

Appendix E-45: Upland

Impoundment of water/flow regulation	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Agricultural/forestry practices	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Residual contamination (persistent toxins)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Point source pollution (continuing)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Mining/acidification	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Drainage practices (stormwater runoff)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Unknown	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

11. Other HABITAT threats to the Wildlife in Upland Forest Habitats in Indiana.

- The Southeastern crowned snake is found in conjunction with upland forested habitats in Indiana, but also prefers sand and siltstone glades.

Total Respondents 1

12. Please briefly describe the top two HABITAT threats to the Wildlife in Upland Forest Habitats in Indiana identified above.

- Threats to some wildlife species habitat include invasive species encroachment and habitat destruction.

Total Respondents 1

13. What current monitoring efforts by state agencies are you aware of for the Wildlife in Upland Forest Habitats in Indiana?

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

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Regional or local once a year monitoring conducted by state agencies	0% (0)	100% (1)	1
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	100% (1)	0% (0)	1
		Total Respondents	8

14. What current monitoring efforts by other organizations are you aware of for the Wildlife in Upland Forest Habitats 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	0% (0)	100% (1)	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 Upland Forest Habitats 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

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

16. How crucial are these monitoring efforts by other organizations for the conservation of the Wildlife in Upland Forest Habitats in Indiana?						
	Very crucial	Somewhat crucial	Slightly crucial	Not crucial	Unknown	Response Total
Statewide year-round monitoring conducted by other organizations	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Statewide once a year monitoring conducted by other organizations	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 other organizations	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Occasional statewide (less than once a year and not regularly scheduled) monitoring conducted by other organizations	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Regional or local year-round monitoring conducted by other organizations	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Regional or local once a year monitoring conducted by other organizations	0% (0)	0% (0)	0% (0)	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)	0% (0)	0% (0)	0% (0)	1
Occasional regional or local (less than once a year and not regularly scheduled) monitoring conducted by other organizations	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Total Respondents						8

17. Regional or local state agency monitoring for the Wildlife in Upland Forest Habitats in Indiana.

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1. The DNR occasionally monitors this species.

Total Respondents 1

18. Regional or local monitoring by other organizations for the Wildlife in Upland Forest Habitats in Indiana.

1. The nature conservancy occasionally monitors for this species.

Total Respondents 1

19. Please list organizations that are monitoring the Wildlife in Upland Forest Habitats in Indiana.

No responses were entered for this question.

Total Respondents 0

(skipped this question) 1

20. What are the current monitoring techniques for the Wildlife in Upland Forest Habitats in Indiana?

	Frequently used	Occasionally used	Not used but possible with existing technology and data	Not used and not possible with existing technology and data	Not economically feasible	Unknown	Response Total
Radio telemetry and tracking	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Modeling	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Coverboard routes	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Spot mapping	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Driving a survey route	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Reporting from harvest, depredation, or unintentional take (road kill, bycatch)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Mark and recapture	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Professional survey/census	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Volunteer survey/census	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1

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Trapping (by any technique)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Representative sites	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Probabilistic sites	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Other (please specify below)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Total Respondents							12

21. Other monitoring techniques for the Wildlife in Upland Forest Habitats in Indiana.

No responses were entered for this question.

Total Respondents **0**

(skipped this question) 1

22. What one or two monitoring techniques would you recommend for effective conservation of the Wildlife in Upland Forest Habitats in Indiana?

1. I would recommend the use of professional surveys and test the effectiveness of cover objects for "trapping" this species.

Total Respondents **1**

23. What current HABITAT inventory and assessment efforts or activities by state agencies are you aware of for the Wildlife in Upland Forest Habitats in Indiana?

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

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Occasional regional or local (less than once a year and not regularly scheduled) inventory and assessment conducted by state agencies	0% (0)	0% (0)	0
		Total Respondents	3

24. What current HABITAT inventory and assessment efforts or activities by other organizations are you aware of for the Wildlife in Upland Forest Habitats in Indiana?

	Yes, these efforts occur	No effort that I'm aware of	Response Total
Statewide year-round inventory and assessment conducted by other organizations	0% (0)	100% (1)	1
Statewide once a year inventory and assessment conducted by other organizations	0% (0)	100% (1)	1
Periodic statewide (less than once a year but still regularly scheduled) inventory and assessment conducted by other organizations	0% (0)	100% (1)	1
Occasional statewide (less than once a year and not regularly scheduled) inventory and assessment conducted by other organizations	0% (0)	100% (1)	1
Regional or local year-round inventory and assessment conducted by other organizations	0% (0)	100% (1)	1
Regional or local once a year inventory and assessment conducted by other organizations	0% (0)	100% (1)	1
Periodic regional or local (less than once a year but still regularly scheduled) inventory and assessment conducted by other organizations	0% (0)	100% (1)	1
Occasional regional or local (less than once a year and not regularly scheduled) inventory and assessment conducted by other organizations	0% (0)	100% (1)	1
		Total Respondents	8

25. How crucial are these HABITAT efforts by state agencies for the conservation of the Wildlife in Upland Forest Habitats in Indiana?

