## **Ohio's Statewide Acoustic Surveys**

Jennifer Norris, Meaghan Hughes, and Elizabeth Habermehl



#### Acknowledgments Elizabeth Habermehl Caleb Shields Caitlin Thomas Carolyn Caldwell Frank Brockmeyer Gus Brockmeyer Diana Malas Laura Binkley Travis Cline Levi Miller Rebecca Miller Carrie Morrov Kim Martin Natalie McLaughlin M. Albin Karen Adair August Froehlich zations/Agencies TNC, and DOW : OSU, USFS, Franklin County M

# Why have a statewide standardized bat acoustic protocol?

- · Determine baseline information about bat populations statewide
- Monitor long-term population trends
- · Determine species composition and relative abundance
- Evaluate threats (e.g., WNS, wind, climate change) cumulative impacts on statewide bat populations
- Declining bat populations = lower detection probabilities through standard netting methods?
- · Evaluate route-level trends, macro-habitat,

Importance on standardized methodology is to be able to compare temporally and spatially

# 2011 Evaluation of Protocols





	Comparison of Survey Types							
	Mobile Low	Mobile Mid	Mobile Myotis	Mobile UNKN	Stationary Low	Stationary Mid	Stationary Myotis	Stationar UNKN
Mean	0.60092	0.26646	0.13513	0.00043	0.69122	0.25677	0.05092	0.00108
Standard Error	0.05231	0.04919	0.03477	0.00023	0.25996	0.09210	0.01796	0.00108

### **Statewide Standardized Protocol**

- · Developed and first conducted surveys in 2011
- · 30-mile driving loop-routes with randomized start point
- · Each route is surveyed 3 times or more in July yearly
- · Anabat acoustic set-ups are provided by DOW

individuals conducting surveys

Detailed methods and training provided to















- Long-term dataset covering the state
- As software improves, species specific information will improve
- Detection probabilities will be determined using occupancy models

VOLUNTEERS NEEDED FOR NEW ROUTES

