

Appendix E-22: Barren Lands

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

8. Other threats to the Wildlife in Barren Lands 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 Barren Lands Habitat in Indiana identified above.

1. I believe the top two threats to the black kingsnake include human collection and habitat loss. How these factors have effected kingsnake populations in Indiana is unknown.

Total Respondents **1**

10. Please rank the following threats to the HABITAT of the Wildlife in Barren Lands 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)	100% (1)	0% (0)	0% (0)	0% (0)	1
Counterproductive financial incentives or regulations	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Invasive/non-native species	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Nonpoint source pollution (sedimentation and nutrients)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Habitat fragmentation	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Successional change	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	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)	0% (0)	0% (0)	100% (1)	1
Climate change	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Stream channelization	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	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	0% (0)	100% (1)	1
		Total Respondents	8

14. What current monitoring efforts by other organizations are you aware of for the Wildlife in Barren Lands 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		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 Barren Lands 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)	100% (1)	0% (0)	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)	100% (1)	0% (0)	0% (0)	1
Regional or local year-round monitoring conducted by state agencies	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Regional or local once a year monitoring conducted by state agencies	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Periodic regional or local (less than once a year but still regularly scheduled) monitoring conducted by state agencies	0% (0)	0% (0)	100% (1)	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)	0% (0)	100% (1)	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 Barren Lands Habitat 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)	100% (1)	0% (0)	0% (0)	1
Occasional statewide (less than once a year and not regularly scheduled) monitoring conducted by other organizations	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Regional or local year-round monitoring conducted by other organizations	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Regional or local once a year monitoring conducted by other organizations	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1
Periodic regional or local (less than once a year but still regularly scheduled) monitoring conducted by other organizations	0% (0)	0% (0)	100% (1)	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)	0% (0)	100% (1)	0% (0)	0% (0)	1
Total Respondents						8

17. Regional or local state agency monitoring for the Wildlife in Barren Lands Habitat in Indiana.

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1. I am not aware of any agency monitoring black kingsnakes in Indiana.

Total Respondents 1

18. Regional or local monitoring by other organizations for the Wildlife in Barren Lands Habitat in Indiana.

1. I am not aware of any agency monitoring black kingsnakes in Indiana.

Total Respondents 1

19. Please list organizations that are monitoring the Wildlife in Barren Lands Habitat in Indiana.

1. I am not aware of any agency monitoring black kingsnakes in Indiana.

Total Respondents 1

20. What are the current monitoring techniques for the Wildlife in Barren Lands Habitat 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)	100% (1)	0% (0)	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)	0% (0)	0% (0)	0% (0)	0% (0)	0
Reporting from harvest, depredation, or unintentional take (road kill, bycatch)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Mark and recapture	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Professional survey/census	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Volunteer survey/census	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Trapping (by any)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	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)	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							11	

21. Other monitoring techniques for the Wildlife in Barren Lands Habitat 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 Barren Lands Habitat in Indiana?

1. I believe monitoring black kingsnakes through professional or volunteer survey would be the best for Indiana. This could be done through the use of representative sites or on volunteer chosen routes.

Total Respondents **1**

23. What current HABITAT inventory and assessment efforts or activities by state agencies are you aware of for the Wildlife in Barren Lands Habitat Wildlife in Barren Lands 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)	0% (0)	0
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	0% (0)	0% (0)	0
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	0% (0)	0% (0)	0
Occasional regional or local (less than once a year and not			

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Regional or local year-round inventory and assessment conducted by other organizations	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Regional or local once a year inventory and assessment conducted by other organizations	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
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 Barren Lands Habitat in Indiana.

1. I am not knowledgeable of the monitoring efforts being preformed by state or nonprofit agencies.

Total Respondents 1

28. Regional or local HABITAT inventory and assessment by other organizations for the Wildlife in Barren Lands Habitat in Indiana.

1. I am not knowledgeable of the monitoring efforts being preformed by state or nonprofit agencies.

Total Respondents 1

29. Please list organizations that are monitoring this HABITAT for the Wildlife in Barren Lands Habitat in Indiana.

1. I am not knowledgeable of the monitoring efforts being preformed by state or nonprofit agencies.

Total Respondents 1

30. What are the current HABITAT inventory and/or assessment techniques for Wildlife in Barren Lands Habitat 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

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GIS mapping	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Aerial photography and analysis	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Systematic sampling	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
Property tax estimates	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0
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							0
(skipped this question)							1

31. Other HABITAT inventory and assessment techniques for the Wildlife in Barren Lands Habitat in Indiana.

- I am not knowledgeable of the monitoring efforts being preformed by state or nonprofit agencies.

Total Respondents 1

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

- I am not knowledgeable of the monitoring efforts being preformed by state or nonprofit agencies.

Total Respondents 1

33. What is the current body of science for the Wildlife in Barren Lands Habitat in Indiana?

	Response Total	Response Percent
Complete, up to date and extensive	0	0%
Adequate	0	0%

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Inadequate		1	100%
Nonexistent		0	0%
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 Barren Lands Habitat 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 Sciences.	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 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 Institution	1	100%
Total Respondents		1	

36. What is the current HABITAT body of science for the Wildlife in Barren Lands Habitat 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	

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40. Other research needs for the Wildlife in Barren Lands Habitat in Indiana.

- I believe more information is needed for all topics concerning the black kingsnake in Indiana. However, this species is not currently endangered and this information is not urgently needed.

Total Respondents **1**

41. What are the HABITAT research needs for the Wildlife in Barren Lands 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)	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 Barren Lands 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 Barren Lands Habitat in Indiana?

	Very well	Somewhat	Not at all	Not used	Unknown	Response Total
Habitat protection (use below for details)	0% (0)	100% (1)	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	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	1

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breeding and release)							
Reintroduction (restoration)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)		1
Food plots	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)		1
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)	0% (0)	0% (0)	0% (0)	100% (1)		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)	0% (0)	100% (1)		1
Public education to reduce human disturbance	0% (0)	100% (1)	0% (0)	0% (0)	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 Barren Lands Habitat 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 Barren Lands Habitat in Indiana?

1. I would recommend habitat protection and collection regulation.

Total Respondents **1**

46. How well do the following conservation efforts address the HABITAT threats to the Wildlife in Barren Lands Habitat 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)	100% (1)	1
Habitat protection on public lands	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Habitat protection incentives (financial)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1

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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	
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	3

47. Other current HABITAT conservation practices for the Wildlife in Barren Lands 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 Barren Lands Habitat 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 Barren Lands 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

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