

Summer Bat Count:

Participation

In 2015 Bat count data reported from 17 roost sites via emergence counts during the maternity season, and volunteers tallied at least 1,300 unique individual bats. Of those 17 counts we have consistent annual tracking data for only 7 of those sites; three of them represent little brown bat colonies (*Myotis lucifugus*) and four represent big brown bat colonies (*Eptesicus fuscus*).

County representation was as follows, with the number of sites in parentheses: Bergen (1), Burlington (1), Hunterdon (2), Mercer (1), Morris (3), Ocean (1), Salem (1), Somerset (2), Sussex (2), Warren (2).

Trends

Since White-nose Syndrome (WNS) arrived in New Jersey in 2009, the Summer Bat Count program has helped CWF quantify the steep decline in Little Brown Bats and the increase in Big Brown Bat numbers.

This year, with such a small sample size however, it was difficult to establish definitive population trends, especially since some of our colonies exhibit roost switching throughout the summer. Overall from 2014-2015 there was an increase in little brown population numbers (n=3). At one well monitored site we saw a 41.7% increase in late-summer colony size due to recruitment where the colony did not disband until mid July. Big brown bat colonies however, appear to have dropped in populations by about 20% since 2014 (n=4).

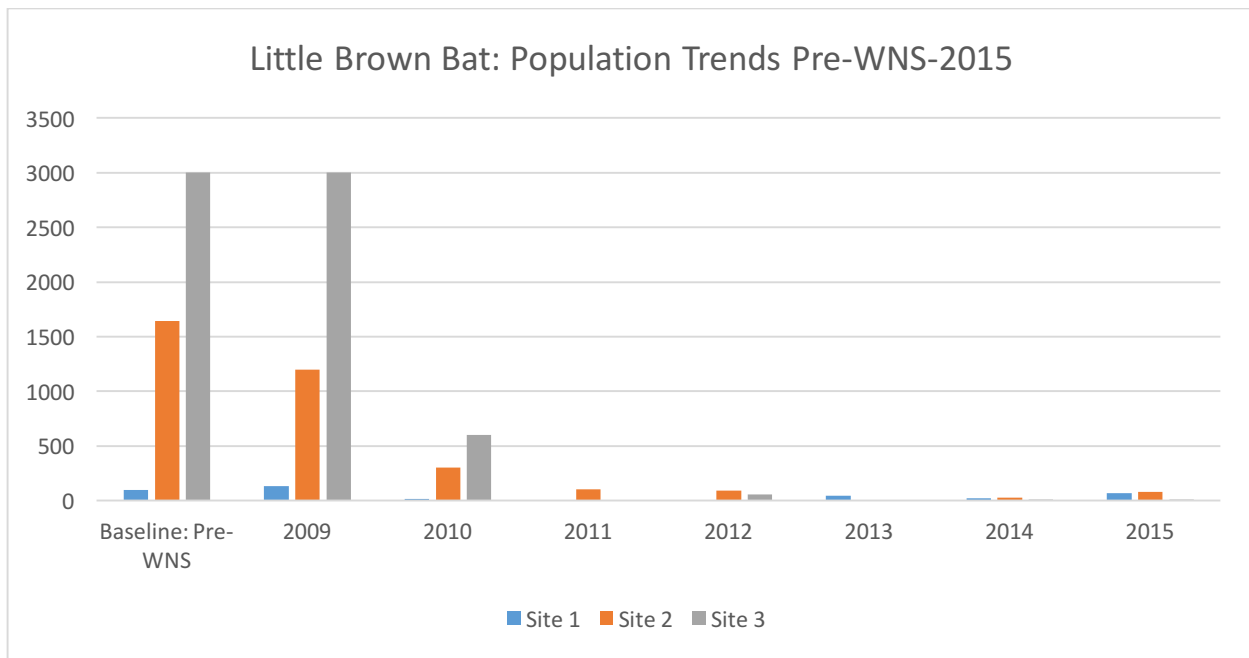


Fig 1: Bar graph of pre-WNS – 2015 little brown bat population trends of 3 sites with consistent good counts (n=3). Whereas site 1 started with a population of 95, which decreased to 10, but increased again this year to 68. Site 2 began with a population of 1645 pre-WNS and decreased to 1200, continued to decrease to 26 in 2014, but increased this year to 81, and site 3 began with a population of 3000 which has continued to steadily decrease to only 3 this year.

