

Appendix E-69: Herbaceous Marsh

6. Please rank the following threats to the Wildlife in Herbaceous Marsh Wetland Habitats in Indiana.

	Critical threat	Serious threat	Somewhat of a threat	Slight threat	No threat	Unknown	Response Total
Invasive/non-native species	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
High sensitivity to pollution	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Bioaccumulation of contaminants	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Predators (native or domesticated)	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Dependence on other species (mutualism, pollinators)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Diseases/parasites (of the species itself)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Regulated hunting/fishing pressure (too much)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Species over population	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Unintentional take/ direct mortality (e.g., vehicle collisions, power line collisions, by-catch, harvesting equipment, land preparation machinery)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Unregulated collection pressure	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Dependence on irregular resources (cyclical annual variations) (e.g., food, water, habitat limited due to annual variations in availability)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
							11
							Total Respondents

7. Please also rank these threats to the Wildlife in Herbaceous Marsh Wetland Habitats in Indiana.

	Critical threat	Serious threat	Somewhat of a threat	Slight threat	No threat	Unknown	Response Total
Habitat loss (breeding range)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Habitat loss (feeding/foraging areas)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Small native range (high endemism)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Near limits of natural geographic range	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Large home range requirements	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Viable reproductive population size or availability	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Specialized reproductive behavior or low reproductive rates	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Degradation of movement/migration routes	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1

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(overwintering habitats, nesting and staging sites)

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)	0% (0)	0% (0)	0
Other (please specify below)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Total Respondents							10

8. Other threats to the Wildlife in Herbaceous Marsh Wetland Habitats in Indiana.

- Artificial manipulation of water levels in wetlands seems likely to increase mortality of over wintering snakes. Snakes hibernate underground at the groundwater interface. Raising water levels in the winter could drown snakes and lowering water table could expose them to extreme cold temperatures. Both activities are likely to kill over wintering snakes.

Total Respondents 1

9. Please briefly describe the top two threats to the Wildlife in Herbaceous Marsh Wetland Habitats in Indiana identified above.

- Artificial manipulation of water levels in wetlands seems likely to increase mortality of over wintering snakes. Snakes hibernate underground at the groundwater interface. Raising water levels in the winter could drown snakes and lowering water table could expose them to extreme cold temperatures. Both activities are likely to kill over wintering snakes.

Inappropriate management of sandy fire breaks in managed areas that are disked at inappropriate times, or are managed in inappropriate cover types. I have seen dead massasauga that have been disked on DNR lands

Total Respondents 1

10. Please rank the following threats to the HABITAT of the Wildlife in Herbaceous Marsh Wetland Habitats 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)	100% (1)	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)	0% (0)	100% (1)	0% (0)	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)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Successional change	0% (0)	100% (1)	0% (0)	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

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Habitat degradation	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	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)	0% (0)	100% (1)	1
Impoundment of water/flow regulation	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	1
Agricultural/forestry practices	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Residual contamination (persistent toxins)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Point source pollution (continuing)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Mining/acidification	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Drainage practices (stormwater runoff)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	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)	0% (0)	0
Total Respondents							17

11. Other HABITAT threats to the Wildlife in Herbaceous Marsh Wetland Habitats in Indiana.

No responses were entered for this question.

Total Respondents **0**

(skipped this question) 1

12. Please briefly describe the top two HABITAT threats to the in Indiana identified above.

Fire suppression in graminoid wetland habitat creates late successional wetlands that are not appropriate habitat. Conversely, late spring fire in these habitats is likely to cause direct adult mortality.

- Artificial manipulation of water levels in wetlands seems likely to increase mortality of over wintering snakes. Snakes hibernate underground at the groundwater interface. Raising water levels in the winter could drown snakes and lowering water table could expose them to extreme cold temperatures. Both activities are likely to kill over wintering snakes. IN addition, herbaceous wetland are lost under this management regime, replaced by open water wetlands.

Total Respondents **1**

13. What current monitoring efforts by state agencies are you aware of for the Wildlife in Herbaceous Marsh Wetland 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

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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
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 Herbaceous Marsh Wetland 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	100% (1)	0% (0)	1
		Total Respondents	8

15. How crucial are these monitoring efforts by state agencies for the conservation of the Wildlife in Herbaceous Marsh Wetland Habitats in Indiana?

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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
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Total Respondents 7

17. Regional or local state agency monitoring for the Wildlife in Herbaceous Marsh Wetland Habitats in Indiana.

No responses were entered for this question.

Total Respondents 0

(skipped this question) 1

18. Regional or local monitoring by other organizations for the Wildlife in Herbaceous Marsh Wetland Habitats in Indiana.

No responses were entered for this question.

Total Respondents 0

(skipped this question) 1

19. Please list organizations that are monitoring the Wildlife in Herbaceous Marsh Wetland Habitats in Indiana.

1. TNC- funded research at Cline Lake Fen

Total Respondents 1

20. What are the current monitoring techniques for the Wildlife in Herbaceous Marsh Wetland 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	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	1
Modeling	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Coverboard routes	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Spot mapping	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Driving a survey route	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1

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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)	100% (1)	0% (0)	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)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Trapping (by any technique)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Representative sites	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Probabilistic sites	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	13

21. Other monitoring techniques for the Wildlife in Herbaceous Marsh Wetland 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 Herbaceous Marsh Wetland Habitats in Indiana?

No responses were entered for this question.

