

FIELD NOTES

The Junco and the Shrew

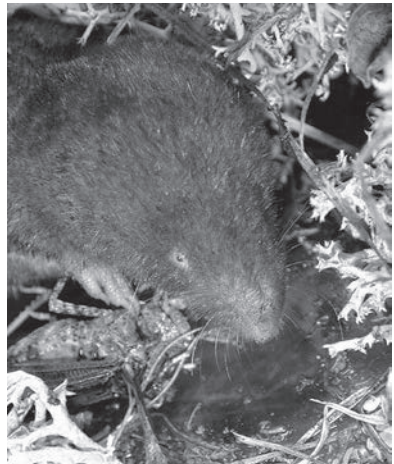
J. Thomas Brownrigg

A surprising incident occurred about seven a.m. on January 7, 2004. I was seated at our dining table in a sunroom, which offers a full view of the backyard and bird feeders. There is a simple bird feeder/shelter located near a stone wall about fifteen feet from the sunroom. I had scattered birdseed, mostly sunflower, millet, and cracked corn, under the shelter. There are a few holes under the shelter, the largest of which is about one and a half inches in diameter at the entrance. Mice, voles, and shrews use these holes. The previous week my wife D'Ann had seen a short-tailed shrew (*Blarina brevicauda*) emerge from the largest hole and return with seeds.

As usual, there were many small birds, including Dark-eyed Juncos, White-throated Sparrows, and a male Eastern Towhee foraging for seeds around and under the shelter. One of the juncos was foraging close to the large hole, and began moving closer to the entrance in search of seeds. As I watched the junco, I remembered D'Ann's shrew sighting, and thought, "Maybe this is not a good idea." Meanwhile, the junco had progressed about halfway down the hole, headfirst. As I was watching, the junco suddenly disappeared down the hole!

Although I can't prove it, I suspect the shrew grabbed the junco. According to Godin (1977), the short-tailed shrew is one of the most abundant New England mammals and is the only mammal known to have a venomous bite. The venom acts to paralyze the prey, in the manner of a cobra bite. Godin states: "A small amount of this venom is enough to kill a rabbit. One scientist, bitten on the fingers while holding a short-tailed shrew, suffered shooting pains and swelling which in half an hour reached his elbow. The pain was so great he could not use one of his hands for three days."

The short-tailed shrew feeds mostly on insects, earthworms, and other small invertebrates, but will also take larger prey such as mice and voles, and possibly small birds. It also eats vegetative material such as berries, fruit, nuts, seeds, and roots. The short-tailed shrew is reputed to be the most "fossorial" (burrowing) shrew and will construct its own burrows or use those of other species, especially voles. The shrew's venom allows the immobilized prey to remain alive for several days while being cached within the burrow. Shrews have a very fast metabolic rate, and it is estimated that they can consume three times their body weight in food each day.



SHORT-TAILED SHREW BY PHIL MYERS
<[HTTP://ANIMALDIVERSITY.UMMZ.UMICH.EDU](http://animaldiversity.ummz.umich.edu)>

We subsequently saw the shrew a week after this incident, at about four p.m. I had scattered seeds under the shelter the day before. We saw a shrew emerge from a different hole, just far enough grab a seed (probably sunflower), and then return. It moved too quickly and unpredictably for me to get its photograph. Professor Philip Myers of the University of Michigan Department of Zoology has told me that he often live-traps this shrew using black sunflower seed as bait. 🐭

The author thanks Massbirders Phil Brown and Andrew Joslin for directions to the informative URLs cited below, and Professor Philip Myers for his comments.

Editor's Note: *This event was also reported in the Carlisle Mosquito in the Biodiversity Corner.*

References

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Major Brant Migration Observed at Chickatawbut Hill, Quincy, Massachusetts

Michael F. McWade

On October 16, 2003, I spent from late morning until evening hawk watching with Vin Zollo from the observation tower atop Chickatawbut Hill in the Blue Hills, Quincy, Massachusetts. The night before witnessed extremely high winds of over fifty miles per hour that continued strong and variable from the west and southwest during the period of observation. Visibility was fair with eighty percent cloud cover.

With the exception of an adult Golden Eagle observed in the early afternoon, it was a below-average day for hawk watching. Between 11:00 a.m. to early evening, we observed a Turkey Vulture, 12 Ospreys, 10 Sharp-shinned Hawks, 5 Cooper's Hawks, 22 Red-tailed Hawks, and a Golden Eagle. This was a notably slow day for a semi-coastal hawkwatch site in the aftermath of extended westerly winds.

Despite the low numbers of raptors moving, we nonetheless witnessed an incredible movement of birds, the likes of which I have never witnessed anywhere in southeastern Massachusetts during autumn migration. BRANT! Yes, Brant, hundreds of Brant, moving in large flocks for hours as far as the eye could see to the north and south of the Blue Hills. Flocks of Brant were crossing the Blue Hills on a wide front extending from Boston Harbor to Hull. Most of the flocks contained more than 100 birds, and at least one group containing over 300 individuals passed close to us along


the northwest side of the hill. Many lesser flocks were comprised of 150-200 birds. All of the Brant were moving in exactly the same southwesterly direction.

Since the wind was sufficiently strong on the tower to risk leaving a scope unattended for any amount of time, most of our observations were made only with binoculars. Even so, often it was possible to have over a dozen flocks in sight at one time, and surely if we had more optical power, there were probably Brant flocks to be seen farther out on the horizon. This steady movement of Brant continued from at least late morning into the early evening. We estimated that a minimum of three to four dozen flocks per hour passed during our more than seven-hour period of observation.

