

APPENDIX 2
DATA SHEETS

LOCATION: _____ Tech lab initials: _____ DATE: _____
 Number of acres in property: _____ Field tech initial: _____ DATE: _____

Roads and trails within hexagon:

Category	Width of road	Length of road	Area of road (lxw)

Categories: 4 lane highway, 2 lane highway, paved road, unpaved road, OHV (off-highway vehicle, i.e. all terrain vehicles) trail, and hiking trail.

Habitat types within hexagon:

Habitat	Percent of hexagon area in habitat
1° habitat: _____	

Roads and trails within 101 ha block:

Category	Width of road	Length of road	Area of road (lxw)

Categories: 4 lane highway, 2 lane highway, paved road, unpaved road, OHV (off-highway vehicle, i.e. all terrain vehicles) trail, and hiking trail.

Habitat types within 101 ha block (approximate 101 ha):

Habitat	Percent of hexagon area in habitat
1° habitat: _____	

Other notes (i.e. - block smaller than 101 ha due to property boundary, etc, etc)

Ground truthing of data obtained from GIS for LOTIC (running water) HABITATS:
 This should be filled out in the lab, prior to habitat characterization field work. Field work should include recording information concerning discrepancies between the database and what is actually there. For field work, the technician should have a map of the site.

LOCATION: _____
 UTM coordinates from lab: E_____ N_____
 GIS OBS:_____ DATABASE USED:_____
 Date of lab work:_____ Date of field work:_____ Field OBS:_____
 Estimated spacing needed for 11 transects (at 3X width of stream):_____

Roads and trails within 30 m of each side of channel:

Category	Distance from shore	Area of road (l*w)	Width where crosses channel

Categories: 4 lane highway, 2 lane highway, paved road, unpaved road, OHV (off-highway vehicle, i.e. all terrain vehicles) trail, and hiking trail.

Additional compacted soil areas within 10 m of channel:

Description	Distance from shore	Area of compaction

Roads and trails within 30 to 100 m of each side of channel:

Category	Distance from shore	Area of road (l*w)	Width where crosses channel

Categories: 4 lane highway, 2 lane highway, paved road, unpaved road, OHV (off-highway vehicle, i.e. all terrain vehicles) trail, and hiking trail.

Remember to print a map with the wetlands numbered within each hexagon for ease of field identification, and to include these numbers, if possible to tell from previous GIS coverage, on the POOLS data table.

Additional information, things that may need checking in the field or things that may be needed in the field:

- Is this intermittent/ephemeral or does it have water?_____
- Does this need to be electroshocked and/or checked for mussels?_____

Ground truthing of data obtained from GIS for LENTIC (standing water) HABITATS:
 This should be filled out in the lab, prior to habitat characterization field work. Field work should include recording information concerning discrepancies between the database and what is actually there. For field work, the technician should have a map of the site.

LOCATION: _____ POOL ID: _____
 GIS OBS: _____ DATABASE USED: _____
 Date of lab work: _____ Date of field work: _____ Field OBS: _____
 UTM coordinates (from lab): E _____ N _____
 Estimated perimeter/circumference: _____
 Estimated spacing needed for 30 plots around perimeter: _____

Roads and trails within 30 m of shoreline:

Category	Distance from shore	Area of road (l*w)

Categories: 4 lane highway, 2 lane highway, paved road, unpaved road, OHV (off-highway vehicle, i.e. all terrain vehicles) trail, and hiking trail.

Additional compacted soil areas within 10 m of shoreline:

Description	Distance from shore	Area of compaction

Roads and trails between 30-100 m of shoreline:

Category	Distance from shore	Area of road (l*w)

Categories: 4 lane highway, 2 lane highway, paved road, unpaved road, OHV (off-highway vehicle, i.e. all terrain vehicles) trail, and hiking trail.

Additional information, things that may need checking in the field or things that may be needed in the field:

If habitat data has been collected as part of another sampling protocol, the following information should still be collected during mist netting:

MAP: Diagram trapping location within the 26 acre plot, include water source/net site placement, net configuration and numbers, net length and height, and a North arrow. Also indicate potential roosting locations such as caves, hollow snags, bridges, etc....

