

Northeast Blanding's Turtle Project

Individual Turtle Form Instructions (4/18/17)

Turtle ID: The number that the turtle was notched (note notch code on form).

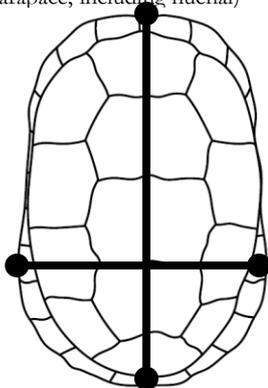
Site: Use 6 letter site code: "State - County - 2 letter SiteID". For example: "MA-MI-GM" (=Mass., Middlesex, Great Meadows)

Was the turtle in a trap or was it caught by hand?

Sex: Is the turtle male, female or less than or equal to 14 years old (juvenile). Note if unknown.

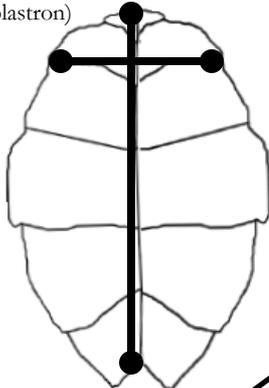
General health: Does the turtle appear sick? (e.g., note lethargy, sores, fresh injuries or infection).

SCL_{min}: straight carapace length (the shortest distance down the centerline of the carapace, including nuchal)



CW: Carapace width at the widest point.

SPL_{min}: straight plastron length (the shortest distance down the centerline of the plastron)



PW (optional): Plastron width at humeral/pectoral seam.

Note any distinctive marks. Also note notch code if confusing or non-standard.

Scute morphology: Does the turtle have normal scute morphology (i.e., 12 marginals on both sides, 5 vertebrals, 4 costals on both sides, and complete set of plastral scutes)? If not, what is unusual?

Was this the first time the turtle was ever captured? (**initial capture**, no previous notches); or was the turtle a **recapture** (i.e., it had been previously marked)? If the latter, was it already captured in 2017?

Blanding's Turtle Individual Form 4/17/17

Observer(s):		Site Name:		Site Code:	
Turtle ID #	Date:	Time:			
Capture method: <input type="checkbox"/> Hand <input type="checkbox"/> Trap		Ref. point:	Trap number:		
Sex: <input type="checkbox"/> M <input type="checkbox"/> F <input type="checkbox"/> J (≤ 14 yr)		Coordinates (dd.dddd):			
<input type="checkbox"/> measured <input type="checkbox"/> notched <input type="checkbox"/> bled <input type="checkbox"/> photos <input type="checkbox"/> PIT		PIT number:			
SCLmin (mm):	Photo file names:				
SPLmin (mm):	Visible annuli:				
CW (optional):	Wear class: <input type="checkbox"/> not worn <input type="checkbox"/> $\leq 50\%$ worn <input type="checkbox"/> $> 50\%$ worn <input type="checkbox"/> $\geq 90\%$ worn				
PW (optional):	General health: <input type="checkbox"/> URT distress <input type="checkbox"/> lethargy <input type="checkbox"/> sores <input type="checkbox"/> other:				
Mass (g):	Injuries: <input type="checkbox"/> tail <input type="checkbox"/> eye <input type="checkbox"/> limb (specify in comments)				
Scute morphology: <input type="checkbox"/> normal <input type="checkbox"/> irregular (specify or mark below)					
Indicate notches and record marks or injuries:					
<input type="checkbox"/> initial capture (not marked before) <input type="checkbox"/> marked in 2012 or before <input type="checkbox"/> previously captured in 2017 <input type="checkbox"/> gravid <input type="checkbox"/> not gravid					
Comments:					

If in a trap, what is the trap ID? (e.g., Ref1-Trap1)

If not in a trap, what were the turtle's latitude and longitude (in decimal degrees). Use NAD1983 (or note datum if different).

Note whether you notched, PIT-tagged, photographed, measured, or drew blood from the turtle. Complete appropriate boxes below. (e.g., notch system: Ernst, Cagle, State of NH, etc.)

Report the degree of plastral shell wear using the right abdominal as a surrogate for the rest of the plastron. Note whether the abdominal scute is "not worn (0)," "partly worn <50%(1)," "mostly worn >50% (2)," or "completely worn (3)."

How many annuli are visible on the plastron?

Does the turtle have any injuries (for example: stub tail or missing limbs)? If so, which limb, and how much is missing? For example: "missing rt. front limb at elbow".

