

BIG CYPRESS NATIONAL PRESERVE

DEER AND HOG ANNUAL REPORT

1989-90

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EXECUTIVE SUMMARY

During the past several years a number of rules and regulations have been enacted on the Big Cypress National Preserve (BCNP) to either reduce white-tailed deer (Odocoileus virginianus) and wild hog (Sus scrofa) harvest or to reduce recreational pressure on the area. These actions have included reduced quotas, restrictions on all-terrain cycles (ATC's), implementation of a designated trail system on selected high use areas, restrictions on the use of dogs and increased antler length requirements on legal deer (five inch minimum antler length). Many of these changes appear relatively minor but when considered in conjunction with other actions the impact is significant. Interpretation of deer and hog data collected from hunter killed animals is always difficult and it becomes nearly impossible when rules are constantly changing. Involved agencies should make a concerted effort to agree upon a set of sound biological regulations and retain those regulations as long as environmental conditions permit.

Hunting pressure during the 1989-90 Big Cypress season (21,660 man-days) was virtually the same as the previous year (21,567 man-days). This was still 11.1% below the 24,360 man-days recorded in 1984-85. Closures of adjacent public and private lands, good weather, and fewer permits issued on adjoining conservation areas have contributed to a higher level of use in recent years on the BCNP. Bear Island reversed a three year trend of increasing hunting pressure and showed a 17.4% decrease in pressure. This decrease was apparently influenced by the implementation of a designated trail system in Bear Island and the increase in the use of other areas (Loop, Corn Dance, and Stairsteps Units).

Hunter success (game checked/man-day) was comparable to the prior season (0.016). Deer harvest (186) was the same as 1988-89, while hog harvest (154) was modestly higher. The most dramatic increase in deer and hog harvest occurred during the Archery season when checked harvest was four times higher than the prior two year average. Deer and hog harvest was down 11-12% during General Gun season.

White-tailed deer, in general appeared to have lower condition values in 1989 as compared to the previous year. However, morphometric values including body weight, and antler characteristics were 1-26% greater than prior observations. Parameters measuring the physical characteristics of wild hogs harvested in 1989 were lower, especially body weight which showed a 20% decrease from the previous year. One explanation could be a preponderance of younger animals in the 1989 hog harvest. Despite a good burning regime and hydrological conditions which enhanced deer and hog recruitment for 1989, a return to more normal mast and forage production on the Big Cypress probably accounts for the overall lower deer and hog condition as compared to 1988.

INTRODUCTION

Deer and wild hog are important game animals on Big Cypress National Preserve (BCNP). Deer and hog hunting constitutes a significant component of recreation on the area (Jansen 1986). Deer and hog are also important food items for the Florida panther (Felis concolor coryi) (Belden 1983, Maehr et al. 1990). The purpose of this report is to provide census, harvest and biological information collected on these species during 1989-90 on BCNP.

Hunting

Hunts were held as scheduled with deer and hog hunting permitted during Archery (23 days), Muzzleloader (16 days) and General Gun (58 days) hunts. In addition to statewide rules these hunts were governed by specific regulations for BCNP (Appendix A). Major regulation changes were enacted for the 1985-86 hunt season and were continued through the 1989-90 season. These included: reductions in the number of quota permits, elimination of ATC's for hunting and a prohibition on the use of dogs for hunting beyond-the nine day quota hunt in those units where use of dogs is permitted. Dogs used for deer and hog hunting are entirely prohibited in the Bear Island and Loop Road Units.

In 1986-87, the minimum antler size for legal deer was increased from one inch to five inches. The intent of this rule was to eliminate the fawn age class from the legal harvest and to reduce illegal harvest pressure on the same age class. These actions were taken as safeguards since available information indicated that both activities exerted relatively mild pressure on this age class (Schortemeyer and McCown, 1988). These rules were continued through the 1989-90 season. For 1987-88 substantial reductions in small game and raccoon seasons were enacted but these changes had little impact on deer and hog hunting.

A major change in Management Area regulations for 1988-89 was mandatory check-in and check-out for all hunters using the area. In addition to this change National Park Service regulations were enacted which exclude ORV's from the Deep Lake Unit and re-define units within the preserve. The new units include the creation of the Corn Dance and Turner River Units in the former Monument Unit and the transfer of the southern portion of the Deep Lake Unit to the Turner River Unit. For convenience, when comparisons are made between years the Corn Dance and Turner River Units may be referred to as the Monument Unit.

Other new rules enacted during the 1988-89 season included a season long quota in Bear Island of 250 hunters per day whenever deer and hog hunting is allowed and a prohibition on tracked vehicles enacted by the Park Service. All these new regulations were continued through the 1989-90 season.

This year, the opening date (Oct. 28) of the General Gun hunt on BCNP coincided with the opening date in the South zone of the statewide framework. The Central zone opened Nov. 11 while the Northwest zone opened Nov. 23. However, the closing date for General Gun season on the BCNP (Dec. 24) was two weeks earlier than the statewide South zone (Jan. 7).

The major change in Management Area regulations for 1989-90 was the designated trail system for Bear Island which was designed to reduce hunting pressure, minimize impact on the resources and improve the quality of the hunt on the area. The increase in hunting license and management area stamp fees had a minimal impact this year since it did not take effect until well into the season (Oct. 1).

As a result of new regulations in 1988 and 1989, operations at check stations were increased substantially over prior years. During 1988-1989

provisions were made to operate a total of five check stations approximately 16 hours a day through all deer and hog seasons. Four of these check stations were manned in 1989-90 and are shown on the map in Appendix A. The fifth check station located at the 38 mile marker rest area on Alligator Alley was not operated.

Only two of the check stations, Forty Mile Bend (FMB) and Bear Island (BI), were operated during the Archery season due to budget constraints. For Muzzleloading only Forty Mile Bend operated 16 hours a day, while Bear Island, Oasis Ranger Station (ORS) and Donna Drive (DD) check stations operated at slightly reduced schedules (9-16 hours/day). During General Gun two check stations (FMB, BI) were manned 16 hours every day while the other two (ORS, DD) were operated on a six day schedule, 12-16 hours/day (Tuesday unmanned). The reduced schedule for Oasis and Donna Drive check stations was designed to maximize coverage during peak activities while meeting fiscal constraints. When the check stations were not staffed hunters could check in or out using forms and self deposit boxes at each of the four stations.

Environmental Conditions

Primary environmental factors affecting both deer and hog on BCNP are water levels and fire. Both of these factors may have a positive or negative impact on deer and hog populations.

Figure 1 shows the general hydrological conditions for BCNP in 1989. This map was generated during the monthly wading bird survey flown over the area. Hydrological conditions were classified as wet, transitional or dry. Classifications are determined by the amount of surface water present on the area: wet - 90% or more, transitional - between 5 and 90 percent and dry - less than 5%. Areas with greater than 10% of the area in upland habitat were

classified as wet whenever 100% of the wetland areas were inundated. As indicated by Figure 1 the area showed drier than average conditions during the March survey with most of the area being dry with inclusions of transitional areas. The August survey also indicated drier conditions than the previous wet season (1988). Figure 2 shows recorded water levels at NPS gauge P-34. This gauge, located near the S.E. corner of the Stairsteps unit also shows below average water levels for a significant part of 1989. March and June were particularly dry months. In 1989 the low water levels provided good conditions for both deer and hog reproduction, particularly enhancing fawn recruitment (February through May).

Fires during 1989 burned 57,891 acres on the BCNP. Prescribed fires account for 70 percent of the acreage burned during this period. Significant prescribed fires were conducted in the Bear Island Unit, on pine islands in the Corn Dance and Turner River Units and on prairies along U.S. 41, Turner River Road, and around Pinecrest.

CENSUS DATA

In the past pre- and post-hunt surveys have been conducted although the value of post-hunt surveys has been questioned for a number of years. For example, in Bear Island the apparent reduction in the deer population indicated by pre-and post-hunt surveys in Table 1 for the 1984-85 and 1985-86 seasons averaged 192 and 520 animals, respectively. Survey data for 1986-87 indicated that the population increased by eight animals after the hunt season. As a result of these shortcomings and in an effort to standardize deer surveys within BCNP a recommendation was made to conduct annual surveys in May-June of each year. These plans were implemented in 1987 and continued

through 1989. Original census data are presented in Appendix B for all surveys.

Bear Island

Deer track counts have been conducted on Bear Island since 1977 (Table 1). Prior to 1984-85 track counts were done without preparation of the tracking surface. Four permanent transects were established in 1984 (Fig. 3). These transects are measured and divided into suitable and unsuitable tracking portions for each survey. Also, two of the transects were disc-harrowed to improve and standardize tracking conditions. During 1987 and 1988 transects were not disc-harrowed due to lack of equipment and manpower. As a result the tracking conditions on all four transects continued to deteriorate.

The 1988 track count shows a decline in mean tracks/mile (Fig. 4), and in deer density to 1 deer per 138 acres based on suitable transect length (Table 1). As a result of the wide variability observed, the deteriorating condition of the transects, and field observations it was concluded that track counts as presently conducted were not suitable for the Bear Island Unit. Spot-light counts were conducted in this unit in 1989 to determine the feasibility of this alternate census method. (see experimental surveys).

Corn Dance (Eastern Monument)

Deer track counts have been conducted in the Corn Dance Unit (CDU) since 1981 (Table 2). Ten permanent transects were established in 1985 (Fig. 5) and are remeasured each year to provide 1 mile of suitable tracking medium. As Figure 6 indicates, mean deer tracks per mile of transect have varied between 2.6 in 1985 and 3.9 in 1987. There were 2.7 tracks per mile of transect in 1989.

Stairsteps

Deer surveys have been conducted in the Stairsteps Unit since 1978. Some track count surveys were conducted in the western portion of the unit while aerial surveys were the type most frequently conducted in the eastern portion (Table 3). The eastern portion of the Stairsteps is largely open Everglades marsh adjacent to Shark Slough. This portion of the Stairsteps comprises approximately 50,000 acres. Density estimates ranged widely with these surveys. Prior to 1985-86 the aerial surveys were flown on north-south transects at two mile intervals. In 1985, the methodology was changed to conform to standards developed by Everglades National Park for systematic reconnaissance flights (SRF). These standards include east-west transects flown at two kilometer intervals with the survey area divided into two kilometer square cells. This technique provides an opportunity to estimate both density and distribution (Fleming 1984). Figure 7 shows the eastern Stairsteps survey area.

Table 3 also provides the results of the first annual surveys conducted in late May and early June 1987 in the eastern Stairsteps Unit. The number of deer observed on these two surveys were 4 and 2 respectively (Appendix B, Table C). These numbers are extremely low and indicate a population under 100 animals (Table 3). Prior and subsequent observations on the area indicate that these population estimates are invalid. Abnormally wet conditions, other environmental conditions and unknown factors account for these low counts.

The 1989 annual Stairsteps survey yields deer densities ranging from 1 deer per 41 acres to 1 deer per 83 acres. This is an increase from last years survey (1 deer: 51-103 acres) and indicates good fawn production due to low water conditions. Unlike the 1987 annual surveys the past two survey

estimates are consistent with earlier surveys, harvest levels and field observations (Fig. 8).

Experimental Surveys

During 1988 and 1989 experimental surveys were conducted in the Turner River, Bear Island and Deep Lake Units. Deer spotlight counts were employed in Deep Lake (1988) and in Bear Island (1989). A track count survey along a buggy trail was used in the Mullet Slough area of the Turner River unit. The results of these surveys are summarized in Table 4.

In 1988 the Deep Lake survey indicated a deer population of 378 or 1 deer per 128 acres. Spotlight counts were not conducted in this area in 1989, but were employed in the Bear Island Unit. Estimated deer densities were 1 deer per 28 acres in western Bear Island (East Hinson Marsh) and 1 deer per 72 acres in eastern Bear Island (north of the 31 mile marker, Alligator Alley). These estimates coincide with field observations and harvest data.

Due to the deteriorating condition of suitable tracking medium along track count transects in Bear Island, we recommend that spotlight counts be used as the primary census method in this unit.

In 1989 the Mullet Slough portion of the Turner River Unit had a population estimate of 300 deer or a density of 1 deer per 107 acres. This is a dramatic increase from the 1988 track count census estimate of 58 deer or 1 deer per 549 acres. Harvest data and increased hunter success in the Turner River Unit during the 1989-90 season also reflect an increase in deer abundance. Both the Bear Island spotlight count and Turner River track count surveys appear promising but need further refinement to yield consistent estimates.

HUNTING

During all big game seasons only antlered deer were legal game. For the fourth year the minimum antler length was five inches. Wild hogs with a minimum shoulder height of 15 inches were also legal game. Hunting pressure on BCNP was estimated at 21,660 man-days for the Archery, Muzzleloading and General Gun seasons (Table 5). This estimate of pressure was equal to the prior year and 11.5 percent below the peak estimate of 24,360 man-days recorded for 1984-85. Deer harvest (186) was the same as 1988-89 (185) but was down (11%) from the record 208 in 1987-1988. The 1988 fawn class, represented by the 1.5 year age class in the harvest, probably experienced poor survival as a result of high water and thus is under-represented in the present harvest. For the 1989-90 season the 1.5 year age class constituted the smallest percentage ever of the total harvest (23%). By contrast, good fawning conditions in 1985 and 1986 are reflected in the high representation of these age classes in the harvest and the relatively high harvest level overall in 1987-88. Hog harvest was modestly higher (7%) than the prior year (154 vs. 144) and reached the highest level since the record years of 1983-1985 (201 and 195).

Hunter success (game checked/man-day) was comparable to the prior season (0.016). With the exception of the 1987-88 season, hunter success has been constant for the past eight years (Table 5). The mandatory check of hunters has not directly impacted these calculations since that information was not utilized in estimating man-days of hunting. Man-days of hunting were calculated by comparing Saturday vehicle counts with base year surveys.

Figure 9 shows hunter activity and checked harvest for each of the last ten years. Recently, hunter pressure has risen but now shows signs of

stabilizing. Deer harvest has fluctuated, but has generally increased since 1984 while hog harvest has remained relatively constant over the past four years. Generally, declines in harvest by one species have been offset by increases in harvest for the other species.

Table 6 summarizes deer and hog harvest by season compared to the average for the prior two years. Four times as many deer and hogs were harvested during Archery season as compared to the prior 2 year average. Muzzleloader season had a 68% increase in hog harvest, but the deer harvest remained constant. Increases in harvest were also reflected in corresponding significant rises in the hunter success ratios. During General Gun season deer and hog harvest was down 11-12% compared to the prior two year average.

Harvest and hunter pressure are compared by unit and season in Table 7. Generally, the trends for individual units follow the overall trends already discussed. The most pronounced increases in deer and hog harvest occurred in the Loop, Turner River (W. Monument) and Corn Dance (E. Monument) Units. The Loop deer harvest was 2.5 times higher than the prior year (30 vs. 12). Stairsteps recorded a 31% decrease in deer harvest and a 16% decrease in hog harvest as compared to 1988. Bear Island was down slightly in deer harvest but had a small increase in total hog harvest. Hunting pressure reversed a 3 year increasing trend in Bear Island and decreased by 17%. This decrease was more than compensated for by increased pressure in Corn Dance, Loop and Stairsteps Units.

The decrease in pressure on Bear Island indicates that the use of quota permits and designated trails may be sufficient to regulate use of this unit.

The overall increase in 1988 pressure and its continued high level in 1989 may be the result of several factors. The closure of the adjacent Everglades

Wildlife Management Area in 1988 and the fewer permits issued for this area in 1989 apparently caused an increase in Big Cypress especially in the Stairsteps where airboats are commonly used. Another factor contributing to this increase in pressure is the closure or loss of additional areas such as Fakahatchee Strand and most of the Fakahatchee Conservation Club land (now Florida Panther National Wildlife Refuge). Good weather during the 1988 and 1989 seasons also probably contributed to the increase. Finally, the method of calculating hunter pressure based on "total" vehicle counts may have inflated the man-days of pressure on the BNCP in recent years due to an increase in nonhunting campers. This hypothesis is further supported by the increase in pressure on the Stairsteps, Turner River, Corn Dance and Loop Units which would be most affected by the higher counts of nonhunting, overwintering campers using primitive campgrounds along US-41. The closure of potential camping areas along the Tamiami canal in Dade County by the Corps of Engineers has also added to the influx of nonhunters into the Big Cypress. A new base year may have to be established to reflect this recent change in the proportion of hunting vs. nonhunting users on the BNCP.

Archery Season

Archery season was open September 2 through September 24. This 23 day season was marked by a dramatic increase in the deer and hog harvest. During the Archery season 10 deer and 19 hogs were checked which was four times the prior two year average (Table 8). Almost 80% of this harvest occurred within the first 9 days of the season. Hunting pressure was slightly higher (7%) than the prior two year average.

Muzzleloading Season

For the fifth year Muzzleloading season was 16 days long (October 7 through

October 22). A quota of 250 hunters was again established for the Bear Island unit during the first nine days. During the Muzzleloading hunt, hog harvest was up significantly (68%) over the prior two year average while deer harvest remained the same (Table 9). Hunting pressure actually declined slightly (9%) from the prior two year average.

General Gun Season

The 58 day General Gun season opened on October 28, and closed on December 24. For the fourth year, antler requirements on deer were a minimum of five inches while other restrictions were similar to prior years. Hunter activity and harvest during the General Gun season are summarized in Table 10.

Hunter activity was estimated at 17,915 man-days up 14% from the prior two year average. Hog harvest was down 12% from the prior two year average while deer harvest was down 11%.

Between 1980 and 1982 several different methodologies were utilized to estimate hunter pressure. Efforts to measure use were intensified in 1983 and 1984. During these years a consistent effort was made to improve estimates of hunter use by combining check station information, vehicle surveys and other information (Jansen, 1986). Hunter use in 1989 was calculated by multiplying the 1984 hunter activity (base year) estimate by the ratio of the 1989 vehicle survey to the 1984 vehicle survey (base year). The results of the vehicle surveys are summarized in Appendix C. While the vehicle surveys do not directly measure hunter pressure they do provide a good index and therefore the trends over the past six years can be analyzed. Use estimates derived from mandatory check-in and check-out will be presented in a separate report.

Figure 10 compares hunting pressure by week of General Gun season over the past six years. In general, use trends are highest during the first nine days

and remain high through Thanksgiving weekend. Use levels decline after that until the end of the season. Use levels at the end of the season increase, but generally remain below levels in the first two weeks. Levels presented for the first week are actually only the estimated levels for the first two days (opening weekend). The remaining weeks cover a full seven day period.

Weekly pressure during the 1988-89 and 1989-90 seasons shows two significant differences compared to prior years. Both differences are related to the earlier opening date. First, the increase in pressure associated with Thanksgiving week does not occur until week 5. In earlier years Thanksgiving occurred in week 3 or 4. Secondly, the increase in pressure associated with the Christmas and New Year holidays did not occur because the season closed on or before Christmas day. It is interesting to note that the 1989-90 hunting season had a dramatic increase in pressure during Thanksgiving weekend (week 5) probably due to favorable weather conditions.

WHITE-TAILED DEER BIOLOGICAL DATA

Herd Composition

Sex ratios were determined from 352 and 308 spotlight observations made in the Corn Dance and Bear Island Units, respectively, since August 1984. The sex ratios of adult deer in the Corn Dance and Bear Island Units are 1:3.6 and 1:2.5 (buck:doe), respectively.

Appendix D summarizes biological data collected on 150 male deer harvested during the 1989-90 season. These deer were aged by tooth wear and eruption (Severinghaus 1949). Age structure of the 1989-90 BCNP harvest continued its upward trend. In 1989-90 the harvest declined for the 1.5 year age class and remained at zero for the fawn age class. The 1.5 year age class accounted for

23.3% of the harvest indicating a weak 1988 fawn class. The 2.5 year age class constituted 42% of the harvest while the 3.5 year age class accounted for 24.7%. These figures indicate that both the 1986 and 1987 fawn classes were strong. The 4.5 year age class accounted for 5.3% of the harvest, the highest level since 1986. The increase in antler length requirements to five inches appears to be primarily responsible for this shift in the harvest of older age classes.

Table 11 summarizes deer age structure by unit of harvest. The Bear Island Unit has the highest portion (40.7%) in the 1.5 year age class. The Stairsteps Unit has the highest percentage of deer (54%) in the 2.5 year age class, while the Loop Unit has the highest portion (55%) in age classes greater than 2.5. Overall, the age structure data indicate good recruitment in recent years with the exception of the 1988 fawn class. This is also supported by field observations, surveys, documented harvest, and radio-collared deer (see reproductive status).

Physical Characteristics

Table 12 summarizes antler characteristics and dressed weight by age class and unit of harvest. Overall, values in 1989-90 are greater than those reported in prior years. For example, average dressed weight of all animals (73 lbs) was slightly greater than last year (72 lbs), but 9% greater than the 67 lbs. reported in 1987. Antler measurements such as circumference, length and number of points ranged from 3 to 12% greater than last year and 15 to 26% greater than two years ago. Improved forage quality could account for these changes. However, the improved forage quality from the prescribed burning regime is probably being offset by hydrological conditions and a decrease in oak mast production on the BCNP. Condition values of deer were lower in

general for 1989 indicating a decrease in the quality and/or quantity of forage from the previous year.

Table 13 summarizes the occurrence of spikes by age class and unit of harvest. The overall percent spikes by age class has decreased significantly compared to 1988-89. The 1.5 age class has decreased by 26%, the 2.5 class by 21% and the 3.5 age class by 100%. Only 28 harvested deer were spikes in 1989 as compared to 44 in 1988, while the total deer harvest remained constant. Perhaps this year was an anomaly or the percent spikes in the harvest may not have stabilized since the enactment of the 5 inch antler regulation in 1986-87.

Twenty-seven adult deer were collected from Bear Island (BI, n=6) and Corn Dance Units (CDU, n=5) of BCNP, the Fakahatchee Strand State Preserve (FS, n=5), Collier Enterprise lands (CE, n=5), and the Florida Panther National Wildlife Refuge (FPNWR, n=6) (Fig 11). Prior to necropsy body measurements were taken (Table 14). Necropsies were performed in cooperation with S.R. Telford, University of Florida School of Veterinary Medicine and followed procedures of Nettles (1981). A physical condition value of 1-12 was assigned each animal according to levels of endogenous fat on the tail, pericardium, heart, and kidneys (Stockle et al. 1978) (Table 15). Abomasal contents were removed and examined for parasite loads (Eve and Kellogg 1977). Reproductive tracts of females were removed and fetuses were counted (Table 16).

Necropsy results indicated that FPNWR and CE deer were in better physical condition than deer from other sample areas. FPNWR deer were ranked highest in mean condition values (Fig. 12). CE, FPNWR and BI ranked highest in kidney fat indices (Fig. 13). Deer from CE also had the highest mean live body weight (Fig. 14). With the exception of BI, deer in good physical condition

(FPNWR and CE) had lower mean APC's while deer in poorer physical condition tended to have high APC's (Fig. 15). BI deer, while otherwise in moderate physical condition, contained the highest mean APC's.