Habitat:

Water type: _____ Diameter or distance across: _____

Other trapping habitat (road, trail, etc): _____

Percent of emergent vegetative cover in water body being trapped: _____

Turbidity (clear, semi-clear, murky): _____ Water depth: _____

Distance to forest edge: _____

Comments: _____

Notes on other species encountered:

Data entered by: _____ Checked by: _____

IOWA FROG AND TOAD SURVEY

Iowa Department of Natural Resources | Wildlife Diversity Program | 1436 255th Street | Boone, IA 50036 | ph: 515-432-2823 | fax: 515-432-2835 | stephanie.shepherd@dnr.state.ia.us
 OBSERVER'S NAME(S) _____



RUN 1 _____
 RUN 2 _____
 RUN 3 _____

ROUTE NO. _____
 YEAR _____
 COUNTY _____



RUN 1: April 1-28 / Water 50°

DATE: _____
 Begin Survey _____ End Survey _____
 Time: _____ Time: _____
 Wind: _____ Wind: _____
 Air Temp: _____ Air Temp: _____
 Sky: _____ Sky: _____

RUN 2: May 7-June 4 / Water 60°

DATE: _____
 Begin Survey _____ End Survey _____
 Time: _____ Time: _____
 Wind: _____ Wind: _____
 Air Temp: _____ Air Temp: _____
 Sky: _____ Sky: _____

SITE NAME	Dry/Wet	Water Temp	Wood Frog	Chorus Frog	Spring Peeper	Crawfish Frog	Leopard Frog *	Pickereel Frog	American Toad	Gr. Plains Toad	E. Tree Frog	Cope's Tree Frog	Cricket Frog	Woodhouse's Toad **	Plains Spadefoot	Green Frog	Bullfrog
1-																	
2-																	
3-																	
4-																	
5-																	
6-																	
7-																	
8-																	

SITE NAME	Dry/Wet	Water Temp	Wood Frog	Chorus Frog	Spring Peeper	Crawfish Frog	Leopard Frog *	Pickereel Frog	American Toad	Gr. Plains Toad	E. Tree Frog	Cope's Tree Frog	Cricket Frog	Woodhouse's Toad **	Plains Spadefoot	Green Frog	Bullfrog
1-																	
2-																	
3-																	
4-																	
5-																	
6-																	
7-																	
8-																	

RUN 3: June 13- July 10 / Water 70°

DATE: _____
 Begin Survey _____ End Survey _____
 Time: _____ Time: _____
 Wind: _____ Wind: _____
 Air Temp: _____ Air Temp: _____
 Sky: _____ Sky: _____

SITE NAME	Dry/Wet	Water Temp	Wood Frog	Chorus Frog	Spring Peeper	Crawfish Frog	Leopard Frog *	Pickereel Frog	American Toad	Gr. Plains Toad	E. Tree Frog	Cope's Tree Frog	Cricket Frog	Woodhouse's Toad **	Plains Spadefoot	Green Frog	Bullfrog
1-																	
2-																	
3-																	
4-																	
5-																	
6-																	
7-																	
8-																	

Sky Codes	Wind Codes
0- Clear or few clouds	0- 0 mph, no movement
1- Partly cloudy or variable	1- 1-3 mph, Calm. Smoke drifts
2- cloudy or overcast	2- 4-7 mph, Light. Fell on face, leaves rustle, wind vanes move.
3- Fog	3- 8-12mph, Gentle. Leaves/twigs in constant motion, flag extends.
4- Drizzle	4- 13-18mph, Moderate. Dust and paper raised. Branches in motion.
5- Rain shower	5- 19-24mph, Fresh. Small trees sway, crested wavelets on water.

Relative Call Index Codes
0- No individuals heard.
1- Individuals can be counted. There may be space between calls.
2- Calls of individuals can be distinguished, but there is some overlapping.
3- Full chorus of calls. Constant, continuous, and overlapping.

