### Rarity:

Range Extent: **99,187.7 km2** range extent per minimum convex polygon

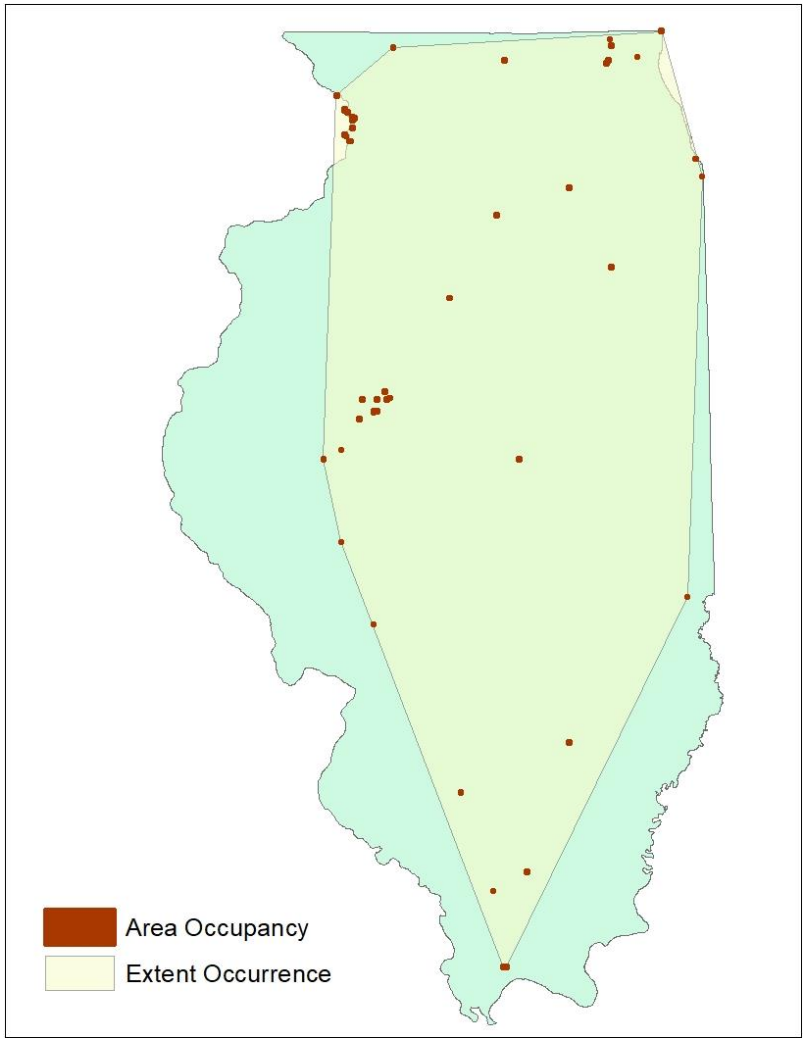
**F (20,000-200,000 km2)**

Area of Occupancy: **45** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **36 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Western Sand Darter (*Ammocrypta clarum*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Increasing 40 to 100%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**4 threats/stressors** identified in IWAP 2015: Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Structures/Infrastructure

**AC (Medium-Very High)**

### Rarity:

Range Extent: **64,024 km2** range extent per minimum convex polygon

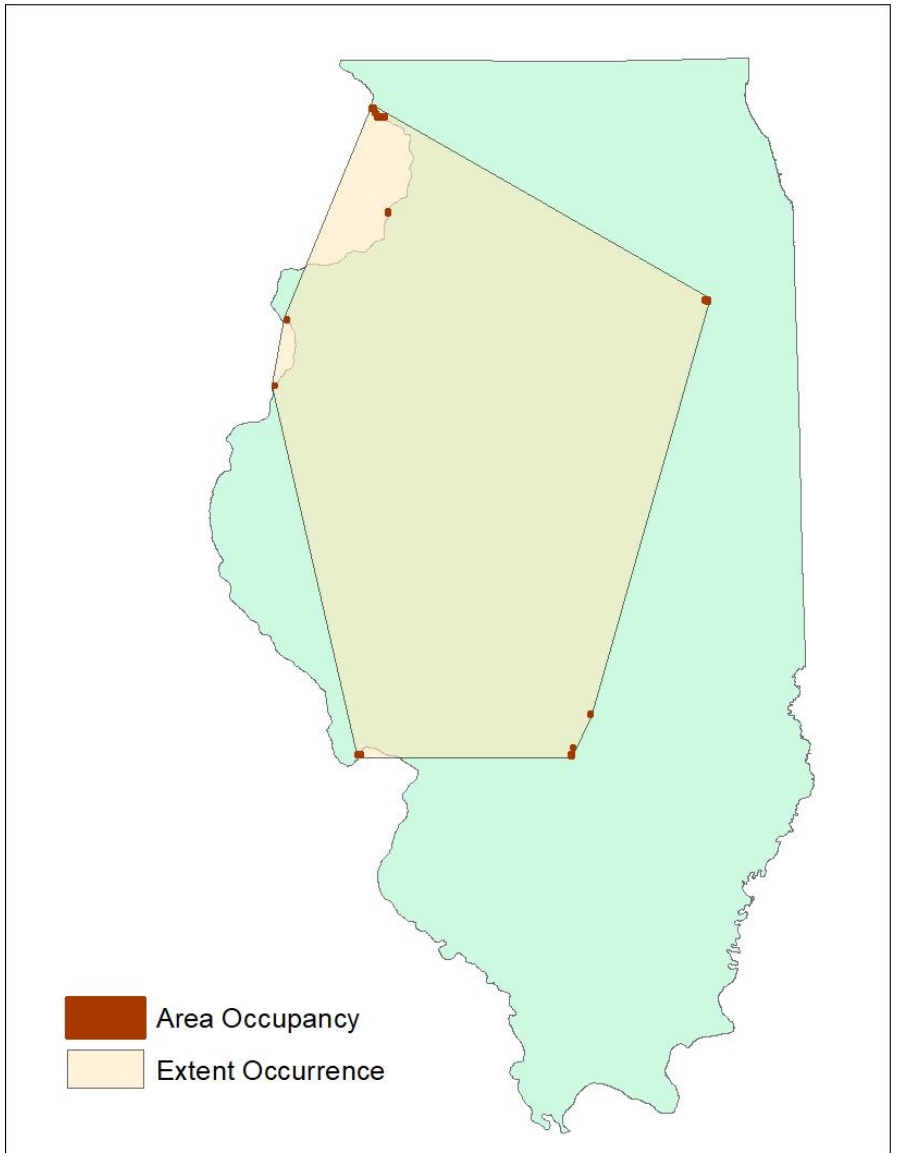
**F (20,000-200,000 km2)**

Area of Occupancy: **19** 1-km2 grid cells occupied

**C (11-20 1-km2 grid cells)**

Number of Occurrences: **10 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Eastern Sand Darter (*Ammocrypta pellucidum*)

## Calculated Rank: **S3S4**

### Short-term Trend:

**Increasing (50 to 100%)** per IWAP 2015

**I (increase of >25%)**

### Threats:

**3 threats/stressors** identified in IWAP 2015: Extent, Pollutants-Sediment, Structures/Infrastructure

**BD (Low-High)**

Additional Notes: Edge of range, S4 in IN

### Rarity:

Range Extent: **8,291.7 km2** range extent per minimum convex polygon

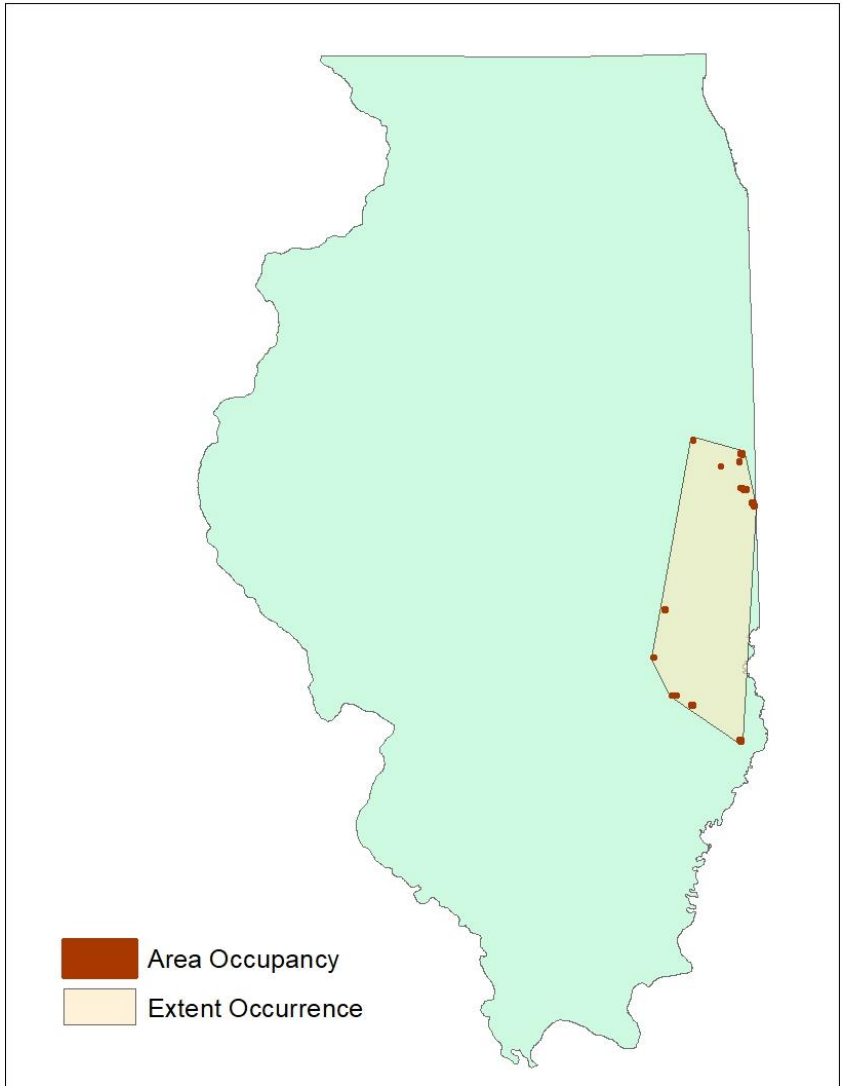
**E (5,000-20,000 km2)**

Area of Occupancy: **22** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **11 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# American Eel (*Anguilla rostrata*)

## Calculated Rank: **S1S3**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >70%)**

### Threats:

**2 threats/stressors** identified in IWAP 2015: Dispersal, Structures/Infrastructure. Additional threats identified by NatureServe including oceanic conditions, habitat destruction, barriers, hydro-turbines, overfishing, predation, parasitism, and contaminants

**BD (Low-High (1-3))**

### Rarity:

Range Extent: **131,290.9 km2** range extent per minimum convex polygon

**F (20,000-200,000 km2)**

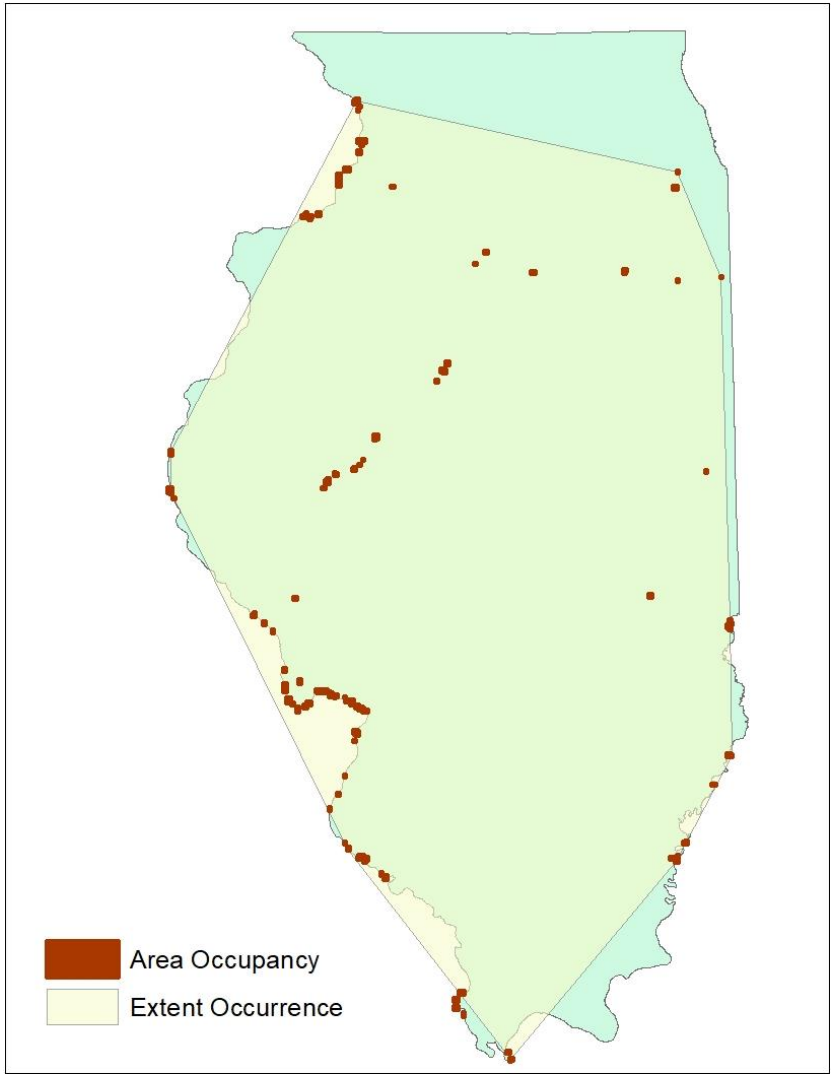
Area of Occupancy: **255** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **67** **EORs** observed 2008 to 2017

**C (21-80 EORs)**

Additional Notes: Premature delisting opinion?



# Alligator Gar (*Atractosteus spatula*)

Calculated Rank: **S1**

Short-term Trend:

**Increasing 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

Threats:

**7 threats/stressors** identified by IDNR Staff: Habitat Extent, Fragmentation, Habitat composition, Genetics, Dispersal, Recruitment, Structures.

**AC (Medium-Very High (>4))**

Additional Notes: No non-stocked species data available for Illinois, stocked species with ecological potential, Natureserve- exotic SNA?

Rarity:

Range Extent: **No observations in last 10 years**

**U (Unknown)**

Area of Occupancy: **No observations in last 10 years**

**U (Unknown)**

Number of Occurrences: **No observations in last 10 years**

**U (Unknown)**

# Largescale Stoneroller (*Campostoma oligolepis*)

Calculated Rank: **S3S4**

Short-term Trend:

**Increasing 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

Threats:

**1 threat/stressor** identified in IWAP 2015: Extent

**BD (Low-High (1-3))**

Rarity:

Range Extent: **33,612.8 km2** range extent per minimum convex polygon.

**F (20,000-200,000 km2)**

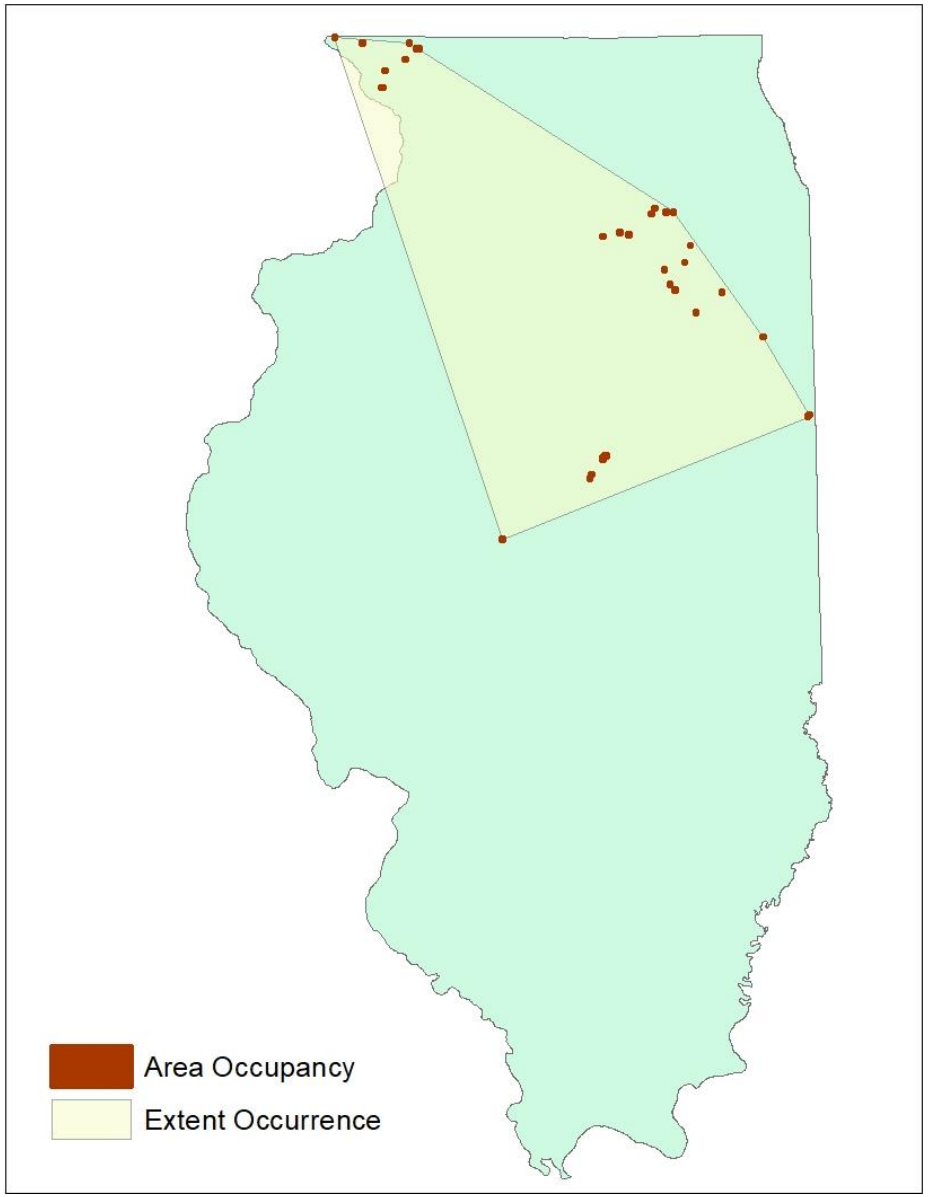
Area of Occupancy: **32** 1-km2 grid cells occupied.

**D (21-100 1-km2 grid cells)**

Number of Occurrences:

**26 EORs** observed 2008 to 2017.

**C (21-80 EORs)**



# Longnose Sucker (*Catostomus catostomus*)

Calculated Rank: **S1S2**

Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

Threats:

**4 threats/stressors** identified in IWAP 2015: Invasives/Exotics, Pollutants-Sediment, Dispersal, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: edge of range, secure to the north

Rarity:

Range Extent: **988.37 km2** range extent per minimum convex polygon

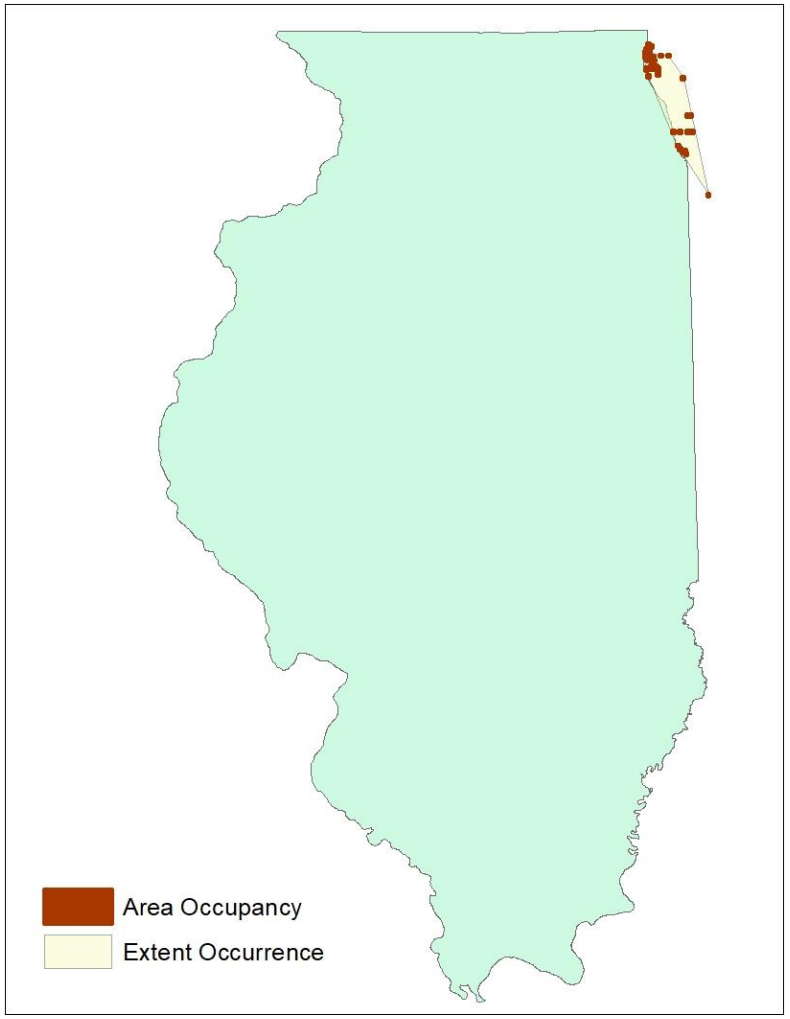
**C (250-1,000 km2)**

Area of Occupancy: **52** 1-km2 grid cells occupied

**D(21-100 1-km2 grid cells)**

Number of Occurrences: **12 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Flier (*Centrarchus macropterus*)

## Calculated Rank: **S2S3**

## Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

## Threats:

**3 threats/stressors** identified in IWAP 2015: Extent, Composition-structure, Pollutants-Sediment

**BD (Low-High (1-3))**

Additional Notes: edge of range, secure to the north

## Rarity:

Range Extent:

**10,927.4 km2** range extent per minimum convex polygon

**E (5,000-20,000 km2)**

Area of Occupancy:

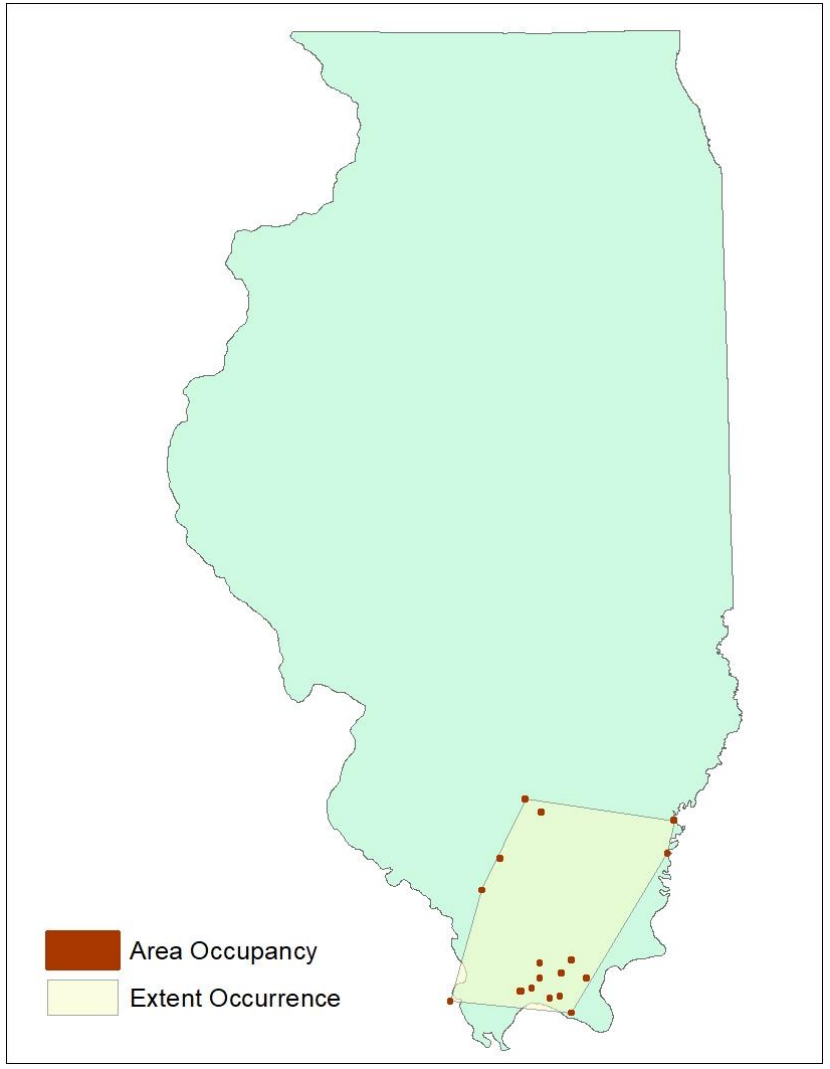
**18** 1-km2 grid cells occupied

**C (11-20 1-km2 grid cells)**

Number of Occurrences: **17**

**EORs** observed 2008 to 2017

B (5-20 EORs)



# Redside Dace (*Clinostomus elongatus*)

Calculated Rank: **SU**

Short-term Trend:

**Increasing 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

Threats:

**2 threats/stressors** identified by IDNR Staff: Habitat Extent, Habitat Composition.

**BD (Low-High (1-3))**

Rarity:

Range Extent: **No observations in last ten years.**

**ZA (Zero to <100 km2)**

Area of Occupancy: **No observations in last ten years**

**ZA (Zero to 4 1-km2 grid cells)**

Number of Occurrences: **No observations in last ten years.**

**ZA (0-5 EORs)**

Additional Notes: One species record in IL from 2000. Targeted surveys in 2011 did not find the species in IL, but located it <0.5 km upstream in WI (Tiemann 2012). Edge of range; S3 in WI.

# Cisco (*Coregonus artedi*)

Calculated Rank: **SH**

Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50% )**

Threats:

**5 threats/stressors** identified in IWAP 2015: Invasives/Exotics, Pollutants-Sediment, Competitors, Predators, Mortality

**AC (Medium-Very High (>4))**

Rarity:

Range Extent: **No observations in last ten years.**

**U (Unknown)**

Area of Occupancy: **No observations in last ten years**

**U (Unknown)**

Number of Occurrences: **No observations in last ten years.**

**ZA (0-5 EORs)**

Additional Notes: No species data for Illinois from the last ten years, Lake Michigan species- rescue effect?

# Lake Whitefish (*Coregonus clupeaformis*)

Calculated Rank: **S2S3**

Short-term Trend:

**Stable -25 to 25%** per IWAP 2015

**G (Relatively Stable <=10%)**

Threats:

**1 threats/stressors** identified in IWAP 2015: Invasives/Exotics

**BD (Low-High (1-3))**

Additional Notes: edge of range

Rarity:

Range Extent: **885.2 km2** range extent per minimum convex polygon

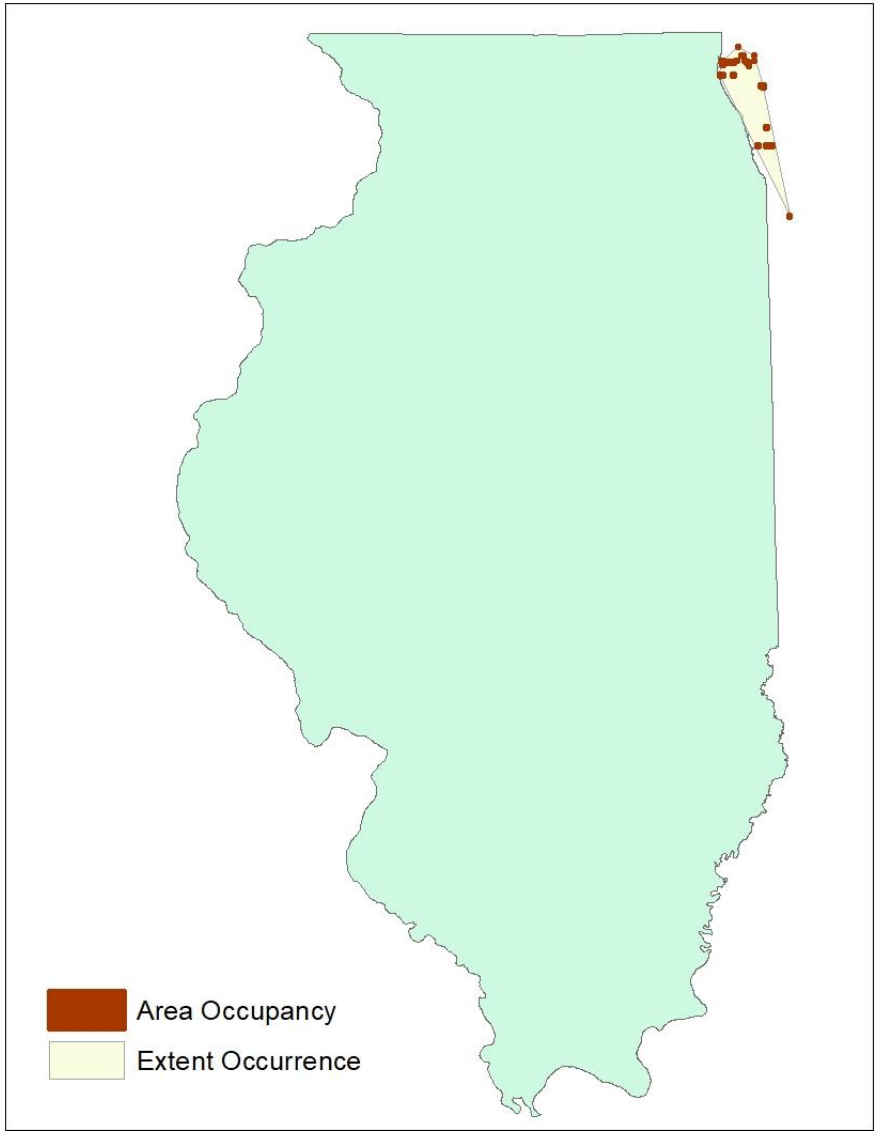
**C (250-1,000 km2)**

Area of Occupancy: **25** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **13 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Bloater (*Coregonus hoyi*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**2 threats/stressors** identified by IDNR Staff: Competitors, Mortality.

**BD (Low-High (1-3))**

### Rarity:

Range Extent: **1,588.6 km2** range extent per minimum convex polygon

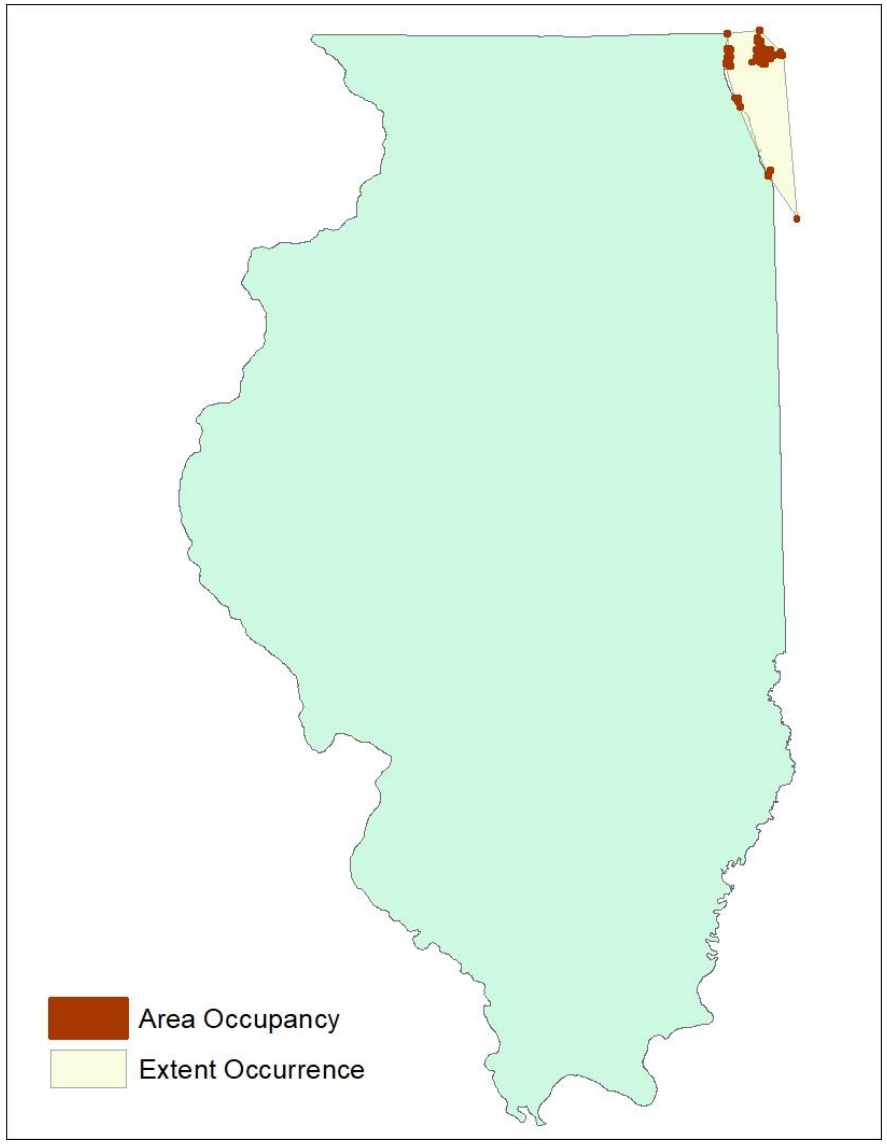
**D (1,000-5,000 km2)**

Area of Occupancy: **87** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **8 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Slimy Sculpin (*Cottus cognatus*)

Calculated Rank: **S1**

Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

Threats:

**3 threats/stressors** identified by IDNR Staff: Habitat Extent, Habitat Composition, Climate Change.

**BD (Low-High (1-3))**

Rarity:

Range Extent: **<1 km2** range extent per minimum convex polygon

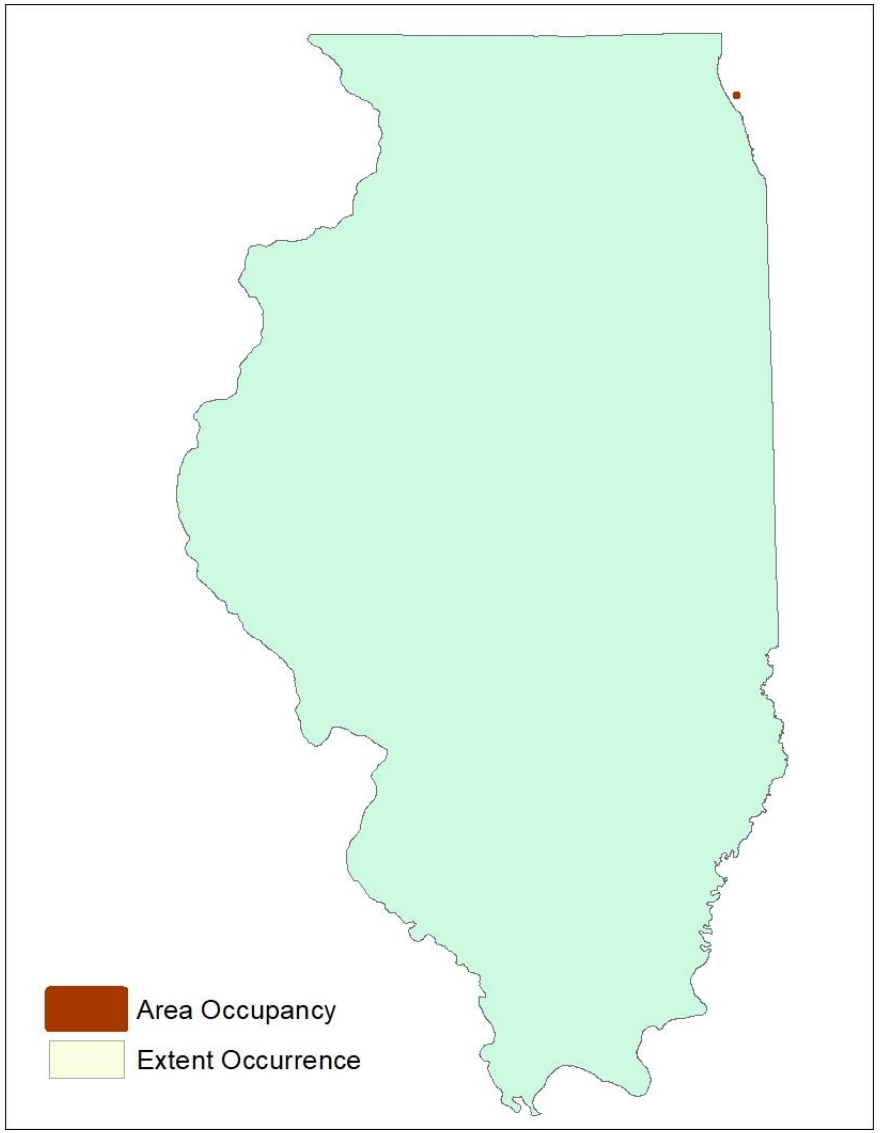
**A (<100 km2)**

Area of Occupancy: **1** 1-km2 grid cells occupied

**A (1-4 1-km2 grid cells)**

Number of Occurrences: **1 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Lake Chub (*Couesius plumbeus*)

Calculated Rank: **S2S3**

Short-term Trend:

**Increasing 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

Threats:

**2 threats/stressors** identified by IDNR Staff: Habitat Extent, Climate Change.

**BD (Low-High (1-3))**

Rarity:

Range Extent: **376.9 km2** range extent per minimum convex polygon

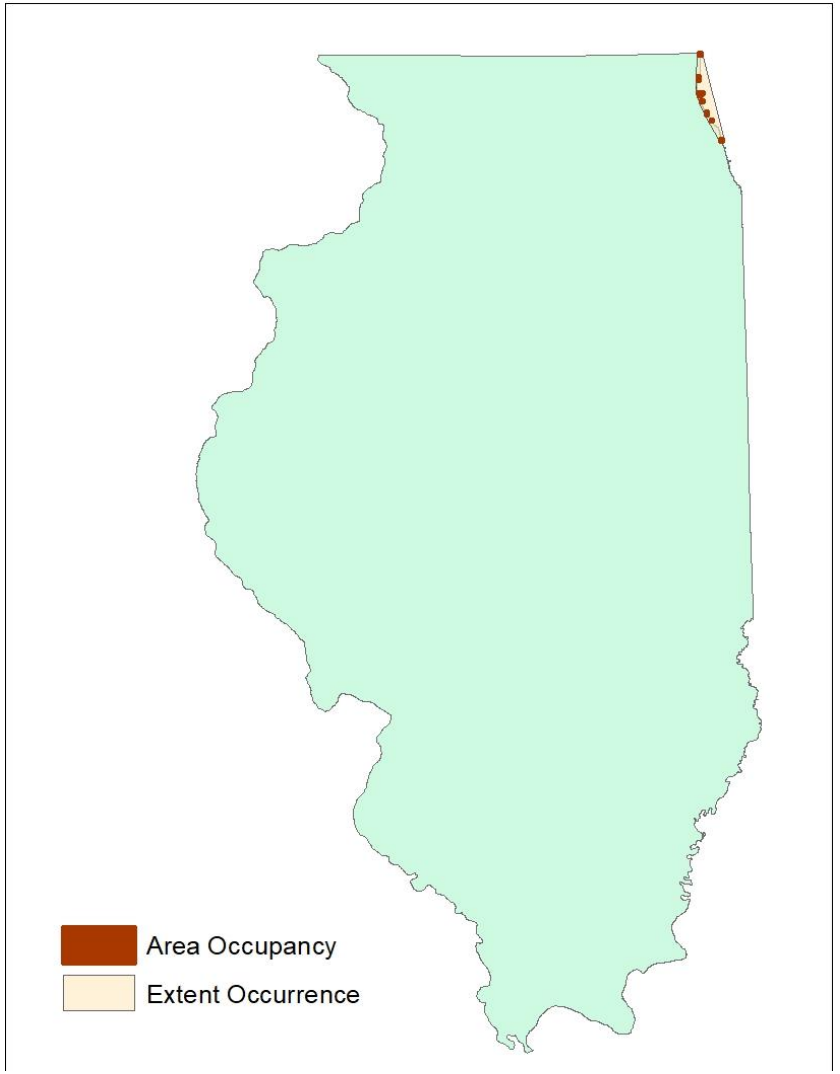
**C (250-1,000 km2)**

Area of Occupancy: **11** 1-km2 grid cells occupied

**C (11-20 1-km2 grid cells)**

Number of Occurrences: **7 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Crystal Darter (*Crystallaria asprella*)

## Calculated Rank: **S1**

### Short-term Trend:

**Increasing 25 to50%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**2 threats/stressors** identified per IWAP 2015: dispersal and Structures/Infrastructure. NatureServe identifies siltation and altered hydrology as very high to high threat impacts.

**BD (Low-High (1-3))**

### Rarity:

Range Extent: **27,314.2 km2** range extent per minimum convex polygon

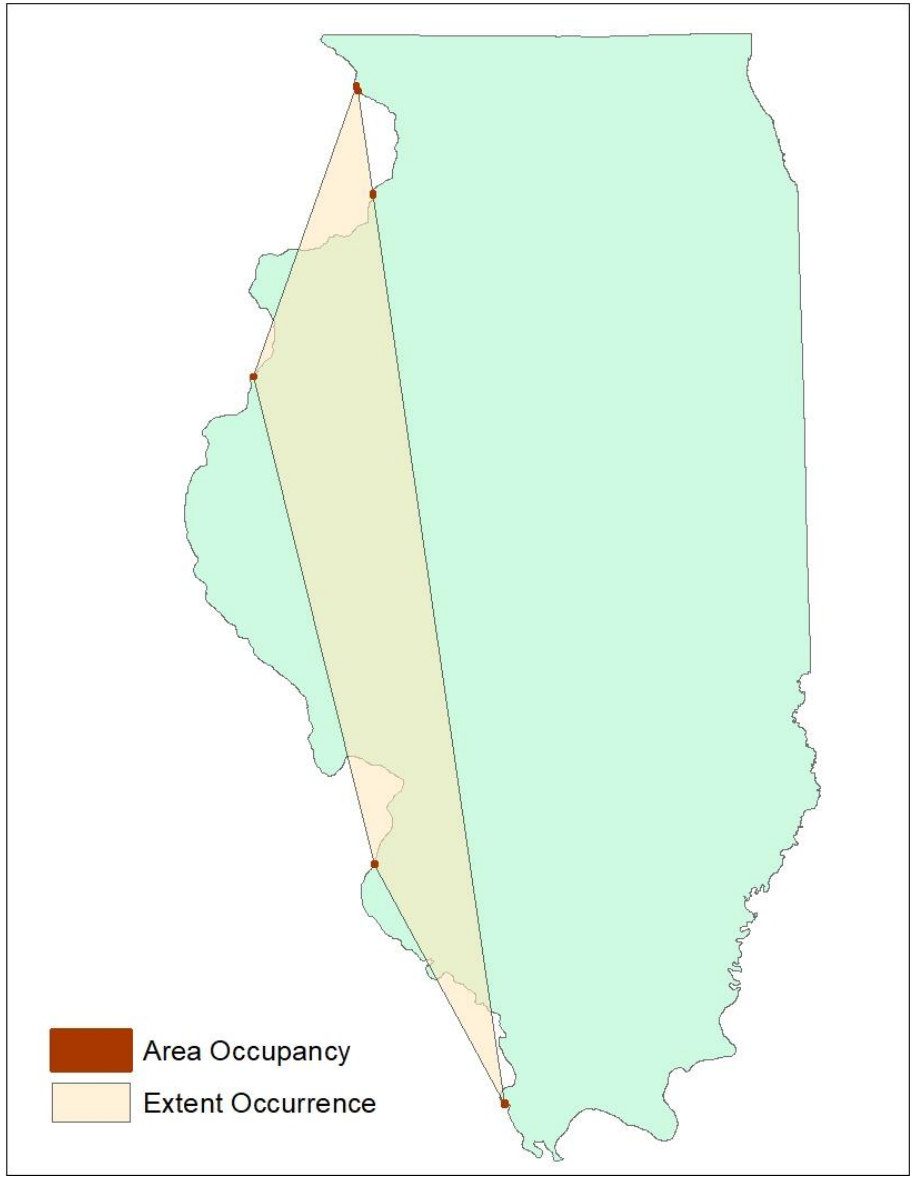
**F (20,000-200,000 km2)**

Area of Occupancy: **8** 1-km2 grid cells occupied

**B (5-10 1-km2 grid cells)**

Number of Occurrences: **5 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Blacktail Shiner (*Cyprinella venusta*)

## Calculated Rank: **S1**

### Short-term Trend:

**Increasing 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**2 threats/stressors** identified in IWAP 2015: Extent, Pollutants-Sediment

**BD (Low-High (1-3))**

Additional Notes: edge of range

### Rarity:

Range Extent: **6,582.2 km2** range extent per minimum convex polygon

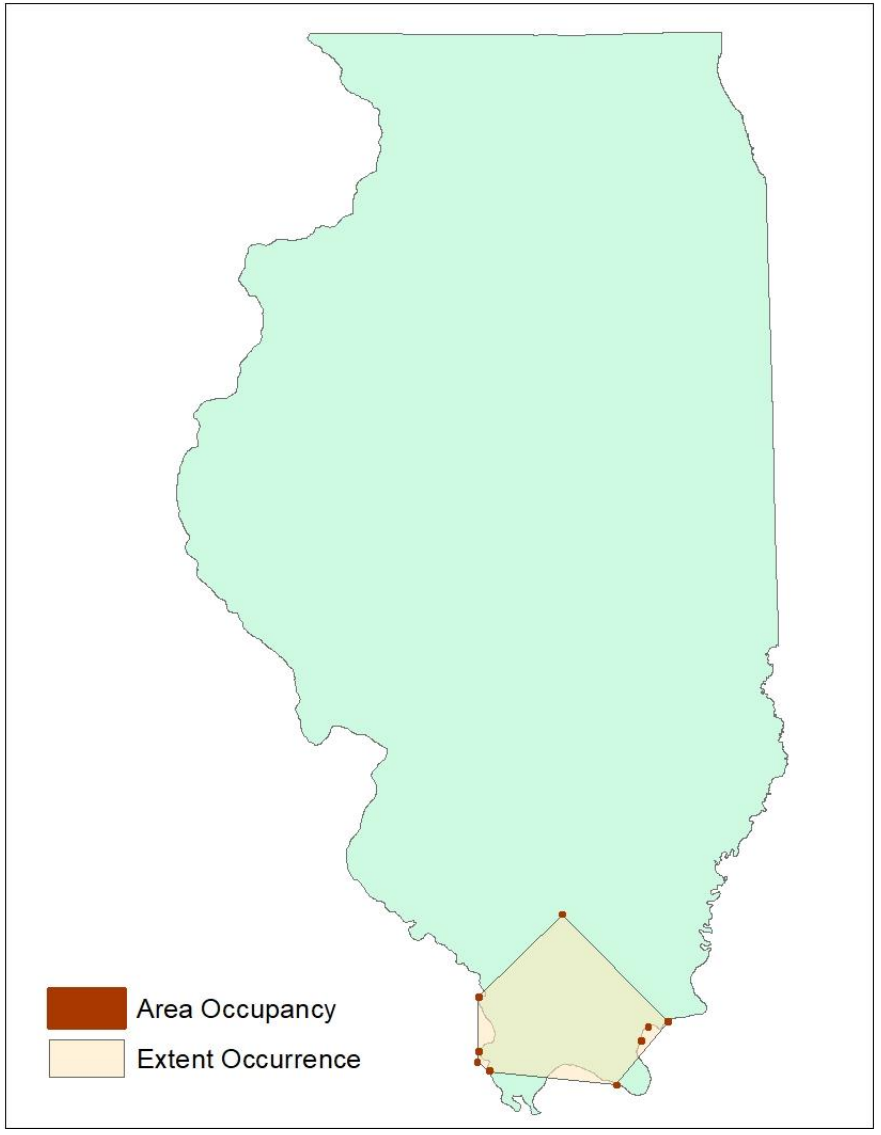
**E (5,000-20,000 km2)**

Area of Occupancy: **9** 1-km2 grid cells occupied

**B (5-10 1-km2 grid cells)**

Number of Occurrences: **9 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Banded Pygmy Sunfish (*Elassoma zonatum*)

## Calculated Rank: **S1**

### Short-term Trend:

**Increasing 25 to 50%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**4 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Dispersal

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range

### Rarity:

Range Extent: **370 km2** range extent per minimum convex polygon

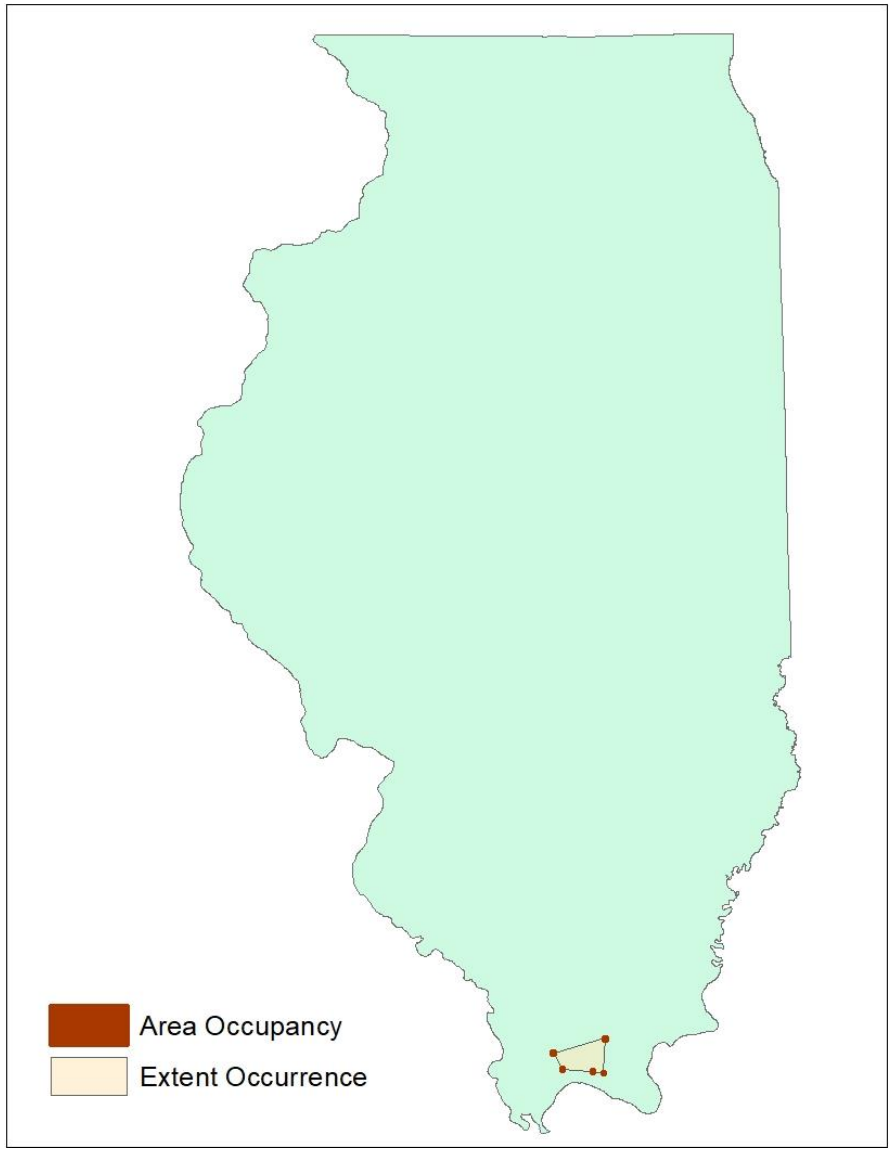
**C (250-1,000 km2)**

Area of Occupancy: **5** 1-km2 grid cells occupied

**B (5-10 1-km2 grid cells)**

Number of Occurrences: **5 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Gravel Chub (*Erimystax x-punctatus*)

## Calculated Rank: **S3?**

### Short-term Trend:

**Increasing 25 to 50%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**2 threats/stressors** identified in IWAP 2015: Pollutants-Sediment, Structures/Infrastructure

**BD (Low-High (1-3))**

### Rarity:

Range Extent: **4,342 km2** range extent per minimum convex polygon

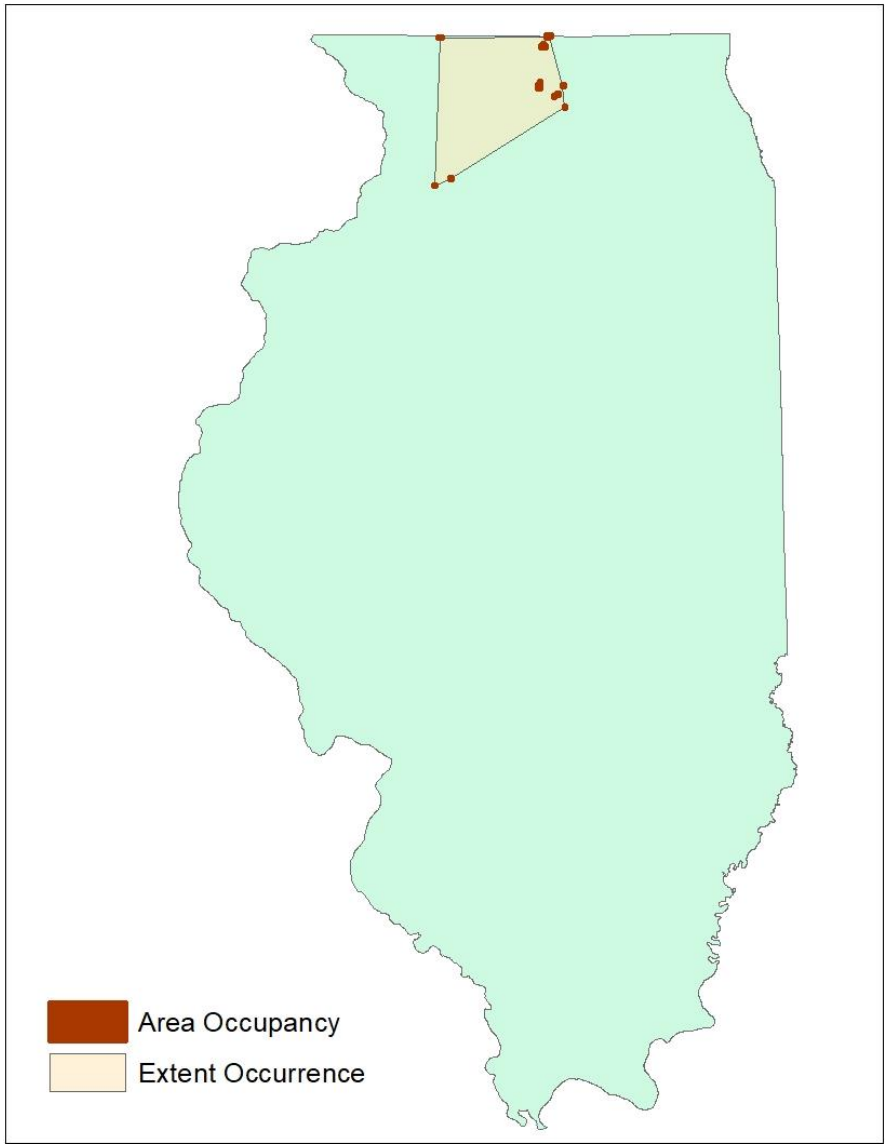
**D (1,000-5,000 km2)**

Area of Occupancy: **27** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **9 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Northern Pike (*Esox lucius*)

## Calculated Rank: **S2?**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**5 threats/ stressors** identified in IWAP 2015: extent, fragmentation, composition-structure, pollution-sediment, recruitment

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **50,883.3 km2** range extent per minimum convex polygon.

