

## 1988 Was the Most Unusual Breeding Season For Screech-Owls

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Out of forty-three years of studying screech-owls, the year 1988 was the most unusual breeding season I have ever observed. I found a large number of unusual occurrences in the nesting boxes. For the year 1988, I observed 19 nesting boxes. This is what I found:

NEST NO. 1 This screech-owl box was checked April 22, 1988. This was an old female which was banded in 1980 with Band No. 715-47657. She was sitting on six eggs and had been dead for some time. Some vandals had shot through the box, killing her. Out of this female, I banded five young gray on May 16, 1980, five on May 4, 1981, five on May 13, 1982, five on April 30, 1983, six on May 15, 1986 and six on May 2, 1987. I did not band any birds in 1984-1985 due to illness. Steve Pollick, a writer for the Toledo Blade, was with me in 1986. During the 1987 banding, I was also able to band the male which was also in the box. Imagine my disappointment when I found the female dead in the nest this year. She was at least 1 year old in 1980 when banded and nine years old when I found her dead. This female raised thirty-two young in six years. What a disappointment.

NEST NO. 2 This nest was checked on April 22, 1988. In the screech-owl box was a gray female incubating three eggs. This female was banded in 1987 in the same box with Band No. 726-28880. On May 14, 1988, I banded three young from this box. There also were Dark-eyed Juncos in the box for food.

NEST NO. 3 On April 25, 1988, I checked this VanCamp box. The female was incubating eggs. She was banded on May 14, 1988, and there were four young in the nest. I banded the young on May 23, 1988. At the time, the female was in the nest, but there was no food with the young.

NEST NO. 4 On April 26, 1988, a female was in this screech-owl box with Band No. 726-28828 and she was brooding four small young. I banded these young, which were all new grays, on May 9, 1988. At that time, the female was in the box with no food.

NEST NO. 5 In this screech-owl box with a female, which I banded in 1987 with Band No. 745-59230, were three young. I banded the young May 9, 1988. At the time, the female was in the box with the young and there was no food.

NEST NO. 6 I checked this screech-owl box on April 26, 1988. The female was incubating three or more eggs. This was checked on May 9, 1988, May 17, 1988, and June 1, 1988, and the female was still incubating each time. Since the incubation period is twenty-five to twenty-seven days, I checked this female frequently because she was considerably past the hatching period. She had been banded on May 1, 1982, and her Band No. 715-47769 was attached. I considered this box unsuccessful.

NEST NO. 7 On April 22, 1988, the female in this screech-owl box was incubating three or more eggs. By May 11, 1988, this gray female had hatched five young. I banded them and the female. The female had a brood patch created by plucking her breast feathers to give the young extra warmth. There was no food in the box when I banded them.

NEST NO. 8 This screech-owl box was checked on May 12, 1988. At that time, the nest had small young and eggs. I again checked it on May 26, 1988, and found three small young and a red male with Band No. 745-59288 in the box. Subsequently, I checked the box and the female was present with two young large enough to band. One was a gray and one was a red. Neither parent was in the box. There was no food in the box. I suspect that the missing young was a case of cannibalism as a predator would have surely taken all of the young. I suspect that cannibalism also occurred in Nest No. 19, making this year the third time in forty-three years that I have observed three young disappearing in one year.

NEST NO. 9 This was a Wood duck rocket box which contained five eggs which were cold and no female was in the box. I listed this nest as unsuccessful.

NEST NO. 10 Again, this was a Wood duck rocket box which I checked on May 3, 1988. The bottom of the box had fallen out, dumping the nest on the ground. There was one dead young and two eggs ready to hatch in the nest. I did not notice an adult female leave the area. I listed this nest as unsuccessful. As with Nest No. 1, it was certainly not natural causes.