Comments: _____

* Leopard Frog includes Northern, Plains, and Southern. Please verify and note any confirmed sightings.

** Woodhouse's includes Fowler's toad.

Alternate bird point count data sheet

DATE: _____ OBS: _____ LOCATION: _____ POINT #: _____

COMMENTS:

Start time: _____ St temp: _____ %Clouds: _____ Rain: _____ Windsp: _____ End time: _____ E-temp: _____

π =0-3 minutes

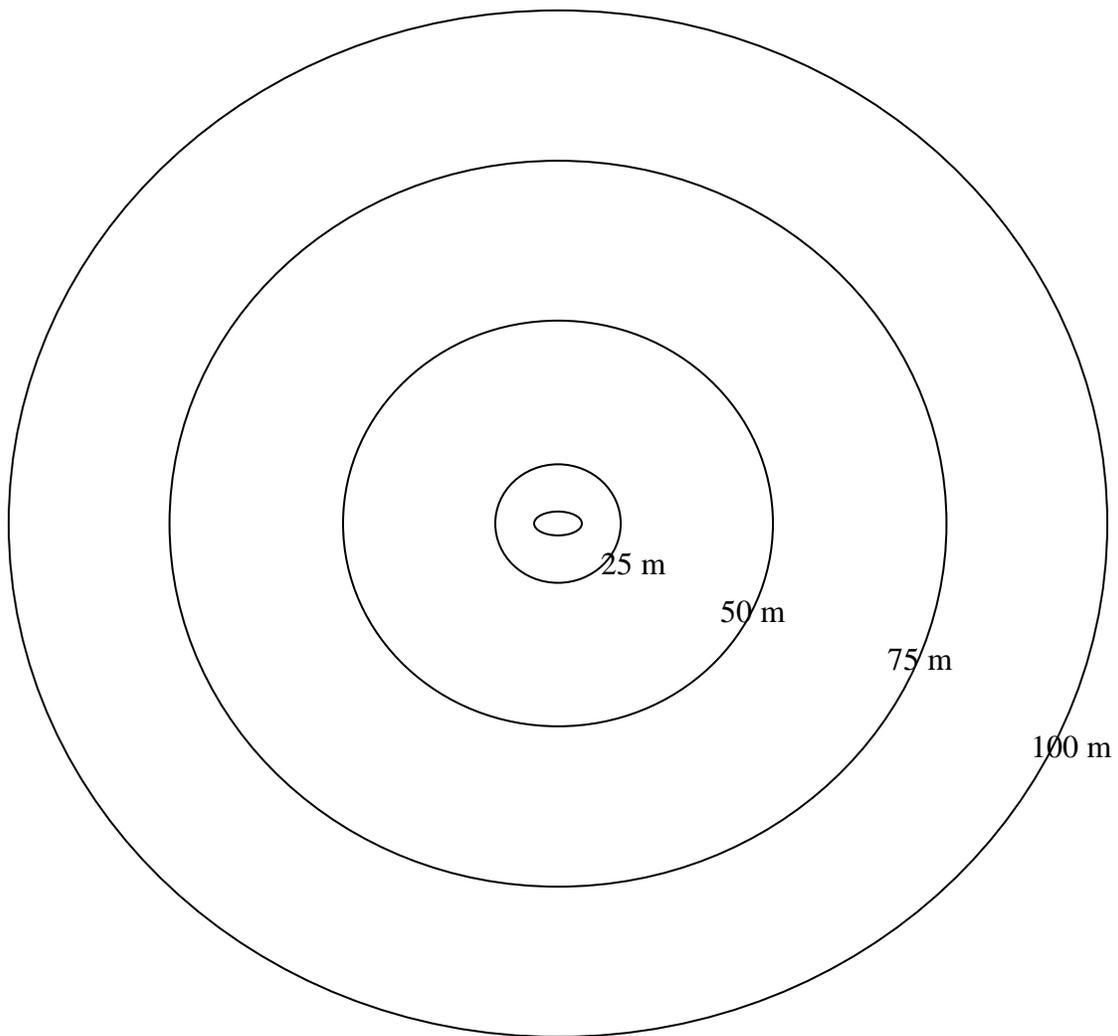
ϵ =3-5 minutes

#=5-10 minutes

Δ = Auditory

*=Visual

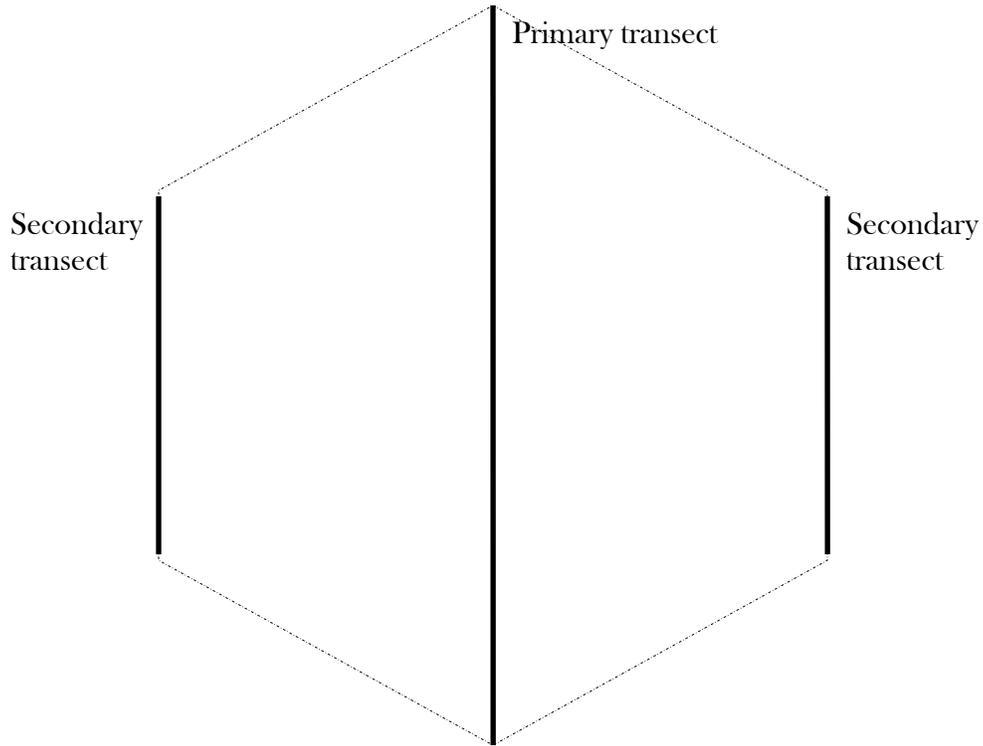
FO= Fly-over



Date data entered: _____ Corresponding record #: _____ Date checked: _____ Checked by: _____

Butterfly transect map. Observer:_____ Date:_____ Location:_____
Sketch habitats/section breaks/roads, also record whether the canopy is open or closed for each section of the transect:

Remember, each hexagonal side is 200 m in length and the dividing transect is 400 m long.



It may be possible to do this in the lab using the GIS database, however, this data should be groundtruthed on the first butterfly transect data collection. Subsequent data collection will not need to re-confirm this information unless conditions have changed (i.e. the site was burned or logged or plowed, etc.)