Within BCNP, and with the exception of APC's, the physical condition of BI deer was better than that of CDU deer though the conditions of both herds were down from 1988 levels. The relative ranking is consistent with results from prior years. As previously noted (Schortemeyer et al. 1989) the better habitat of BI is primarily responsible for this observation.

Sampled deer from areas other than FPNWR were generally not in as good of condition as in 1988. Oak mast production in 1989 was not as abundant as in 1988 when the crop was very heavy. This is likely a substantial reason for decreases in fat levels and condition values from 1988 levels. FPNWR deer were estimated to be in better physical condition in 1989 than in 1988. This was probably due to a difference in collection efforts. In 1988 does were returned to us for necropsy by Fakahatchee Conservation Club (FCC) members who shot them during state doe days. Most of the FCC consisted of cypress (Taxodium spp.) habitats. In 1989 much of the club's leased lands were purchased for FPNWR. The collection of deer from FPNWR was from a greater variety of habitat types than were available to hunters on FCC. A substantial portion of the lands encompassed or bordered by FPNWR had previously been managed for cattle and wildlife or agricultural crop production and hence was superior deer habitat when compared to FCC.

Reproductive Status

The reproductive status of deer was determined by necropsy and by observations of radio-instrumented does. Twenty-three of 27 (85%) of adult does necropsied were pregnant (Table 16). Three of 4 nonpregnant deer were

ranked in the lower physical condition classes. Two of 5 adult does from CDU were not pregnant. Deer from CDU were estimated to be in the poorest physical condition of areas sampled.

Fifteen of 18 radio-instrumented does were observed with fawns of the year during spring 1990 for an 83.3% fawning success rate. There were 14 single fawns and one pair of twins observed. This rate is comparable to the 1989 80% rate, both of which were substantially higher than 1988's 50% fawning success.

Data from collected does in Bear Island show that 93.5% of does should be pregnant with an average of 1.5 fetuses/doe. By applying these values to this year's observations of fawning success, it is possible to estimate neonate fawn mortality. Of the 18 does whose fawning success is known, 16.8 should have been pregnant ($18 \times .935$) and produced 25.2 fetuses ($16.8 \text{ does} \times 1.5 \text{ fetuses/doe}$). This suggests a spring 1990 neonate fawn mortality of 36.5% [$1 - (16 \text{ observed fawns} / 25.2 \text{ estimated \# of full-term fetuses})$]. This neonate fawn mortality rate is lower than 1989's and 1988's rates of 43% and 64.3% respectively.

Mortality Agents and Survival Rates

Eighteen radio-instrumented or ear-tagged deer have died since the beginning of the study (Sept. 1986). Bobcats (Lynx rufus) and Florida panthers (Felis concolor coryi) are the most important predators on white-tailed deer in Bear Island, preying upon 5 and 4 deer respectively. Humans have taken 2 deer legally, one was an ear-tagged buck and the second was a doe harvested off the Preserve during the antlerless season. Two other does were illegally killed during general gun season 1988. Two other does died of natural causes; one suffered a broken leg and the other died of pneumonia. The last 3 deer died of unknown causes.

The year was divided into 3 intervals, summer (1 June to start of general gun season), hunting season (general gun only) and spring (post general gun to 31 May). Archery and muzzleloader seasons were not included with general gun because hunting pressure is 5 times less and documented harvest is 6 times lower. Survival rates during each interval were calculated following Heisey and Fuller (1985) using the formula:

$$Si = [(Xi - Yi)/Xi]^n$$

where Si is the interval survival rate, Xi is the number of animals dying during the interval, and n is the length of the interval in days (Table 17). The annual survival rate was 86.8% (1 June 1989 - 31 May 1990) and was significantly higher than the previous two years' rates of 75.1% and 72.1%. Over the past 3 years, the average annual survival rate has been $78.0 \pm 7.8\%$.

Home Range Size

Doe home ranges varied from 76-961 ha in size. Large home ranges resulted from extensive movements (2-10km) by several does outside of their typical use areas. Average home range size was 239 ha which falls among reported doe home ranges in upland habitats of Florida: 85 ha (Marchinton and Jeter 1967), 270 ha (Bridges 1968), and 342 ha (Smith 1970). White-tailed buck home ranges were 454-1560 ha based on data from two adults.

WILD HOG BIOLOGICAL DATA

Whenever possible, biological data was collected from harvested hogs when they were examined at the check station. Parameters normally measured included weight, body length, tail length and shoulder height. Measurements were taken on approximately 706 of the 1096 hogs checked over the past seven years.

Table 18 summarizes average gutted weights, lengths, and shoulder heights for hogs harvested during the last seven years. Average weight, length and shoulder height were all less than the previous year. In fact, body weight was the lowest ever recorded. Average dressed weight this year was 66 lbs. compared to 83 lbs. in 1987-88. This represents a 20% decrease as compared to the prior year and a 6% decrease from the previous low of 70 lbs. recorded in 1986-87. Apparently hogs are not reflecting the same overall increase in measurements as were the harvested deer in 1989. One explanation could be a preponderance of younger animals in the hog harvest of 1989 and/or a decrease in oak mast/forage production.

Table 19 compares physical characteristics of male and female hogs harvested over the last seven years. Males were larger in every category in 1989-90. Males outweighed females by 24% or 14 pounds (73 pounds vs. 59 pounds). Average body length of males was 3% greater than females (118 cm vs. 115 cm) while shoulder height was 5% greater (62 cm vs 59 cm). These differences are similar to those observed over the prior six years.

Table 20 compares physical characteristics of wild hogs harvested on Bear Island to those from the Stairsteps unit. In general, Bear Island appears to be better habitat for wild hogs as well as deer. Many of the same factors are undoubtedly beneficial to both species. In the 1989-90 harvest, hogs in Bear Island weighed only two pounds more than hogs taken from Stairsteps (Avg. Dressed Weight). Average body length and shoulder height also reflected only small differences between Bear Island and Stairsteps for the 1989-90 season. In previous years the differences between the two areas have been greater and would indicate that both spatial and temporal habitat differences tend to affect deer and hog in the same manner.

On a side note, there is some evidence to suggest an increase in hog numbers in the Corn Dance Unit. Fresh hog sign occurred on only 13% of CDU deer transects in 1987 and on 50% of transects in 1989 (Fig. 16). Prior to 1987 the occurrence of fresh hog sign on white-tailed deer track count transects was so rare records were not kept.

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Table 1. Population estimates for white-tailed deer in the Bear Island unit (38,000 acres) of the BCNP based on track count surveys, 1977-88.

Time of Survey	Source	Population Estimate	Density (deer:acre)
1988 Annual	Schortemeyer & McGrady 1988	81-265	1:451-138
1987 Annual	Schortemeyer & Ramsey 1987	214-545	1:171-67
1986-87 Pre hunt	Schortemeyer & Ramsey 1987	176-567	1:208-64
1985-86 Post hunt	Schortemeyer & Ramsey 1986	128-187	1:285-195
1985-86 Pre hunt	Schortemeyer & Ramsey 1986	513-842	1:71-43
1984-85 Post hunt (2 of 2)	Schortemeyer & Ramsey 1985	81-104	1:451-351
1984-85 Post hunt (1 of 2)	Schortemeyer & Ramsey 1985	62-123	1:589-297
1984-85 Pre hunt	Schortemeyer 1984	160-410	1:228-89
1983-84 Post hunt	McGrady & Jansen 1984 Bear Island Deer Track Counts	100	1:365
1983-84 Pre hunt	McGrady & Jansen 1984 Bear Island Deer Track Counts	461	1:79
1982-83 Post hunt	Pylant, memo, 11 April 1983	600	1:60
1982-83 Pre hunt	Pylant, memo, 30 Sept. 1982	713	1:51
1981-82 Post hunt	Pylant, memo, 21 April 1982	508	1:72
1980-81 Post hunt	Pylant, memo, 28 Dec. 1981	584	1:62

Table 1. continued

Time of Survey	Source	Population Estimate	Density (deer:acre)
1979-80 Post hunt	Pylant, memo, 28 Dec. 1981	630	1:60
1978-79 Annual May	Pylant, memo, 28 Dec. 1981	627	1:58
1977-78 Post hunt	Pylant, memo, 28 Dec. 1981	656	1:56
1977-78 Post hunt	Bowman, memo, 9 June 1978	657	1:56

Table 2. Population estimates for white-tailed deer in the Monument unit of the BCNP, 1980-89.

Time of Survey	Method	Source	Calculated size of unit (acres)	Population Estimate	Density (deer:acre)
1989 Annual	Track Counts	McCown 1989	283,791	1215	1:234
1988 Annual	Track Counts	McCown 1988	283,791	1410	1:201
1987 Annual	Track Counts	McCown 1987	283,791	1720	1:165
1986 Annual	Track Counts	McCown 1986	283,791	1260	1:225
1985-86 Pre-hunt	Aerial Counts	Schortemeyer 1985	283,791	280-385	1:1013-737
1985 Annual	Track Counts	McCown 1985	283,791	1140	1:249
1984-85 Pre-hunt					
1983-84 Post hunt					
1983-84 Pre hunt					
1982-83 Post hunt	Track Counts	Pylant, memo, 11 April 1983	270,000	1268-2250	1:213-120
1982-83 Pre hunt					
1981-82 Post hunt	Track Counts	Pylant, memo, 21 April 1982	270,000	1080-1875	1:250-144
1980-81 Post hunt	Track Counts	Pylant, memo, 28 Dec. 1981	300,000	1620	1:185

Table 3. Population estimates for white-tailed deer in the Stairsteps unit (eastern portion) of the BCNP, 1977-89.

Time of Survey	Method	Source	Calculated size of unit (acres)	Population Estimate	Density (deer:acre)
1989 Annual	SRF Aerial Counts	Schortemeyer and McGrady	50,000	602-1220	1:83-41
1988 Annual	SRF Aerial Counts	Schortemeyer and McGrady	50,000	485-980	1:103-51
1987 Annual (1 of 2)	SRF Aerial Counts	Schortemeyer and Ramsey	50,000	38-76	1:1322-661
1987 Annual (2 of 2)	SRF Aerial Counts	Schortemeyer and Ramsey	50,000	19-38	1:2643-1322
1986-87 Post-hunt	SRF Aerial Counts	Schortemeyer and Ramsey	50,000	250-500	1:200-100
1986-87 Pre-hunt (2 of 2)	SRF Aerial Counts	Schortemeyer and Ramsey	50,000	330-660	1:152-76
1986-87 Post-hunt (1 of 2)	SRF Aerial Counts	Schortemeyer and Ramsey	50,000	280-560	1:180-90
1985-86 Post-hunt	SRF Aerial Counts	Schortemeyer and Ramsey	50,000	240-480	1:210-105
1985-86 Pre-hunt	SRF Aerial Counts	Schortemeyer and Ramsey	50,000	410-820	1:120-60
1984-85 Post-hunt					
1984-85 Pre-hunt	Aerial Counts	Schortemeyer 1984	50,000	316-633	1:158-79

Table 3. continued

Time of Survey	Method	Source	Calculated size of unit (acres)	Population Estimate	Density (deer:acre)
1984 Post Production (2 of 2)	Aerial Counts	Schortemeyer 1984	50,000	117-220	1:427-227
1984 Post Production (1 of 2)	Aerial Counts	Schortemeyer 1984	50,000	70-132	1:714-379
1983-84 Post-hunt	Aerial Counts	McGrady & Jansen 1984 Big Cypress WMA	50,000	123-246	1:407-203
1983-84 Pre-hunt	Aerial Counts	McGrady & Jansen 1984 Big Cypress WMA	50,000	158-317	1:316-158
1982-83 Post-hunt	Aerial Counts	Pylant, memo, 11 April 1983	50,000	379-543	1:132-92
1982-83 Pre-hunt	Aerial Counts	Pylant, memo, 30 Sept. 1982	50,000	833-1190	1:60-42
1981-82 Post-hunt	Track Counts	Pylant, memo, 21 April 1982	50,000	171	1:135
1980-81 Post-hunt	Track Counts	Pylant, memo, 28 Dec. 1981	141,800	1013	1:140
1979-80 Post-hunt	Track Counts	Pylant, memo, 28 Dec. 1981	140,300	954	1:147
1978-79 Post-hunt	Track Counts	Pylant, memo, 28 Dec. 1981	140,000	954	1:147
1977-78 Post-hunt	Track Counts	Pylant, memo, 28 Dec. 1981	141,000	1102	1:128
1977-78 Post-hunt	Track Counts	Bowman, memo, 9 June 1978	140,600	743	1:190

Table 4. Experimental population estimates for white-tailed deer on the Big Cypress National Preserve, 1988-1989.

Time of Survey	Method	Source	Unit	Calculated Size of Survey Area (acres)	Population Estimate	Density (deer:acre)
1989 Annual	Spotlight Counts	McGrady, Manor & Schortemeyer May 1989	Western Bear Island	19,129	683	1:28
1989 Annual	Spotlight Counts	McGrady, Manor & Schortemeyer June 1989	Eastern Bear Island	19,129	266	1:72
1989 Annual	Track Counts	McGrady & Manor May 1989 (b)	Turner River (Mullet Slough)	32,000	300	1:107
1988 Annual	Spotlight Count	McGrady & Roof April 1988	Deep Lake	48,356	378	1:128
1988 Annual	Track Counts	McGrady April 1988 (a)	Turner River (Mullet Slough)	32,000	58	1:549

a) Track counts conducted off Cypress Lane, two replications.

b) Track counts conducted off Cypress Lane, three replications.

Table 5. Big Cypress National Preserve deer harvest, hog harvest and hunting pressure, 1980-90.

Year	No. of Man-days	No. of deer Harvested	No. of hogs Harvested	Hunter Success (a)
1980-81	14,240	103	81	0.013
1981-82	16,539	104	44	0.009
1982-83	18,625	145	141	0.015
1983-84	23,015	140	201	0.015
1984-85	24,360	205	195	0.016
1985-86	17,195	156	111	0.016
1986-87	17,290	127	153	0.016
1987-88	17,525	208	138	0.020
1988-89	21,567	185	144	0.015
1989-90	21,660	186	154	0.016

(a) Hunter Success = (deer and hog harvest)/man-days of hunting.

Table 6. Big Cypress National Preserve deer and hog harvest, and hunter success ratio by season.

DEER				
SEASON	No. Harvested		Hunter Succ. Ratio (a)	
	1989-90	Prior 2 yr. avg.	1989-90	Prior 2 yr. avg.
Archery	10	2.5	0.006	0.002
Muzzleloader	24	23.5	0.012	0.011
General Gun	152	170.5	0.008	0.011
HOG				
Archery	19	5.0	0.011	0.003
Muzzleloader	32	19.0	0.015	0.009
General Gun	103	117.0	0.006	0.007

(a) Success ratio = no. of animals harvested/no. of man-days.

Table 7. Three-year comparison of documented deer and hog harvest, and hunter pressure on the Big Cypress National Preserve.

	DEER			HOG			HUNTER PRESSURE		
	87-88	88-89	89-90	87-88	88-89	89-90	87-88	88-89	89-90
Archery									
Bear Island	0	2	6	2	3	11	380	518	490
Deep Lake	0	0	1	0	0	1	40	99	20
Monument	0	0	1	1	1	1	545	537	555
Stairsteps	0	2	0	2	0	2	280	438	575
Loop	0	1	2	1	0	4	235	170	95
TOTAL	0	5	10	6	4	19	1480	1762	1735
Muzzleloading									
Bear Island	5	11	6	3	11	13	485	847	555
Deep Lake	0	0	0	0	0	1	115	100	40
Monument	3	5	7	2	7	7	585	896	660
Stairsteps	6	7	5	4	7	9	390	746	630
Loop	6	4	6	2	2	2	125	156	125
TOTAL	20	27	24	11	27	32	1700	2745	2010
General Gun									
Bear Island	34	27	26	32	37	33	3630	4855	4095
Deep Lake	4	3	3	0	0	0	525	380	515
Monument	25	21	34	13	9	17	5110	5375	5985
Stairsteps	112	95	67	55	56	42	4130	5435	6080
Loop	13	7	22	21	11	11	950	1015	1240
TOTAL	188	153	152	121	113	103	14345	17060	17915
COMBINED									
Bear Island	39	40	38	37	51	57	4495	6220	5140
Deep Lake	4	3	4	0	0	2	680	579	575
Monument	28	26	42	16	17	25	6240	6808	7200
Stairsteps	118	104	72	61	63	53	4800	6619	7285
Loop	19	12	30	24	13	17	1310	1341	1460
TOTAL	208	185	186	138	144	154	17525	21567	21660

Table 8. Archery season harvest summary Big Cypress National Preserve,
1989-90.

WEEK		DEER		HOG		HUNTER ACTIVITY (man-days)	
1989-90 dates		1989-90	Prior 2 yr. avg.	1989-90	Prior 2 yr. avg.	1989-90	Prior 2 yr. avg.
1 (9-2 to 9-3)		4	1.0	5	1.0	650	599
2 (9-4 to 9-10)		4	1.0	10	4.0	350	388
3 (9-11 to 9-17)		1	0.5	3	0.0	405	385
4 (9-18 to 9-24)		1	0.0	1	0.0	330	250
TOTAL		10	2.5	19	5.0	1735	1622

Table 9. Muzzleloader season harvest summary Big Cypress National Preserve, 1989-90.

WEEK	DEER		HOG		HUNTER ACTIVITY (man-days)	
1989-90 dates	1989-90	Prior 2 yr. avg.	1989-90	Prior 2 yr. avg.	1989-90	Prior 2 yr. avg.
1 (10-07 to 10-08)	8	10.5	11	11.0	935	850
2 (10-09 to 10-15)	8	8.0	11	6.5	535	710
3 (10-16 to 10-22)	8	5.0	10	1.5	540	663
TOTAL	24	23.5	32	19.0	2010	2223

Table 10. General Gun season harvest summary, Big Cypress National Preserve, 1989-90.

WEEK	DEER		HOG		HUNTER ACTIVITY (man-days)	
1989-90 dates	1989-90	Prior 2 yr. avg.	1989-90	Prior 2 yr. avg.	1989-90	Prior 2 yr. avg.
1 (10-28 to 10-29)	37	63.0	18	37.0	2810	2953
2 (10-30 to 11-05)	33	42.5	21	30.0	2905	2758
3 (11-06 to 11-12)	14	14.0	31	11.5	1725	1688
4 (11-13 to 11-19)	10	11.0	5	6.5	1585	1578
5 (11-20 to 11-26)	18	8.5	10	7.0	3540	1775
6 (11-27 to 12-03)	9	6.0	4	6.5	1685	1098
7 (12-04 to 12-10)	20	7.5	5	5.0	1410	1125
8 (12-11 to 12-17)	8	9.0	1	6.5	1270	1343
9 (12-18 to 12-24)	3	9.0	8	7.0	985	1388
TOTAL	152	170.5	103	117.0	17915	15706

Table 11. Age structure of male white-tailed deer harvested on the Big Cypress National Preserve by unit of harvest, 1989-90.

AGE CLASS	BEAR ISLAND		MONUMENT		LOOP		STAIRSTEPS		ALL UNITS COMBINED	
	#	%	#	%	#	%	#	%	#	%
0.5	0	-	0	-	0	-	0	-	0	-
1.5	11	40.7	9	31.0	2	6.9	13	20.6	35	23.3
2.5	7	25.9	11	37.9	11	37.9	34	54.0	63	42.0
3.5	5	18.5	6	20.7	12	41.4	12	19.0	37	24.7
4.5	2	7.4	3	10.3	2	6.9	1	1.6	8	5.3
5.5+	2	7.4	0	-	2	6.9	3	4.8	7	4.7
Sample Size	27		29		29		63		150 (a)	

(a) Includes 2 deer from Deep Lake unit.

Table 12. Weight and antler characteristics of male deer harvested during 1989-90, Big Cypress National Preserve.

AGE CLASS	SAMPLE SIZE BY UNIT					AVERAGE DRESSED WEIGHT (LBS.)				
	I (a)	III	IV	V	ALL	I	III	IV	V	ALL
0.5	-	-	-	-	-	-	-	-	-	-
1.5	9	4	1	4	18	70	73	45	59	67
2.5	4	5	9	26	44	81	82	66	67	70
3.5	2	3	7	5	18	95	80	74	77	80
4.5	2	1	2	1	6	98	95	71	105	90
5.5+	1	-	2	2	5	80	-	83	81	82
TOTAL	18	13	21	38	91	79	80	70	69	73

AGE CLASS	AVERAGE ANTLER MAIN BEAM CIRCUMFERENCE (cm)					AVERAGE ANTLER MAIN BEAM LENGTH (cm)					AVERAGE NUMBER OF POINTS				
	I	III	IV	V	ALL	I	III	IV	V	ALL	I	III	IV	V	ALL
0.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1.5	5.2	5.3	4.0	5.0	5.1	16.7	20.4	11.0	16.4	17.1	3.3	3.4	2.0	3.2	3.2
2.5	5.9	6.2	6.3	5.6	5.9	23.0	25.1	21.1	20.3	21.6	4.5	4.9	4.5	4.2	4.4
3.5	7.3	7.8	7.8	6.9	7.4	30.1	30.7	28.7	27.5	29.1	6.0	7.4	6.6	5.4	6.3
4.5	8.3	10.6	6.8	10.5	8.9	37.2	40.8	23.4	30.5	32.4	8.0	6.5	5.5	6.0	6.3
5.5+	10.0	---	10.4	8.5	9.4	37.7	---	28.5	32.1	32.3	9.0	---	6.5	8.3	7.8
TOTAL	6.3	6.6	7.1	5.9	6.4	23.7	25.8	24.1	21.4	23.3	4.7	5.1	5.3	4.4	4.8

(a) Units: 1 = Bear Island, III = Monument, IV = Loop, V = Stairsteps
 "ALL" column includes 2 deer from the Deep Lake Unit

Table 13. Number of spikes, percent spikes and average main beam length of adult deer harvested on the Big Cypress National Preserve, 1989-90.

AGE CLASS	NUMBER OF SPIKES					% SPIKES IN AGE CLASS					MAIN BEAM LENGTH OF SPIKES (inches)			
	I(a)	III	IV	V	ALL	I	III	IV	V	ALL	0-1	1-3	3-5	>5
1.5	4	3	2	6	15	44.4	42.9	100.0	46.2	48.4	-	-	6	9
2.5	1	1	1	10	13	16.7	10.0	10.0	30.3	22.0	-	-	3	10
3.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.5+	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(a) Units: I = Bear Island, III = Monument, IV = Loop, V = Stairsteps.

Table 14. Morphometric values of adult does collected October, 1989.

