

PRELIMINARY DATA

Distribution of Salamanders and Bush Honeysuckle along a Blue Line Stream at Blackacre State Nature Preserve April, 2011

by S. Reigler*, P. Jones, H. Day, and K. Eberle
Indiana University Southeast, 4201 Grant Line Road, New Albany, IN 47150

[*sreigler@ius.edu](mailto:sreigler@ius.edu)

The following figure and tables illustrate data from two separate studies along the Blackacre stream. Salamander species observed were Cave (*Eurycea lucifuga*), Streamside (*Ambystoma barbouri*), Southern Two-lined (*Eurycea bislineata cirrigera*), and Eastern Zigzag (*Plethodon dorsalis dorsalis*). Data is in the process of being analyzed for relationship between invasive Bush Honeysuckle (*Lonicera maackii*) and native salamander species distribution.

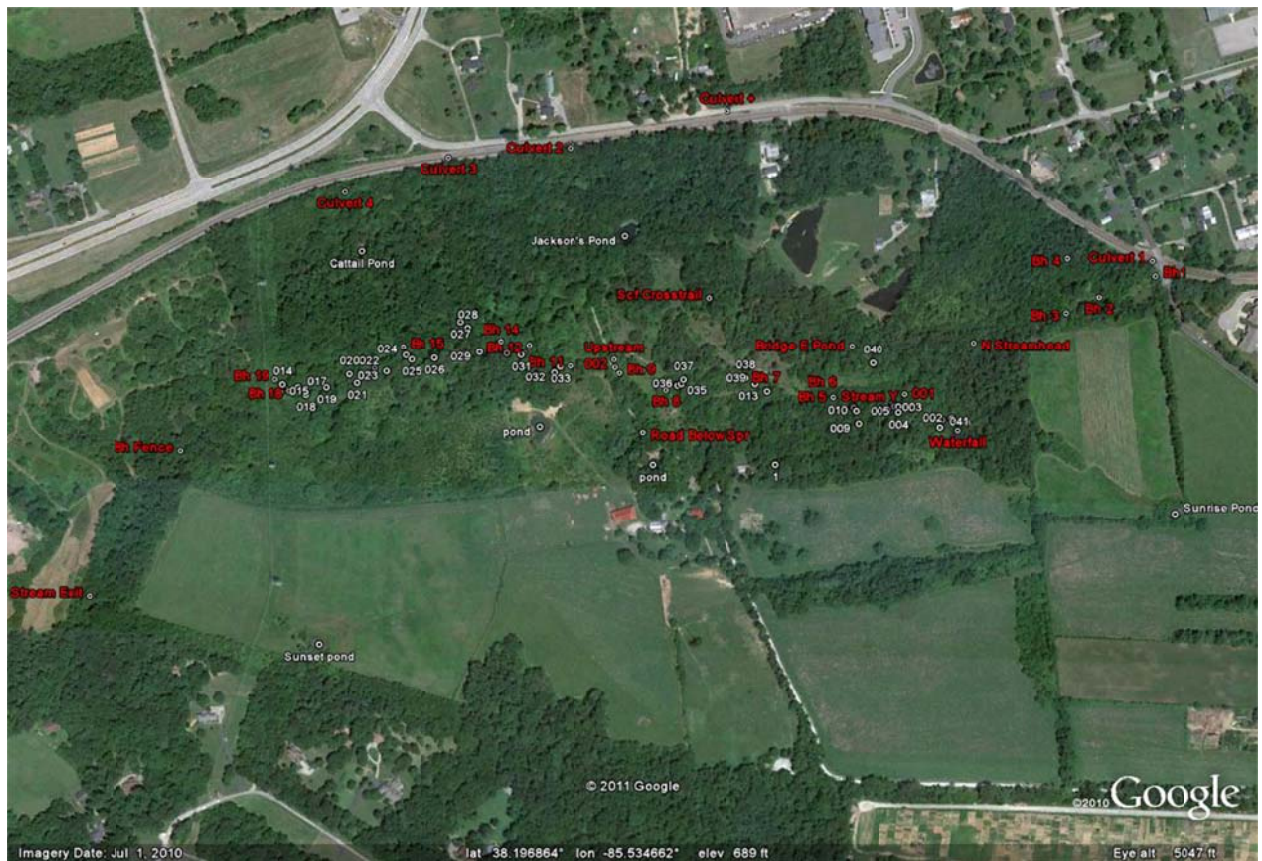


Fig. 1 Distribution of salamander eggs, larvae, and adults (April, 2011) and bush honeysuckle (July, 2010). Honeysuckle points (Bh) are in red. Salamander (three digit numbers) in white.

Table 1. Distribution of Salamander Adults, Larvae, and Eggs (April, 2011)

**All species found under rocks in stream unless noted as different habitat

Date	Waypoint	Species	Habitat
3-31-11	1	Zigzag	Under log
	001	Cave	Under rock (no water)
	002	Cave	Waterfall crevice
	003	Two-lined	
	004	Streamside eggs	
	005	Larvae	Pool, no flow
	006	Streamside eggs	
	007	Streamside eggs	
	008	Two-lined	
	009	Streamside eggs	
	010	Streamside eggs	
	011	Two-lined	
	012	Larvae	Pool, no flow
4-7-11	014	Streamside eggs	Stone bottom with loose sand, fast flowing water
		Larvae	
	015	Streamside eggs	
	016	Streamside eggs	
	017	Larvae	Pool, no flow
	018	Streamside eggs	Remaining points in rocky, mud bottom, medium flow
	019	Streamside eggs	
	020	Streamside eggs	
		Two-lined (2)	
