

DECREASE IN BREEDING BROWN THRASHERS AND RUFIOUS-SIDED TOWHEES ON CENTRAL LONG ISLAND

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From 1967 through 1976, two routes on central Long Island were covered annually for the cooperative Breeding Bird Survey of North America sponsored by the U. S. Fish and Wildlife Service (Robbins and Van Velzen, 1969). Each route is 24.5 miles in length and includes 50 stops. At each stop, all birds seen or heard within a three minute period are recorded. Routes are started one half hour before sunrise and take about four hours to complete. All routes were covered between June 14 and June 30, the height of the breeding season.

New York Route 001 begins in Westhampton and goes through Speonk, Remsenburg, Eastport, East Moriches, Manorville, Center Moriches, Moriches and Yaphank to Southaven. New York Route 002 starts in Manorville and goes through Yaphank, West Yaphank, Gordon Heights and Coram to Miller Place. Both routes include residential areas, small villages, farms and woods including the scrub oak and pitch pine woods typical of central Long Island. Since both routes cover largely similar habitat and are close together geographically, although not overlapping, data from the two were combined for analyses. All observations were made by the writer so differences between observers do not bias the data.

Both the Brown Thrasher (*Toxostoma rufum*) and the Rufous-sided Towhee (*Pipilo erythrophthalmus*) have always been considered common summer residents of the more open woods, particularly the scrub oak-pitch pine areas, on Long Island, although the towhee is numerically more abundant. Bull (1964) writing of the whole New York City area called the Brown Thrasher a "common . . . breeder at lower elevations" . . . "particularly numerous on the coastal plain." The towhee was described as a "common breeder at lower elevations" . . . "and is particularly numerous in scrub oak and pitch pine areas of the sandy coastal plain."

The towhee is also found in more mature woodlands if adequate understory growth exists and particularly where openings occur, but it is not as numerous there as in the more open woods. The thrasher also breeds in other types of bushy habitat such as residential areas, farm hedgerows and even the barrier beach.

Figure 1 shows the number of individuals of both species found at the 100 stops of the combined routes for each year of the period. The data show a marked decline in both species over the ten-year period, particularly in the last five years. Towhee numbers are now about half of those in the earlier years, disregarding the 1969 peak. Thrashers are down to about one quarter of their earlier numbers even without placing much weight on the 1967 count. For comparison, the number of Mockingbirds (*Mimus polyglottos*) is also shown. These data show a seven-fold increase since 1970. (The 1968 peak was due to several families of recently fledged young.) The recent increase in Mockingbird numbers in the Northeast has been widely reported and was documented earlier for Long Island from Christmas Count data (Raynor, 1975). The other two species do not winter in large enough numbers for trends to be discerned from those data, but observations suggest that Mockingbirds are replacing Brown Thrashers at feeders,

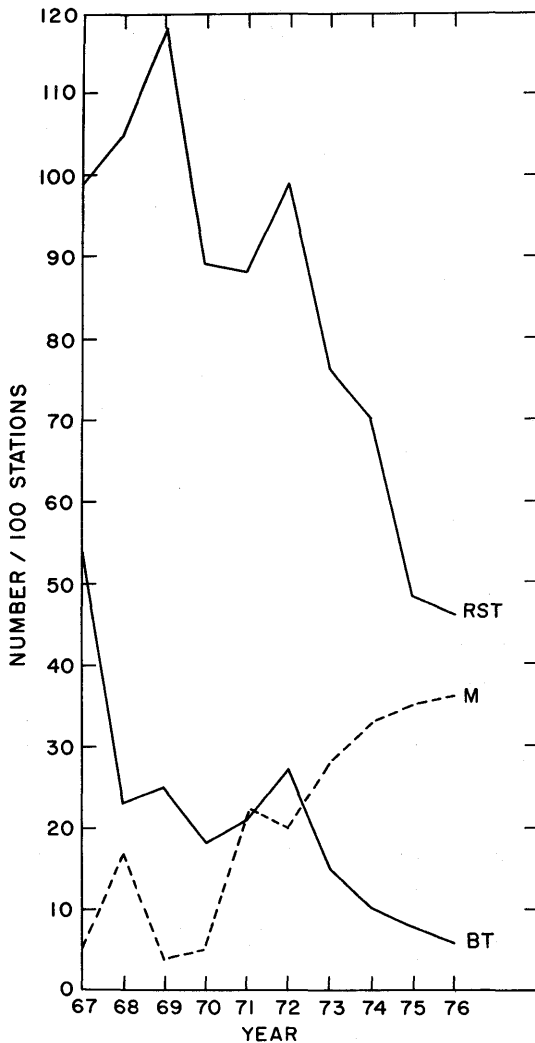


Figure 1. Number of Brown Thrashers (BT), Rufous-sided Towhees (RST), and Mockingbirds (M) recorded per 100 stations by year.

berry-bearing plants and other winter food sources.

