Everyone stayed busy. In fact, I ordered the nets closed at 3:00 p.m. so the banders could finish up at a decent hour. When we closed up the Station we had banded over 750 birds!

The "happy-hour" that night was the biggest yet and we had quite a crowd make the last run up to Paul's for supper. I had my only repeat meal for the week, my favorite, Crab Imperial.

There was plenty of help that night with the summary, and it turned out we had banded 754 birds of 37 species, with 19 repeats, 1 return and no foreign recoveries. It was really Myrtle day, with 568 banded, but we were still getting an amazing variety of other Warblers, and it appeared that the Sparrows were just beginning to come through. Two White-crowned Sparrows were new for the year.

Sunday, October 15:

When I slipped out of the door early, I could feel no wind and wondered what had become of the predicted cold front during the night.

This caused much tongue-wagging as we headed down to the Station. When we arrived, we were amazed to find the wind there blowing steadily from the Northwest at 20 m.p.h., gusting up to 35 m.p.h.

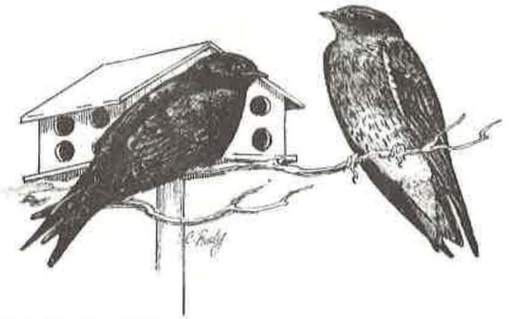
You can imagine what that did to our nets. All the net-tenders were soon frustrated from watching the birds bounce off those nets, belled out by the wind. By 11:00 a.m. the birds had tapered off to a trickle and I ordered the Station closed.

Everyone fell to, dismantling the nets and packing up their equipment. I'm always sure every year when we close that I'll never get all the nets, poles, collecting boxes, screen tent, chairs, table, etc. in our car, but between a big trunk, the back seat and a car-top carrier, we made it again.

While we were eating lunch I made a quick check on the day's and week's results. For the day we had 167 birds of 23 species, with 19 repeats and no returns or foreign recoveries. For the week, we had banded an amazing 2790 birds of 61 species. As for me, the 27 Sharpies for the week was unbelievable, and the 2790 birds brought our total for the year to a respectable 7331.

There was nothing left but to make farewells all around, climb into our cars and head homeward. As we left the toll booth and headed South on the Bridge-Tunnel, I thought back over the week. It was certainly the best, or perhaps I should say the most productive, week I had ever had at Kiptopeke.

As I relive it, my cup runneth over. ##



A BIRD BANDER'S DIARY

By Ralph K. Bell

In the previous issue of *A Bird Bander's Diary*, we covered June 1972, the aftermath of Hurricane Agnes and the effect this awful storm had on the Purple Martin population. Death losses were easily tallied because this species nests in many of the backyards near houses and many birders reported their losses to me. While I covered some of the effects of the storm on my colonies, the following paragraphs deal with the effects of the storm on colonies of my friends and acquaintances:

All Purple Martin owners in the area had sad reports. One found 14 dead adults in the yard and only two flying around. Another reported 54 dead young and 46 cold eggs. Another reported 42 dead young in one box. Another reported 59 dead young in his boxes and yet another birder reported only two adult survivors from 48 pair with the lawn full of dead birds on Friday, June 23, 1972. The largest colony in the county (5 boxes and over 150 pair) reported a dozen or so adults survived.

EBBA Member Bob McCullough wrote me that there were approx. 80 dead young in 3 boxes near his home in northern New Jersey. Published report in the *Purple Martin Capital News* (Vol.7,No.7), indicates that the same situation existed over a 5-state area (more than 150,000 square miles with Pittsburgh, Pa., being near the center of the Purple Martin disaster area). Mr. Larry Zeleny of Hyattsville, Md., had an article in the same publication about his martin colony during and after the heavy rains and I would like to quote part of it....."Saturday, June 24, dawned cold but clear. It was too cold for any insects to fly. There were still feeble sounds of martin babies in the wooden house which we hadn't lowered previously because to do so is a major operation. Late that morning we solicited the needed help and lowered the massive wooden house to a height of eight feet where we could get to it easily with a stepladder. We found it