Northeast Blanding's Turtle Project

VRA Form Instructions (4/18/17)

Reference Point Number within the site: 1, 2, 3, or 4. Each reference point should have 2 vantage points surveyed for 10 minutes during each of 3 visits.

Once in position, what time did you begin actively surveying?

Weather during survey: overcast (ovc), mostly cloudy (mc), partly cloudy (pc), clear (clear), light rain (lr), heavy rain (hr).

Wetland type (check all that apply):
vp: vernal pool
em: emergent marsh (herbaceous perennials are dominant)
ss: scrub shrub (dominated by shrubs < 3m high)
dfo wet: deciduous forested wetland (e.g., red maple swamp)
pond: open water with unconsolidated organic bottom
river: channel with discernible flow

Relative to other vantage points, was habitat quality at this site high (very likely to support EML), medium (possibly supports EML), or low (unlikely to support EML).

Vantage quality: Relative to other vantage points, was visibility at this site high (i.e., you could see a large area of wetland with ample basking sites and minimal obstruction), medium (average visibility), or low (visibility was obstructed by topography or vegetation, limited basking sites, etc.).

Approximate area of wetland you were able to survey from the vantage point.

Blanding's Turtle Visual Rapid Assessment (VRA)			
- Four sheets per site per visit			
Observer:	Site Name:	Site Code:	
Reference Point #	Survey: <input type="checkbox"/> 1st <input type="checkbox"/> 2nd <input type="checkbox"/> 3rd <input type="checkbox"/> other:		
Vantage # 1	Date:	Start time:	End time:
Coordinates (decimal-decimal):			
Habitat quality: <input type="checkbox"/> H/ <input type="checkbox"/> M/ <input type="checkbox"/> L	Vantage quality: <input type="checkbox"/> H/ <input type="checkbox"/> M/ <input type="checkbox"/> L	# of basking sites: <input type="checkbox"/> H/ <input type="checkbox"/> M/ <input type="checkbox"/> L	
<input type="checkbox"/> previous reconn.	Yrs of experience at site:	Standing dead: <input type="checkbox"/> Y/ <input type="checkbox"/> N	beaver act: <input type="checkbox"/> Y/ <input type="checkbox"/> N
Weather: <input type="checkbox"/> ovc <input type="checkbox"/> mc <input type="checkbox"/> pc <input type="checkbox"/> clear <input type="checkbox"/> lr <input type="checkbox"/> hr	Air °F:	H2O °F:	
Wetland type: <input type="checkbox"/> vp <input type="checkbox"/> em <input type="checkbox"/> ss <input type="checkbox"/> dfo wet <input type="checkbox"/> pond <input type="checkbox"/> river <input type="checkbox"/> other:	approx. wetland area searched: <input type="checkbox"/> <10,000 ft ² <input type="checkbox"/> 10,000 ft ² - 1 acre <input type="checkbox"/> ≥ 1 acre		
survey type: <input type="checkbox"/> visual only <input type="checkbox"/> shoreline search <input type="checkbox"/> wading binoc power:			
# EMBL observed:	# CLGU observed:		
# CHPI observed:	# Unknown observed:		
EMBL individuals recognized (if any):			
Other SCGN observed:			
Reference Point #	Survey: <input type="checkbox"/> 1st <input type="checkbox"/> 2nd <input type="checkbox"/> 3rd <input type="checkbox"/> other:		
Vantage # 2	Date:	Start time:	End time:
Coordinates (decimal-decimal):			
Habitat quality: <input type="checkbox"/> H/ <input type="checkbox"/> M/ <input type="checkbox"/> L	Vantage quality: <input type="checkbox"/> H/ <input type="checkbox"/> M/ <input type="checkbox"/> L	# of basking sites: <input type="checkbox"/> H/ <input type="checkbox"/> M/ <input type="checkbox"/> L	
<input type="checkbox"/> previous reconn.	Yrs of experience at site:	Standing dead: <input type="checkbox"/> Y/ <input type="checkbox"/> N	beaver act: <input type="checkbox"/> Y/ <input type="checkbox"/> N
Weather: <input type="checkbox"/> ovc <input type="checkbox"/> mc <input type="checkbox"/> pc <input type="checkbox"/> clear <input type="checkbox"/> lr <input type="checkbox"/> hr	Air °F:	H2O °F:	
Wetland type: <input type="checkbox"/> vp <input type="checkbox"/> em <input type="checkbox"/> ss <input type="checkbox"/> dfo wet <input type="checkbox"/> pond <input type="checkbox"/> river <input type="checkbox"/> other:	approx. wetland area searched: <input type="checkbox"/> <10,000 ft ² <input type="checkbox"/> 10,000 ft ² - 1 acre <input type="checkbox"/> ≥ 1 acre		
survey type: <input type="checkbox"/> visual only <input type="checkbox"/> shoreline search <input type="checkbox"/> wading binoc power:			
# EMBL observed:	# CLGU observed:		
# CHPI observed:	# Unknown observed:		
EMBL individuals recognized (if any):			
Other SCGN observed:			
Comments for this reference point:			