Total Respondents **0**

(skipped this question) 1

23. What current HABITAT inventory and assessment efforts or activities by state agencies are you aware of for the Wildlife in Herbaceous Marsh Wetland 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	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			

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scheduled) inventory and assessment conducted by state agencies			
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	100% (1)	0% (0)	1
		Total Respondents	8

24. What current HABITAT inventory and assessment efforts or activities by other organizations are you aware of for the Wildlife in Herbaceous Marsh Wetland 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	100% (1)	0% (0)	1
		Total Respondents	8

25. How crucial are these HABITAT efforts by state agencies for the conservation of the Wildlife in Herbaceous Marsh Wetland Habitats in Indiana?			
	These	These	These

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(skipped this question)

1

30. What are the current monitoring techniques for the Wildlife in Herbaceous Marsh Wetland Habitats in Indiana. If a technique is not applicable to the 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)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Aerial photography and analysis	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Systematic sampling	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Property tax estimates	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
State revenue data	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Regulatory information	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Participation in landuse programs	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Modeling	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Voluntary landowner reporting	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							10

31. Other HABITAT inventory and assessment techniques for the Wildlife in Herbaceous Marsh Wetland Habitats in Indiana.

No responses were entered for this question.

Total Respondents 0

(skipped this question) 1

32. What one or two HABITAT inventory and assessment techniques would you recommend for effective conservation of the Wildlife in Herbaceous Marsh Wetland Habitats in Indiana?

No responses were entered for this question.

Total Respondents 0

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(skipped this question) 1

33. What is the current body of science for the Wildlife in Herbaceous Marsh Wetland Habitats in Indiana?

		Response Total	Response Percent
Complete, up to date and extensive		0	0%
Adequate		1	100%
Inadequate		0	0%
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 Herbaceous Marsh Wetland Habitats in Indiana, if available. This resource may be used if further detail is needed.

		Response Total	Response Percent
Title		1	100%
Author		1	100%
Date		0	0%
Publisher		0	0%
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 Herbaceous Marsh Wetland 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

36. What is the current HABITAT body of science for the Wildlife in Herbaceous Marsh Wetland Habitats in Indiana?

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	Response Total	Response Percent
Complete, up to date and extensive	0	0%
Adequate	1	100%
Inadequate	0	0%
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 Herbaceous Marsh Wetland Habitats 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

38. If possible, please provide a second citation (title, author, date, publisher) that would give another good HABITAT overview of the Wildlife in Herbaceous Marsh Wetland 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 Herbaceous Marsh Wetland Habitats in Indiana?

	Urgently needed	Greatly needed	Needed	Slightly needed	Not needed	Unknown	Response Total					
Life cycle	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1					

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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)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Threats (predators/competition, contamination)	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Relationship/dependence on specific habitats	0% (0)	0% (0)	100% (1)	0% (0)	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)	0% (0)	0% (0)	0% (0)	0% (0)	0
Total Respondents							6

40. Other research needs for the Wildlife in Herbaceous Marsh Wetland Habitats 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 Herbaceous Marsh Wetland Habitats in Indiana?

	Urgently needed	Greatly needed	Needed	Slightly needed	Not needed	Unknown	Response Total
Successional changes	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	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)	100% (1)	0% (0)	0% (0)	0% (0)	1
Relationship/dependence on specific site conditions	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Growth and development of individual components of the habitat	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)	0% (0)	0
Total Respondents							5

42. Other HABITAT research needs for the Wildlife in Herbaceous Marsh Wetland Habitats in Indiana.

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Spatial relationships between occupied wetlands relative to population dynamics

1. Physical characteristics of over wintering sites

Total Respondents 1

43. How well do the following conservation efforts address the threats to the Wildlife in Herbaceous Marsh Wetland Habitats 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 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)	100% (1)	0% (0)	0% (0)	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	100% (1)	0% (0)	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)	0% (0)	100% (1)	1
Public education to reduce human disturbance	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	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)	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
	Total Respondents					17

44. Other current conservation practices for the Wildlife in Herbaceous Marsh Wetland Habitats in Indiana.

1. Invasive species control (buckthorn, autumn olive, phargimtes) to keep open herbaceous habitat suitable for massasauga

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Total Respondents 1

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

1. Design and management of conservation areas that specifically incorporate life history requirements of some wildlife species across relatively large habitats (>1,000 acres). Some species are too often subjected to management decisions that favor other species, and these often have a negative impact on available wetland and nesting habitat. In some cases (water level manipulations, late spring prescribed fire), these management decisions seem likely to result in direct mortality of adults.

Total Respondents 1

46. How well do the following conservation efforts address the HABITAT threats to the Wildlife in Herbaceous Marsh Wetland Habitats 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)	100% (1)	0% (0)	0% (0)	0% (0)	1
Habitat protection incentives (financial)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Habitat restoration through regulation	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Habitat restoration on public lands	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Habitat restoration incentives (financial)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Artificial habitat creation (artificial reefs, nesting platforms)	0% (0)	0% (0)	0% (0)	100% (1)	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)	100% (1)	0% (0)	0% (0)	0% (0)	1
Corridor development/protection	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Managing water regimes	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Pollution reduction	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Protection of adjacent buffer zone	0% (0)	100% (1)	0% (0)	0% (0)	0% (0)	1
Restrict public access and disturbance	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Land use planning	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Technical assistance	0% (0)	0% (0)	100% (1)	0% (0)	0% (0)	1
Cooperative land management agreements (conservation easements)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
Other (please specify below)	0% (0)	0% (0)	0% (0)	0% (0)	100% (1)	1
						Total Respondents 18

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47. Other current HABITAT conservation practices for the Wildlife in Herbaceous Marsh Wetland 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 Herbaceous Marsh Wetland 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 Herbaceous Marsh Wetland Habitats that you feel would be useful in the development of the Indiana Comprehensive Wildlife Strategy?

1. Some species are too often taken for granted on managed lands. Management activities in wetlands and adjacent uplands (water level manipulations, late spring prescribed fire) contribute directly to increased mortality.

Total Respondents **1**