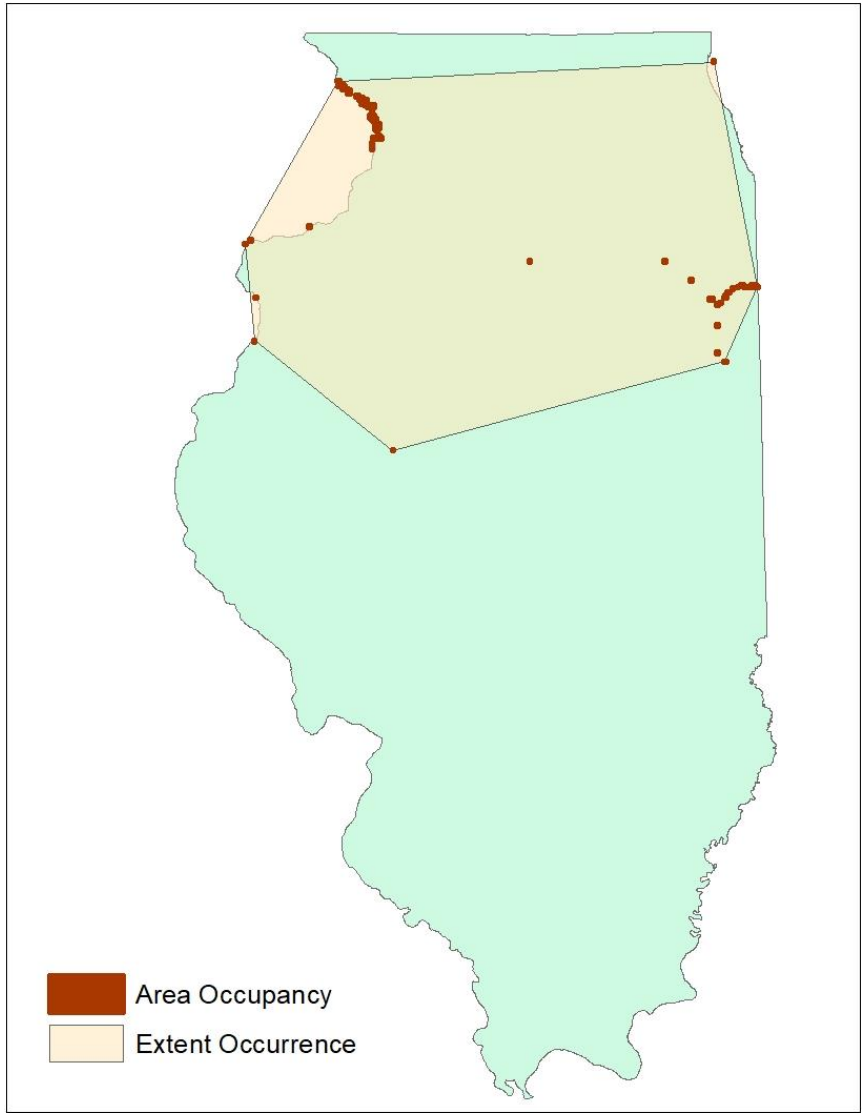
**F (20,000-200,000 km2)**

Area of Occupancy: **84** 1-km2 grid cells occupied.

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **23 EORs** observed 2008 to 2017.

**C (21-80 EORs)**




Additional Notes: sRank based off of non-stocked populations. Additional stocked populations in Bloomington.

# Muskellunge (*Esox masquinongy*)

Calculated Rank: **SU**

Short-term Trend:

**Increasing 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

Threats:

**3 threats/stressors** identified by IDNR Staff: Habitat Structure, Recruitment, Mortality.

**BD (Low-High (1-3))**

Additional Notes: No non-stocked species data available for Illinois, stocked game species, Natureserve- exotic SNA?

Rarity:

Range Extent: **No observations in last ten years**

**U (Unknown)**

Area of Occupancy: **No observations in last ten years**

**U (Unknown)**

Number of Occurrences: **No observations in last ten years**

**U (Unknown)**

# Bluebreast Darter (*Etheostoma camurum*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Increasing 25-50%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**2 threats/stressors** identified in IWAP 2015:Pollutants-Sediment, Structures/Infrastructure

**BD (Low-High (1-3))**

Additional Notes: Edge of range, S3 in Indiana

### Rarity:

Range Extent: **549 km2** range extent per minimum convex polygon

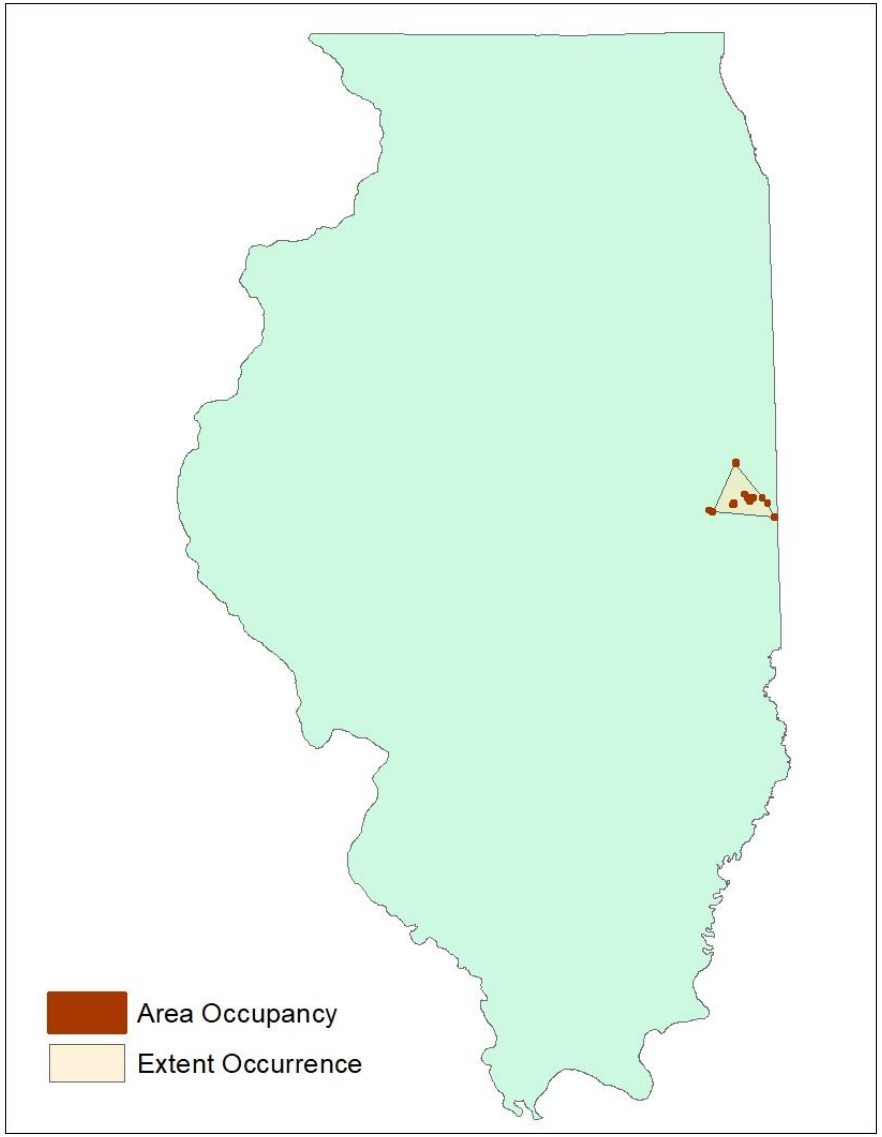
**C (250-1,000 km2)**

Area of Occupancy: **16** 1-km2 grid cells occupied

**C (11-20 1-km2 grid cells)**

Number of Occurrences: **8 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Fringed Darter (*Etheostoma crossopterum*)

## Calculated Rank: **S1**

### Short-term Trend:

**Increasing 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**3 threats/stressors** identified by IDNR Staff: Habitat Extent, Habitat Composition, Sedimentation.

**BD (Low-High (1-3))**

### Rarity:

Range Extent: **145 km2** range extent per minimum convex polygon

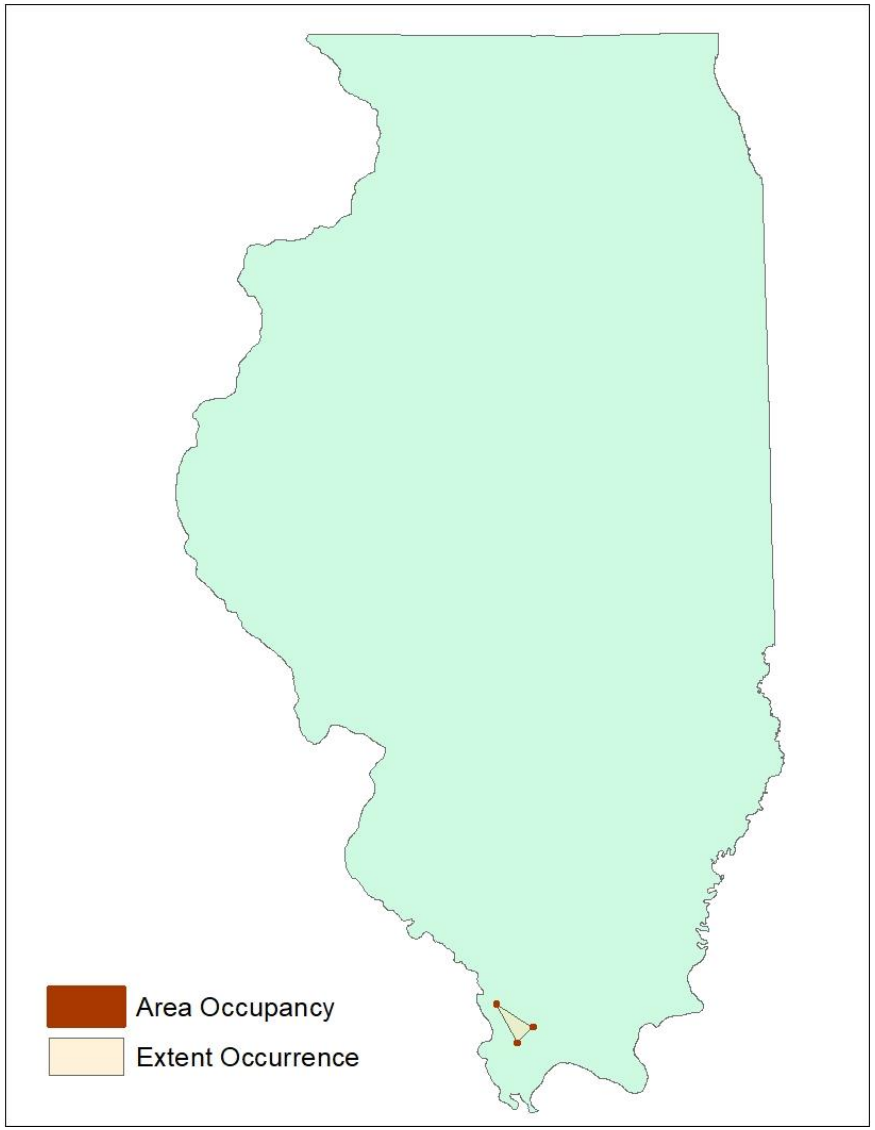
**B (100-250 km2)**

Area of Occupancy: **3** 1-km2 grid cells occupied

**A (1-4 1-km2 grid cells)**

Number of Occurrences: **3 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Iowa Darter (*Etheostoma exile*)

## Calculated Rank: **S2?**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**6 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment.

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **9,071 km2** range extent per minimum convex polygon

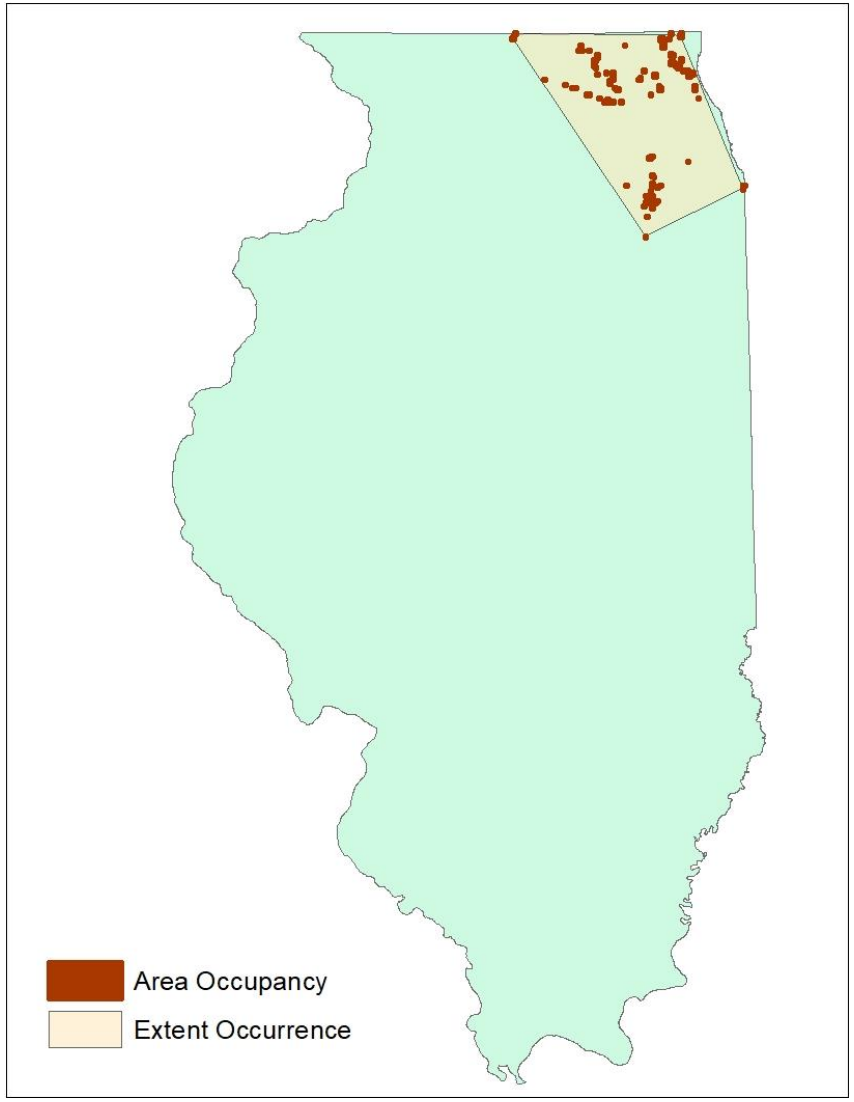
**E (5,000-20,000 km2)**

Area of Occupancy: **135** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **59 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Harlequin Darter (*Etheostoma histrio*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**5 threats/stressors** identified in IWAP 2015: Extent, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: Could be down ranked due to recue effect but need more data on connectivity. S3 in IN, S4 in KY. Edge of range.

### Rarity:

Range Extent: **249 km2** range extent per minimum convex polygon

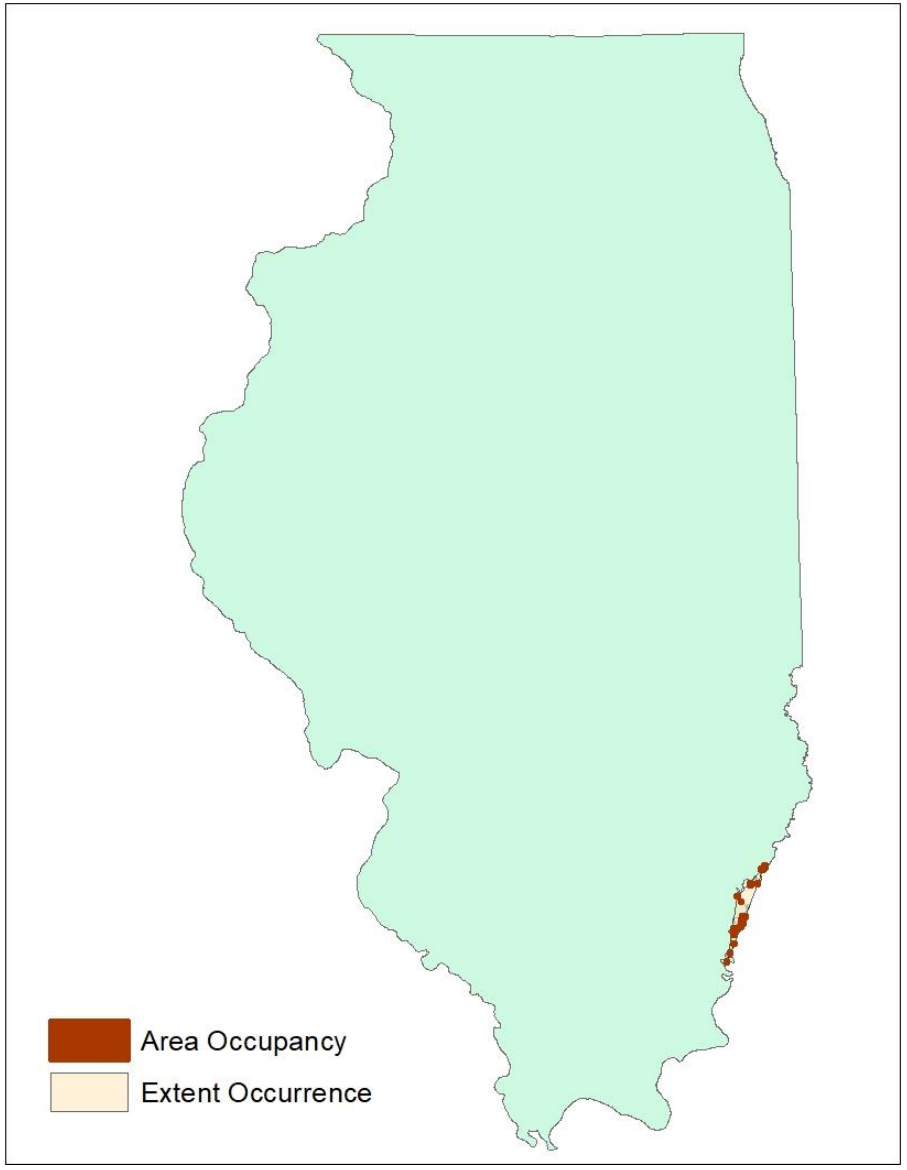
**C (250-1,000 km2)**

Area of Occupancy: **25** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **11 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Stripetail Darter (*Etheostoma kennicotti*)

Calculated Rank: **S1?**

Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

Threats:

**3 threats/stressors** identified by IDNR Staff: Habitat Extent, Habitat Composition, Sedimentation.

**BD (Low-High (1-3))**

Additional Notes: Edge of range?

Rarity:

Range Extent: **1,318 km2** range extent per minimum convex polygon

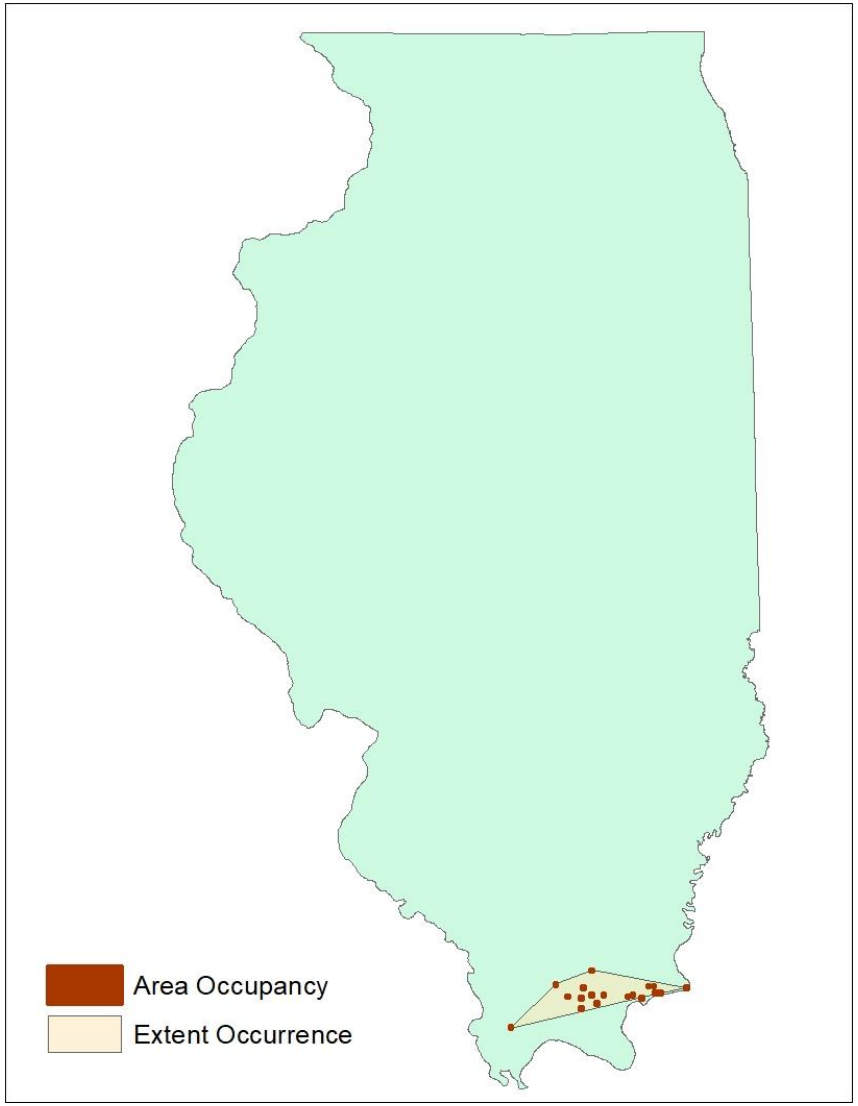
**D (1,000-5,000 km2)**

Area of Occupancy: **18** 1-km2 grid cells occupied

**C (11-20 1-km2 grid cells)**

Number of Occurrences: **14 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Least Darter (*Etheostoma microperca*)

## Calculated Rank: **S3?**

### Short-term Trend:

**Increasing 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**3 threats/stressors** identified by IDNR Staff: Habitat Extent, Habitat Composition, Fragmentation.

**BD (Low-High (1-3))**

### Rarity:

Range Extent: **7,920.3 km2** range extent per minimum convex polygon

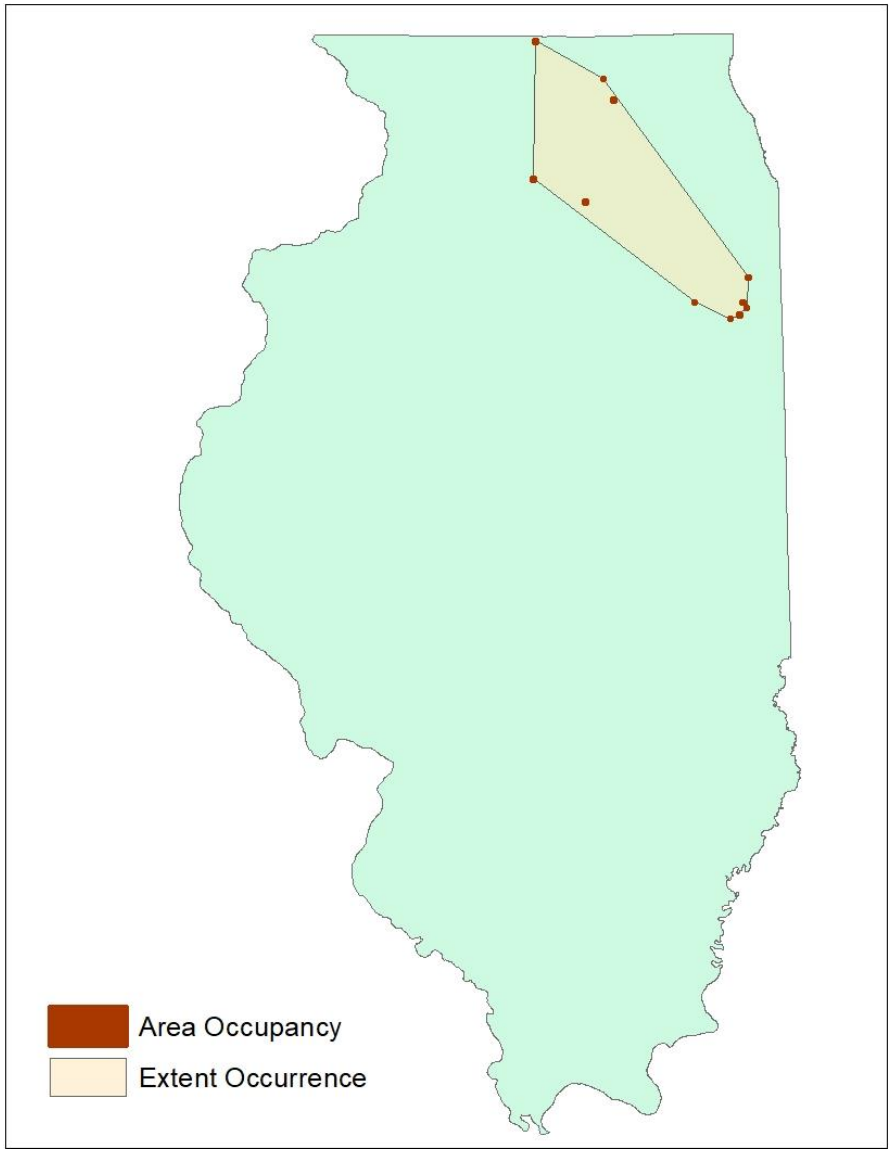
**E (5,000-20,000 km2)**

Area of Occupancy: **11** 1-km2 grid cells occupied

**C (11-20 1-km2 grid cells)**

Number of Occurrences: **11 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Cypress Darter (*Etheostoma proeliare*)

Calculated Rank: **S1**

Short-term Trend:

**Increasing 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

Threats:

**1 threat/stressor** identified in IWAP 2015: Pollutants-Sediment

**BD (Low-High (1-3))**

Rarity:

Range Extent: **452.9 km2** range extent per minimum convex polygon

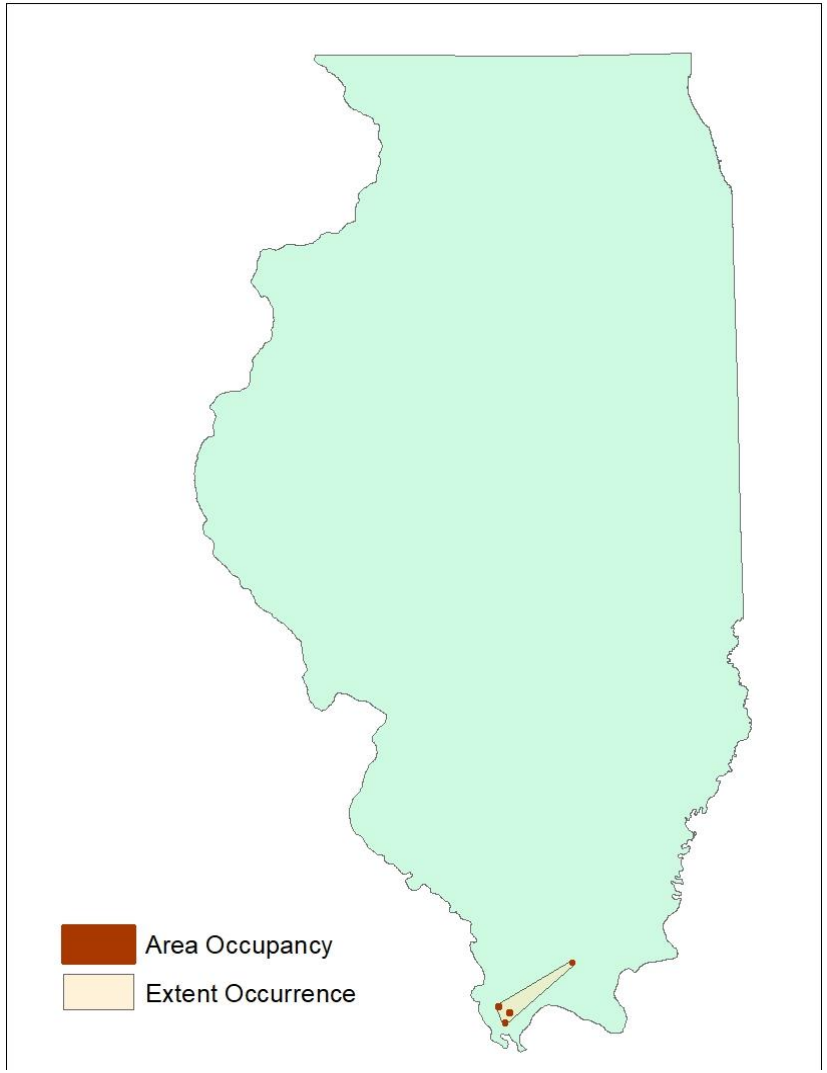
**C (250-1,000 km2)**

Area of Occupancy: **4** 1-km2 grid cells occupied

**A (1-4 1-km2 grid cells)**

Number of Occurrences: **4 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Spottail Darter (*Etheostoma squamiceps*)

Calculated Rank: **S2S3**

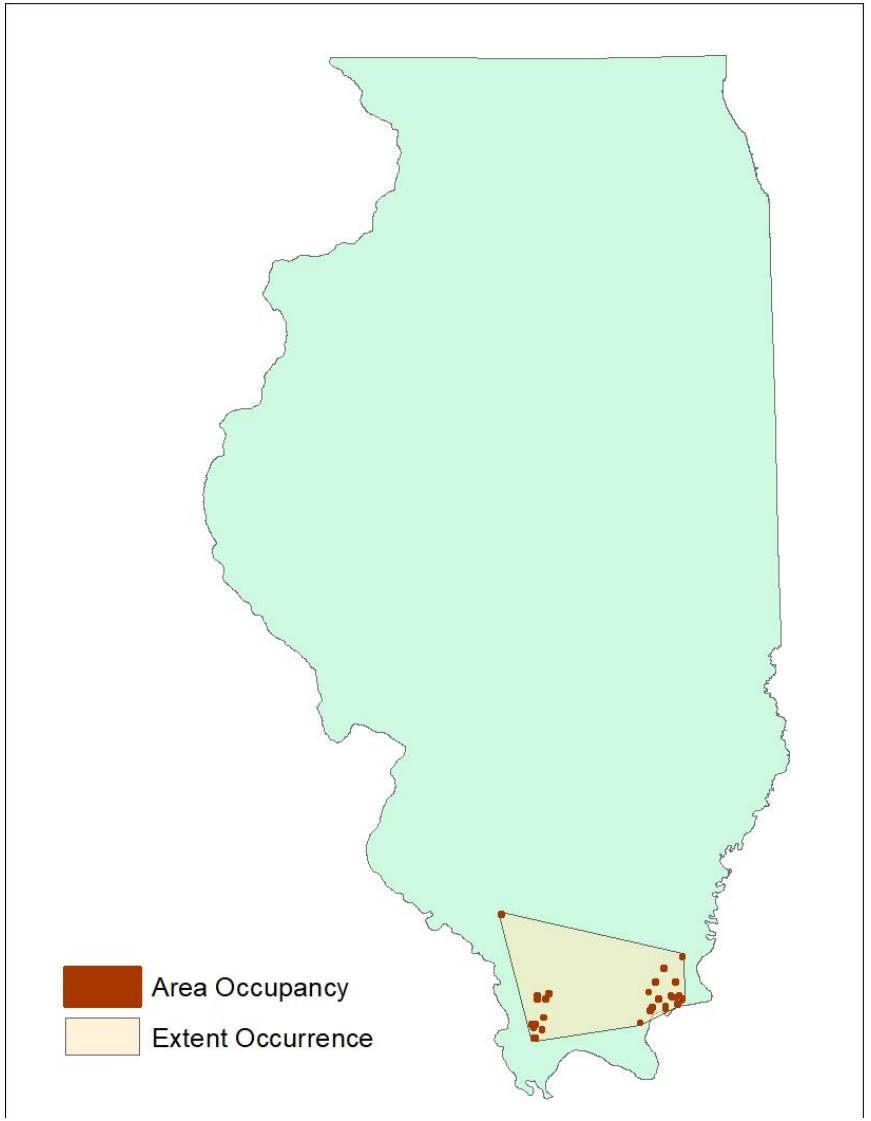
Short-term Trend:
**Stable (-25 to 25%)** per IWAP 2015
**G (Relatively Stable <=10%)**

Threats:
**3 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Distribution/Hydrology
**BD (Low-High (1-3))**

Rarity:
Range Extent: **5,591.63 km2** range extent per minimum convex polygon
**E (5,000-20,000 km2)**

Area of Occupancy: **29** 1-km2 grid cells occupied
**D (21-100 1-km2 grid cells)**

Number of Occurrences: **20 EORs** observed 2008 to 2017
**B (6-20 EORs)**



# Spring Cavefish (*Forbesichthys agassizii*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**3 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure

**BD (Low-High (1-3))**

### Rarity:

Range Extent: **1,955.53 km2** range extent per minimum convex polygon

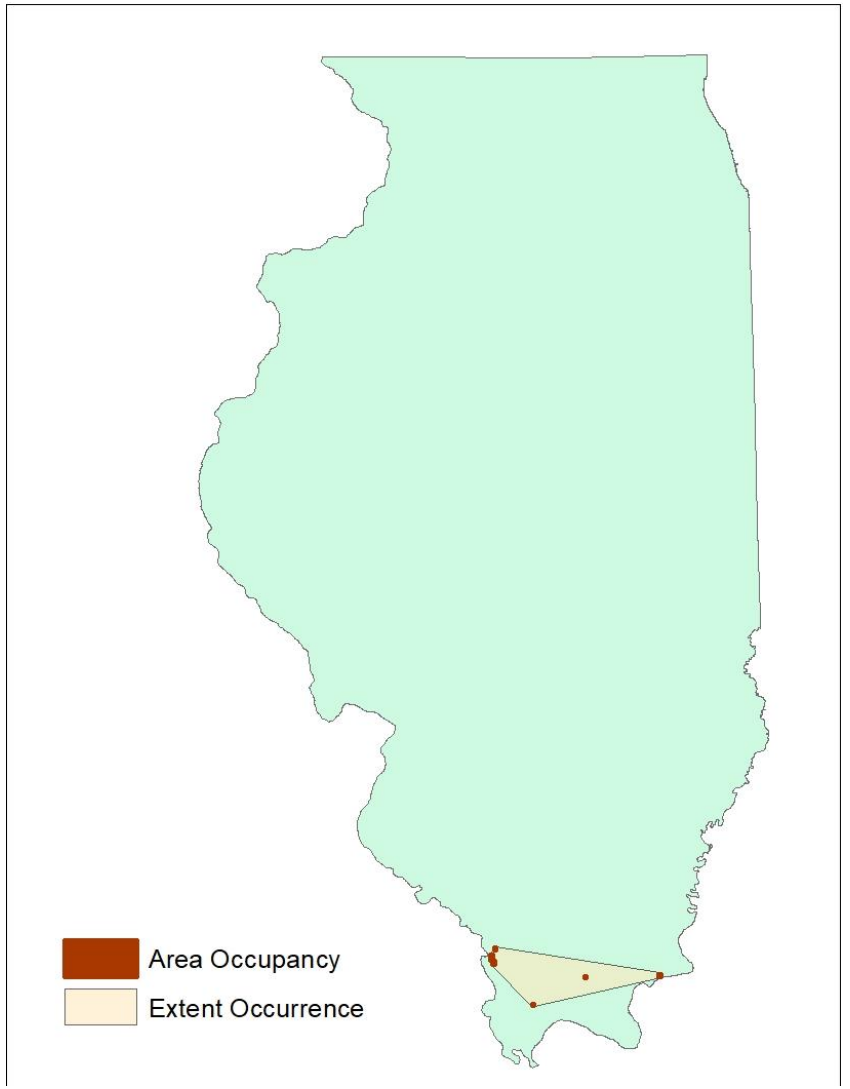
**D (1,000-5,000 km2)**

Area of Occupancy: **7** 1-km2 grid cells occupied

**B (5-10 1-km2 grid cells)**

Number of Occurrences: **5 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Banded Killifish (*Fundulus diaphanus*)

Calculated Rank: **S3S4**

Short-term Trend:

**Increasing 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

Threats:

**4 threats/stressors** identified in IWAP 2015: Extent, Composition-structure, Pollutants-Sediment, Predators

**AC (Medium-Very High (>4))**

Rarity:

Range Extent: **48,333.8 km2** range extent per minimum convex polygon

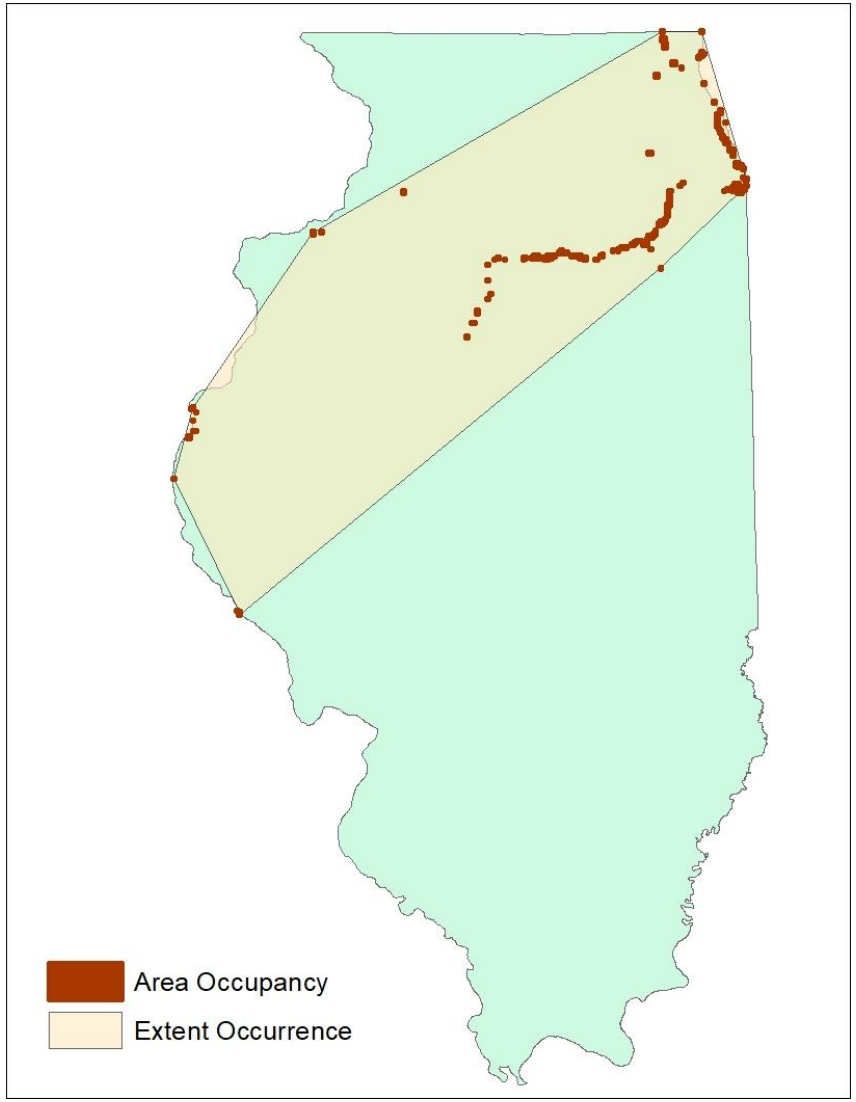
**F (20,000-200,000 km2)**

Area of Occupancy: **223** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **47 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Starhead Topminnow (*Fundulus dispar*)

Calculated Rank: **S3S4**

Short-term Trend:

**Increasing 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

Threats:

**5 threats/stressors** identified in IWAP 2015: Extent, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Predators

**AC (Medium-Very High (>4))**

Rarity:

Range Extent: **65,906 km2** range extent per minimum convex polygon

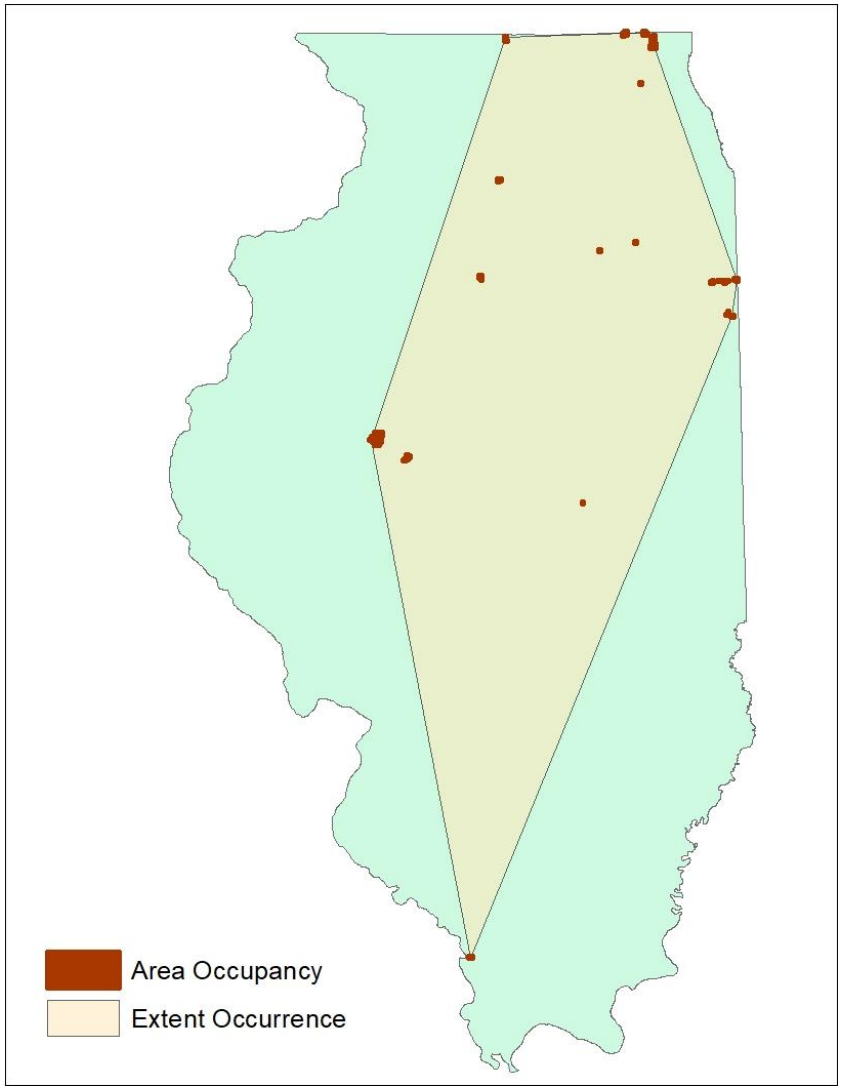
**F (20,000-200,000 km2)**

Area of Occupancy: **97 to 101** 1-km2 grid cells occupied

**DE (21-500 1-km2 grid cells)**

Number of Occurrences: **21 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Mooneye (*Hiodon tergisus*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats/Stressors:

**1 threat/stressor** identified by IDNR Staff: Habitat Composition.

**CD (Low-Medium (1-3))**

### Rarity:

Range Extent: **128,448.2 km2** range extent per minimum convex polygon

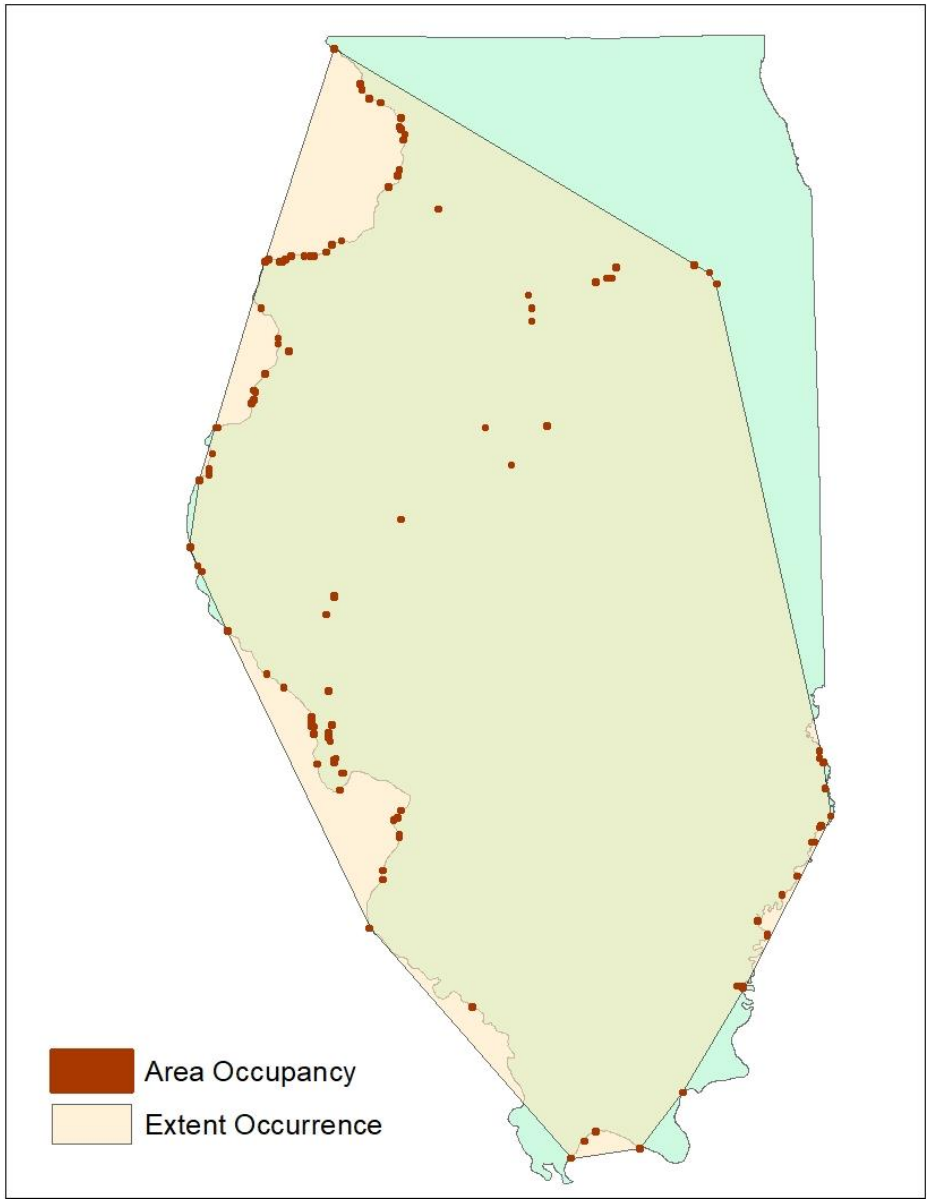
**F (20,000-200,000 km2)**

Area of Occupancy: **113** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **83 EORs** observed 2008 to 2017

**D (81-300 EORs)**



# Brassy Minnow (*Hybognathus hankinsoni*)

Calculated Rank: **S1**

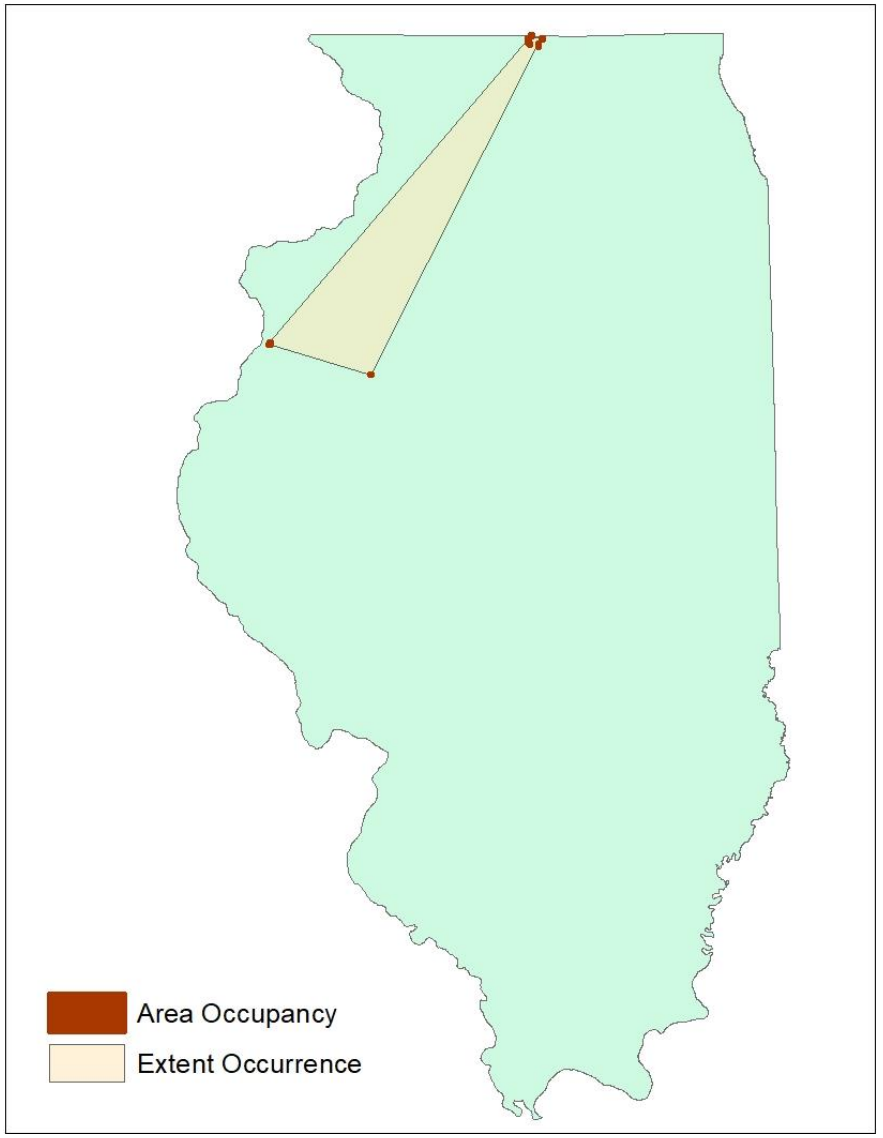
Short-term Trend:
**Declining 50 to 100%** per IWAP 2015
**AD (Decline of >50%)**

Threats:
**Threats/Stressors Unknown**
**U (Unknown)**

Rarity:
Range Extent: **7,034.9 km2** range extent per minimum convex polygon
**E (5,000-20,000 km2)**

Area of Occupancy: **12** 1-km2 grid cells occupied
**C (11-20 1-km2 grid cells)**

Number of Occurrences: **5 EORs** observed 2008 to 2017
**A (1-5 EORs)**



# Cypress Minnow (*Hybognathus hayi*)

## Calculated Rank: **S1**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**5 threats/stressors** identified in the 2015 IWAP: habitat stressors(extent, composition-structure, distribution-hydrology, pollutants-sediments) and direct human stressors (structures/Infrastructure)

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, but not secure in adjacent states

### Rarity:

Range Extent: **1 km2** range extent per minimum convex polygon

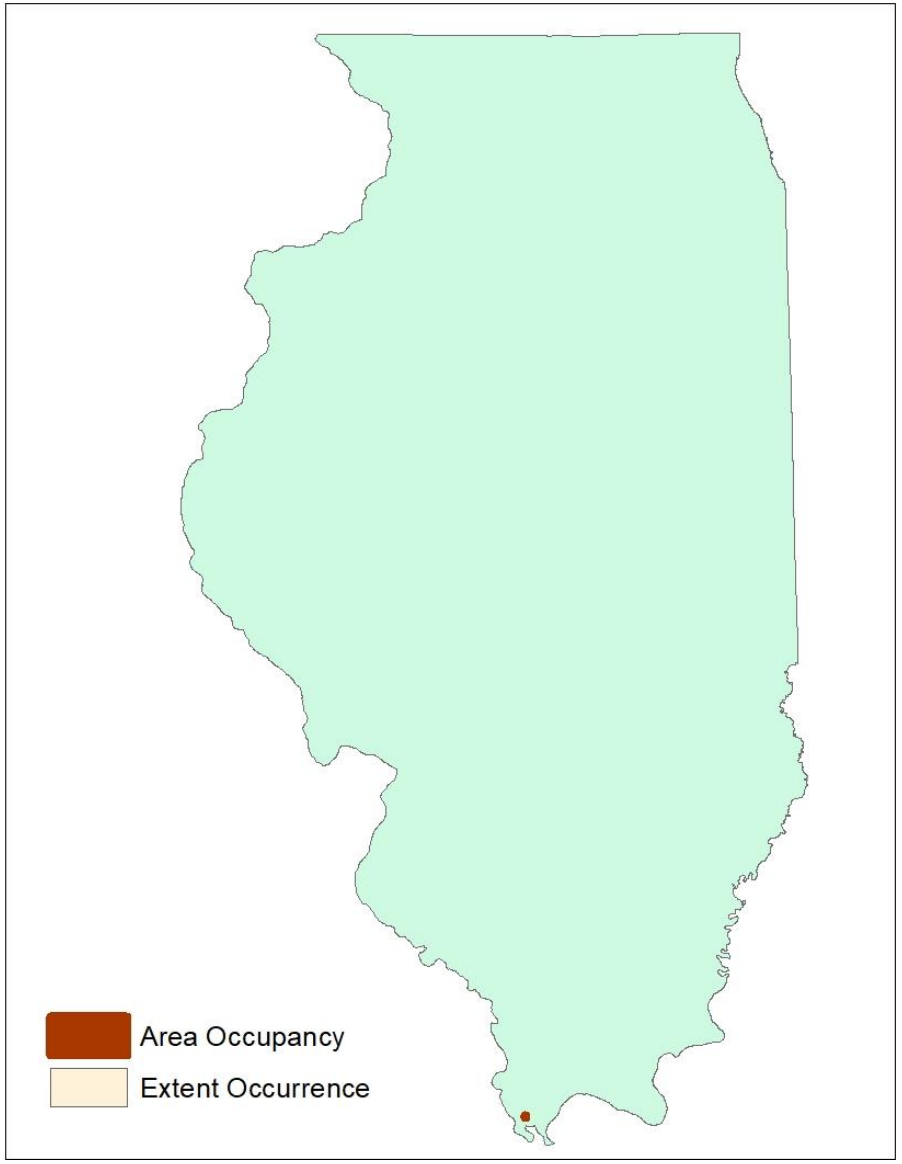
**A (<100 km2)**

Area of Occupancy: **1** 1-km2 grid cells occupied

**A (1-4 1-km2 grid cells)**

Number of Occurrences: **1 EOR** observed 2008 to 2017

**A (1-5 EORs)**



# Plains Minnow (*Hybognathus placitus*)

Calculated Rank: **S1**

Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

Threats:

**4 threats/stressors** identified by IDNR Staff: Habitat Fragmentation, Hydrology, Dispersal, Structures.

**AC (Medium-Very High (>4))**

Rarity:

Range Extent: **7 km2** range extent per minimum convex polygon

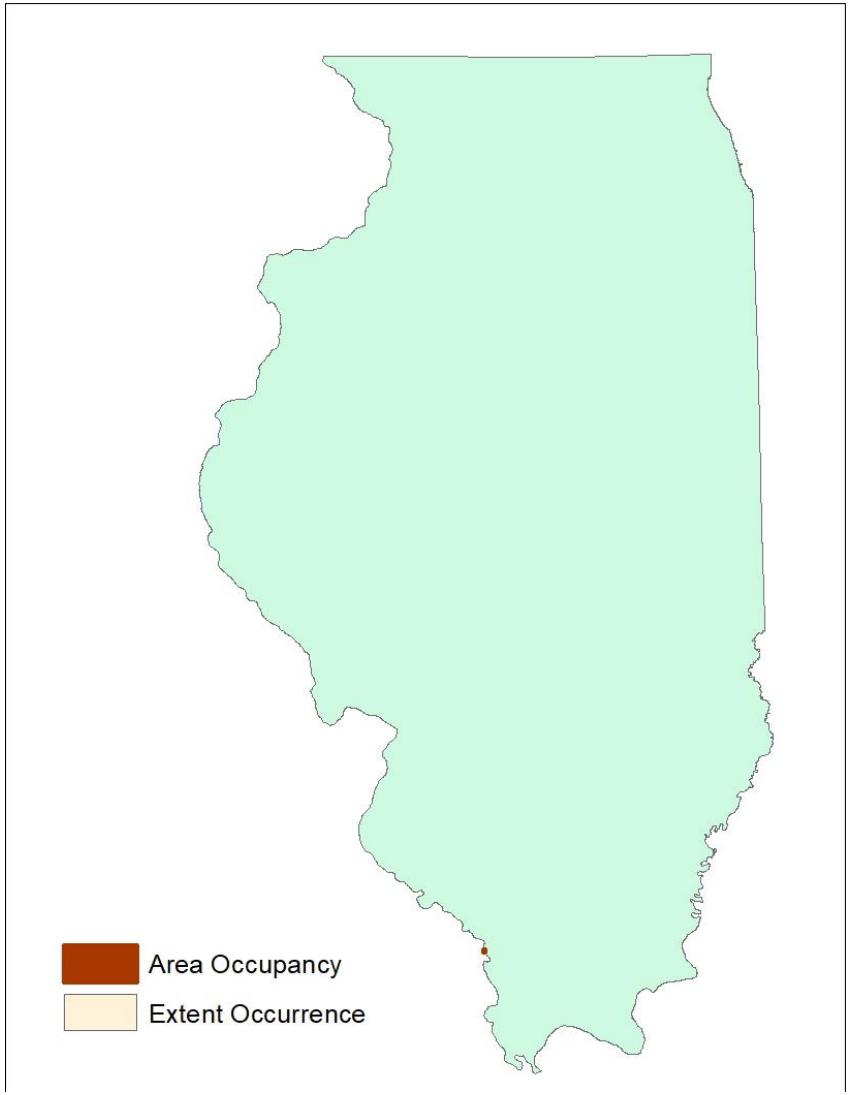
**A (<100 km2)**

Area of Occupancy: **1** 1-km2 grid cells occupied

**A (1-4 1-km2 grid cells)**

Number of Occurrences: **1 EOR** observed 2008 to 2017

**A (1-5 EORs)**



# Bigeyed Chub (*Hybopsis amblops*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Increasing 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**6 threats/stressors** identified in IWAP 2015:
Extent, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Recruitment, Structures/Infrastructure

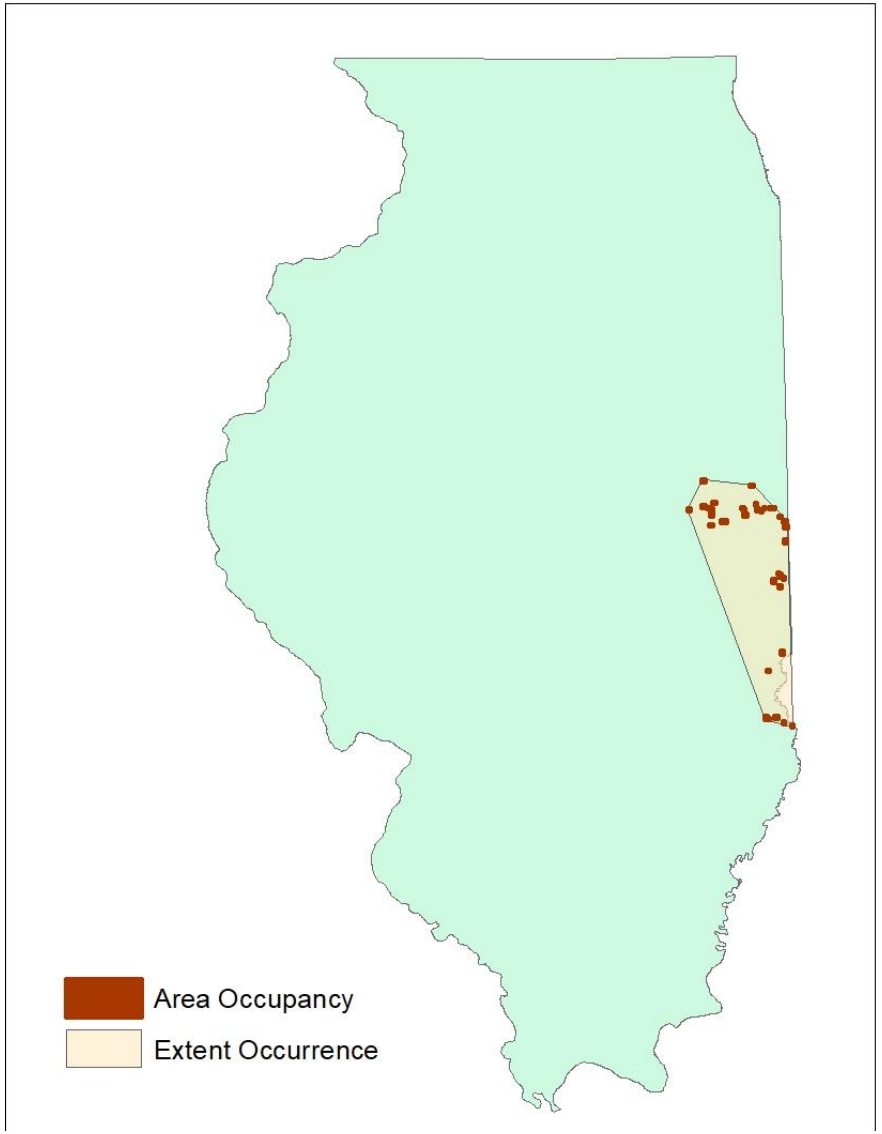
**AC (Medium-Very High (>4))**

### Rarity:

Range Extent:
**4,093.8 km2** range extent per minimum convex polygon
**E (5,000-20,000 km2)**

Area of Occupancy:
**52** 1-km2 grid cells occupied
**D (21-100 1-km2 grid cells)**

Number of Occurrences:
**22 EORs** observed 2008 to 2017
**C (21-80 EORs)**



# Pallid Shiner (*Hybopsis amnis*)

## Calculated Rank: **S3?**

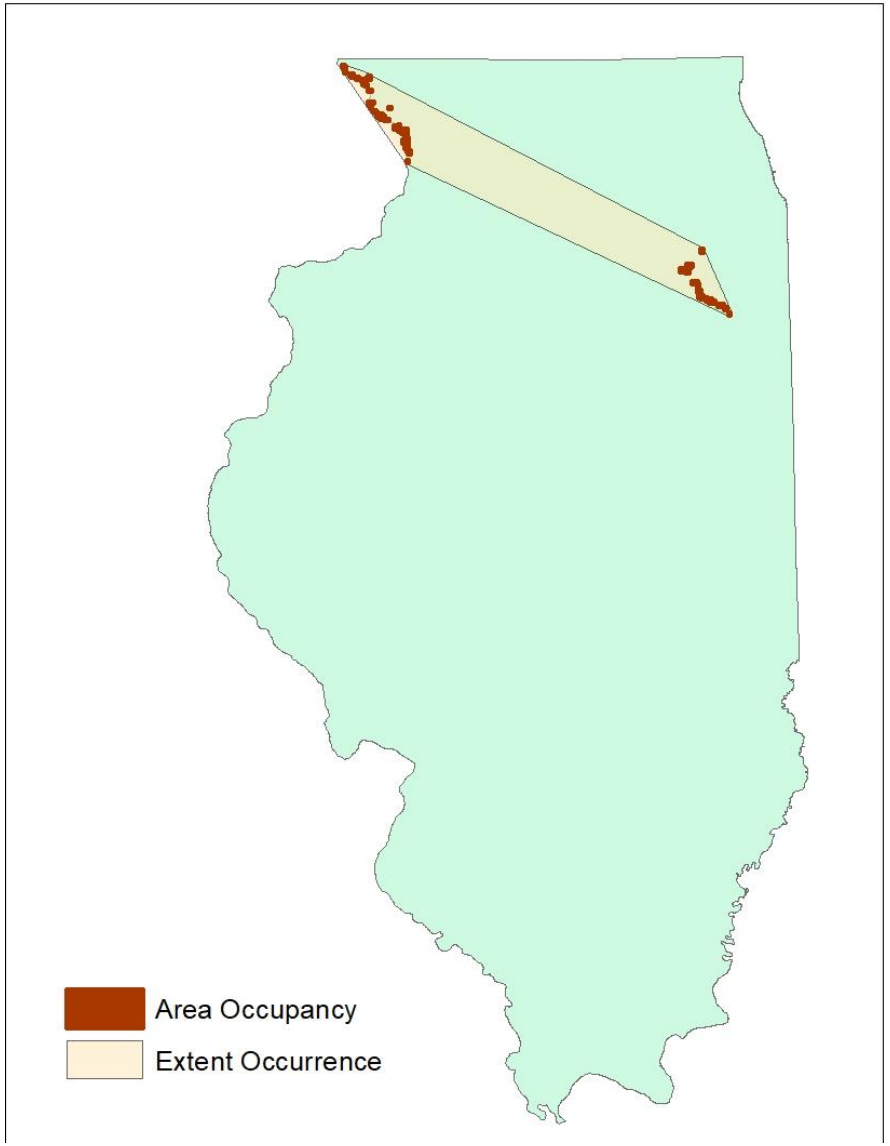
Short-term Trend:
**Increasing 50 to 100%**
per IWAP 2015
**I (Increase of >25%)**

Threats:
**2 threats/stressors** identified in IWAP 2015: Pollutants-Sediment, Structures/Infrastructure
**BD (Low-High (1-3))**

Rarity:
Range Extent: **7,466 km2** range extent per minimum convex polygon
**D (1,000-5,000 km2)**

Area of Occupancy: **95** 1-km2 grid cells occupied
**D(21-100 1-km2 grid cells)**

Number of Occurrences: **13 EORs** observed 2008 to 2017
**B(6-20 EORs)**



# Chestnut Lamprey (*Ichthyomyzon castaneus*)

Calculated Rank: **S1S2**

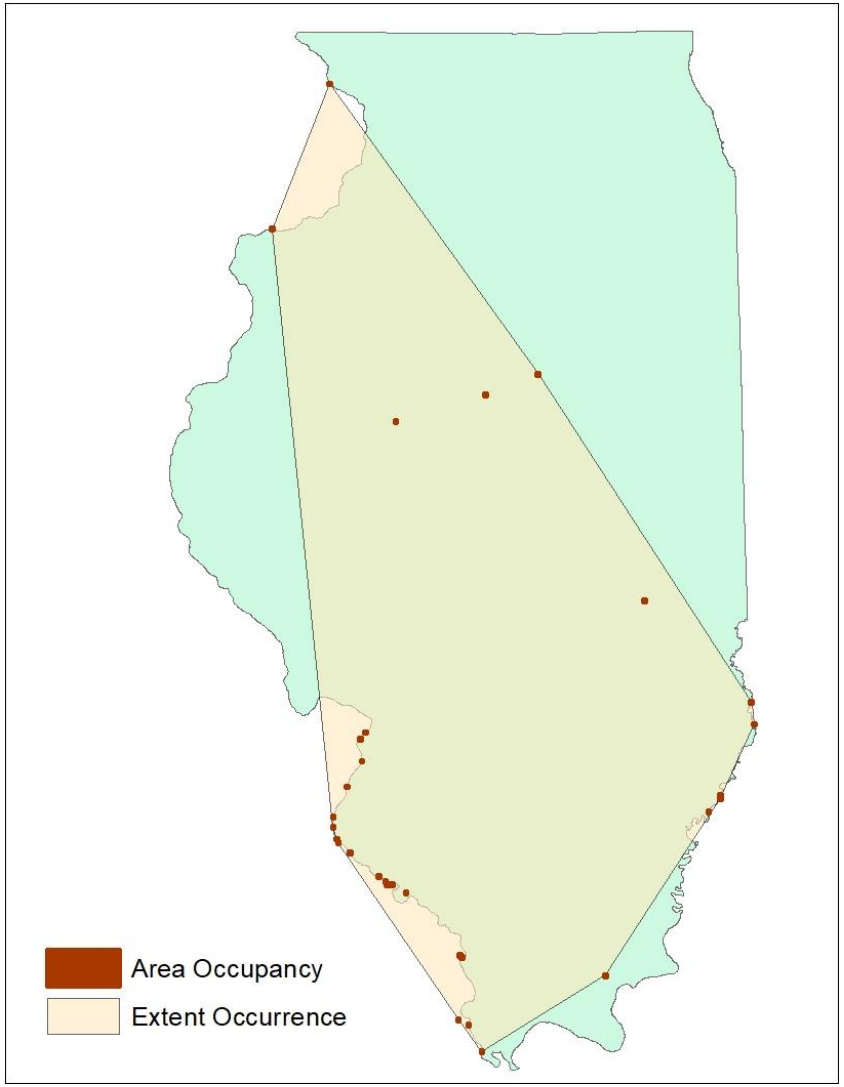
Short-term Trend:
**Declining 50 to 100%** per IWAP 2015
**AD (Decline of >50%)**

Threats:
**Threats/Stressors Unknown**
**U (Unknown)**

Rarity:
Range Extent: **88,188.6 km2** range extent per minimum convex polygon
**F (20,000-200,000 km2)**

Area of Occupancy: **31** 1-km2 grid cells occupied
**D (21-100 1-km2 grid cells)**

Number of Occurrences: **27 EORs** observed 2008 to 2017
**C (21-80 EORs)**



# Northern Brook Lamprey (*Ichthyomyzon fossor*)

Calculated Rank: **SH**

Short-term Trend:
**Declining 50-100%** per 2015 IWAP
**AD (Decline of >50%)**

Threats:
**2 threats/stressors** identified in 2015 IWAP: pollutants-sediment and structures/Infrastructure
**BD (Low-High (1-3))**

Rarity:
Range Extent: **No observations in last 10 years**
**ZA (Zero to <100 km2)**

Area of Occupancy: **No observations in last 10 years**
**U (Unknown)**

Number of Occurrences: **No observations in last 10 years**
**ZA (0-5 EORs)**

# Silver Lamprey (*Ichthyomyzon unicuspis*)

Calculated Rank: **S1S2**

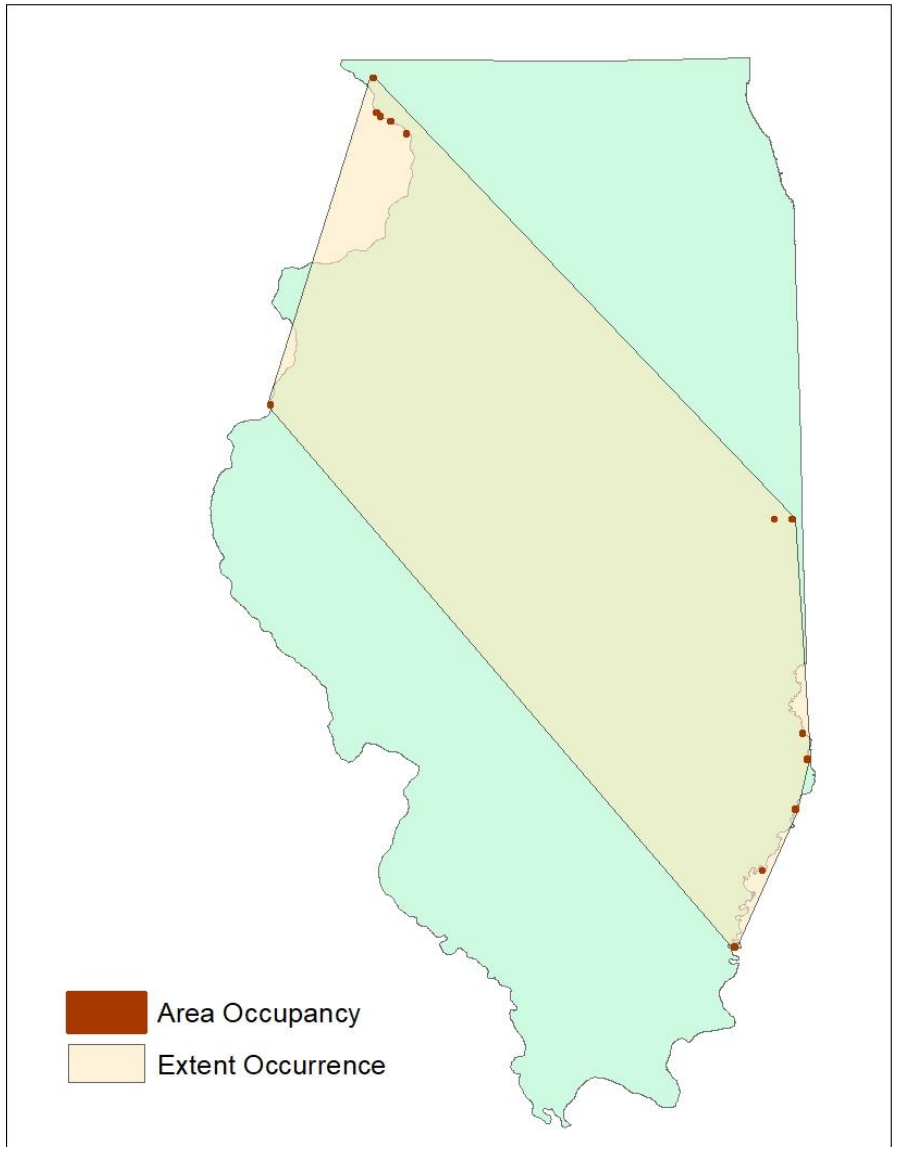
Short-term Trend:
**Declining 50 to 100%**
per IWAP 2015
**AD (Decline of >50%)**

Threats:
**1 threat/stressor**
identified in IWAP 2015:
Structures/Infrastructure
**BD (Low-High (1-3))**

Rarity:
Range
Extent: **73,385 km2** range extent per minimum convex polygon
**F (20,000-200,000 km2)**

Area of Occupancy: **13** 1-km2 grid cells occupied
**C (11-20 1-km2 grid cells)**

Number of Occurrences:
**13 EORs** observed 2008 to 2017
**B (6-20 EORs)**



# Least Brook Lamprey (*Lampetra aepyptera*)

## Calculated Rank: **S2?**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**2 threats/stressors** identified in IWAP 2015: Pollutants-Sediment, Structures/Infrastructure

**BD (Low-High (1-3))**

Additional Notes: Edge of range, S4 in MO and KY, S2 in IN

### Rarity:

Range Extent: **320 km2** range extent per minimum convex polygon

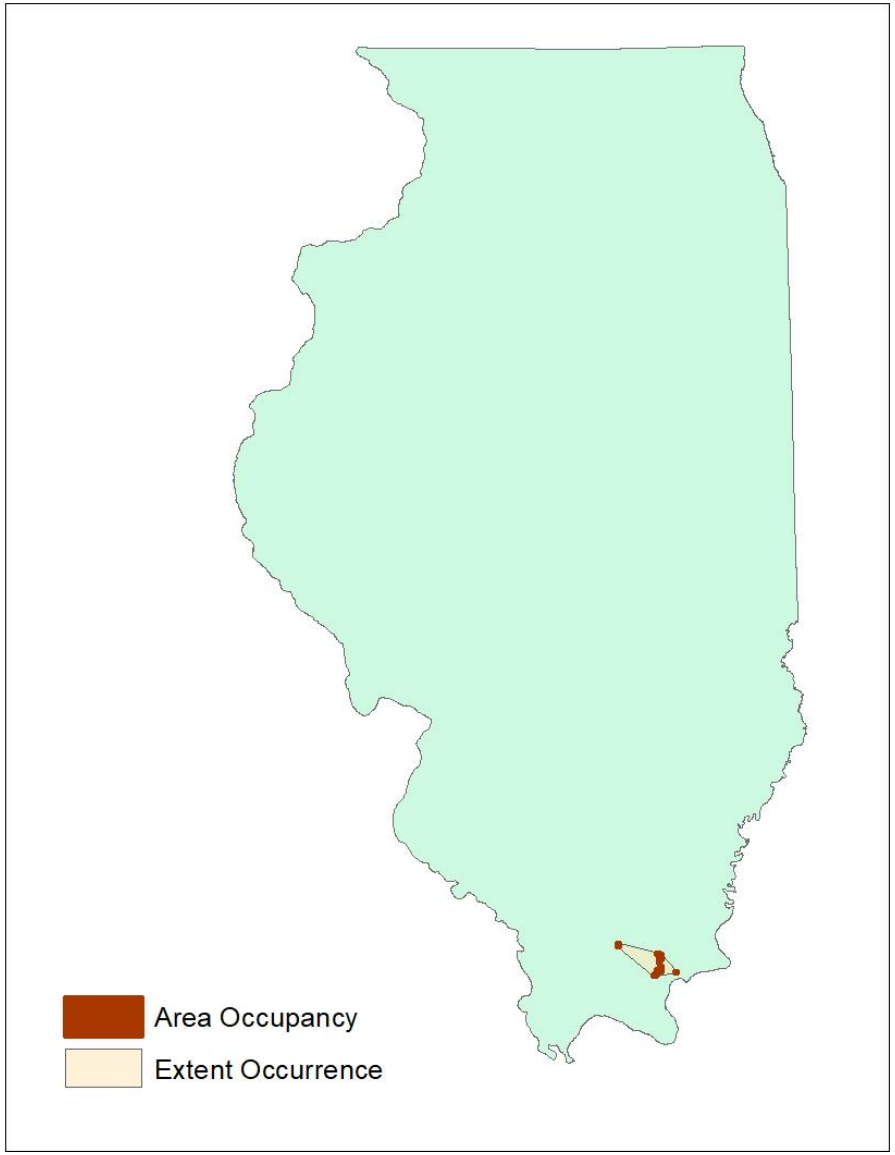
**C (250-1,000 km2)**

Area of Occupancy: **20** 1-km2 grid cells occupied

**C (11-20 1-km2 grid cells)**

Number of Occurrences: **4 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Redspotted Sunfish (*Lepomis miniatus*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Increasing 25 to 50%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**4 threats/stressors** identified in IWAP 2015: Extent, Composition-structure, Distribution/Hydrology, Pollutants-Sediment

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, S4 in MO, S2 in KY. Factor ranks include stocked individuals

### Rarity:

Range Extent: **47,685.7 km2** range extent per minimum convex polygon

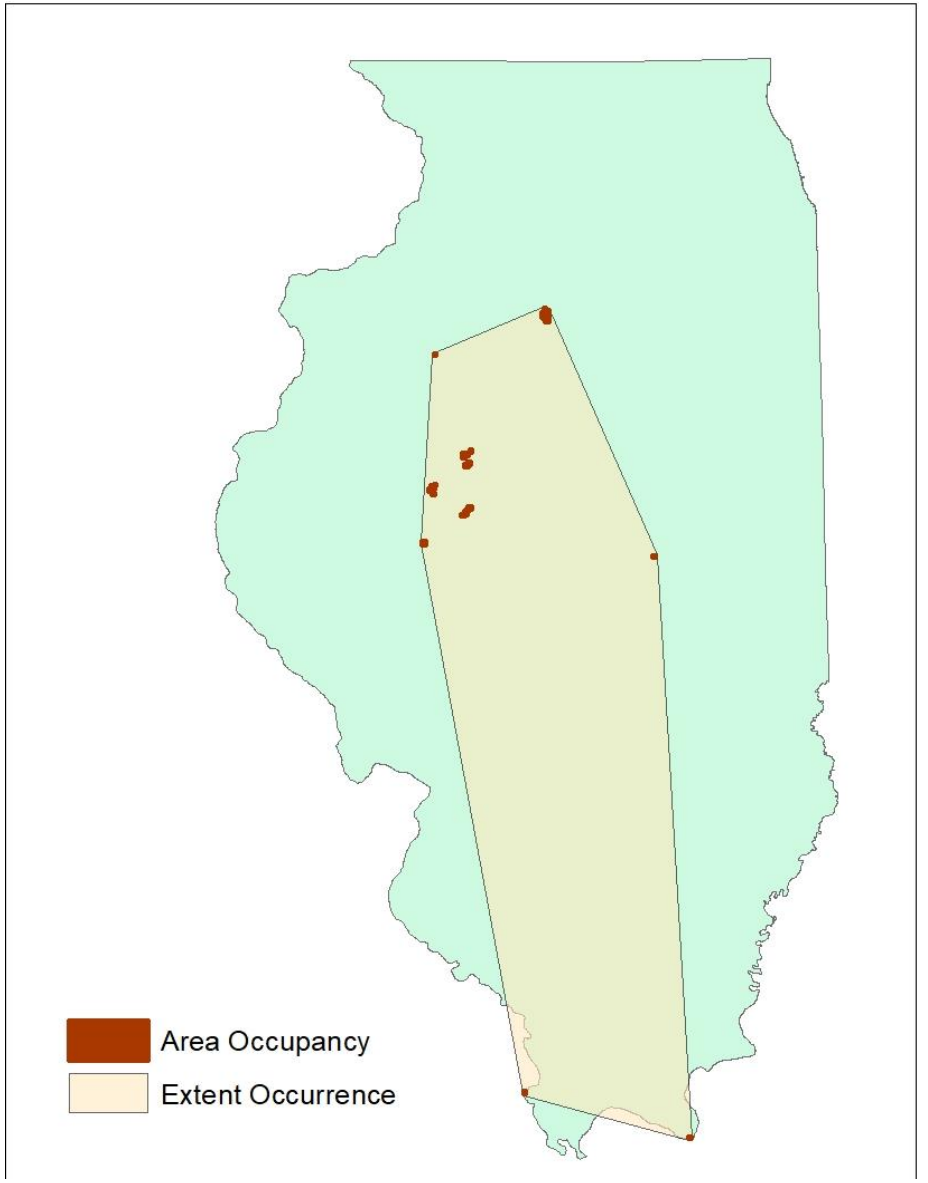
**F (20,000-200,000 km2)**

Area of Occupancy: **47 to 50** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **11 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Bantam Sunfish (*Lepomis symmetricus*)

## Calculated Rank: **S1**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**4 threats/stressors** identified in the 2015 IWAP: extent, fragmentation, composition-structure, pollutants-sediment.

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, S1 in IN, S2 in MO, S4 in KY and further south

### Rarity:

Range Extent: **32 km2** range extent per minimum convex polygon

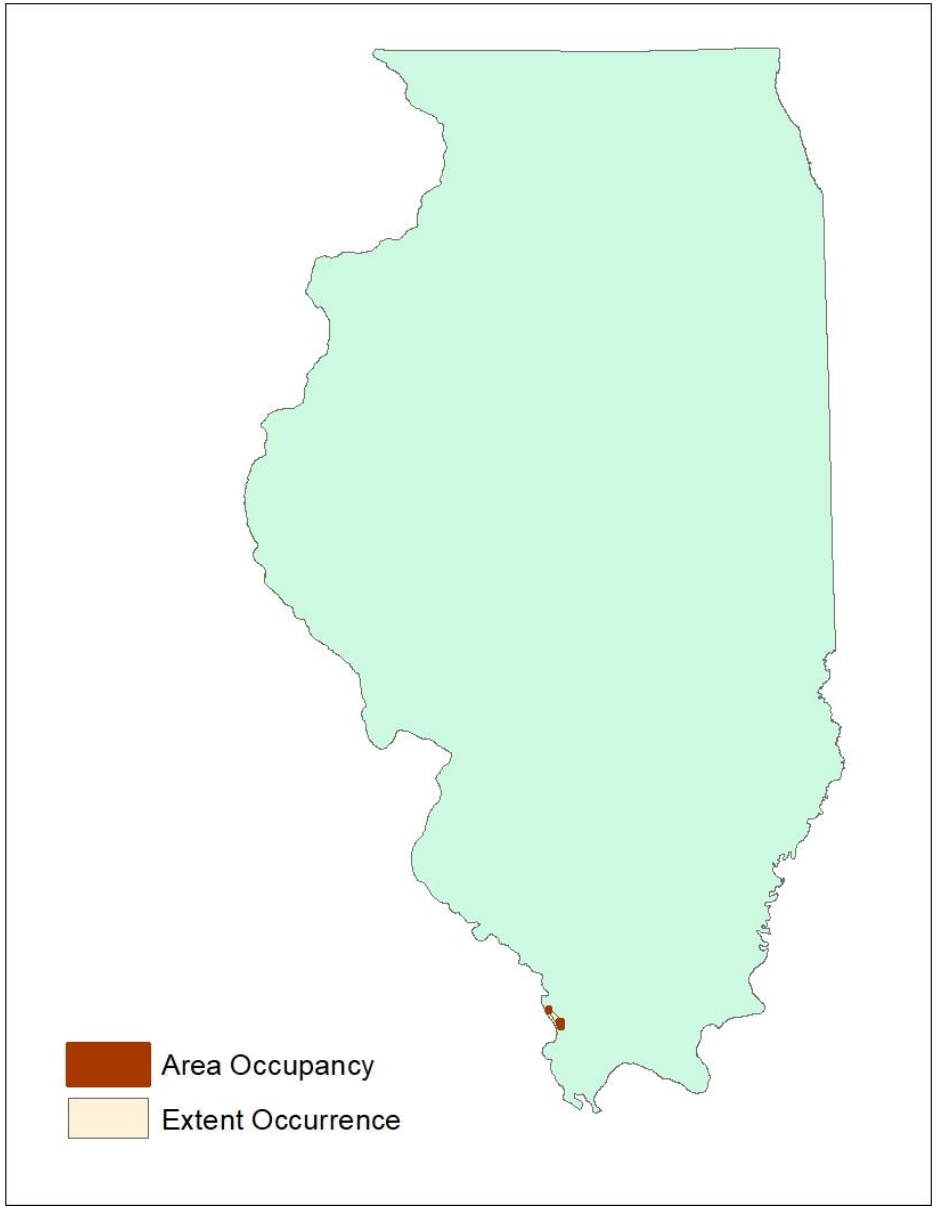
**A (<100 km2)**

Area of Occupancy: **5** 1-km2 grid cells occupied

**B (5-10 1-km2 grid cells)**

Number of Occurrences: **2 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# American Brook Lamprey (*Lethenteron appendix*)

## Calculated Rank: **S1?**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**5 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Pollutants-Sediment, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **14,747.7 km2** range extent per minimum convex polygon

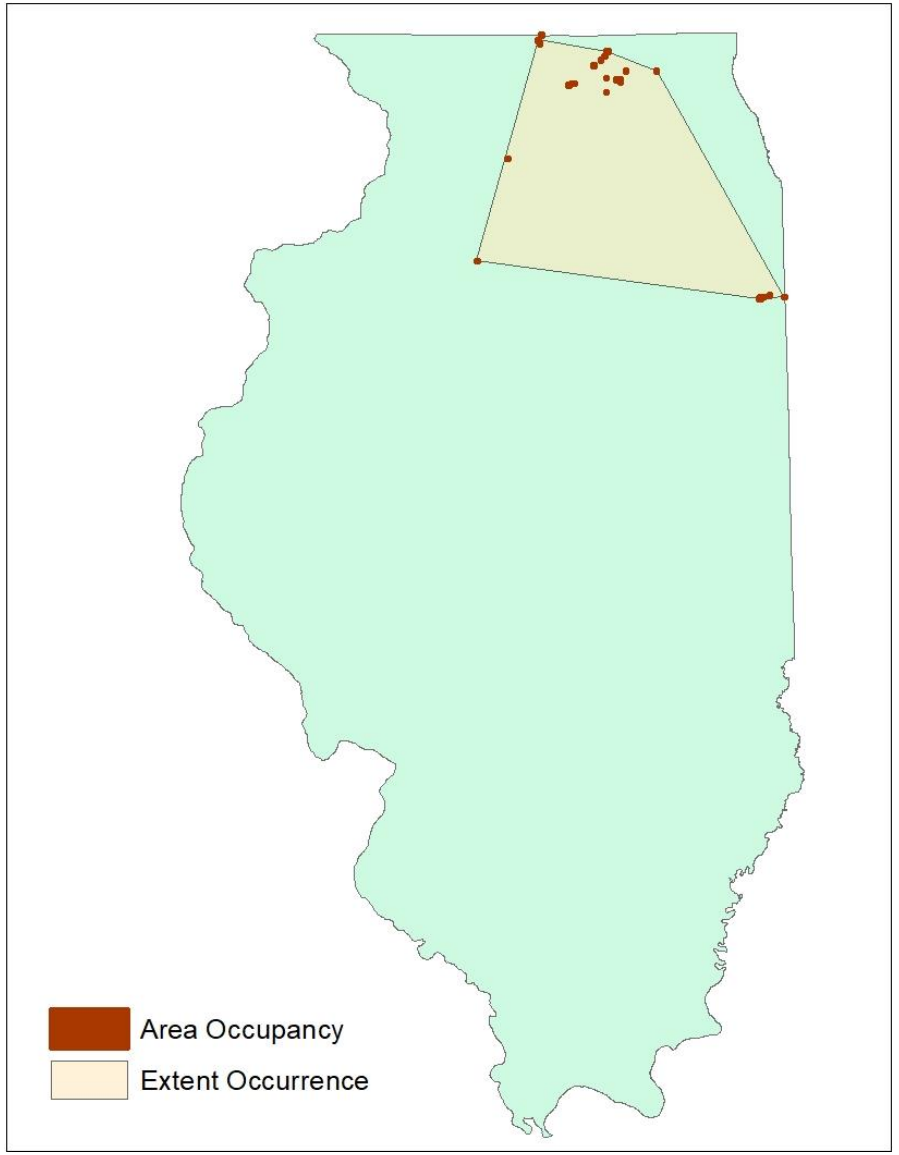
**E (5,000-20,000 km2)**

Area of Occupancy: **26** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **15 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Burbot (*Lota lota*)

## Calculated Rank: **S1**

Short-term Trend:

**Declining 50 to 100%** per IDNR Staff

**AD (Decline of >50%)**

Threats:

**Threats/Stressors Unknown**

**U (Unknown)**

Rarity:

Range Extent: **1,317.9 km2** range extent per minimum convex polygon

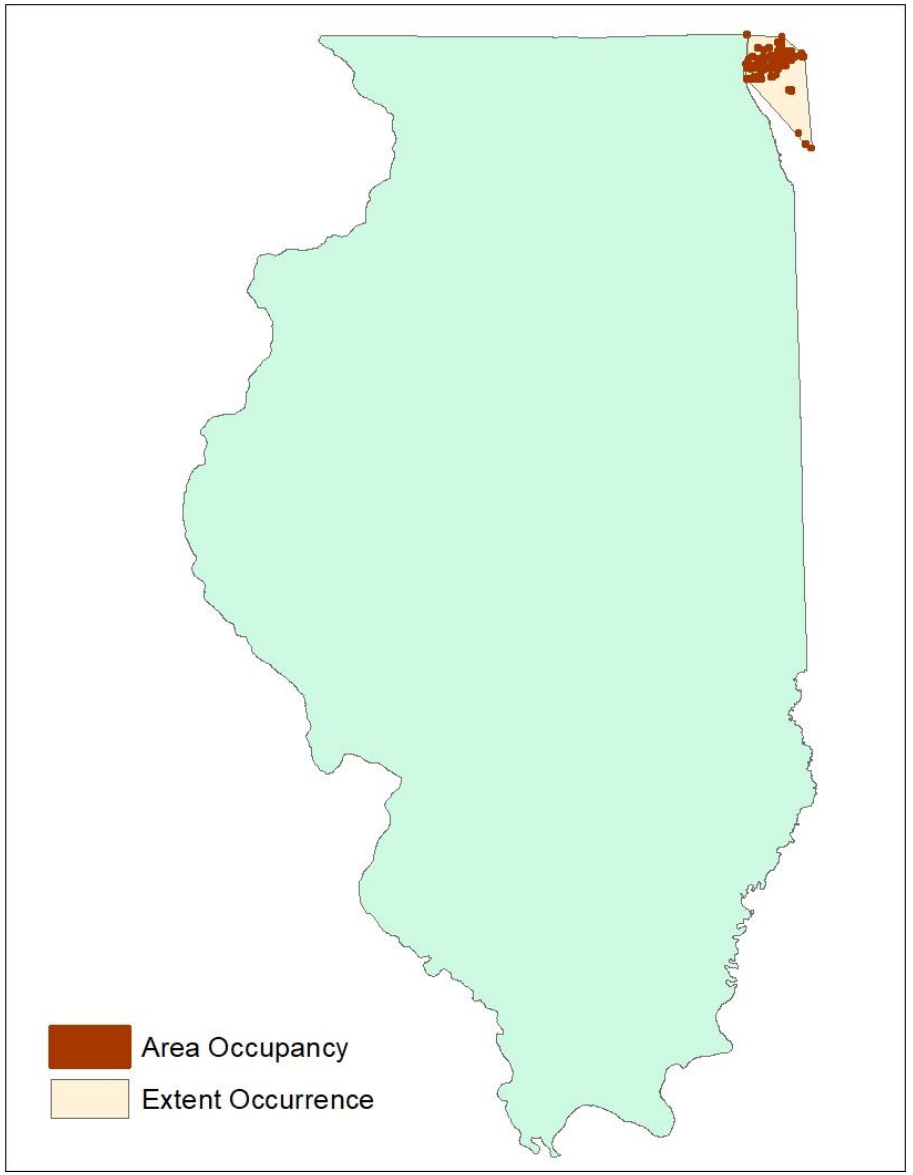
**D (1,000-5,000 km2)**

Area of Occupancy: **112** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **11 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Bleeding Shiner (*Luxilus zonatus*)

## Calculated Rank: **S1**

### Short-term Trend:

**Increasing 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

### Threats/Stressors:

**Threats/Stressors Unknown**

**U (Unknown)**

### Rarity:

Range Extent: **<1 km2** range extent per minimum convex polygon

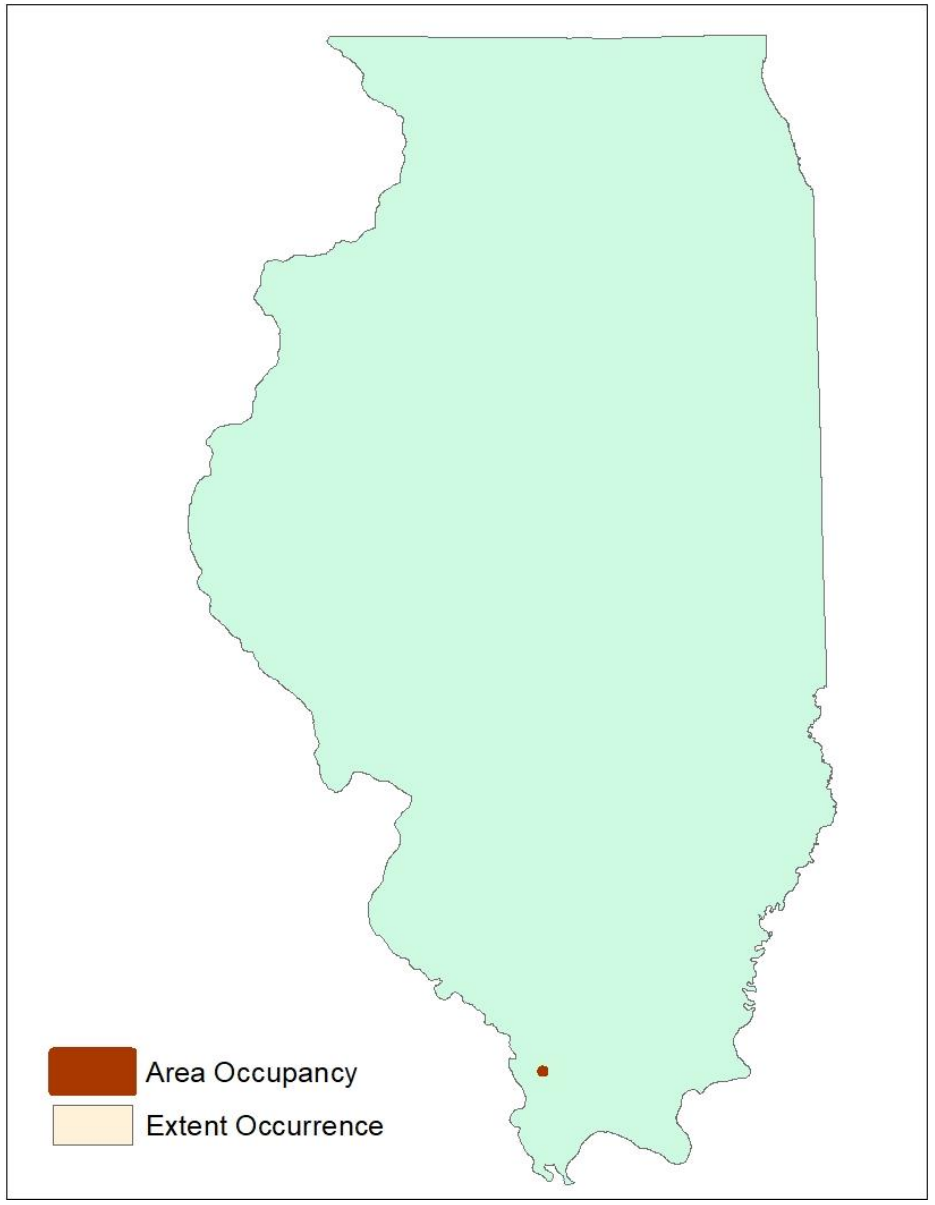
**A (<100 km2)**

Area of Occupancy: **1** 1-km2 grid cells occupied

**A (1-4 1-km2 grid cells)**

Number of Occurrences: **1 EOR** observed 2008 to 2017

**A (1-5 EORs)**



# Ribbon Shiner (*Lythrurus fumeus*)

## Calculated Rank: **S1**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**2 threats/stressors** identified in IWAP 2015: Extent, Distribution/Hydrology

**BD (Low-High (1-3))**

Additional Notes: Edge of range

### Rarity:

Range Extent: **28,735.7 km2** range extent per minimum convex polygon

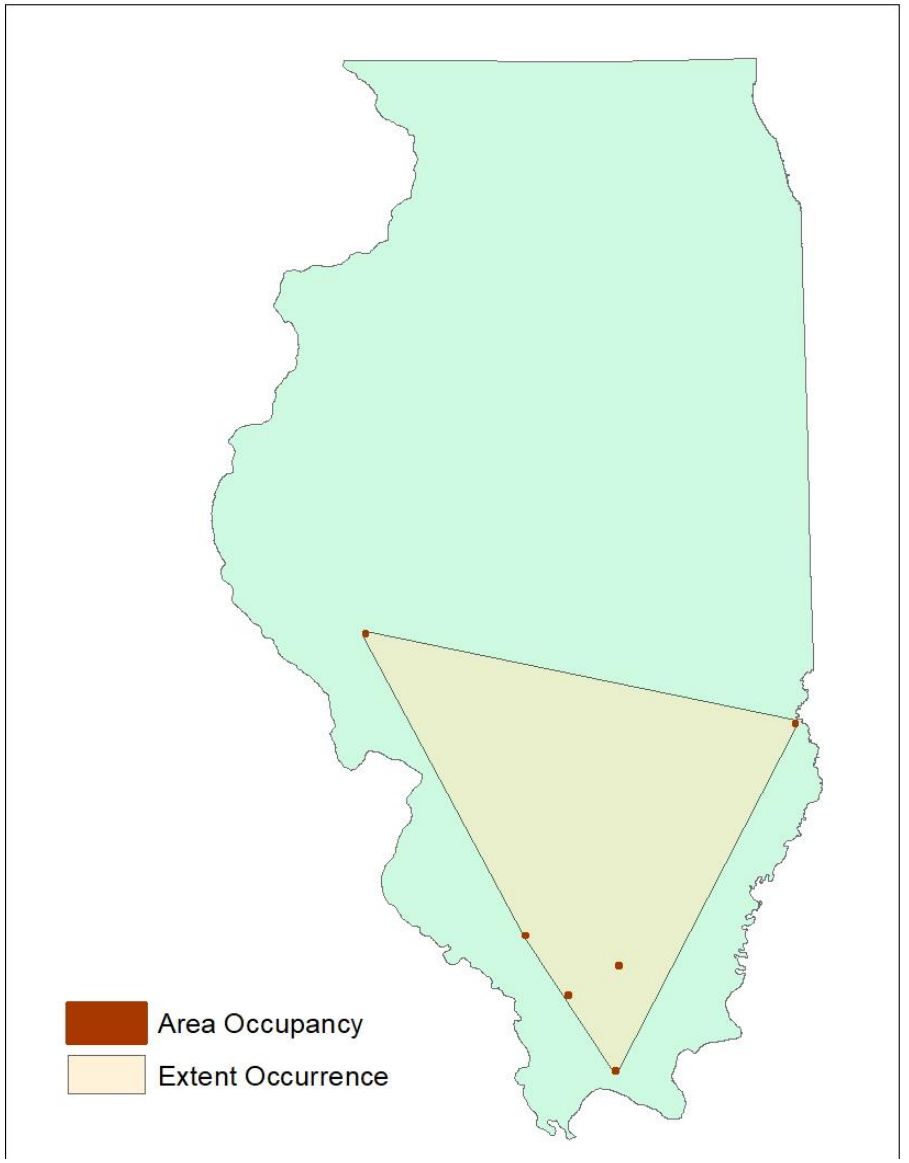
**F (20,000-200,000 km2)**

Area of Occupancy: **6** 1-km2 grid cells occupied

**B (5-10 1-km2 grid cells)**

Number of Occurrences: **6 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Sturgeon Chub (*Macrhybopsis gelida*)

## Calculated Rank: **S1**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**7 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, S3 in MO, S1 in KY

### Rarity:

Range Extent: **4 km2** range extent per minimum convex polygon

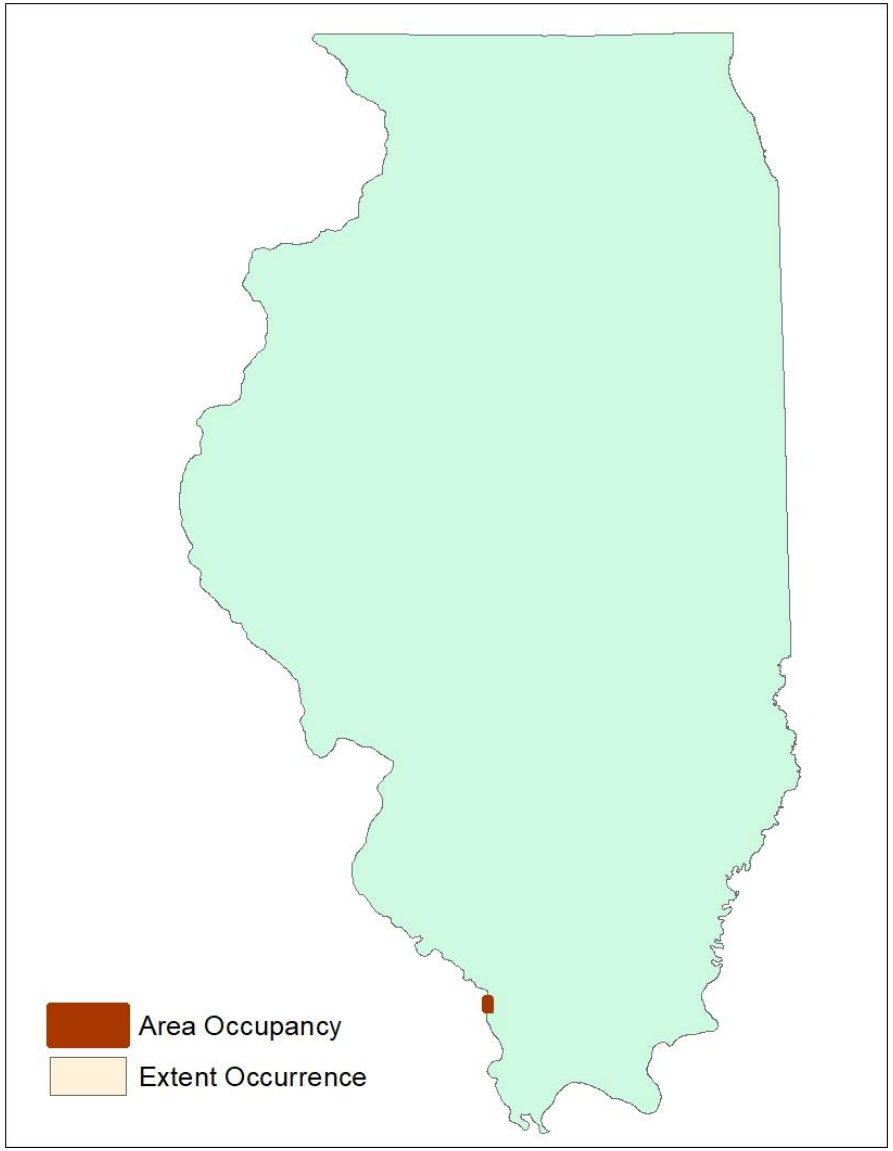
**A (<100 km2)**

Area of Occupancy: **6** 1-km2 grid cells occupied

**B (5-10 1-km2 grid cells)**

Number of Occurrences: **1 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Shoal Chub (*Macrhybopsis hyostoma*)

## Calculated Rank: **S1S3**

### Short-term Trend:

**Declining 50 to 100% per IWAP 2015**

**AD (Decline of >50%)**

### Threats:

**3 threats/stressors** identified by IDNR Staff: Fragmentation, Hydrology, Structures.

**BD (Low-High (1-3))**

Additional Notes: Also named "Speckled Chub" in databases.

