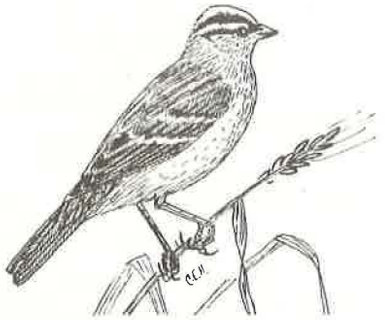
by spectrographs of bird vocalizations. The more recent one contains photographs of birds in the act of singing. It has more than twice as many pages as Thorpe's monograph, and costs nearly three times as much.

I intend to read Armstrong's publication when I can get hold of it, and see whether to give the palm to Oxford or Cambridge.

313 Sharp Avenue, Glenolden, Pennsylvania



# A Bird Bander's Diary

## Sept.-Oct.

September 17 ... Walter Bigger has written me glowing accounts about some of their fabulous days at Island Beach. We had one of those days here at our Operation Recovery station at Red Creek Campgrounds today. This place is unique, not only because of its altitude, but also because of its extreme weather contrasts. Some days are clear and beautiful, and the 9 mountain ranges to the east can be seen with the naked eye. The bad days are when the whole mountain is enveloped in the clouds and visibility is often only 50 yards. This can last for days and a new-comer to the area can be quite discouraged. Winds are also a factor. I well recall our first attempt at banding (1958) on this mountain top. Wind velocity reached at least 75 miles per hour and we would walk 50 feet back from the edge for fear of being blown over the rocky cliffs. EBBA member Charles Handley (of the W. Va. Conservation Dept.) was on this first banding trial.

To get back to banding - the day started out rather warm (about 60 degrees), there were no clouds (except for a high haze) and there was a very light west wind. I had driven to the area last night and put up two nets after dark at the place we call the rim (and caught a Woodcock while doing it.) George Hall had left the poles in place when he left after 10 days of banding the first part of September, and it was easy to put up the nets. Soon after daylight, John Morgan (a college student from Charleroi, Pa. who had arrived during the night) and I walked the 200 yards to the rim. An Ovenbird, Black-th. Blue Warbler and one Rose-breasted Grosbeak were in the nets. A few birds were coming up the ravine, but nothing unusual and by 7:20 I was wondering if the expected migration was going to develop (I even thought of putting up some more nets.) At 7:30 (DST) the deluge started. We took a few birds out of the first net and moved



on to the second. As we were clearing this net, it became evident that two nets would be too many. We furled it as soon as possible and went back to the first net. It was only a 9-meter net, but was sagging badly and was really loaded with birds. Most new arrivals were now bouncing off or jumping out. I started banding in front of the net (to divert as many birds as possible away from the net) and John removed birds. Unless one has witnessed one of these mass migrations it is impossible to visualize what is happening. The tree tops below us seemed alive with birds and many leap-frogged over eachother as they worked their way up to the rim.

At times like this, I would prefer being an observer and try to record the numbers and species going by. No time for this now, but I would look up occasionally to witness the phenomena. The air seemed full of Black-polls, Tennessees and Rose-br. Grosbeaks. We even caught a Starling. I have never seen so many Rose-br. Grosbeaks. At least 300 went by us and probably 1000 would be closer to the actual number. This flight was essentially over by 9 o'clock. If we banded one per 100 that went by, over 10,000 birds came up and crossed through that gap in 1½ hours that morning.

September 25 ... At Red Creek again. The Blue Jay migration has started and many Rose-br. Grosbeaks are still going through. Waves of warblers on the move, but the wind is so strong that many could not make it up over the rim. Some of the birds that clear the nets are blown back and into a net. A beautiful Magnolia Warbler was one of these. The wind was holding him, with wings outstretched, so tight against the net that I just picked him off like a leaf.

September 26 ... One thing that interests me a lot every year is the large number of insects that we see. Literally millions of them must come

Red Creek - Entrance to Camp

Cove where Birds Come up over Rim from the Right

up that ravine during a fall season. On calm, sunny days they continually fly through and over the nets all day long - all going southwest in the same flight pattern as the birds. They are evidently migrating as very few are seen going in any other direction. There are bumblebees, yellow-jackets and flies of all descriptions. Many dragonflies temporarily hang up in the nets. Monarch butterflies are constantly going by and on some days large numbers of at least two other species of butterflies.

October 8 ... Back at Red Creek. A beautiful day. Wind out of the south and southeast, so not much moving. Several Blue Jays, but not a heavy flight. A very stiff Swamp Sparrow in one of the exposed nets at daylight. This fall, I have also found a Cape May, Blackpoll and an Empidonax Flycatcher that have hit an exposed net during night migration. This is something that I have never experienced at home and suggests that many birds may be normally migrating lower than the mountaintop and some migrants rise up to go through the gap to try and maintain a southwesterly course. These birds were caught in our two nets that are really exposed (no trees or brush of any kind to form a background.) I now feel that these two nets should be furled at night to prevent possible casualties.

George Hall and I have been debating for a long time as to why migrating birds use this gap with such purpose. My latest theory has been influenced by what I see at home combined with some statements in the July issue of BIRD BANDING by Nisbet, Drury and Baird. At home, many warblers have been observed at approximately 600 feet above ground level (1700 feet above sea level.) The article in BIRD BANDING states "among the radar echoes higher than 600 feet, 69% were in the range of 2000-4000 feet above sea level." If this migration height applies inland also, then many of the birds are migrating down the valley well below the top of the ridge which is approximately 4000 feet elevation both north and south of the gap where we have our nets. There is a dip of about 130 feet in the gap. In this area the ridge averages more than 2000 feet above the valley to the east. Since the mountain ridge swings southeasterly at this point (for a short distance) many birds evidently elect to come up the ravine and try to cross the mountain here to try to keep on a southwesterly course. The article in BIRD BANDING also stated that the radar echoes rose considerably (in altitude) in the hours after dawn. Therefore, perhaps most of the migrants continue down the valley during the hours of darkness. For the morning migrants, adequate cover at this gap could also be a factor as there is essentially no protective cover for several miles to the north of this gap, and hawks are often common along the ridge.

October 11 ... Another beautiful day, but migration poor, as winds are from the wrong direction. Several White-crowned Sparrows feeding around the thickets. Because of our limited banding operations, I'm not at all certain whether this is an important flyway for them. The most White-crowns we have ever banded here were 13 during the fall of 1963. George Hall and I took down our nets at noon. George and his wife will be back next weekend, but this is to be my last trip until 1965. On my way home, I checked another gap in the mountain 1½ miles south of our netting operations. It seems to have possibilities (especially at times of hard northwest winds) but vegetation may be too high. We will see about that next fall.




"Came to see the visitors"

"We're back!"

"So that's who I am!"

"Aren't I Fierce?"
(Photos by Bob McCullough)