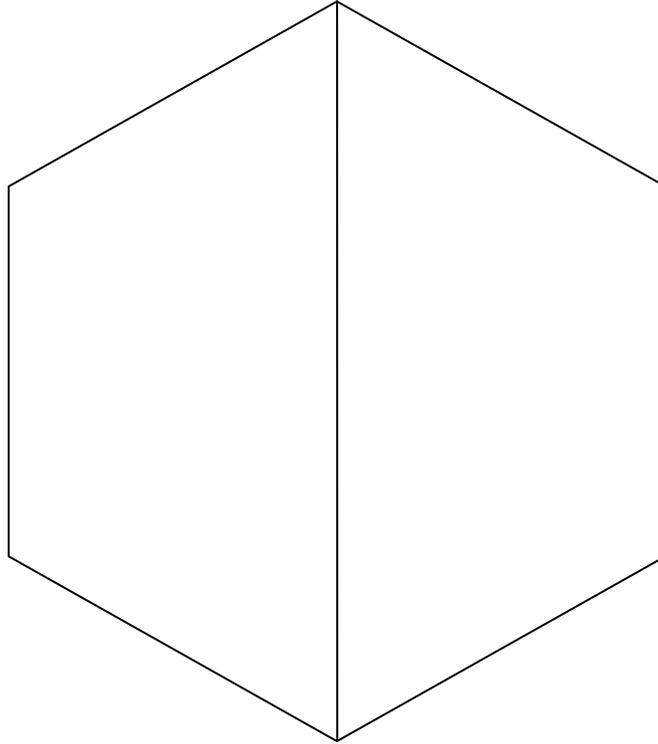
Date data entered:___Corresponding record #:_____Date checked:___Checked by:___

Damselfly/dragonfly habitat map.

Observer: _____ Date: _____ Location: _____

Sketch habitats/landmarks/roads:

Remember, each hexagonal side is 200 m in length and the dividing transect is 400 m long.



It may be possible to do this in the lab using the GIS database, however, this data should be groundtruthed on the first dragonfly data collection. Subsequent data collection will not need to re-confirm this information unless conditions have changed (i.e. the site was burned or logged or plowed, etc.)

Other notes:

Stream Benthic Macroinvertebrate Community survey data sheet. DATE:_____

OBS:_____ Water Body name:_____

LOCATION:_____ START TEMP:_____ END TEMP:_____ Rain:_____

GPS Coordinates of downstream starting point:_____ % CLOUDS:_____

Turbidity:_____ Overall sampling effectiveness:_____ Flow level:_____

Semi-Quantitative (Modified-Hess / Surber / Artificial Substrate) Sampling:

Sampling gear used:_____

Preservative used:_____

Replicate sample ID #	#1	#2	#3
Unique sample ID #			
Dominant form of periphyton growth *			
Amount of periphyton growth **			
Amount of sedimentation/embeddedness **			
Amount of macroinvertebrate colonization **			
Other comments			

* FA=Filamentous Algae Growth; NF=Non-filamentous Algae Growth.

** LT (light) < 25% of substrate surface effected; MD (moderate) 25-50% effected; MH (moderately heavy) 51-75% effected; & HV (heavy) > 75% effected.

Qualitative, Multi-Habitat Sampling

Sampling gear used:_____

Begin time:_____ End time:_____ Total sampling minutes:_____

Date data entered:___ Corresponding record #:_____ Date checked:___ Checked by:___

Photo Voucher Cards for Fish Photo IDs

<p style="text-align: center;">PHOTO FISH VOUCHER</p> <p>Voucher Number: _____ Date: _____ Wetland Name: _____ Specific location: _____ Run: _____ Common Name: _____</p>	<p style="text-align: center;">PHOTO FISH VOUCHER</p> <p>Voucher Number: _____ Date: _____ Wetland Name: _____ Specific location: _____ Run: _____ Common Name: _____</p>
<p style="text-align: center;">PHOTO FISH VOUCHER</p> <p>Voucher Number: _____ Date: _____ Wetland Name: _____ Specific location: _____ Run: _____ Common Name: _____</p>	<p style="text-align: center;">PHOTO FISH VOUCHER</p> <p>Voucher Number: _____ Date: _____ Wetland Name: _____ Specific location: _____ Run: _____ Common Name: _____</p>
<p style="text-align: center;">PHOTO FISH VOUCHER</p> <p>Voucher Number: _____ Date: _____ Wetland Name: _____ Specific location: _____ Run: _____ Common Name: _____</p>	<p style="text-align: center;">PHOTO FISH VOUCHER</p> <p>Voucher Number: _____ Date: _____ Wetland Name: _____ Specific location: _____ Run: _____ Common Name: _____</p>
<p style="text-align: center;">PHOTO FISH VOUCHER</p> <p>Voucher Number: _____ Date: _____ Wetland Name: _____ Specific location: _____ Run: _____ Common Name: _____</p>	<p style="text-align: center;">PHOTO FISH VOUCHER</p> <p>Voucher Number: _____ Date: _____ Wetland Name: _____ Specific location: _____ Run: _____ Common Name: _____</p>