	021	Streamside eggs	
	022	Streamside eggs	
		Unknown eggs (insect?)	
	023	Streamside eggs	
	024	Streamside eggs	
	025	Streamside eggs	
		Two-lined	
	026	Streamside eggs	
	027	Streamside eggs	
	028	Streamside eggs	
	029	Streamside eggs	
		Two-lined	
	030	Streamside eggs	
	031	Streamside eggs	
	032	Streamside eggs	
		Two-lined	
	033	Streamside eggs	
	034	Larvae	Pool, no flow
	035	Streamside eggs	
	036	Two-lined	
	037	Streamside eggs	
	038	Two-lined	
	039	Streamside eggs	
	040	Zigzag	Under rock (no water)
	041	Cave (4)	Waterfall crevice

Table 2. Density Index Rating of Bush Honeysuckle sampling points along banks of the stream, including stream sampling points. (July, 2010)

Sampling Point	Density Index Rating
Bh 1 (Culvert 1)	3
Bh 2	3
Bh 3	3
Bh 4	3
N. Fork Stream	2
Waterfall	2
Bh 5	3
Bh 6	2
Bh 7	3
Bh 8	1
Bh 9	3
Bridge Area	3
Bh 10	2
Bh 11	3
Bh 12	2
Bh 13	2
Bh 14	3
Bh 15	3
Bh 16	2
Bh 17	2
Bh 18	3
Bh 19	3
Bh 20	3
Stream Exit	2

DEI of 1 – little to no bush honeysuckle present; 2 – sparsely populated and under 5 ft. in height; 3 – densely populated bush honeysuckle of varying heights and widths.

Results – 4% of points sampled had little to no bush honeysuckle, 37.5% of points sampled had sparsely populated bush honeysuckle, 58.5% of points sampled were dense and thick with bush honeysuckle. There are at least four sampling points (Bh 14, 16, 18, and 19) where removal would be ill-advised. Honeysuckle growth was so dense at Bh 14 and 19 that removing them all would cause bank instability. Bh 16 and 18 had steep embankments on one side of the stream bank where erosion would certainly increase if any vegetation were removed. Any control must be done in a manner that would replace the invasive with native species immediately after invasive removal.