Figure 2 shows the number of stops at which the three species were recorded. Towhees were found in about half as many stops, thrashers in about a third as many and Mockingbirds in about six times as many in 1976 as in earlier years. Combined results from the two figures show that the thrasher and towhee are not only found at fewer locations but are found in smaller numbers where still present.

Bystrak (1976) reported a highly significant average annual decline of 2% at the continental level in the towhee and a significant decline of the same magnitude in the Brown Thrasher from 1968 to 1975, essentially the same time period covered in this study. Thus, the changes on Long Island may be part of a more widespread trend

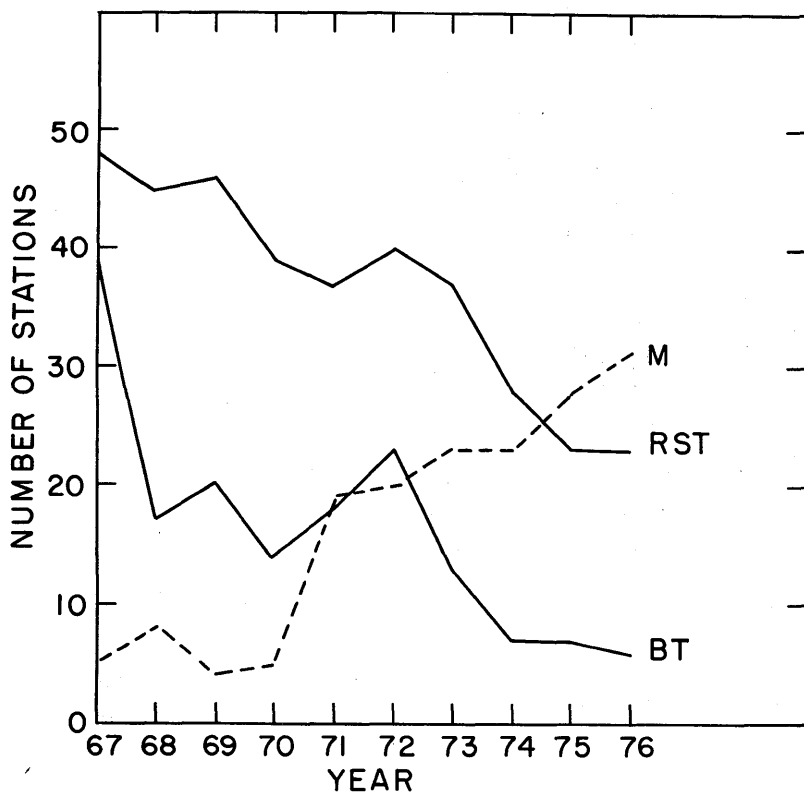


Figure 2. Number of stations at which Brown Thrashers (BT), Rufous-sided Towhees (RST), and Mockingbirds (M) were recorded by year.

amplified by local conditions.

The reasons for these declines are not definitely known. Little change in habitat has occurred along the two routes since 1967 except for normal growth of the wooded areas. This has increased vegetative density somewhat in some of the wooded tracts. Scrub oak and pitch pine areas tend to revert to climax oak forest in the absence of forest fires or other disturbance but this is a slow process and changes in the ten-year period seem small. Only one area adjacent to two stops was burned during the survey period but that area had been burned repeatedly in the past and was quite open before the most recent fire. A small amount of building has occurred along the routes but little in areas favored by the two species. One major highway was constructed through the area after the routes were established but is close enough to affect only about three stops by traffic noise.

It is suspected that the great increase in Mockingbirds has directly affected the Brown Thrasher population. When Mockingbirds moved into the area about twenty years ago, they first occupied residential areas little used by Brown Thrashers but have since spread into nearly all vegetated habitats except deep woods. The aggressive nature of this species probably allows it to dominate and displace the thrasher although direct conflicts have not been observed. However, this explanation probably does not apply to the towhee. Neither does it seem likely that such a marked decline could be caused by the seemingly minor changes occurring in its habitat. Thus, the species may be responding to still unrecognized environmental effects and serving as an indicator of environmental quality. Continued monitoring of its status over a wider area and attempts to determine the reasons for its decline are clearly desirable.

REFERENCES

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