

Appendix E-31: Roads/Rails/Bridges

Degradation of movement/migration routes (overwintering habitats, nesting and staging sites)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Genetic pollution (hybridization)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Unknown	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Other (please specify below)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
						Total Respondents	11

8. Other threats to the Wildlife in Roads/Rails/Bridges Habitat in Indiana.

No responses were entered for this question.

Total Respondents **0**

(skipped this question) **1**

9. Please briefly describe the top two threats to the Wildlife in Roads/Rails/Bridges Habitat in Indiana identified above.

1. House Sparrow preemption of nests.
Vandalism potential at nesting colonies.

Total Respondents **1**

10. Please rank the following threats to the HABITAT of the Wildlife in Roads/Rails/Bridges Habitat in Indiana.

	Critical threat	Serious threat	Somewhat of a threat	Slight threat	No threat	Unknown	Response Total
Commercial or residential development (sprawl)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Counterproductive financial incentives or regulations	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Invasive/non-native species	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Nonpoint source pollution (sedimentation and nutrients)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Habitat fragmentation	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Successional change	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Diseases (of plants that create habitat)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Habitat degradation	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Climate change	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Stream channelization	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1

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Periodic regional or local (less than once a year but still regularly scheduled) monitoring conducted by state agencies	0% (0)	100% (1)	1
Occasional regional or local (less than once a year and not regularly scheduled) monitoring conducted by state agencies	0% (0)	100% (1)	1
		Total Respondents	8

14. What current monitoring efforts by other organizations are you aware of for the Wildlife in Roads/Rails/Bridges Habitat in Indiana?

	Yes, these efforts occur	Not aware of these efforts occurring	Response Total
Statewide year-round monitoring conducted by other organizations	0% (0)	100% (1)	1
Statewide once a year monitoring conducted by other organizations	100% (1)	0% (0)	1
Periodic statewide (less than once a year but still regularly scheduled) monitoring conducted by other organizations	0% (0)	100% (1)	1
Occasional statewide (less than once a year and not regularly scheduled) monitoring conducted by other organizations	0% (0)	100% (1)	1
Regional or local year-round monitoring conducted by other organizations	0% (0)	100% (1)	1
Regional or local once a year monitoring conducted by other organizations	0% (0)	100% (1)	1
Periodic regional or local (less than once a year but still regularly scheduled) monitoring conducted by other organizations	0% (0)	100% (1)	1
Occasional regional or local (less than once a year and not regularly scheduled) monitoring conducted by other organizations	0% (0)	100% (1)	1
		Total Respondents	8

15. How crucial are these monitoring efforts by state agencies for the conservation of the Wildlife in Roads/Rails/Bridges Habitat in Indiana?

	Very crucial	Somewhat crucial	Slightly crucial	Not crucial	Unknown	Response Total
Statewide year-round monitoring conducted by state agencies	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Statewide once a year monitoring conducted by state agencies	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Periodic statewide (less than once a year but still regularly scheduled) monitoring conducted by state agencies	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Occasional statewide (less than once a year and not regularly scheduled)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1

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technique)								
Representative sites	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1	
Probabilistic sites	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0	
Other (please specify below)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0	
							Total Respondents	4

21. Other monitoring techniques for the Wildlife in Roads/Rails/Bridges Habitat in Indiana.

1. Surveys for colonies and periodic censuses of nests/ populations.

Total Respondents 1

22. What one or two monitoring techniques would you recommend for effective conservation of the Wildlife in Roads/Rails/Bridges Habitat in Indiana?

1. Surveys for colonies and periodic censuses of nests/ populations.

Total Respondents 1

23. What current HABITAT inventory and assessment efforts or activities by state agencies are you aware of for the Wildlife in Roads/Rails/Bridges Habitat in Indiana?