Site: Use 6 letter site code: "State - County - 2 letter SiteID". For example: "MA-MI-GM" (=Mass., Middlesex, Great Meadows)

Each site should be visited 3 times during the spring season. Which number visit was this?

What time did you actively finish surveying (duration should be 10 minutes / vantage point).

Latitude / Longitude of the starting point of the 10 minute survey. Use NAD83, or report other datum.

Water temperature at time of survey (record only if you have a thermometer). Temperature should be taken immediately following survey, (10cm) beneath the water surface, ~ 2m off shore

Air temperature during survey. Record only if you have a thermometer. Should be out of direct sunlight.

Relative to other vantage points, were there many (H), a moderate number (M), or few to no visible basking sites?

Is there beaver activity visible (lodge or dam)?

Record the number of each species observed. Note any unidentified turtle species, and which individual Blanding's turtles (by ID#) were observed. Also note additional SCGN observed at the site.

Note any other features about these vantage points or surveys. Is this particularly good habitat? Why or why not? Are there exceptional basking sites or nesting habitat nearby? Is there evidence of human disturbance or high predator densities? Are there land access issues? Was this survey particularly difficult for some reason (weather vegetation, etc.)?

Northeast Blanding's Turtle Project

TRA/LT Trap Placement Form Instructions

Reference Point Number within the site: 1, 2, 3, or 4. Each reference point should have 5 traps set surrounding it. This form should be completed whenever traps are set for a TRA or LT trap event. 1 form should be completed / reference point, for a total of 4 forms for a site.

LT sites will be trapped during 3 or 4 12 night trap events in 2017. Which # is this? Or is this a TRA site?

What date did you first set this trap for this trap event?

What date did you pull this trap for this trap event?

What time did you set this trap for this trap event?

What is this trap's mesh size (e.g., 1", 1.5", 2", etc.)

Water depth (m) at trap

% of circle surrounding the trap, 5m in diameter, containing emergent/floating herbaceous vegetation.

% of circle surrounding the trap, 5m in diameter, containing submergent herbaceous vegetation.

Site: Use 6 letter site code: "State - County - 2 letter SiteID". For example: "MA-MI-GM" (=Mass., Middlesex, Great Meadows)

Latitude / Longitude of the trap. Use NAD83, or report other datum.

Wetland type in the immediate vicinity of the trap:
vp: vernal pool
em: emergent marsh (herbaceous perennials are dominant)
ss: scrub shrub (dominated by shrubs < 3m high)
dfo wet: deciduous forested wetland (e.g., red maple swamp)
pond: open water with unconsolidated organic bottom
riv: river or stream with a clear channel and discernible flow.

Distance to upland (m)

% of circle surrounding the trap, 5m diameter, with canopy (>3m high) cover.

% of circle surrounding the trap, 5m in diameter, containing shrub cover.

Dominant species in the 5m circle surrounding the trap (of any layer)

