

**JOB PROGRESS REPORT
RESEARCH PROJECT SEGMENT**

STATE: Territory of Guam

PROJECT NO.: W-1R-8

SUB-PROJECT NO.: W-2

STUDY NO.: 1

JOB NO.: 1

JOB TITLE: Population Numbers and Distribution of Philippine Turtle-Doves
(1460, 1430)

PERIOD COVERED: October 1, 1999 to September 30, 2000

SUMMARY

The Spring Game Bird Survey conducted this fiscal year showed an overall increase from the FY99 count. Five routes, Northwest Field (NWF), Mount Santa Rosa (MSR), Reserve Craft Beach Road (RCBR), Dandan, and Cocos Island recorded an average ≥ 1.0 bird/station. Eleven routes observed increases, five had decreases and seven had no change over the FY99 per station counts of Philippine turtle-doves.

BACKGROUND

The Philippine turtle-dove (*Streptopelia bitorquata*) was introduced to Guam by the Spanish during their early colonization of the region, circa 1771 (Baker 1951), and has been regulated as a game bird since at least 1903 (Conry 1987). Up through the early 1960s the Philippine turtle-dove (PTD) was very common and found in large numbers in both northern and southern Guam. By the late 1960s, PTD populations in southern and central Guam began to decline and have since stabilized at low levels. Populations in northern Guam declined in the late 1970s and early 1980s. PTD are now found in appreciable numbers on NWF, Conventional Weapons Storage Area (CWSA) and elsewhere on Andersen Air Force Base (AAFB) and at moderate numbers in selected areas of central and southern Guam. A large PTD population still remains on snake-free Cocos Island. Predation by the Brown treesnake (BTS), *Boiga irregularis*, is the major cause of nest loss (Conry 1988) and this introduced pest is thought to be responsible for the population decline. Because of the decline in numbers and the extremely poor nesting success, the Division of Aquatic and Wildlife Resources (DAWR) officially closed the PTD hunting season as of March 28, 1987. The season will be reopened if nesting success improves and numbers recover to a level that can support recreational hunting.

OBJECTIVES

- 1) To determine present PTD population levels and distribution.
- 2) To monitor PTD population trends.

- 3) To investigate PTD nesting success and causes of nest failures.

PROCEDURES

PTD were surveyed during spring bird counts conducted on 23 routes throughout the island in May 2000. These surveys consisted of 5-minute station counts of up to 10 stations per route with the number of PTD seen or heard recorded at each station. Results are summarized as the average number of PTD observed per station.

RESULTS

Spring Bird Surveys

PTD were recorded on 17 of the 23 (74%) spring game bird surveys conducted during FY00 (Table 1).

Table 1. Numbers of PTD observed per count and average number of birds per station detected in spring game bird surveys at various locations on Guam during May 1996. Values in the trend column are the differences between the average station count between years.

Survey Location	No. Stations	No. PTD Observed	FY00 Ave./Station	FY99 Ave./Station	Trend in Ave. FY00-99
North Surveys					
Tarague	10	4	0.40	0.10	0.30
MSA	10	3	0.30	1.00	-0.70
NWF	10	10	1.00	0.20	0.80
NCTAMS	10	1	0.10	0.40	-0.30
Cap. Improve. Rd.	10	3	0.30	0.00	0.30
MSR	10	10	1.00	0.80	0.20
Y-Sengsong Rd.	10	1	0.10	0.00	0.10
Two Lover's Point	10	0	0.00	0.00	0.00
Andersen South	10	0	0.00	0.00	0.00
Navy Golf Course	10	8	0.80	0.40	0.40
Barrigada Hill	10	0	0.00	0.30	-0.30
Toto Pipeline	8	6	0.75	0.75	0.00
South Surveys					
Nimitz Hill	10	0	0.00	0.00	0.00
RCBR	4	12	3.00	1.75	1.25
Orote Point	6	3	0.50	0.17	0.33
Pulantat	10	3	0.30	0.30	0.00
Cross Island Rd.	10	3	0.30	1.00	-0.70
NOA	10	2	0.20	0.50	-0.30
Umatac	10	0	0.00	0.00	0.00
Dandan	8	12	1.50	0.14	1.36
Ija	8	6	0.75	0.50	0.25

Merizo	6	0	0.00	0.00	0.00
Cocos Island	10	24	2.40	0.90	1.50

NWF, MSR, RCBR, Dandan and Umatac had the highest counts with an average of ≥ 1.0 PTD observed/station. Five of the 23 routes recorded a decrease in the number of PTD observed/station. Cocos Island had the greatest jump in average count per station over last fiscal year (Table 1). The Dandan route had additional stations added to the route compared to last year's count. The additional stations were added to the routes to more thoroughly cover the observation area. Of the 23 routes surveyed; 11 (48%) recorded increases, 5 (22%) recorded decreases and 7 (30%) recorded no change in the number birds observed per station.

RECOMMENDATIONS

- 1) Continue call count and roadside count surveys in northern Guam to monitor distribution, relative abundance and population trends of PTD.
- 2) Keep PTD hunting season closed until nesting success improves and the population recovers.

PROGRAM COST

The estimated cost of the project is \$15,000.

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LITERATURE CITED

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