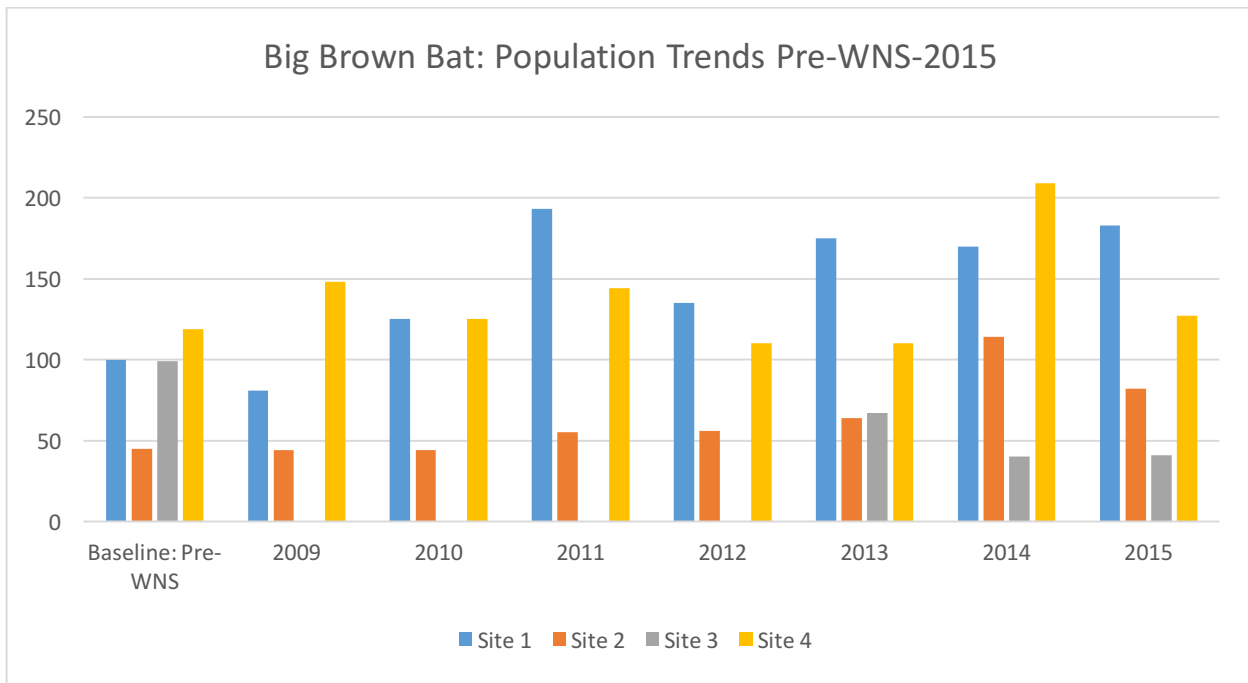


Fig 2: Bar graph of pre-WNS – 2015 big brown bat population trends of 4 sites with consistent good counts (n=4). Where as the sites showed initial decline numbers after WNS hit NJ then showed slight steady increases. This year only site 1 increased from 2014-2015, the other 3 sites showed slight declines in population numbers from 2014-2015.

In comparison with pre-white nose syndrome numbers, we are still seeing a 95% decline in little brown bat population numbers and about a 19% increase in big brown population numbers. Another recent analysis of New Jersey's banding data by Dr. Brooke Maslo of Rutgers University continues to show that bats are surviving the winters at a normal rate, but reproduction is not back to normal levels yet.



Fig 3: CWF biologist Stephanie Feigin, holding net with over 50 little brown bats from new roost site. These bats were banded, weighed, and the wings were checked for WNS scarring.

We discovered a new roost site this past fall of over 50 little brown bats in a bat house in Morris County. We banded these bats this year and will continue to monitor their populations each year. This was an exciting find and will be another good study site for the team, allowing us to understand more population trends of little brown bats in New Jersey.

This winter, we got news from New York state that one of our banded bats turned up in a cave up there! This bat was banded by us as an adult in 2014 at one of our well monitored little brown bat sites, at the time she was nursing a pup. This past November, she was spotted in a cave near Rosendale, NY “spending the winter with 37,000 of her closest friends” (*Carl Herzog, New York State Department of Environmental Conservation*).

Bats In Buildings:



Figure 4: Bat house installed at eviction site this summer 2015.

Our Bats in Buildings program, originally set up to help homeowners evaluate their bat issues and understand the process for doing a bat exclusion properly, continued this year. Our [Bats in Buildings website](#) gives the New Jersey guidelines and "safe dates" for bat exclusion, lists a number of professional companies who can help, and offers up free bat houses for bats being evicted from homes.

Homeowners and pest controllers are encouraged to report bat roosts, conduct bat counts, and participate in monitoring. We installed at least 10 bat houses at sites where bat eviction was planned.

Mobile Acoustics:

This year we decided to take a break for one year from our mobile acoustic routes because we purchased new acoustic detectors! With this purchase, we needed time to learn how these new detectors worked and we wanted to spend a season using them in the field as well as looking at our acoustic routes and making sure they are the best they can be. We plan to start back up in spring of 2016.