Blanding's Turtle Trap Assessment					
Trap Placement		Observer(s):		Site Name:	Site Code:
<input type="checkbox"/> TRA <input type="checkbox"/> LT					
Reference Point #:			Trap event: <input type="checkbox"/> 1st <input type="checkbox"/> 2nd <input type="checkbox"/> 3rd <input type="checkbox"/> TRA		
Trap # 1 Coord. (dd.dddd, -dd.dddd):					
Date set:		Time set:		Wetland type (5m): <input type="checkbox"/> VP <input type="checkbox"/> em <input type="checkbox"/> ss <input type="checkbox"/> d fo wet	
Date pulled:		H2O depth:		<input type="checkbox"/> pond <input type="checkbox"/> riv <input type="checkbox"/> wetland ecotone	
Hoop diam:		Mesh size ("):		% canopy cover (5m):	
% em. herb cov (5m):		% sub. herb cover (5m):		Dominant sp:	
				Dist. to upland:	
Trap # 2 Coord. (dd.dddd, -dd.dddd):					
Date set:		Time set:		Wetland type (5m): <input type="checkbox"/> VP <input type="checkbox"/> em <input type="checkbox"/> ss <input type="checkbox"/> d fo wet	
Date pulled:		H2O depth:		<input type="checkbox"/> pond <input type="checkbox"/> riv <input type="checkbox"/> wetland ecotone	
Hoop diam:		Mesh size ("):		% canopy cover (5m):	
% em. herb cov (5m):		% sub. herb cover (5m):		Dominant sp:	
				Dist. to upland:	
Trap # 3 Coord. (dd.dddd, -dd.dddd):					
Date set:		Time set:		Wetland type (5m): <input type="checkbox"/> VP <input type="checkbox"/> em <input type="checkbox"/> ss <input type="checkbox"/> d fo wet	
Date pulled:		H2O depth:		<input type="checkbox"/> pond <input type="checkbox"/> riv <input type="checkbox"/> wetland ecotone	
Hoop diam:		Mesh size ("):		% canopy cover (5m):	
% em. herb cov (5m):		% sub. herb cover (5m):		Dominant sp:	
				Dist. to upland:	
Trap # 4 Coord. (dd.dddd, -dd.dddd):					
Date set:		Time set:		Wetland type (5m): <input type="checkbox"/> VP <input type="checkbox"/> em <input type="checkbox"/> ss <input type="checkbox"/> d fo wet	
Date pulled:		H2O depth:		<input type="checkbox"/> pond <input type="checkbox"/> riv <input type="checkbox"/> wetland ecotone	
Hoop diam:		Mesh size ("):		% canopy cover (5m):	
% em. herb cov (5m):		% sub. herb cover (5m):		Dominant sp:	
				Dist. to upland:	
Trap # 5 Coord. (dd.dddd, -dd.dddd):					
Date set:		Time set:		Wetland type (5m): <input type="checkbox"/> VP <input type="checkbox"/> em <input type="checkbox"/> ss <input type="checkbox"/> d fo wet	
Date pulled:		H2O depth:		<input type="checkbox"/> pond <input type="checkbox"/> riv <input type="checkbox"/> wetland ecotone	
Hoop diam:		Mesh size ("):		% canopy cover (5m):	
% em. herb cov (5m):		% sub. herb cover (5m):		Dominant sp:	
				Dist. to upland:	

Northeast Blanding's Turtle Project

TRA/LT Trap Check Form Instructions – 4/18/17

Site: Use 6 letter site code: "State - County - 2 letter SiteID". For example: "MA-MI-GM" (=Mass., Middlesex, Great Meadows)

What date did you first set these traps for this trap event?

Today's date. This form should be completed each time traps are checked. One form should be completed / site / check day. If traps are checked every 48 hours, 6 forms will be completed for a 12 night LT site, 2 forms for a TRA site.

Note the number of Blanding's turtles in the trap.

Reference Point Number within the site: 1, 2, 3, or 4. Each site should have 4 reference points, surrounded by 400m buffers. 5 traps should be set in each reference point buffer. For a total of 20 traps at a site during a trap event LT events are 12 nights, TRA events are 4 nights.

Trap Number: Around each reference point, 5 traps should be placed.

Note any additional comments about the site, the weather, trap damage issues, etc. Note also 24 vs. 48 hour trap check, whether animals were placed back in the traps or removed.

24hr check TRA LT
 48hr check

Blanding's Turtle Trap Assessment

Trap check :

Site code: _____ State: _____ Obs: _____

Set date: _____ Today's date: _____ Check this column if the trap is not working.

Ref. Pt	Trap #	# EMBL	List EMBL ID #s	# CHPI	# CLGU	# CHSE	Other	Air Temp	H2O Temp
	1								
	2								
1	3								
	4								
	5								
2	3								
	4								
	5								
3	3								
	4								
	5								
4	3								
	4								
	5								

Comments: _____

Name (or initials) of observer.

Check the box in this column if the trap was not working that day (either had a hole, was not installed, etc.)

Check the air and water temperature once in each reference plot and record in these boxes. Air temperature should be taken in the shade. Water temperature should be taken 10 cm below the surface, adjacent to a trap.

Note the ID numbers of each Blanding's turtle observed in the trap today. Fill out an individual turtle observation form for each EMBL observed. If the numbers can not fit in this box, use the comments section at the bottom.