NO.	AREA ¹	SEX	AGE	WEIGHT (lbs)	LENGTH (cm)	GIRTH (cm)
310	BI	F	1.5	75	121	69
311	BI	F	2.5	100	135	75
312	BI	F	2.5	80	118	70
314	BI	F	4.5	110	128	82
329	BI	F	2.5	NA	109	NA
331	BI	F	4.5	95	126	77
322	FPNWR	F	3.5	86	126	77
323	FPNWR	F	3.5	105	125	81
325	FPNWR	F	2.5	77	114	75
326	FPNWR	F	2.5	77	126	80
327	FPNWR	F	4.5	95	121	82
330	FPNWR	F	3.5	93	126	77
332	CDU	F	4.5	81	114	74
333	CDU	F	2.5	80	120	75
335	CDU	F	2.5	72	119	68
336	CDU	F	1.5	56	105	64
337	CDU	F	4.5	75	113	72
339	CE	F	2.5	100	124	83
340	CE	F	2.5	83	121	79
341	CE	F	2.5	102	125	82
343	CE	F	2.5	105	122	80
344	CE	F	2.5	95	139	74
346	FS	F	2.5	77	114	72
348	FS	F	2.5	82	118	70
349	FS	F	4.5	100	124	83
350	FS	F	1.5	75	117	71
351	FS	F	2.5	112	132	81

- (1) BI = Bear Island Unit of BCNP
 FPNWR = Florida Panther National Wildlife Refuge
 CDU = Corn Dance Unit of BCNP
 CE = Collier Enterprises
 FS = Fakahatchee Strand State Preserve

Table 15. Physical condition values of adult does collected October, 1989.

N0.	AREA ¹	SEX	AGE	KIDNEY FAT INDEX	TAIL FAT	HEART FAT	PERI- CARDIAL FAT	KIDNEY FAT	CONDITION
310	BI	F	1.5	10.0	L	L	L-	L	F
311	BI	F	2.5	1.9	M	M-	M	M	G
312	BI	F	2.5	63.4	M+	M	H	H-	G+
314	BI	F	4.5	30.9	L+	M	H	M	G
329	BI	F	2.5	11.6	L	L-	L-	L-	P
331	BI	F	4.5	74.0	M+	M+	H	H	E
322	FPNWR	F	3.5	32.3	L	H	H	M	G+
323	FPNWR	F	3.5	28.6	M	H	H	M	E
325	FPNWR	F	2.5	48.8	H	M	H	H	E
326	FPNWR	F	3.5	53.1	H	M	H	H	E
327	FPNWR	F	4.5	15.2	L+	M+	H	M	G
330	FPNWR	F	3.5	33.3	H	H-	H	H	E
332	CDU	F	4.5	6.4	L-	L+	L	L-	F-
333	CDU	F	2.5	11.3	M-	M-	H	M	G
335	CDU	F	2.5	2.1	L-	L-	L-	L-	F
336	CDU	F	1.5	5.9	L	L+	L+	L-	F
337	CDU	F	4.5	14.7	L	M-	M	L+	G-
339	CE	F	2.5	77.3	H	H-	H	H	E
340	CE	F	2.5	28.1	L+	L+	M	M	G
341	CE	F	2.5	41.5	H	H-	H	H	F
343	CE	F	2.5	16.7	M+	M+	M	M	G
344	CE	F	2.5	16.9	L+	M	M-	L	F+
346	FS	F	2.5	11.3	L	L	M	L	F
348	FS	F	2.5	18.2	L	L+	M	L+	G
349	FS	F	4.5	35.2	M	M	H	M+	G
350	FS	F	1.5	23.1	L+	M	M	L+	F+
351	FS	F	2.5	17.2	L	M	M	L+	G

(1) BI = Bear Island Unit of BCNP
 FPNWR = Florida Panther National Wildlife Refuge
 CDU = Corn Dance Unit of BCNP
 CE = Collier Enterprise
 FS = Fakahatchee Strand State Preserve

Table 16. Reproductive status of adult does October, 1989.

NO.	AREA ¹	AGE	PREG?	FETUS NO.
310	BI	1.5	Y	1
311	BI	2.5	Y	2
312	BI	2.5	Y	1
314	BI	4.5	Y	2
329	BI	2.5	N	0
331	BI	4.5	Y	1
322	FPNWR	3.5	Y	1
323	FPNWR	3.5	Y	1
325	FPNWR	2.5	Y	1
326	FPNWR	3.5	Y	1
327	FPNWR	4.5	Y	1
330	FPNWR	3.5	N	0
332	CDU	4.5	N	0
333	CDU	2.5	Y	1
335	CDU	2.5	Y	1
336	CDU	1.5	N	0
337	CDU	4.5	Y	1
339	CE	2.5	Y	1
340	CE	2.5	Y	2
341	CE	2.5	Y	1
343	CE	2.5	Y	1
344	CE	2.5	Y	2
346	FS	2.5	Y	1
348	FS	2.5	Y	1
349	FS	4.5	Y	1
350	FS	1.5	Y	1
351	FS	2.5	Y	2

(1) BI = Bear Island Unit of BCNP
 FPNWR = Florida Panther National Wildlife Refuge
 CDU = Corn Dance Unit of BCNP
 CE = Collier Enterprises
 FS = Fakahatchee Strand State Preserve

Table 17. Survival rates for radio-collared white-tailed deer, Bear Island Unit, Big Cypress National Preserve, Florida, May 1987 to May 1990.

Interval	Number of deer	Number of deaths Yi	Number of radio-days Xi	Interval length (days) n	Interval survival Si	Annual survival
Summer87	17	1	2600	159	0.941	
Hunting87	18	2	954	58	0.885	
Spring88	15	2	2075	149	0.866	0.721
Summer88	21	2	3115	150	0.908	
Hunting88	29	2	1632	58	0.931	
Spring89	27	3	3952	157	0.888	0.751
Summer89	25	0	3725	149	1.000	
Hunting89	38	1	2146	58	0.973	
Spring90	37	4	5520	158	0.892	0.868

Table 18. Physical characteristics of wild hogs harvested on the Big Cypress National Preserve, 1983-90.

YEAR	SAMPLE SIZE	AVERAGE DRESSED WEIGHT (lbs.)	AVERAGE BODY LENGTH (cm.)(a)	AVERAGE SHOULDER HEIGHT (cm.)
1983-84	126	71(20-198)	114(42-170)	59(15-90)
1984-85	119	71(18-350)	116(77-164)	61(40-90)
1985-86	67	75(18-175)	116(54-152)	64(28-90)
1986-87	75	70(20-155)	115(78-155)	63(36-88)
1987-88	101	71(16-245)	115(75-166)	62(39-98)
1988-89	108	83(20-238)	120(68-158)	63(22-85)
1989-90	110	66(25-180)	117(85-171)	61(45-87)

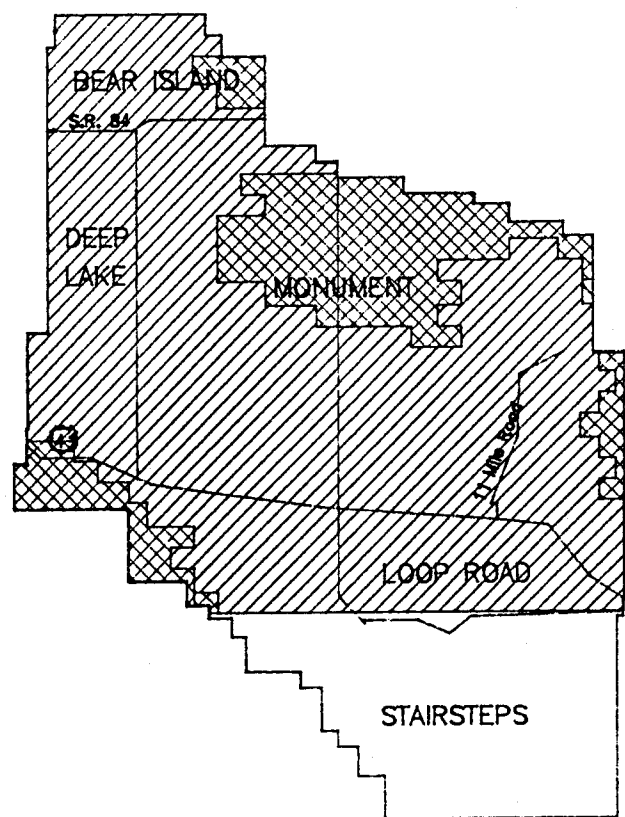
(a) Body length does not include tail

Table 19. Comparison by sex of physical characteristics of wild hogs harvested on Big Cypress National Preserve, 1983-90.

YEAR	SEX	SAMPLE SIZE	AVERAGE DRESSED WEIGHT (lbs.)	AVERAGE BODY LENGTH (cm.)	AVERAGE SHOULDER HEIGHT (cm.)
1983-84	F	52	58(22-145)	113(42-170)	55(16-76)
	M	74	81(20-198)	115(47-149)	61(19-90)
1984-85	F	64	62(18-150)	113(77-142)	58(40-74)
	M	55	82(18-350)	120(78-164)	65(41-90)
1985-86	F	29	61(20-125)	115(57-146)	62(28-75)
	M	38	85(18-175)	117(54-152)	65(31-90)
1986-87	F	40	59(20-150)	111(78-145)	60(36-79)
	M	35	83(20-155)	118(78-155)	66(40-88)
1987-88	F	45	53(16-101)	109(75-145)	57(39-74)
	M	56	85(22-245)	120(87-166)	66(42-98)
1988-89	F	45	67(20-156)	116(68-144)	60(22-80)
	M	62	93(30-238)	122(84-158)	65(42-85)
1989-90	F	54	59(25-150)	115(85-171)	59(46-80)
	M	56	73(25-180)	118(88-162)	62(45-87)

Table 20. Comparison of wild hogs harvested on the Big Cypress National Preserve in the Stairsteps and Bear Island units, 1983-90.

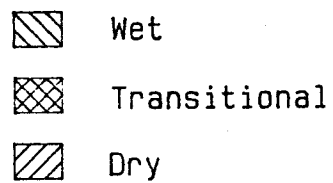
YEAR	UNIT	SAMPLE SIZE	AVERAGE DRESSED WEIGHT (lbs.)	AVERAGE BODY LENGTH (cm.)	AVERAGE SHOULDER HEIGHT (cm.)
1983-84	Bear Island	70	77(24-198)	115 (47-170)	61(19-90)
		38	61(20-135)	110 (42-144)	55(24-72)
1984-85	Bear Island	49	74(20-350)	115 (81-164)	61(42-90)
		44	62(18-136)	113 (77-148)	59(40-82)
1985-86	Bear Island	21	92(50-155)	121(100-143)	68(59-90)
		23	55(18-145)	111 (76-141)	61(40-82)
1986-87	Bear Island	22	71(20-150)	113 (78-136)	65(36-88)
		31	80(30-155)	119 (78-155)	65(46-83)
1987-88	Bear Island	35	80(25-245)	118 (96-166)	69(48-98)
		39	60(16-151)	110 (75-140)	57(39-76)
1988-89	Bear Island	47	97(30-238)	122 (84-158)	69(47-85)
		37	73(32-150)	118 (90-153)	60(42-80)
1989-90	Bear Island	49	69(30-180)	118 (85-162)	62(47-87)
		31	67(25-160)	115 (88-147)	61(47-80)



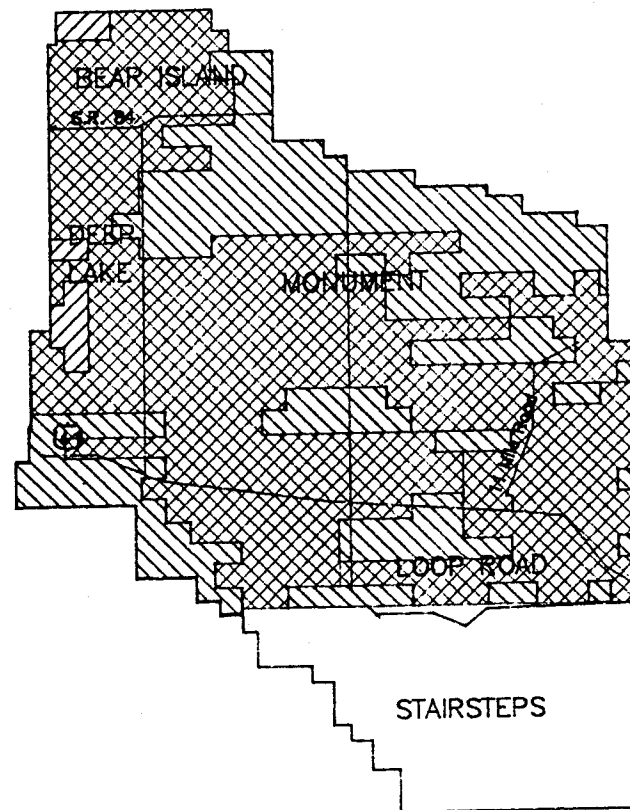
March 9, 1989



BIG CYPRESS NATIONAL PRESERVE



Scale
0 6 Km



August 1, 1989

Figure 1. Comparison of dry and wet season hydropatterns on the Big Cypress National Preserve, 1989.

STAGE AND RAINFALL AT P-34

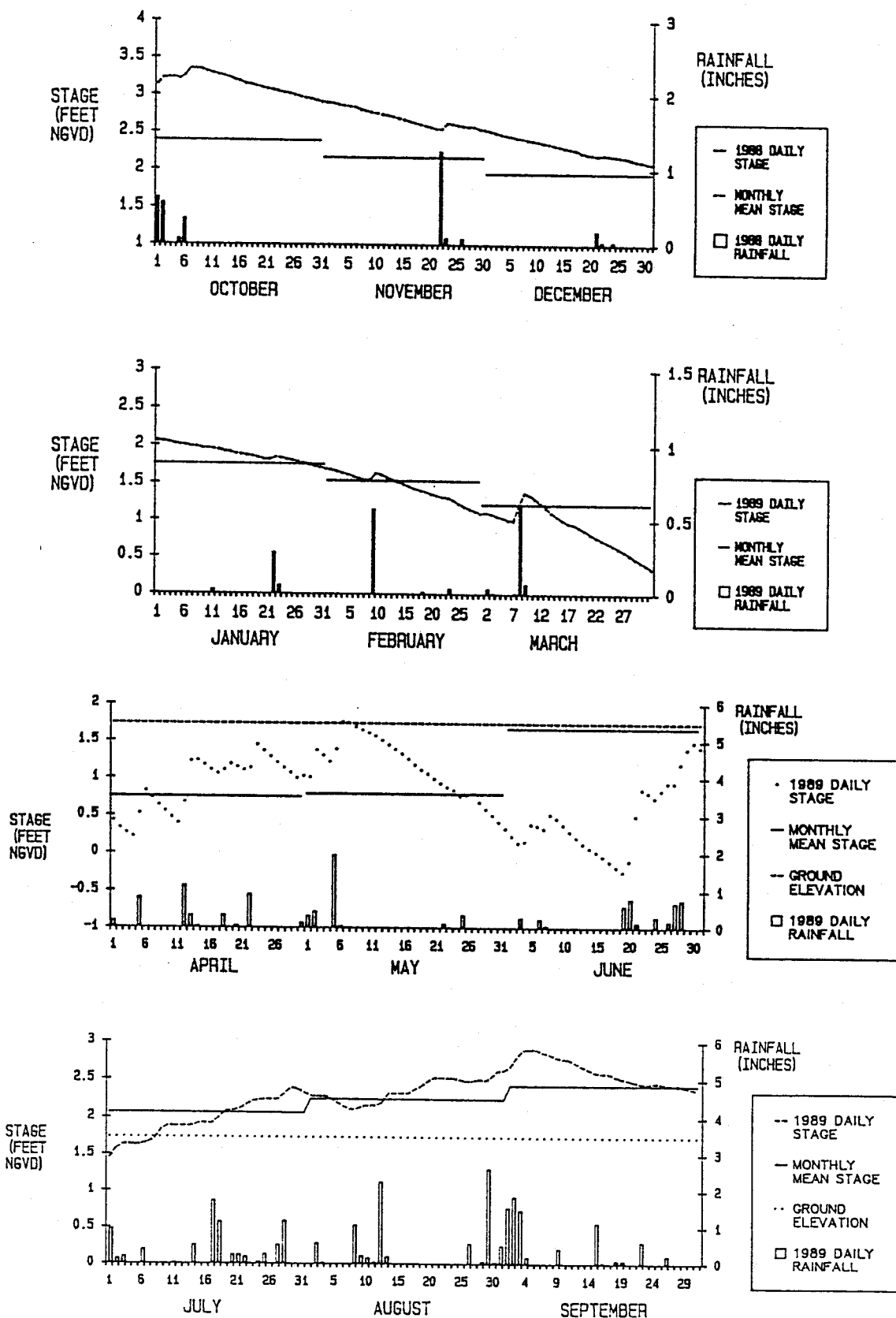


Figure 2. Water levels at NPS gauge #34, southeastern Stairsteps, October 1988 - September 1989 (From Hydrology Synopsis, Everglades National Park, October 1988 - September 1989).

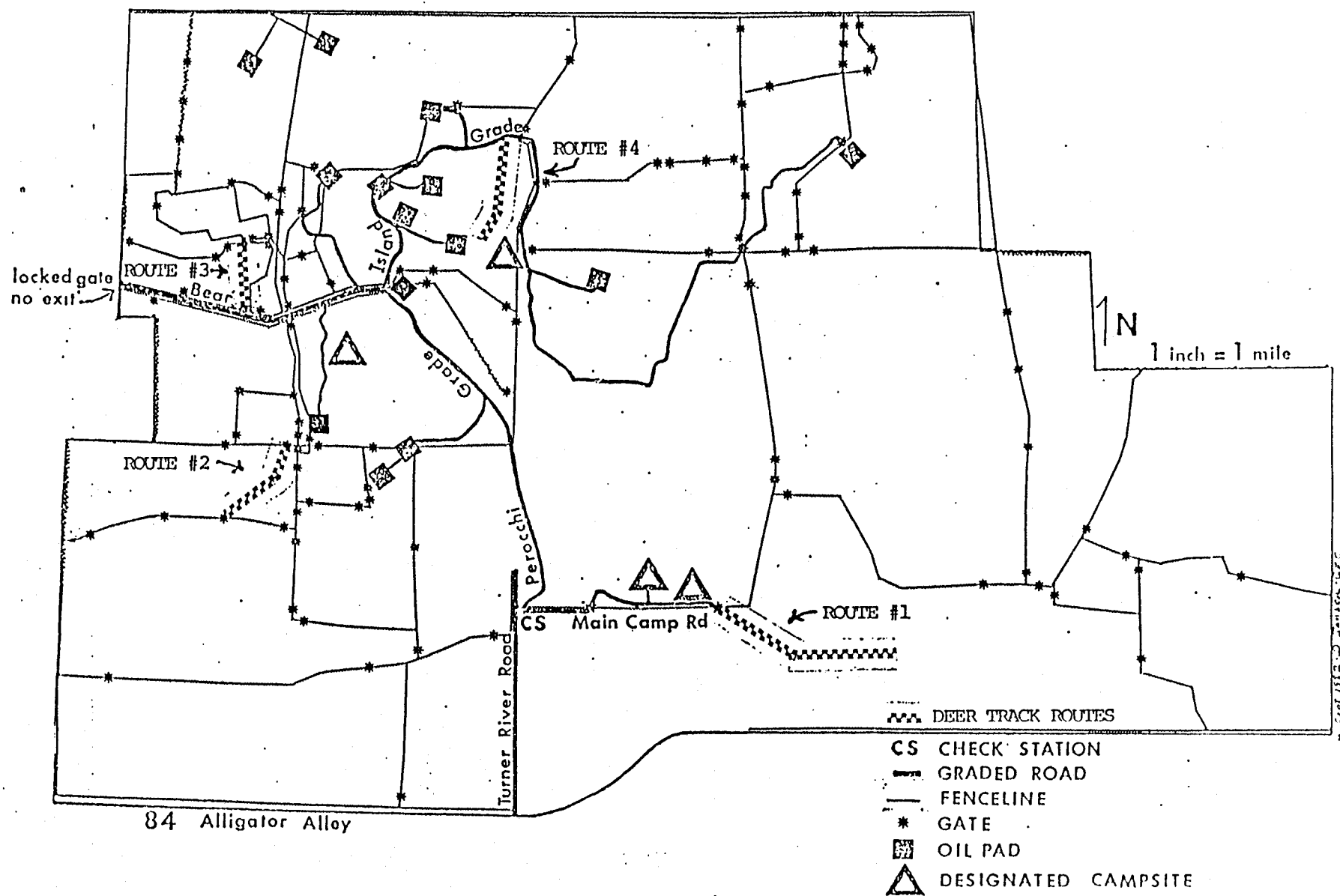


Figure 3. Deer track survey routes, Bear Island unit, Big Cypress National Preserve.

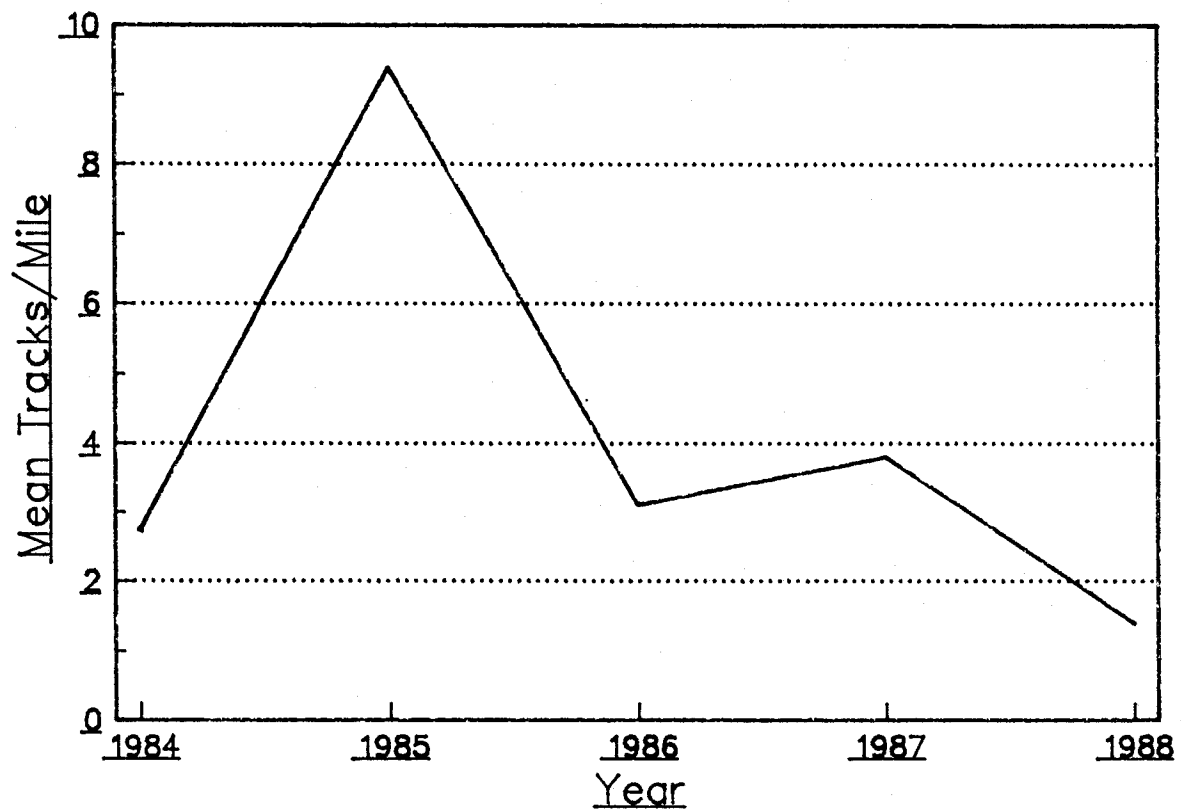


Figure 4. Mean number of deer tracks per one mile transect in Bear Island unit, BCNP, 1984-1988.