Suggested labels for unknown and collected plants:

<p>Species ID in field: _____ Hexagon plot ID: _____ Subplot ID: _____ Quadrat ID: _____ Percent cover: _____ Associated species?: _____ Collected by: _____ Date: _____ Photo #: _____ Comments: _____ _____</p>	<p>Species ID in field: _____ Hexagon plot ID: _____ Subplot ID: _____ Quadrat ID: _____ Percent cover: _____ Associated species?: _____ Collected by: _____ Date: _____ Photo #: _____ Comments: _____ _____</p>
<p>Species ID in field: _____ Hexagon plot ID: _____ Subplot ID: _____ Quadrat ID: _____ Percent cover: _____ Associated species?: _____ Collected by: _____ Date: _____ Photo #: _____ Comments: _____ _____</p>	<p>Species ID in field: _____ Hexagon plot ID: _____ Subplot ID: _____ Quadrat ID: _____ Percent cover: _____ Associated species?: _____ Collected by: _____ Date: _____ Photo #: _____ Comments: _____ _____</p>
<p>Species ID in field: _____ Hexagon plot ID: _____ Subplot ID: _____ Quadrat ID: _____ Percent cover: _____ Associated species?: _____ Collected by: _____ Date: _____ Photo #: _____ Comments: _____ _____</p>	<p>Species ID in field: _____ Hexagon plot ID: _____ Subplot ID: _____ Quadrat ID: _____ Percent cover: _____ Associated species?: _____ Collected by: _____ Date: _____ Photo #: _____ Comments: _____ _____</p>

AQUATIC MEASUREMENTS OF LOTIC (running water) HABITAT SAMPLING PLOTS.

DATE: _____ OBS: _____ LOCATION: _____ PG: _____ of _____

Plot	1	2	3	4	5	6	7	8	9	10	11
Distance	0										
Channel type											
Wetted width											
Bankfull width											
Bankfull height											
Incised height											
Stream discharge											
Water temperature											
Water pH											
Water conductivity											
Riparian veg. width											

0 m from shore 0.25mx0.25m plots

Depth											
% silt											
% sand											
% gravel											
% cobbles											
% boulders											
% bedrock											
% emergent veg.											
% submergt. veg.											

_____ m from shore

Depth											
% silt											
% sand											
% gravel											
% cobbles											
% boulders											
% bedrock											
% emergent veg.											
% submergt. veg.											

_____ m from shore

Depth											
% silt											
% sand											
% gravel											
% cobbles											
% boulders											
% bedrock											
% emergent veg.											
% submergt. veg.											

_____ m from shore

Depth											
% silt											
% sand											
% gravel											
% cobbles											
% boulders											
% bedrock											
% emergent veg.											
% submergt veg											

Approximate starting pt (GPS coordinates from GIS): E _____ N _____

Actual downstream starting pt (acquired in field): E _____ N _____

Plot	1	2	3	4	5	6	7	8	9	10	11
Water depth											
Location 1											
Location 2											
Location 3											
Location 4											
Location 5											
Location 6											
Location 7											
Location 8											
Location 9											
Location 10											
Spacing between measures:											

Spacing b/t measures – divide wetted width by 10.

Backside of data sheet for:

AQUATIC MEASUREMENTS OF LOTIC HABITAT SAMPLING PLOTS.

Channel type (record for each plot): R=Riffle, P=pool, RU=run, G=glide

Wetted width: Width of water.

Bankfull width: The width of the channel from one side to the other, including the crest or almost crest area, beyond which the water would flow out onto the floodplain.

