



Northern Saw-whet Owl Migration Monitoring Report 2015

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Northern Saw-whet Owl Season Summary 2015 at the Big Chico Creek Ecological Reserve

November 14, 2015 was the closing night to our Northern Saw-whet Owl (*Aegolius acadicus*) migration monitoring season for fall 2015 at the Big Chico Creek Ecological Reserve (BCCER). Our eleventh season was an exciting one, with 55 total NSWO banded including two recapture of owls previously banded at the Reserve. See more about these recaptures below.

Recap of 2014 banding season and station OWL4

In 2014 the Research Foundation closed the Reserve to research while they worked out liability details after an accident occurred on the property in 2013. We were allowed access if we could enter on foot (no vehicles) so to continue our research we opened another station, OWL4 just inside the entry gate (Figure 1). This station is situated 0.2 and 0.4 miles from our main banding sites OWL2 and OWL3. However our banding efforts were reduced to 12 nights and limited hours, and we only captured 9 owls in 2014. Due to changes in protocol (reduced banding effort) 2014 cannot be compared to the other years.



Figure 1. Owl banding stations on the BCCER; OWL2, OWL3 and OWL4. OWL4 was established in 2014 and is the only one accessible by foot, a condition of the Research Foundation for conducting research in 2014.

Back on the Reserve 2015!

New Reserve Director Jamie Visinoni restored Altacal's partnership with the Research Foundation in 2015, which enabled us to access our main banding site OWL3. Our banding efforts were authorized from October 15 through November 15 and limited during the hunting season Oct 21- Nov (also the peak time for owl migration based on

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previous years). This year we banded a total of 15 nights, 12 at OWL3 and 2 nights at OWL4 during deer hunting season. We were rained out for two additional attempts. Thank you Jamie for your efforts and success!

2015 Owl Population

Age

Adults outnumbered young this year, which has been typical in all but 2 years other than 2006 and 2010 (Figure 2), where 70% and 60% of the population were hatch year owls. This high young to adult ratio appears in 2014 but with such low and sporadic banding effort we can't really say what population looked like. The 2015 owl population consisted of 26 (47%) hatch year birds (those hatched in spring 2015) and 30 (54%) adult birds (at least 2 years old). A good reproductive year is implied with almost a half of the population being hatch years.

