

OLD FOREST STAGE HABITATS NARRATIVE

Habitat description

Old forest stage is typified with main overstory canopy trees that are relatively old and relatively large for the represented species on that site. Old forest is comprised of a significant number of standing snags and downed logs. More frequent and larger canopy gaps occur as older trees die and the gaps revert to the early forest stage.

Problems affecting species and habitats

Species threats

The respondent did not indicate any “critical threat” or “serious threat” to wildlife in old forest stage habitats in Indiana. The respondent listed the following as “somewhat of a threat” (not ranked):

- Invasive/non-native species
- Habitat loss (breeding range, feeding/foraging areas)
- Large home range requirements
- Dependence on irregular resources (cyclical annual variations) (e.g., food, water, habitat limited due to annual variations in availability)

The respondent listed the following as “slight threat” to wildlife in old forest stage habitats in Indiana (not ranked):

- Predators (native or domesticated)
- Species overpopulation
- Unintentional take/direct mortality (e.g., vehicle collisions, power line collisions, by-catch, harvesting equipment, land preparation machinery)
- Viable reproductive population size or availability
- Degradation of movement/migration routes (overwintering habitats, nesting and staging sites)

The respondent listed no additional threats to wildlife in old forest stage habitats in Indiana.

The respondent commented that availability and “quality of suitable nesting/feeding habitat” is the top threat to wildlife in old forest stage habitats in Indiana.

Technical experts and conservation organizations reviewed the above results and were asked if these were a reasonable representation of the threats to wildlife in old forest stage habitats. There were no responses.

Habitat threats

The respondent did not indicate any “critical threat” or “serious threat” to old forest stage habitats in Indiana. The respondent listed the following as “somewhat of a threat” (not ranked):

- Commercial or residential development (sprawl)
- Counterproductive financial incentives or regulations
- Invasive/non-native species
- Habitat fragmentation
- Habitat degradation
- Impoundment of water/flow regulation
- Agricultural/forestry practices

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The respondent listed the following as “slight threat” to old forest stage habitats in Indiana:

- Successional change
- Stream channelization
- Mining/acidification

The respondent noted no additional threats to old forest stage habitats in Indiana.

The respondent commented that “loss of cavity trees and harvest of older forests” is a top threat to old forest stage habitats in Indiana.

Technical experts and conservation organizations reviewed the above results and were asked if these were a reasonable representation of the threats to old forest stage habitats. There were no responses.

Additional research and survey efforts

Current body of research

Species research

The respondent indicated that the current body of science for wildlife in old forest stage habitats is adequate.

Respondents identified the following citations (title, author, date, publisher) that would give the best overview of wildlife in old forest stage habitats in Indiana.

Title = Breeding Bird Atlas of Indiana;
Author = Castrale, Hopkins, Keller;
Date = 1988;
Publisher = IDNR

Title = BNA Account - Pileated Woodpecker;
Author = E.L. Bull and J.A. Jackson;
Date = 1995;
Publisher = American Ornithologists' Union

Technical experts and conservation organizations reviewed the above results and were asked if these were a reasonable representation of the current body of science for wildlife in old forest stage habitats. There were no responses.

Habitat research

The respondent indicated that the current body of science for old forest stage habitats is adequate.

Respondents identified the following citations (title, author, date, publisher) that would give the best overview of old forest stage habitats in Indiana.

Title = see previous citations

Technical experts and conservation organizations reviewed the above results and were asked if these were a reasonable representation of the current body of science for old forest stage habitats. There were no responses.

Research needs

Species research

The respondent did not list any research needs for old forest stage wildlife in Indiana as “urgently needed” or “greatly needed.” The respondent stated that the following research is “needed” (not ranked):

- Life cycle
- Distribution and abundance
- Limiting factors (food, shelter, water, breeding sites)
- Threats (predators/competition, contamination)
- Relationship/dependence on specific habitats
- Population health (genetic and physical)

The respondent listed no other research needs for wildlife in old forest stage habitats in Indiana.

Technical experts and conservation organizations reviewed the above results and were asked if these were a reasonable representation of the research needs for wildlife in old forest stage habitats. There were no responses.

Habitat research

The respondent did not list any research needs for old forest stage habitats in Indiana as “urgently needed” or “greatly needed.” The respondent stated that the following research is “needed” (not ranked):

- Successional changes
- Distribution and abundance (fragmentation)
- Threats (land use change/competition, contamination/global warming)
- Relationship/dependence on specific site conditions
- Growth and development of individual components of habitat

The respondent listed no other research needs for old forest stage habitats in Indiana.

Technical experts and conservation organizations reviewed the above results and were asked if these were a reasonable representation of the research needs for old forest stage habitats. There were no responses.

Conservation actions necessary

Species actions

The respondent did not indicate any efforts that address threats to old forest stage wildlife in Indiana “very well.” The following addresses threats to wildlife “somewhat” (not ranked):

- Habitat protection
- Threats reduction
- Regulation of collecting

The respondent listed no other current conservation practices for wildlife in old forest stage habitats in Indiana.

