White-nose Syndrome Status Update for ENSAC – 9/9/09

NJ Update
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- We sampled six summer bat roosts during July and early August as part of the multi-state SWG project to coordinate the investigation and rapid response to White Nose Syndrome (WNS). The competitive grant was awarded to several states and two NGO's in the NE and Mid-Atlantic regions. Using a combination of hand capture (hand nets) and harp traps, we sampled primarily little brown bat summer colonies and collected data on age, weight, sex, reproductive condition, white nose syndrome wing scores and banded bats. We found very little evidence of wing scarring and/or de-pigmented tissue that is typically associated with WNS-affected bats. These findings were typical of what most other researchers were finding throughout states with known affected hibernacula. There are two possible explanations for this. First, bats that we sampled were from unaffected hibernacula and therefore didn't have any signs of scarring or de-pigmentation. The second is that bats that were from affected sites and that had significant fungal infection (those that would have exhibited significant scarring and tissue de-pigmentation) were not surviving into the summer months. We know that bats that emerge from affected sites can survive and that they appear to heal during the active months. The bats we captured all appeared healthy based on weights and visible condition. In addition, the capture ratio of adults to juveniles suggests that the colonies we sampled experienced successful reproduction this year.

- At the request of researchers from the National Wildlife Health Center (NWHC), we collected and submitted three little brown bats for histopathic analysis. The bats were collected because they exhibited moderate wing damage and scarring (typically associated with WNS). One bat was from a large summer colony at Supawna Meadows NWR (Salem Co.) and the other two were collected from a summer colony at Picatinny Arsenal (Morris Co. – approximately 0.75 mi. from Mt. Hope mines and 2.6 mi. from Hibernia Mine). Again, we were hard-pressed to find bats that exhibited scarring indicative of WNS infection. Lab results are not yet available for these bats.

- We will be conducting limited sampling at Hibernia and/or Mt. Hope mines in the coming weeks to provide a small number of samples to the NWHC. They have requested 5 bats from NJ that are collected during fall swarming at a known affected site. We will be looking for bats that exhibit some wing scarring/de-pigmentation.

- We submitted 5 juvenile little brown bats from a colony in Hunterdon County to the NWHC for testing associated with WNS. The bats died prior to reaching flight age. The landowner contacted the ENSP to report what they believed to be unusually high mortality at the summer colony. We visited the site and confirmed

that juvenile (and some adults) mortality appeared greater that what would normally be expected for a colony of that size. No results of the tests are currently available.

- The ENSP, USFWS, NWHC and Cornell Univ. collaborated on a project to evaluate an experimental treatment for WNS affected bats held in captivity that was developed by a NJ licensed bat rehabilitator. WNS affected bats were collected from Hibernia Mine in early May and randomly assigned to one of three treatment groups: a control, a single treatment group and a multiple treatment group. At the conclusion of the evaluation animals from each treatment group were euthanized and sent to the NWHC and Cornell Univ. for analysis. Results of the evaluation are not yet available. However, four bats that died prior to receiving their assigned treatments tested positive for *Geomyces destructans*.

- M. Valent attended a three-day meeting/symposium on White Nose Syndrome held in Pittsburgh, PA from Aug. 11-13, 2009. The meeting was intended to update the WNS community on current research and management efforts, develop a plan for the upcoming year, identify new strategies for WNS management, research and outreach and to expand participation and collaboration with biologists and researchers in newly affected and unaffected states. White papers from the meeting are not yet available. When they become available we will forward them to ENSAC members.

- One of the most encouraging messages to come out of the meeting was that several researchers are very close to evaluating several compounds in the field that have shown efficacy in controlling fungal growth in the lab. Additional testing on other compounds is also being done in the laboratory. Compounds are being tested for large-scale treatment, but that do not harm the other essential microbiota of the cave (fungi play a critical role in ecosystem processes in cave environments). Tufts Cummings Vet. School has proposed a project to house 140 Myotis lucifugus to conduct treatment trials at room temps and in artificial hibernacula. They have IACUC approval to test several compounds with the intent of developing methods of treatment for field use.