### Rarity:

Range Extent: **114,075.35 km2** range extent per minimum convex polygon

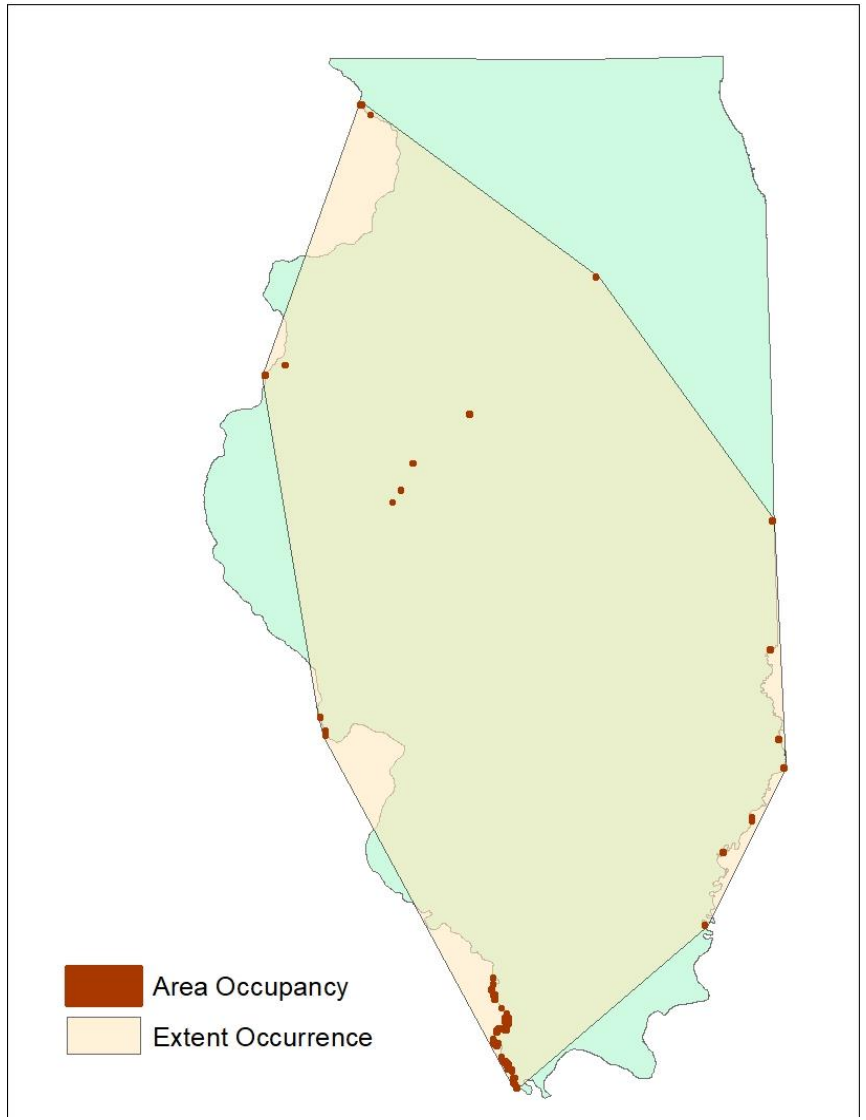
**F (20,000-200,000 km2)**

Area of Occupancy: **66** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **29 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Sicklefin Chub (*Macrhybopsis meeki*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**6 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Pollutants-Sediment, Dispersal, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **101.24 km2** range extent per minimum convex polygon

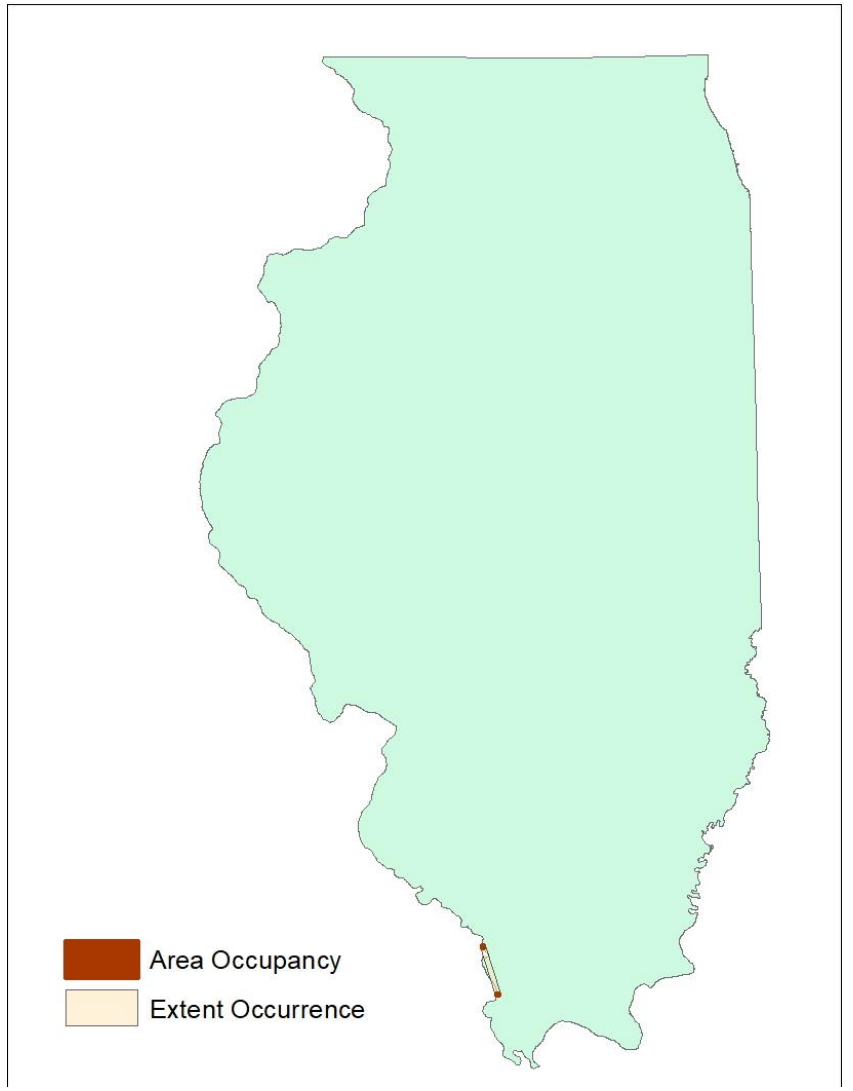
**B (100-250 km2)**

Area of Occupancy: **2** 1-km2 grid cells occupied

**A (1-4 1-km2 grid cells)**

Number of Occurrences: **2 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# River Redhorse (*Moxostoma carinatum*)

## Calculated Rank: **S3S4**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**2 threats/stressors** identified in IWAP 2015: Distribution/Hydrology, Pollutants-Sediment

**BD (Low-High (1-3))**

### Rarity:

Range Extent: **105,124.5 km2** range extent per minimum convex polygon

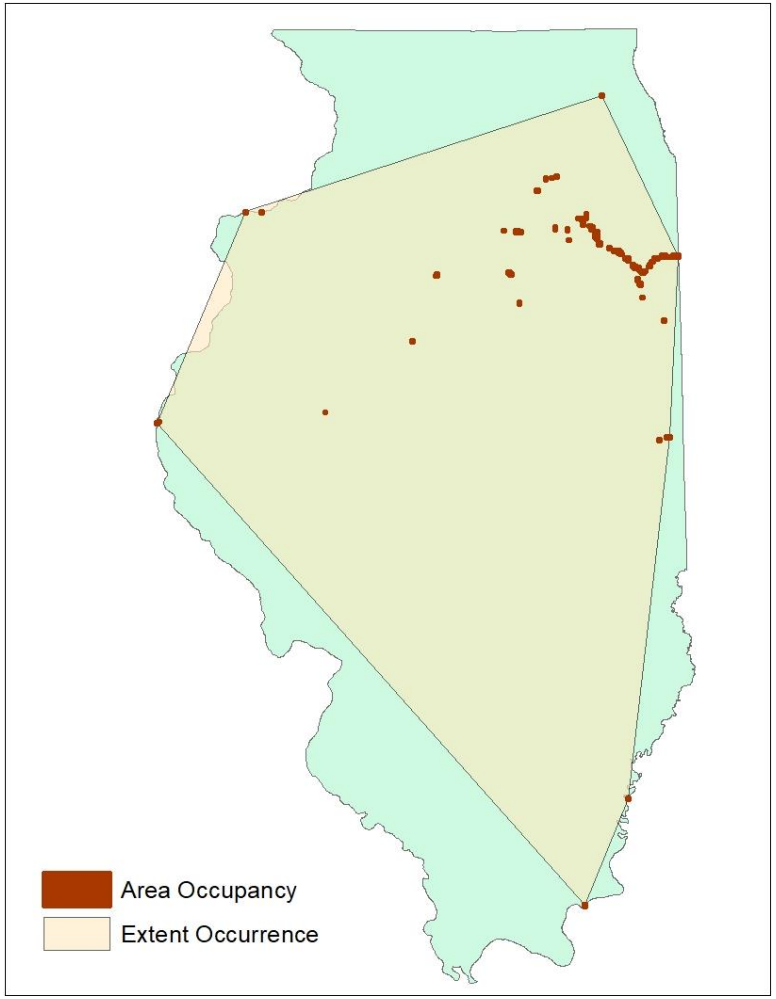
**F (20,000-200,000 km2)**

Area of Occupancy: **124** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **33 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Greater Redhorse (*Moxostoma valenciennesi*)

## Calculated Rank: **S3S4**

### Short-term Trend:

**Increasing 25 to 50%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**3 threats/stressors** identified in IWAP 2015: Distribution/Hydrology, Pollutants-Sediment, Structures/Infrastructure

**BD (Low-High (1-3))**

### Rarity:

Range Extent: **14,082.5 km2** range extent per minimum convex polygon

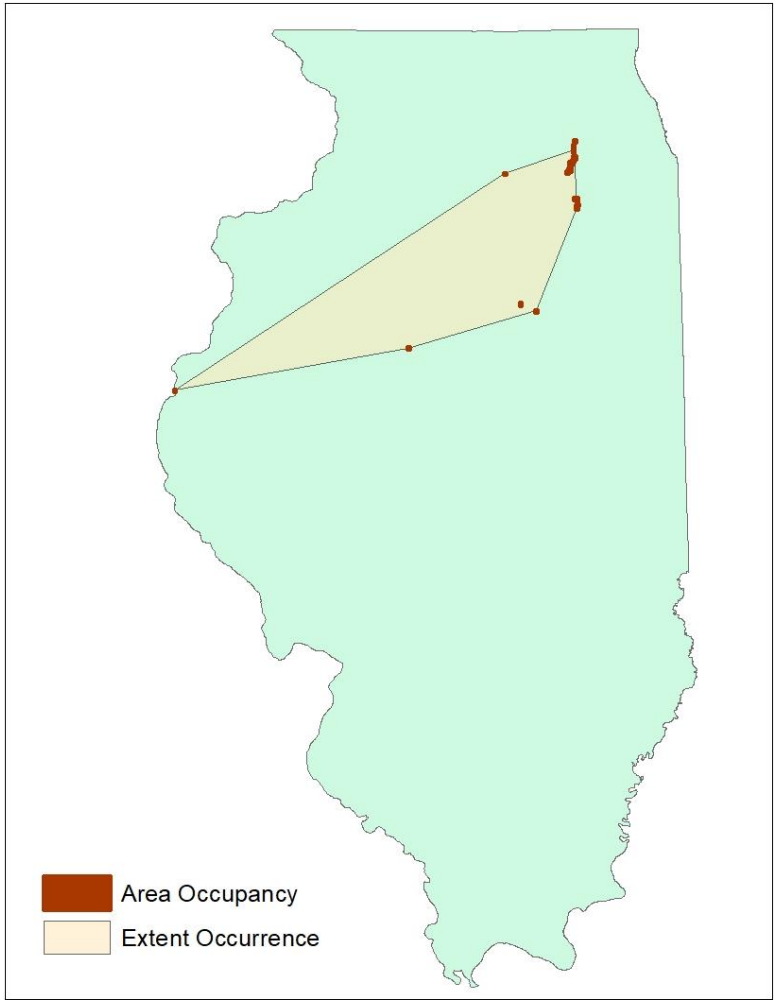
**E (5,000-20,000 km2)**

Area of Occupancy: **33** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **10 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Deepwater Sculpin (*Myoxocephalus thompsonii*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Stable (-25 to 25%)** per IDNR Staff

**G (Relatively Stable <=10%)**

### Threats:

**2 threats/stressors** identified in IWAP 2015: Dispersal, Structures/Infrastructure

**BD (Low-High (1-3))**

### Rarity:

Range Extent: **79 km2** range extent per minimum convex polygon

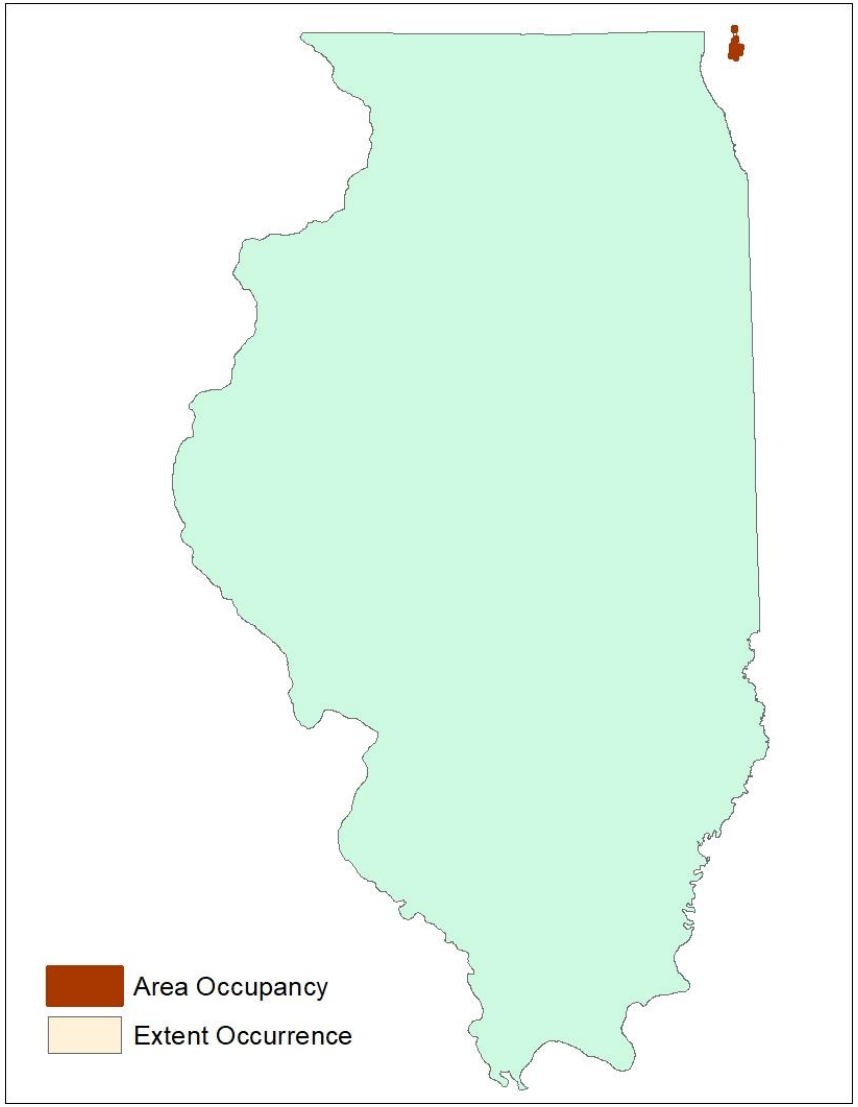
**A (<100 km2)**

Area of Occupancy: **17** 1-km2 grid cells occupied

**C (11-20 1-km2 grid cells)**

Number of Occurrences: **4 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# River Chub (*Nocomis micropogon*)

Calculated Rank: **SH**

Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

Threats:

**4 threats/stressors** identified in IWAP 2015: Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Rarity:

Range Extent: **No observed occurrences in last 10 years**

**U (Unknown)**

Area of Occupancy: **No observed occurrences in last 10 years**

**U (Unknown)**

Number of Occurrences: **No observed occurrences in last 10 years**

**ZA (0-5 EORs)**

Additional Notes: No species data in the last ten years

# Pugnose Shiner (*Notropis anogenus*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**6 threats/stressors** identified in IWAP 2015: Extent, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Predators, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, but not secure in adjacent states

### Rarity:

Range Extent: **1,011 km2** range extent per minimum convex polygon

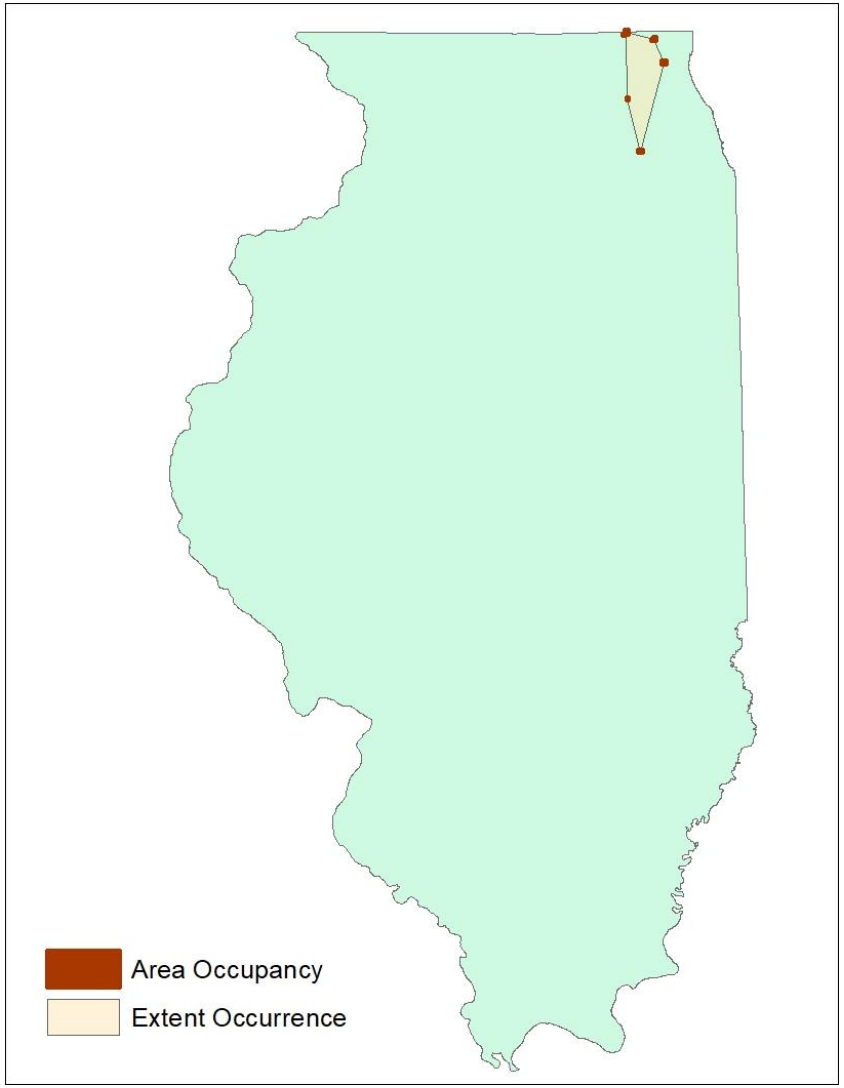
**D (1,000-5,000 km2)**

Area of Occupancy: **12** 1-km2 grid cells occupied

**C (11-20 1-km2 grid cells)**

Number of Occurrences: **5 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Bigeye Shiner (*Notropis boops*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**3 threats/stressors** identified in IWAP 2015: Distribution/Hydrology, Pollutants-Sediment, Structures/Infrastructure

**BD (Low-High (1-3))**

### Rarity:

Range Extent: **77,339 km2** range extent per minimum convex polygon

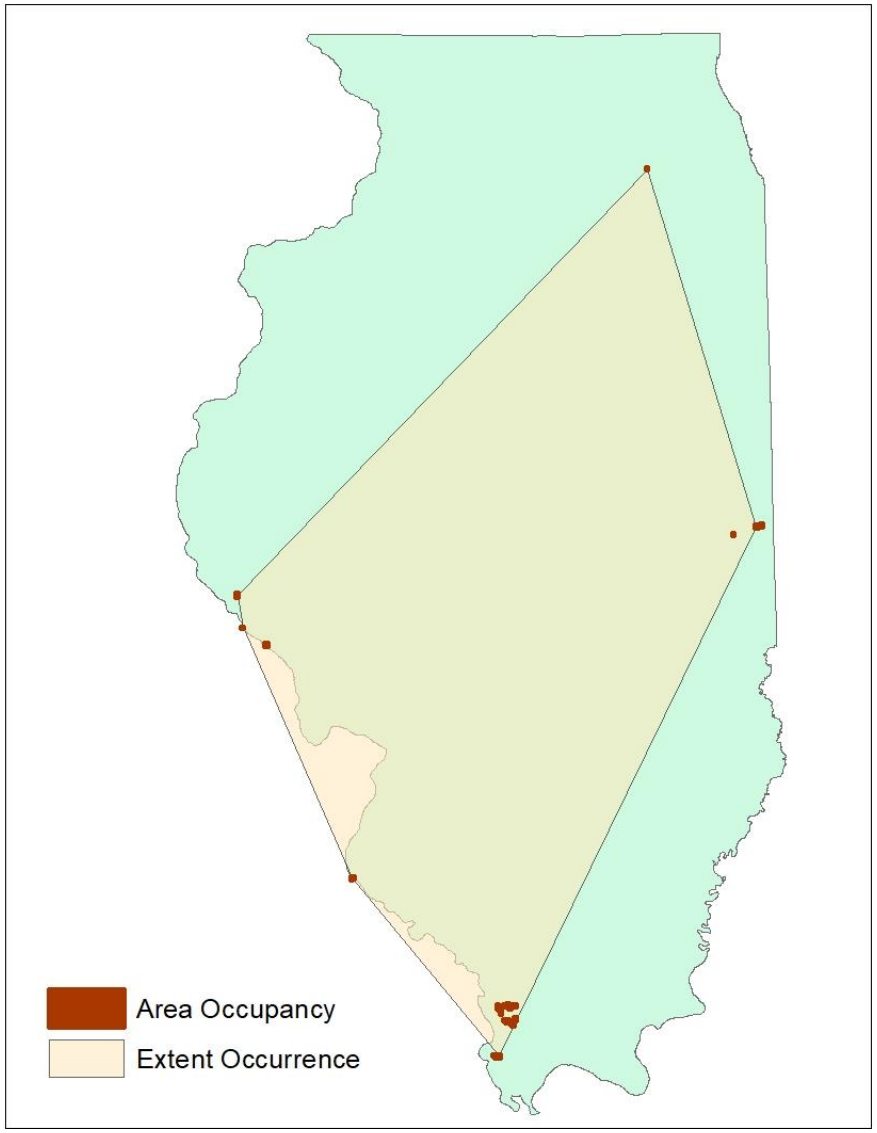
**F (20,000-200,000 km2)**

Area of Occupancy: **40** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **14 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Ghost Shiner (*Notropis buchanani*)

## Calculated Rank: **S2?**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**2 threats/stressors** identified in IWAP 2015: Extent, Fragmentation

**BD (Low-High (1-3))**

### Rarity:

Range Extent: **28,000.3 km2** range extent per minimum convex polygon

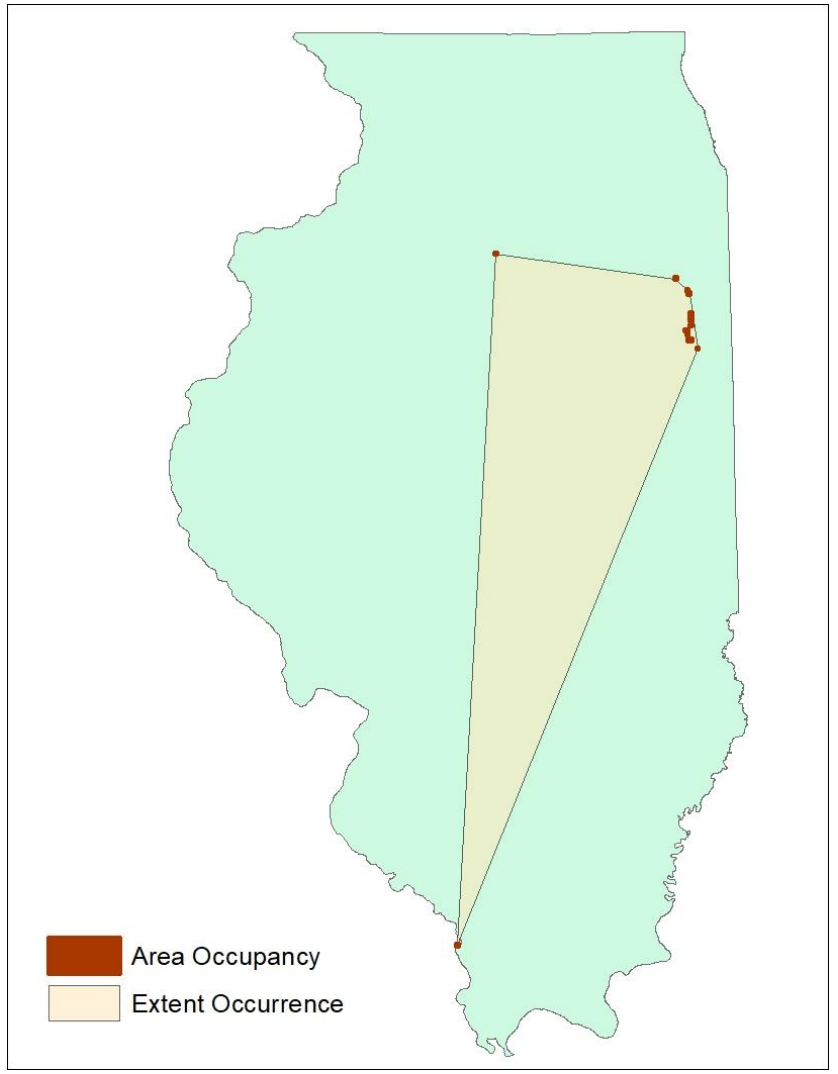
**F (20,000-200,000 km2)**

Area of Occupancy: **14** 1-km2 grid cells occupied

**C (11-20 1-km2 grid cells)**

Number of Occurrences: **8 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Ironcolor Shiner (*Notropis chalybaeus*)

Calculated Rank: **S3S4**

Short-term Trend:

**Increasing 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

Threats:

**2 threats/stressors** identified in IWAP 2015: Fragmentation, Pollutants-Sediment

**BD (Low-High (1-3))**

Rarity:

Range Extent: **27,213.8 km2** range extent per minimum convex polygon

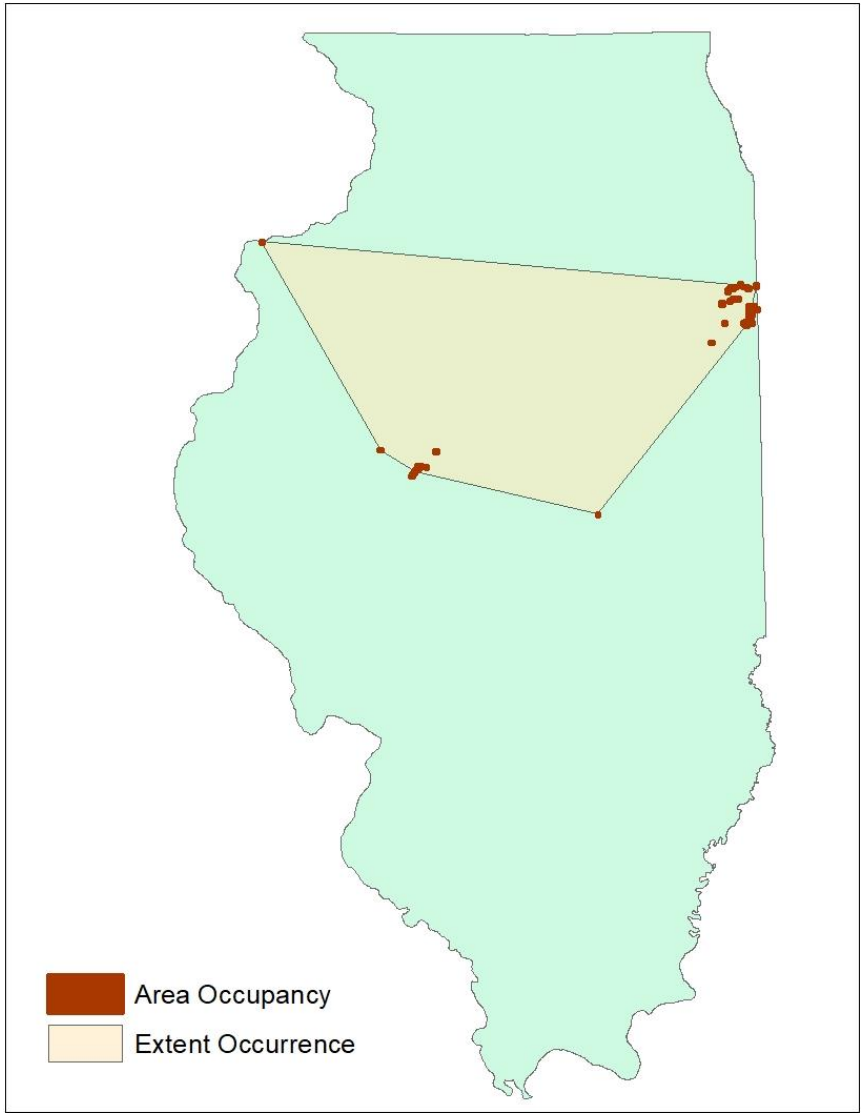
**F (20,000-200,000 km2)**

Area of Occupancy: **66** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **13 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Blackchin Shiner (*Notropis heterodon*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Increasing 25 to 50%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**4 threats/stressors** identified in IWAP 2015: Extent, Composition-structure, Pollutants-Sediment, Predators

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, S4 in WI, S2 in IN

### Rarity:

Range Extent: **770 km2** range extent per minimum convex polygon

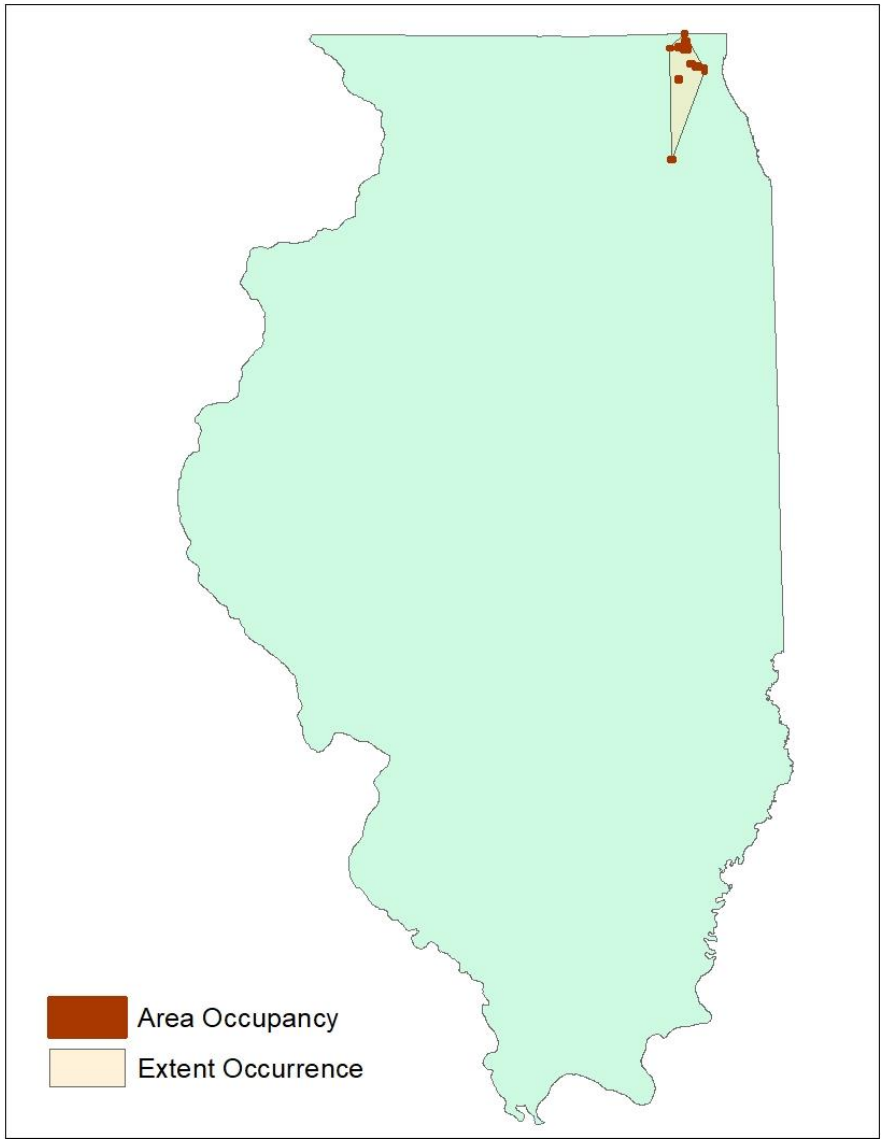
**C (250-1,000 km2)**

Area of Occupancy: **42** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **12 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Blacknose Shiner (*Notropis heterolepis*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**3 threats/stressors** identified in IWAP 2015: Extent, Composition-structure, Pollutants-Sediment

**BD (Low-High (1-3))**

### Rarity:

Range Extent: **14,540 km2** range extent per minimum convex polygon

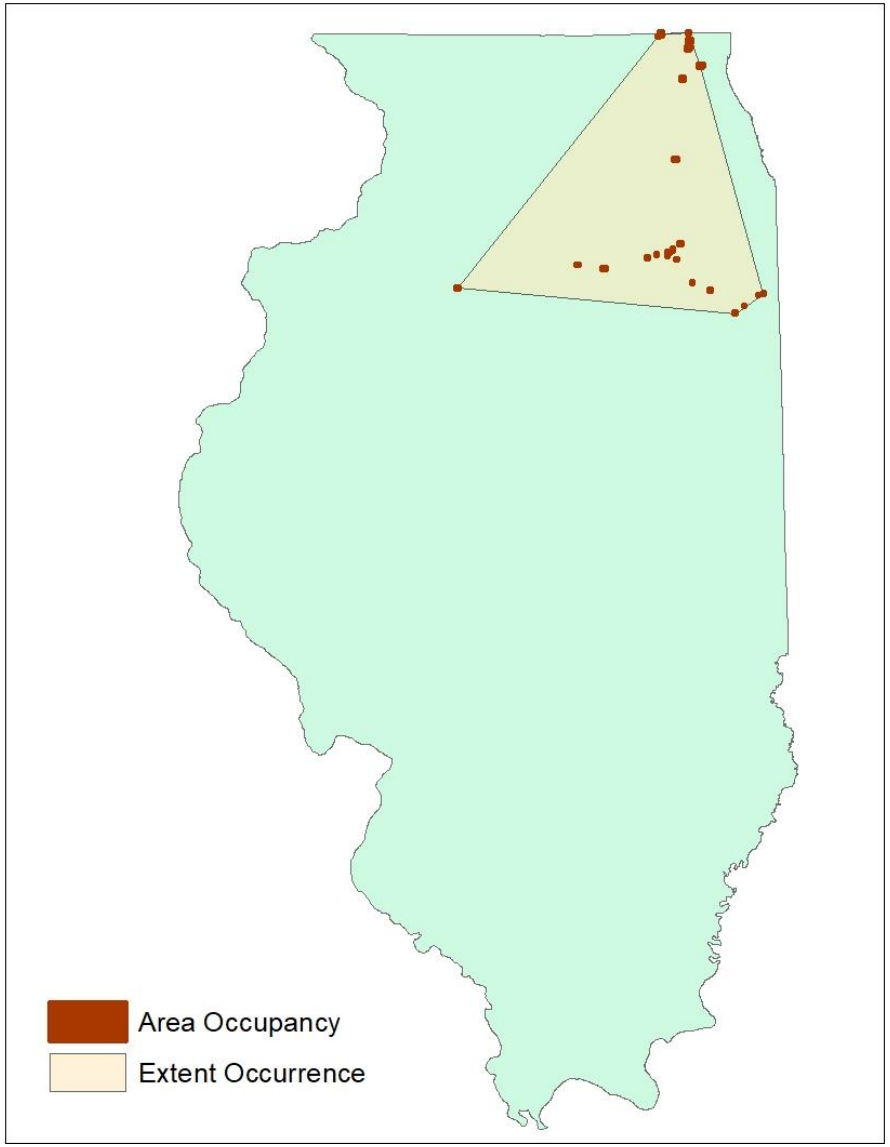
**E (5,000-20,000 km2)**

Area of Occupancy: **54** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **18 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Taillight shiner (*Notropis maculatus*)

Calculated Rank: **SH**

Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

Threats:

**1 threat/stressor** identified in IWAP 2015: Pollutants-Sediment

**BD (Low-High (1-3))**

Additional Notes: One old Ohio River record from 1977 (INHS), edge of range

Rarity:

Range Extent: **No observations in last 10 years**

**ZA (Zero to <100 km2)**

Area of Occupancy: **No observations in last 10 years**

**U (Unknown)**

Number of Occurrences: **No observations in last 10 years**

**ZA (0-5 EORs)**

# Silverband Shiner (*Notropis shumardi*)

## Calculated Rank: **S3S4**

### Short-term Trend:

**Increasing 25 to 50%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**6 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Pollutants-Sediment, Dispersal, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **112,930.3 km2** range extent per minimum convex polygon

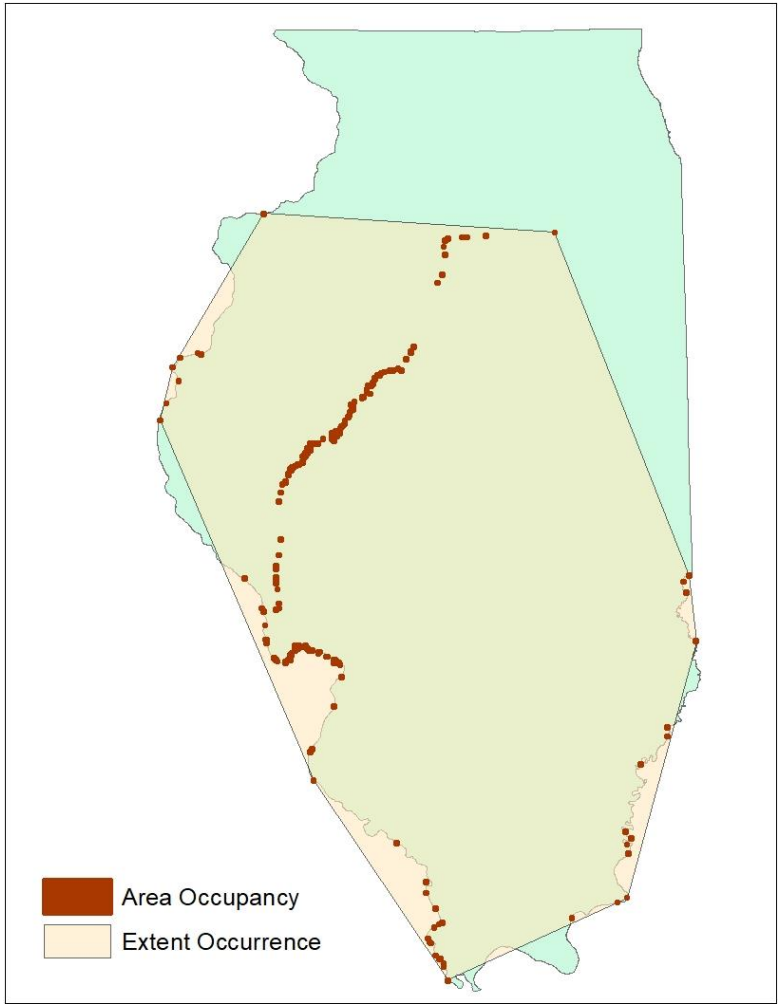
**F (20,000-200,000 km2)**

Area of Occupancy: **206** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **75 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Weed Shiner (*Notropis texanus*)

Calculated Rank: **S3S4**

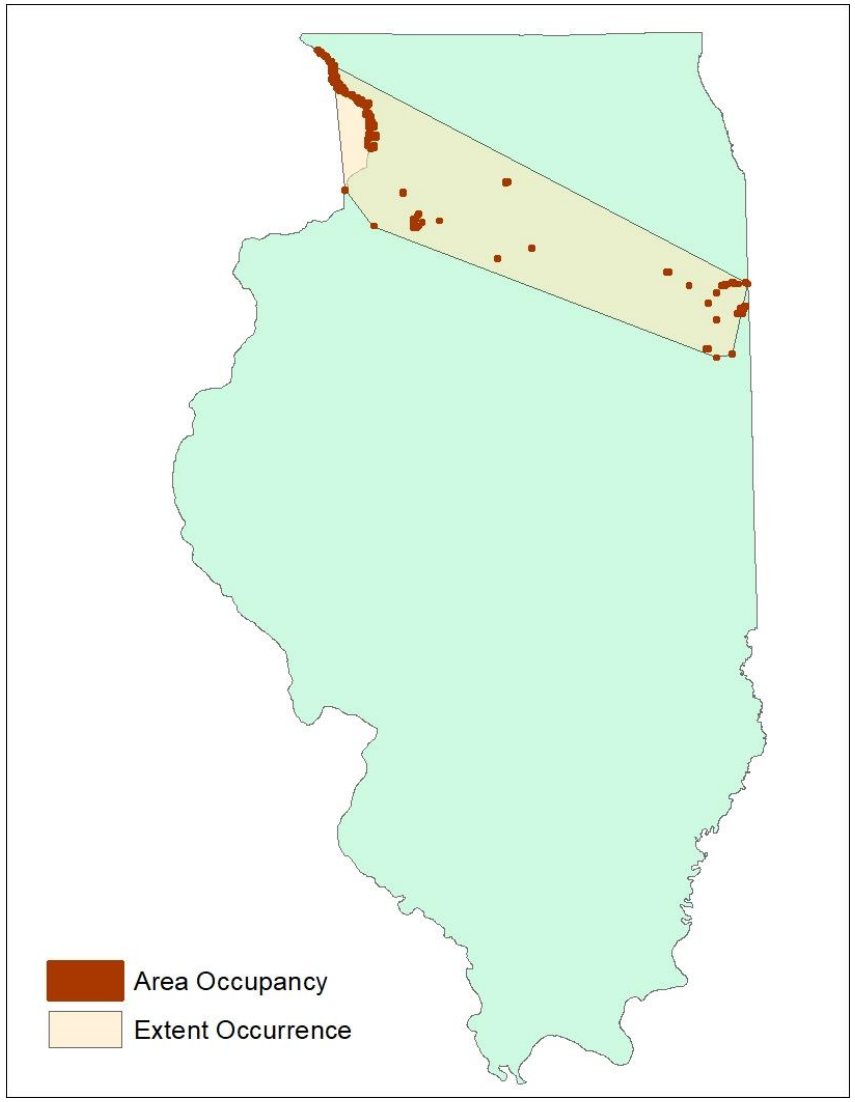
Short-term Trend:
**Increasing 50 to 100%** per IWAP 2015
**I (Increase of >25%)**

Threats:
**1 threat/stressor** identified in IWAP 2015: Pollutants-Sediment
**BD (Low-High (1-3))**

Rarity:
Range Extent: **15,641.3 km2** range extent per minimum convex polygon
**E (5,000-20,000 km2)**

Area of Occupancy: **157** 1-km2 grid cells occupied
**E (101-500 1-km2 grid cells)**

Number of Occurrences: **22 EORs** observed 2008 to 2017
**C (21-80 EORs)**



# Mountain Madtom (*Noturus eleutherus*)

## Calculated Rank: **S1**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**4 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **5,097.1 km2** range extent per minimum convex polygon

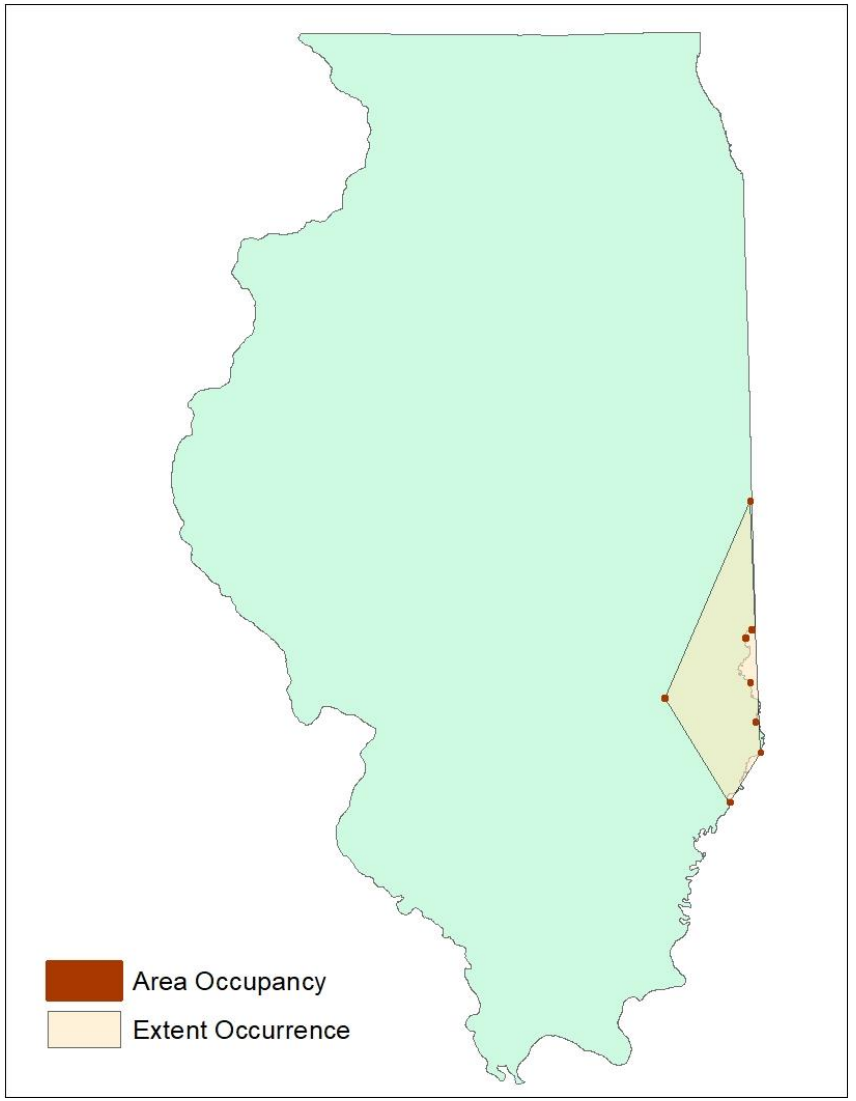
**E (5,000-20,000 km2)**

Area of Occupancy: **8** 1-km2 grid cells occupied

**B (5-10 1-km2 grid cells)**

Number of Occurrences: **8 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Northern Madtom (*Noturus stigmosus*)

## Calculated Rank: **S1**

## Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

## Threats/Stressors:

**4 threats/stressors** identified in IWAP 2015: Extent, Composition-structure, Distribution/Hydrology, Pollutants-Sediment

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, S1 in IN, S2 in KY

## Rarity:

Range Extent: **349 km2** range extent per minimum convex polygon

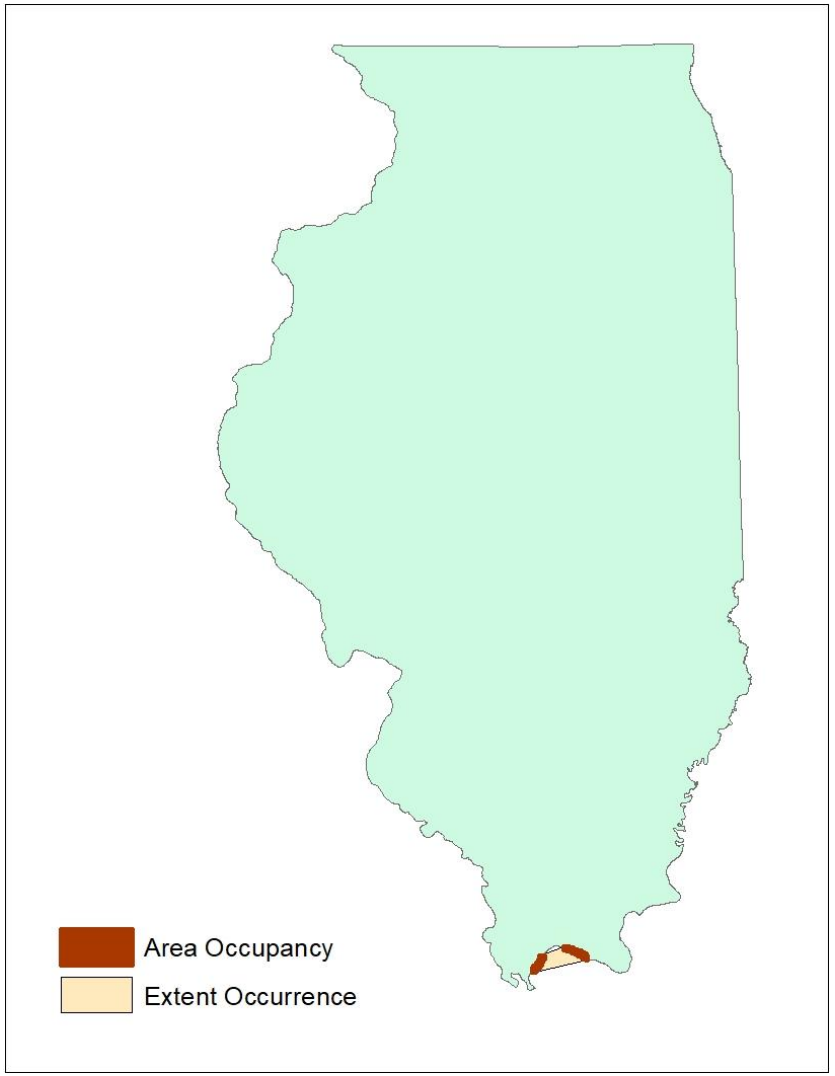
**C (250-1,000 km2)**

Area of Occupancy: **44** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **2 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Pugnose Minnow (*Opsopoeodus emiliae*)

Calculated Rank: **S3S4**

Short-term Trend:

**Increasing 25 to 50%** per IWAP 2015

**I (Increase of >25%)**

Threats/Stressors:

**3 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure

**BD (Low-High (1-3))**

Rarity:

Range Extent: **127,621.88 km2** range extent per minimum convex polygon

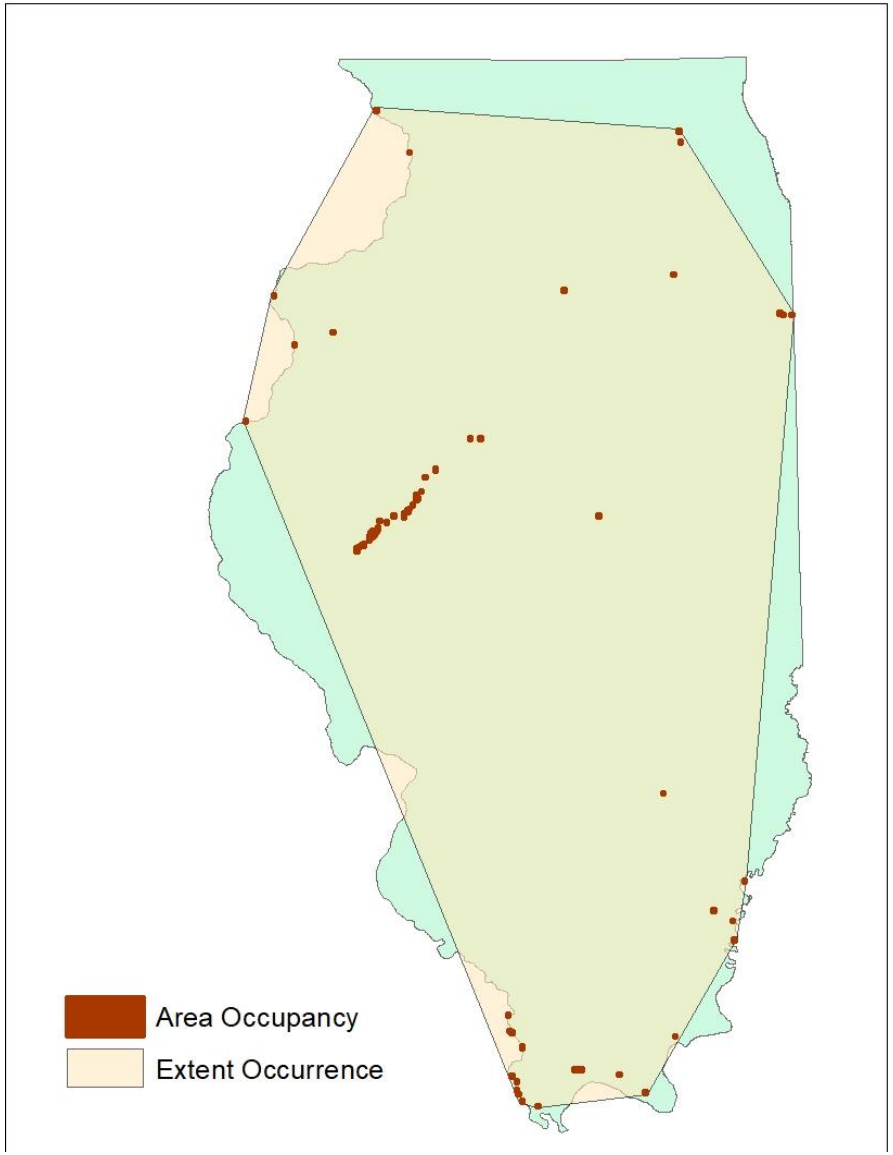
**F (20,000-200,000 km2)**

Area of Occupancy: **76** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **42 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Yellow Perch (*Perca flavescens*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**5 threats/stressors** identified in IWAP 2015: Extent, Composition-structure, Invasives/Exotics, Pollutants-Sediment, Recruitment

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **127,757.9 km2** range extent per minimum convex polygon

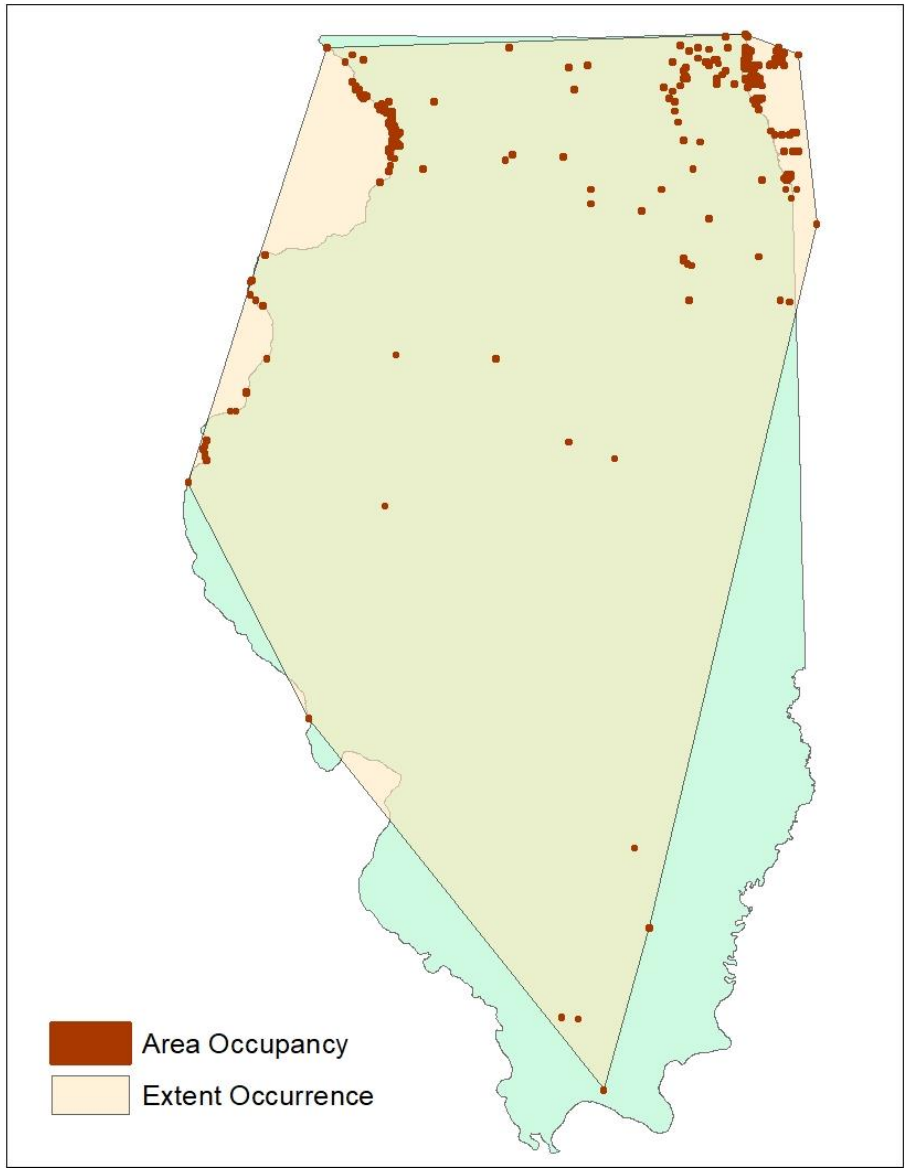
**F (20,000-200,000 km2)**

Area of Occupancy: **282** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **95 EORs** observed 2008 to 2017

**D (81-300 EORs)**



# River Darter (*Percina shumardi*)

## Calculated Rank: **S3?**

### Short-term Trend:

**Increasing 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**5 threats/stressors** identified by IDNR Staff: Habitat Extent, Habitat Composition, Sedimentation, Hydrology, Structures.