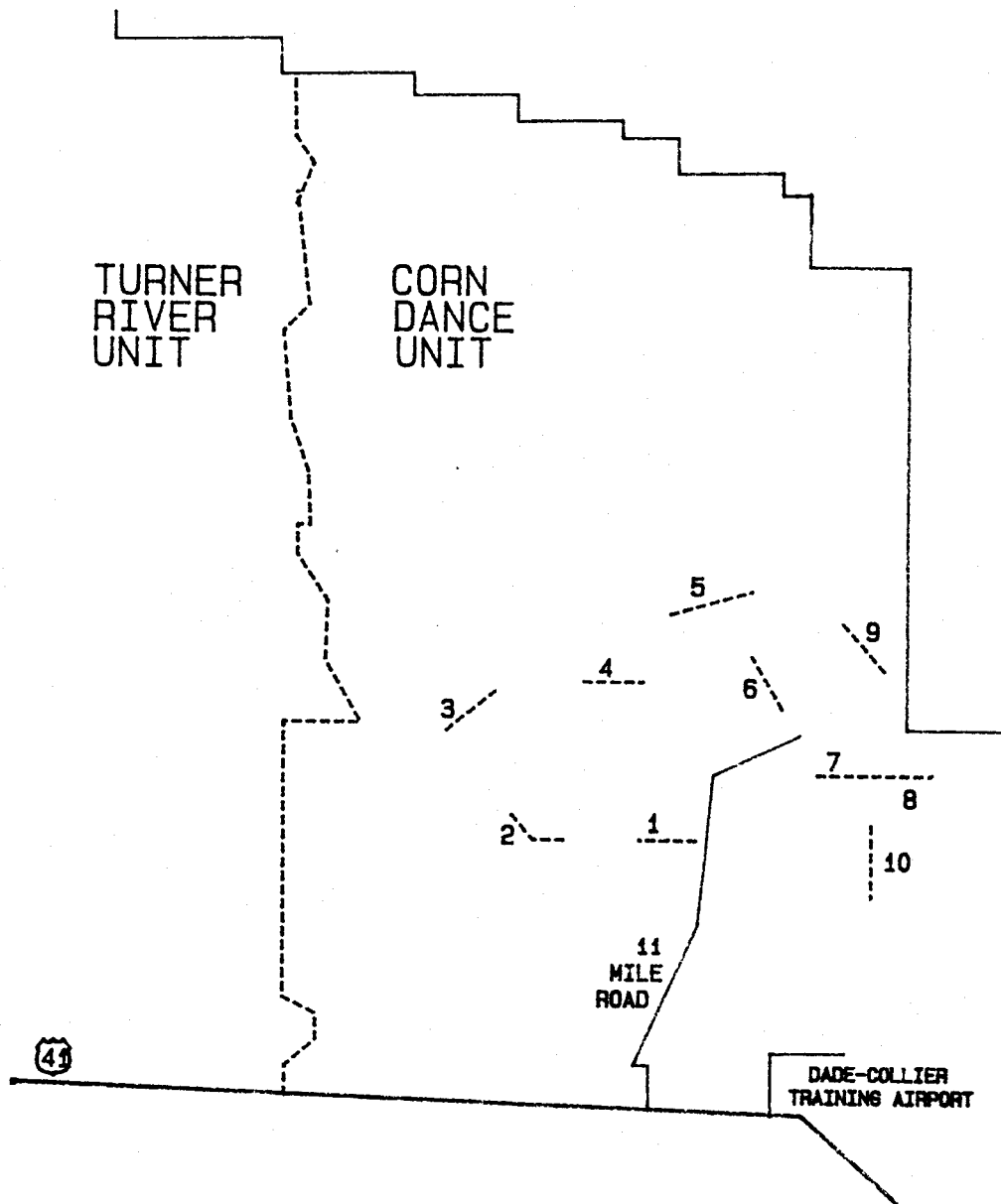


Figure 5. Deer track survey transects, Corn Dance unit, Big Cypress National Preserve. 1985-1989.

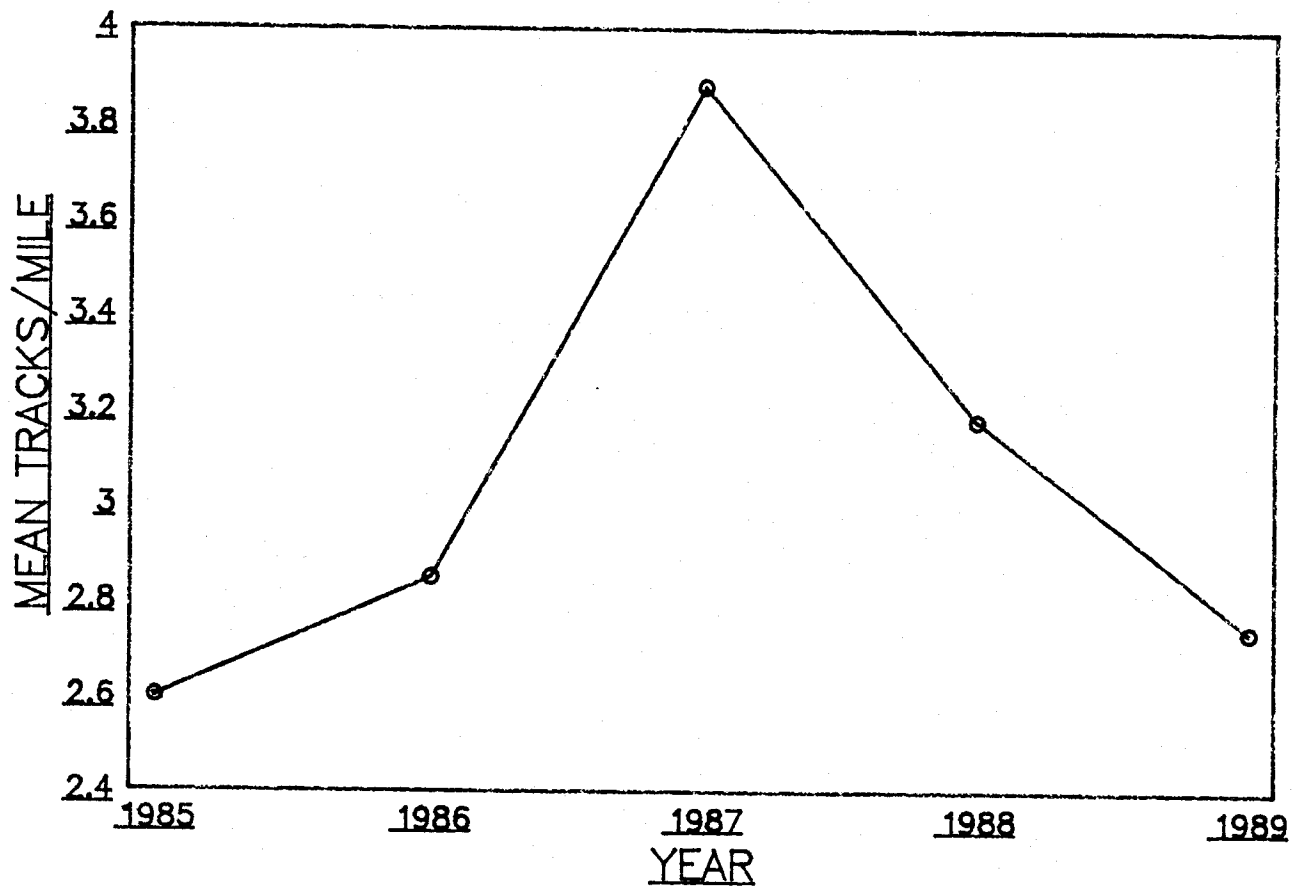


Figure 6. Mean number of deer tracks per one mile transect in the Corn Dance unit of Big Cypress National Preserve, 1985-1989.

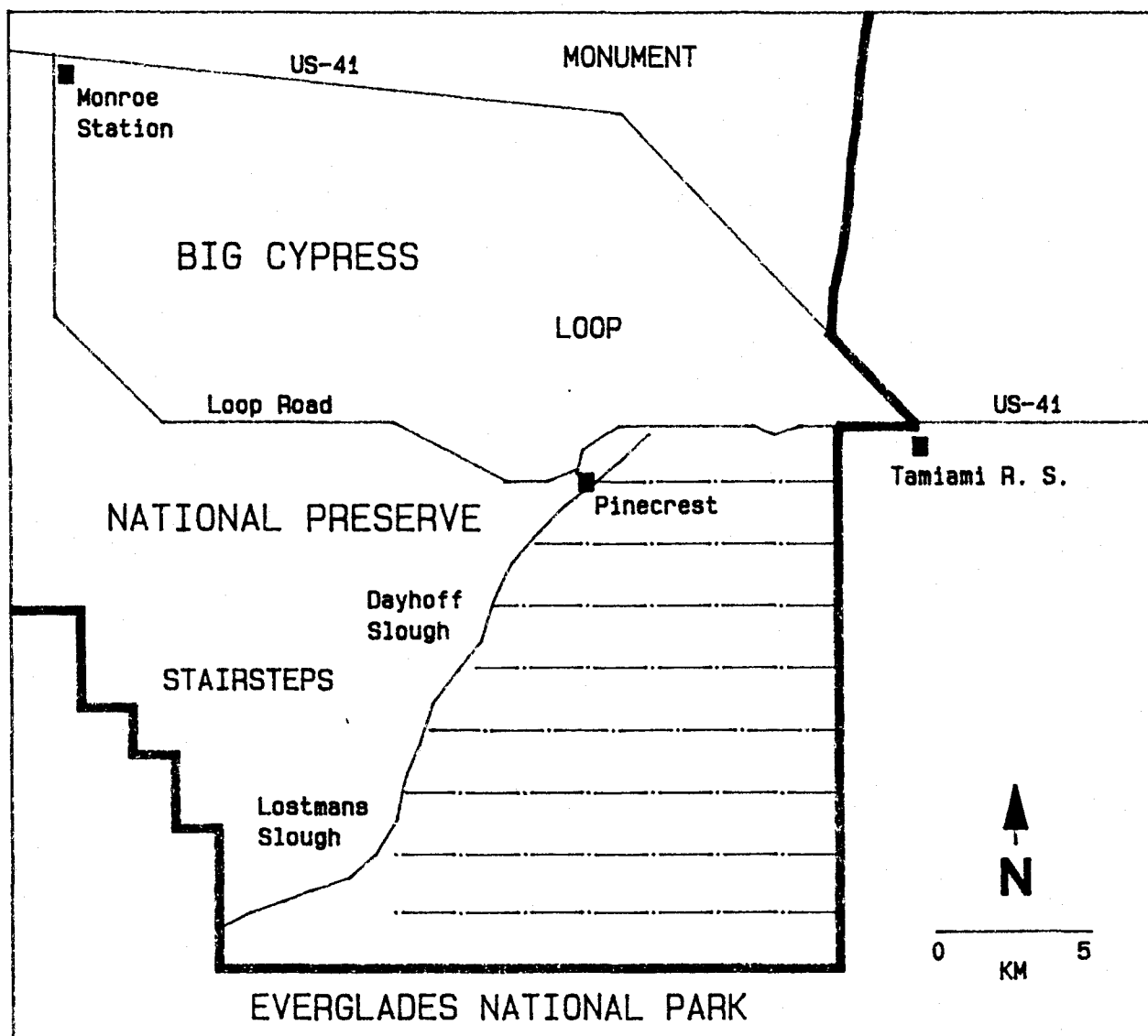


Figure 7. Survey transects and general survey area for aerial deer census, eastern Stairsteps unit, BCNP, 1985-1989

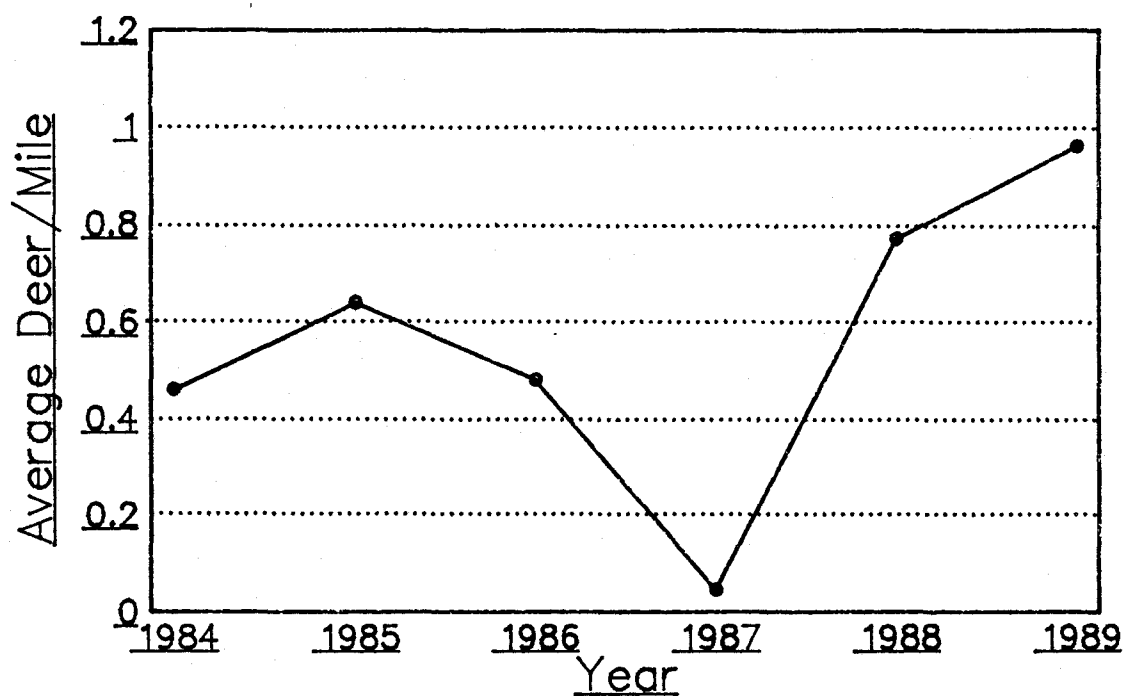


Figure 8. Average number of deer observed per mile in the eastern Stairsteps unit, BCNP, 1984-1989.

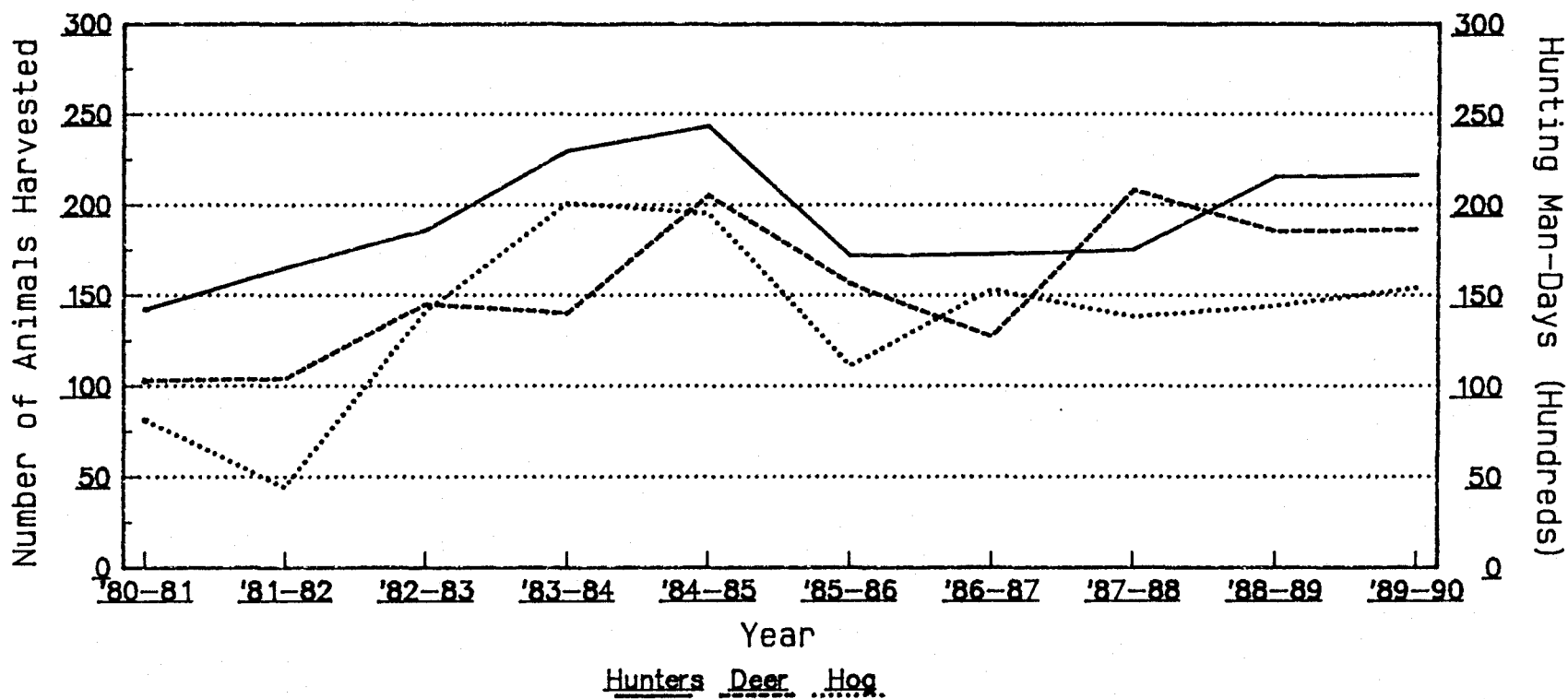


Figure 9. Hunting pressure and harvest of wild hog and white-tailed deer on the Big Cypress National Preserve, 1980-1990.

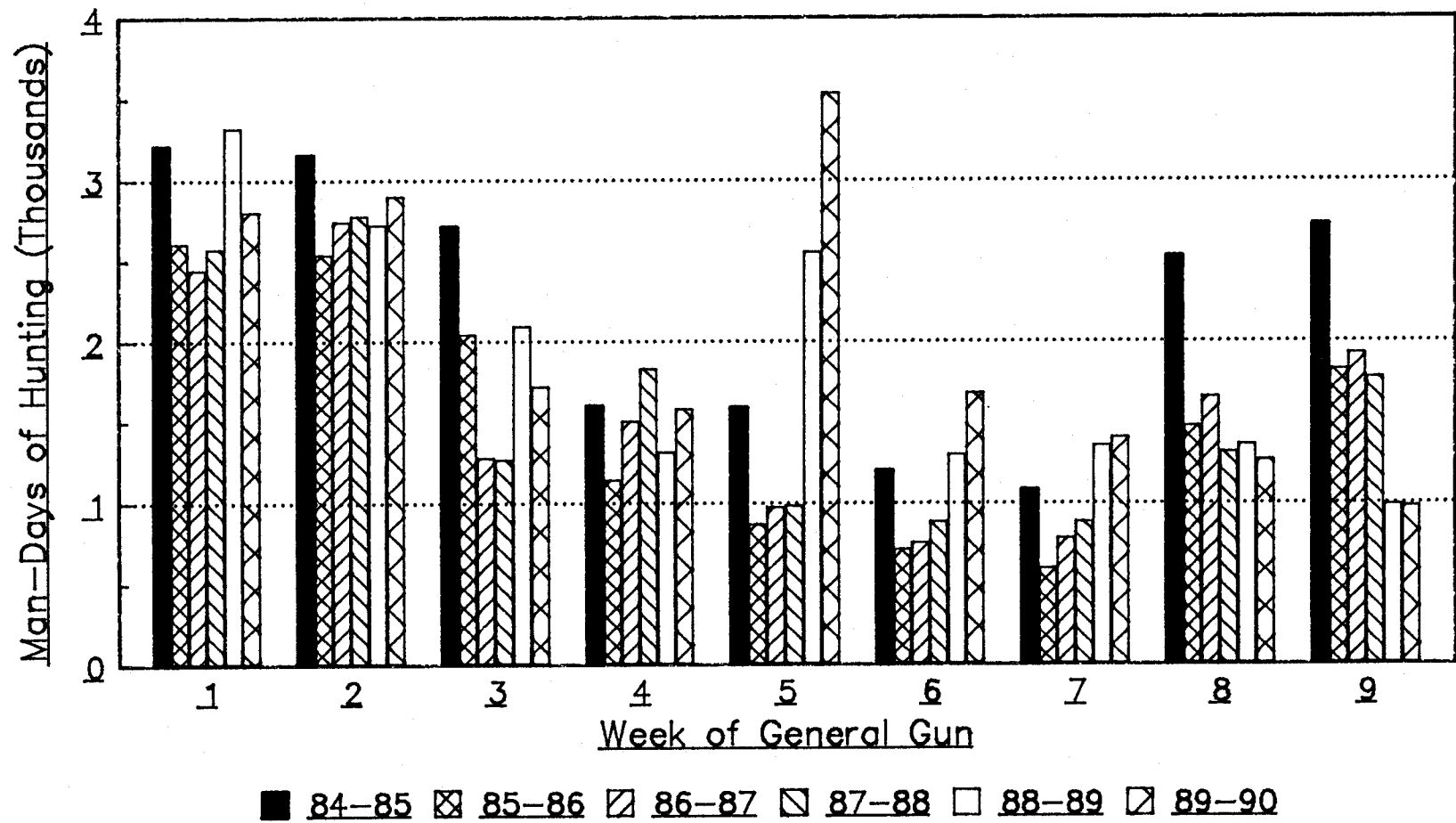


Figure 10. General Gun season hunting pressure by week, Big Cypress National Preserve, 1984-1990.

