

JOB PROGRESS REPORT RESEARCH PROJECT SEGMENT

STATE: Territory of Guam

PROJECT NO.: W-1R-7
SUB-PROJECT NO.: W-1
STUDY NO.: 2
JOB NO.: 1

JOB TITLE: Population Size and Distribution of Wild Pigs on Guam (1460)

PERIOD COVERED: October 1, 1998 to September 30, 1999

SUMMARY

Examination of hunter logs from Andersen Air Force Base (AAFB) revealed a total of 5,104 hunter sorties, a harvest of 223 pigs, and a harvest rate of one pig per 14.5 hunter-days. Hunter harvest data were not available for other parts of Guam. Seventy-four pigs were taken throughout the island under depredation permits.

BACKGROUND

Wild pigs (*Sus scrofa*) are Guam's most important game species in terms of total numbers of animals harvested. This species has been studied by the Division of Aquatic and Wildlife Resources (DAWR) since 1967 (Conry 1988, DAWR 1967-1998). The island's wild pig population is descended from domestic *S. scrofa* introduced by the Spanish from the Philippines between 1672 and 1685. Wild pigs are found islandwide, but appear to be most numerous in the secondary limestone forests of the north and the ravine forests of southern Guam. Pigs occur at high enough densities in many forested areas that rooting and wallowing damage is common and can be quite severe locally. Depredation on agricultural crops is also a problem, especially in southern Guam. About 20-30 animal depredation permits are issued annually to primarily control pig damage. Controlling the effects of pig damage is recognized as an important measure to protect native forest and agricultural resources. Recreational harvest is the primary tool used to control pig numbers and current hunting regulations allow for a year-round season with bag limits of 2 pigs per day and 40 per year. There is a need to consider more liberal regulations to control pig populations islandwide and in localized areas.

OBJECTIVES

To monitor trends in pig population size and hunter participation and harvest.

PROCEDURES

1. Monitor hunter participation and harvest during the legal hunting season.
2. Collect biological data from animals killed during the hunting season and from incidental sources such as road kills or confiscated animals.

RESULTS

Pig Hunting Statistics

Records of hunting activity and harvest were kept by officials at AAFB during the year (Table 1). According to hunter logs, 2,007.8 hunter-days (3,491 sorties; gun hunting only) were expended at Northwest Field and resulted in the harvest of 130 pigs. Hunting areas on the main portion of the base (Munitions Storage Area, Tarague basin, and areas near the landfill and to the north and east of the flightline) recorded 811.4 hunter-days (1,643 sorties; primarily bow hunting), with 93 pigs killed. Hunter logs for Andersen South were not kept this year. NCTAMS remained closed to all hunting.

Table 1. Hunter effort and numbers of wild pigs taken on Andersen Air Force Base during FY99, based on official hunter logs.