Bankfull height: How deep the water would get before flooding, so measure the height of the lower of the 2 banks.

Incised height: The depth of the incision of the channel. This is the distance to the first terrace. It will be equal to or greater than the bankfull height.

Stream discharge: The volume of water passing a point during a given time (m³/sec).

Water temperature

Water pH: The amount of acidity in the water.

Conductivity: The amount of ions (e.g. salts) dissolved in the water.

Riparian vegetation width is the width of the vegetation within the floodplain

At 4 locations into the channel from the shore edge, record the water depth at that point and determine the amount of that part of the plot (0.25*0.25m) in each of the following categories:

Bedrock

Boulders (> 300 mm)

Cobble (75-300 mm in size)

Gravel (2-75 mm)

Sand

Silt (mud or clay, organic muck or peat)

Emergent vegetation

Submergent vegetation

Percent coverage in these 8 boxes should add to 100.

If it is possible to cross the channel, water depth should be measured at 10 equally spaced locations.

Date entered: _____ by: _____ Record#: _____ Date checked: _____ by: _____

AQUATIC MEASUREMENTS OF LENTIC (standing water) HABITAT SAMPLING PLOTS.

DATE: _____ OBS: _____ LOCATION: _____ PG: ___ of ___

UTM coordinates (GPS acquired in field): E _____ N _____

Plot	Distance	Max. Depth	In edge depth	% silt	% sand	% gravel	% cobble	% boulders	% bedrock	% emerg. Veg.	% submer veg
1	0										
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
29											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											

Distance can be filled out in the lab based on GIS coverage and used to find sampling plot.

In edge depth=depth at the edge of the plot furthest into the water from shore.

% classifications: Bedrock

Boulders (> 300 mm)

Cobble (75-300 mm in size)

Gravel (2-75 mm)

Sand

Silt (mud or clay, organic muck or peat)

Emergent vegetation

Submergent vegetation

Percent coverage in these 8 boxes should add to 100

Date entered: _____ by: _____

Record#: _____

Date checked: _____ by: _____

**Report Review Form
Review Coordinator's Form**

Iowa Multiple Species Inventory and Monitoring Program

Title of Report to be reviewed: _____

Date of review request: _____

Scientific Reviewer Name: _____ Date of review return: _____

Scientific Reviewer Name: _____ Date of review return: _____

Scientific Reviewer Name: _____ Date of review return: _____

Scientific Reviewer Name: _____ Date of review return: _____

Scientific Reviewer Name: _____ Date of review return: _____

Non-scientific Reviewer Name: _____ Date of review return: _____

Non-scientific Reviewer Name: _____ Date of review return: _____

Non-scientific Reviewer Name: _____ Date of review return: _____

Peer review of the above named document has been completed. Reviewers comments have been sent to the program scientist(s). Program scientist(s)' responses to the comments have been documented. The final document has been received. Assurance is given that the document and review have met the Periodic Review and Evaluation guidelines outlined in the MSIM manual. A record of the review comments and revision strategy is on file.

Name & Title of Peer Review Coordinator: _____

Signature of Peer Review Coordinator

Date

Instructions to Scientific Peer Reviewers Reviewer Comments Form

To make the review process as easy as possible, the following questions are the primary ones to consider. Should the answer to a question be “no”, please provide narrative comments in either the space provided or on additional paper. Address additional issues at the end of this form or on additional paper.

1. Are the objectives clearly defined and reachable?
2. Is the sampling and experimental design appropriate?
 - a. Will it meet the program objectives?
 - b. Is it statistically valid?
3. Are the field techniques clearly described and sufficient to meet program objectives?
4. Are analytical and statistical procedures clearly described and appropriate?
5. Does the timeline and budget ensure that objectives will be met?
6. Are reports and other products identified and adequate?
7. Is the combination of scientific disciplines proposed sufficient to adequately meet the objectives?
8. Additional issues:

*Reviewer Name & Title: _____

Signature or Reviewer

Date

*If you wish to remain anonymous to the program staff, please make sure that the review coordinator understands this and do not sign this paper.