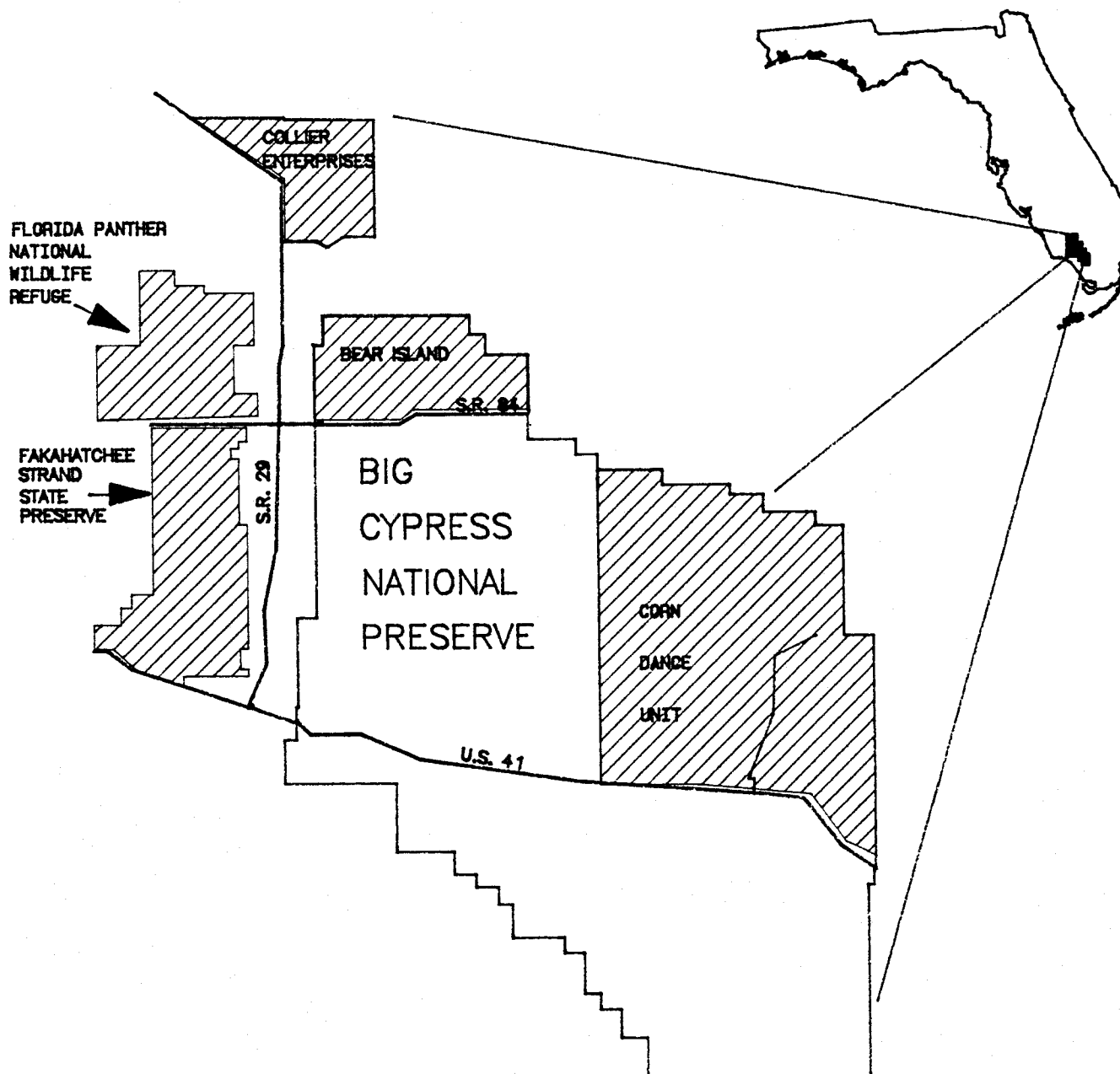


Figure 11. Southwest Florida study areas, deer health and reproductive status, 1989.

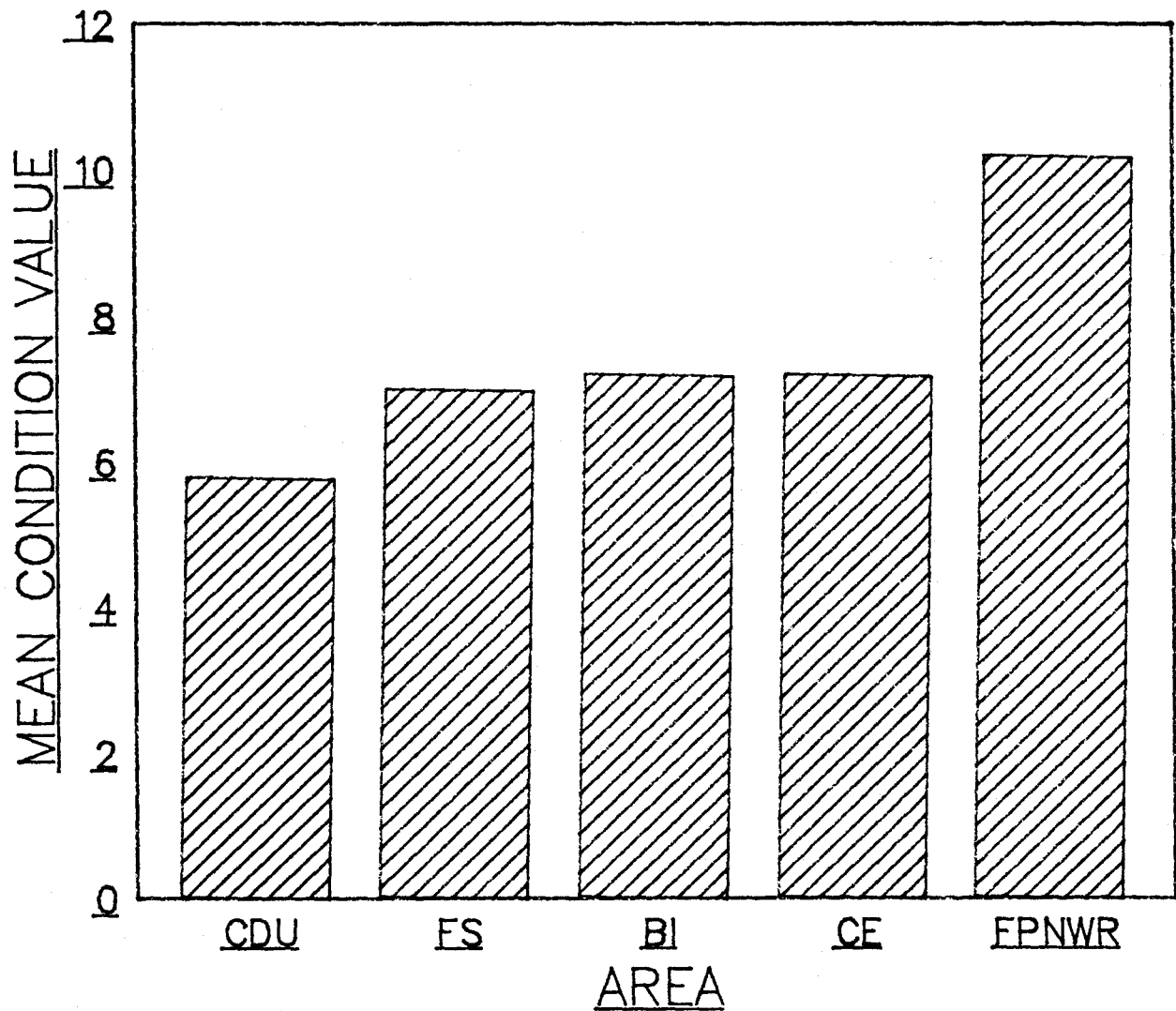


Figure 12. Mean condition values of adult does, October 1989. Areas include Bear Island (BI), Collier Enterprises (CE), Corn Dance unit (CDU), Fakahatchee Strand State Preserve (FS) and Florida Panther National Wildlife Refuge (FPNWR).

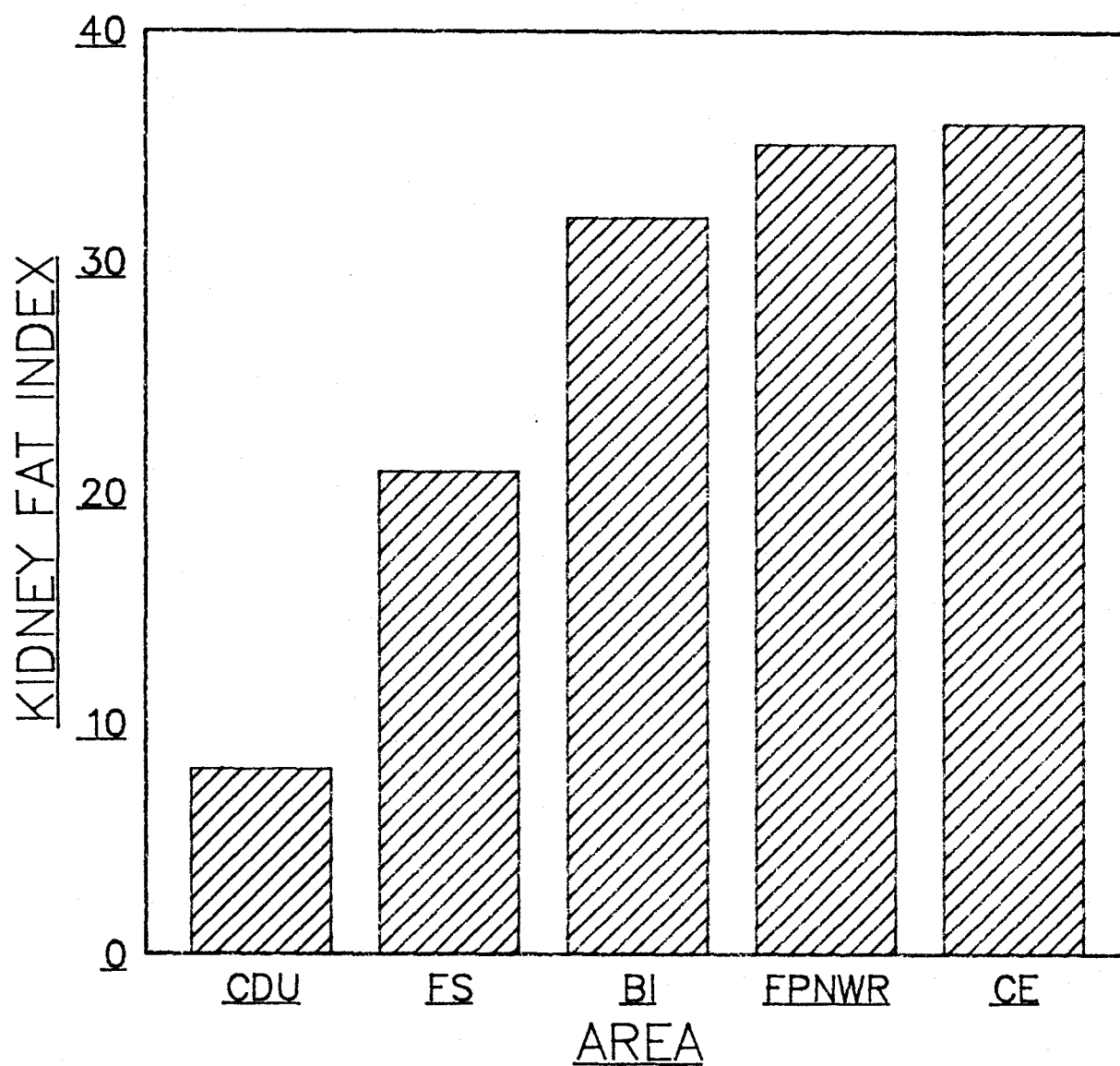


Figure 13. Mean kidney fat index values for adult does, October, 1989. Areas include Bear Island (BI), Collier Enterprise (CE), Eastern Monument unit (EMU), Fakahatchee Conservation Club (FCC) and Fakahatchee Strand State Preserve (FS).

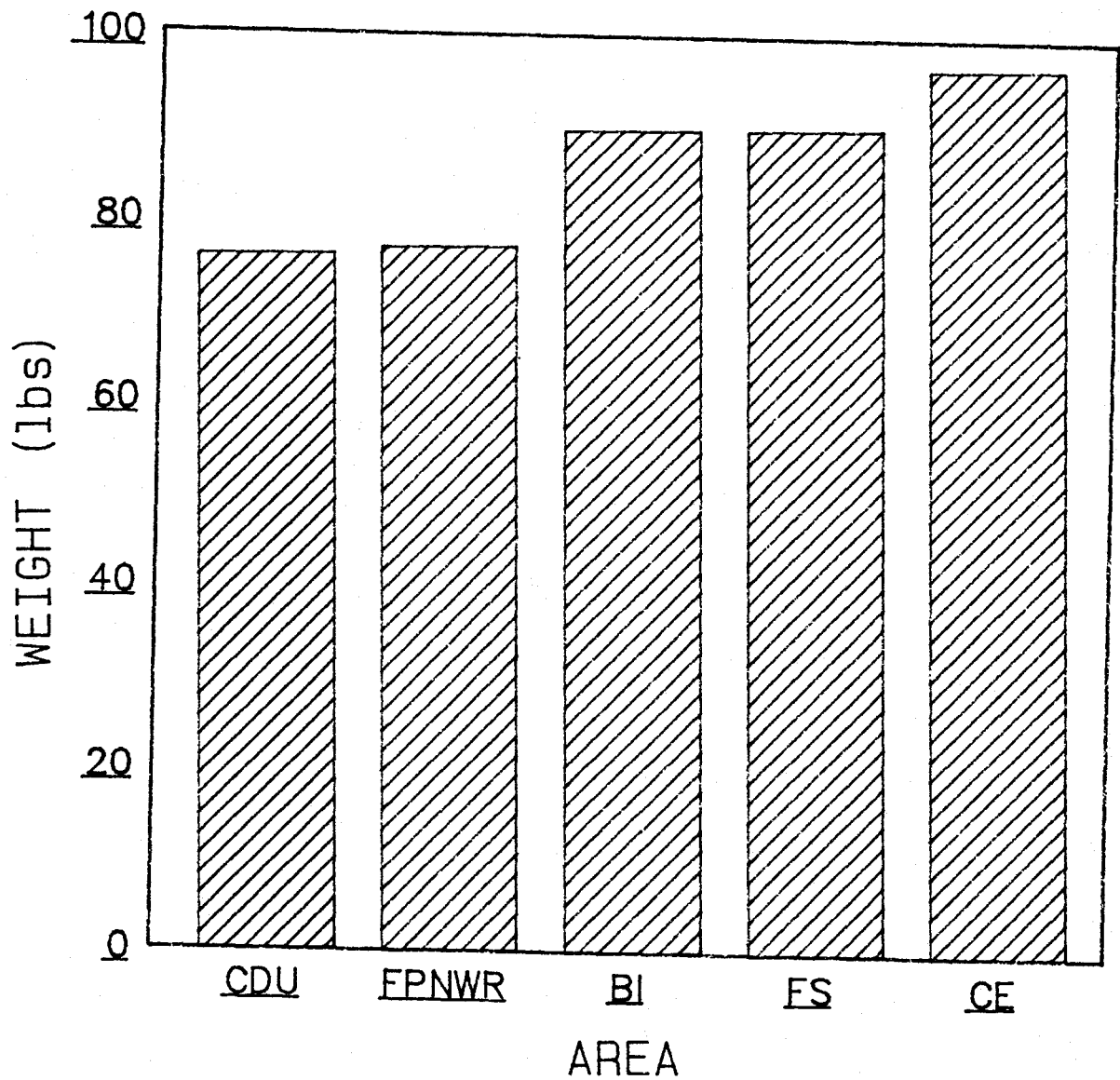


Figure 14. Mean live body weights of 2.5 year old doe deer, October, 1989. Areas include Bear Island (BI), Collier Enterprise (CE), Eastern Monument Unit (EMU), Fakahatchee Conservation Club (FCC) and Fakahatchee Strand State Preserve (FS).

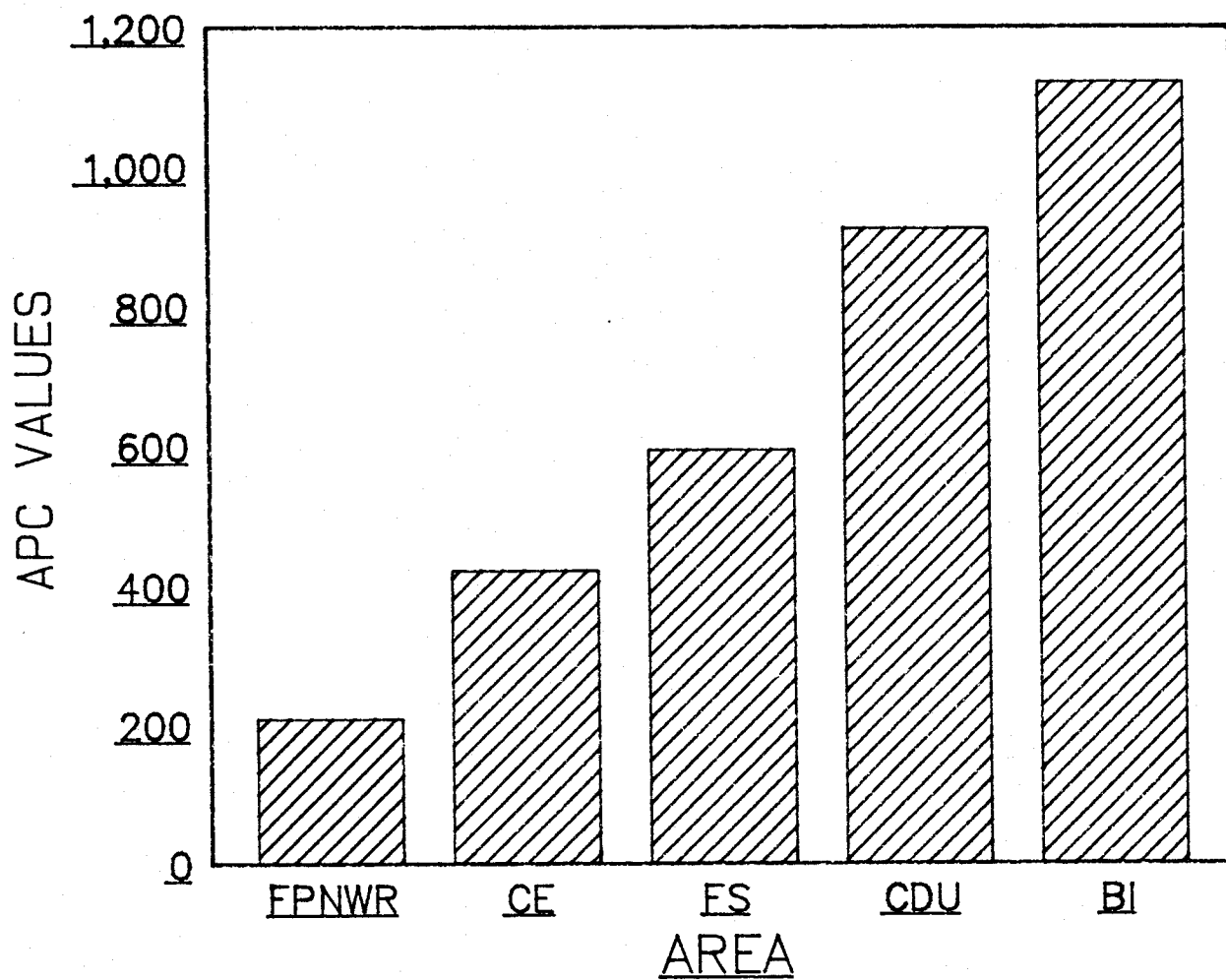


Figure 15. Mean APC values from adult deer, October, 1989. Areas include Bear Island (BI), Collier Enterprise (CE), Eastern Monument unit (EMU), Fakahatchee Conservation Club (FCC) and Fakahatchee Strand State Preserve (FS).