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **121,634.27 km2** range extent per minimum convex polygon

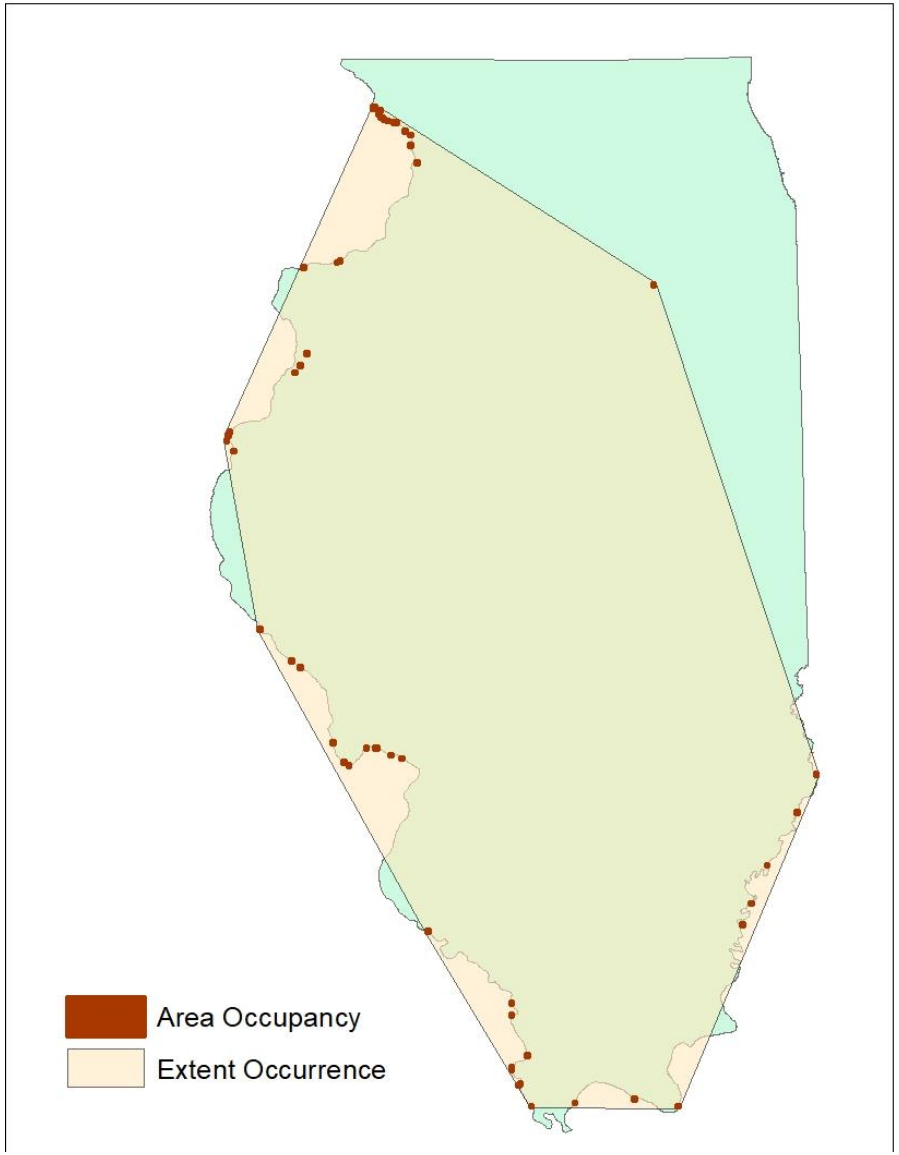
**F (20,000-200,000 km2)**

Area of Occupancy: **52** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **40 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Trout-Perch (*Percopsis omiscomaycus*)

Calculated Rank: **S1**

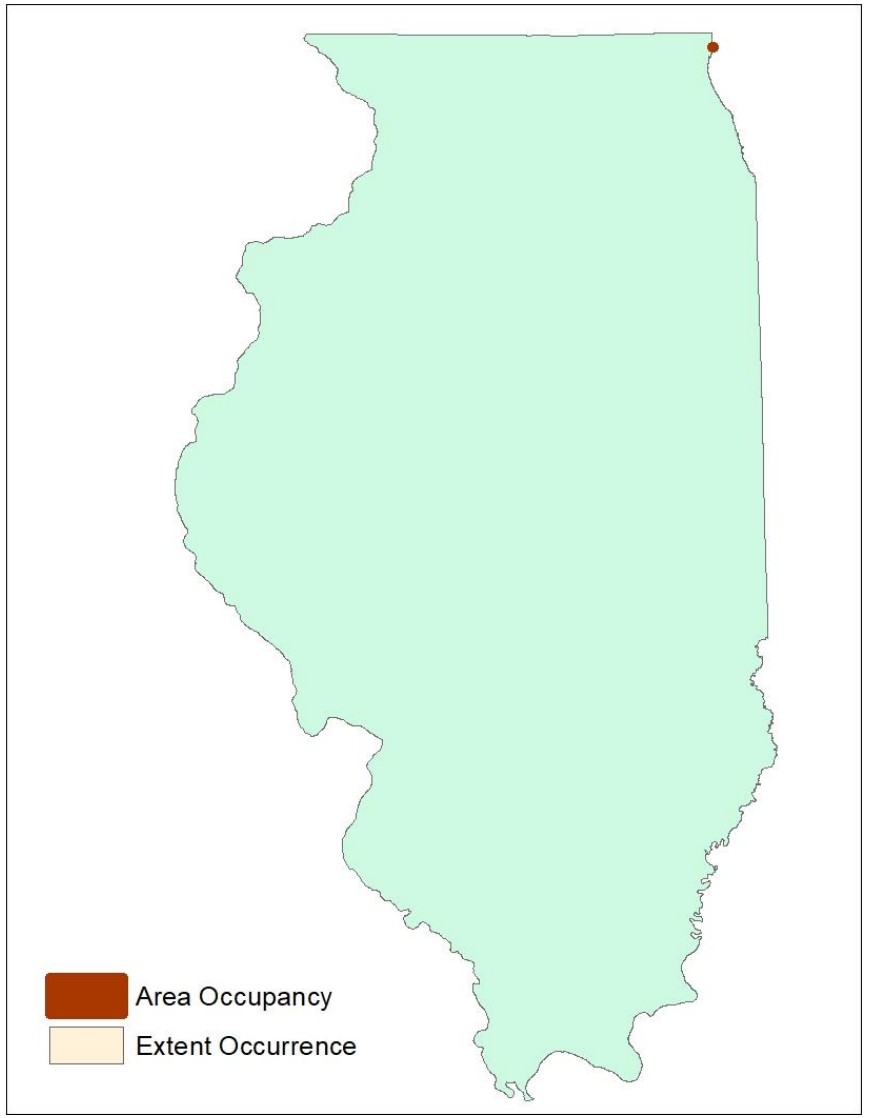
Short-term Trend:
**Declining 50 to 100%** per IWAP 2015
**AD (Decline of >50%)**

Threats:
**1 threat/stressor** identified in IWAP 2015: Composition-structure
**BD (Low-High (1-3))**

Rarity:
Range Extent: **<1 km2** range extent per minimum convex polygon
**A (<100 km2)**

Area of Occupancy: **1** 1-km2 grid cells occupied
**A (1-4 1-km2 grid cells)**

Number of Occurrences: **1 EORs** observed 2008 to 2017
**A (1-5 EORs)**



# Flathead Chub (*Platygobio gracilis*)

Calculated Rank: **SH**

Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

Threats:

**2 threats/stressors** identified by IDNR Staff: Hydrology and Structures.

**BD (Low-High (1-3))**

Rarity:

Range Extent: **No observations in last 10 years**

**U (Unknown)**

Area of Occupancy: **No observations in last 10 years**

**U (Unknown)**

Number of Occurrences: **No observations in last 10 years**

**ZA (0-5 EORs)**

Additional Notes: No species data in IL available, Natureserve SX

# Paddlefish (*Polyodon spathula*)

## Calculated Rank: **S1?**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**4 threats/stressors** identified in IWAP 2015: Fragmentation, Invasives/Exotics, Dispersal, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **9,144 to 28,707 km2** range extent per minimum convex polygon

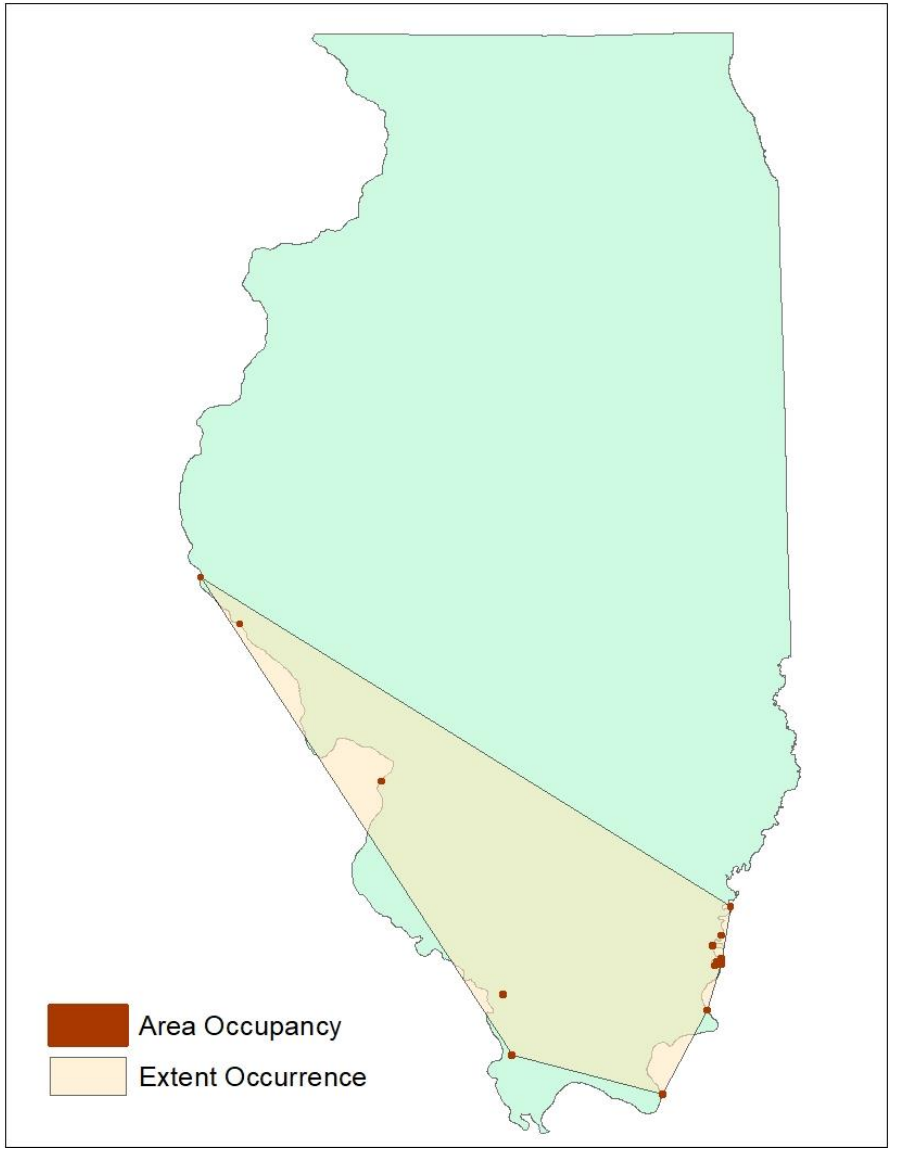
**EF (5,000-200,000 km2)**

Area of Occupancy: **5 to 15** 1-km2 grid cells occupied

**BC (6-20 1-km2 grid cells)**

Number of Occurrences: **5 to 11 EORs** observed 2008 to 2017

**AB (1-20 EORs)**




**Displayed are range maximums

# Round Whitefish (*Prosopium cylindraceum*)

Calculated Rank: **S2**

Short-term Trend:

**Increasing 50 to 100%** per INDR Staff

**I (Increase of >25%)**

Threats:

**Threats/Stressors Unknown**

**U (Unknown)**

Rarity:

Range Extent: **322.9 km2** range extent per minimum convex polygon

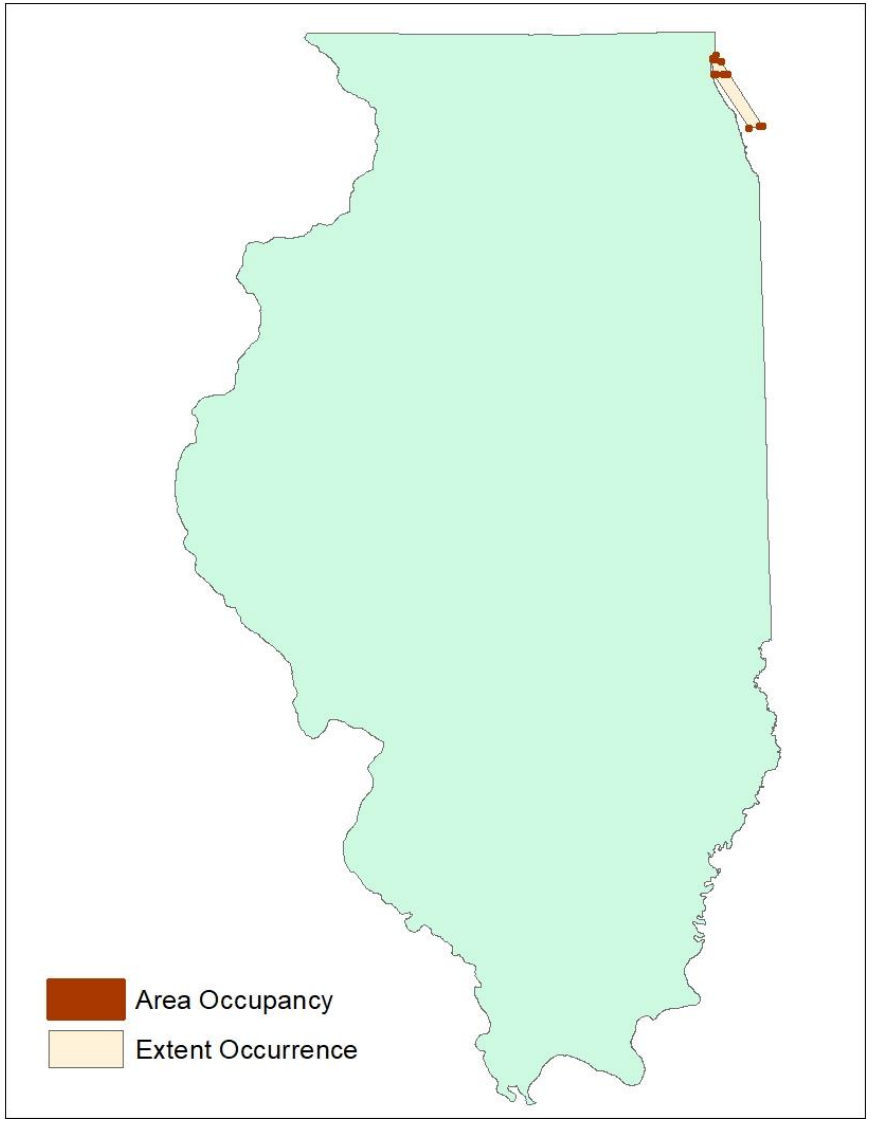
**C (250-1,000 km2)**

Area of Occupancy: **13** 1-km2 grid cells occupied

**C (11-20 1-km2 grid cells)**

Number of Occurrences: **6 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Ninespine Stickleback (*Pungitius pungitius*)

## Calculated Rank: **S1?**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**1 Threat/Stressor** identified by IDNR Staff: Habitat Extent.

**BD (Low-High (1-3))**

### Rarity:

Range Extent: **285.3 km2** range extent per minimum convex polygon

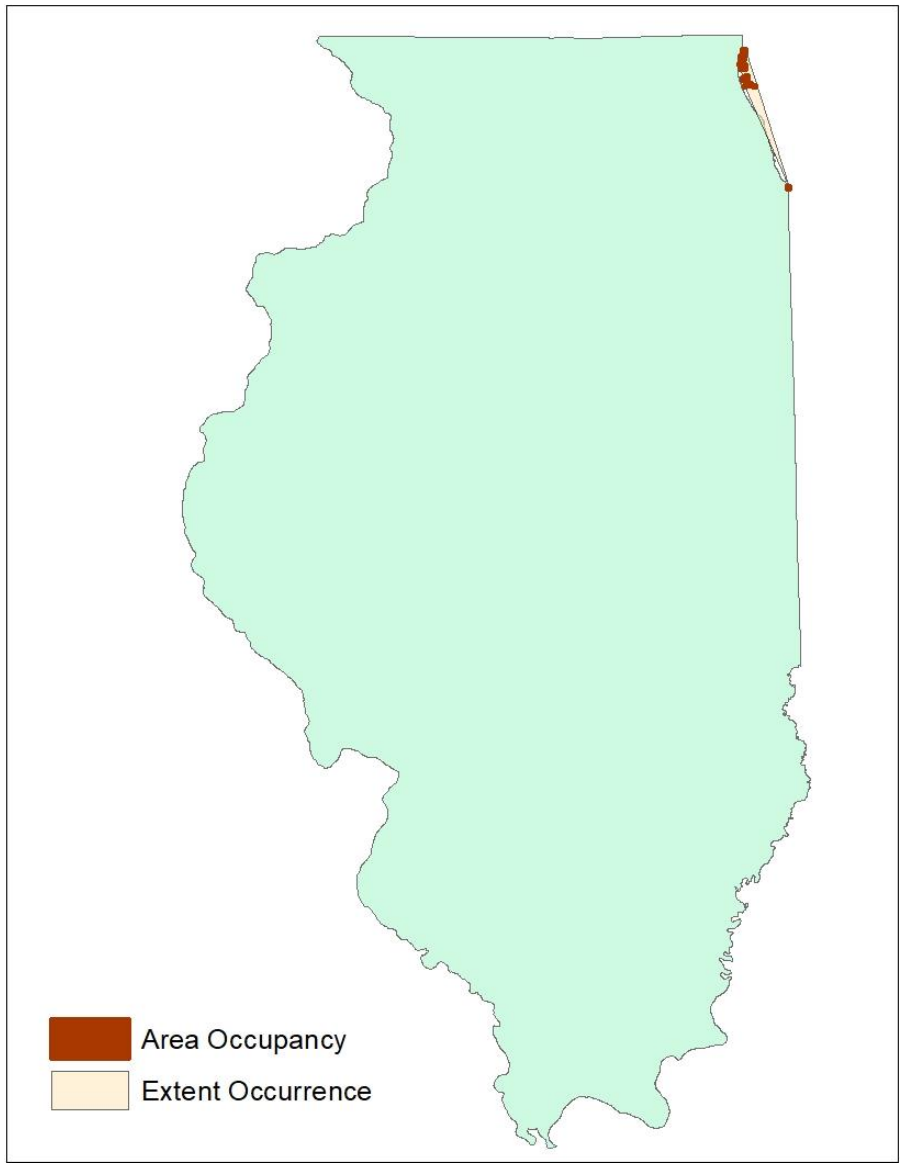
**C (250-1,000 km2)**

Area of Occupancy: **21** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **6 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Longnose Dace (*Rhinichthys cataractae*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Increasing 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**8 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Dispersal, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **10,274.9 km2** range extent per minimum convex polygon

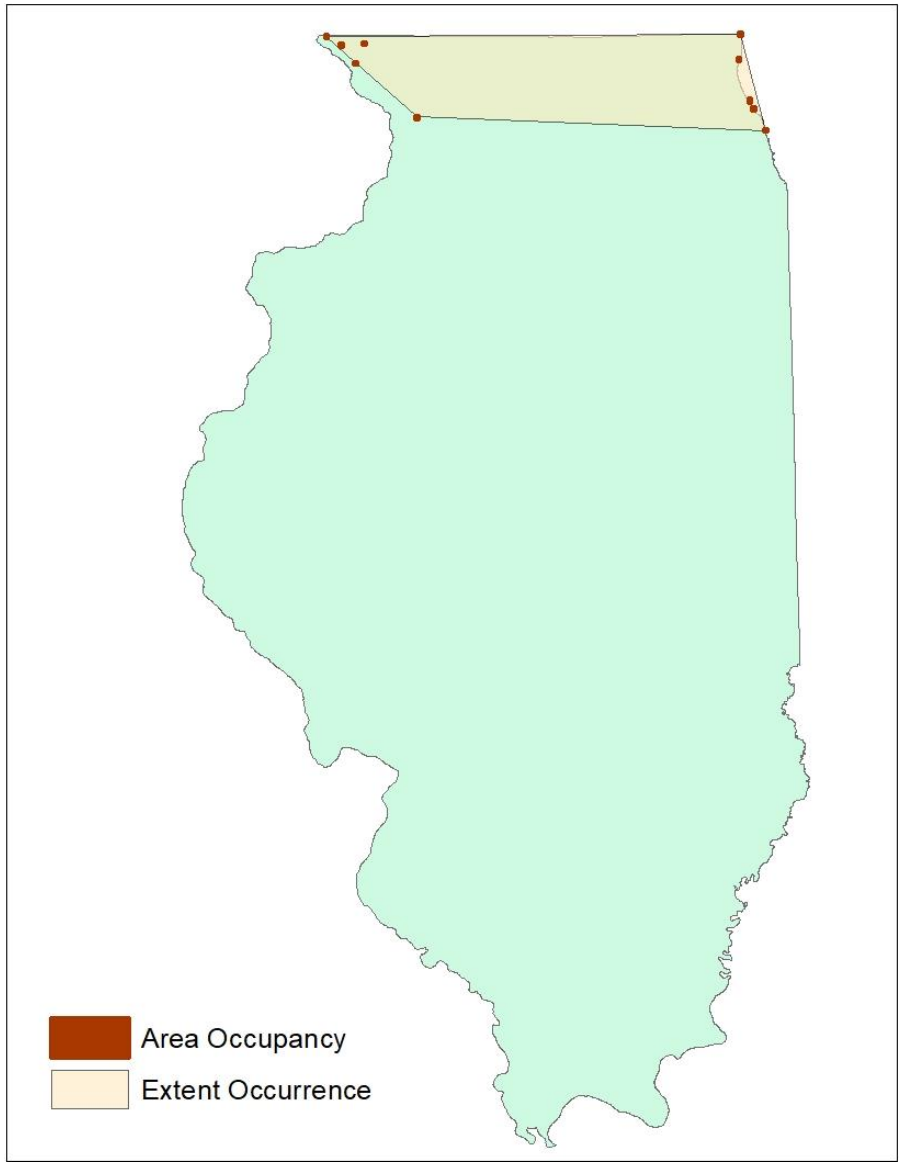
**E (5,000-20,000 km2)**

Area of Occupancy: **11** 1-km2 grid cells occupied

**C (11-20 1-km2 grid cells)**

Number of Occurrences: **10 EORs** observed 2008 to 2017

**B (5-20 EORs)**




Additional Notes: Edge of range- rescue effect

# Brook Trout (*Salvelinus fontinalis*)

Calculated Rank: **SH**

Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

Threats:

**12 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Invasives/Exotics, Pollutants-Sediment, Competitors, Predators, Prey/Food, Genetics, Dispersal, Recruitment, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Rarity:

Range Extent: **No observations in last 10 years**

**U (Unknown)**

Area of Occupancy: **No observations in last 10 years**

**U (Unknown)**

Number of Occurrences: **No observations in last 10 years**

**ZA (0-5 EORs)**

Additional Notes: No species data available for Illinois, Natureserve- exotic SNA?

# Lake Trout (*Salvelinus namaycush*)

## Calculated Rank: **S2?**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**6 threats/stressors** identified in IWAP 2015: Invasives/Exotics, Competitors, Predators, Prey/Food, Recruitment, Mortality

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **1,675 km2** range extent per minimum convex polygon

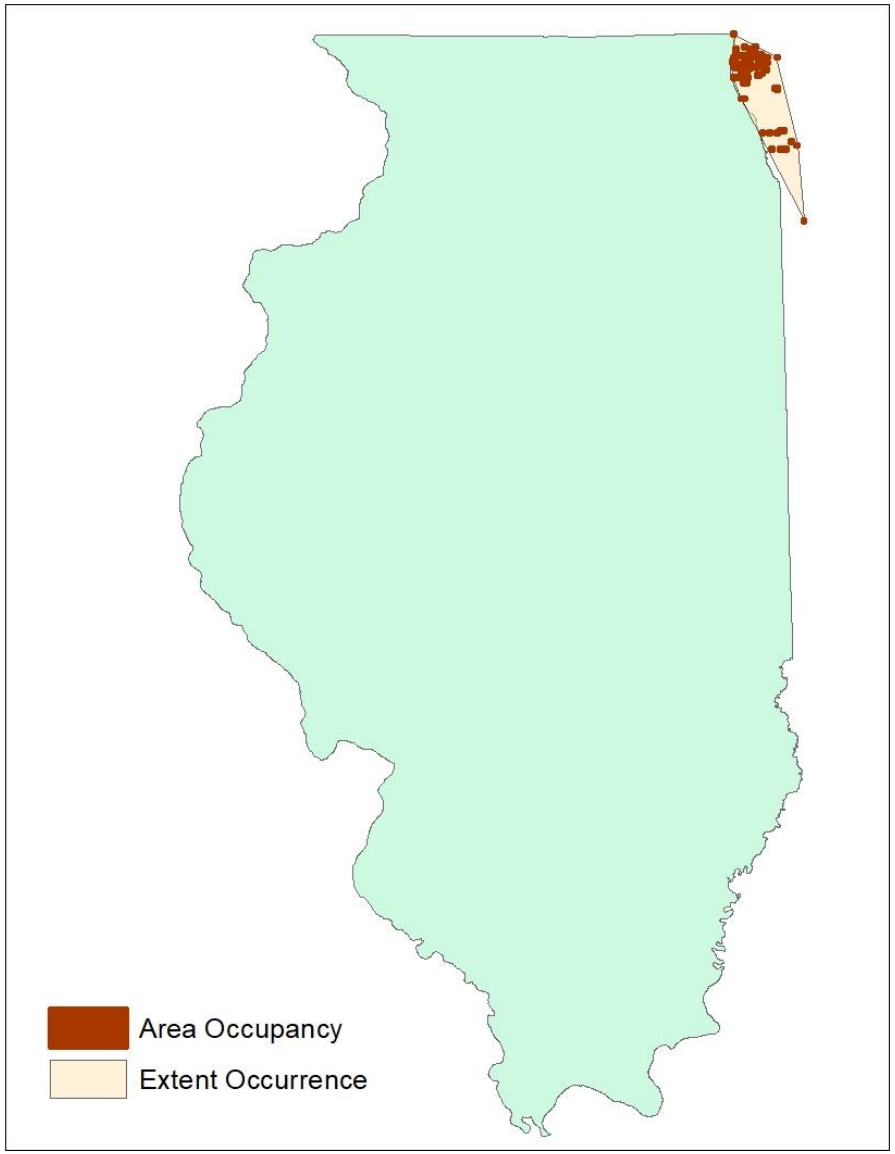
**D (1,000-5,000 km2)**

Area of Occupancy: **94** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **16 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Pallid Sturgeon (*Scaphirhynchus albus*)

## Calculated Rank: **S2?**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**8 threats/stressors** identified in IWAP 2015: Extent, Composition-structure, Distribution/Hydrology, Genetics, Dispersal, Recruitment, Mortality, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **2,158 km2** range extent per minimum convex polygon

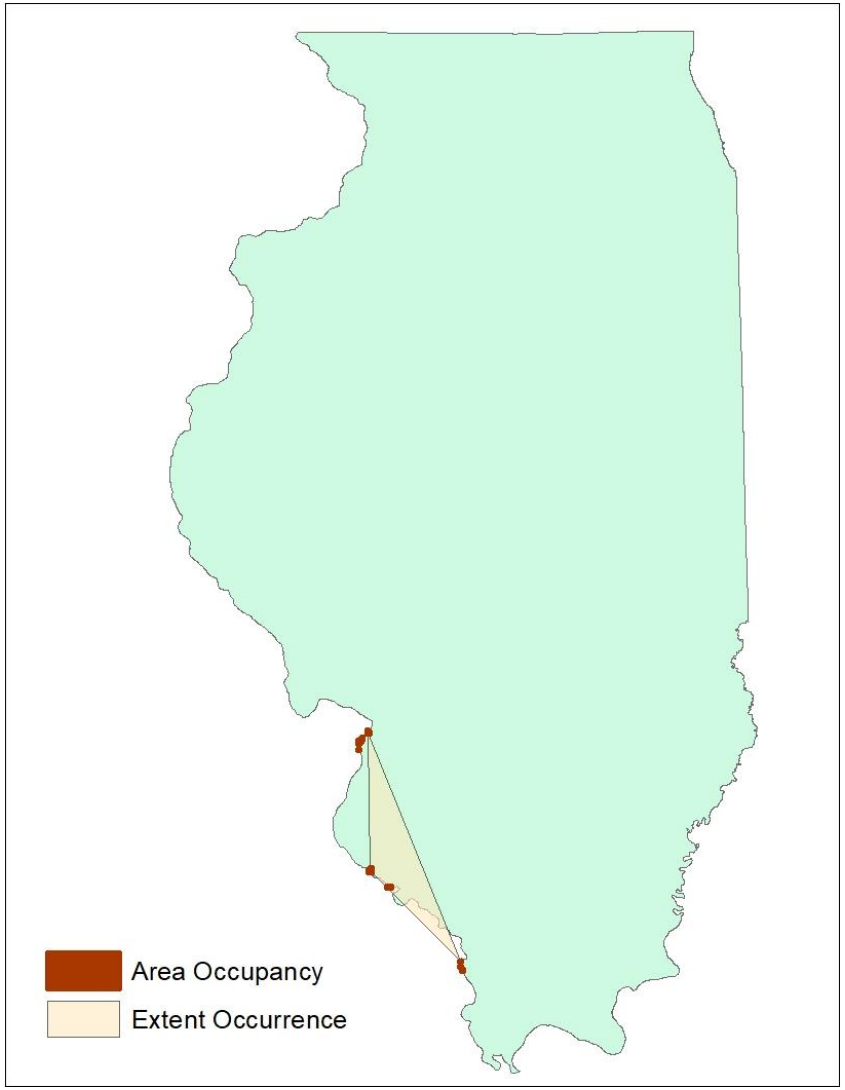
**D (1,000-5,000 km2)**

Area of Occupancy: **21** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **7 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Central Mudminnow (*Umbra limi*)

Calculated Rank: **S3S4**

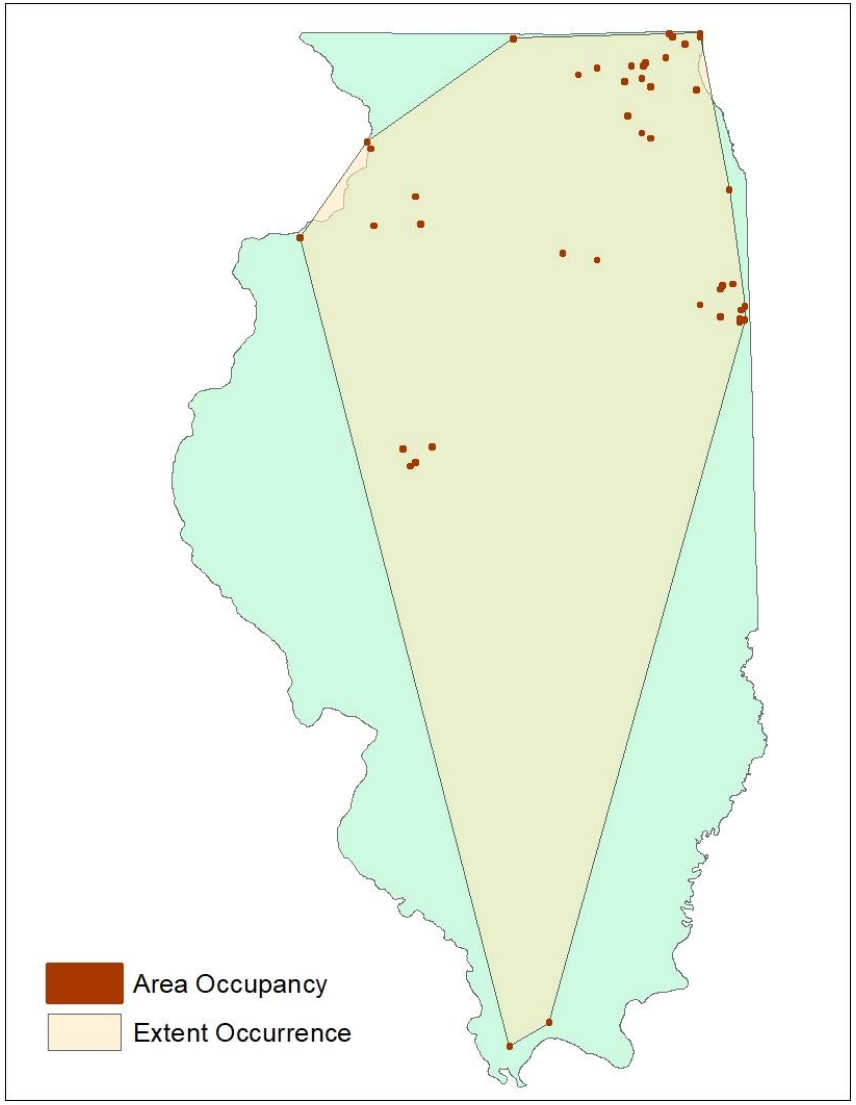
Short-term Trend:
**Increasing 50 to 100%**
per IWAP 2015
**I (Increase of >25%)**

Threats:
**2 threats/stressors** identified in IWAP 2015: Extent, Composition-structure
**BD (Low-High (1-3))**

Rarity:
Range Extent: **90,730.5 km2** range extent per minimum convex polygon
**F (20,000-200,000 km2)**

Area of Occupancy: **44** 1-km2 grid cells occupied
**D (21-100 1-km2 grid cells)**

Number of Occurrences: **39 EORs** observed 2008 to 2017
**C (21-80 EORs)**



# American Bittern (*Botaurus lentiginosus*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**11 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Prey/Food, Recruitment, Mortality, Disturbance, Structures/Infrastructure. Severe threat from invasive species.

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **70,398 km2** range extent per minimum convex polygon

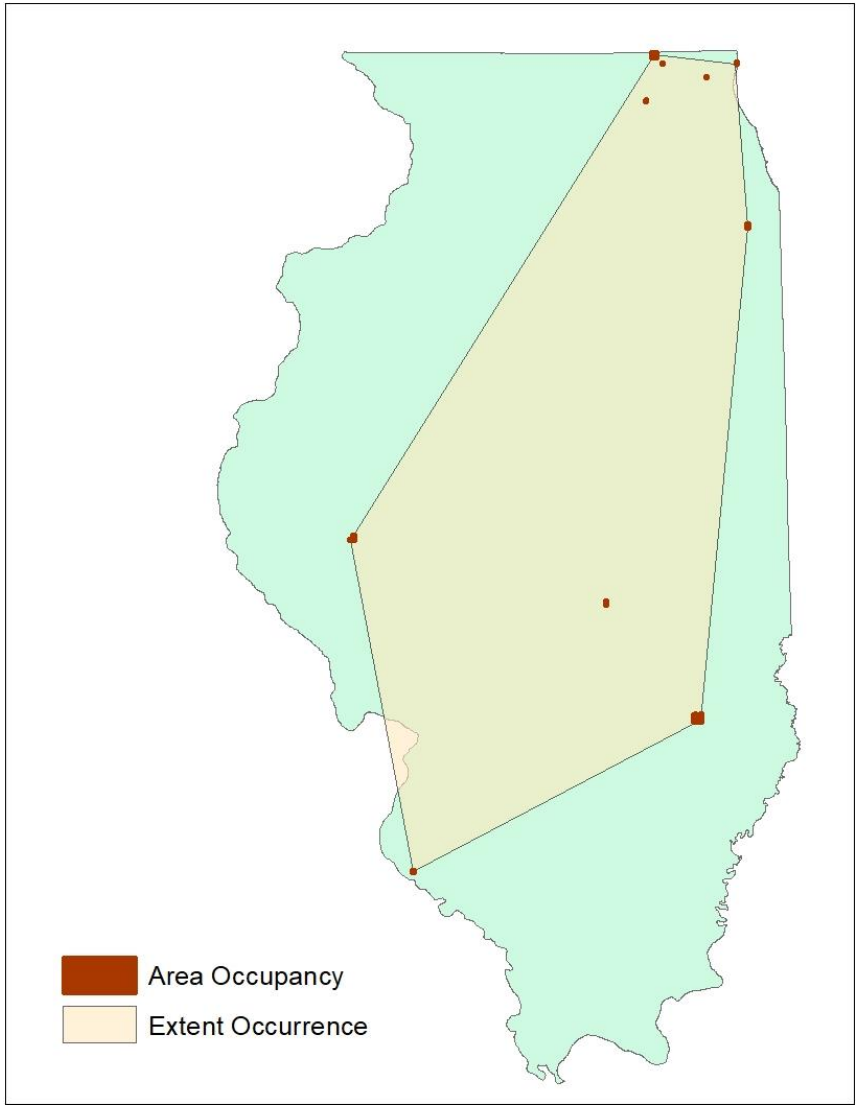
**F (20,000-200,000 km2)**

Area of Occupancy: **18** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **9 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Least Bittern (*Ixobrychus exilis*)

Calculated Rank: **S3S4**

Short-term Trend:

**Increase of 25 to 50%** per IWAP 2015

**I (Increase of >25%)**

Threats:

**10 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Prey/Food, Recruitment, Mortality, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Rarity:

Range Extent: **81,892 km2** range extent per minimum convex polygon

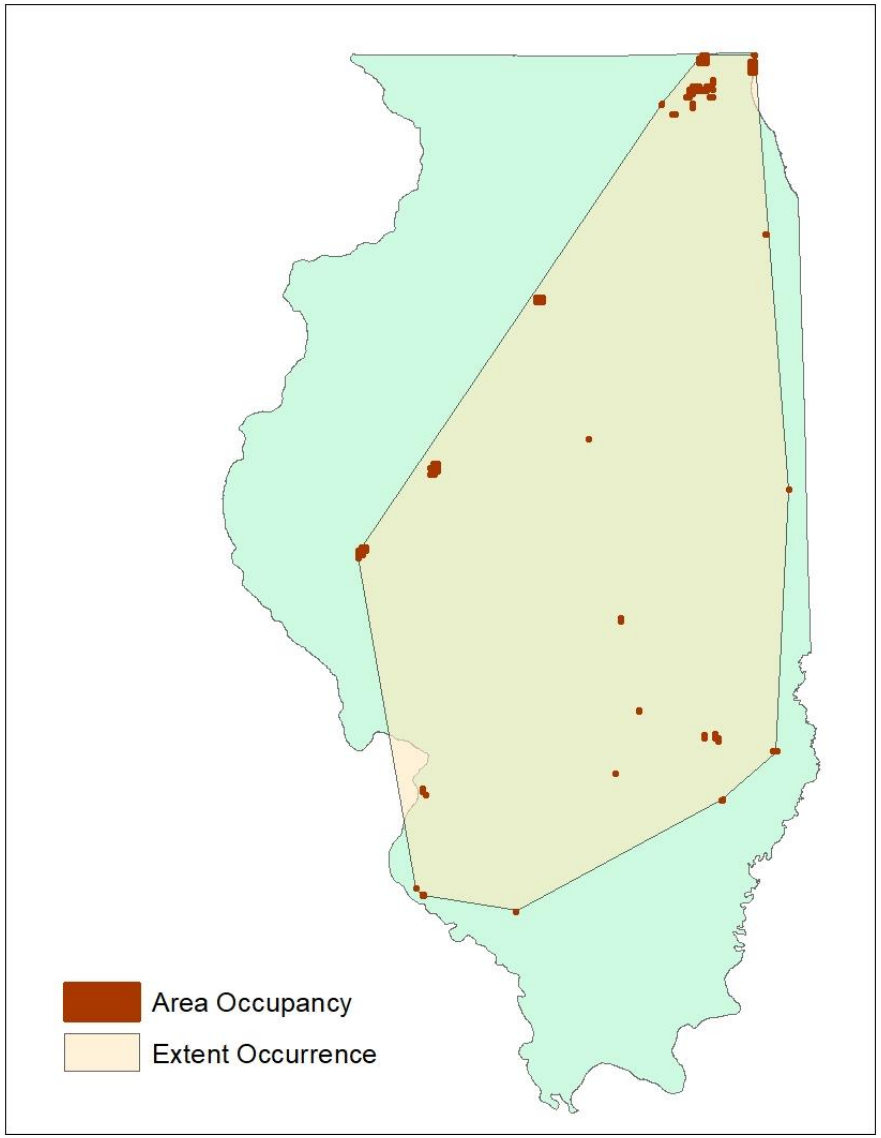
**F (20,000-200,000 km2)**

Area of Occupancy: **60-79** 4-km2 grid cells occupied. Uncertainty due to low accuracy of EOR mapping.

**E (26-125 4-km2 grid cells)**

Number of Occurrences: **22 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Snowy Egret (*Egretta thula*)

Calculated Rank: **SH**

Short-term Trend:
**Stable (-25 to 25%)** per IWAP 2015
**G (Relatively Stable <=10%)**

Threats:
**11 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Prey/Food, Recruitment, Mortality, Disturbance, Structures/Infrastructure
**AC (Medium-Very High (>4))**

Rarity:
Range Extent: **No species data in the last ten years**
**ZA (Zero to <100 km2)**

Area of Occupancy: **No species data in the last ten years**
**ZA (Zero to 1 4-km2 grid cells)**

Number of Occurrences:
**No species data in the last ten years**
**ZA (0-5 EORs)**

# Little Blue Heron (*Egretta caerulea*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Increase of 25 to 50%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**11 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Prey/Food, Recruitment, Mortality, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **11 km2** range extent per minimum convex polygon

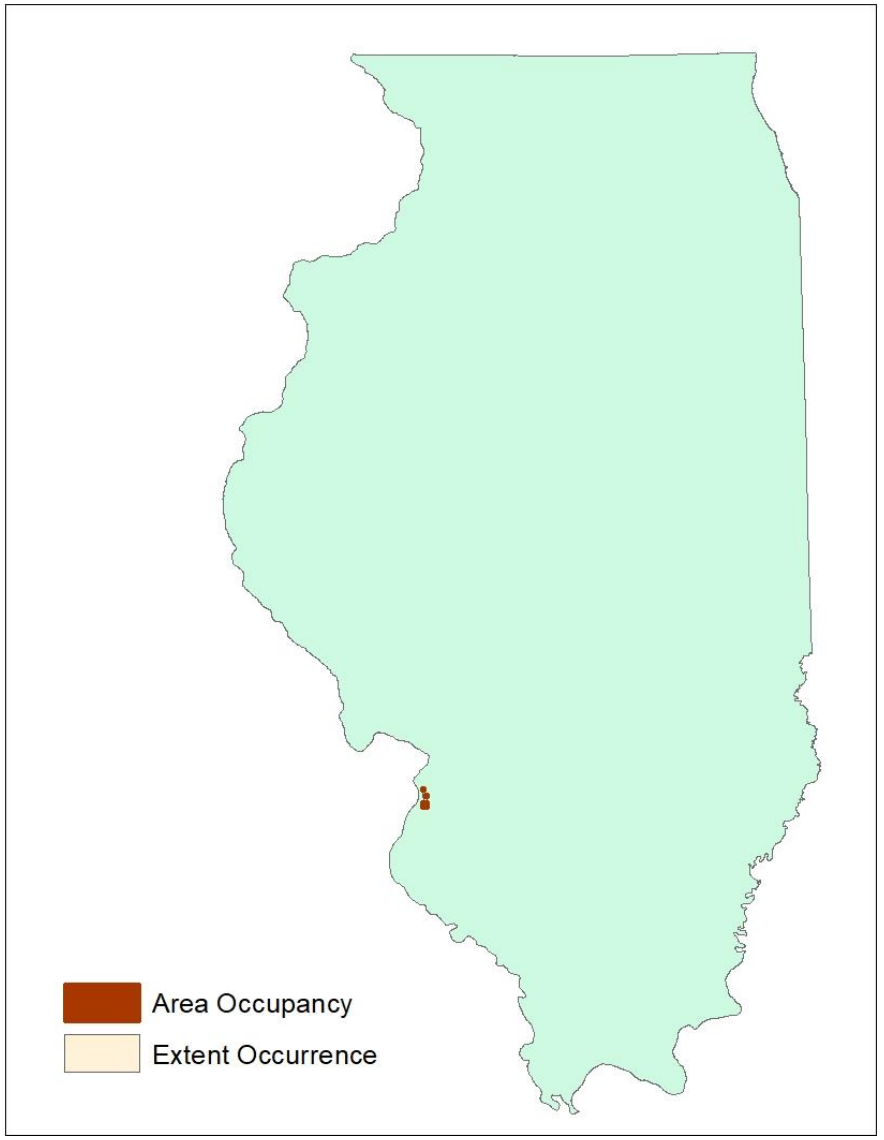
**A (<100 km2)**

Area of Occupancy: **3** 4-km2 grid cells occupied

**C (3-5 4-km2 grid cells)**

Number of Occurrences: **2 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Black-crowned Night-Heron (*Nycticorax nycticorax*)

## Calculated Rank: **S2?**

## Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

## Threats:

**10 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Prey/Food, Recruitment, Mortality, Structures/Infrastructure. Severe threat from invasive species.

**AC (Medium-Very High (>4))**

## Rarity:

Range Extent: **79,117 km2** range extent per minimum convex polygon

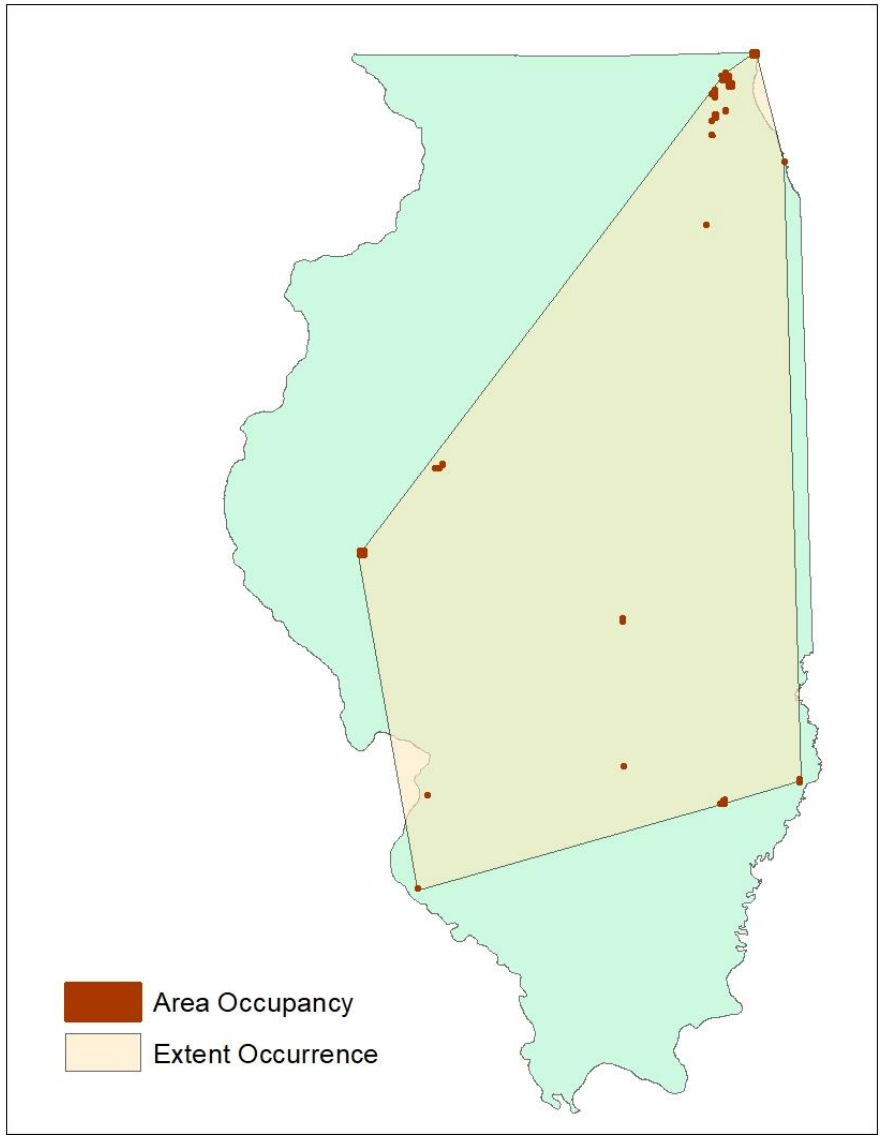
**F (20,000-200,000 km2)**

Area of Occupancy: **29-39** 4-km2 grid cells occupied. Uncertainty due to low accuracy of EOR mapping.

**E (26-125 4-km2 grid cells)**

Number of Occurrences: 1**9 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Yellow-crowned Night-Heron (*Nyctanassa violacea*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**11 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Prey/Food, Recruitment, Mortality, Disturbance, Structures/Infrastructure. Severe threat from invasive species.

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **70,398 km2** range extent per minimum convex polygon

**F (20,000-200,000 km2)**

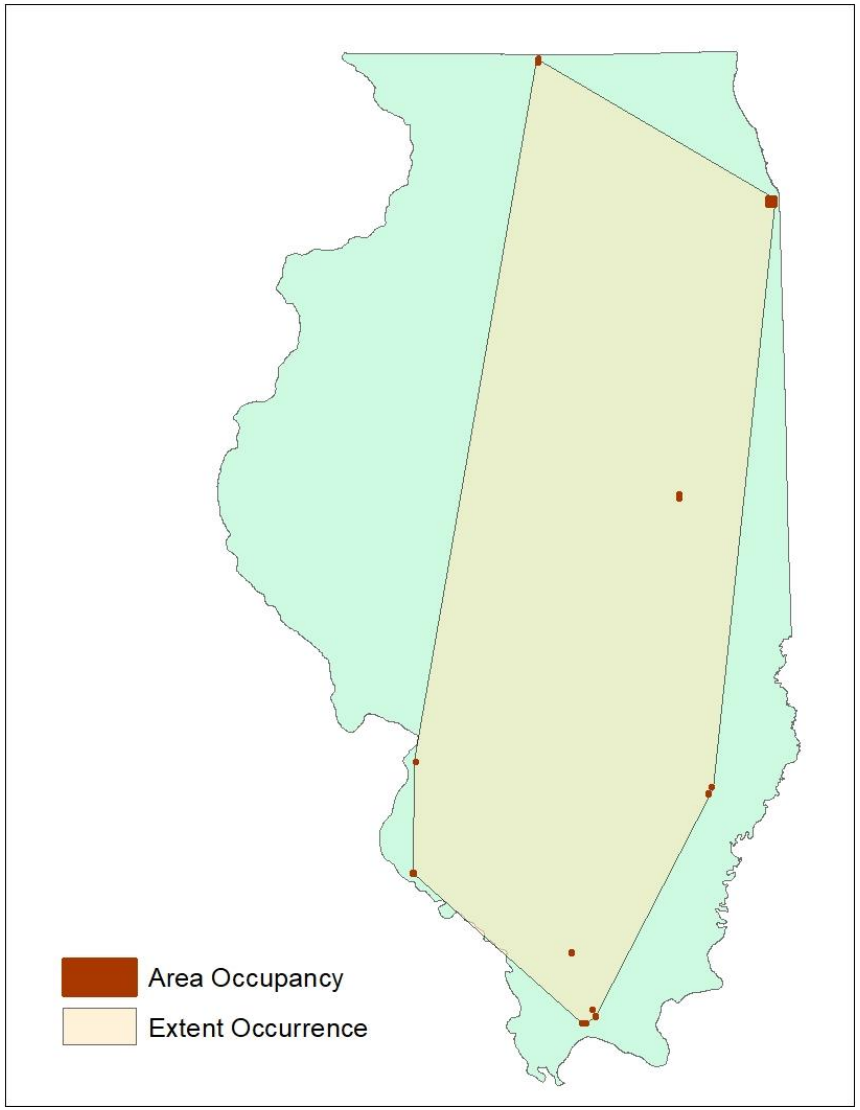
Area of Occupancy: **18** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **9 EORs** observed 2008 to 2017

**B (6-20 EORs)**

Additional Notes: Likely more EORs possible in far south counties.



# Osprey (*Pandion haliaetus*)

## Calculated Rank: **S3S4**

### Short-term Trend:

**Increase of 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**10 threats/stressors** identified in IWAP 2015: Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Parasites/Disease, Recruitment, Mortality, Disturbance, Structures/Infrastructure

**BD (Low-High (>4))**

Additional Notes: Main threat of DDT is now less than very high.

### Rarity:

Range Extent: **87,338 km2** range extent per minimum convex polygon

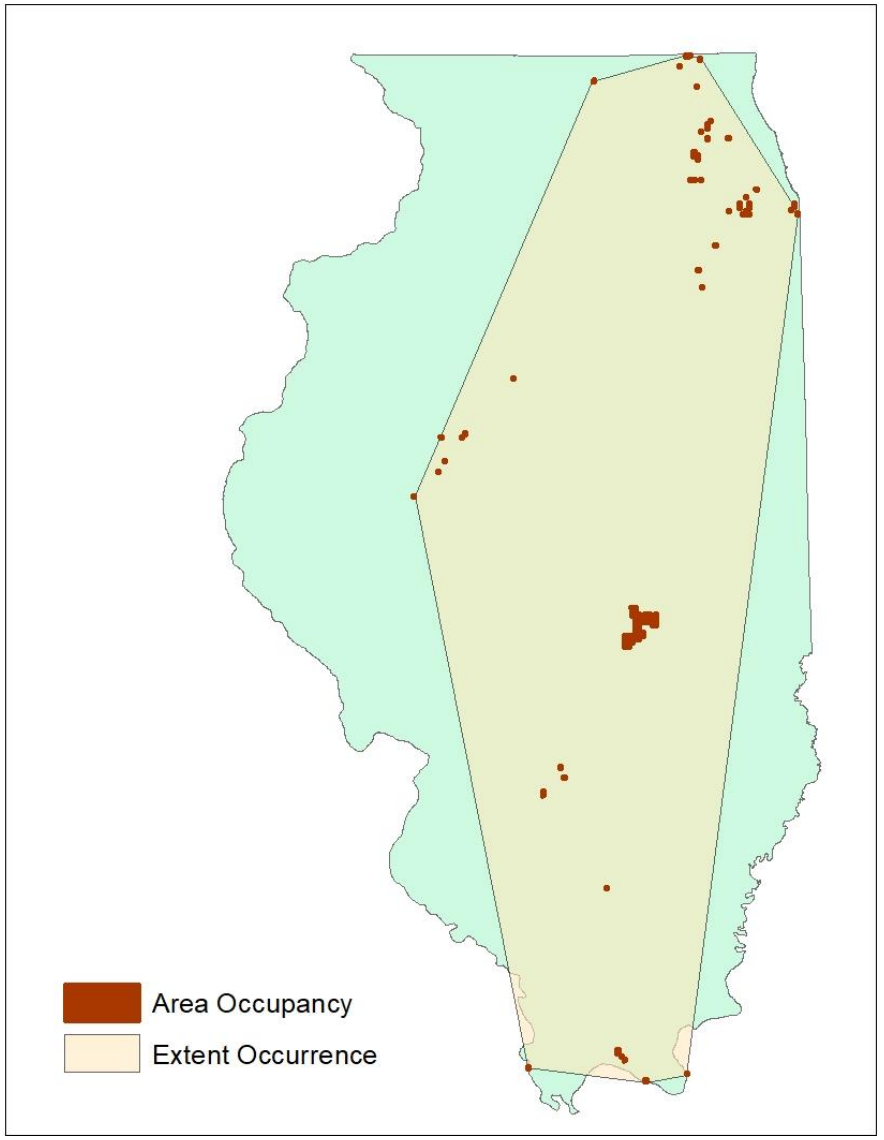
**F (20,000-200,000 km2)**

Area of Occupancy: **105** 4-km2 grid cells occupied

**E (26-125 4-km2 grid cells)**

Number of Occurrences: **59 EORs** observed 2008 to 2017 as a nest/breeding pair, **9 EORs** using 20km separation distance.

**BC (6-80 EORs)**



# Mississippi Kite (*Ictinia mississippiensis*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Increase of 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**10 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Prey/Food, Recruitment, Mortality, Structures/Infrastructure.

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **33,049 km2** range extent per minimum convex polygon

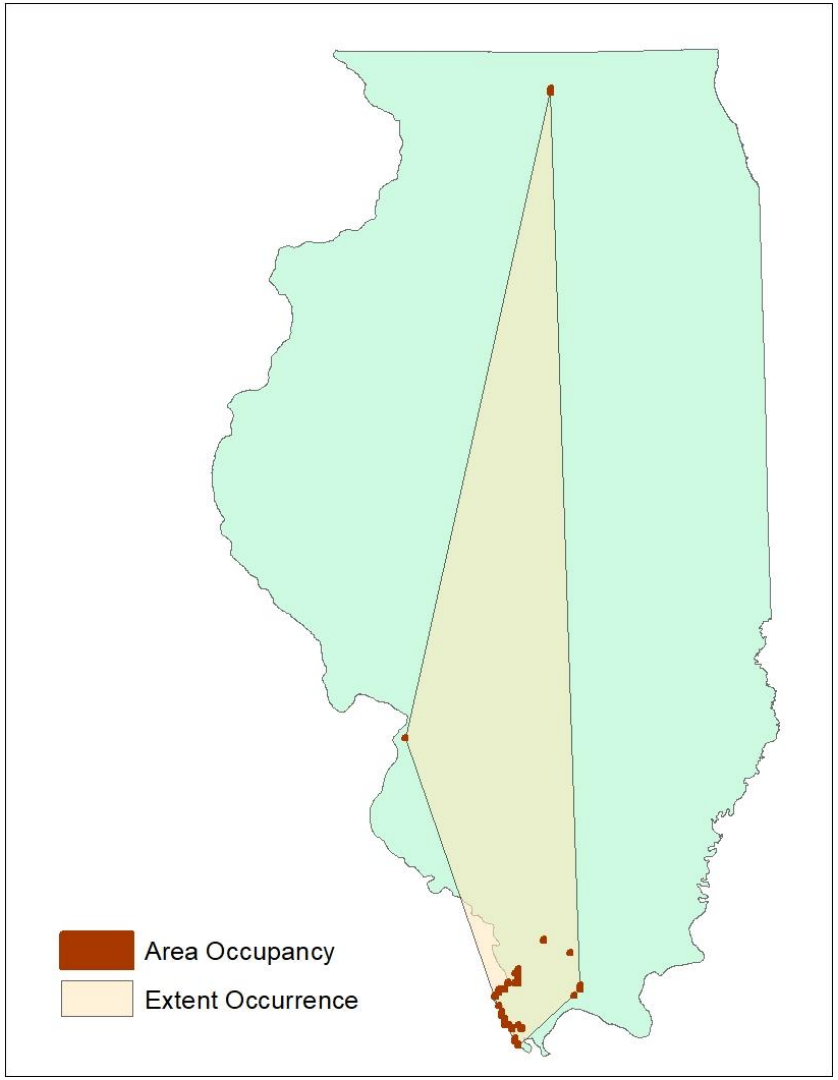
**F (20,000-200,000 km2)**

Area of Occupancy: **33** 4-km2 grid cells occupied

**E (26-125 4-km2 grid cells)**

Number of Occurrences: **7 EORs** observed 2008 to 2017

**B (6-20 EORs)**




Additional Notes: Number of occurrences with good viability is C (Few (4-12) occurrences with excellent or good viability). Range Extent distorted due to highly disparate pairs in Rockford.

