An irruption of Tufted Titmice in the Northeast

An apparently unprecedented movement by a supposedly non-incursive species

Peter W. Post

THE TUFTED TITMOUSE, *Parus bicolor*, is described in the ornithological literature as a sedentary (non-migratory) species (Pough, 1949; Bull, 1974), and is not among the species listed by Cornwallis (1964) known to be subject to irregular or periodic invasions or irruptions.

This brief report places on record what is apparently the first known instance of a directional irruption of Tufted Titmice, which occurred in the Northeast in the fall of 1978. The first indication that something unusual was happening was an observation of a flock of Tufted Titmice moving south on October 10 at 9·45 a.m. among the trees which separate the lanes of Broadway, in mid-Manhattan. The following day, 100± titmice moved through the leafy area of Central Park known as the Ramble, and its surrounding area. The maximum count of titmice seen in this area in the preceding months was four! Titmice were encountered in flocks of four-12 individuals. The birds were actively foraging on the ground as well as among the bushes and tree tops. No particular plant species seemed to be preferred. Small flocks of titmice were observed moving south through the trees, and across the lawns and other open spaces. Large numbers of titmice continued moving through the Ramble and surrounding areas in subsequent weeks.

During mid-October and into November titmice were frequently observed along mid-Manhattan streets. Individuals and small flocks were seen perched on television antennas, flying south over rooftops, and among ornamental plantings along Broadway. A particularly large movement was noted on the lower east side of Manhattan during the early morning of October 23. An estimated 100-300 individuals were observed feeding and moving south among the ornamental plantings there. By 10 a.m. most of the birds had disappeared.

Elsewhere in New York City, in Brooklyn, two flocks of titmice were seen October 15. A Brooklyn observer had seen titmice only six times in ten years of observation. Up to 15-20 titmice in mid-October in Kissina Park, Queens County and 15 birds in a residential area October 18, were encountered where 4-6 were normal.

Titmice in varying numbers were seen during October and November in various parts of Long Island where previously unrecorded or rarely found; at Montauk Point on October 21 an observer's first Tufted Titmouse in that area in 13 years of observing flew in *from over the ocean.*

THE RECORDS INDICATE that the first few "migrant" Tufted Titmice arrived in New York City during the last week of September and the first week of October. Large numbers, however, did not appear until the following week. The movement peaked between October 10 and 23. Thereafter numbers decreased, but birds continued moving through the area at least until late November. One hundred and thirty-five titmice were recorded in Central Park, December 17, on the Manhattan-Lower Hudson Christmas Bird Count. The previous high count for titmice was 17 birds on December 18 the previous year! The large numbers of titmice recorded on the count apparently remained throughout the winter.

The constantly monitored New York City parks and the comparative rarity of Tufted Titmice in the city and on much of Long Island make for ideal conditions for observing irruptions of the kind described here and which might otherwise go unnoticed. It is perhaps not surprising, therefore, that the only other indications of the extent of this irruption elsewhere in the Northeast are also from areas where the Tufted Titmouse is uncommon or previously unknown.

In "late" October on a day following the passage of a dramatic cold front Peter Dunne, of the Cape May Bird Observatory, noted the "very unusual occurrence" of one or more groups of 8-15 titmice moving through *Phragmites* near the lighthouse at Cape May Point, Cape May County, New Jersey.

Starting in mid-October and into the first week of November Tufted Titmice "poured" *north* into southern Maine and New Hampshire (Peter D. Vickery). This coincides with the timing of the *southward* movement of titmice into New York City. Two to four titmice, with a maximum of five, could be found at almost every active feeder along the coast of Maine up to and just north of Portland, Cumberland County. Lesser numbers occurred as far north as Brunswick, Cumberland County, and Rockland, Knox County. The most northerly record was from Old Town, Penobscot County, just north of Bangor. Interestingly, as in New York the majority of birds did not remain past November, although "unprecedented numbers" were still present at Maine feeders into January. The magnitude of these numbers is in marked contrast to the 5-15 individuals recorded from Maine during the past five years.

IN NEW ENGLAND titmice penetrated inland into New Hampshire as far as Littleton, Grafton County. In New York, Robert P. Yunick mist-netted and banded a titmouse on December 23, at Jenny Lake, near Corinth, Saratoga County, and two more on January 6. Jenny Lake is located at an elevation of 1200 feet in the Adirondacks, and is heavily forested with white pine, hemlock, spruce and associated hardwoods. As far as I am aware these records are unique. Beehler (1978) in his *Birdlife of the Adirondack Park* gives only four previous records, all from lower elevations in the Champlain Valley, on the eastern edge of the park.

Irruptions are typical of food specialists resident in northern coniferous forests or northern broad-leaved forests (which often contain a mixture of conifers). It is currently believed that irruptions are a consequence of a population

Tufted Titmice. Pencil drawing by Karen Lynn Allaben-Confer.

buildup over several years followed by a "crash" in the food supply (*cf.* Cornwallis, 1964; Welty, 1975). Interestingly, there was virtually no movement this past fall or winter of Black-capped Chickadees, *Parus atricapillus*, a close relative of the Tufted Titmouse which is well known for its periodic irruptions in the Northeast. Yet, both species are primarily insect-eaters with seemingly similar diets (Bent, 1946).

It has also been postulated that high numbers of birds may act as a proximal stimulus for these irruptions (Lack, 1954). The answer, perhaps, in this case, may lie in the recent range expansion of the Tufted Titmouse into the Northeast.

Did the birds in fact originate to the north of New York City, or was what we witnessed a "return flight" after a northward movement, earlier in the season, to the west of us? Over how wide an area did this movement occur? What effect will this irruption have on titmouse range expansion? With the help of the readers of *American Birds*, perhaps these and other intriguing questions can be answered.

The author would, therefore, appreciate receiving records of any unusual numbers or occurrences of Tufted Titmice noted last fall (1978) or winter. Please include location (including county), number of birds, date, any unusual behavior, and most importantly the normal and historical status of titmice in that area. Please include name, address and telephone number.

The author thanks the many persons who generously provided information. They include Jim Ash, George Dadone, Thomas H. Davis, Jr., John Farrand Jr., Rich Kelly, Sheila Madden, Robert O. Paxton, William Reilly, Martin Sohmer, Mary Stapleton, Timothy Stiles, Peter Tozzi, Peter Vickery and Emil Willemetz.

Literature Cited

BEEHLER, B. McP. 1978. Birdlife of the Adirondack Park. Adirondack Mountain Club, Glen Falls, N.Y.

BENT, A. C. 1946. Life Histories of North American Jays, Crows and Titmice. U.S. Natl. Mus. Bull. 191, Wash., D.C.

BULL, J. 1964. Birds of the New York Area. Harper & Row, N.Y.

____. 1974. Birds of New York State. Doubleday/Natural History Press, Garden City, NY.

____. 1976. Supplement to Birds of New York State. Special Publication, Federation of New York State Bird Clubs, Inc.

CORNWALLIS, R. K. 1964. Irruption. In: A New Dictionary of Birds. A Landsborough Thompson, ed. McGraw-Hill, N.Y. pp. 403-6.

LACK, D. 1954. The Natural Regulation of Animal numbers. Clarendon Press, Oxford.

POUGH, R. H. 1949. Audubon Land Bird Guide. Doubleday, Garden City, N.Y.

WELTY, J. C. 1975. The Life of Birds. 2nd ed. W. B. Saunders, Phila. and London.

—Dermatology Division, F-342, Cornell University Medical College, 1300 York Avenue, New York, NY 10021.