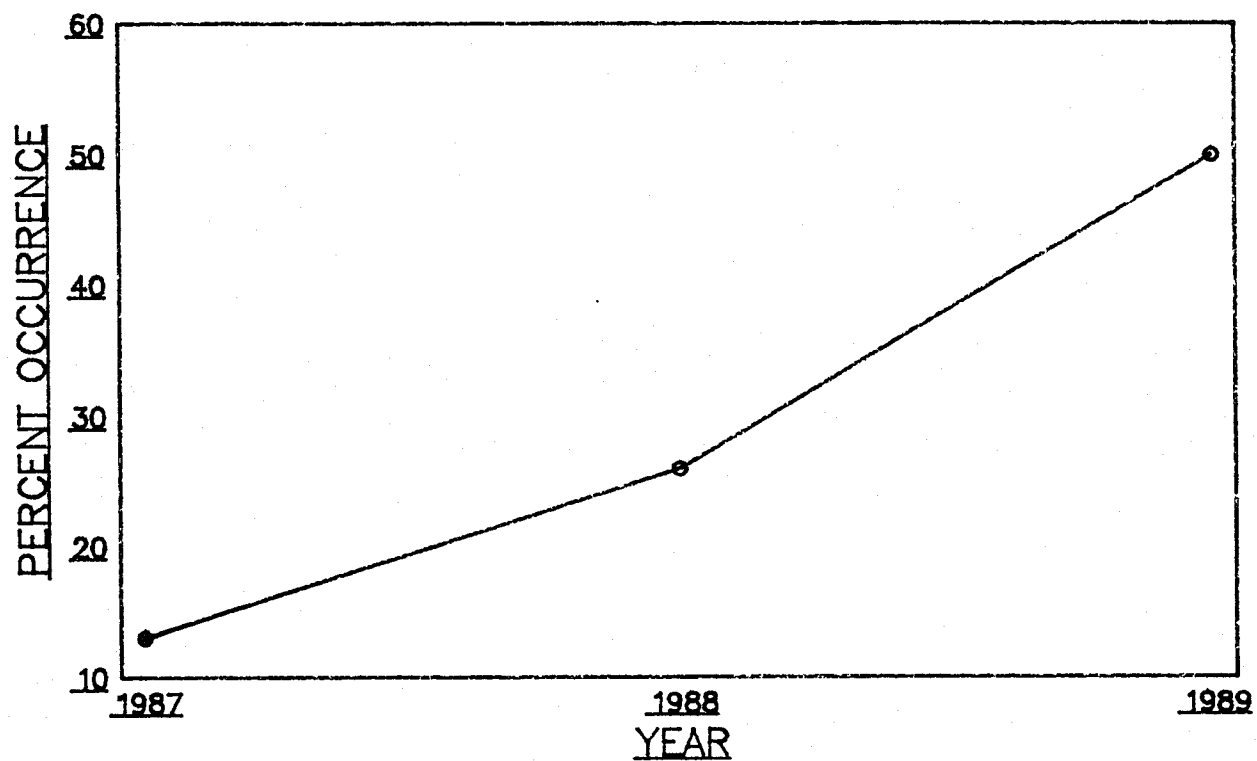
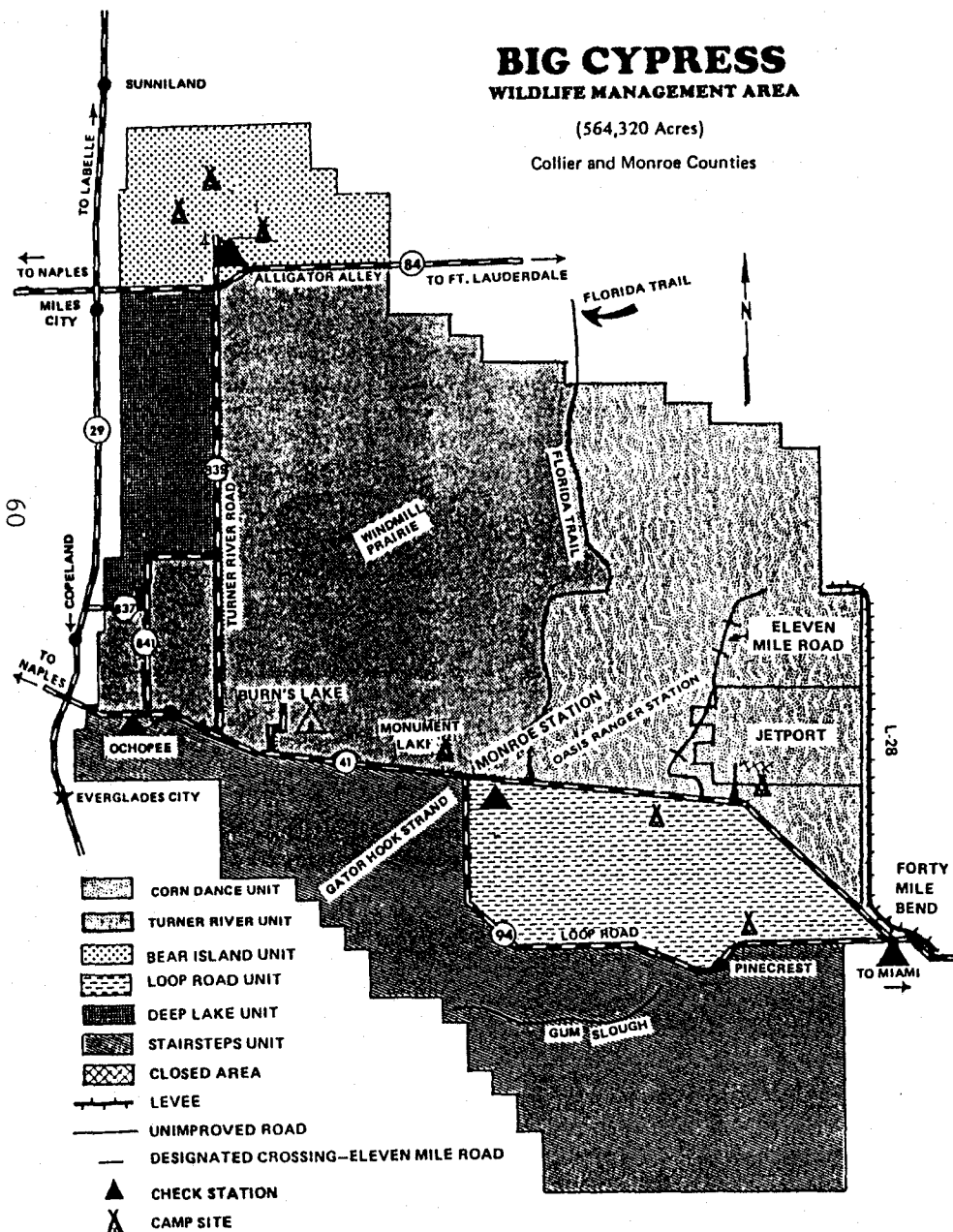


Figure 16. Abundance of wild hog sign on white-tailed deer track count transects in the Corn Dance unit of BCNP 1987-1989.

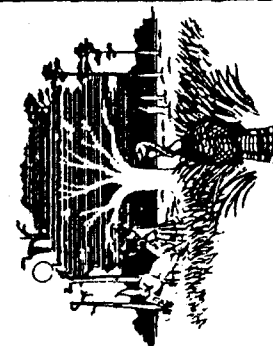
Appendix A, Big Cypress Wildlife Management Area Regulations, 1989-90.



BIG CYPRESS

WILDLIFE
MANAGEMENT
AREA

1989-90
REGULATIONS
SUMMARY
AND AREA MAP



A COOPERATIVE PUBLISHING AREA
NATIONAL PARK SERVICE
FLORIDA GAME & FRESH WATER FISH
COMMISSION

An Equal Opportunity Agency

This brochure is designed to provide the public with information and a summary of regulations pertaining to hunting on the Big Cypress Wildlife Management Area. For the exact wording of the wildlife laws and regulations, see Florida Game and Fresh Water Fish Commission's wildlife code on file with the Secretary of State and state libraries. This brochure and the quota hunt application form should provide the information necessary for you to plan your hunting activities.

For information pertaining to hunting on private lands and trapping, consult the current Florida Hunting Handbook and Guidelines for the Taking of Furbearing Animals in Florida. These publications are available from any Commission office as well as county tax collectors and their subagents.

PERMIT, STAMP AND LICENSE INFORMATION:

Persons utilizing the wildlife management areas are required to have appropriate licenses, stamps and permits. Florida residents who are 65 years of age or older and residents certified totally and permanently disabled may obtain exemption certificates for most licenses, stamps and permits from the county tax collector. Hunters under age 16 are exempt from all permit, stamp and license requirements on this area.

Unless exempted, each hunter on this wildlife management area must have the following in his possession and display them upon request of any Commission employee.

1. **Hunting License:** Florida hunting licenses may be purchased from offices of county tax collectors or their subagents. Information on the categories and costs of hunting licenses is available in the Florida Hunting Handbook.

2. **Wildlife Management Area Stamp:** This \$10 stamp may be purchased from county tax collectors or their subagents.

3. **Quota Permit:** A no-cost regular quota hunt permit is required to hunt on the Bear Island, Stairsteps, Loop Road, Corn Dance, Turner River and Deep Lake units of this wildlife management area October 28 through November 5 of the general gun hunt. A no-cost special quota hunt permit is required to hunt on the Bear Island Unit from October 7 through 15 of the muzzleloading gun season.

A daily quota permit (available at the check station) is required for hunting each day after the first nine days of general gun season on the Bear Island Unit.

Regular quota permits are available in the following numbers by management unit: Bear Island 250, Stairsteps 1,000, Deep Lake 200, Corn Dance 300, Turner River 500 and Loop Road 250. There are 250 special quota permits available for the muzzleloading gun hunt in the Bear Island Unit (October 7 through 15).

Regular and special quota hunt permit applications are available from county tax collectors or their subagents on or about June 1. To apply for either permit, obtain a regular or special quota hunt application and follow the printed instructions.

Transfer of Permits: Quota hunt permits are transferable. No other permits may be transferred. The sale or purchase of any quota hunt permit is prohibited.

4. **Archery Stamp:** This \$5.00 stamp is required when hunting during the archery hunt. This stamp is available from county tax collectors or their subagents.

5. **Muzzleloading Gun Stamp:** This \$5.00 stamp is required when hunting during the muzzleloading gun hunt. This stamp is available from county tax collectors or their subagents.

6. **Wild Turkey Stamp:** This \$5.00 stamp is required if hunting turkeys and may be purchased from county tax collectors or their subagents.

7. **State Waterfowl Stamp:** This \$3.50 stamp is required while hunting ducks and may be purchased from county tax collectors or their subagents.

8. **Federal Duck Stamp:** Any hunter 16 years of age or older must possess a federal duck stamp while hunting ducks. The \$10.00 stamp is available at post offices.

9. **U.S. Park Service Off-Road Vehicle Registration Permit:** Any vehicle used off roads on the Big Cypress Wildlife Management Area must have this permit. This includes any 4-wheel drive vehicle having a current license plate. The U.S. Park Service off-road vehicle registration permit is available at the Oasis Ranger Station. Call for more information: 813/643-4220 or 813/693-2000.

BAG AND POSSESSION LIMITS:

1. Deer, wild hogs and bearded turkeys—Daily limit 1, season limit 2 for each game species (all hunts combined).

2. Gray squirrel, quail or rabbit—Daily limit 12, possession limit 24, for each game species.

3. Raccoon, opossum, armadillo, beaver, coyote, skunk and nutria—No bag limit.

4. Migratory game birds—See Migratory Game Bird Hunting Regulations pamphlet.

GENERAL WILDLIFE MANAGEMENT AREA REGULATIONS:

In addition to the regulations which follow, all general laws and regulations relating to wild animal life or freshwater aquatic life shall apply unless specifically excepted for this wildlife management area. Hunting or the taking of wildlife or fish on this area shall be allowed only during the open seasons and in the manner set forth herein.

1. Driving nails or spikes into or cutting trees is prohibited.

2. Hunting from a tree in which a metal object has been driven is prohibited.

3. It is illegal to cut or damage cattle fences.

4. Wild hogs may not be transported alive.

5. Fires other than campfires are prohibited.

6. It is unlawful for any person to leave any garbage or refuse in the management area.

7. Hunters using the Bear Island Unit shall enter and exit ONLY through the designated entry point at the north end of Turner River Road.

8. Entering any fenced area within the Jetport area is prohibited.

9. The wanton or willful waste of wildlife is prohibited.

Appendix A. continued

10. The head and evidence of sex may not be removed from the carcass of any deer on the area. Portions of the carcass may be removed immediately prior to cooking.

11. No person shall release any wildlife on this wildlife management area.

12. It is illegal to hunt over bait or place any bait or other food for wildlife on this wildlife management area.

13. The killing of fox is prohibited.

14. Killing swimming deer is prohibited.

15. The use of live decoys, traps, snares, nets or recorded game calls is prohibited.

16. Any person hunting deer or accompanying another person hunting deer shall wear at least 500 square inches of daylight fluorescent orange material above the waistline as an outer garment. This is not required when hunting during an archery-only season.

GUNS OR DOGS:

17. Hunting with gun and light is prohibited (see raccoon hunt for exceptions).

18. Hunting wildlife on the display or use of a gun in a manner capable of taking wildlife on or from the rights-of-way of County Roads 837, 839, 841, State Roads 84, 94, U.S. Highway 41 and Burns Road is prohibited.

19. Authorized hunting equipment or dogs may be taken onto the area after 8 a.m. one day before the opening of the hunt and shall be removed from the area before 6 p.m. one day after the hunt.

20. For taking non-migratory game, only shotguns, rifles, pistols, longbows (including compound and recurved bows), crossbows (during the general gun hunt only) or birds of prey may be used.

21. For hunting deer, muzzleloading guns firing a single bullet must be at least .40 caliber; those firing two or more balls must be 20 gauge or larger.

22. Hunting deer with full-jacketed bullets or any rimfire cartridge is prohibited.

23. Fully automatic firearms, silencer-equipped firearms, centerfire semi-automatic rifles having a magazine capable of holding more than five rounds, explosive or drug-injecting devices and shotguns are prohibited.

24. Guns or dogs allowed only during periods in which their use for hunting is allowed.

25. No person shall have a gun in manual possession while under the influence of alcohol or drugs.

26. Children under the age of 16 may not be in possession of a firearm unless in the presence of a supervising adult.

27. The possession of any firearm containing shells or cartridges or any cased or primed muzzleloading gun is prohibited at campsites or check stations. The discharge of firearms is prohibited on, from or across any campsite or check station.

28. Dogs are prohibited on the Loop Road Unit. The possession of dogs customarily used for hunting (other than bird dogs and waterfowl retrievers) is prohibited in the Bear Island Unit. The possession of dogs customarily used for hunting (other than bird dogs and waterfowl retrievers) is prohibited in the Corn Dance, Turner River, Deep Lake and Staircase units except October 28 through November 5.

29. No person shall allow any dog to pursue or molest wildlife during any period in which hunting with dogs is prohibited.

30. No person shall possess any dog during any period in which hunting with dogs is prohibited, unless such dog is a non-hunting breed and under restraint.

VEHICLES:

NOTICE: Prior to the hunting season, the National Park Service may implement vehicle use regulations different from those printed in this brochure, and these new rules may affect your use of the preserve. You are strongly encouraged to contact the Big Cypress National Preserve office, State Road, Box 110, Ochopee, FL 33943 (813/695-2000) regarding any new vehicle use regulations prior to your use of the preserve.

31. Any vehicle used off roads must have a U.S. Park Service off-road vehicle registration permit. See Permit, Stamp and License Requirements for more information.

32. Vehicles shall not be parked in such a manner as to obstruct roads, gates or trails.

33. Vehicle access or use for the purposes of hunting, fishing or frogging shall be allowed on all units (except Loop Road) by vehicles with four rubber tires of nine-inch minimum width and 60-inch minimum wheel

base and tracked vehicles with no more than nine linear feet of track touching the ground. Airboats are permitted except in the Bear Island and Loop Road units. Vehicles shall not be operated off designated roads and trails on the Bear Island Unit. Tracked vehicles are prohibited on the Bear Island Unit.

34. No vehicles allowed on the Loop Road Unit at any time.

35. Parking on the paved portion of the Jetport road is prohibited.

36. Only vehicles equipped with pneumatic tires are permitted on the Jetport road.

37. Vehicular use by the public on Eleven-Mile Road is prohibited. Vehicles may cross Eleven-Mile Road at designated and marked points only. Maps showing the location of crossings over Eleven-Mile Road are available at the Oasis Ranger Station.

38. No motor vehicle shall be operated on any part of this area posted as closed to vehicular traffic.

CAMPING:

39. Camping on the Bear Island Unit is permitted only at designated campsites by the use of tents, trailers or self-propelled camping vehicles. Camping and the use of trailers or other camper units on the Corn Dance, Turner River, Deep Lake, Staircase and Loop Road units is restricted to designated sites except that primitive camping (tents) is permitted throughout these units.

CHECK STATIONS:

40. During the archery, muzzleloading gun and general gun season all hunters shall check in and out at a designated check station when entering and exiting the area.

41. All deer, turkey or wild hogs must be checked and tagged at a check station prior to removal from the area. It is important that as much of the animal as possible remains intact and that it be brought to the check station as soon as possible. Important biological data are obtained from the following animals or animal parts: Deer (head, heart, kidney, liver), hog (head), turkey (wings and tail). If the animal is processed in the field, the above items should be brought to the check station along with the meat. Deer jawbones shall be saved and brought to the check station.

SEARCH:

42. A wildlife officer may search any camp, vehicle or boat when he reasonably believes a violation has been committed.

ARCHERY:

September 2 through 24.

Permit, Stamp and License Requirements--Hunting license, wildlife management area stamp, archery stamp. State and federal waterfowl stamps (if hunting ducks).

Legal to Take--Deer with one or more antlers at least five inches in length visible above the hairline, wild hogs with a shoulder height of 15 inches or more, gray squirrel, quail, rabbit, opossum, raccoon, beaver, coyote, armadillo, skunk and nutria.

Regulations Unique to the Archery Hunt: In addition to these regulations, all General Wildlife Management Area Regulations shall apply.

1. Possession of firearms or crossbows is prohibited, except that during the early duck season shotguns are permitted for duck hunting on all units except Bear Island.

2. The transportation of archery equipment on airboats is prohibited.

MUZZLELOADING GUN:

October 7 through 22.

Permit, Stamp and License Requirements--Hunting license, wildlife management area stamp, muzzleloading gun stamp, and special quota permit (if hunting on the Bear Island Unit October 7 through 15).

Legal to Take--Deer with one or more antlers at least five inches in length visible above the hairline, wild hogs with a shoulder height of 15 inches or more, gray squirrel, quail, rabbit, opossum, raccoon, beaver, coyote, armadillo, skunk and nutria.

Regulations Unique to the Muzzleloading Gun Hunt: In addition to these regulations, all General Wildlife Management Area Regulations shall apply.

1. Only muzzleloading guns are allowed.

2. The transportation of muzzleloading equipment on airboats is prohibited.

GENERAL GUN:

October 28 through December 24.

Permit, Stamp and License Requirements--Hunting license, wildlife management area stamp, regular quota hunt permit (if hunting during the first nine days), daily quota permit required on Bear Island Unit if hunting after November 5, state and federal waterfowl stamps (if hunting ducks) and wild turkey stamp (if hunting turkeys).

Legal to Take--Deer with one or more antlers at least five inches in length visible above the hairline, wild hogs with a shoulder height of 15 inches or more, gray squirrel, quail, rabbit, opossum, raccoon, beaver, coyote, armadillo, skunk, nutria. Bearded turkeys or gobblers may be taken only on the Corn Dance, Turner River and Loop Road units.

Regulations Unique to the General Gun Hunt: All General Wildlife Management Area regulations shall apply.

SMALL GAME:

December 25 through February 4.

Permit, Stamp and License Requirements--Hunting license, wildlife management area stamp. State and federal waterfowl stamps (if hunting ducks).

Legal to Take--Gray squirrel, quail, rabbit, opossum, raccoon, beaver, coyote, armadillo, skunk and nutria.

Regulations Unique to the Small Game Hunt: All General Wildlife Management Area Regulations shall apply and the possession of centerfire rifles is prohibited.

SPRING TURKEY:

March 10 through April 15.

Permit, Stamp and License Requirements--Hunting license, wildlife management area stamp and wild turkey stamp.

Legal to Take--Bearded turkeys or gobblers.

Regulations Unique to the Spring Turkey Hunt: In addition to these regulations, all General Wildlife Management Area Regulations shall apply.

1. Legal shooting hours are one-half hour before sunrise until 1 p.m.

2. No person shall possess any dog provided that dogs not normally used for hunting and kept under restraint may be possessed.

3. Vehicles may be operated only on established roads on the Bear Island Unit.

RACCOON AT NIGHT:

December 25 through February 4.

Permit, Stamp and License Requirements--Hunting license and wildlife management area stamp.

Legal to Take--Raccoon only.

Regulations Unique to the Nighttime Raccoon Hunt: In addition to these regulations, all General Wildlife Management Area Regulations shall apply.

1. Raccoons may be pursued with dogs from one-half hour before sunset to one-half hour after sunrise (except in the Bear Island and Loop Road units).

2. Raccoons may be hunted at night (except in the Bear Island and Loop Road units) using a light and dogs, with .22 rimfire firearms (other than .22 magnum) or with a single-shot .410 gauge shotgun using shot no larger than size 6. Firearms may not be loaded until just before shooting freed or bayed raccoons.

MIGRATORY GAME BIRDS:

Mourning doves, white-winged doves, snipe, ducks, coots, woodcock and crows may be hunted during seasons established for these species which coincide with the muzzleloading gun, general gun and small game hunts. Ducks may also be taken during the early duck season (except in the Bear Island Unit).

Permit, Stamp and License Requirements--Hunting license, wildlife management area stamp. State and federal waterfowl stamps (if hunting ducks).

Legal to Take: See Migratory Game Bird Hunting Regulations pamphlet. Regulations Unique to Migratory Game Birds--See Migratory Game Bird Hunting Regulations pamphlet. In addition to these regulations, all wildlife management area regulations contained in this pamphlet shall apply.

FISHING AND FROGGING:

Permitted throughout the year.

NATIONAL PARK SERVICE REGULATIONS:

This area is a national preserve. In addition to these regulations, all Big Cypress National Preserve regulations shall apply. For further information, contact the Big Cypress National Preserve Office, SR Box 110, Ochopee, Florida 33943, phone (813) 695-2000.

1. Camping is limited to a total of 30 days in a calendar year.

2. The intentional destruction, defacement, or removal of any natural or cultural feature or nonrenewable resource is prohibited.

3. Draining or dumping refuse or wastes from any trailer, or other vehicle, is prohibited.

4. The collection of plants, rocks, minerals, animal life, or other natural objects is permitted only in accordance with written permits obtained in advance from the Superintendent.

5. Constructing a building or other structure is prohibited.

6. Vehicles are prohibited on the Loop Road and Deep Lake units. Vehicles are prohibited on the Florida Trail. Vehicles are permitted only on designated trails in the Bear Island Unit.

7. Motorized vehicles shall not be operated in a manner causing significant damage to wildlife habitat, or to cultural or vegetative resources. The creating of new trails by cutting vegetation or by the use of fill is prohibited.

GENERAL INFORMATION:

1. Small tracts of private property are located within the boundary of the wildlife management area. These lands may be posted against trespass and should not be considered as part of the wildlife management area.

2. If you have any questions about this material, please call the Game and Fresh Water Fish Commission at 407-683-0748.

COOPERATION REQUESTED:

Please do not discharge firearms at anything other than legal game while in a wildlife management area. Target practice and random discharge of firearms have become increasing threats to the quality of the hunting experience.

PLEASE DO NOT LITTER. TAKE TRASH OUT WITH YOU.

In recent years, unauthorized and uncontrolled fires have caused severe damage to area wildlife and wildlife habitats. Controlled fires are beneficial only when they are of the proper size and location, and when area conditions are suitable. UNCONTROLLED FIRES DO NOT BENEFIT WILDLIFE. Please use caution with campfires, smoking materials and vehicles to prevent damage to wildlife habitats.

The U.S. Department of the Interior prohibits discrimination on the basis of race, color, national origin, age, sex, or handicap. If you believe that you have been discriminated against in any program, activity, or facility as described above, or if you desire further information, please write to: The Office for Human Resources, U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240.

This publication is one of 66 produced at an annual cost of \$55,945.55 or \$.07 per copy to provide information to the public about hunting on Florida's Wildlife Management Areas.

Appendix B. Deer survey data, Big Cypress National Preserve,
1984-1988.

Table A. Number of deer tracks observed by transect and survey,
Bear Island unit, 1984-88.

Survey	Transect #	No. of Deer Tracks by day			Total	Mean
		1	2	3		
Pre-hunt Aug. 1984	1	2	6	6	14	4.7
	2	2	2	5	9	3.0
	3	0	0	0	0	0.0
	4	3	6	1	10	3.3
					-----	-----
					33 (a)	2.75
Post-hunt Feb. 1985 1 of 2	1	0	0	3	3	1.0
	2	2	2	0	4	1.3
	3	0	0	1	1	0.3
	4	2	2	1	5	1.7
					-----	-----
					13 (b)	1.1
Post-hunt Feb. 1985 2 of 2(c)	1	4	2	0	6	2.0
	2	0	1	2	3	1.0
	3	0	0	0	0	0.0
	4	3	2	3	8	2.7
					-----	-----
					17 (d)	1.4
Pre-hunt Sept. 1985(c)	1	1	7	4	12	4.0
	2	2	8	5	15	5.0
	3	2	5	4	11	3.7
	4	23	30	22	75	25.0
					-----	-----
					108 (e)	9.4
Post-hunt Feb. 1986(c)	1	2	5	2	9	3.0
	2	2	10	0	12	4.0
	3	0	0	0	0	0.0
	4	2	0	4	6	2.0
					-----	-----
					27 (f)	2.3
Pre-hunt Sept. 1986	1	3	6	0	9	3.7
	2	1	1	0	2	0.7
	3	0	1	4	5	1.7
	4	8	9	4	21	7.0
					-----	-----
					37 (g)	3.1

Appendix B., Table A. continued

Survey	Transect #	No. of Deer Tracks by day			Total	Mean
		1	2	3		
Annual May 1987	1	0	2	5	7	2.3
	2	11	12	6	29	9.7
	3	1	0	0	1	0.3
	4	0	7	1	8	2.7
					-----	-----
					45 (h)	3.8
Annual June 1988	1	0	1	1	2	0.7
	2	0	1	3	4	1.3
	3	1	1	1	3	1
	4	2	4	2	8	2.7
					-----	-----
					17 (i)	1.4

- (a) Pre-hunt 1984-85 based on 12 miles of transect =
2.75 deer/ mile = 1 deer /230 acres;

Pre-hunt 1984-85 base on measured 8.24 miles of suitable
transect = 4.00 deer/mile = 1 deer/160 acres.