# Northern Harrier **breeding** (*Circus cyaneus*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Increase of 25 to 50%** per IWAP 2015

**GH (Relatively stable to increase of <25%)**

### Threats:

**10 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Predators, Prey/Food, Recruitment, Mortality, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **21,465 to 46,948 km2** range extent per minimum convex polygon. Uncertainty due to unknown location use class of some records.

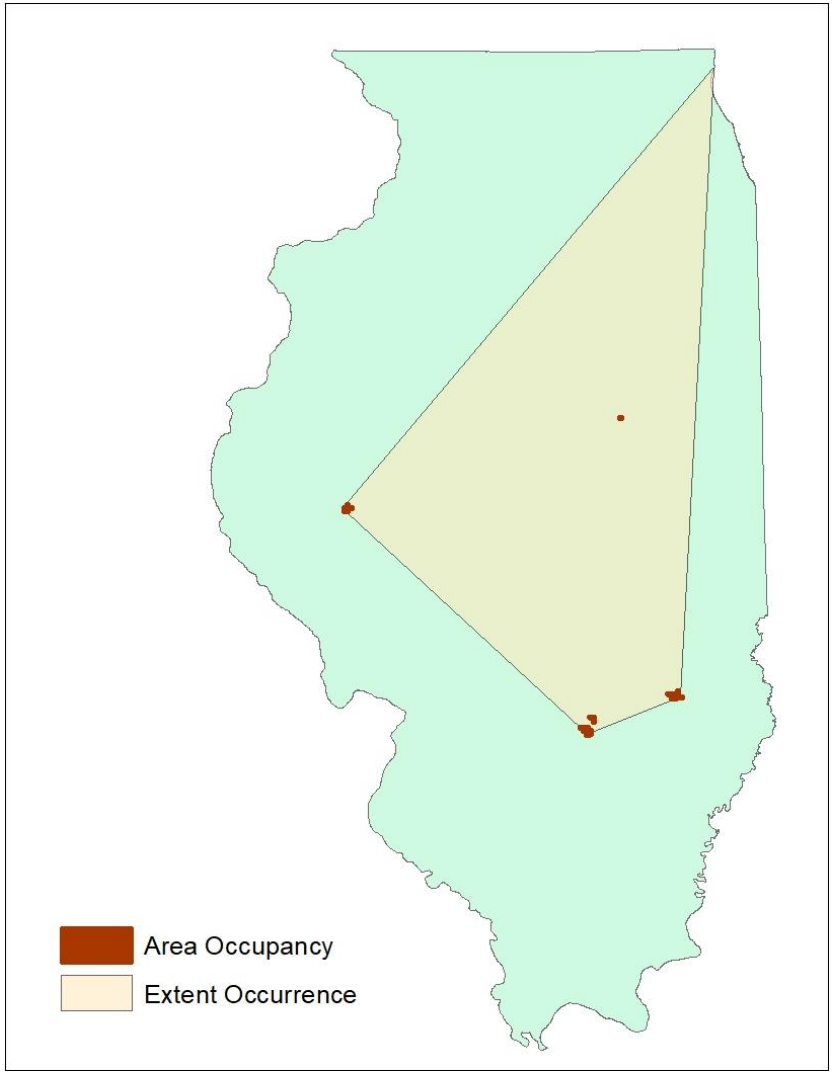
**F (20,000-200,000 km2)**

Area of Occupancy: **17 to 28** 4-km2 grid cells occupied. Uncertainty due to low accuracy of EOR mapping.

**DE (6-125 4-km2 grid cells)**

Number of Occurrences: **4 to 5 EORs** observed 2008 to 2017

**A (1-5 EORs)**




Additional Notes: Trend due to only one improved site.

# Northern Harrier **wintering** (Circus cyaneus)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Increase of 25 to 50%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**10 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Predators, Prey/Food, Recruitment, Mortality, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **46,009 km2** range extent per minimum convex polygon

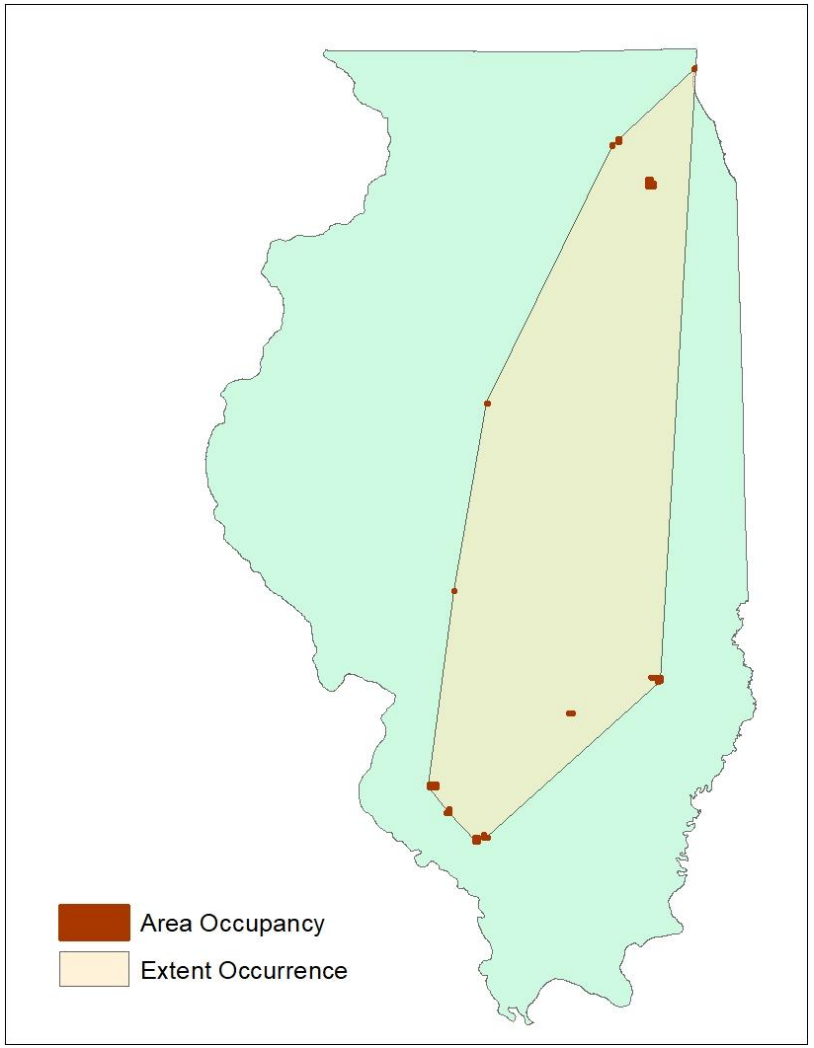
**F (20,000-200,000 km2)**

Area of Occupancy: **23 to 38** 4-km2 grid cells occupied. Uncertainty due to low accuracy of EOR mapping.

**DE (6-125 4-km2 grid cells)**

Number of Occurrences: **10 to 11 EORs** observed 2008 to 2017

**B (6-20 EORs)**




Additional Notes: Number of Viable Occurrences is C (Few (4-12) occurrences with excellent or good viability. Very small numbers represented in north and south Range Extent.

# Swainson's Hawk (*Buteo swainsoni*)

## Calculated Rank: **SH**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**12 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Prey/Food, Dispersal, Recruitment, Mortality, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **0.5 km2** range extent per minimum convex polygon

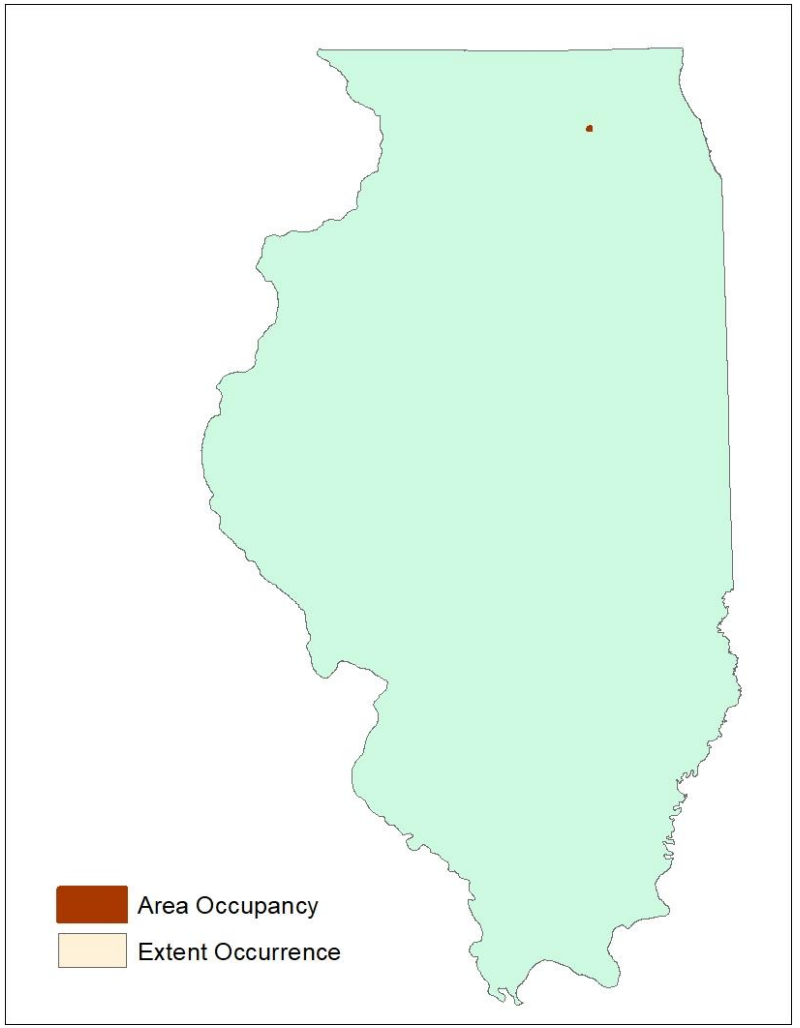
**A (<100 km2)**

Area of Occupancy: **1** 4-km2 grid cells occupied

**A (1 4-km2 grid cells)**

Number of Occurrences: **1 EORs** observed 2008 to 2017

**A (1-5 EORs)**




Additional Notes: Number of Viable Occurrences is A (No occurrences with excellent or good (A or B) viability). Most of nesting pairs in Kane/McHenry now missing. Small woodlots where they previously nested now developments.

# Greater Prairie-Chicken (*Tympanuchus cupido*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**16 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Predators, Parasites/Disease, Prey/Food, Hosts, Invasive/Exotics, Other Symbionts, Dispersal, Recruitment, Mortality, Killing, Structures/Infrastructure. Severe threat from invasive species.

**A (Very High (>4))**

### Rarity:

Range Extent: **422 km2** range extent per minimum convex polygon

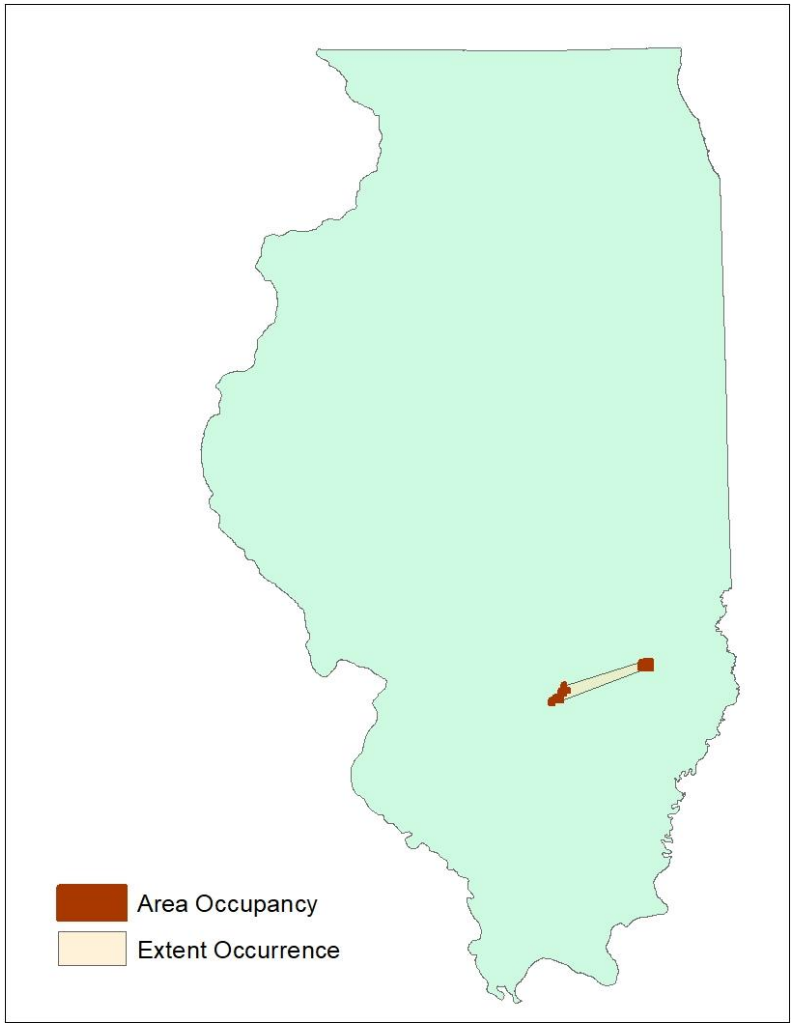
**C (250-1,000 km2)**

Area of Occupancy: **22** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **2 breeding and 2 booming EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Black Rail (*Laterallus jamaicensis*)

Calculated Rank: **S1**

Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

Threats:

**12 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Prey/Food, Genetics, Dispersal, Recruitment, Mortality, Structures/Infrastructure. Severe threat from invasive species.

**AC (Medium-Very High (>4))**

Rarity:

Range Extent: **34 km2** range extent per minimum convex polygon

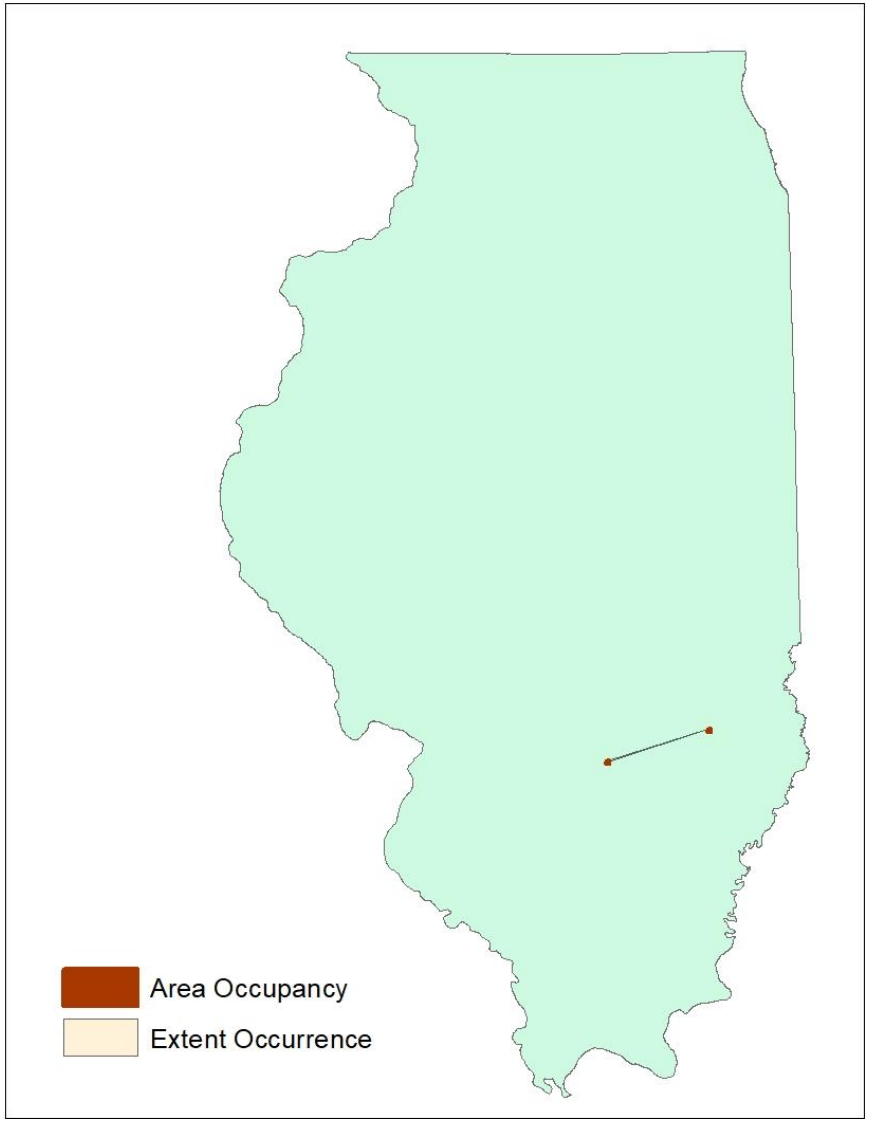
**A (<100 km2)**

Area of Occupancy: **2** 4-km2 grid cells occupied

**B (2 4-km2 grid cells)**

Number of Occurrences: **2 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# King Rail (*Rallus elegans*)

## Calculated Rank: **S2**

Additional Notes: Number of Viable Occurrences is C (Few (4-12) occurrences with excellent or good viability.

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**12 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Predators, Prey/Food, Dispersal, Recruitment, Mortality, Structures/Infrastructure. Severe threat from invasive species.

**A (Very High (>4))**

### Rarity:

Range Extent: **48,309 km2** range extent per minimum convex polygon

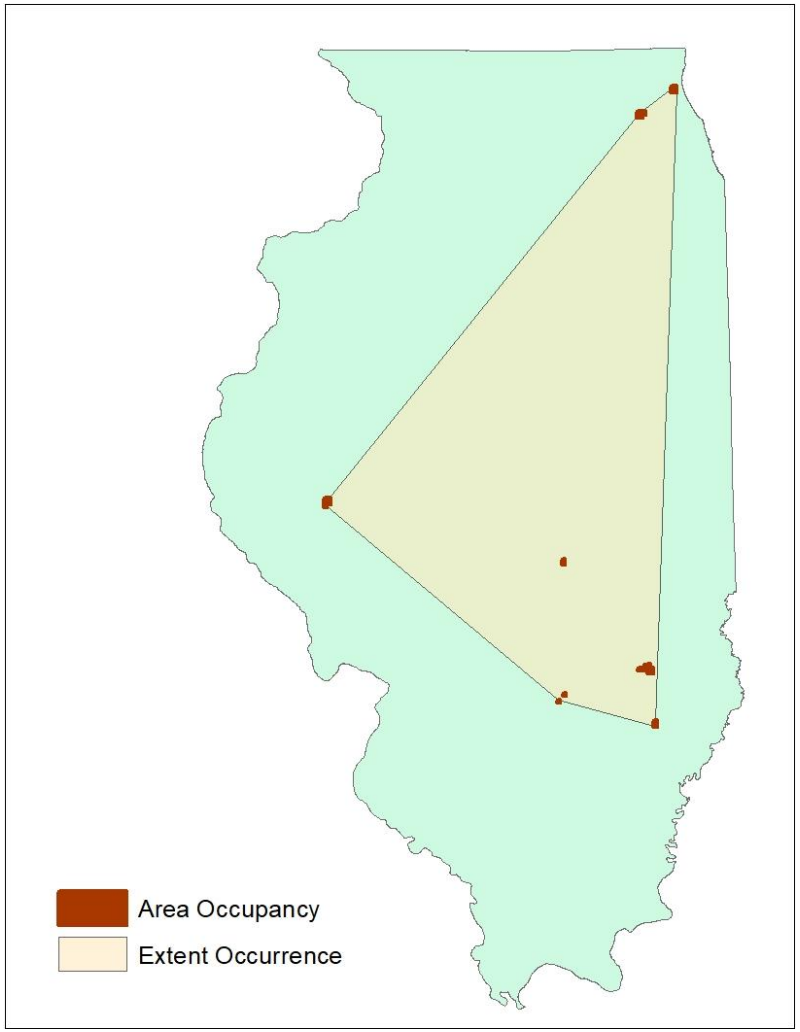
**F (20,000-200,000 km2)**

Area of Occupancy: **20 to 28** 4-km2 grid cells occupied. Uncertainty due to low accuracy of EOR mapping.

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **7** **EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Common Gallinule (*Gallinula galeata*)

## Calculated Rank: **S2**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**10 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Predators, Prey/Food, Recruitment, Structures/Infrastructure

**A (Very High (>4))**

### Rarity:

Range Extent: **83,113 km2** range extent per minimum convex polygon

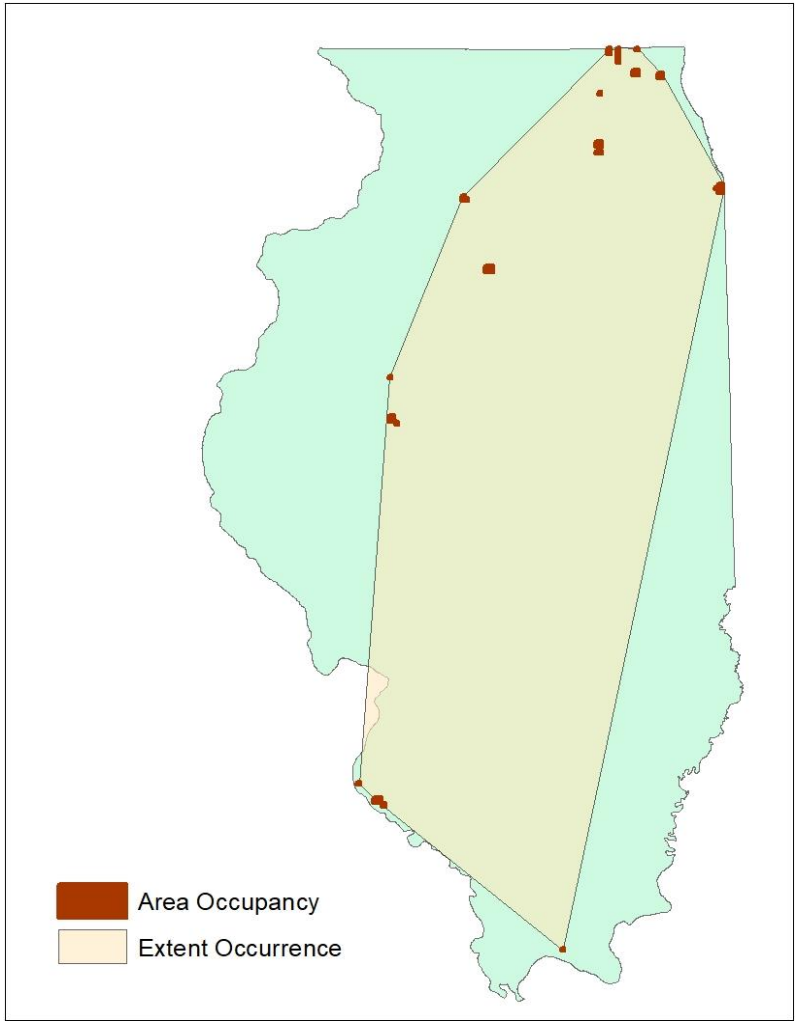
**F (20,000-200,000 km2)**

Area of Occupancy: **35 to 49** 4-km2 grid cells occupied. Uncertainty due to low accuracy of EOR mapping.

**E (26-125 4-km2 grid cells)**

Number of Occurrences: **16 EORs** observed 2008 to 2017

**B (6-20 EORs)**




Additional Notes: Number of Viable Occurrences, B (Very few (1-3) occurrences with excellent or good viability). Species is disappearing from many former nesting sites; lack of successful breeding pairs and sites. Suitable wetland habitat is ephemeral and declining in number and suitability.

# Piping Plover (*Charadrius melodus*)

## Calculated Rank: **S1**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**14 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Competitors, Predators, Prey/Food, Genetics, Dispersal, Recruitment, Mortality, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **0.5 km2** range extent per minimum convex polygon

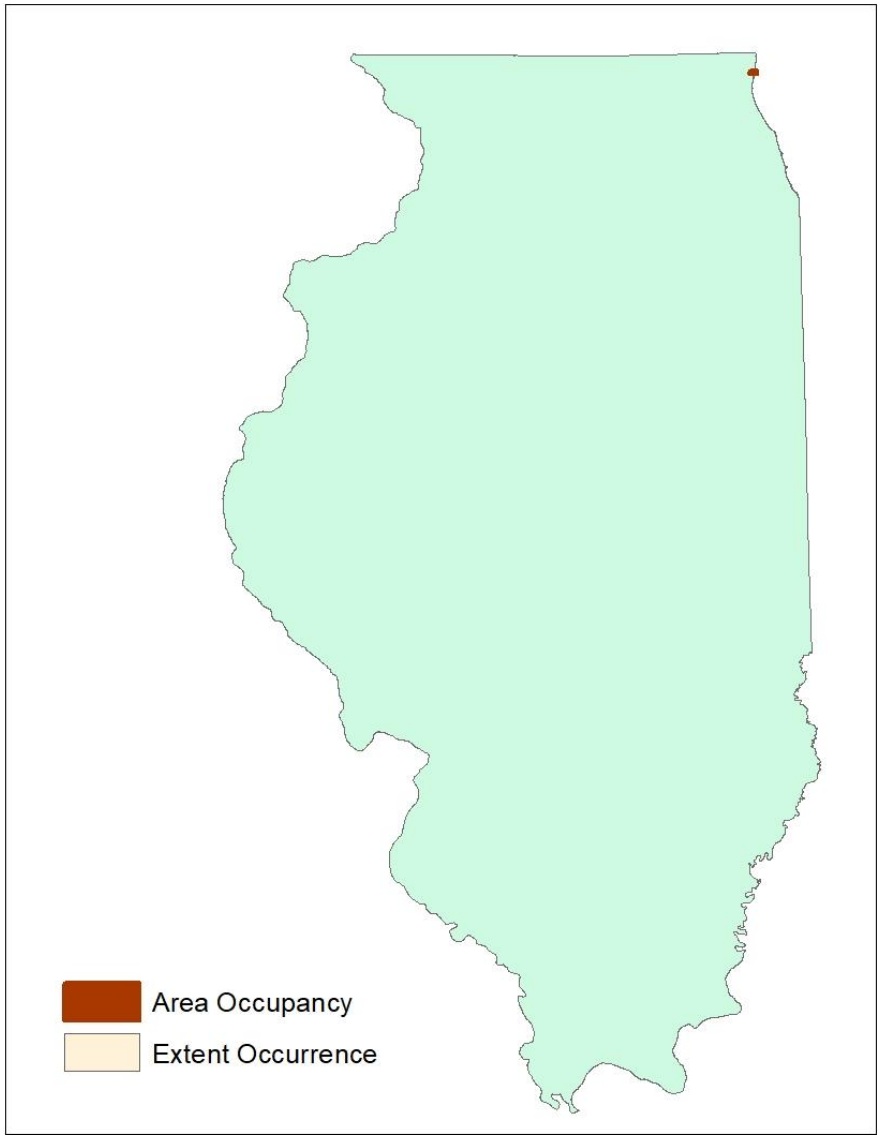
**A (<100 km2)**

Area of Occupancy: **2** 4-km2 grid cells occupied

**B (2 4-km2 grid cells)**

Number of Occurrences: **1 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Upland Sandpiper (*Bartramia longicauda*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**10 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Parasites/Disease, Recruitment, Mortality, Structures/Infrastructure. Severe threat from invasive species.

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **72,407 km2** range extent per minimum convex polygon

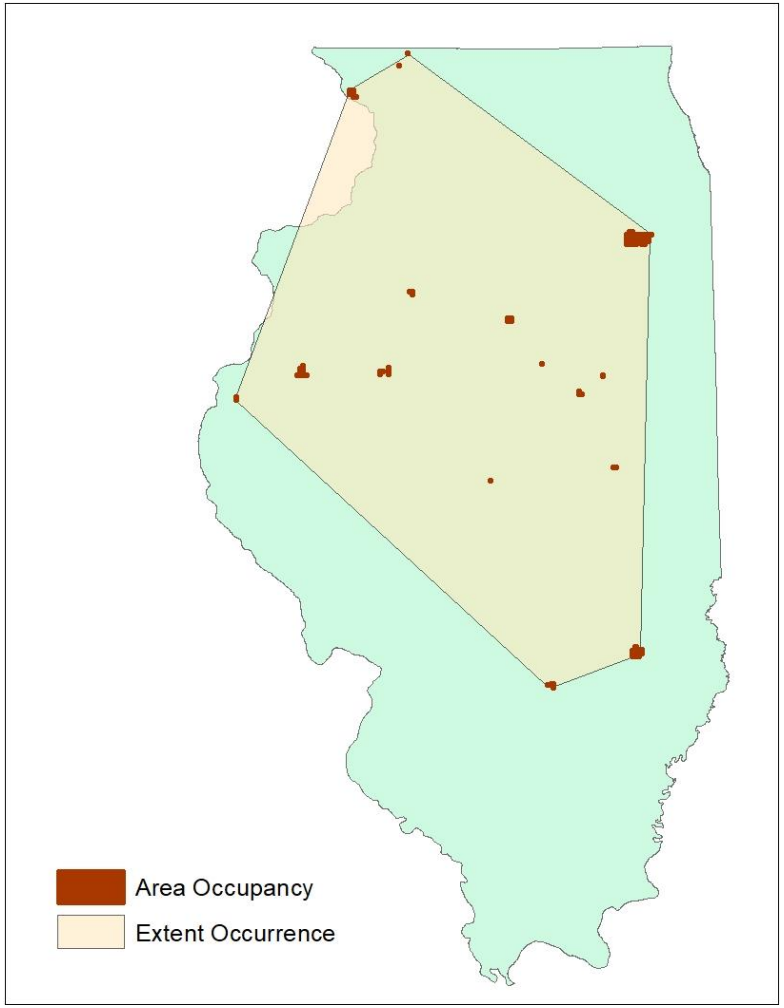
**F (20,000-200,000 km2)**

Area of Occupancy: **60 to 83** 4-km2 grid cells occupied. Uncertainty due to low accuracy of EOR mapping.

**E (26-125 4-km2 grid cells)**

Number of Occurrences: **16 EORs** observed 2008 to 2017

**B (6-20 EORs)**




Additional Notes: Number of Viable Occurrences, C (Few (4-12) occurrences with excellent or good viability. Species no longer nesting in many historic nesting sites in northern part of state. Increasing short term trend in IWAP 2015 may have been due to CRP and other farm programs that have since become unavailable.

# Rufa Red Knot (*Calidris canutus rufa*)

Calculated Rank: **SX**

Short-term Trend:
**Declining 50 to 100%** per IWAP 2015
**AD (Decline of >50%)**

Threats:
**6 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Disturbance, Structures/Infrastructure
**AC (Medium-Very High (>4))**

Rarity:
Range Extent: **No records in Illinois in last 10 years**
**ZA (Zero to <100 sq km)**

Area of Occupancy: **No records in Illinois in last 10 years**
**ZA (Zero to 1 4-km2 grid cells)**

Number of Occurrences: **No records in Illinois in last 10 years**
**ZA (0-5 EORs)**

Additional Notes: In IWAP scientific name is *Calidris canutus* and common name is red knot

# Wilson's Phalarope (*Phalaropus tricolor*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Increase of 25 to 50%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**9 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Recruitment, Mortality, Structures/Infrastructure. Severe threat from invasive species.

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **17,400 km2** range extent per minimum convex polygon

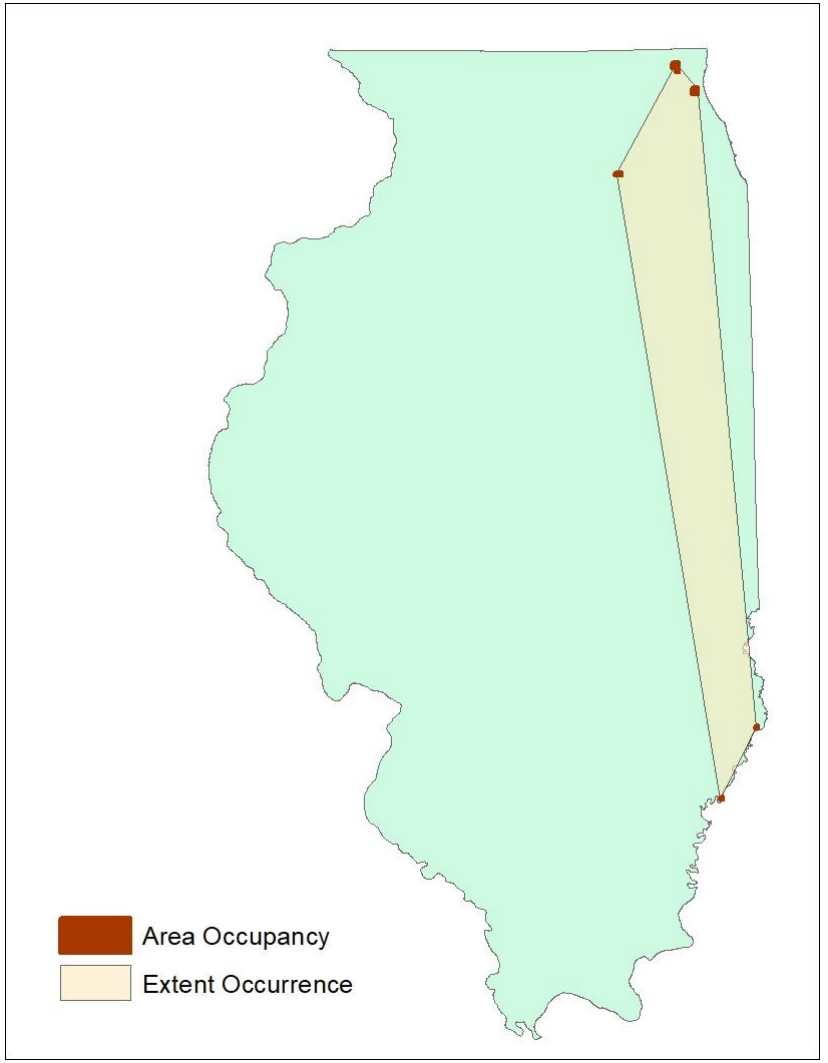
**E (5,000-20,000 km2)**

Area of Occupancy: **13** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **5 EORs** observed 2008 to 2017

**A (1-5 EORs)**




Additional Notes: Few nests that appear at irregular intervals; no consistent breeding population. Number of Viable Occurrences, B (Very few (1-3) occurrences with excellent or good viability).

# Common Tern (*Sterna hirundo*)

Calculated Rank: **S1**

Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

Threats:

**13 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Competitors, Predators, Prey/Food, Recruitment, Mortality, Disturbance, Structures/Infrastructure. Severe threat from invasive species

**AC (Medium-Very High (>4))**

Rarity:

Range Extent: **4 km2** range extent per minimum convex polygon

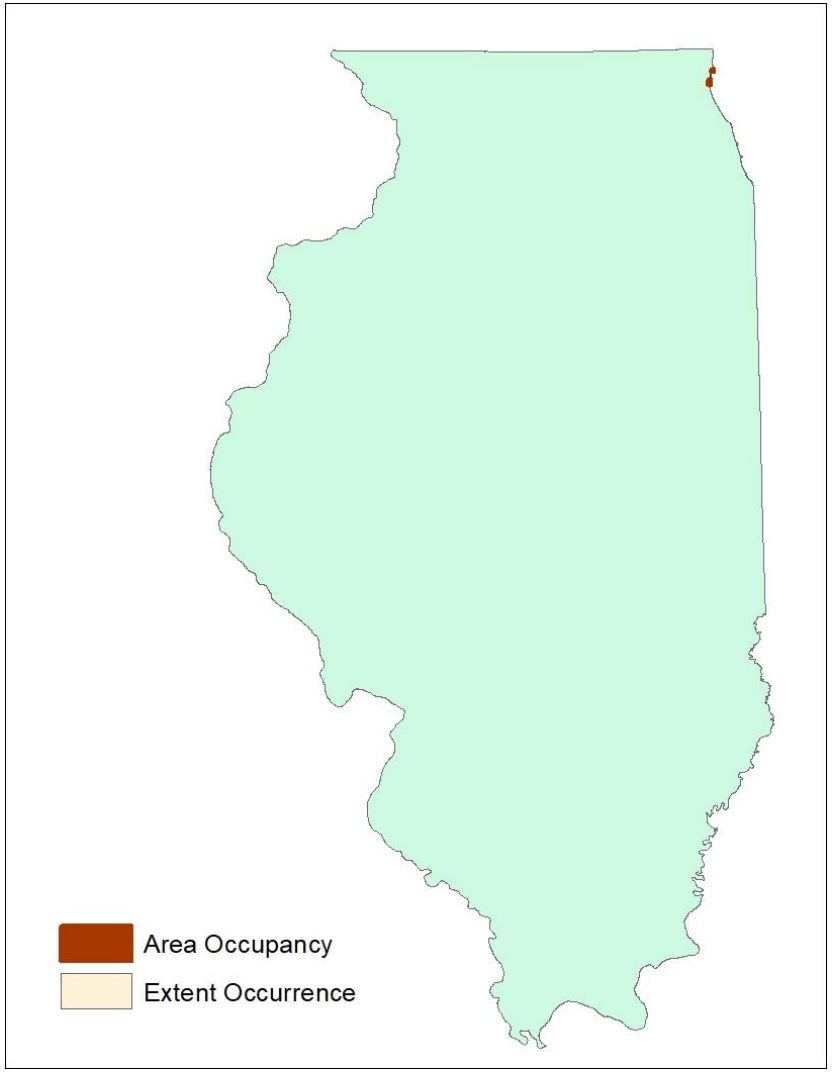
**A (<100 km2)**

Area of Occupancy: **2** 4-km2 grid cells occupied

**B (2 4-km2 grid cells)**

Number of Occurrences: **2 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Forster's Tern (*Sterna forsteri*)

## Calculated Rank: **S1**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**12 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Predators, Prey/Food, Recruitment, Mortality, Disturbance, Structures/Infrastructure. Severe threat from invasive species

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **15 km2** range extent per minimum convex polygon

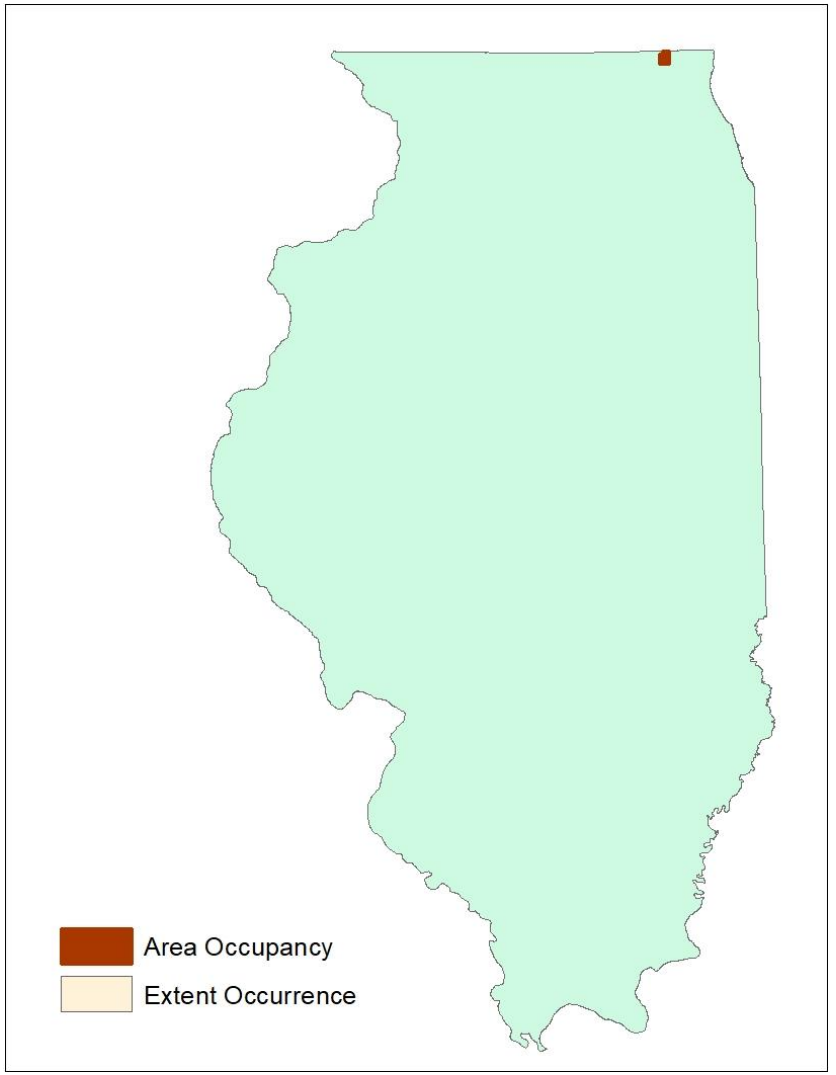
**A (<100 km2)**

Area of Occupancy: **7 or fewer** 4-km2 grid cells occupied. Uncertainty due to low EOR mapping accuracy

**AD (1-25 4-km2 grid cells)**

Number of Occurrences: **1 EORs** observed 2008 to 2017

**A (1-5 EORs)**




Additional Notes: Number of Viable Occurrences is A (No occurrences with excellent or good (A or B) viability). Only one colony and it has experienced reproductive failure over past 10 years.

# Least Tern (*Sternula antillarum*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**13 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Predators, Prey/Food, Genetics, Dispersal, Recruitment, Mortality, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **3,921 km2** range extent per minimum convex polygon

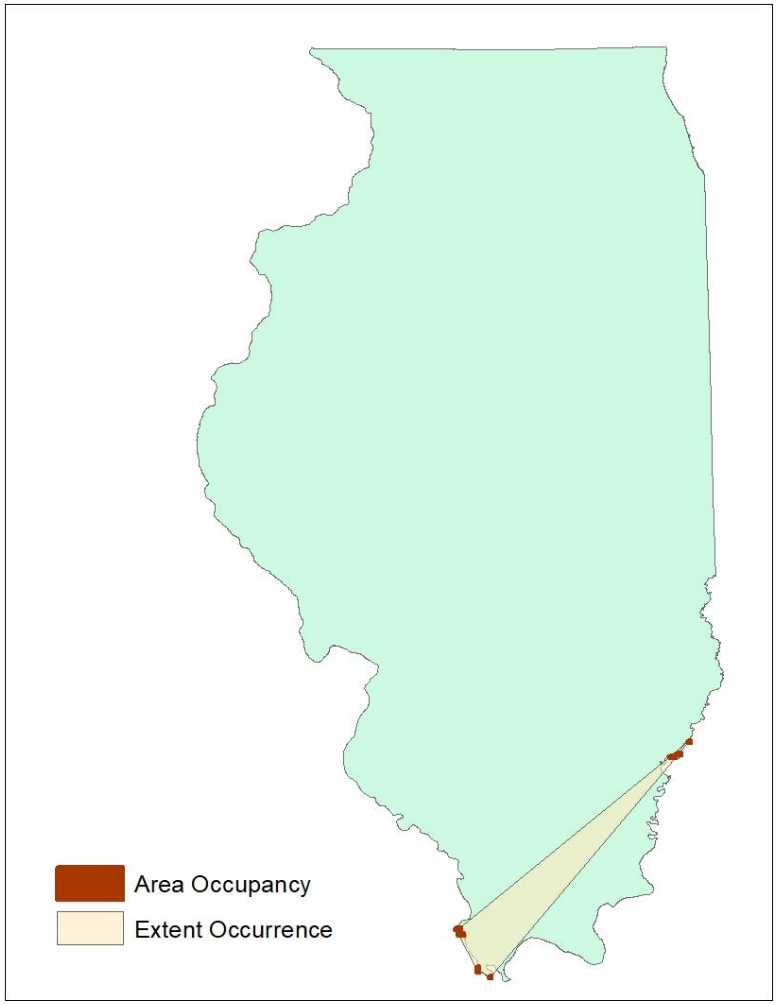
**D (1,000-5,000 km2)**

Area of Occupancy: **8 to 12** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **6 EORs** observed 2008 to 2017

**B (6-20 EORs)**




Additional Notes: Number of Viable Occurrences, B (Very few (1-3) occurrences with excellent or good viability. Trend due to success of single colony nesting on barges set out for the terns. Natural nesting sites of sand islands highly susceptible to flooding and predators with little yearly success. Dependent mostly on immigration outside of Illinois.

# Black Tern (*Chlidonias niger*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**11 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Predators, Recruitment, Mortality, Disturbance, Structures/Infrastructure. Severe threat from invasive species.

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **177 km2** range extent per minimum convex polygon

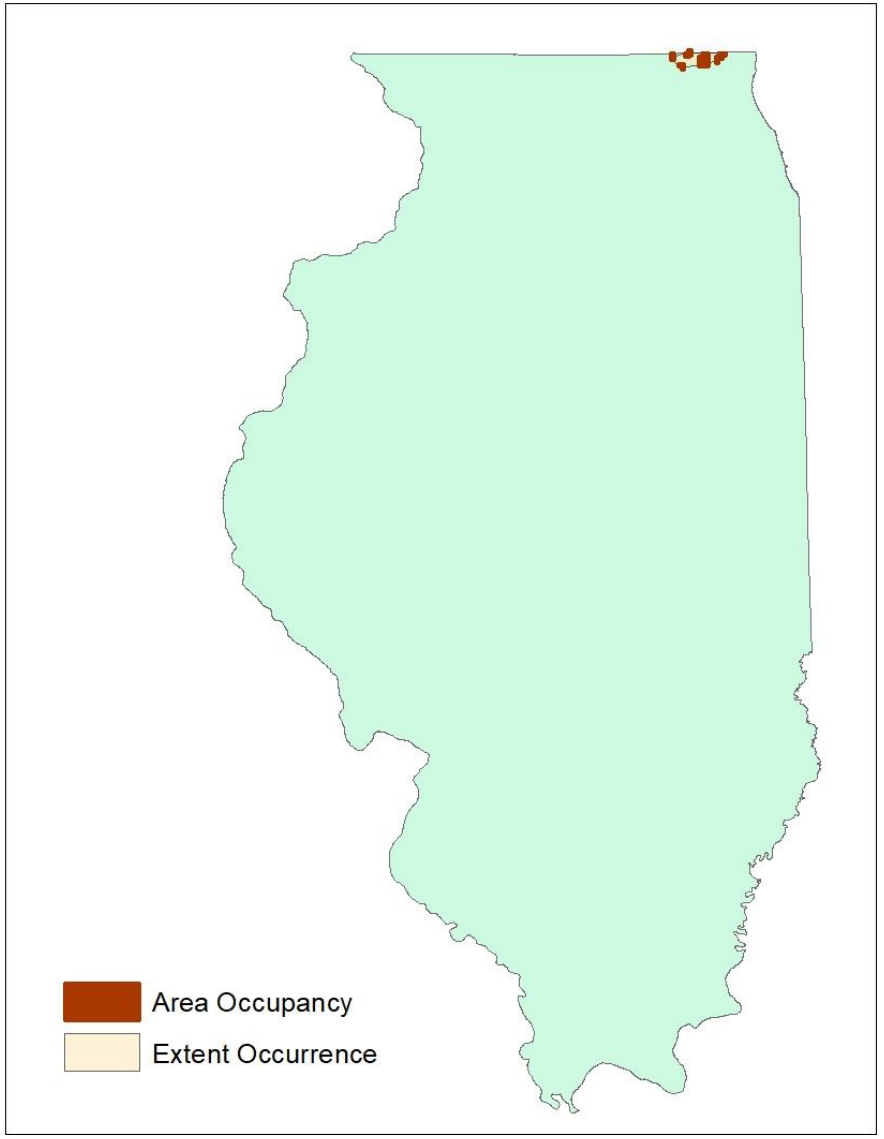
**B (100-250 km2)**

Area of Occupancy: **24 (or as few as 6)** 4-km2 grid cells occupied. Uncertainty due to low accuracy of EOR records.

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **5 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Black-billed Cuckoo (*Coccyzus erythropthalmus*)

## Calculated Rank: **S1S2**

## Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

## Threats:

**8 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Predators, Recruitment, Mortality, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

## Rarity:

Range Extent: **42,568 km2** range extent per minimum convex polygon

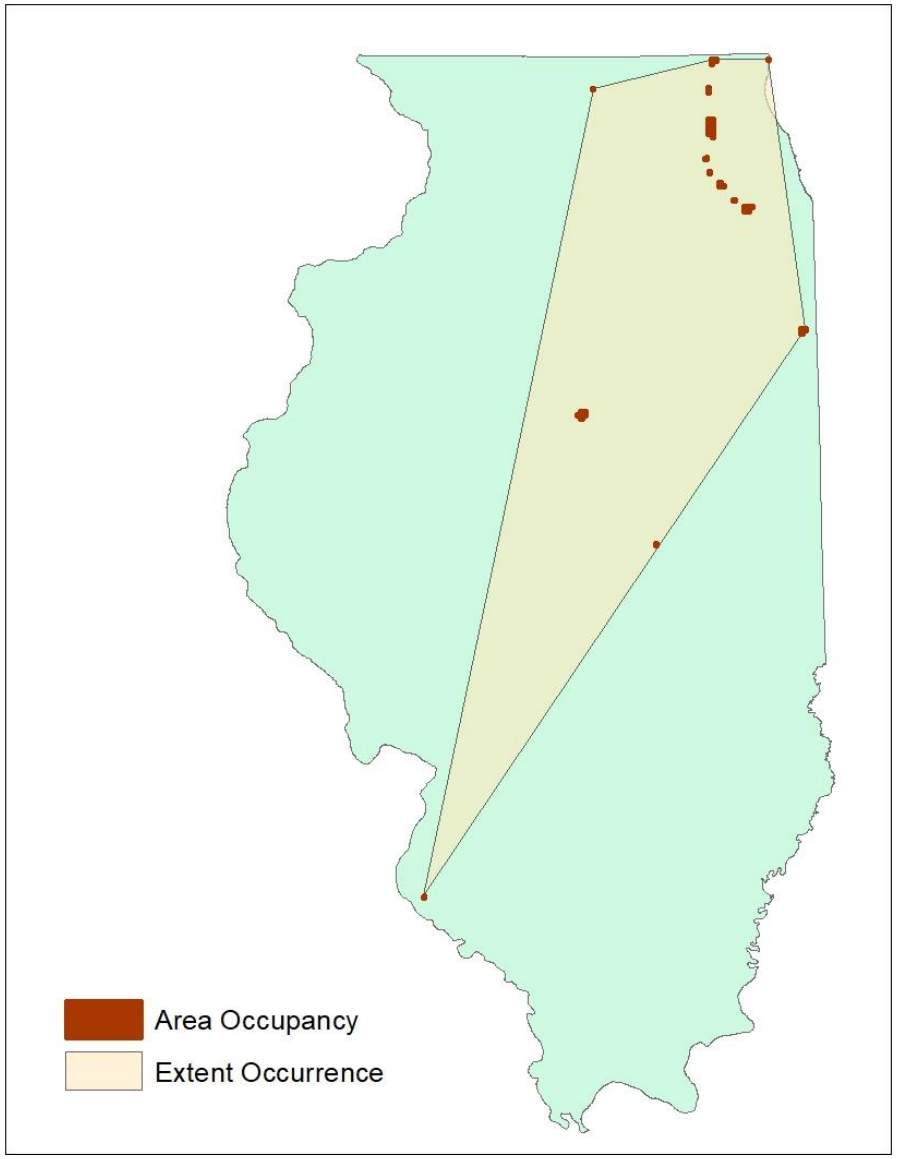
**F (20,000-200,000 km2)**

Area of Occupancy: **26 to 40** 4-km2 grid cells occupied. Uncertainty due to low accuracy of EOR mapping.

**E (26-125 4-km2 grid cells)**

Number of Occurrences: **15 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Barn Owl (*Tyto alba*)

## Calculated Rank: **S3S4**

### Short-term Trend:

**Increasing 25 to 50%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**12 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Predators, Prey/Food, Dispersal, Recruitment, Mortality, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **81,436 km2** range extent per minimum convex polygon

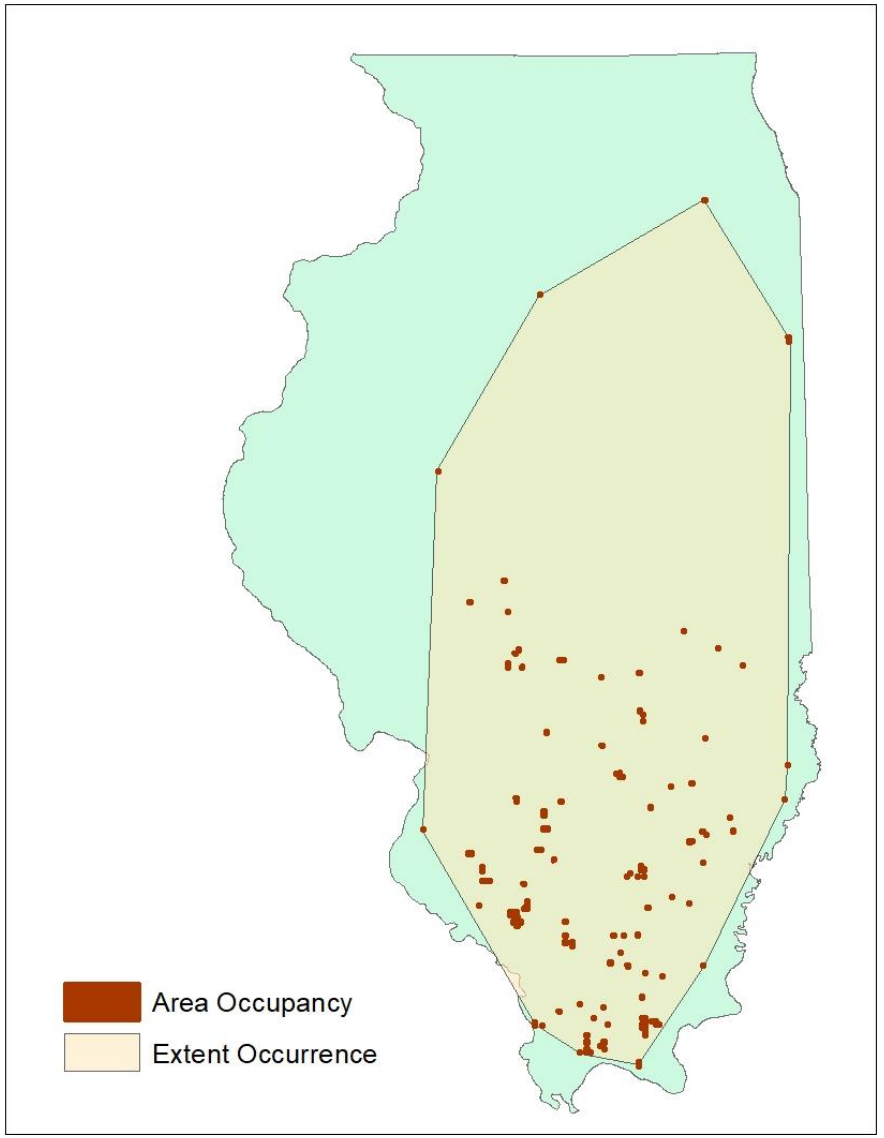
**F (20,000-200,000 km2)**

Area of Occupancy: **134** 4-km2 grid cells occupied

**F (126-500 4-km2 grid cells)**

Number of Occurrences: **2 EORs** observed 2008 to 2017

**CD (21-300 EORs)**



# Short-eared Owl **breeding** (*Asio flammeus*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**11 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Prey/Food, Recruitment, Mortality, Disturbance, Structures/Infrastructure. Severe threat from invasive species.

