Population Monitoring and Modeling Workshop II
May 7 – 9, 2013
Arrival May 6

"Putting the meat on the bones of the North American Bat Monitoring Initiative (NABat)"

Overall Purpose: Given a continental grid-based sampling frame and probabilistic survey design, develop a strategy to integrate data from disparate response designs (fixed-location acoustic, road-based acoustic transect, and colony counts) into regional and range-wide assessments of bat population status and trend.

Day 1, Tuesday, May 7

TIME	ACTIVITY	PRESENTER
8:00	**Breakfast Provided**	
8:30	**Introductions, Logistics, Announcements**	Susan Loeb
8:40	**Welcome and Introduction from NIMBioS**	NIMBioS
9:00	**History, Vision, and Goals of NABat** **WNS National (US and Canada) Response Strategy** **Overview of Previous Workshops** • Background. April 2012 Ft. Collins Workshop and February 2013 Ft. Collins Workshop • NABat vision and goals • Key overarching questions and objectives • Group discussion	Susan Loeb and Jon Reichard
9:45	**Current Status of State/Provincial Bat Monitoring Efforts** **Data Management Update** • Presentation of survey • Bat Population Data Project • Group discussion	Laura Ellison
10:45	**Break**	
11:00	**A Continental Grid-based Sampling Design Architecture** • Presentation on proposed framework • Group discussion	Tom Rodhouse
12:00	**Lunch**	
1:00	**Presenting Problems - Response Design Case Studies** *15 minutes to present and 15 minutes to discuss each:* • Fixed-location acoustical surveys • Transect acoustical surveys • Colony counts Current approaches, challenges and opportunities Key technical challenges for NIMBioS work	Tom Rodhouse Susan Loeb Wayne Thogmartin

2:30	**Breakout Session I (including break) – Two Groups**
	Goal is to "tee up" the key technical challenges in more detail
	• Acoustics
	  ○ Modeling distribution and relative abundance across the grid with call counts from points and roads within grid cells (units)
	• Colony Counts
	  ○ Modeling abundance across the grid with bat counts from colonies within grid cells (units)
		Participant assignments

4:30	**Full Group Discussion** • Brief review of each groups findings, problems, and progress in preparation for Day 2	All
5:00	**Adjourn for the Day**	
5:30	**Reception for All**	

Day 2, Wednesday, May 8

TIME	ACTIVITY	PRESENTER
8:00	**Breakfast Provided**	
8:30	**Logistics, Announcements**	Susan Loeb
8:45	**Review of Day 1 and Goals for Day 2**	Facilitator
9:00	**Full Group Work on Acoustic Problems** • Progress and tasks for Breakout 2	All
10:30	**Full Group Work on Colony Count Problems** • Progress and tasks for Breakout 2	All
12:00	**Lunch**	
1:00	**Breakout Session 2 – Assignments and Tasks**	
1:15	**Breakout Session 2** • Acoustics • Colony Counts	Participant assignments
3:00	**Break**	
3:15	**Full Group Discussion** • Progress and recommendations, consensus • Remaining tasks and R&D needs	All
4:30	**Adjourn for the Day**	
5:30	**Dinner on Your Own**	

Day 3, Thursday, May 9

TIME	ACTIVITY	PRESENTER
8:00	**Breakfast Provided**	
8:30	**Logistics, Announcements**	Susan Loeb
8:45	**Goals for Day 3**	Facilitator
9:00	**Full Group Work – The Grand Synthesis!** • Integrating acoustic and count data into synthesis for "State of the Nation's Bats" reports	All
12:00	**Lunch**	
1:00	**Findings, Conclusions, and Next Steps** • What do we "know", what do we "think" we know, and where should we "go"?	All
3:00	**Adjournment of Full Group**	
3:15	**Planning for Workshop 3** • Purpose and intent • Who's invited • Agenda draft	Core Participants
4:30	**Review of Action Items and Next Steps**	Facilitator
5:00	**Adjourn**	

The "Bin" of topics, time permitting:

- Incorporating "found" and legacy data
- Strata and unequal probability design criteria (e.g., LCCs, ecoregions, ownership etc…)
- Covariates
- Incorporating acoustic call identification error into models
- Modeling abundance from counts of calls – closure assumptions