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The respondent recommended “conservation of forests and wise timber management emphasizing older forests” as specific practices for more effective conservation of old forest stage wildlife in Indiana.

Technical experts and conservation organizations reviewed the above results and were asked if these were a reasonable representation of the conservation practices for wildlife in old forest stage habitats. There were no responses.

Habitat actions

The respondent did not indicate any efforts that address threats to old forest stage habitats in Indiana “very well.” The following address threats “somewhat” (not ranked):

- Habitat protection through regulation
- Habitat protection on public lands
- Habitat protection incentives (financial)
- Habitat restoration on public lands
- Habitat restoration incentives (financial)
- Succession control (fire, mowing)
- Corridor development/protection
- Protection of adjacent buffer zone
- Restrict public access and disturbance
- Land use planning
- Technical assistance
- Cooperative land management agreements (conservation easements)

The respondent listed no other current conservation practices for old forest stage habitats in Indiana.

The respondent recommended “incentives to preserve forests” and “use good timber management practices” as specific practices for more effective conservation of old forest stage habitats in Indiana.

Technical experts and conservation organizations reviewed the above results and were asked if these were a reasonable representation of the conservation practices for old forest stage habitats. There were no responses.

Proposed plans for monitoring

Current monitoring

Species monitoring

The respondent was aware of the following monitoring of old forest stage wildlife in Indiana conducted by state agencies:

- Occasional statewide (less than once a year and not regularly scheduled) monitoring

The respondent was aware of the following monitoring of old forest stage wildlife in Indiana conducted by other organizations:

- Statewide once-a-year monitoring

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The respondent considered no monitoring techniques for wildlife in old forest stage habitats in Indiana as “very crucial.” The respondent considered Statewide once a year monitoring by other organizations to be “somewhat crucial” and Occasional statewide (less than once a year and not regularly scheduled) monitoring by other organizations “slightly crucial” for wildlife in old forest stage habitats in Indiana:

The respondent indicated that the following monitoring by state agencies takes place for wildlife in old forest stage habitats in Indiana:

- Breeding Bird Atlas – statewide

The respondent indicated that the following monitoring by other organizations takes place for wildlife in old forest stage habitats in Indiana (not ranked):

- Federal Breeding Bird Surveys – statewide
- Regional May Day Bird Counts
- Summer Bird Counts
- Christmas Bird Counts

The respondent indicated that the following entities participate in monitoring old forest stage wildlife in Indiana (not ranked):

- U.S. Geological Survey
- Birding groups
- National Audubon Society

The respondent indicated that “driving survey routes” and “volunteer census/surveys” are “frequently used” monitoring techniques for old forest wildlife in Indiana.

The respondent listed the following techniques as “occasionally used” (not ranked):

- Modeling
- Spot mapping
- Professional survey/census
- Representative sites
- Probabilistic sites

The respondent listed “radio telemetry/tracking” and “mark and recapture” as “not currently used but possible with existing technology and data” for wildlife in old forest stage habitats in Indiana.

The respondent listed no other monitoring techniques for wildlife in old forest stage habitats in Indiana.

Technical experts and conservation organizations reviewed the above results and were asked if these were a reasonable representation of the monitoring techniques for wildlife in old forest stage habitats. There were no responses.

Habitat inventory and assessment

The respondent was aware of no inventory and assessment (statewide, local or regional) conducted by state agencies for old forest stage habitats in Indiana; therefore, no efforts are considered crucial. The respondent was aware of the following conducted by other organizations, and considered it “somewhat crucial” for old forest stage habitats in Indiana:

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- Periodic statewide (less than once a year but still regularly scheduled) inventory and assessment

The respondent indicated that other organizations conduct the following inventory and assessment technique for old forest stage habitats in Indiana:

- Periodic aerial imaging

The respondent indicated that the following organizations might conduct inventory and assessment for old forest stage habitats in Indiana (not ranked):

- U.S. Department of Agriculture
- U.S. Geological Survey

The respondent indicated that no inventory and assessment techniques for old forest stage habitats in Indiana are “frequently used.” The respondent stated that these techniques are “occasionally used:”

- GIS mapping
- Aerial photography and analysis
- Systematic mapping
- Participation in landuse programs
- Modeling

Technical experts and conservation organizations reviewed the above results and were asked if these were a reasonable representation of the inventory and assessment techniques for old forest stage habitats. There were no responses.

Recommended monitoring

Species monitoring

The respondent recommended “annual statewide breeding bird surveys by federal agencies” to monitor wildlife in old forest stage habitats in Indiana.

Technical experts and conservation organizations reviewed the above results and were asked if these were a reasonable representation of the monitoring techniques needed for wildlife in old forest stage habitats. There were no responses.

Habitat inventory and assessment

The respondent recommended “aerial imaging and modeling” to assess and inventory old forest stage habitats in Indiana.

Technical experts and conservation organizations reviewed the above results and were asked if these were a reasonable representation of the inventory and assessment techniques needed for old forest stage habitats. There were no responses.