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **13,229 to 19,441 km2** range extent per minimum convex polygon. Uncertainty due to unknown location use class of some records.

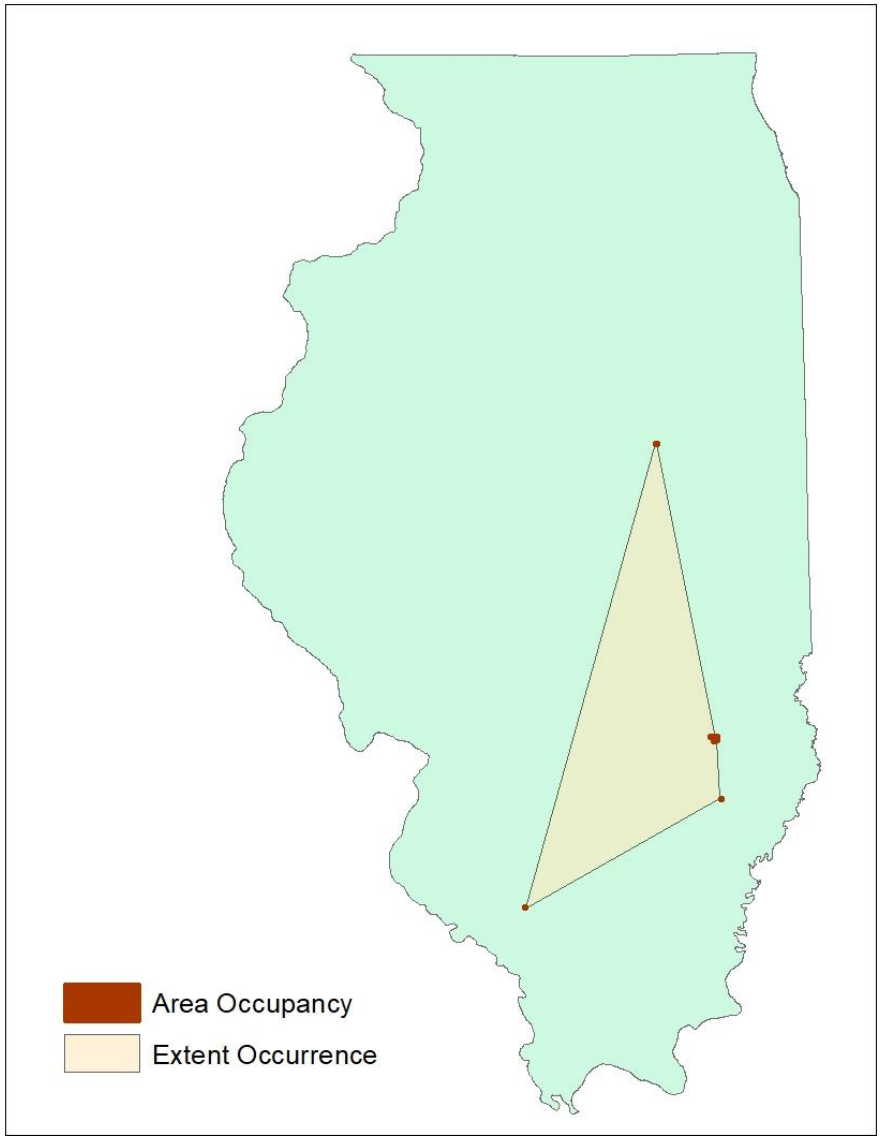
**E (5,000-20,000 km2)**

Area of Occupancy: **6 to 9** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **4 to 5 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Short-eared Owl **wintering** (*Asio flammeus*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**11 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Prey/Food, Recruitment, Mortality, Disturbance, Structures/Infrastructure. Severe threat from invasive species.

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **66,739 to 70,051 km2** range extent per minimum convex polygon. Uncertainty due to unknown location use class of some records.

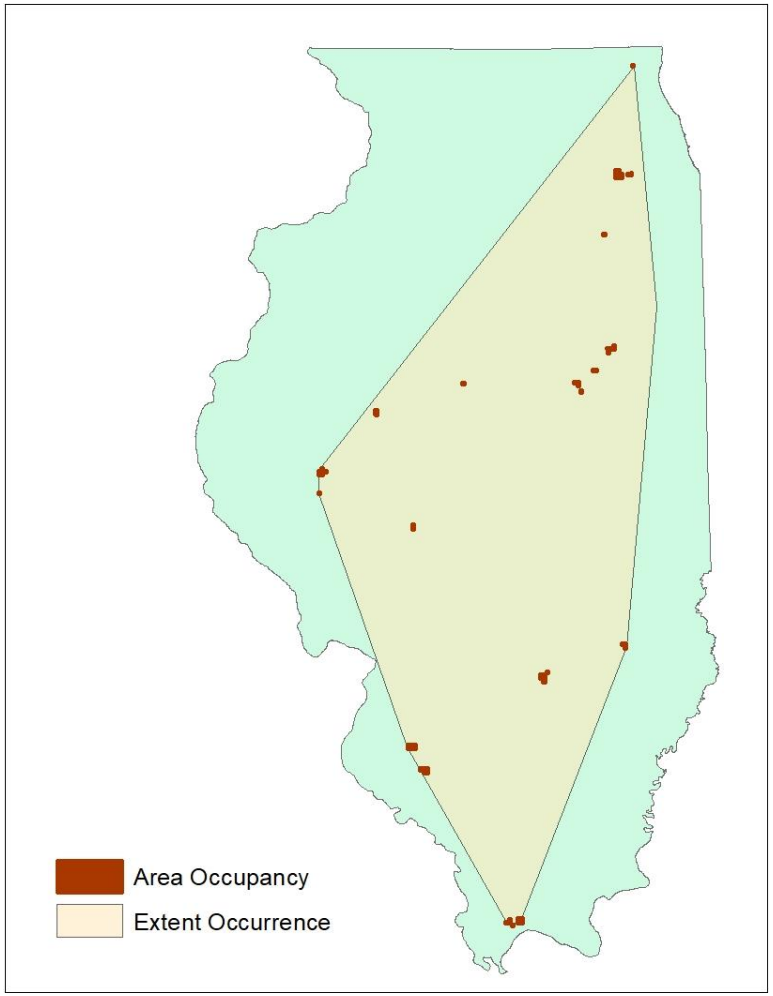
**F (20,000-200,000 km2)**

Area of Occupancy: **45 to 63** 4-km2 grid cells occupied. Uncertainty due to low accuracy of EOR mapping.

**E (26-125 4-km2 grid cells)**

Number of Occurrences: **17 to 18 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Chuck-will's-widow (*Caprimulgus carolinensis*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**9 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Predators, Recruitment, Mortality, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **81,319 km2** range extent per minimum convex polygon

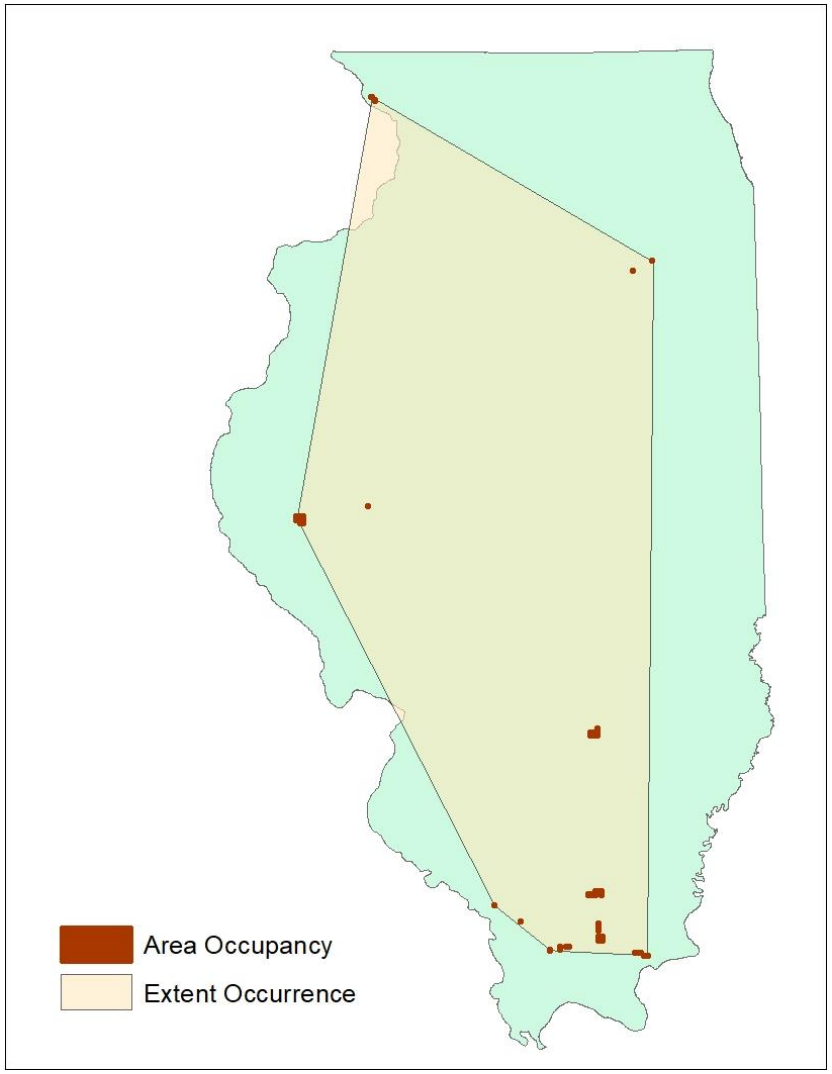
**F (20,000-200,000 km2)**

Area of Occupancy: **40 to 45** 4-km2 grid cells occupied. Uncertainty due to low accuracy of EOR mapping.

**E (26-125 4-km2 grid cells)**

Number of Occurrences: **13 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Bewick's Wren (*Thryomanes bewickii*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**12 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Competitors, Genetics, Dispersal, Recruitment, Mortality, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **1 km2** range extent per minimum convex polygon

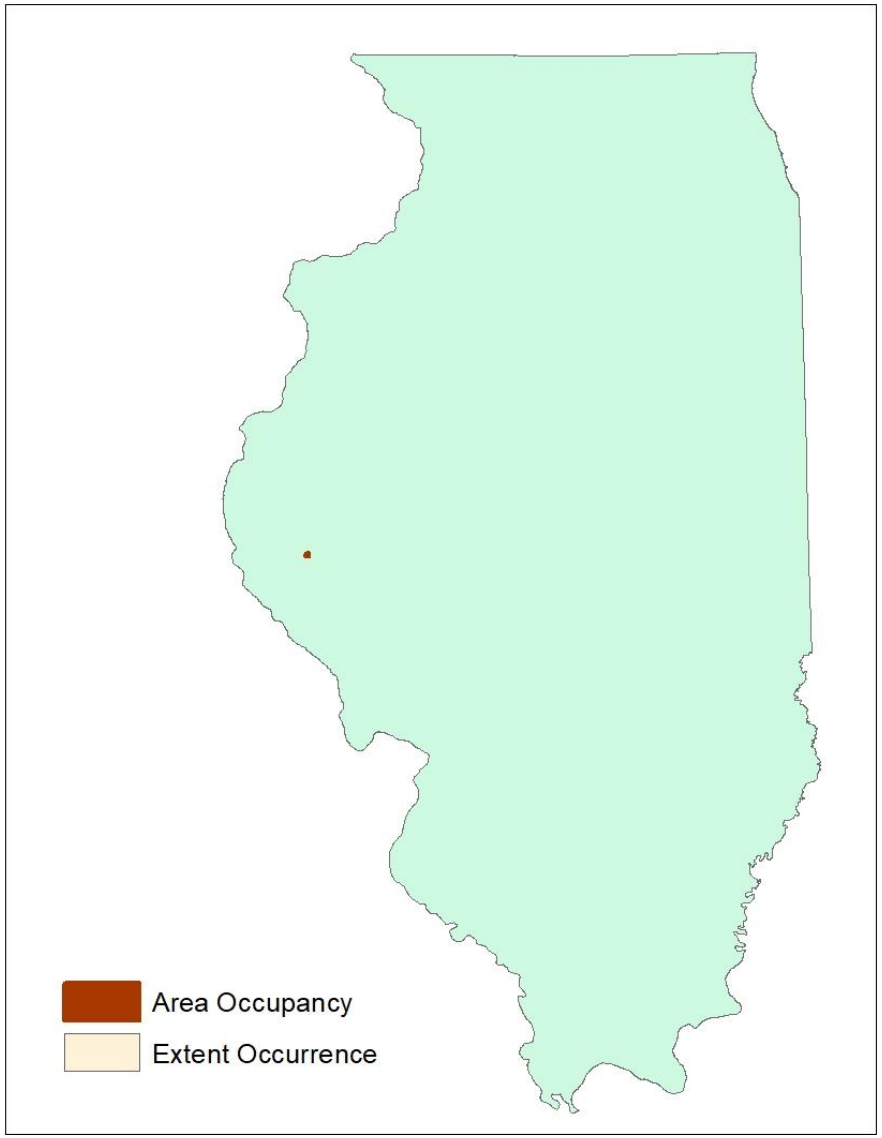
**A (<100 km2)**

Area of Occupancy: **1** 4-km2 grid cell occupied

**A (1 4-km2 grid cells)**

Number of Occurrences: **1 EOR** observed 2008 to 2017

**A (1-5 EORs)**



# Loggerhead Shrike (*Lanius ludovicianus*)

Calculated Rank: **S1S2**

Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

Threats:

**"14 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Competitors, Predators, Prey/Food, Invasive/Exotics, Dispersal, Recruitment, Mortality, Structures/Infrastructure. Severe threat from invasive species.

**AC (Medium-Very High (>4))**

Rarity:

Range Extent: **65,845 km2** range extent per minimum convex polygon

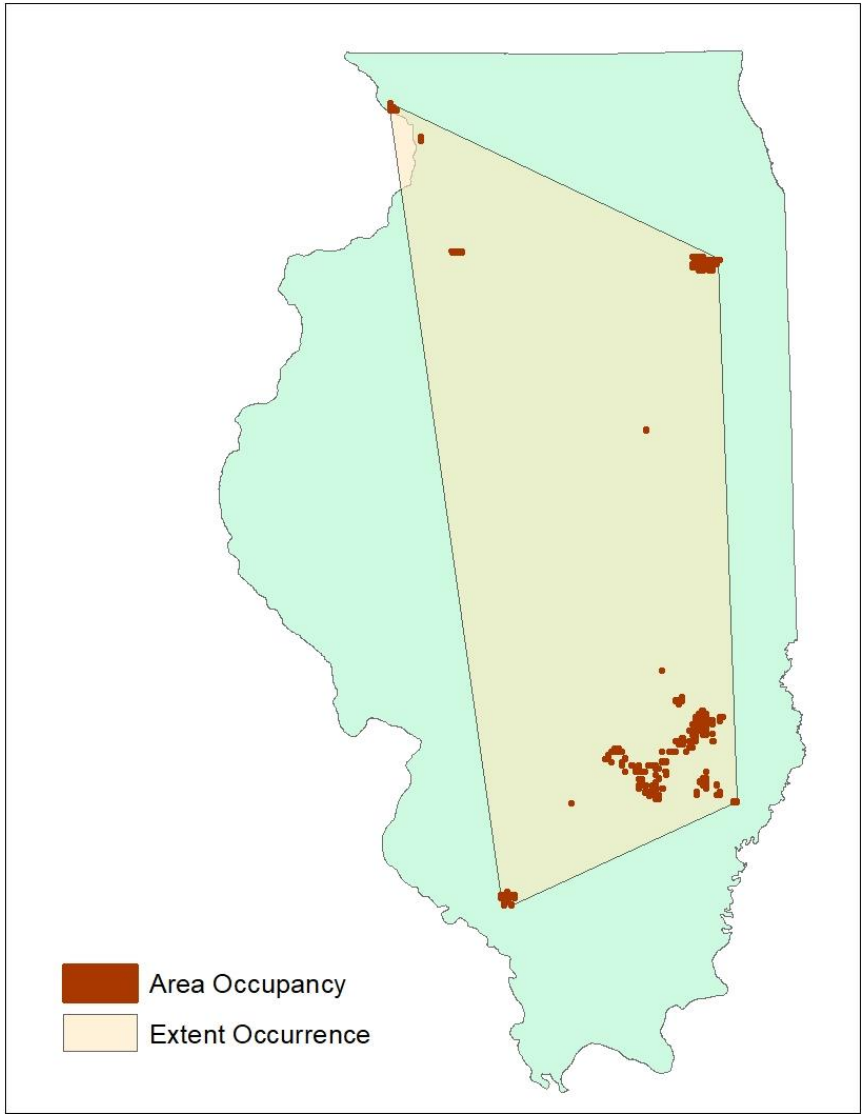
**F (20,000-200,000 km2)**

Area of Occupancy: **50 to 184** 4-km2 grid cells occupied

**EF (26-500 4-km2 grid cells)**

Number of Occurrences: 19 **EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Cerulean Warbler (*Dendroica cerulea*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of >50%)**

### Threats:

**11 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Predators, Parasites/Disease, Invasive/Exotics, Recruitment, Mortality, Structures/Infrastructure. Severe threat from invasive species.

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **102,564 km2** range extent per minimum convex polygon

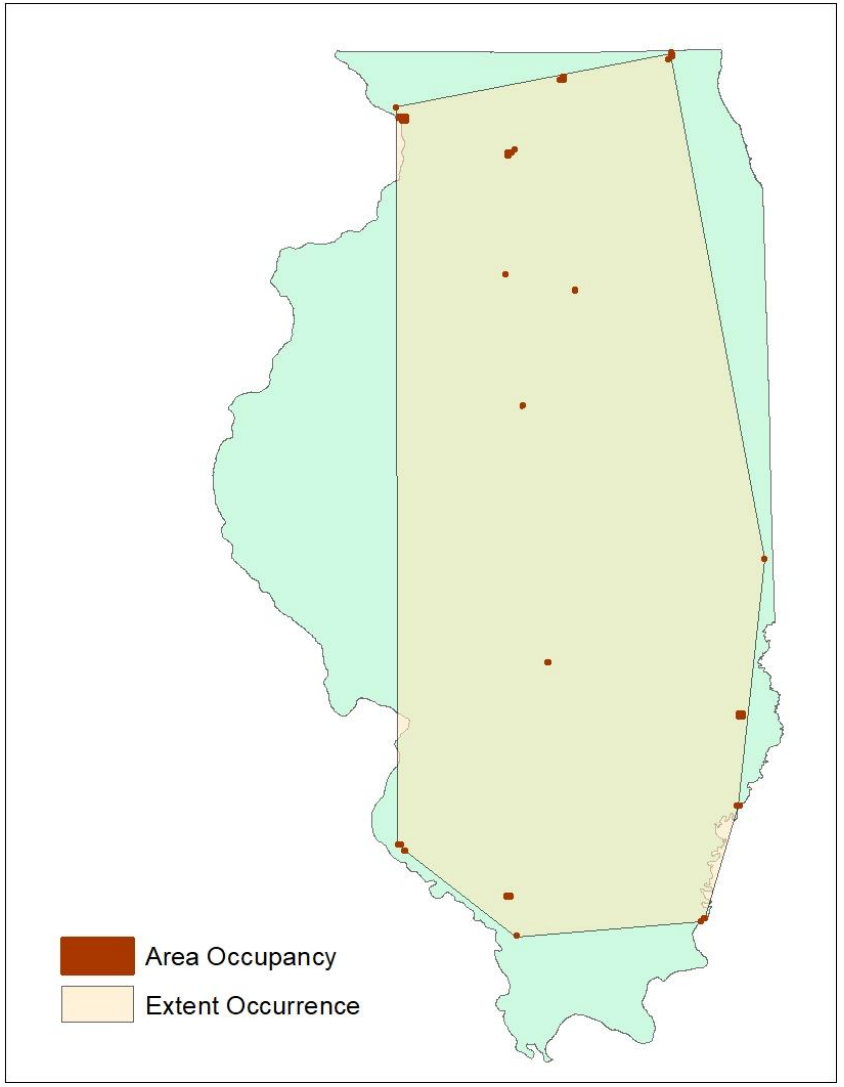
**F (20,000-200,000 km2)**

Area of Occupancy: **32 to 33** 4-km2 grid cells occupied

**E (26-125 4-km2 grid cells)**

Number of Occurrences: **16 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Swainson's Warbler (*Limnothlypis swainsonii*)

## Calculated Rank: **S1**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**12 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Predators, Parasites/Disease, Invasive/Exotics, Dispersal, Recruitment, Mortality, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **1 km2** range extent per minimum convex polygon

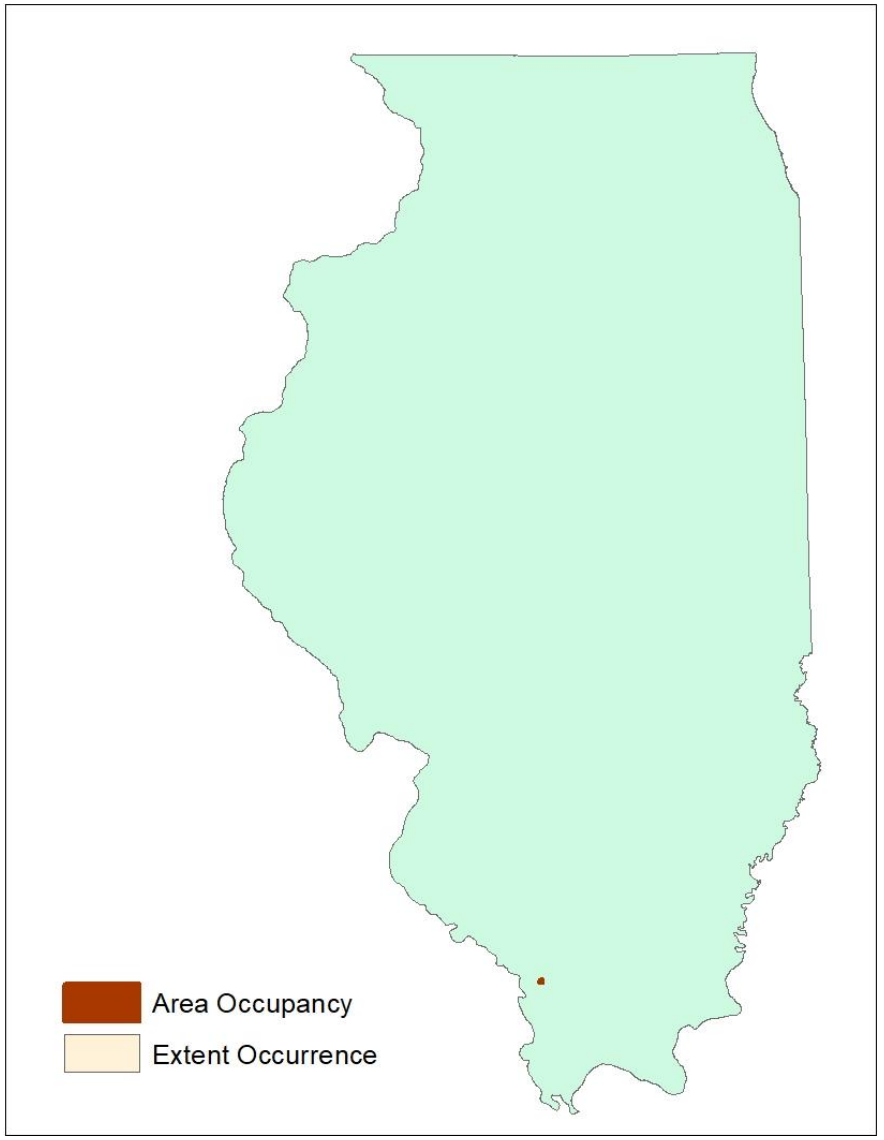
**A (<100 km2)**

Area of Occupancy: **1** 4-km2 grid cells occupied

**A (1 4-km2 grid cells)**

Number of Occurrences: **1 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**15 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Competitors, Predators, Prey/Food, Genetics, Dispersal, Recruitment, Mortality, Disturbance, Structures/Infrastructure. Severe threat from invasive species.

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **4,667 km2** range extent per minimum convex polygon

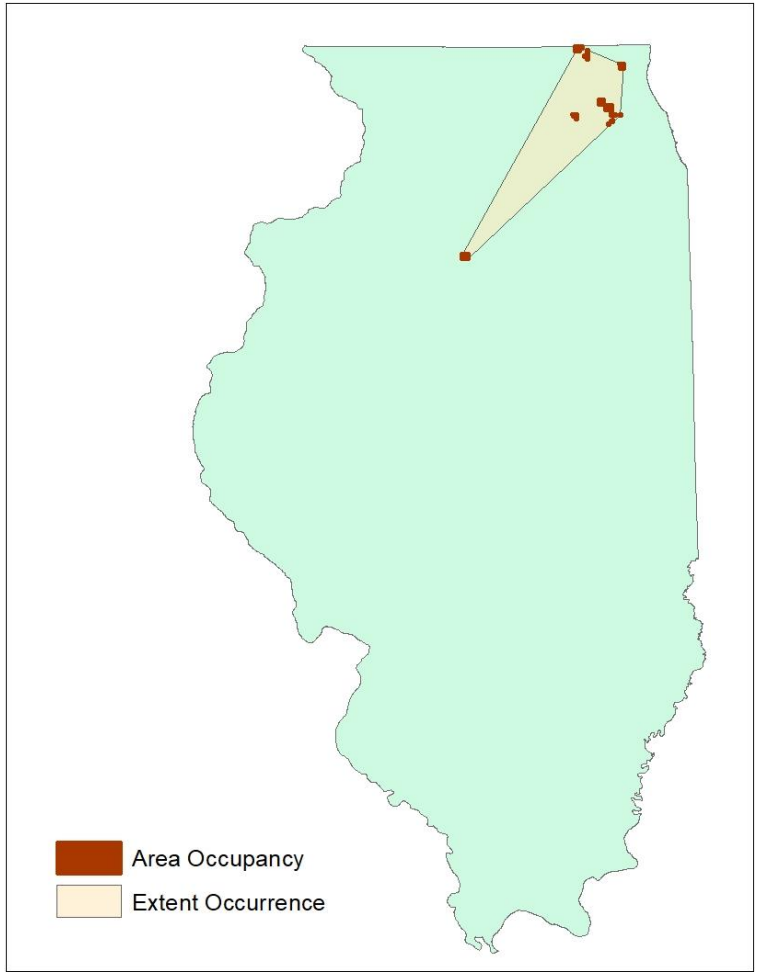
**D (1,000-5,000 km2)**

Area of Occupancy: **26 to 36** 4-km2 grid cells occupied. Uncertainty due to low accuracy of EOR mapping.

**E (26-125 4-km2 grid cells)**

Number of Occurrences: **6 EORs** observed 2008 to 2017

**B (6-20 EORs)**



# Jefferson Salamander (*Ambystoma jeffersonianum*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Increase 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

### Threats:

**8 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Distribution/Hydrology, Competitors, Parasites/Disease, Genetics, Dispersal, Recruitment

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, S4 in IN

### Rarity:

Range Extent: **394 km2** range extent per minimum convex polygon

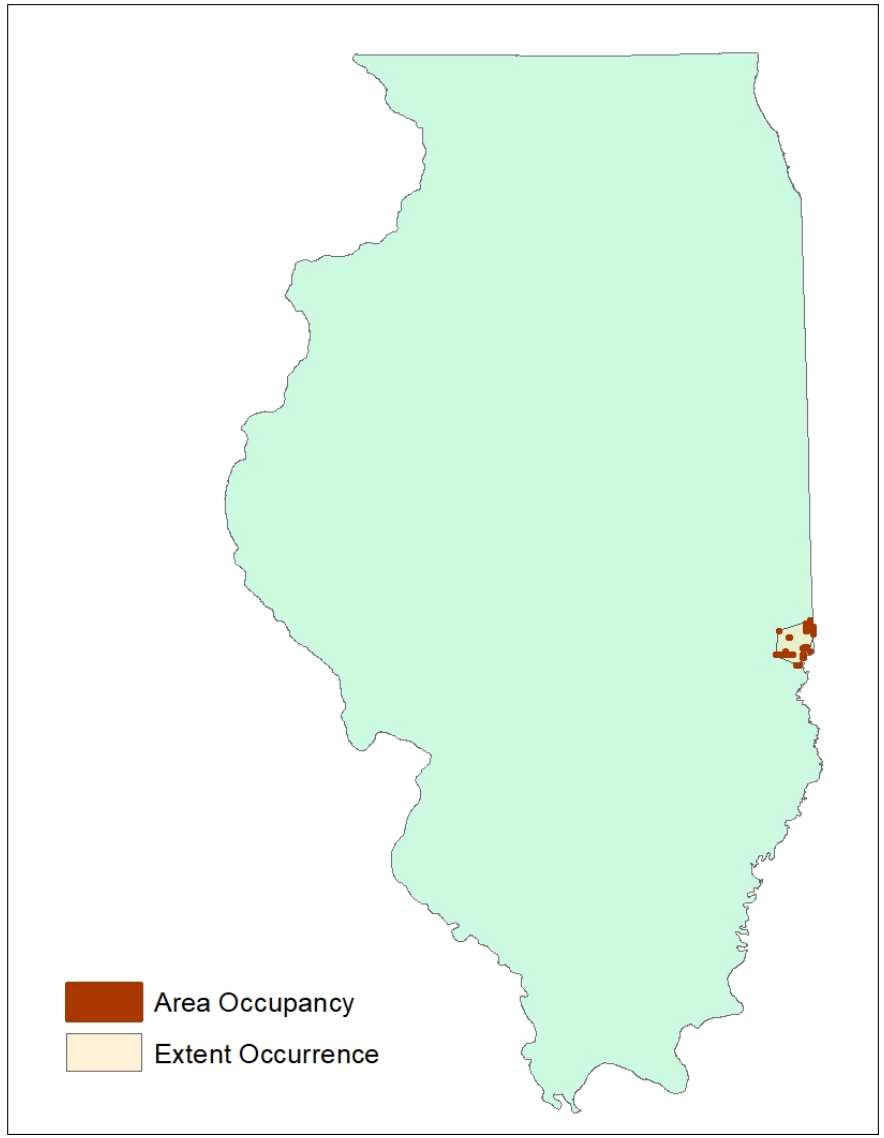
**C (250-1,000 km2)**

Area of Occupancy: **24** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **12 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Silvery Salamander (*Ambystoma platineum*)

## Calculated Rank: **S2S3**

## Short-term Trend:

**Increase 50 to 100%** per IWAP 2015

**I (Increase of >25%)**

## Threats:

**9 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Competitors, Parasites/Disease, Other Symbionts, Genetics, Recruitment

**AC (Medium-Very High (>4))**

Additional Notes: Species not valid, Not in NatureServe

## Rarity:

Range Extent: **610 km2** range extent per minimum convex polygon

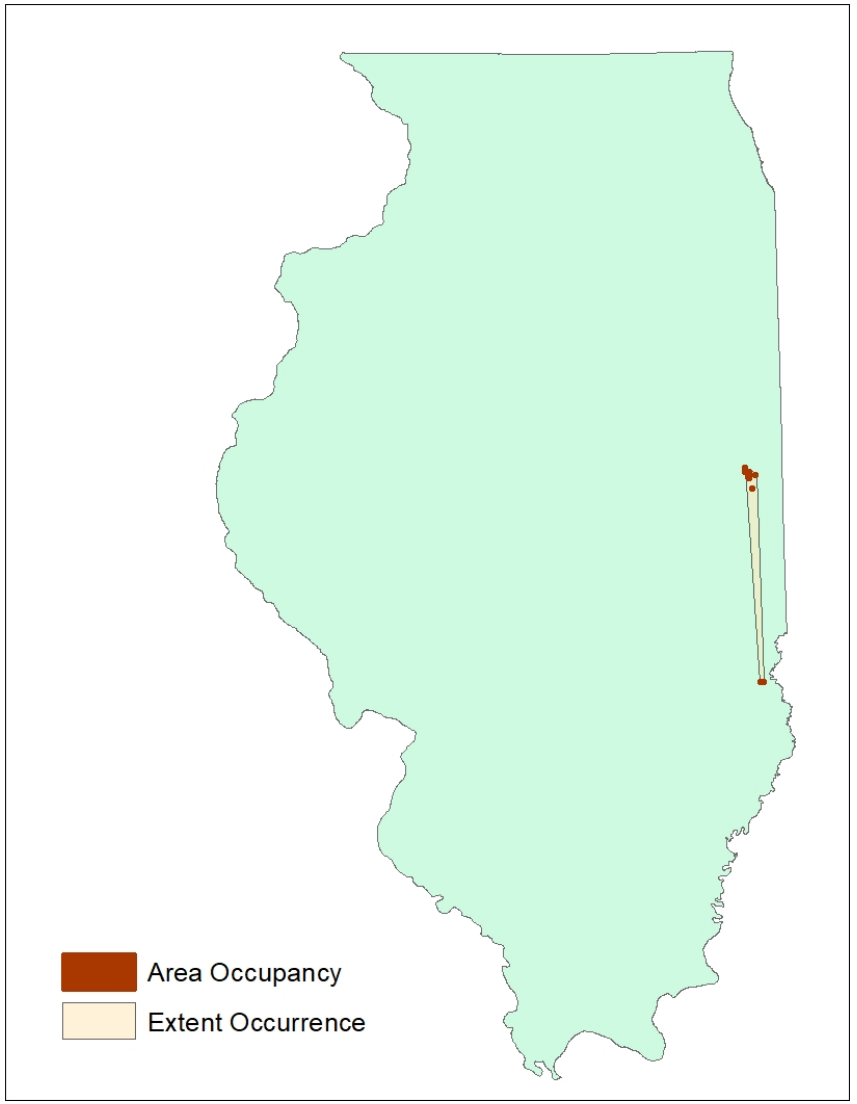
**C (250-1,000 km2)**

Area of Occupancy: **9** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **7 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Hellbender (*Cryptobranchus alleganiensis*)

Calculated Rank: **SH**

Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of 70%)**

Threats:

**8 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Parasites/Disease, Genetics, Recruitment

**AC (Medium-Very High (>4))**

Rarity:

Range Extent: **No records in past 10 years**

**ZA (Zero to <1 km2)**

Area of Occupancy: **No records in past 10 years**

**ZA (Zero to 4 1-km2 grid cells)**

Number of Occurrences: **No records in past 10 years**

**ZA (0-5 EORs)**

Additional Notes: eDNA surveys planned in southern Illinois.

# Spotted Dusky Salamander (*Desmognathus conanti*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**10 threats/stressors** identified in IWAP 2015: Extent, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Parasites/Disease, Invasive/Exotics, Genetics, Mortality, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range

### Rarity:

Range Extent: **319 km2** range extent per minimum convex polygon

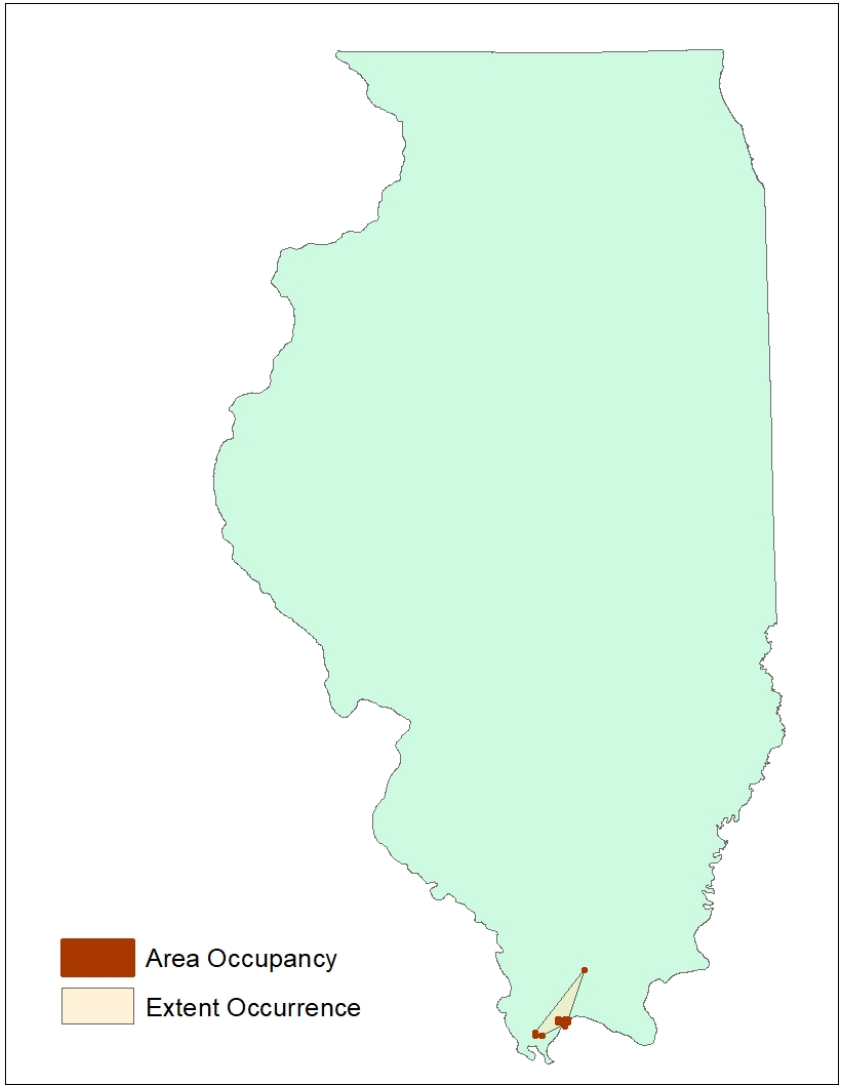
**C (250-1,000 km2)**

Area of Occupancy: **19** 1-km2 grid cells occupied

**C (11-20 1-km2 grid cells)**

Number of Occurrences: **5 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Four-toed Salamander (*Hemidactylium scutatum*)

Calculated Rank: **S1S2**

Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

Threats:

**14 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Parasites/Disease, Invasives/Exotics (severe threat), Genetics, Dispersal, Recruitment, Mortality, Disturbance, Structures/Infrastructure

**AB (High-Very High (>4))**

Rarity:

Range Extent: **54,273 km2** range extent per minimum convex polygon

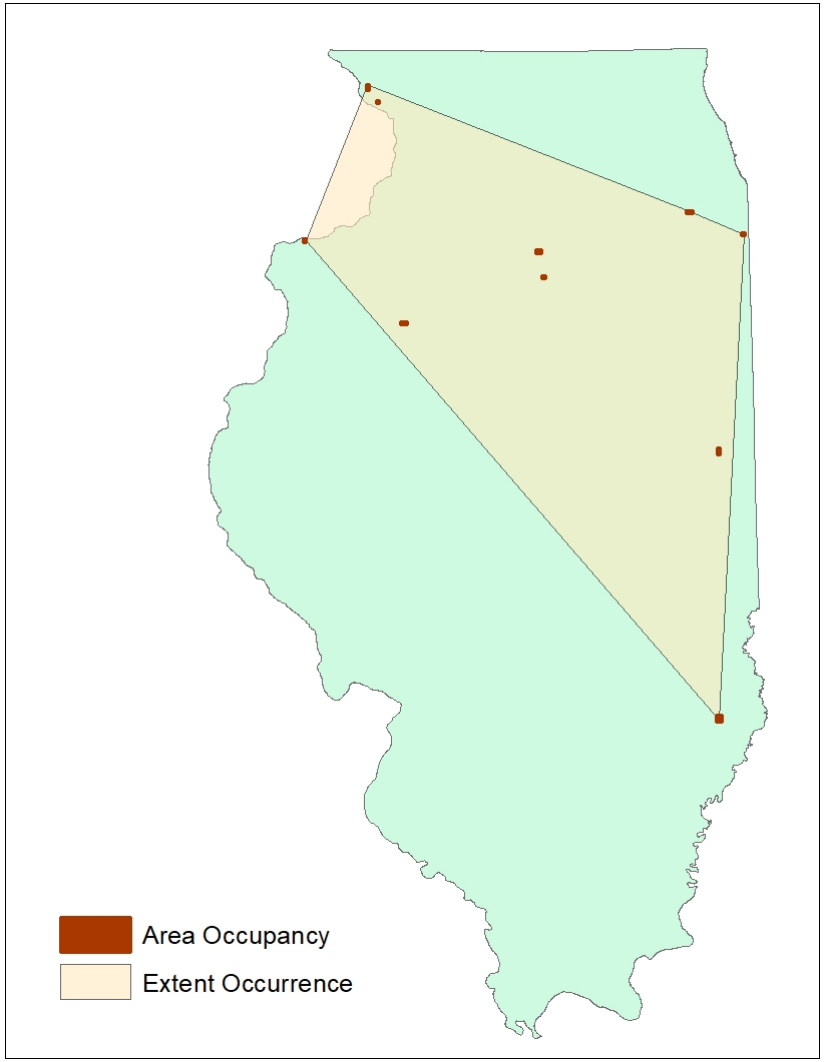
**F (20,000-200,000 km2)**

Area of Occupancy: **18** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **10 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Mudpuppy (*Necturus maculosus*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of 70%)**

### Threats:

**15 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Competitors, Predators, Parasites/Disease, Genetics, Dispersal, Recruitment, Mortality, Killing, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **74,626 km2** range extent per minimum convex polygon

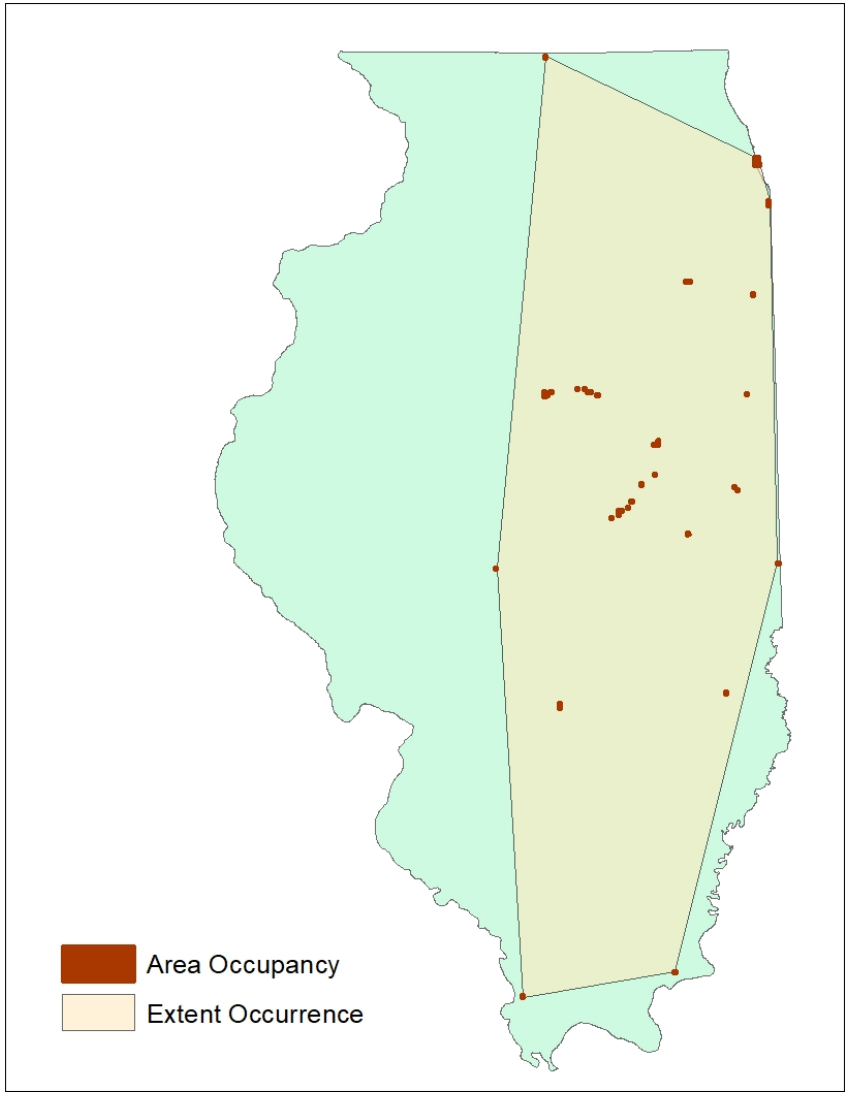
**F (20,000-200,000 km2)**

Area of Occupancy: **59** 1-km2 grid cells occupied

**D (21-100 1-km2 grid cells)**

Number of Occurrences: **21 EORs** observed 2008 to 2017

**C (21-80 EORs)**




Additional Notes: More surveys in IL each year. May lead to more EORs in the future.

# Bird-voiced Treefrog (*Hyla avivoca*)

## Calculated Rank: **S2?**

### Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

### Threats:

**7 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Parasites/Disease, Killing, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, S3 in KY

### Rarity:

Range Extent: **970 km2** range extent per minimum convex polygon

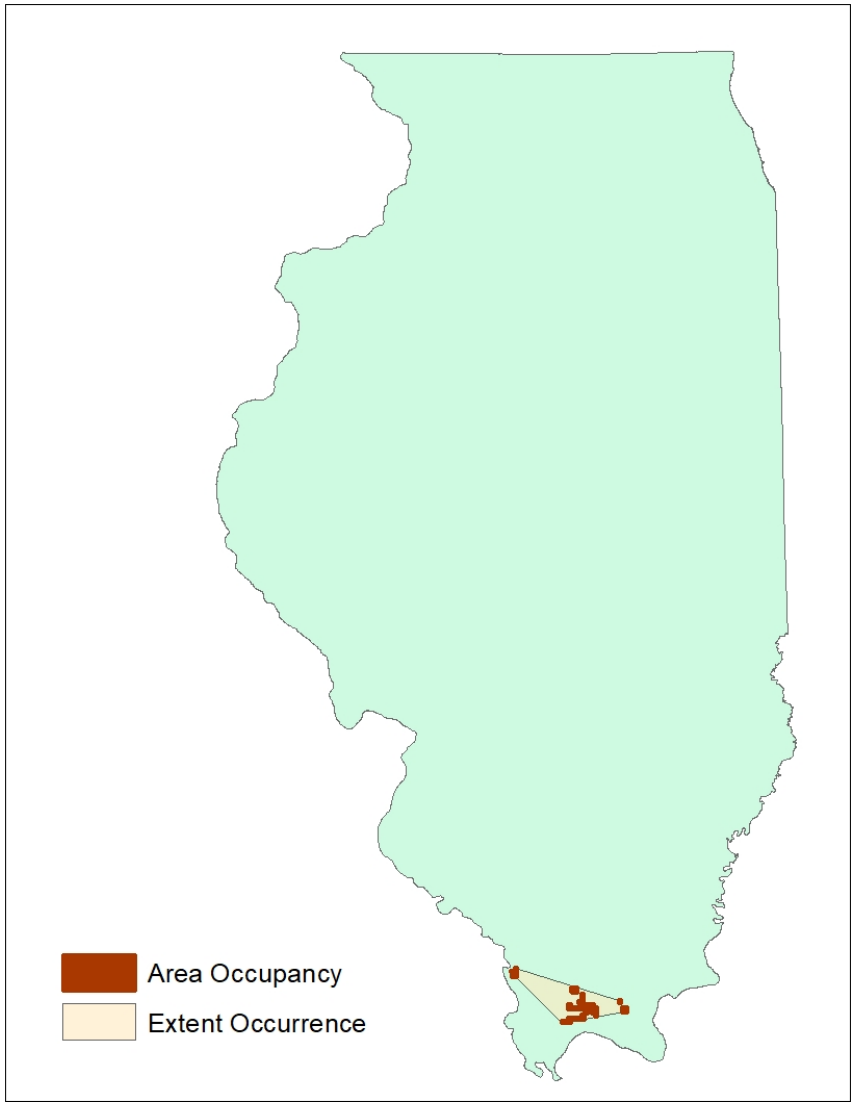
**C (250-1,000 km2)**

Area of Occupancy: **41 to 44** 4-km2 grid cells occupied

**E (26-125 4-km2 grid cells)**

Number of Occurrences: **8 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Illinois Chorus Frog (*Pseudacris illinoensis*)

Calculated Rank: **S2S3**

Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

Threats:

**7 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Parasites/Disease, Other Symbionts, Genetics, Dispersal, Recruitment, Mortality, Killing, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Rarity:

Range Extent: **21,283 km2** range extent per minimum convex polygon

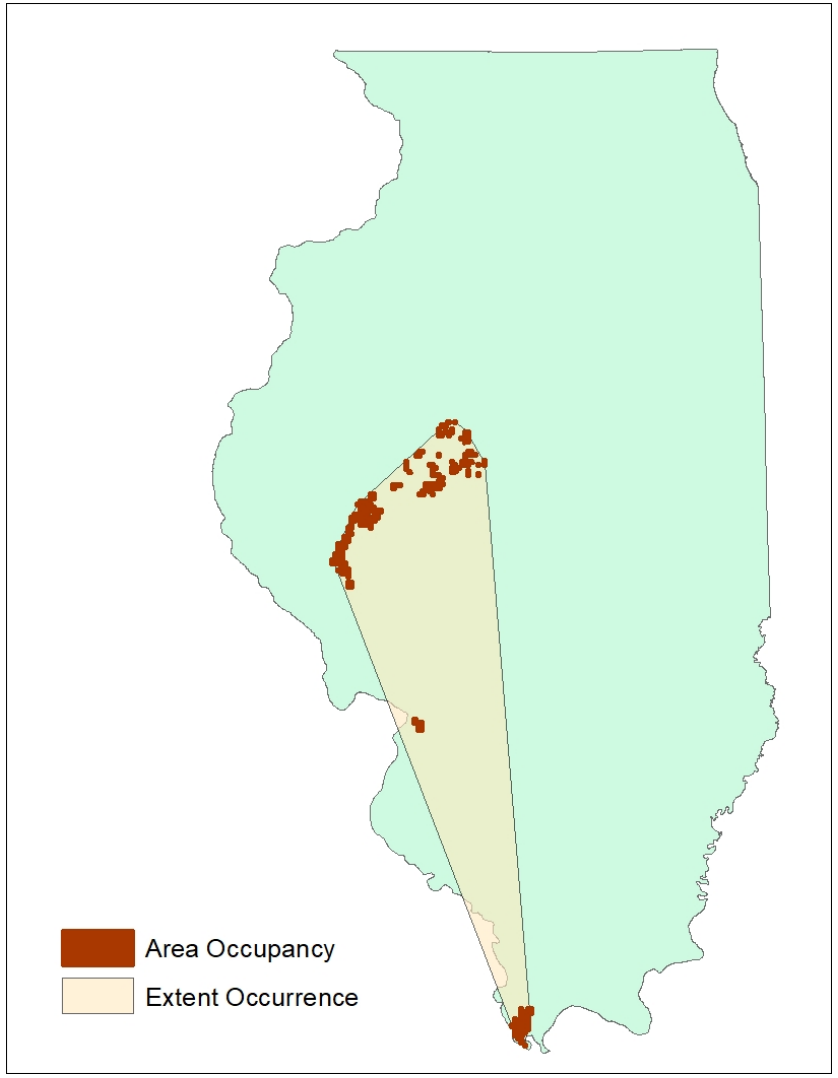
**F (20,000-200,000 km2)**

Area of Occupancy: **223** 4-km2 grid cells occupied

**F (126-500 4-km2 grid cells)**

Number of Occurrences: **20 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Eastern Narrowmouth Toad (*Gastrophryne carolinensis*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**6 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Distribution/Hydrology, Parasites/Disease, Recruitment, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, S5 in MO

### Rarity:

Range Extent: **727 km2** range extent per minimum convex polygon

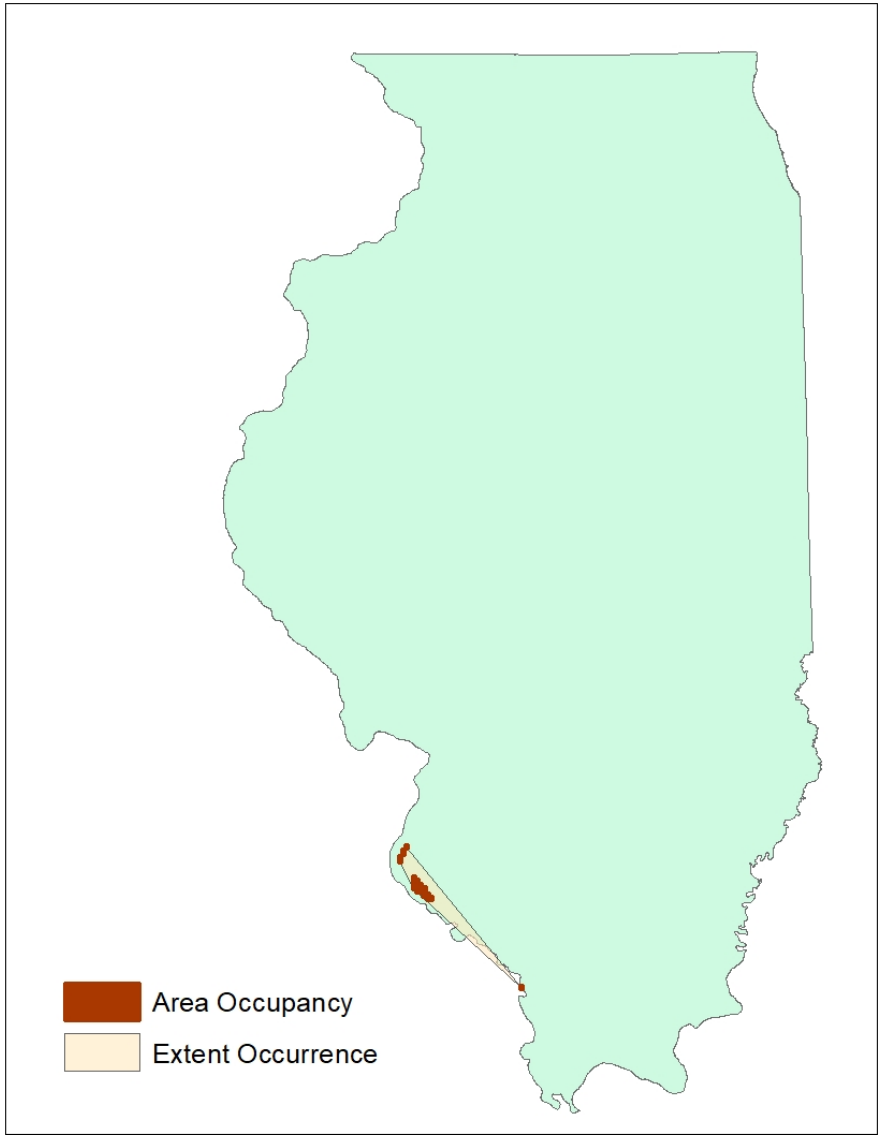
**C (250-1,000 km2)**

Area of Occupancy: **23** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **6 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Alligator Snapping Turtle (*Macrochelys temminckii*)