to contain 12 dead martin nestlings and 21 that, though weak, had miraculously survived the period of near starvation. So, we proceeded to remove the dead birds from the compartments with a long wire hook. While I was busy with these tasks the temperature rose rapidly under the warm June sun. At long last insects started to fly, and the adult martins were in a frenzy as they swarmed into their compartments with precious food for their starving babies. So intent were they on getting food to their young quickly that they ignored me completely as I stood on the ladder examining nests within inches of where they were alighting to feed their nestlings. It appeared that the crisis was over. But during the next two hours four dead or dying adult male martins were found, two on the ground near the colony, one on the porch of the martin house, and one that evidently entered a compartment to feed its young and died there. Several other adult martins appeared to be on the verge of collapse and may have died. After at least two days of complete starvation and inactivity it would seem that the sudden burst of strenuous activity in getting food to the starving nestlings as quickly as possible was more than some of the birds could endure, so they simply collapsed and died of overexertion."

But there is a bright side. EBBA Members Connie Katholi and Anne Shreve have assured me that there are still Purple Martins. They know because they have banded each fall at the big Purple Martin roost at Charleston, West Virginia (approx. 140 air miles southwest of here). The martins from western Pa., probably stop at that roost each fall on their way to South America because Anne and Connie have recaptured 4 that were banded here at Clarksville, Pa. Three were direct recoveries and one of these was within 25 days.

This year the martins began congregating at the roost immediately after the rains stopped and they reported on July 1st that thousands of martins had just arrived and estimated 10,000 there two nights later - an unusually high number for that early date.

That 10,000 figure seems like a lot of Purple Martins but not when one considers the vast area they come from to converge at that roost. If an average of only 2 survived per colony of the estimated 150 colonies in my home county in southwestern Pennsylvania - that would be 300 Purple Martins when normally we would expect several thousand to leave this county each fall.

Some estimates run as high as 25 years before the martin population gets back to normal. My guess at present is from 5 to 10 years. EBBA member John Morgan (of Old Town, Maine) was here soon after the tragedy and he thinks the martins will make a quick comeback. I sincerely hope he is right!

--R.D. #1, Box 229, Clarksville, Pa. 15322

AN INTRODUCTION TO SOME STATISTICAL TERMS

By Mary Heimerdinger Clench

Several years ago I wrote a workshop paper on statistics ("Basic data interpretation for beginners," *EBBA NEWS* 33: 263-267, 1970) in which I used, but did not explain in detail, several statistical terms. In thinking over topics for this workshop issue, I decided it might be helpful now to discuss some of these terms. All are commonly encountered and are based on relatively simple concepts even if two are comparatively difficult to compute or to define mathematically. I won't concern myself with their rigorous aspects, but will try only to give EBBA NEWS readers some idea of what they mean. I hope that banders who are not mathematically inclined will be able to follow these explanations, thereby adding the terms to their working vocabulary. All of them deal with aspects of what statisticians call "frequency distributions"--how often and in what patterns certain phenomena such as measurements, numbers of birds, occur--the sort of things that banders most often analyze from their data. After reading this paper some banders may be stimulated to go on to learn exactly how to use these methods; but my primary aim is to get banders without a mathematical background over the language barrier, to know what is meant by a mean, a normal curve, and a standard deviation, so that when they see these terms used by others they will have a basic understanding of what the analyses are about.

Mean: A mean is the same thing you probably learned in grade school as an average. To calculate a mean you add up the numbers in a sample, say measurements of wing lengths, and divide by the number of individual birds measured. A simple example would be: 5 adult male American Goldfinches, measured in the spring, with wing lengths of 70, 71, 72, 72, and 73 mm; add these figures together (= 358) and divide by the number of birds in the sample (5) and you get a mean of 71.6 mm. Strictly speaking this kind of an average is called an arithmetic mean, but often is just called a "mean". Why isn't it called an "average"? Quite frankly, I'm not sure. Certainly if you look in statistics books you will find the word "average" discussed; you will also discover that there are many different kinds of averages, and that there are several different kinds of means as well. I suspect that mathematicians prefer to use "mean" ("arithmetic mean") because it has a precise definition in technical usage, whereas "average" is tainted with inexact usage in everyday language (as synonymous with typical, common, or ordinary.)

Normal Curve: This term has a large number of synonyms within statistics, including "bell-shaped curve," "Gaussian distribution," "Normal distribution," and even "Law of errors." Personally I prefer "bell-shaped curve" because that is what the curve looks like. "Normal," however, is the term in most general