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Total |
|---|-------|-------|-------|------|------|------|------|-------|------|------|------|-------|--------|
| <u>Northwest Field (gun hunting only)</u> | | | | | | | | | | | | | |
| No. hunter sorties | 632 | 580 | 656 | 165 | 65 | 6 | 126 | 244 | 181 | 124 | 20 | 692 | 3491 |
| No. hunter days (8 hr) | 383.3 | 365.3 | 367.3 | 94.4 | 31.1 | 3.1 | 52.0 | 120.8 | 91.6 | 63.8 | 8.5 | 426.6 | 2007.8 |
| Pigs taken | 12 | 17 | 15 | 6 | 8 | 0 | 12 | 10 | 14 | 11 | 0 | 25 | 130 |
| Days effort/take | 31.9 | 21.5 | 24.5 | 15.7 | 3.9 | - | 4.3 | 12.1 | 6.5 | 5.8 | - | 17.1 | 15.4 |
| <u>Main Base</u> | | | | | | | | | | | | | |
| Bowhunting | | | | | | | | | | | | | |
| No. hunter sorties | 221 | 126 | 374 | 67 | 34 | 80 | 65 | 53 | 35 | 11 | 34 | 277 | 1377 |
| No. hunter days (8 hr) | 94.8 | 61.2 | 177.4 | 38.3 | 13.2 | 37.4 | 24.4 | 16.6 | 13.4 | 3.9 | 11.5 | 123.8 | 615.9 |
| Pigs taken | 4 | 2 | 11 | 2 | 3 | 5 | 3 | 3 | 2 | 0 | 2 | 12 | 49 |
| Days effort/take | 23.7 | 30.6 | 16.1 | 19.2 | 4.4 | 7.5 | 8.1 | 5.5 | 6.7 | - | 5.8 | 10.3 | 12.6 |
| Gunhunting (log books missing for Oct. 1-Nov. 21) | | | | | | | | | | | | | |
| No. hunter sorties | | 14 | 48 | 10 | 25 | 52 | 12 | 28 | 1 | 0 | 7 | 69 | 266 |
| No. hunter days (8 hr) | | 87.5 | 28.7 | 4.5 | 9.5 | 23.9 | 3.7 | 1.5 | 0.3 | - | 2.5 | 33.4 | 195.5 |
| Pigs taken | | 1 | 9 | 0 | 9 | 8 | 3 | 3 | 0 | - | 3 | 8 | 44 |
| Days effort/take | | 87.5 | 3.2 | - | 1.1 | 3.0 | 1.2 | 0.5 | - | - | 0.8 | 4.2 | 4.4 |
| <u>TOTALS</u> | | | | | | | | | | | | | |
| Gunhunting | | | | | | | | | | | | | |
| No. hunter sorties | 632 | 594 | 704 | 175 | 90 | 58 | 138 | 272 | 182 | 124 | 27 | 761 | 3727 |
| No. hunter days (8 hr) | 383.3 | 452.8 | 396.0 | 98.9 | 40.6 | 27.0 | 55.7 | 34.0 | 22.8 | 63.8 | 3.4 | 95.1 | 2623.7 |
| Pigs taken | 12 | 18 | 24 | 6 | 17 | 8 | 15 | 13 | 14 | 11 | 3 | 33 | 174 |
| Days effort/take | 31.9 | 25.2 | 16.5 | 16.5 | 2.4 | 3.4 | 3.7 | 2.6 | 1.6 | 5.8 | 1.1 | 2.9 | 15.1 |
| Bowhunting | | | | | | | | | | | | | |
| No. hunter sorties | 221 | 126 | 374 | 67 | 34 | 80 | 65 | 53 | 35 | 11 | 34 | 277 | 1377 |
| No. hunter days (8 hr) | 94.8 | 61.2 | 177.4 | 38.3 | 13.2 | 37.4 | 24.4 | 16.6 | 13.4 | 3.9 | 11.5 | 123.8 | 615.9 |
| Pigs taken | 4 | 2 | 11 | 2 | 3 | 5 | 3 | 3 | 2 | 0 | 2 | 12 | 49 |
| Days effort/take | 23.7 | 30.6 | 16.1 | 19.2 | 4.4 | 7.5 | 8.1 | 5.5 | 6.7 | - | 5.8 | 10.3 | 12.6 |

Depredation Permits

Twenty-one animal depredation permits were issued in FY99. Fifteen permits authorized pig take in agricultural areas, while two permitted take in suburban areas. Of these, 11

permits were issued to farmers registered with the Guam Department of Agriculture. Two permits were issued to golf resorts. Two permits authorized pig take on federal lands (AAFB and Guam National Wildlife Refuge). Permittees are required to submit a report of all pigs taken. Thirty-six pigs were killed on federal lands, while 38 were reported taken on farmlands. The golf resorts reported no pigs taken (extensive controlling was not initiated by one permittee).

Hunting Regulations

The proposed hunting regulations, including the unlimited year-round take of pigs, were submitted to the Twenty-Fourth Guam Legislature for approval and will hopefully be enacted for the FY00 hunting season.

RECOMMENDATIONS

Continue to monitor the annual pig harvest and hunter participation. Hunting at NCTAMS should be reopened. Coordinate accurate record keeping and reporting of hunter effort and harvest at military bases is recommended. An increase in the hunter harvest of pigs is needed islandwide.

PROGRAM COST

The estimated cost of the wild pig project under W-1R-7 is \$37,000.

LITERATURE CITED

Conry, P. J. 1988. Ecology of the wild (feral) pig (*Sus scrofa*) on Guam. Tech. Rept. No. 7. Div. Aquatic and Wildl. Res., Dept. Agric., Mangilao. 60 pp.

Division of Aquatic and Wildlife Resources. 1967-1998. Job Progress Report - Federal Aid to Fish and Wildlife Restoration. Guam Dept. Agric., Mangilao.

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