- (b) Post-hunt 1984-85 based on 12 miles of transect =
1.1 deer/mile = 1 deer/580 acres;

Post-hunt 1984-85 based on 6.04 miles of suitable
transect = 2.15 deer/mile = 1 deer/300 acres.

- (c) Transects #1 and #2 harrowed.

- (d) Post-hunt 1984-85 based on 12 miles of transect =
1.42 deer/mile = 1 deer/450 acres;

Post-hunt 1984-85 based on 9.28 miles of suitable
transect = 1.83 deer/mile = 1 deer/350 acres.

- (e) Pre-hunt 1985-86 based on 12 miles of transect =
9 deer/mile = 1 deer/71 acres;

Pre-hunt 1985-86 based on 7.31 miles of suitable
transect = 14.77 deer/mile = 1 deer/43 acres.

- (f) Post-hunt 1985-86 based on 12 miles of transect =
2.25 deer/mile = 1 deer/284 acres;

Post-hunt 1985-86 based on 8.24 miles of suitable
transect = 3.28 deer/mile = 1 deer/195 acres.

Appendix B., Table A. continued

- (g) Pre-hunt 1986-87 based on 12 miles of transect =
3.08 deer/mile = 1 deer/208 acres;

Pre-hunt 1986-87 based on 3.72 miles of suitable
transect = 9.95 deer/mile = 1 deer/64 acres.

- (h) Annual 1987 based on 12 miles of transect =
3.75 deer/mile = 1 deer/171 acres;

Annual 1987 based on 4.68 miles of suitable transect =
9.62 deer/mile = 1 deer/67 acres.

- (i) Annual 1988 based on 12 miles of transect =
1.42 deer/mile = 1 deer/451 acres;

Annual 1988 based on 3.66 miles of suitable transect =
4.64 deer/mile = 1 deer/138 acres.

Appendix B. continued

Table B. Number of deer tracks observed by transect, Monument/Corn Dance Unit, 1985-89.

SURVEY DATE	TRANSECT NUMBER	DAY							TOTAL	MEAN
		1	2	3	4	5	6	7		
May 1989	1	7	4	1	4	3	-		19	3.8
	2	7	2	2	3	0	-		14	2.8
	3	5	3	2	3	3	-		16	3.2
	4	4	3	3	5	3	-		18	3.6
	5	2	4	2	2	2	-		12	2.4
	6	3	2	1	4	6	-		16	3.2
	7	4	2	3	0	2	-		11	2.2
	8	3	2	0	1	2	-		8	1.6
	9	3	3	1	2	0	-		9	1.8
	10	3	3	2	3	3	-		14	2.8
									---	---
									137	2.7
May 1988	1	5	5	7	4	-	-		21	5.3
	2	3	3	5	6	-	-		17	4.3
	3	4	1	1	3	-	-		9	2.3
	4	3	3	4	0	-	-		10	2.5
	5	4	6	7	3	-	-		20	5.0
	6	2	2	1	2	0	3		10	1.7
	7	3	0	4	4	3	4		18	3.0
	8	2	3	3	0	3	4		15	2.5
	9	2	2	2	1	3	4		14	2.3
	10	3	7	4	3	3	5		25	6.3
									---	---
									159	3.2
May 1987	1	2	2	0	3	13	7		27	4.5
	2	0	10	7	8	7	5		37	6.2
	3	2	11	6	4	6	6		35	5.8
	4	2	6	9	5	12	3		37	6.2
	5	5	8	4	3	6	6		32	5.3
	6	4	0	2	1	8	4		19	3.2
	7	1	1	0	1	3	0		6	1.0
	8	0	2	2	2	3	3		12	2.0
	9	3	2	3	3	1	0		12	2.0
	10	1	1	3	1	6	4		16	2.7
									---	---
									233	3.9

Appendix B., Table B. continued

SURVEY DATE	TRANSECT NUMBER	DAY							TOTAL	MEAN
		1	2	3	4	5	6	7		
May 1986	1	1	3	3	0	3	4	3	17	2.4
	2	4	7	7	5	5	1	3	32	4.6
	3	3	0	1	1	3	4	4	16	2.3
	4	2	1	3	1	1	4	2	14	2.0
	5	2	3	3	5	3	4	7	27	3.9
	6	4	4	4	5	2	5	3	27	3.9
	7	1	6	3	6	2	3	1	22	3.1
	8	1	3	3	2	2	0	2	13	1.9
	9	2	2	4	5	1	3	2	19	2.7
	10	1	1	0	3	3	1	3	12	1.7
									-----	-----
									199	2.9
May 1985	1	2	1	4					7	2.3
	2	4	3	2					9	3.0
	3	1	2	3					6	2.0
	4	2	1	1					4	1.3
	5	2	0	1					3	1.0
	6	8	6	7					21	7.0
	7	2	4	3					9	3.0
	8	4	1	1					6	2.0
	9	0	2	2					4	1.3
	10	3	1	4					8	2.7
									-----	-----
									77	2.6

Appendix B. continued

Table C. Number of deer observed per mile during aerial surveys of the eastern Stairsteps unit, 1984-89.

Survey	Transect #	Left Observer	Right Observer	Total Deer	Average deer/mile
Pre-hunt	1	0	10	10	1.03
Aug. 1984	2	0	3	3	0.31
	3	1	2	3	0.31
	4	0	2	2	0.21
				----	----
				18	0.46 (a)
Pre-hunt	1 (55)	0	1	1	0.16
Aug. 1985	2	3	2	5	0.81
	3	0	2	2	0.27
	4	6	9	15	1.72
	5	3	0	3	0.30
	6	1	4	5	0.51
	7	4	2	6	0.54
	8 (62)	1	3	4	0.36
				----	----
				41	0.64 (b)
Post-hunt	1 (55)	0	0	0	0.00
Feb. 1986	2	0	1	1	0.16
	3	2	1	3	0.40
	4	4	4	8	0.92
	5	2	2	4	0.40
	6	2	3	5	0.51
	7	0	0	0	0.00
	8 (62)	1	2	3	0.27
				----	----
				24	0.38 (c)
Pre-hunt	1 (55)	0	0	0	0.00
Aug. 1986	2	0	1	1	0.16
(1 of 2)	3	0	7	7	0.95
	4	2	5	7	0.80
	5	2	0	2	0.20
	6	2	0	2	0.20
	7	0	3	3	0.27
	8 (62)	3	3	6	0.54
				----	----
				28	0.44 (d)

Appendix B., Table C. continued

Survey	Transect #	Left Observer	Right Observer	Total Deer	Average deer/mile
Pre-hunt Aug. 1986	1 (55)	0	1	1	0.16
	2	2	0	2	0.32
	4	7	9	16	1.83
	5	0	3	3	0.30
	6	0	2	2	0.20
	7	1	1	2	0.18
	8 (62)	3	4	7	0.63
				----- 33	----- 0.52 (e)
Post-hunt Feb. 1987	1 (55)	0	0	0	0.00
	2	0	0	0	0.00
	3	0	0	0	0.00
	4	4	3	7	0.80
	5	4	0	4	0.40
	6	3	2	5	0.51
	7	3	0	3	0.27
	8 (62)	6	0	6	0.54
				----- 25	----- 0.39 (f)
Annual May, 1987 (1 of 2)	1 (55)	0	0	0	0.00
	2	2	0	2	0.32
	3	0	0	0	0.00
	4	0	1	1	0.11
	5	0	0	0	0.00
	6	0	0	0	0.00
	7	0	0	0	0.00
	8 (62)	0	1	1	0.09
				----- 4	----- 0.06 (g)
Annual May, 1987 (2 of 2)	1 (55)	0	0	0	0.00
	2	0	0	0	0.00
	3	0	0	0	0.00
	4	1	0	1	0.11
	5	0	0	0	0.00
	6	1	0	1	0.10
	7	0	0	0	0.00
	8 (62)	0	0	0	0.00
				----- 2	----- 0.03 (h)

Appendix B., Table C. continued

Survey	Transect #	Left Observer	Right Observer	Total Deer	Average deer/mile

Annual May 1988	1 (55)	0	1	1	0.22
	2	3	0	3	0.42
	3	0	0	0	0.00
	4	8	4	12	1.45
	5	3	2	5	0.59
	6	4	0	4	0.41
	7	10	4	14	1.35
	8 (62)	6	6	12	1.16
				-----	-----
				51	0.77 (i)
Annual June 1989	1 (55)	0	9	9	1.96
	2	5	0	5	0.70
	3	2	3	5	0.67
	4	9	13	22	2.66
	5	3	2	5	0.59
	6	0	2	2	0.20
	7	2	0	2	0.19
	8 (62)	10	4	14	1.35
				-----	-----
				64	0.96 (j)

(a) Density estimates based on 5.7% area coverage:

1. 100% of animals observed: $.46 \text{ deer}/72.7 \text{ acres} \times 1/1.00 = 1 \text{ deer}/158 \text{ acres},$
2. 50% of animals observed: $.46 \text{ deer}/72.7 \text{ acres} \times 1/.50 = 1 \text{ deer}/79 \text{ acres}.$
3. 40% of animals observed: $.46 \text{ deer}/72.7 \text{ acres} \times 1/.40 = 1 \text{ deer}/63 \text{ acres}.$

(b) Density estimates based on 10% area coverage:

1. 100% of animals observed: $.64 \text{ deer}/79.3 \text{ acres} \times 1/1.00 = 1 \text{ deer}/124 \text{ acres},$
2. 50% of animals observed: $.64 \text{ deer}/79.3 \text{ acres} \times 1/.50 = 1 \text{ deer}/62 \text{ acres}.$
3. 40% of animals observed: $.64 \text{ deer}/79.3 \text{ acres} \times 1/.40 = 1 \text{ deer}/50 \text{ acres}.$

(c) Density estimates based on 10% area coverage:

1. 100% of animals observed: $.38 \text{ deer}/79.3 \text{ acres} \times 1/1.00 = 1 \text{ deer}/209 \text{ acres},$
2. 50% of animals observed: $.38 \text{ deer}/79.3 \text{ acres} \times 1/.50 = 1 \text{ deer}/104 \text{ acres}.$
3. 40% of animals observed: $.38 \text{ deer}/79.3 \text{ acres} \times 1/.40 = 1 \text{ deer}/83 \text{ acres},$

Appendix B., Table C. continued

(d) Density estimates based on 10% area coverage:

1. 100% of animals observed: $.44 \text{ deer}/79.3 \text{ acres} \times 1/1.00 = 1 \text{ deer}/180 \text{ acres},$
2. 50% of animals observed: $.44 \text{ deer}/79.3 \text{ acres} \times 1/.50 = 1 \text{ deer}/90 \text{ acres}.$
3. 40% of animals observed: $.44 \text{ deer}/79.3 \text{ acres} \times 1/.40 = 1 \text{ deer}/72 \text{ acres}.$

(e) Density estimates based on 10% area coverage:

1. 100% of animals observed: $.52 \text{ deer}/79.3 \text{ acres} \times 1/1.00 = 1 \text{ deer}/152 \text{ acres},$
2. 50% of animals observed: $.52 \text{ deer}/79.3 \text{ acres} \times 1/.50 = 1 \text{ deer}/76 \text{ acres}.$
3. 40% of animals observed: $.72 \text{ deer}/79.3 \text{ acres} \times 1/.40 = 1 \text{ deer}/61 \text{ acres}.$

(f) Density estimates based on 10% area coverage:

1. 100% of animals observed: $.39 \text{ deer}/79.3 \text{ acres} \times 1/1.00 = 1 \text{ deer}/200 \text{ acres},$
2. 50% of animals observed: $.39 \text{ deer}/79.3 \text{ acres} \times 1/.50 = 1 \text{ deer}/100 \text{ acres}.$
3. 40% of animals observed: $.39 \text{ deer}/79.3 \text{ acres} \times 1/.40 = 1 \text{ deer}/80 \text{ acres}.$

(g) Density estimates based on 10% area coverage:

1. 100% of animals observed: $0.06 \text{ deer}/79.3 \text{ acres} \times 1/1.00 = 1 \text{ deer}/1,322 \text{ acres}.$
2. 50% of animals observed: $.06 \text{ deer}/79.3 \text{ acres} \times 1/.50 = 1 \text{ deer}/661 \text{ acres}.$
3. 40% of animals observed: $.06 \text{ deer}/79.3 \text{ acres} \times 1/.40 = 1 \text{ deer}/529 \text{ acres}.$

(h) Density estimates based on 10% area coverage:

1. 100% of animals observed: $0.03 \text{ deer}/79.3 \text{ acres} \times 1/1.00 = 1 \text{ deer}/2,643 \text{ acres}.$
2. 50% of animals observed: $0.03 \text{ deer}/79.3 \text{ acres} \times 1/.50 = 1 \text{ deer}/1,322 \text{ acres}.$
3. 40% of animals observed: $0.03 \text{ deer}/79.3 \text{ acres} \times 1/.40 = 1 \text{ deer}/1,057 \text{ acres}.$

(i) Density estimates based on 10% area coverage:

1. 100% of animals observed: $0.77 \text{ deer}/79.3 \text{ acres} \times 1/1.00 = 1 \text{ deer}/103 \text{ acres}.$
2. 50% of animals observed: $0.77 \text{ deer}/79.3 \text{ acres} \times 1/.50 = 1 \text{ deer}/51 \text{ acres}.$
3. 40% of animals observed: $0.77 \text{ deer}/79.3 \text{ acres} \times 1/.40 = 1 \text{ deer}/41 \text{ acres}.$

(j) Density estimates based on 10% area coverage:

1. 100% of animals observed: $0.96 \text{ deer}/79.3 \text{ acres} \times 1/1.00 = 1 \text{ deer}/83 \text{ acres}.$
2. 50% of animals observed: $0.96 \text{ deer}/79.3 \text{ acres} \times 1/.50 = 1 \text{ deer}/41 \text{ acres}.$
3. 40% of animals observed: $0.96 \text{ deer}/79.3 \text{ acres} \times 1/.40 = 1 \text{ deer}/33 \text{ acres}.$

Appendix C. Summary of vehicle surveys conducted on the Big Cypress National Preserve during selected hunting seasons, 1983-90.

	Vehicles Only							ATC							Swamp Buggy						
	83-84	84-85	85-86	86-87	87-88	88-89	89-90	83-84	84-85	85-86	86-87	87-88	88-89	89-90	83-84	84-85	85-86	86-87	87-88	88-89	89-90
ARCHERY																					
Opening weekend	52 a	141	90	91	140	109	109	41 a	56	21	6	2	4	6	22 a	32	38	32	53	45	63
1st week	41 a	74	60	42	58	73	49	18 a	18	4	3	2	2	0	14 a	19	18	11	29	33	28
2nd week	63 a	61	45	58	52	80	54	26 a	36	2	8	2	1	1	24 a	13	21	17	16	37	44
3rd week	36 a	79	56	56	49	67	64	22 a	29	9	3	6	4	0	11 a	23	29	28	26	34	48
MUZZLELOADING																					
Opening weekend	196	179	111 d	155	104	190	137	85	54	10 d	6	1	2	4	84	87	39 d	73	71	100	104
1st week	75 b	121	71	110	81	150	68	12 b	48	9	3	0	6	2	17 b	53	55	48	54	67	69
2nd week	82 b	97	81	103	90	141	78	28 b	31	7	6	0	4	1	41 b	43	38	42	61	64	50
GENERAL GUN																					
Opening weekend	367	406	348	371	389	422	373	142	134	41	34	11	34	14	164	219	157	165	191	246	174
Midweek	112	53	49					24	28	12					60	61	61				
1st week	204 b	242	179	224	208	235	176	98 b	66	33	18	4	15	17	60 b	94	91	107	132	96	125
2nd week	272 a	307	171	152	139	288	220	90 a	96	10	6	0	9	13	96 a	87	60	58	80	124	114
3rd week	172	206	250	210	181	191	227	84	69	17	21	2	7	8	65	64	110	79	121	60	89
4th week	103 a	225	137	141	114	306	369	55 a	63	10	4	2	19	24	56 a	68	49	60	75	122	180
5th week	104 a	177	105	126	125	193	242	33 a	52	9	3	4	3	5	31 a	59	50	56	67	69	107
6th week	81	138	78	115	126	194	218	13	55	4	6	8	3	9	19	43	45	53	53	103	97
7th week	88 a	245	167	182	138	179	194	24 a	89	7	5	2	7	6	36 a	93	67	74	62	107	82
8th week	231	338	249	247	234	92	147	109	79	10	7	0	16	3	112	93	92	102	84	53	50

Appendix C. continued

	Airboat							Totals						
	83-84	84-85	85-86	86-87	87-88	88-89	89-90	83-84	84-85	85-86	86-87	87-88	88-89	89-90
ARCHERY														
Opening weekend	10 a	4	5	2 c	12 c	15 c	32 c	125 a	212	154	131	207	173	210
1st week	8 a	7	12	4 c	0 c	9 c	17 c	81 a	118	94	60	89	117	94
2nd week	0 a	6	4	17 c	19 c	25 c	29 c	113 a	116	72	100	89	143	128
3rd week	7 a	10	0	15 c	0 c	5 c	15 c	76 a	141	94	102	81	110	127
MUZZLELOADING														
Opening weekend	26	19	9 d	7 c	15 c	13 c	23 c	391	339	169 d	241	191	305	268
1st week	10 b	12	7	6 c	28 c	31 c	17 c	114 b	234	142	167	163	254	156
2nd week	26 b	9	7	6 c	8 c	47 c	40 c	177 b	180	133	157	159	256	169
GENERAL GUN														
Opening weekend	140	140	128	114 c	146 c	227 c	222 c	813	899	674	684	737	929	783
Midweek	50	24 c	29 c					246	166	151				
1st week	39 b	57	32	50 c	74 c	89 c	103 c	401 b	459	335	399	418	435	421
2nd week	5 a	30	21	29 c	36 c	55 c	44 c	463 a	520	262	245	255	476	391
3rd week	31	26	2	32 c	46 c	44 c	37 c	352	365	379	342	350	302	361
4th week	22 a	31	16	18 c	35 c	41 c	103 c	236 a	387	212	223	226	488	676
5th week	24 a	7	11	12 c	21 c	53 c	57 c	192 a	295	175	197	217	318	411
6th week	9	15	10	17 c	28 c	31 c	18 c	122	251	137	191	215	331	342
7th week	10 a	16	18	31 c	36 c	38 c	26 c	158 a	443	259	292	238	331	308
8th week	46	33	12	56 c	62 c	18 c	11 c	498	543	363	412	380	179	211

a) Excluding Loop Road, Pinecrest to Monroe Station; and/or County Roads 837 and 841; and/or U.S. 41, TRR to west boundary; and/or Loop Road, 40 Mile Bend to Pinecrest.

b) Excluding several locations.

c) Includes Mitchell's Landing.

d) Main campground (Bear Island) not counted.

All: Excluded S-12's, S-12A and Bear Island - other Sites.

Appendix D. Summary of biological data collected on deer harvested during the 1989-90 hunting seasons on the Big Cypress Wildlife Management Area.