	Yes, these efforts occur	No effort that I'm aware of	Response Total
Statewide annual inventory and assessment conducted by state agencies	0% (0)	100% (1)	1
Statewide once a year inventory and assessment conducted by state agencies	0% (0)	100% (1)	1
Periodic statewide (less than once a year but still regularly scheduled) inventory and assessment conducted by state agencies	0% (0)	100% (1)	1
Occasional statewide (less than once a year and not regularly scheduled) inventory and assessment conducted by state agencies	0% (0)	100% (1)	1
Regional or local year-round inventory and assessment conducted by state agencies	0% (0)	100% (1)	1
Regional or local once a year inventory and assessment conducted by state agencies	0% (0)	100% (1)	1
Periodic regional or local (less than once a year but still regularly scheduled) inventory and assessment conducted by state agencies	0% (0)	100% (1)	1
Occasional regional or local (less than once a year and not regularly scheduled) inventory and assessment conducted by state agencies	0% (0)	100% (1)	1

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State revenue data	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Regulatory information	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Participation in landuse programs	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Modeling	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Voluntary landowner reporting	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Other (please specify below)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Total Respondents							3

31. Other HABITAT inventory and assessment techniques for the Wildlife in Roads/Rails/Bridges Habitat in Indiana.

- "Habitat" for some species is defined primarily by suitable nesting sites near water. Volunteer participation in building a database of known breeding colonies and volunteer periodic censusing of colony sizes.

Total Respondents 1

32. What one or two HABITAT inventory and assessment techniques would you recommend for effective conservation of the Wildlife in Roads/Rails/Bridges Habitat in Indiana?

- "Habitat" for this some species is defined primarily by suitable nesting sites near water. Volunteer participation in building a database of known breeding colonies and volunteer periodic censusing of colony sizes.

Total Respondents 1

33. What is the current body of science for the Wildlife in Roads/Rails/Bridges Habitat in Indiana?

	Response Total	Response Percent
Complete, up to date and extensive	0	0%
Adequate	0	0%
Inadequate	1	100%
Nonexistent	0	0%
Other (please explain below)	0	0%
Total Respondents		1

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- 34.** Please provide a citation (title, author, date, publisher) that would give the best overview of the Wildlife in Roads/Rails/Bridges Habitat in Indiana, if available. This resource may be used if further detail is needed.

	Response Total	Response Percent
Title	0	0%
Author	0	0%
Date	0	0%
Publisher	0	0%
Total Respondents	0	
(skipped this question)		1

- 35.** If possible, please provide a second citation (title, author, date, publisher) that would give another good overview of the Wildlife in Roads/Rails/Bridges Habitat in Indiana. This resource may also be used if further detail is needed.

	Response Total	Response Percent
Title	0	0%
Author	0	0%
Date	0	0%
Publisher	0	0%
Total Respondents	0	
(skipped this question)		1

- 36.** What is the current HABITAT body of science for the Wildlife in Roads/Rails/Bridges Habitat in Indiana?

	Response Total	Response Percent
Complete, up to date and extensive	0	0%
Adequate	0	0%
Inadequate	1	100%
Nonexistent	0	0%
Other (please explain below)	0	0%
Total Respondents	1	

- 37.** Please provide a citation (title, author, date, publisher) that would give the best HABITAT overview of the Wildlife in Roads/Rails/Bridges Habitat in Indiana, if available. This resource may be used if further detail is needed.

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	Response Total	Response Percent
Title	0	0%
Author	0	0%
Date	0	0%
Publisher	0	0%
Total Respondents	0	
	(skipped this question)	1

38. If possible, please provide a second citation (title, author, date, publisher) that would give another good HABITAT overview of the Wildlife in Roads/Rails/Bridges Habitat in Indiana. This resource may also be used if further detail is needed.

