

Snake Survey Summary 2010

Snake surveys are completed for the whole-park ecological inventories through an established citizen science program. This program began in 2004. Columbia Run, Confluence Park, Kniss Woods, Riding Run, Wetmore Road (formerly Virginia Kendall), and Waldo Semon Woods Conservation Areas were surveyed in 2009. These same properties were surveyed in 2010 with the exception of Kniss, Waldo Semon Woods and Wetmore Road.

Liberty Park is surveyed as part of a long-term monitoring project. This park has the potential to harbor the eastern massasauga rattlesnake. Following the protocol set forth by the United States Fish and Wildlife Service, the rattlesnake is being surveyed for in Liberty Park and adjacent Pond Brook South (Johnson et al. 2000).

Cover boards made of tin (approximately 12 x 48 x 0.6 in.) were placed in wet meadows, fields in and near wetlands or near forest edges. These cover boards are put in place and remain there from May through September. Cover boards were checked once every two weeks. The surveys are completed when there is >50% cloud cover, less than 15 mph breeze, and temperatures between 50 and 80 degrees Fahrenheit. They are conducted during the morning or evening hours. The cover boards are lifted with a snake hook to provide safe distance between the surveyor and the animals.

All snake species found under the boards are documented. Other non-reptilian species are also recorded. Species, general body condition, and comments are recorded for each species (sample data sheet in Appendix A).

Results

Table 1 illustrates the species found in each park surveyed in 2009 and 2010 for comparison.

Liberty Park and Liberty Park South have been surveyed since 2004. They continue to produce several species of snakes including brown, garter, water, red-bellied and ribbon snakes. The species diversity is high in these areas and the number of individuals is also robust.

Several new records for the conservation areas came out of the 2009 snake surveys. Wetmore Road Conservation Area (formerly Virginia Kendall) was especially productive in 2009, with new records submitted for Eastern milk snake, red-bellied snake and ring-neck snake. Riding Run Conservation Area documented smooth green snake, an arboreal species seldom seen in the Metro Parks.

As you can see from comparing the 2009 and 2010 results, species that don't occur as often under snake tins, but are otherwise common species, weren't documented in both years. An example is the northern water snake. It was documented in Columbia Run, Confluence Park and Pond Brook South in one year, but not the other. It doesn't mean that this species was absent, but is more difficult to survey for using the methodologies of this citizen science program.

More unique finds like the smooth green snake and eastern ringneck snake are rarely found in our parks. We are lucky to have documented these species in Riding Run Conservation Area in 2009. The eastern ringneck was also documented in Wetmore Conservation Area in 2009. This park was not surveyed in 2010.

Conclusions

Snake surveys will continue to be performed in Liberty Park and Pond Brook South as part of a long-term monitoring effort for the eastern massasauga rattlesnake. This species has not been documented in these parks in recent history. In 2011, new properties will be surveyed and survey locations are to be determined.

Table 1. Snake Documented in Conservation Areas in 2009 and 2010 during the Citizen Science Survey.

	Columbia Run Conservation Area		Confluence Metro Park		Liberty Park		Liberty Park (Pond Brook South)		Riding Run Conservation Area		Waldo Semon Woods Conservation Area		Wetmore Conservation Area	
	2009	2010	2009	2010	2009	2010	2009	2010	2009	2010		2009		2009
Northern brown snake			X	X	X	X	X	X	X	X		X		X
Eastern ribbon snake							X							
Eastern garter snake	X	X	X	X	X	X	X	X	X	X		X		X
Eastern milk snake						X								X
Northern water snake		X	X		X	X	X							
Red-bellied snake					X		X							X
Northern ringneck snake									X					X
Smooth green snake									X					

Date: _____ Start Time: _____ Start Temp _____ Start Rel. Humidity: _____ Start Wind(Beauford): _____ Start % Cloud Cover _____
 Surveyors Name: _____
 Survey # _____ Park/Conservation Area _____
 End Time: _____ End Temp: _____ End Rel. Humidity: _____ End Wind (Beauford): _____ End % Cloud Cover: _____

Beaufort Wind Scale	Wind Speed (mph)	Description
0	< 1	CALM: smoke rises vertically
1	1-3	LIGHT AIR: rising smoke drifts; weathervane inactive
2	4-7	LIGHT BREEZE: leaves rustle; can feel wind on face
3	8-12	GENTLE BREEZE: leaves and twigs in constant motion; small flags extend
4	13-18	MODERATE BREEZE: moves small branches; raises dust and loose paper (too windy to monitor)
5	19-24	FRESH BREEZE: small trees begin to sway (way too windy to monitor)

[illegible]