	These efforts are very crucial for this HABITAT	These efforts are somewhat crucial for this HABITAT	These efforts are slightly crucial for this HABITAT	These efforts are not crucial for this HABITAT	Unknown	Response Total
Statewide annual inventory and assessment conducted by state agencies	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Statewide once a year inventory and assessment conducted by state agencies	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Periodic statewide (less than once a						

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and assessment conducted by other organizations

Periodic regional or local (less than once a year but still regularly scheduled) inventory and assessment conducted by other organizations

0% (0) 0% (0) 0% (0) 0% (0) 0% (0) **0**

Occasional regional or local (less than once a year and not regularly scheduled) inventory and assessment conducted by other organizations

0% (0) 0% (0) 0% (0) 0% (0) 0% (0) **0**

Total Respondents **0**

(skipped this question) 1

27. Regional or local state agency HABITAT inventory and assessment for the Wildlife in Upland Forest Habitats in Indiana.

1. I am not sure how often state agencies survey the crowned snakes habitat. The division of nature preserves monitors these habitats.

Total Respondents **1**

28. Regional or local HABITAT inventory and assessment by other organizations for the Wildlife in Upland Forest Habitats in Indiana.

No responses were entered for this question.

Total Respondents **0**

(skipped this question) 1

29. Please list organizations that are monitoring this HABITAT for the Wildlife in Upland Forest Habitats in Indiana.

1. Nature Conservancy and IDNR nature preserves.

Total Respondents **1**

30. If a technique is not applicable to the Wildlife in Upland Forest Habitats do not select a response in that row.

	Frequently used	Occasionally used	Not used but possible with existing technology and data	Not used and not possible with existing technology and data	Not economically feasible	Unknown	Response Total
GIS mapping	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Aerial							

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Other (please explain below)	0	0%
	Total Respondents	1

34. Please provide a citation (title, author, date, publisher) that would give the best overview of the Wildlife in Upland Forest Habitats in Indiana, if available. This resource may be used if further detail is needed.

		Response Total	Response Percent
Title	Amphibians and Reptiles of Indiana	1	100%
Author	Minton	1	100%
Date	2001	1	100%
Publisher	Indiana Academy of Science	1	100%
		Total Respondents	1

35. If possible, please provide a second citation (title, author, date, publisher) that would give another good overview of the Wildlife in Upland Forest Habitats in Indiana. This resource may also be used if further detail is needed.

		Response Total	Response Percent
Title	Snakes of the United States and Canada	1	100%
Author	Ernst and Ernst	1	100%
Date	2003	1	100%
Publisher	Smithsonian Institute	1	100%
		Total Respondents	1

36. What is the current HABITAT body of science for the Wildlife in Upland Forest Habitats in Indiana?

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

37. Please provide a citation (title, author, date, publisher) that would give the best HABITAT overview of the Wildlife in Upland Forest Habitats in Indiana, if available. This resource may be used if further detail is needed.

Response Total	Response Percent
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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 Upland Forest Habitats 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 Upland Forest Habitats in Indiana?

	Urgently needed	Greatly needed	Needed	Slightly needed	Not needed	Unknown	Response Total
Life cycle	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Distribution and abundance	100% (1)	0% (0)	0% (0)	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)	100% (1)	0% (0)	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)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Other (please specify below)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
	Total Respondents						7

40. Other research needs for the Wildlife in Upland Forest Habitats in Indiana.

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1. General life history information is needed for the Southeastern crowned snake in Indiana. Due to this species secretive nature, little is known about Indiana's populations.

Total Respondents **1**

41. What are the HABITAT research needs for the Wildlife in Upland Forest Habitats in Indiana?

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

42. Other HABITAT research needs for the Wildlife in Upland Forest Habitats 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 Upland Forest Habitats 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)	0% (0)	100% (1)	0% (0)	1
Population enhancement (captive breeding and release)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Reintroduction (restoration)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Food plots	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1

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Threats reduction	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1	
Native predator control	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1	
Exotic/invasive species control	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1	
Regulation of collecting	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1	
Disease/parasite management	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1	
Translocation to new geographic range	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1	
Protection of migration routes	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1	
Limiting contact with pollutants/contaminants	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1	
Public education to reduce human disturbance	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1	
Culling/selective removal	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1	
Stocking	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)	0	
Total Respondents						16	

44. Other current conservation practices for the Wildlife in Upland Forest Habitats in Indiana.

No responses were entered for this question.

Total Respondents **0**

(skipped this question) 1

45. What one or two specific practices would you recommend for more effective conservation of the Wildlife in Upland Forest Habitats in Indiana?

1. Habitat protection and research of general life history requirements.

Total Respondents **1**

46. How well do the following conservation efforts address the HABITAT threats to the Wildlife in Upland Forest Habitats in Indiana?

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

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

47. Other current HABITAT conservation practices for the Wildlife in Upland Forest Habitats 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 Upland Forest Habitats in Indiana?

No responses were entered for this question.

Total Respondents 0

(skipped this question) 1

49. Do you have any additional comments or information on the Wildlife in Upland Forest Habitats 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