## Calculated Rank: **S1**

## Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of 70%)**

## Threats:

**8 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Parasites/Disease, Genetics, Recruitment, Mortality

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, S2 in MO and KY

## Rarity:

Range Extent: **22 km2** range extent per minimum convex polygon

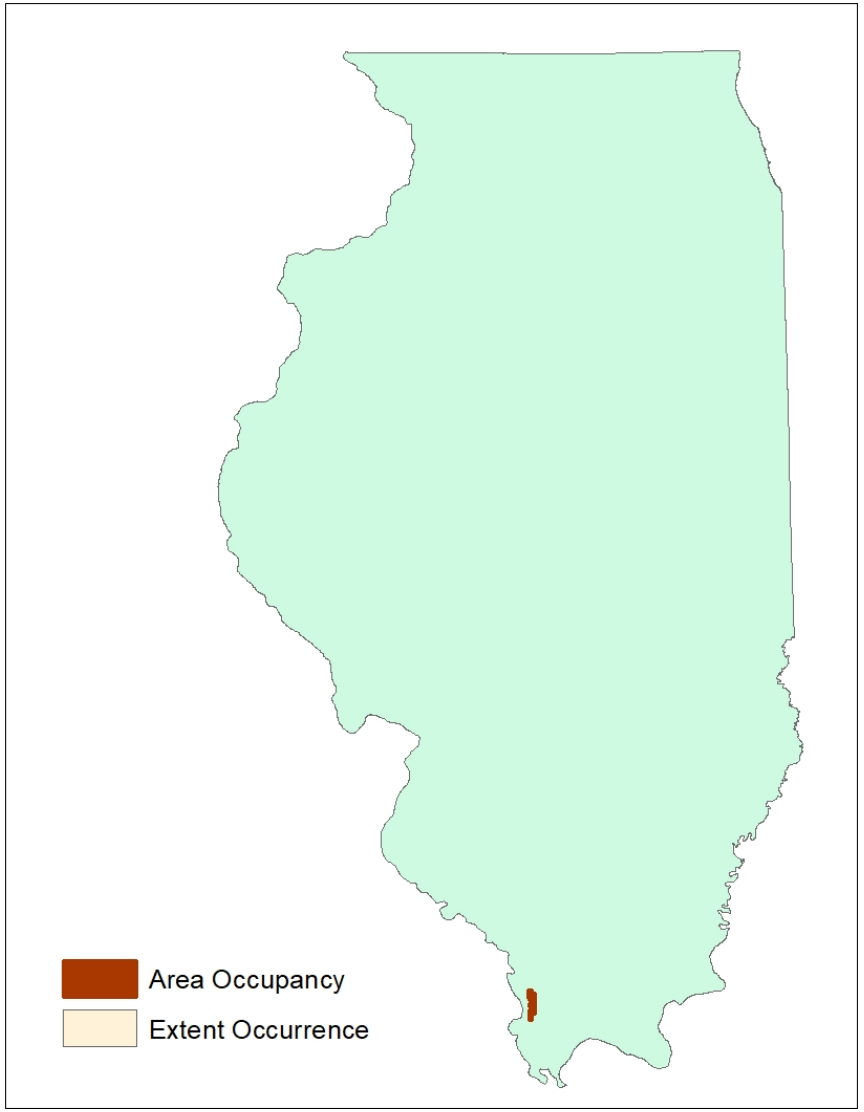
**A (<100 km2)**

Area of Occupancy: **20** 1-km2 grid cells occupied

**C (11-20 1-km2 grid cells)**

Number of Occurrences: **1 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Spotted Turtle (*Clemmys guttata*)

Calculated Rank: **S1S2**

Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

Threats:

**15 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Predators, Parasites/Disease, Hosts, Genetics, Dispersal, Recruitment, Mortality, Killing, Disturbance

**AC (Medium-Very High (>4))**

Rarity:

Range Extent: **15 km2** range extent per minimum convex polygon

**A (<100 km2)**

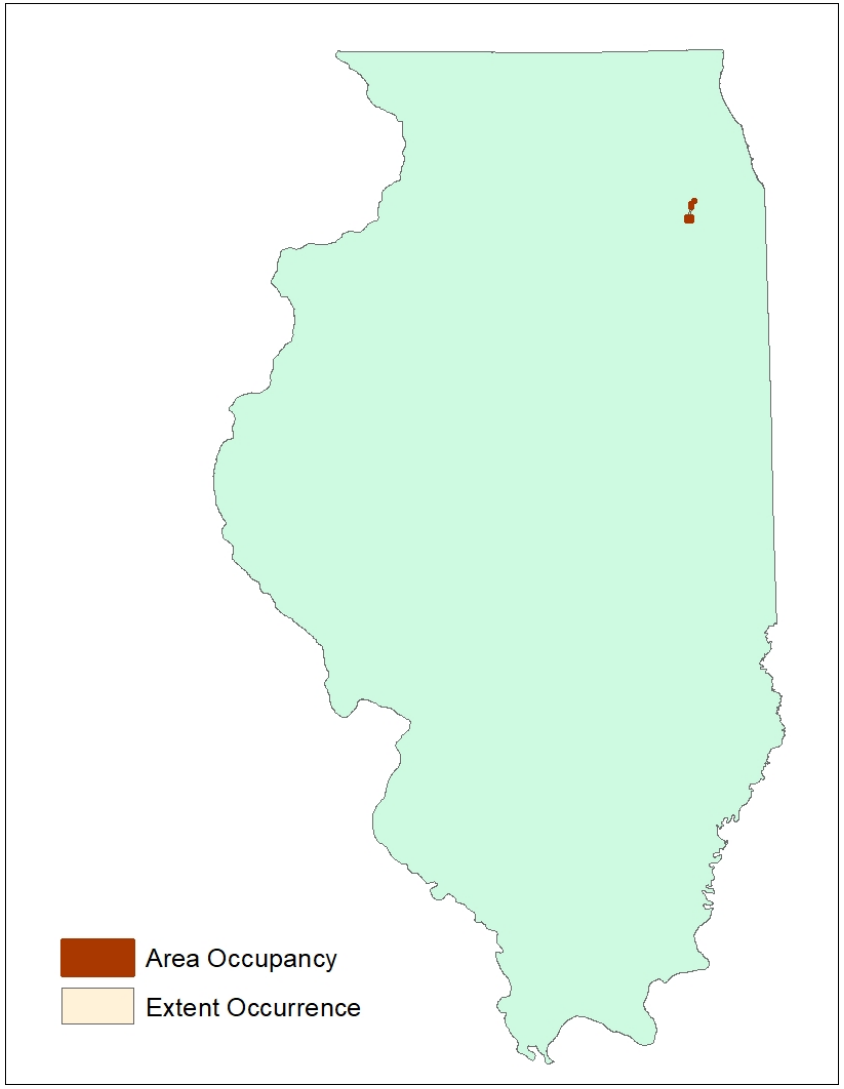
Area of Occupancy: **6** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **2 EORs** observed 2008 to 2017

**A (1-5 EORs)**

Additional Notes: Edge of range, S2 in IN



# Blanding's Turtle (*Emydoidea blandingii*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**14 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Pollutants-Sediment, Predators, Parasites/Disease, Dispersal, Recruitment, Mortality, Killing, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **62,245 km2** range extent per minimum convex polygon

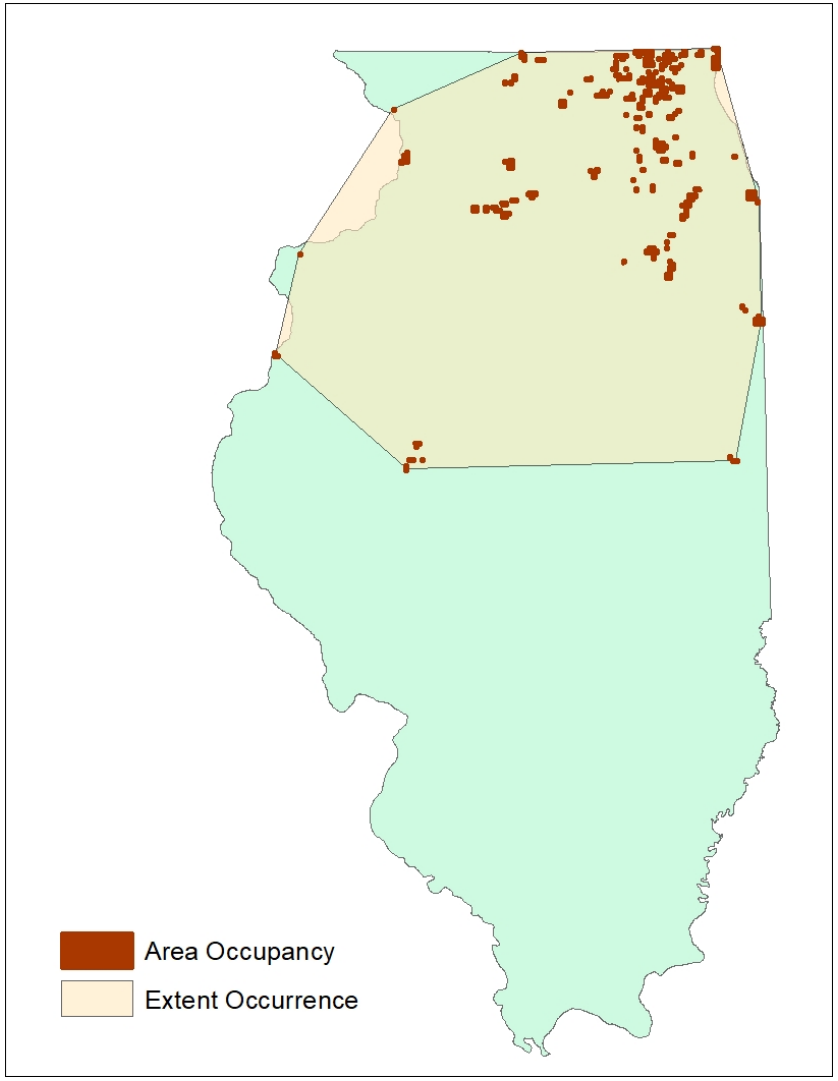
**F (20,000-200,000 km2)**

Area of Occupancy: **272 to 284** 4-km2 grid cells occupied

**F (126-500 4-km2 grid cells)**

Number of Occurrences: **90 EORs** observed 2008 to 2017

**D (81-300 EORs)**



# River Cooter (*Pseudemys concinna*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**10 threats/stressors** identified in IWAP 2015: Extent, Composition-structure, Distribution/Hydrology, Predators, Parasites/Disease, Genetics, Recruitment, Mortality, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: Edge of Range. Need more surveys in IL.

### Rarity:

Range Extent: **3,920 km2** range extent per minimum convex polygon

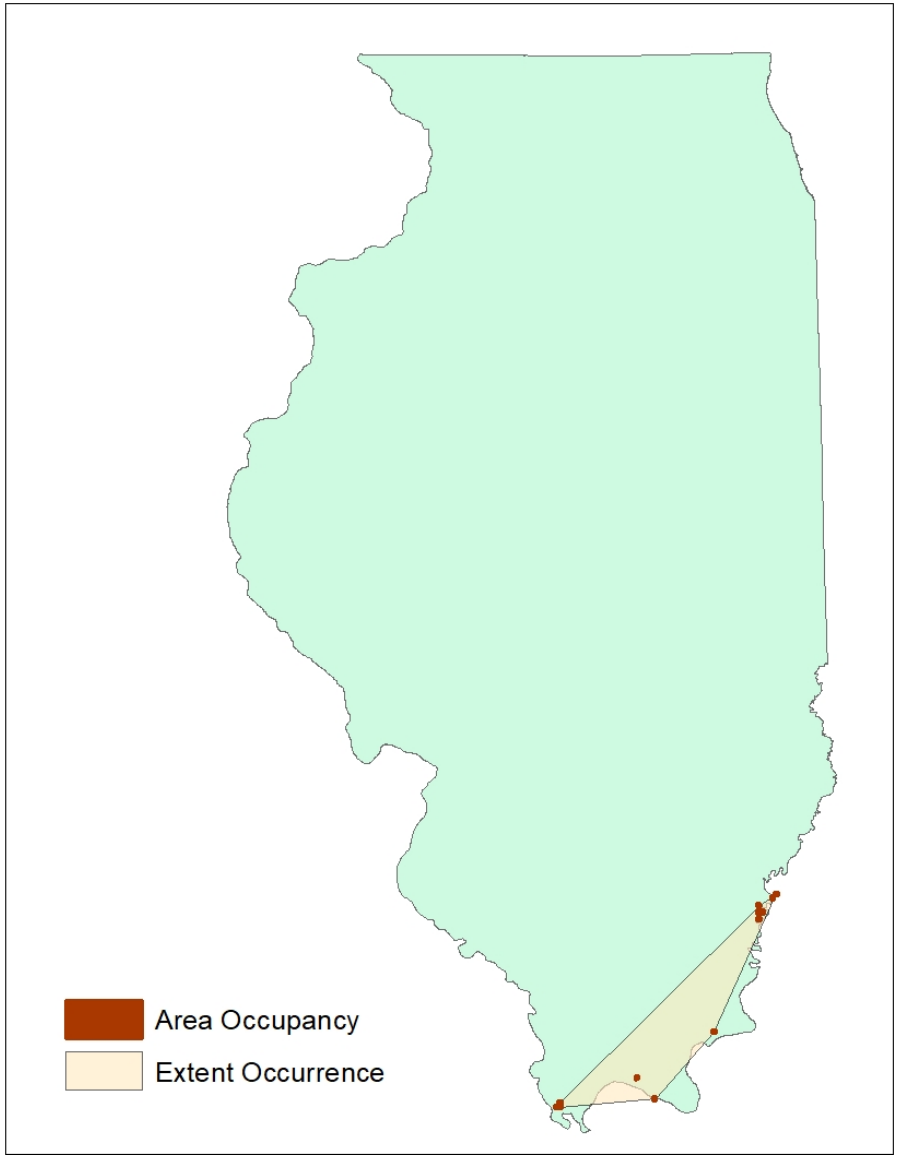
**D (1,000-5,000 km2)**

Area of Occupancy: **17** 4-km2 grid cells occupied

**C (11-20 1-km2 grid cells)**

Number of Occurrences: **5 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Ornate Box Turtle (*Terrapene ornata*)

## Calculated Rank: **S1S2**

## Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of 70%)**

## Threats:

**14 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Predators, Parasites/Disease, Dispersal, Recruitment, Mortality, Killing, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

## Rarity:

Range Extent: **99,295 km2** range extent per minimum convex polygon

**F (20,000-200,000 km2)**

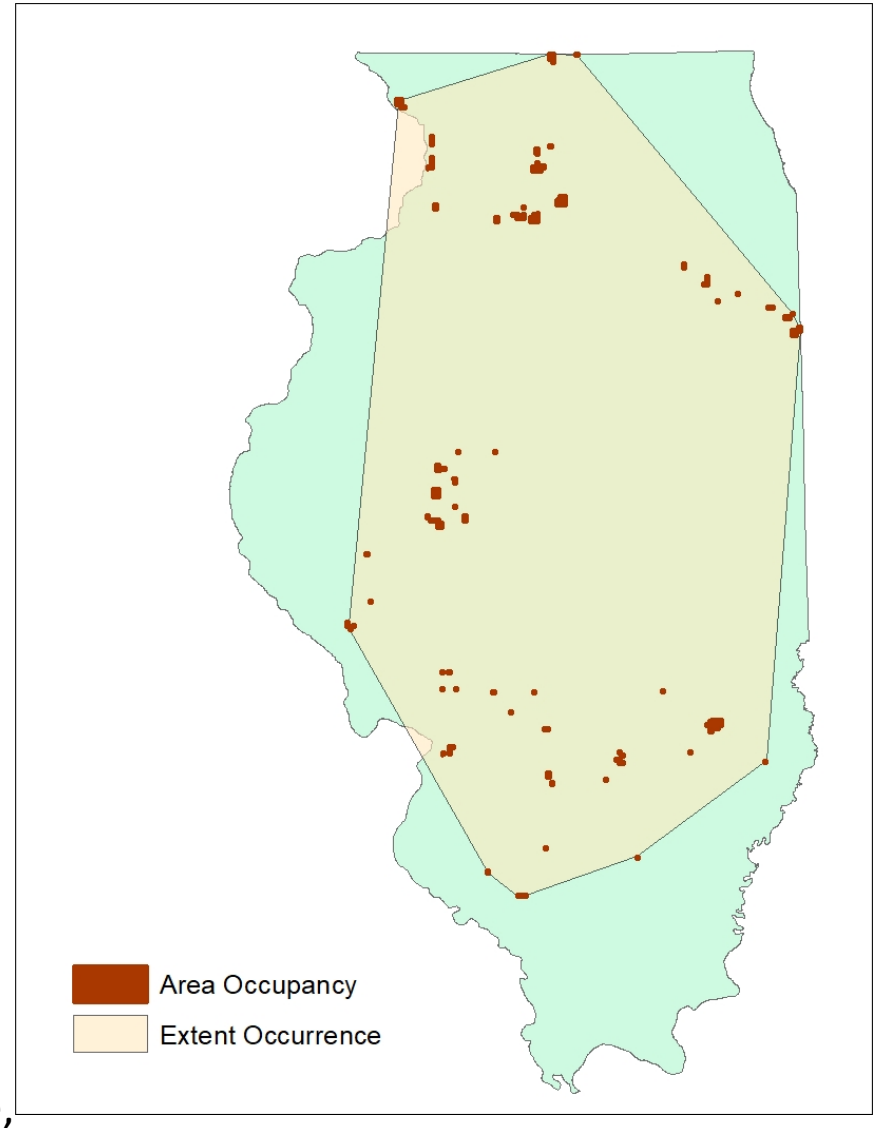
Area of Occupancy: **139 to 143** 4-km2 grid cells occupied

**F (126-500 4-km2 grid cells)**

Number of Occurrences: **58 EORs** observed 2008 to 2017

**C (21-80 EORs)**

Additional Notes: Edge of range, Not ranked in MO, S2 in IA



# Yellow Mud Turtle (*Kinosternon flavescens*)

## Calculated Rank: **S1**

## Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of 70%)**

## Threats:

**11 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Predators, Parasites/Disease, Genetics, Dispersal, Recruitment, Mortality, Disturbance

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range- disjunct

## Rarity:

Range Extent: **960 km2** range extent per minimum convex polygon

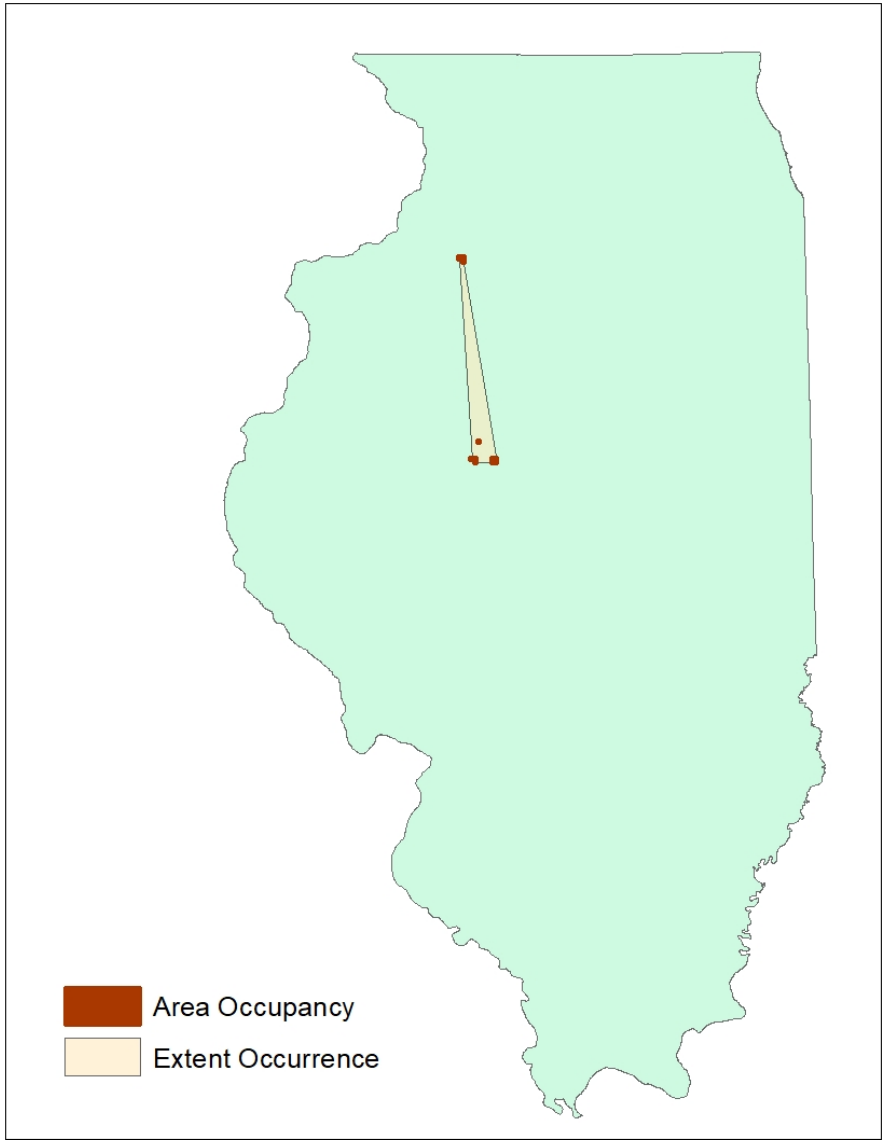
**C (250-1,000 km2)**

Area of Occupancy: **10** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **4 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Smooth Softshell (*Apalone mutica*)

## Calculated Rank: **S1S2**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of 70%)**

### Threats:

**10 threats/stressors** identified in IWAP 2015: Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Predators, Parasites/Disease, Genetics, Dispersal, Recruitment, Killing

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **94,191 km2** range extent per minimum convex polygon

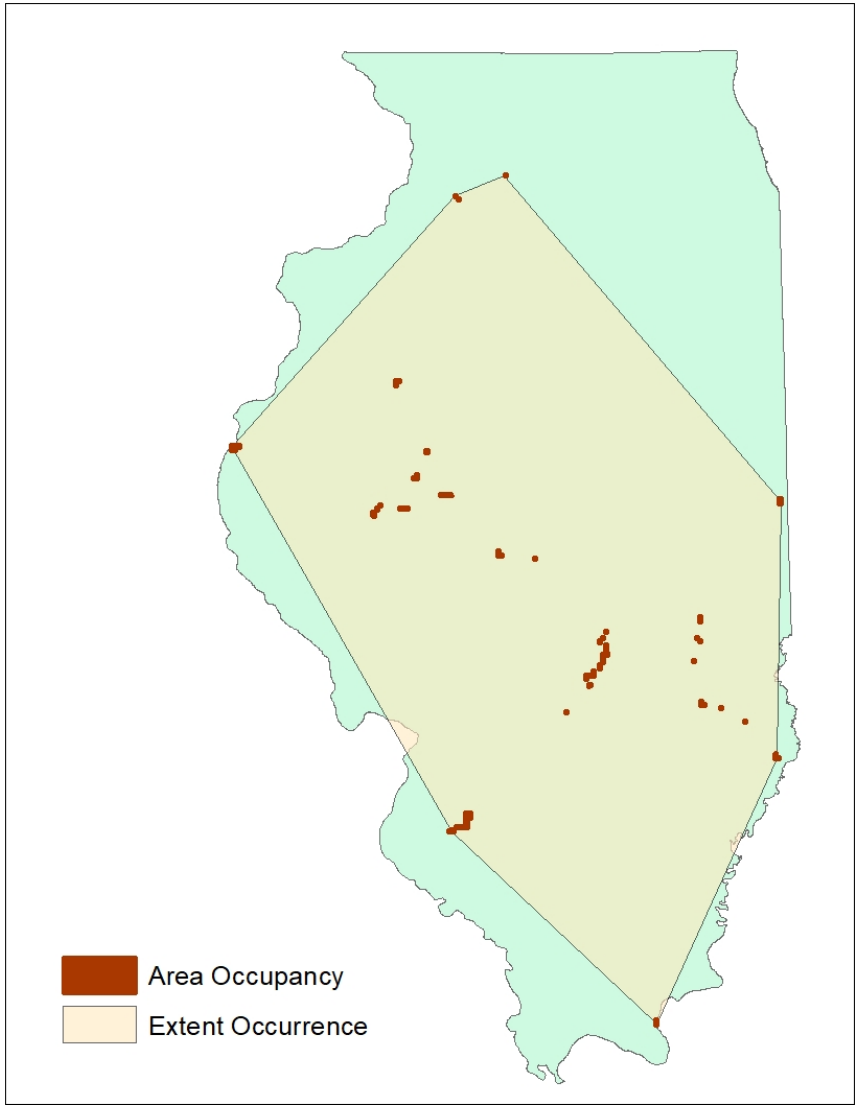
**F (20,000-200,000 km2)**

Area of Occupancy: **115 to 116** 1-km2 grid cells occupied

**E (101-500 1-km2 grid cells)**

Number of Occurrences: **23 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Kirtland's Snake (*Clonophis kirtlandi*)

## Calculated Rank: **S1S2**

## Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

## Threats:

**13 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Parasites/Disease, Prey/Food, Genetics, Dispersal, Recruitment, Mortality, Killing, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

## Rarity:

Range Extent: **16,501 km2** range extent per minimum convex polygon

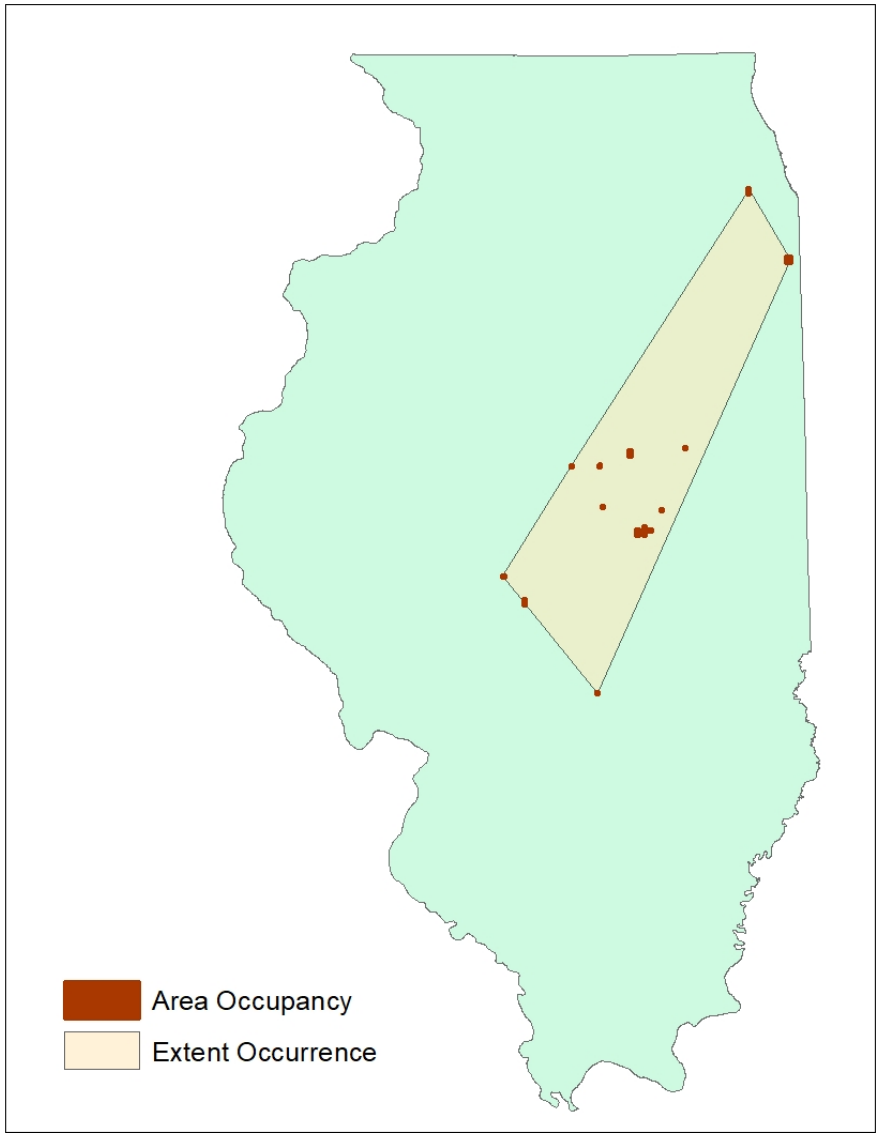
**E (5,000-20,000 km2)**

Area of Occupancy: **23** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **13 EORs** observed 2008 to 2017

**B (5-20 EORs)**



# Great Plains Ratsnake (*Pantherophis emoryi*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of 70%)**

### Threats:

**10 threats/stressors** identified in IWAP 2015: Extent, Composition-structure, Distribution/Hydrology, Predators, Parasites/Disease, Genetics, Recruitment, Mortality, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, S5 in MO

### Rarity:

Range Extent: **85 km2** range extent per minimum convex polygon

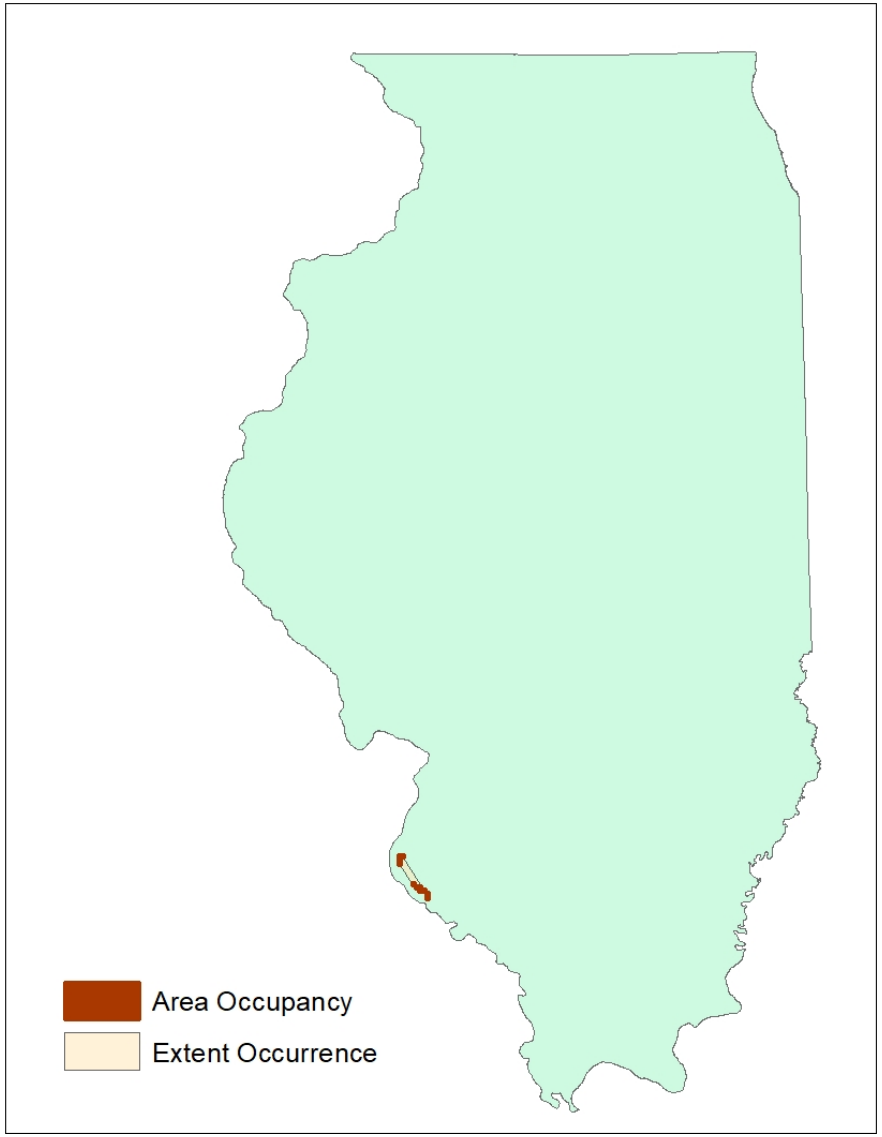
**A (<100 km2)**

Area of Occupancy: **11** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **2 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Plains Hog-nosed Snake (*Heterodon nasicus*)

Calculated Rank: **S1S2**

Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

Threats:

**14 threats/stressors identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics (severe threat), Predators, Parasites/Disease, Dispersal, Recruitment, Mortality, Killing, Disturbance, Structures/Infrastructure**

**AB (High-Very High (>4))**

Rarity:

Range Extent: **33,011 km2** range extent per minimum convex polygon

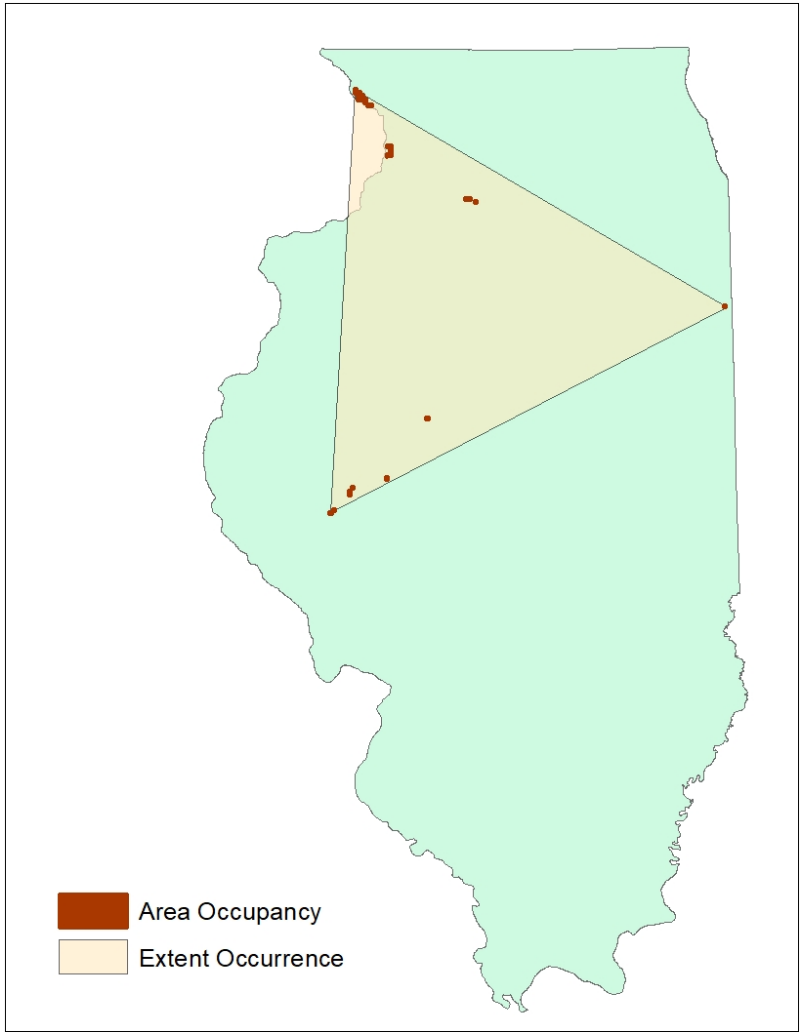
**F (20,000-200,000 km2)**

Area of Occupancy: **26 to 28** 4-km2 grid cells occupied

**E (26-125 4-km2 grid cells)**

Number of Occurrences: **10 EORs** observed 2008 to 2017

**B (5-20 EORs)**




Additional Notes: Edge of range- disjunct

# Coachwhip (*Masticophis flagellum*)

Calculated Rank: **SH**

Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of 70%)**

Threats:

**9 threats/stressors** identified in IWAP 2015: Extent, Composition-structure, Distribution/Hydrology, Competitors, Genetics, Recruitment, Mortality, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Rarity:

Range Extent: **No Records in past 10 years**

**ZA (Zero to <100 km2)**

Area of Occupancy: **No Records in past 10 years**

**ZA (Zero to 1 4-km2 grid cells)**

Number of Occurrences: **No Records in past 10 years**

**ZA (0-5 EORs)**

Additional Notes: Edge of range, not ranked in MO. More surveys needed in IL.

# Mississippi Green Watersnake (*Nerodia cyclopion*)

## Calculated Rank: **S1**

## Short-term Trend:

**Stable (-25 to 25%)** per IWAP 2015

**G (Relatively Stable <=10%)**

## Threats:

**7 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Distribution/Hydrology, Predators, Parasites/Disease, Mortality, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, S1 in KY

## Rarity:

Range Extent: **4 km2** range extent per minimum convex polygon

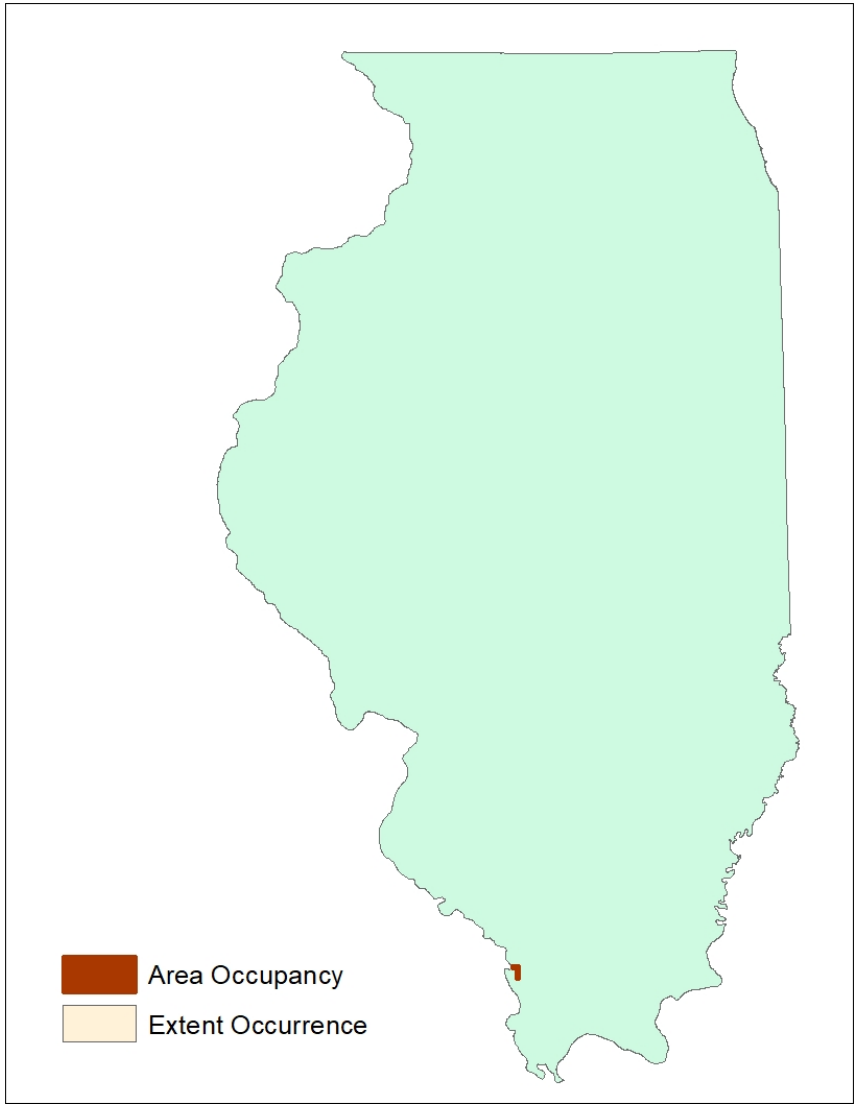
**A (<100 km2)**

Area of Occupancy: **9** 1-km2 grid cells occupied

**B (5-10 1-km2 grid cells)**

Number of Occurrences: **1 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Southern Watersnake (*Nerodia fasciata*)

Calculated Rank: **SH**

Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of 70%)**

Threats:

**11 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Competitors, Genetics, Recruitment, Mortality, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Rarity:

Range Extent: **No Records in past 10 years**

**ZA (Zero to <100 km2)**

Area of Occupancy: **No Records in past 10 years**

**ZA (Zero to 4 1-km2 grid cells)**

Number of Occurrences: **No Records in past 10 years**

**ZA (0-5 EORs)**

Additional Notes: Edge of range; not ranked in MO; S1 in KY; More surveys needed in IL.

# Flathead Snake (*Tantilla gracilis*)

Calculated Rank: **S1**

Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

Threats:

**17 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Pollutants-Sediment, Competitors, Predators, Parasites/Disease, Invasives/Exotics (severe threat), Genetics, Dispersal, Recruitment, Mortality, Killing, Disturbance, Structures/Infrastructure

**AB (High-Very High (>4))**

Rarity:

Range Extent: **888 km2** range extent per minimum convex polygon

**C (250-1,000 km2)**

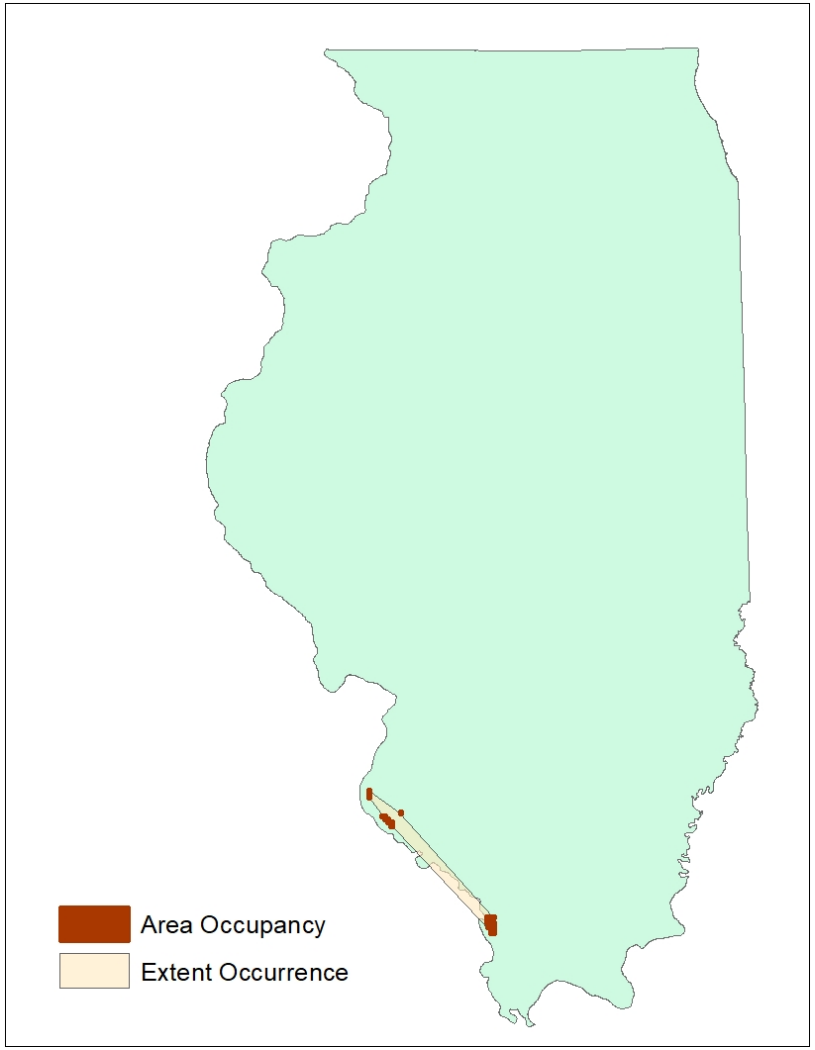
Area of Occupancy: **23** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **5 EORs** observed 2008 to 2017

**A (1-5 EORs)**

Additional Notes: Edge of range, S4 in MO



# Eastern Ribbon Snake (*Thamnophis sauritus*)

## Calculated Rank: **S1?**

## Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

## Threats:

**8 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Genetics, Recruitment, Mortality, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: Edge of range, Not ranked in IN

## Rarity:

Range Extent: **2,970 km2** range extent per minimum convex polygon

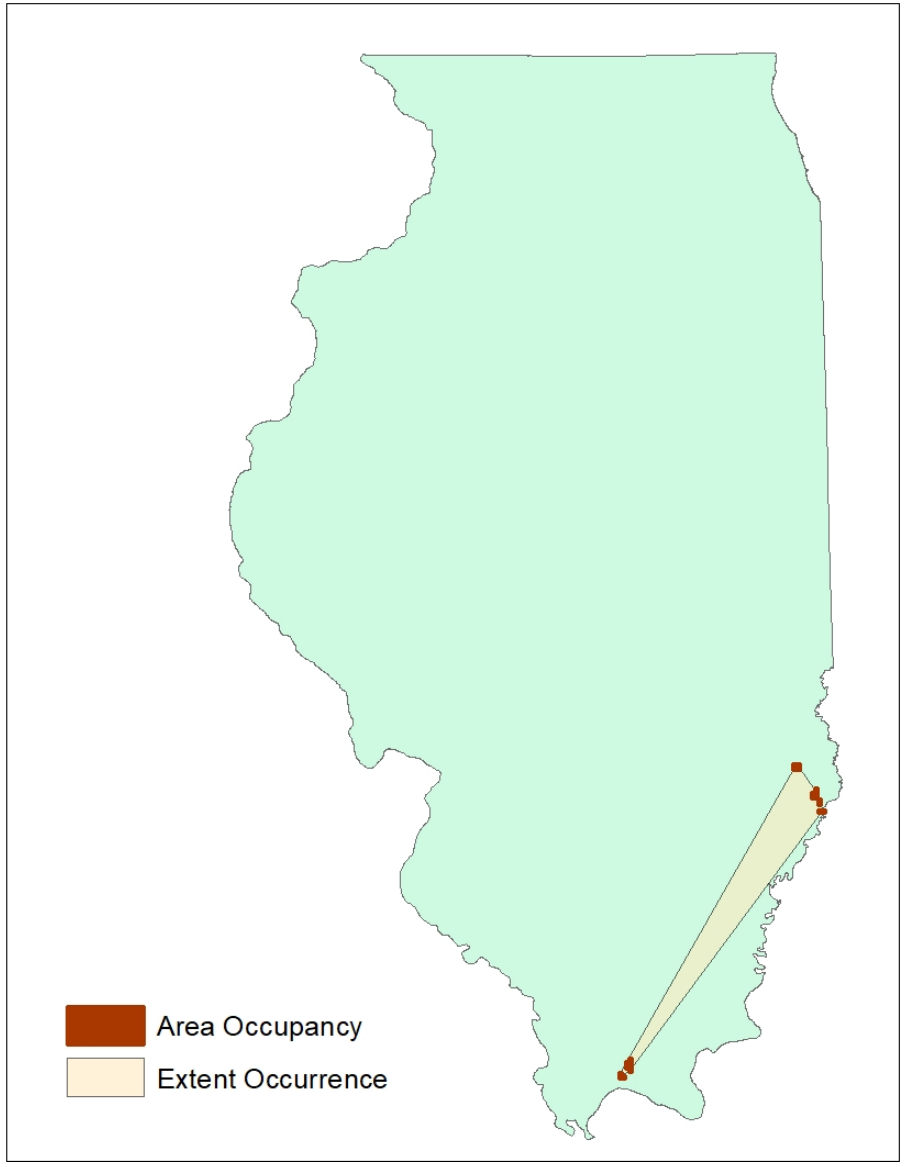
**D (1,000-5,000 km2)**

Area of Occupancy: **19** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **5 EORs** observed 2008 to 2017

**A (1-5 EORs)**



# Lined Snake (*Tropidoclonion lineatum*)

## Calculated Rank: **S1**

### Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of 70%)**

### Threats:

**11 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Competitors, Predators, Parasites/Disease, Genetics, Dispersal, Recruitment, Mortality, Killing, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **16 km2** range extent per minimum convex polygon

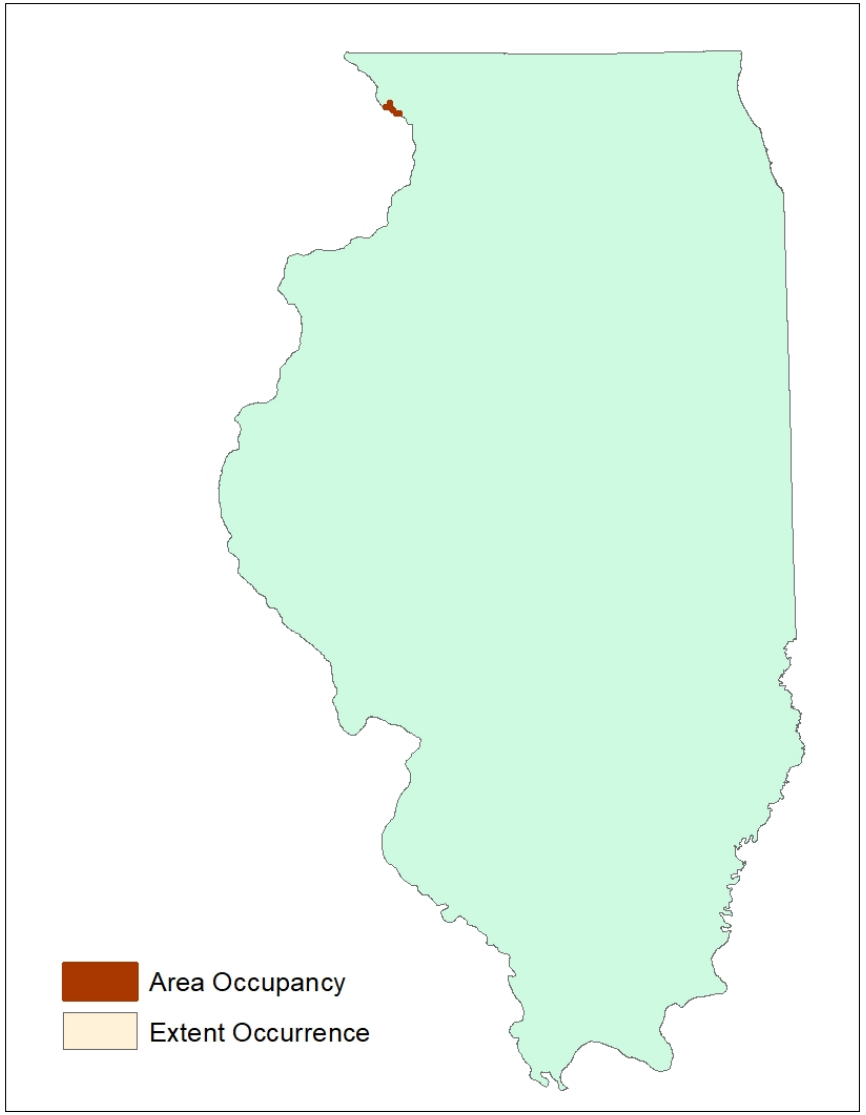
**A (<100 km2)**

Area of Occupancy: **6** 4-km2 grid cells occupied

**D (6-25 4-km2 grid cells)**

Number of Occurrences: **1 EORs** observed 2008 to 2017

**A (1-5 EORs)**




Additional Notes: Edge of range- disjunct

# Timber Rattlesnake (*Crotalus horridus*)

## Calculated Rank: **S2S3**

### Short-term Trend:

**Declining 25 to 50%** per IWAP 2015

**E (Decline of 30-50%)**

### Threats:

**15 threats/stressors** identified in IWAP 2015: Extent, Fragmentation, Composition-structure, Distribution/Hydrology, Invasives/Exotics, Predators, Parasites/Disease, Other Symbionts, Genetics, Dispersal, Recruitment, Mortality, Killing, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

### Rarity:

Range Extent: **55,617 km2** range extent per minimum convex polygon

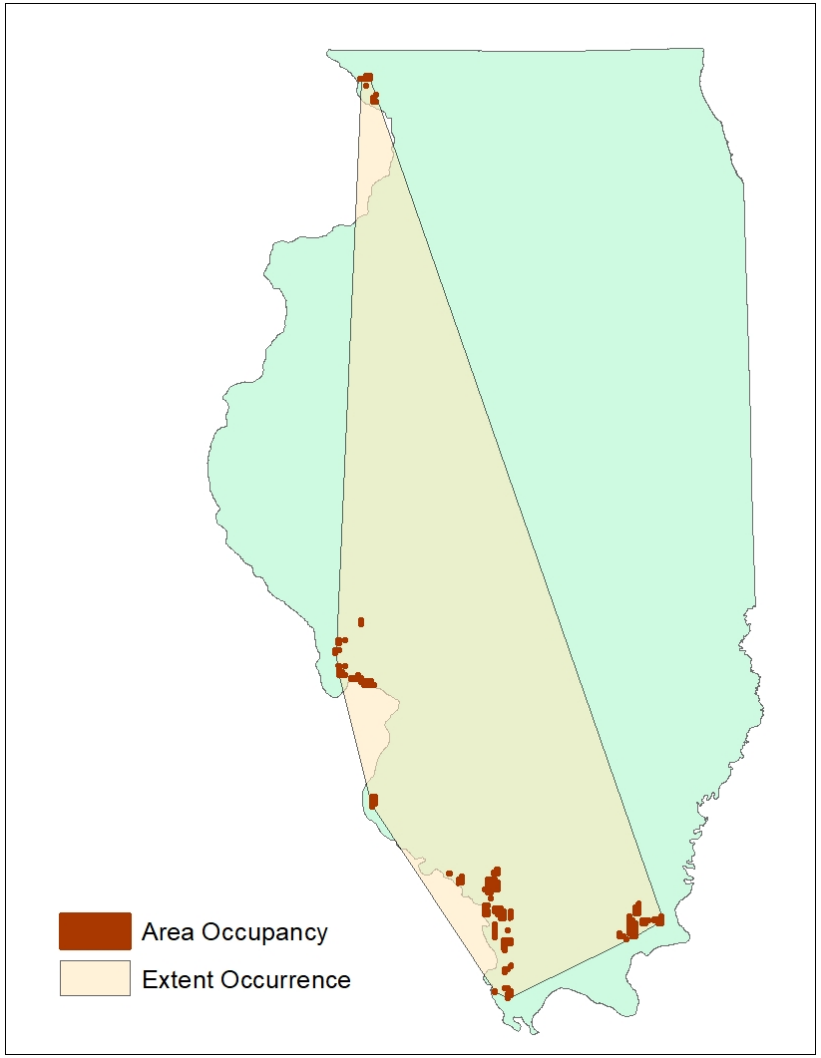
**F (20,000-200,000 km2)**

Area of Occupancy: **149 to 157** 4-km2 grid cells occupied

**F (126-500 4-km2 grid cells)**

Number of Occurrences: **27 EORs** observed 2008 to 2017

**C (21-80 EORs)**



# Eastern Massasauga (*Sistrurus catenatus catenatus*)

## Calculated Rank: **S1**

## Short-term Trend:

**Declining 50 to 100%** per IWAP 2015

**AD (Decline of 70%)**

## Threats:

**7 threats/stressors** identified in IWAP 2015: Extent, Distribution/Hydrology, Pollutants-Sediment, Invasive/Exotics, Genetics, Disturbance, Structures/Infrastructure

**AC (Medium-Very High (>4))**

Additional Notes: 0 to 1 EORs considered viable per USFWS.

## Rarity:

Range Extent: **36,708 km2** range extent per minimum convex polygon

**F (20,000-200,000 km2)**

Area of Occupancy: **36** 4-km2 grid cells occupied

**E (26-125 4-km2 grid cells)**

Number of Occurrences: **3 EORs** observed 2008 to 2017

**A (1-5 EORs)**