NEST NO. 11 This screech-owl box was first checked on May 5, 1988, and in the box was a gray female with Band No. 745-59274 and three medium young. There was also a meadow mouse in the nest for food. I banded two of the young, which were grays, with Band No. 745-59286 and No. 745-59287. I checked the box again on May 17, 1988, and the male was not in the box, but the female was and there was one egg added to the nest. All the young were present at this time, but when I checked the nest again on May 26, 1988, one of the young had disappeared. It must be cannibalism. This was the second time that young had disappeared from a nest this year.

NEST NO. 12 This screech-owl box was located at the Ottawa National Wildlife Refuge. I checked it on May 5, 1988, and found two dead young in the nest, but I was able to band three additional gray young with No. 745-59250, 745-59252, and 745-459252. This is the first time that a female was not with the young when they were banded in over seven hundred nests found during this study. It occurred to me that the adults may have been destroyed by Great-horned owls that nested adjacent to the wood lot where this box was erected. This is the first time I have ever found dead young in a nest. I did not check the box later.

NEST NO. 13 On May 5, 1988, this Wood duck rocket box had four eggs. They were not incubated and cold. There were no adults in the nest. Something must have happened to the female as I believe this nest was abandoned.

NEST NO. 14 This was the same situation as Nest No. 13. I checked the screech-owl box on May 9, 1988, and found four eggs in the nest, but they were not incubated and cold. The female was not in the box.

NEST NO. 15 In this Wood duck rocket box was a female with band No. 745-59218 attached and three young which I banded with bands 745-59249, 745-59260 and 745-69262. The male was not in the box and there was no food in the box. The female had been banded in this box in 1986.

NEST NO. 16 In this Wood duck rocket box was a male and a female gray brooding four small young. The female had Band No. 726-28881 attached and the male had Band No. 726-28835 attached. Both had been banded in 1987 in nearby boxes. A robin was in the nest for food.

NEST NO. 17 In this screech-owl box was a female with four young grays. I banded them with Band Nos. 745-59268, 745-59269, 745-59270 and 745-49271. The female was first banded in the same box on May 20, 1987, and was wearing Band No. 745-28872.

NEST NO. 18 In this VanCamp box, I found an incubating female with a male. I banded the female on April 22, 1988, and the male on May 16, 1988, with Band No. 745-59273. Neither adult had a brood patch nor was there a nest. On June 1, 1988, I found the box empty with no signs of predators. I don't know the cause of this desertion.

NEST NO. 19 In this screech-owl box on a bracket, I found five young grays and a female gray. Four of the young grays were old enough to be banded and I banded them using Band Nos. 745-59244, 745-59246, 745-59247, and 745-59248. Band No. 745-59245 was destroyed. One of the young was too small to band so I came back to band this one on May 10, 1988, and it was not in the box. This is the third case of cannibalism this year. I also banded the female on May 3, 1988, with Band No. 745-59243.

This data is this year's part of the screech-owl study that I began in 1944. I have collected the field data each year since, except for the years of 1984-1985 which I missed due to illness. The first thirty years of the study are summarized in *The Screech Owl: Its Life History and Population Ecology in Northern Ohio*. Laurel F. VanCamp and Charles J. Henny, 1975. North American Fauna No. 71, United States Department of the Interior, Fish and Wildlife Service.

This year (1988) I banded a total of 41 birds in 19 nests. This calculates to about 2.2 young fledged per nesting attempt which is comparable to the thirty year study rate of about 2.5 to 2.6. Also, the twelve successful attempts out of nineteen nests found or 63.15 percent, compares with the thirty year study rate of 69.2 percent in successful nesting attempts for this species. Since the screech-owl uses only about 13 percent of the boxes checked each year, I checked approximately one hundred thirty boxes to find these nineteen nests.

I wanted to publish this year's results because it has been one of the most, if not the most, unusual year of this study. Three things stand out in my 1988 screech-owl studies. One is the three cases of presumed cannibalism, recorded for only the third time in 43 years of banding. The second is the prolific female shot in the nest box by vandals. Finally, young being banded without the female in the nest was unprecedented in over 700 nests studied.



Laurel VanCamp with the mother of the 4000th Eastern screech-owl he has banded. This female was banded on May 4, 1983.