Black Bear Distribution in US (IUCN)
Potential sources of black bears for Illinois:
1. Wisconsin
Bear distribution has expanded further south & southwest.

http://dnr.wi.gov/topic/hunt/bearpop.html
Potential sources of black bears for Illinois:
1. Wisconsin
2. Missouri
250+ black bears reintroduced to Arkansas in 1958-1968

Black bear relative densities in Ozarks/Ouachitas in 1990 (Smith and Clark 1994 Journal of Mammalogy)
250+ black bears reintroduced to Arkansas in 1958-1968

Black bear relative densities in Ozarks/Ouachitas in 1990 (Smith and Clark 1994 Journal of Mammalogy)

Estimated Population in 2010: ~4000 bears with Harvest of >500
Missouri black bear sightings 1987-2008

Estimated black bear distribution in Missouri based on reported observations, 1989-2010. Points represent individual observations; estimated density of sightings ranges from high (red areas) to low (white areas).

http://www.fwrc.msstate.edu/carnivore/mo_bear/general_info.asp (accessed 10 October 2012)
Potential sources of black bears for Illinois:
1. Wisconsin
2. Missouri
3. Kentucky?
Constraints to Bear Recolonization of Illinois

Social Constraints
Landowner Intolerance and Attitudes

Ecological Constraints:
Female Philopatry vs. Male Dispersal
**Black Bear Reproductive Cycle (2 years)**

**Year 1:**
- May-July: Breeding
- August-November: Delayed Implantation
- December-January: True gestation
- February: Birth of Cubs
- March-April: Lactation in Den
# Black Bear Reproductive Cycle (2 years)

<table>
<thead>
<tr>
<th>Year 1:</th>
<th>May-July</th>
<th>Breeding</th>
</tr>
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<td>May-November</td>
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</tr>
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| Year 2:   | May-November  | Maternal care of cubs |
|          | December-April| Hibernate with yearling cubs |

| Year 3:   | May-July      | Family Breakup/ Breeding |
|          |               | Yearlings Disperse |
Dispersal Behavior of Black Bears

Dispersal is male-biased
Nearly 100% of male bears disperse
Age: 1-3 years of age (mode = 2 years)
Distances:
18 - 124 miles (30 - 200 km) (Massachusetts – Elowe & Dodge 1989)
12 – 38 miles (20 - 62 km) (New Mexico – Costello 2010)
55 miles (>90 km) (Minnesota, n = 4, Rogers 1987)
315 miles (507 km) (Florida to Louisiana – record distance)
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Females are philopatric (remain in or near natal home range)
- 1 of 13 dispersed in Massachusetts (9 miles)
- 1 of 30 dispersed in Alaska (Schwartz and Franzmann 1992)
- 0 of 7 dispersed in New Mexico
Migrations and dispersal in western Texas by both males and females as far as 132 miles (214 km)
Stimulated by drought and food scarcity
124 miles (200 km) movement by black bears:

Rare for males, but not uncommon

Very rare for females, but within realm of possibility

= 124 miles (200 km)
Black Bear
General Habitat Needs:
Contiguous forests
Fall mast source
Spring/summer soft mast
Low human disturbance
Travel corridors
Denning habitat
Black Bears and Roads: A Negative Relationship
Dens of Black Bears – rock cavities, trees, ground nests
# Hibernation

<table>
<thead>
<tr>
<th>Bear Hibernation</th>
<th>“True” Hibernation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature 31-35°C</td>
<td>Temperature 3-5°C</td>
</tr>
<tr>
<td>Metabolism 50-60% of normal</td>
<td>Metabolism 1-3% of normal</td>
</tr>
<tr>
<td>Heart Rate 8-12 bpm</td>
<td>Heart Rate 3-10 bpm</td>
</tr>
<tr>
<td>No drinking</td>
<td>Drink if water available</td>
</tr>
<tr>
<td>No feeding</td>
<td>Feed if food is cached</td>
</tr>
<tr>
<td>No urination</td>
<td>Urinate at arousals</td>
</tr>
<tr>
<td>No defecation</td>
<td>Defecate at arousals</td>
</tr>
<tr>
<td>2-8 months</td>
<td>3-9 months</td>
</tr>
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</table>
Bear Sign:

Tracks
  plantigrade
  5 toes front and hind feet
  claws out

Forepaws:
Width: 8-12 cm (3-5 inches)
Length: 8-10.5 cm (3-4 inches)

Hindpaws:
Width: 8-11 cm (3-4.5 inches)
Length: 15-20 cm (6-8 inches)

Yearling Males > Adult Females
Bear Scat
Mark Trees (males)
Black Bear Management Issues
Black Bear Damage and Conflicts

Damage:

Crops: Corn, Wheat, Soybeans, Fruits and Vegetables

Apiaries

Orchards

Bird feeders (especially suet)

Livestock depredation

Vehicle Collisions
Corn Damage by Black Bears:

Circular patches in field interior with flattened or broken stalks

Ears completely eaten or cleared of kernels

More plants damaged than actually consumed
Management Responses and Policy

Depredation permits

Capture and Translocation