This was a truly spectacular and extremely unusual event at our site. I have logged over 2000+ hours observing hawk migration at Chickatawbut Hill over the past nine years. During that period Brant were about as common as Snow Geese during fall migration at that location. On average we observe a few hundred Snow Geese overhead each fall, and usually far fewer Brant. Blue Hills Trailside Museum director, Norman Smith, has put in thousands of hours operating the banding station on Chickatawbut Hill, and his observations of Brant date back to the late 1970s. His observations are parallel: a few hundred Brant a season would be the maximum in any given fall migration at this location.

The numbers of Brant that passed over Chickatawbut Hill on October 16 were simply incredible. Without hesitation, we estimate that a minimum of 25,000 Brant passed the hill, and a conservative approximation might actually be closer to 30,000+. When one does the math (three to four dozen flocks of 100+, some 200+ and larger, per hour times seven hours, not to mention distant flocks we might have seen with the aid of a scope), our estimate is entirely plausible. Indeed, it is possible to think that the flocks averaged 175+ overall. If so, at the rate of four dozen flocks passing per hour, the total could have exceeded 50,000!

The following day I had to travel to North Carolina. On my return trip on October 21 while crossing the Neuse River Bridge in New Bern, North Carolina, I looked down and what did I see? Brant, of course. I wondered if any of these geese passed Chickatawbut Hill only five days earlier? Who knows?

It will be interesting to see whether the magnitude of this flight is reflected by an increase in wintering Brant this year. If it is not, then one might reasonably assume that we merely witnessed an unusually heavy local movement, and certainly one with which we were previously unfamiliar. If this was a normal movement of Brant across southeastern Massachusetts, then we were most fortunate to have witnessed it, since nothing of this magnitude has ever previously been recorded in the Commonwealth. In any event, seeing so many Brant moving in one day in Massachusetts was an experience that we will never forget! 

The spectacular passage of Brant so well chronicled by Mike McWade, while virtually unprecedented in its magnitude from a Massachusetts perspective, may not be all that unusual. The migration of the eastern race of Brant (Branta bernicla hrota) has been well described by various authors (e.g., Lewis, 1937; Bellrose, 1976; Palmer, 1976; Reed et al., 1998). From existing literature, combined with Massachusetts observations, it appears that the autumn migration of Brant headed south to the Atlantic Coast from arctic Canada follows two primary corridors: 1) a major corridor that passes through James Bay in northern Ontario to the Saint Lawrence River estuary, thence south over interior New England to Long Island Sound and coastal New Jersey, and 2) a somewhat lesser coastal corridor that leads through the Bay of Fundy and follows the New Brunswick coastline south toward New England and points beyond.

In addition to these well-known migration corridors, it is also well known that Brant typically travel at high altitudes during overland crossings, such as the passage from James Bay and the Saint Lawrence River to Long Island and New Jersey. This fact also holds true for scoters, some of which use a similar migration route to reach their Mid-Atlantic wintering grounds. Occasionally, adverse weather conditions force flocks of these waterfowl to the ground, or else cause them to fly low enough to be detected by ground observers. The combination of known Brant flight corridors, and the fact that Brant usually travel very high when making overland crossings, is critical to possibly explaining the great passage of Brant documented by McWade.

Essential to explaining the flight of October 16 is the fact that the observers indicated that "The night before witnessed extremely high winds of over fifty miles per hour that continued strong and variable from the west and southwest during the period of observation." Further checking of continental weather for that period indicates that, "A powerful disturbance raced northeast from the mid-Mississippi Valley to the St. Lawrence Valley on October 14-15. It was preceded by heavy rain and followed by very strong winds. Many cities in the northeast measured wind gusts over 50 miles an hour (22 m/s)." (Fide <<http://www.ems.psu.edu/WeatherWorld/summaries/sum10.03.html>>).

Because the weather conditions described above happened to occur during the primary period of passage for Brant migrating south through New England, the stage was set for a major event. In all likelihood, what McWade and Zolla witnessed was a significant eastward deflection of the typically more westward flight corridor for Brant, caused by the passage of a massive frontal system and accompanied by gale-force westerly winds. Not only do large movements such as this typically occur farther inland in New England, they also ordinarily take place at a higher altitude than the low-level phenomenon observed from the Blue Hills. What made this flight so notable was the fact that the birds were moving low enough to be readily detected, and competent field observers were strategically located to document the event with meticulous observations. Reports of sightings of this type, when carefully made, represent an excellent example of how local field birders can make significant contributions to regional bird life, even in an area as well-studied as Massachusetts.

Wayne R. Petersen

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A SHARP-SHINNED HAWK AND ITS KILL

GEORGE E. BENSON

On September 16, 1924, I was duck shooting on a salt marsh on Cape Cod. I was hidden in a patch of tall sedge grass on a point of marsh running down between two shallow, eel grass-filled channels, with my decoys set in the broader channel to leeward of the point. The morning was warm and sunny with a light breeze, and I was lazily watching a Sharp-shinned Hawk cruising low over the sedge in my direction. As he neared the opposite edge of the channel, perhaps seventy yards away, he darted sharply to the right and I saw a small bird rise from the grass just in time to escape his stoop. The small bird flew nearly straight up with the hawk in pursuit. On up they went until the small bird appeared no more than a dark speck, still visible because my eye had not left its course from the start. Then suddenly the speck began to drop, falling like a stone with no wings visible even as it drew nearer. The hawk also dropped, but with wings only partly closed, a few feet behind and to the left of its prey, and keeping the same relative position as it fell. Both birds were falling swiftly and straight, but, just before they reached the surface of the marsh, the hawk made a lightning-like turn, flashed toward the small bird, and struck and held it barely three feet above the grass. As he rose, the hawk swung over the channel below me and I shot him as he passed. In falling he dropped his prey which landed beside him on the water. It proved to be a young Least Flycatcher. The hawk was also a bird of the year.

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