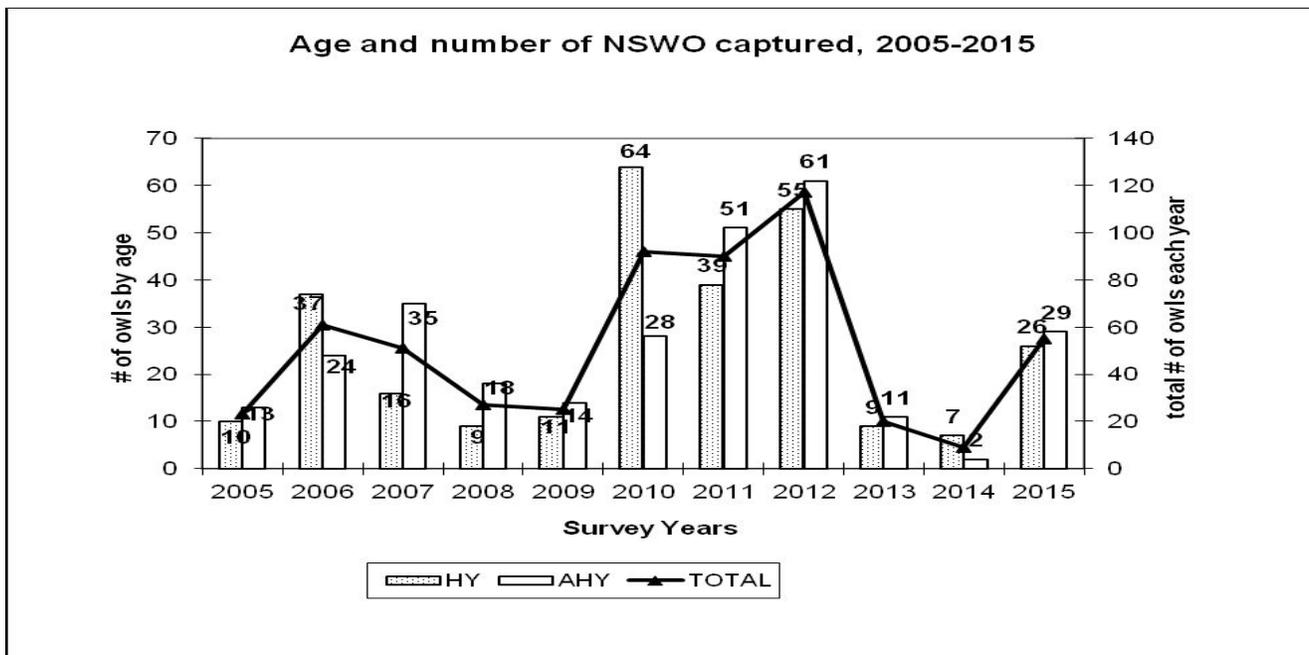


Figure 2. The number of owls by age: young (HY) shown as hatched bars and adults, (AHY, at least 2 years old) shown in solid white bars, banded during fall migration. The second Y axis and line show the total number of owls banded each season. In 2015, we captured 55 owls total consisting of 26 hatch year birds and 29 adults. 2014 cannot be compared because of a change in banding efforts.

Sex

Sex is determined by the wing chord length and mass of the owl. Females are larger than males and there is an overlap zone between the sexes. As usual, our population consisted of mostly females, 30 females, 6 males, and 19 of unknown sex. Theories about this dramatic ratio seen at all NSWO owl banding stations include, 1) the males remain on territory and do not migrate and 2) males are not attracted to the broadcast of the audiolure we use to attract the owls, and therefore rarely fly into the nets.

Recaptures

This year we recaptured two owls that we had banded from previous seasons. One HY female was originally banded in October 2014 at OWL4 and a second HY female was first banded during our Snow Goose Festival event in January 2015, making them both 2 years old at recapture. The longevity record in the wild, based on

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banding, is 9.5 years, which is pretty amazing for a small predator that migrates 2 times a year. An average lifespan is more like 5 years.

Recaptures indicate some degree of site fidelity to a migratory route but it is rare that we recapture our own birds from a previous season. For example we have only recaptured 9 individuals out of 569 total birds since 2005, in subsequent years of their original capture. This indicates that the owls don't always use the same migration route and wintering areas used in previous years, and/or are savvy to the nets and audiolure after being captured before, or may have a variable adult survival rate year to year. I assume a combination of the three.

Incidental Captures

Every year we capture a few species incidental to our NSWO targets, like Western screech-owl (*Otis kennicotti*). Screech owls are year-round residents and seem to be curious about the saw-whet audiolure. This year we captured three screech owls, all previously unbanded. We also captured and released 3 pallid bats (*Antrozous pallidus*).

Community Outreach

Educating the community about the saw-whets is an important part of our project. This year we the new Reserve manager Jamie and her family and 3 other groups met the owls (Figure 3). We also conducted a field trip with the Reserve naturalist Jon Aull and 11 guests. On one of these nights out we saw and incredible UFO, that we later discovered was a “nuclear capable trident missile” deployed in San Diego. What a show!



Figure 3. New Reserve Director, family and owl, and two BCCER field trip guests with NSWO.

Project Support and Volunteers

Logistical support continued this year from CSU Research Foundation and Altacal Audubon Society. Many private sponsors including 17 new owl guardians who adopted owls through our Adopt-an-Owl program (<http://birdbling.blogspot.com/p/adopt-owl.html>) helped fund our project. Main project banders and volunteers this year included Dawn Garcia, Steve King, Sheila Frisk, Ken Sobon, new volunteer Julie Newman, and Maureen Morales and JoAnna Arroyo. Three additional new volunteers joined us: Navit Reid, Wyatt Hersey and Erika Iacona. Many others volunteered their time to the project. Both financial and logistical support is required to run the station each season. Thank you project sponsors, banders and volunteers!

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Donations-Upgraded Station Equipment

All NSWOW specific banding stations use an audiolure, something that broadcasts saw-whet calls to attract them to the nets. For the past 10 seasons we have used a boom box. This year, project volunteers Steve King and Ken Sobon, crafted a powerful speaker system (more decibels) which broadcasts the owl calls at a louder and broader range. We have to assume this change affects our sampling methods because more owls would hear the call from a longer distance and are probably attracted to the nets, adding another factor to the variation in annual owl numbers. But the upgrade was much needed and puts us on a par with other stations. Long time volunteer Sheila Frisk donated an iPad to the project for photos and sharing data. Thank you!