Note the number of Painted turtles, Spotted turtles, and Snapping turtles in the trap.

Note any other species observed in the trap (e.g., pickerel, chub, etc.).

Northeast Blanding's Turtle Project

Telemetry Form Instructions – 6/20/17

Site: Use 6 letter site code: "State - County - 2 letter SiteID". For example: "MA-MI-GM" (=Mass., Middlesex, Great Meadows)

Blanding's Turtle Telemetry Location Form (DRAFT 6/20/2017)

Name (or initials) of observer.

Air temperature (in the shade) 10cm above the turtle (or water surface). Water temperature should be taken 10 cm below the surface.

The camera and photo numbers of photos that were taken (if applicable)

The GPS unit where the location is stored and the point number (for instance: "LW 685" would be LW's GPS, point number 685)

Observer(s):		Site Name/Code:	
Date:	Time:	Turtle ID (Notch Code): <input type="checkbox"/> Male <input type="checkbox"/> Female	
Air Temp (C):	Water Temp (C):	Weather (check 1): <input type="checkbox"/> Clear <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Mostly Cloudy <input type="checkbox"/> Overcast <input type="checkbox"/> Light Rain <input type="checkbox"/> Heavy Rain <input type="checkbox"/> Other: _____	
Camera and Photo #s:	GPS and Point:	Accuracy level: <input type="checkbox"/> Point at turtle? (w/in 5m) <input type="checkbox"/> Point at known distance? Dist: _____ Direction: _____ <input type="checkbox"/> Turtle w/in _____ m <input type="checkbox"/> Wetland: exact location unk	
Visual? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Need to correct Point Distance: _____			
Field #s (Lat/Long DD):			

Check the box in this column if the trap was not working that day (either had a hole, was not installed, etc.)

Check the current weather condition

How close are you to the turtle when you took the GPS point? Right at it (within 5m, whether you saw it or not. If you were at the lowest gain and know you were within 5m of the turtle, even if you did not see it, select the first box). Select the 2nd box if you know where the turtle was, and it was a certain distance and direction away from where the GPS point was. Select the 3rd box if you're not sure where the turtle was, but you know, based on the telemetry signal, that you were within some distance of it. Select the 4th box if you know what wetland the turtle was in, but you don't know where it was in the wetland.

Visual: was the turtle actually SEEN by the observer. If not, check No
If the **GPS point** was taken away from the turtle's location, and needs to be corrected, note it here. For example, if you were standing on shore and saw the turtle basking on the log 30m away, that would be described here.

Turtle activity when found:	
Check all that apply: <input type="checkbox"/> Alert on Land Surface <input type="checkbox"/> Feeding <input type="checkbox"/> Walking <input type="checkbox"/> Mating <input type="checkbox"/> Basking <input type="checkbox"/> Partial Form <input type="checkbox"/> Complete Form <input type="checkbox"/> Nesting <input type="checkbox"/> Submerged in water <input type="checkbox"/> Swimming <input type="checkbox"/> Other _____	
Would a survey reveal this turtle? <input type="checkbox"/> Yes <input type="checkbox"/> No	Other activity: _____

What was the turtle doing when you saw it? If none of the above, complete the "other" line

If surveying the area for Blanding's turtles, would you have seen this one?

Record the dominant cover type within 5m. These could include: Pond (open, ponded water), emergent marsh, shrub swamp, shrub/herb mosaic [wetland or upland], forested swamp, upland forest, powerline, gravel pit, residential, etc.

If an ecotone is visible, note the distance to the nearest OTHER cover type. If the turtle is in a SH mosaic, there is no need to note the ecotone.

Check all visible features within 50m of the location

Specify if a hunter is present, soccer field, trails etc..

Additional comments to add regarding the location event? Including questions or concerns during event, if the turtle was in an unusual location, near another turtle, the same location as last time, etc.

HABITAT			
Dominant Cover Type (5 m):	Cover	% (5m)	Dominant Spp. (5m)
Distance to Ecotone: _____	Canopy (>3m ht)		
Other cover type: _____	Shrub (0 – 3m ht)		
Dist. to water (m) (0 if in water): _____	Terrestrial Herb		
Dist. to upland (m) (0 if in upland): _____	Emergent Veg.		
Water Depth (m): _____	Floating Veg.		
Features visible within 50m:	Submerged Veg		
<u>Upland:</u>	Open H ₂ O		N/A
<input type="checkbox"/> Forest <input type="checkbox"/> Nesting habitat <input type="checkbox"/> Road			
<input type="checkbox"/> Residential <input type="checkbox"/> Other _____			
<u>Wetland:</u>			
<input type="checkbox"/> Vernal pool <input type="checkbox"/> Scrub <input type="checkbox"/> Emerg. <input type="checkbox"/> Forested			
<input type="checkbox"/> Pond <input type="checkbox"/> River <input type="checkbox"/> Other _____			
<u>Other:</u>			
<input type="checkbox"/> Standing snags <input type="checkbox"/> Basking Logs			
<input type="checkbox"/> Beaver lodge/dam <input type="checkbox"/> Invasive Plants			
<input type="checkbox"/> Recreational use:			