	Response Total	Response Percent
Title	0	0%
Author	0	0%
Date	0	0%
Publisher	0	0%
Total Respondents	0	
	(skipped this question)	1

39. What are the research needs for the Wildlife in Roads/Rails/Bridges Habitat in Indiana?

	Urgently needed	Greatly needed	Needed	Slightly needed	Not needed	Unknown	Response Total						
Life cycle	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1						
Distribution and abundance	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1						
Limiting factors (food, shelter, water, breeding sites)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1						
Threats (predators/competition, contamination)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1						
Relationship/dependence on specific habitats	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1						
Population health (genetic and physical)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1						
Other (please specify below)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1						
Total Respondents							7						

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40. Other research needs for the Wildlife in Roads/Rails/Bridges Habitat in Indiana.

No responses were entered for this question.

Total Respondents 0

(skipped this question) 1

41. What are the HABITAT research needs for the Wildlife in Roads/Rails/Bridges Habitat in Indiana?

	Urgently needed	Greatly needed	Needed	Slightly needed	Not needed	Unknown	Response Total
Successional changes	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Distribution and abundance (fragmentation)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Threats (land use change/competition, contamination/global warming)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Relationship/dependence on specific site conditions	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Growth and development of individual components of the habitat	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Other (please specify below)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
	Total Respondents						6

42. Other HABITAT research needs for the Wildlife in Roads/Rails/Bridges Habitat in Indiana.

No responses were entered for this question.

Total Respondents 0

(skipped this question) 1

43. How well do the following conservation efforts address the threats to the Wildlife in Roads/Rails/Bridges Habitat in Indiana?

	Very well	Somewhat	Not at all	Not used	Unknown	Response Total
Habitat protection (use below for details)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Population management (hunting, trapping)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Population enhancement (captive breeding and release)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Reintroduction (restoration)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1

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Food plots	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Threats reduction	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Native predator control	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Exotic/invasive species control	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Regulation of collecting	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Disease/parasite management	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Translocation to new geographic range	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Protection of migration routes	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Limiting contact with pollutants/contaminants	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Public education to reduce human disturbance	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Culling/selective removal	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Stocking	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Other (please specify below)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
						Total Respondents 17

44. Other current conservation practices for the Wildlife in Roads/Rails/Bridges Habitat in Indiana.

1. None known to me.

Total Respondents 1

45. What one or two specific practices would you recommend for more effective conservation of the Wildlife in Roads/Rails/Bridges Habitat in Indiana?

1. Continued use of bridge architecture that favors nest placement.

Total Respondents 1

46. How well do the following conservation efforts address the HABITAT threats to the Wildlife in Roads/Rails/Bridges Habitat in Indiana?

	Very well	Somewhat	Not at all	Not used	Unknown	Response Total
Habitat protection through regulation	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Habitat protection on public lands	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Habitat protection incentives (financial)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Habitat restoration through regulation	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Habitat restoration on public lands	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Habitat restoration incentives (financial)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1

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Artificial habitat creation (artificial reefs, nesting platforms)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Selective use of functionally equivalent exotic species in place of extirpated natives	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Succession control (fire, mowing)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Corridor development/protection	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Managing water regimes	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Pollution reduction	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Protection of adjacent buffer zone	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Restrict public access and disturbance	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Land use planning	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Technical assistance	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Cooperative land management agreements (conservation easements)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Other (please specify below)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
						Total Respondents 18

47. Other current HABITAT conservation practices for the Wildlife in Roads/Rails/Bridges Habitat in Indiana.

No responses were entered for this question.

Total Respondents 0

(skipped this question) 1

48. What one or two specific HABITAT practices would you recommend for more effective conservation of the Wildlife in Roads/Rails/Bridges Habitat in Indiana?

1. Critical habitat for Cliff Swallows is nesting sites, most are on public (DOT) structures (bridges). Much less important is water quality, etc. for feeding areas.

Total Respondents 1

49. Do you have any additional comments or information on the Wildlife in Roads/Rails/Bridges Habitat that you feel would be useful in the development of the Indiana Comprehensive Wildlife Strategy?

No responses were entered for this question.

Total Respondents 0

(skipped this question) 1