
Mourning Dove Banding and Recaptures in Suburban Tucson, Arizona

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ABSTRACT

*Mourning Doves (*Zenaida macroura*) were trapped and banded at three similar suburban sites in unincorporated Pima County, Arizona, from 2000-2019. Slightly over 10,000 doves were banded. Of this number, 55 were reported dead to the Bird Banding Laboratory through 1 May 2021 of which eight were reported by hunters. The other recoveries were attributed to miscellaneous causes including found dead (26), struck object (seven), dead on road (four), disease (four), and unknown (six). Some of those found dead may have been impaired and died from trichomoniasis. Most recoveries were within 5-6 km of the banding site. However, one shot recovery was about 48 km southwest of the banding location. Two other shot recoveries were also taken west (~ 10 km) of the greater Tucson area. One shot recovery was in Jalisco, Mexico, six years and 1,514 km from where banded. Recaptures totaled 2,458 different individual doves. None of those recaptured changed locations. There were too few shot recoveries to provide evidence of migration from the banding area. We conclude the population from which the birds were captured was mostly resident within 6-10 km of the trapping*

INTRODUCTION

Mourning Doves (*Zenaida macroura*) are common in the United States south of Canada during migration and as breeding birds (Baskett et al. 1993). They are avidly sought by hunters (Dunks et al. 1982) as they are widely distributed and abundant. Multiple studies have been conducted about this species (Baskett et al. 1993). Its abundance and propensity to nest in a variety of habitats including areas with trees, areas without trees (Olson et al. 1983), as well as on houses and other structures have led to local studies (McClure 1943, Austin 1951, Tomlinson et al. 1960, Hanson and Kossack 1963, Rice and Lovrien 1974, Brown and Smith 1976, Henry et al. 1976, Channing 1979, Leopold and Dedon 1983).

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The objectives of our study were to examine timing of migration, and distribution of recoveries/recaptures. Hypotheses explored were that some doves were migrants from northern breeding areas, some doves were migrants from the south that nested in the Tucson area, and some were residents of the Tucson area.

METHODS

We initiated Mourning Dove banding (Federal Permit # 23004) in a suburban area (foothills of the Santa Catalina Mountains, Lat-Long, 321-1104) in northeastern Tucson, Arizona (Pima County) in January 2000. Data were collected through December 2019 (20 consecutive years). All captures were accomplished with a 1m² drop trap in suburban yards as described by Braun (2014), Braun and Tomlinson (2015), and Braun et al. (2015). Captured Mourning Doves were identified to age (HY, SY, AHY) and gender, banded (USGS bands), and released at the capture site. Three sites were used but most captures were at a private residence with a large enclosed back yard with mesquite (*Prosopis* sp.) and Palo Verde (*Parkinsonia* sp.) trees as well as flowering plants and a water feature. The other two sites were similar (enclosed back or side yards with mesquite and Palo Verde trees and flowering plants in adjacent yards with no surface water). All capture locations were within a six km distance of each other.

RESULTS

Trapping occurred in every month of the year and the number of doves banded per year varied from 213 to 1,300; the total number of birds banded was 10,992. We recaptured 4,319 of the birds we banded which included 2,458 different birds. None of the doves recaptured changed locations and

there were no captures of birds banded away from the three trap sites, nor captures of doves banded by others. The oldest Mourning Dove recaptured (AHY M) was 7 years of age.

The total number of dead recoveries was small (55) and most were attributed to miscellaneous causes including found dead (26), struck object (seven), dead on road (four), disease (four), and unknown (six). The majority were within five to six km of the trap sites. Some of those found dead may have been impaired and died from trichomoniasis. Only eight mortalities were attributed to hunting. Four were reported as shot within 2-3 km of a trap site while three were taken to the west (10 km [two] to about 45 km [one]) of Tucson. One was reported shot on 1 Feb 2021 near San Ramon, Jalisco, Mexico (Lat-Long, 202-1022) approximately 1,514 km SE of Tucson. It was banded on 22 Apr 2015 as an AHY F and had not been recaptured by us during our study.

DISCUSSION

Too few shot recoveries (8 birds through 11 Mar 2021) were reported to provide any information about migration patterns or other population parameters (recovery rates). Clearly, hunting pressure was minimal and most doves banded at the three residential locations were not migratory. The shot recovery in Jalisco, Mexico was expected. Braun and Funk (2018) reported that Jalisco was the leading harvest area in Mexico for Mourning Doves banded in Colorado. Review of unpublished recovery data from Mourning Doves banded by Arizona Game and Fish throughout southern Arizona during 2000 to 2009 revealed that doves were recovered from throughout the western United States and adjacent Mexico. Thus, the area sampled at three similar sites in the foothills of the Santa Catalina Mountains was not representative of the larger area in southern Arizona. Some mortalities were clustered in the early 2002-2003 interval as a result of an outbreak of trichomoniasis, which was a major cause of death, even though baiting was reduced and water was removed from the main trap site. The other two trap sites had no source of noticeable water and

no incidence of trichomoniasis. We conclude this localized study of Mourning Doves in suburban areas in Tucson, Arizona provide too few data for conclusions about migration patterns.

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