Note the total canopy cover (woody trees >3m) within a 5m radius circle (**to the nearest 5%**) and the dominant species (whether terrestrial OR in a wetland). **For ALL classes, include live AND dead**

Note the total shrub cover (woody stems <3m) within a 5m radius circle and the dominant species (include terrestrial AND wetland)

Note the total terrestrial herbaceous cover within a 5m radius circle and the dominant species (include all terrestrial herbs, whether turtle was in wetland OR upland)

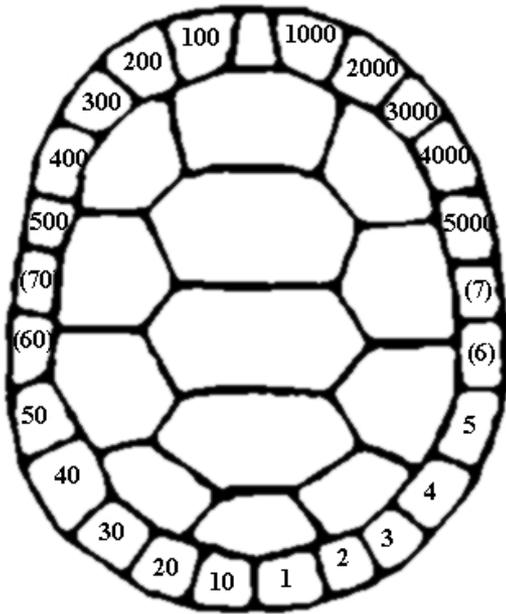
Note the total emergent herbaceous cover within a 5m radius circle and the dominant species (include all parts of emergent herbs above the water, whether turtle was in wetland OR upland). Tussock sedge, cattail, sphagnum, etc. fall into this class.

Note the total floating veg. cover within a 5m radius circle and the dominant species. Lily pads are included here.

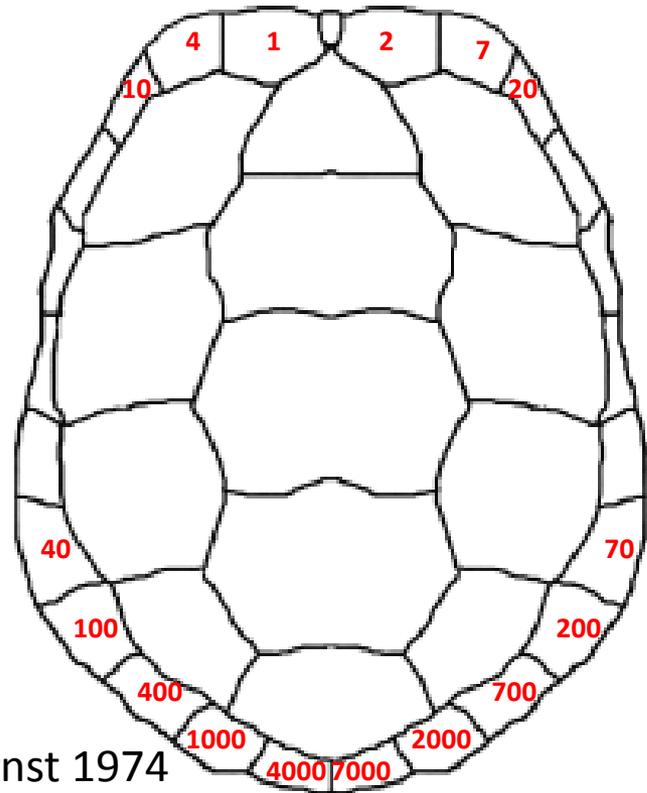
Note the total submerged veg. cover within a 5m radius circle and the dominant species (include all submerged parts of ANY plant).

Comments:

Notch Codes



Modified Cagle
Blanding's ONLY



Ernst 1974
Spotted, Painted, and Wood