BIG CYPRESS WILDLIFE MANAGEMENT AREA							REPORT 3
DATA COLLECTED ON	150 DEER (150 BUCKS,	0 DOES)	IN THIS AREA IN THE 1989-90 SEASON				
AGE CLASS	0.5	1.5	2.5	3.5	4.5	5.5+	TOTAL
HARVEST BY SEX							
BUCKS	0.0% (0)	23.3% (35)	42.0% (63)	24.7% (37)	5.3% (8)	4.7% (7)	100.0% (150)
DOES	***** (0)	***** (0)	***** (0)	***** (0)	***** (0)	***** (0)	***** (0)
TOTAL	0.0% (0)	23.3% (35)	42.0% (63)	24.7% (37)	5.3% (8)	4.7% (7)	100.0% (150)
AVERAGES							TOTAL 1.5+
LIVE WEIGHT (LBS)							
BUCKS	***** (0) (*** TO ***)	79.00 (4) (75 TO 85)	76.57 (7) (60 TO 100)	94.00 (8) (70 TO 120)	***** (0) (*** TO ***)	120.00 (1) (120 TO 120)	96.20 (20) (60 TO 120)
DOES	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
TOTAL	***** (0) (*** TO ***)	79.00 (4) (75 TO 85)	76.57 (7) (60 TO 100)	94.00 (8) (70 TO 120)	***** (0) (*** TO ***)	120.00 (1) (120 TO 120)	96.20 (20) (60 TO 120)
30X WEIGHT (LBS)							
BUCKS	***** (0) (*** TO ***)	66.89 (18) (45 TO 95)	69.80 (44) (50 TO 100)	79.61 (18) (60 TO 103)	89.50 (6) (65 TO 110)	81.60 (5) (76 TO 90)	73.11 (91) (45 TO 110)
DOES	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
TOTAL	***** (0) (*** TO ***)	66.89 (18) (45 TO 95)	69.80 (44) (50 TO 100)	79.61 (18) (60 TO 103)	89.50 (6) (65 TO 110)	81.60 (5) (76 TO 90)	73.11 (91) (45 TO 110)
CONDITION INDEX							
BUCKS	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
DOES	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
TOTAL	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
MAIN BEAM CIRCUM. (CM)							
BUCKS	***** (0) (*****-*****)	5.09 (35) (4.00-7.00)	5.87 (62) (4.00-11.50)	7.41 (36) (5.50-10.00)	8.88 (7) (6.00-11.00)	9.42 (7) (8.00-12.50)	6.37 (147) (4.00-12.50)

Appendix D. continued

BIG CYPRESS	WILDLIFE MANAGEMENT AREA						REPORT 3
AGE CLASS	0.5	1.5	2.5	3.5	4.5	5.5+	TOTAL 1.5+
MAIN BEAM LENGTH (CM)							
BUCKS	***** (0) (*****-*****)	17.11 (35) (9.00-31.50)	21.61 (62) (9.00-42.00)	29.11 (36) (19.00-39.00)	32.38 (7) (12.50-47.00)	32.27 (7) (16.00-42.00)	23.32 (147) (9.00-47.00)
NUMBER OF POINTS							
2	0(*****Z)	15(48.39Z)	13(22.03Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	28(21.05Z)
3	0(*****Z)	5(16.13Z)	7(11.86Z)	1(3.23Z)	1(16.67Z)	0(0.00Z)	14(10.53Z)
4	0(*****Z)	5(16.13Z)	16(27.12Z)	4(12.90Z)	0(0.00Z)	0(0.00Z)	25(18.80Z)
5	0(*****Z)	2(6.45Z)	4(6.78Z)	2(6.45Z)	0(0.00Z)	1(16.67Z)	9(6.77Z)
6	0(*****Z)	3(9.68Z)	12(20.34Z)	11(35.48Z)	2(33.33Z)	0(0.00Z)	28(21.05Z)
7	0(*****Z)	1(3.23Z)	1(1.69Z)	4(12.90Z)	1(16.67Z)	1(16.67Z)	8(6.02Z)
8	0(*****Z)	0(0.00Z)	6(10.17Z)	9(29.03Z)	2(33.33Z)	2(33.33Z)	19(14.29Z)
9	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	1(16.67Z)	1(.75Z)
10	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	1(16.67Z)	1(.75Z)
11	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)
12	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)
AVERAGE	****	3.2	4.4	6.3	6.3	7.8	4.8

SUMMARY OF REPRODUCTION

FAWNS PER EXAMINED DOE FROM FETUS COLLECTIONS	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)
IN UTERO SEX RATIO MALE/FEMALE:	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z
AVG. CONCEPTION DATE	***** (0) (*****-*****)						
AVG. PARTURITION DATE	***** (0) (*****-*****)						
						NUMBER OF ADULT(1.5+) DOES WITH 0 FETUSES = 0(*****Z)	
						1 FETUS = 0(*****Z)	
						2 FETUSES = 0(*****Z)	
						3 FETUSES = 0(*****Z)	

ABOMASUM PARASITE COUNT SUMMARY

FAWNS	***** (0) (*****-*****)
ADULTS	***** (0) (*****-*****)
TOTAL	***** (0) (*****-*****)

NUMBER LARGE WORMS

FAWNS	***** (0) (*****-*****)
ADULTS	***** (0) (*****-*****)
TOTAL	***** (0) (*****-*****)

% OF EXAMINED DEER WITH LUNG WORMS : *****Z (0 OUT OF 0)

AVERAGE NO. OF LUNG WORMS PER INFECTED DEER : *** (*** TO ***)

% OF EXAMINED DEER WITH LIVER FLUKES : *****Z (0 OUT OF 0)

AVERAGE NO. OF LIVER FLUKES PER INFECTED DEER : *** (*** TO ***)

Appendix D. continued

BIG CYPRESS WILDLIFE MANAGEMENT AREA ZONE NO. 1							REPORT 11
DATA COLLECTED ON 27 DEER (27 BUCKS, 0 DOES) IN THIS AREA IN THE 1989-90 SEASON							
AGE CLASS	0.5	1.5	2.5	3.5	4.5	5.5+	TOTAL
HARVEST BY SEX							
BUCKS	0.0% (0)	40.7% (11)	25.9% (7)	18.5% (5)	7.4% (2)	7.4% (2)	100.0% (27)
DOES	***** (0)	***** (0)	***** (0)	***** (0)	***** (0)	***** (0)	***** (0)
TOTAL	0.0% (0)	40.7% (11)	25.9% (7)	18.5% (5)	7.4% (2)	7.4% (2)	100.0% (27)
AVERAGES							TOTAL 1.5+
LIVE WEIGHT (LBS)							
BUCKS	***** (0) (*** TO ***)	77.00 (3) (75 TO 80)	87.50 (2) (75 TO 100)	103.50 (2) (90 TO 117)	***** (0) (*** TO ***)	120.00 (1) (120 TO 120)	91.63 (8) (75 TO 120)
DOES	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
TOTAL	***** (0) (*** TO ***)	77.00 (3) (75 TO 80)	87.50 (2) (75 TO 100)	103.50 (2) (90 TO 117)	***** (0) (*** TO ***)	120.00 (1) (120 TO 120)	91.63 (8) (75 TO 120)
30% WEIGHT (LBS)							
BUCKS	***** (0) (*** TO ***)	70.00 (9) (60 TO 95)	80.50 (4) (65 TO 87)	95.00 (2) (90 TO 100)	97.50 (2) (85 TO 110)	80.00 (1) (80 TO 80)	78.72 (18) (60 TO 110)
DOES	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
TOTAL	***** (0) (*** TO ***)	70.00 (9) (60 TO 95)	80.50 (4) (65 TO 87)	95.00 (2) (90 TO 100)	97.50 (2) (85 TO 110)	80.00 (1) (80 TO 80)	78.72 (18) (60 TO 110)
CONDITION INDEX							
BUCKS	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
DOES	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
TOTAL	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
MAIN BEAM CIRCUM. (CM)							
BUCKS	***** (0) (*****-*****)	5.22 (11) (4.00- 7.00)	5.85 (7) (5.00- 6.50)	7.25 (5) (6.50- 8.00)	8.33 (2) (7.00-10.00)	10.00 (2) (9.00-11.00)	6.29 (27) (4.00-11.00)

Appendix D. continued

BIG CYPRESS	WILDLIFE MANAGEMENT AREA						REPORT 11
AGE CLASS	0.5	1.5	2.5	3.5	4.5	5.5+	TOTAL 1.5+
MAIN BEAM LENGTH (CM)							
BUCKS	***** (0) (*****-*****)	16.72 (11) (9.00-28.00)	23.04 (7) (15.00-32.00)	30.10 (5) (22.00-36.00)	37.17 (2) (35.00-41.50)	37.67 (2) (35.00-42.00)	23.66 (27) (9.00-42.00)
NUMBER OF POINTS							
2	0(*****Z)	4(44.44Z)	1(16.67Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	5(22.73Z)
3	0(*****Z)	1(11.11Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	1(4.55Z)
4	0(*****Z)	2(22.22Z)	3(50.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	5(22.73Z)
5	0(*****Z)	1(11.11Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	1(4.55Z)
6	0(*****Z)	1(11.11Z)	1(16.67Z)	5(100.00Z)	0(0.00Z)	0(0.00Z)	7(31.82Z)
7	0(*****Z)	0(0.00Z)	1(16.67Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	1(4.55Z)
8	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	1(100.00Z)	0(0.00Z)	1(4.55Z)
9	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	1(100.00Z)	1(4.55Z)
10	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)
11	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)
12	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)
AVERAGE	****	3.3	4.5	6.0	8.0	9.0	4.7

SUMMARY OF REPRODUCTION

FAWNS PER EXAMINED DOE FROM FETUS COLLECTIONS	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)
IN UTERO SEX RATIO MALE/FEMALE:	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z
AVG. CONCEPTION DATE	***** (0) (*****-*****)						
AVG. PARTURITION DATE	***** (0) (*****-*****)						
					NUMBER OF ADULT(1.5+) DOES WITH	0 FETUSES = 0(*****Z)	
						1 FETUS = 0(*****Z)	
						2 FETUSES = 0(*****Z)	
						3 FETUSES = 0(*****Z)	

ABOMASUM PARASITE COUNT SUMMARY

FAWNS	***** (0) (*****-*****)
ADULTS	***** (0) (*****-*****)
TOTAL	***** (0) (*****-*****)

NUMBER LARGE WORMS

FAWNS	***** (0) (*****-*****)
ADULTS	***** (0) (*****-*****)
TOTAL	***** (0) (*****-*****)

% OF EXAMINED DEER WITH LUNG WORMS : *****Z (0 OUT OF 0)
 AVERAGE NO. OF LUNG WORMS PER INFECTED DEER : ***(***) TO ***)
 % OF EXAMINED DEER WITH LIVER FLUKES : *****Z (0 OUT OF 0)
 AVERAGE NO. OF LIVER FLUKES PER INFECTED DEER : *** (***) TO ***)

Appendix D. continued

BIG CYPRESS	WILDLIFE MANAGEMENT AREA						REPORT 12
DATA COLLECTED ON	ZONE NO. 2						
AGE CLASS	2 DEER (2 BUCKS, 0 DOES) IN THIS AREA IN THE 1989-90 SEASON						
HARVEST BY SEX	0.5	1.5	2.5	3.5	4.5	5.5+	TOTAL
BUCKS	0.0% (0)	0.0% (0)	0.0% (0)	100.0% (2)	0.0% (0)	0.0% (0)	100.0% (2)
DOES	***** (0)	***** (0)	***** (0)	***** (0)	***** (0)	***** (0)	***** (0)
TOTAL	0.0% (0)	0.0% (0)	0.0% (0)	100.0% (2)	0.0% (0)	0.0% (0)	100.0% (2)
AVERAGES							TOTAL 1.5+
LIVE WEIGHT (LBS)							
BUCKS	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	120.00 (1) (120 TO 120)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	120.00 (1) (120 TO 120)
DOES	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
TOTAL	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	120.00 (1) (120 TO 120)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	120.00 (1) (120 TO 120)
30X WEIGHT (LBS)							
BUCKS	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	103.00 (1) (103 TO 103)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	103.00 (1) (103 TO 103)
DOES	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
TOTAL	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	103.00 (1) (103 TO 103)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	103.00 (1) (103 TO 103)
CONDITION INDEX							
BUCKS	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
DOES	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
TOTAL	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
MAIN BEAM CIRCUM. (CM)							
BUCKS	***** (0) (*****-*****)	***** (0) (*****-*****)	***** (0) (*****-*****)	7.37 (2) (7.00- 8.00)	***** (0) (*****-*****)	***** (0) (*****-*****)	7.37 (2) (7.00- 8.00)

Appendix D. continued

BIG CYPRESS	WILDLIFE MANAGEMENT AREA						REPORT 12
AGE CLASS	0.5	1.5	2.5	3.5	4.5	5.5+	TOTAL 1.5+
MAIN BEAM LENGTH (CM)							
BUCKS	***** (0) (*****-*****)	***** (0) (*****-*****)	***** (0) (*****-*****)	32.75 (2) (29.00-35.00)	***** (0) (*****-*****)	***** (0) (*****-*****)	32.75 (2) (29.00-35.00)
NUMBER OF POINTS							
2	0(*****Z)	0(*****Z)	0(*****Z)	0(0.00Z)	0(*****Z)	0(*****Z)	0(0.00Z)
3	0(*****Z)	0(*****Z)	0(*****Z)	0(0.00Z)	0(*****Z)	0(*****Z)	0(0.00Z)
4	0(*****Z)	0(*****Z)	0(*****Z)	0(0.00Z)	0(*****Z)	0(*****Z)	0(0.00Z)
5	0(*****Z)	0(*****Z)	0(*****Z)	0(0.00Z)	0(*****Z)	0(*****Z)	0(0.00Z)
6	0(*****Z)	0(*****Z)	0(*****Z)	1(50.00Z)	0(*****Z)	0(*****Z)	1(50.00Z)
7	0(*****Z)	0(*****Z)	0(*****Z)	1(50.00Z)	0(*****Z)	0(*****Z)	1(50.00Z)
8	0(*****Z)	0(*****Z)	0(*****Z)	0(0.00Z)	0(*****Z)	0(*****Z)	0(0.00Z)
9	0(*****Z)	0(*****Z)	0(*****Z)	0(0.00Z)	0(*****Z)	0(*****Z)	0(0.00Z)
10	0(*****Z)	0(*****Z)	0(*****Z)	0(0.00Z)	0(*****Z)	0(*****Z)	0(0.00Z)
11	0(*****Z)	0(*****Z)	0(*****Z)	0(0.00Z)	0(*****Z)	0(*****Z)	0(0.00Z)
12	0(*****Z)	0(*****Z)	0(*****Z)	0(0.00Z)	0(*****Z)	0(*****Z)	0(0.00Z)
AVERAGE	****	****	****	6.5	****	****	6.5
SUMMARY OF REPRODUCTION							
FAWNS PER EXAMINED DOE FROM FETUS COLLECTIONS	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)
IN UTERO SEX RATIO MALE/FEMALE:	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z
AVG. CONCEPTION DATE ***** (0) (*****-*****)							
AVG. PARTURITION DATE ***** (0) (*****-*****)							
ABDOMEN PARASITE COUNT SUMMARY							
FAWNS ***** (0) (*****-*****)							
ADULTS ***** (0) (*****-*****)							
TOTAL ***** (0) (*****-*****)							
NUMBER LARGE WORMS							
FAWNS ***** (0) (*****-*****)							
ADULTS ***** (0) (*****-*****)							
TOTAL ***** (0) (*****-*****)							
% OF EXAMINED DEER WITH LUNG WORMS	1 *****Z (0 OUT OF 0)						
AVERAGE NO. OF LUNG WORMS PER INFECTED DEER	: *** (*** TO ***)						
% OF EXAMINED DEER WITH LIVER FLUKES	: *****Z (0 OUT OF 0)						
AVERAGE NO. OF LIVER FLUKES PER INFECTED DEER	: *** (*** TO ***)						

Appendix D. continued

REPORT 13

BIG CYPRESS		WILDLIFE MANAGEMENT AREA				ZONE NO. 3		REPORT 13	
DATA COLLECTED ON		21 DEER (21 BUCKS, 0 DOES) IN THIS AREA IN THE 1989-90 SEASON							
AGE CLASS		0.5	1.5	2.5	3.5	4.5	5.5+	TOTAL	
HARVEST BY SEX									
BUCKS		0.0% (0)	38.1% (8)	42.9% (9)	9.5% (2)	9.5% (2)	0.0% (0)	100.0% (21)	
DOES		***** (0)	***** (0)	***** (0)	***** (0)	***** (0)	***** (0)	***** (0)	
TOTAL		0.0% (0)	38.1% (8)	42.9% (9)	9.5% (2)	9.5% (2)	0.0% (0)	100.0% (21)	
								TOTAL 1.5+	
AVERAGES									
LIVE WEIGHT (LBS)									
BUCKS		***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)
DOES		***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)
TOTAL		***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)
30% WEIGHT (LBS)									
BUCKS		***** (0) (** TO **)	73.25 (4) (62 TO 86)	81.60 (5) (60 TO 90)	75.00 (1) (75 TO 75)	95.00 (1) (95 TO 95)	***** (0) (** TO **)	79.18 (11) (60 TO 95)	
DOES		***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	
TOTAL		***** (0) (** TO **)	73.25 (4) (62 TO 86)	81.60 (5) (60 TO 90)	75.00 (1) (75 TO 75)	95.00 (1) (95 TO 95)	***** (0) (** TO **)	79.18 (11) (60 TO 95)	
CONDITION INDEX									
BUCKS		***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)
DOES		***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)
TOTAL		***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)	***** (0) (** TO **)
MAIN BEAM CIRCUM. (CM)									
BUCKS		***** (0) (*****-*****)	5.43 (8) (4.00-7.00)	6.24 (9) (5.00-8.50)	6.75 (2) (6.50-7.00)	10.62 (2) (10.00-11.00)	***** (0) (*****-*****)	6.45 (21) (4.00-11.00)	

Appendix D. continued

BIG CYPRESS	WILDLIFE MANAGEMENT AREA						REPORT 13
AGE CLASS	0.5	1.5	2.5	3.5	4.5	5.5+	TOTAL 1.5+
MAIN BEAM LENGTH (CM)							
BUCKS	***** (0) (*****-*****)	20.89 (8) (13.00-31.50)	25.09 (9) (11.00-42.00)	24.62 (2) (20.00-29.50)	40.93 (2) (30.50-47.00)	***** () (*****-*****)	24.74 (21) (11.00-47.00)
NUMBER OF POINTS							
2	0(*****Z)	2(33.33Z)	1(12.50Z)	0(0.00Z)	0(0.00Z)	0(*****Z)	3(16.67Z)
3	0(*****Z)	1(16.67Z)	2(25.00Z)	0(0.00Z)	0(0.00Z)	0(*****Z)	3(16.67Z)
4	0(*****Z)	2(33.33Z)	2(25.00Z)	0(0.00Z)	0(0.00Z)	0(*****Z)	4(22.22Z)
5	0(*****Z)	0(0.00Z)	1(12.50Z)	1(50.00Z)	0(0.00Z)	0(*****Z)	2(11.11Z)
6	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	1(50.00Z)	0(*****Z)	1(5.56Z)
7	0(*****Z)	1(16.67Z)	0(0.00Z)	0(0.00Z)	1(50.00Z)	0(*****Z)	2(11.11Z)
8	0(*****Z)	0(0.00Z)	2(25.00Z)	1(50.00Z)	0(0.00Z)	0(*****Z)	3(16.67Z)
9	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(*****Z)	0(0.00Z)
10	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(*****Z)	0(0.00Z)
11	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(*****Z)	0(0.00Z)
12	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(*****Z)	0(0.00Z)
AVERAGE	****	3.7	4.6	6.5	6.5	****	4.7
SUMMARY OF REPRODUCTION							
FAWNS PER EXAMINED DOE FROM FETUS COLLECTIONS	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)
IN UTERO SEX RATIO MALE/FEMALE:	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z
AVG. CONCEPTION DATE	***** (0) (*****-*****)						
AVG. PARTURITION DATE	***** (0) (*****-*****)						
ABOMASUM PARASITE COUNT SUMMARY							
FAWNS	***** (0) (*****-*****)						
ADULTS	***** (0) (*****-*****)						
TOTAL	***** (0) (*****-*****)						
NUMBER LARGE WORMS							
FAWNS					***** (0) (*****-*****)		
ADULTS					***** (0) (*****-*****)		
TOTAL					***** (0) (*****-*****)		
% OF EXAMINED DEER WITH LUNG WORMS			1: *****Z (0 OUT OF 0)				
AVERAGE NO. OF LUNG WORMS PER INFECTED DEER			1: *** (*** TO ***)				
% OF EXAMINED DEER WITH LIVER FLUKES			1: *****Z (0 OUT OF 0)				
AVERAGE NO. OF LIVER FLUKES PER INFECTED DEER			1: *** (*** TO ***)				

Appendix D. continued

REPORT 14

BIG CYPRESS		WILDLIFE MANAGEMENT AREA				ZONE NO. 4		REPORT 14
DATA COLLECTED ON		29 DEER (29 BUCKS, 0 DOES) IN THIS AREA IN THE 1989-90 SEASON						
AGE CLASS		0.5	1.5	2.5	3.5	4.5	5.5+	TOTAL
HARVEST BY SEX								
BUCKS		0.0% (0)	6.9% (2)	37.9% (11)	41.4% (12)	6.9% (2)	6.9% (2)	100.0% (29)
DOES		***** (0)	***** (0)	***** (0)	***** (0)	***** (0)	***** (0)	***** (0)
TOTAL		0.0% (0)	6.9% (2)	37.9% (11)	41.4% (12)	6.9% (2)	6.9% (2)	100.0% (29)
								TOTAL 1.5+
AVERAGES								
LIVE WEIGHT (LBS)								
BUCKS		***** (0) (*** TO ***)	85.00 (1) (85 TO 85)	68.33 (3) (65 TO 70)	85.00 (5) (70 TO 110)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	79.44 (9) (65 TO 110)
DOES		***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
TOTAL		***** (0) (*** TO ***)	85.00 (1) (85 TO 85)	68.33 (3) (65 TO 70)	85.00 (5) (70 TO 110)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	79.44 (9) (65 TO 110)
30% WEIGHT (LBS)								
BUCKS		***** (0) (*** TO ***)	45.00 (1) (45 TO 45)	66.11 (9) (50 TO 100)	73.57 (7) (60 TO 90)	71.00 (2) (65 TO 77)	83.00 (2) (76 TO 90)	59.67 (21) (45 TO 100)
DOES		***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
TOTAL		***** (0) (*** TO ***)	45.00 (1) (45 TO 45)	66.11 (9) (50 TO 100)	73.57 (7) (60 TO 90)	71.00 (2) (65 TO 77)	83.00 (2) (76 TO 90)	59.67 (21) (45 TO 100)
CONDITION INDEX								
BUCKS		***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
DOES		***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
TOTAL		***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
MAIN BEAM CIRCUM. (CM)								
BUCKS		***** (0) (*****-*****)	4.00 (2) (4.00- 4.00)	6.31 (11) (5.00-11.50)	7.77 (12) (6.00-10.00)	6.75 (2) (6.00- 7.50)	10.37 (2) (9.00-12.50)	7.05 (29) (4.00-12.50)

Appendix D. continued

BIG CYPRESS		WILDLIFE MANAGEMENT AREA		ZONE NO. 4			REPORT 14	
AGE CLASS		0.5	1.5	2.5	3.5	4.5	5.5+	TOTAL 1.5+
MAIN BEAM LENGTH (CM)								
BUCKS		***** (0) (*****-*****)	11.00 (2) (10.00-12.00)	21.14 (11) (9.00-42.00)	28.68 (12) (20.00-38.00)	23.37 (2) (12.50-32.00)	29.50 (2) (16.00-37.50)	24.12 (29) (9.00-42.00)
NUMBER OF POINTS								
2	0(*****Z)	2(100.00Z)	1(10.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	3(11.54Z)
3	0(*****Z)	0(0.00Z)	2(20.00Z)	0(0.00Z)	1(50.00Z)	0(0.00Z)	0(0.00Z)	3(11.54Z)
4	0(*****Z)	0(0.00Z)	3(30.00Z)	2(20.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	5(19.23Z)
5	0(*****Z)	0(0.00Z)	1(10.00Z)	0(0.00Z)	0(0.00Z)	1(50.00Z)	0(0.00Z)	2(7.69Z)
6	0(*****Z)	0(0.00Z)	2(20.00Z)	2(20.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	4(13.38Z)
7	0(*****Z)	0(0.00Z)	0(0.00Z)	2(20.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	2(7.69Z)
8	0(*****Z)	0(0.00Z)	1(10.00Z)	4(40.00Z)	1(50.00Z)	1(50.00Z)	0(0.00Z)	7(26.92Z)
9	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)
10	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)
11	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)
12	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)
AVERAGE		**** 2.0	4.5	6.6	5.5	6.5	5.3	

SUMMARY OF REPRODUCTION

FAWNS PER EXAMINED DOE FROM FETUS COLLECTIONS	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)
IN UTERO SEX RATIO MALE/FEMALE:	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z
AVG. CONCEPTION DATE	***** (0) (*****-*****)						
AVG. PARTURITION DATE	***** (0) (*****-*****)						
						NUMBER OF ADULT(1.5+) DOES WITH	0 FETUSES = 0(*****Z) 1 FETUS = 0(*****Z) 2 FETUSES = 0(*****Z) 3 FETUSES = 0(*****Z)

ABOMASUM PARASITE COUNT SUMMARY

FAWNS	***** (0) (*****-*****)
ADULTS	***** (0) (*****-*****)
TOTAL	***** (0) (*****-*****)

NUMBER LARGE WORMS

FAWNS	***** (0) (*****-*****)
ADULTS	***** (0) (*****-*****)
TOTAL	***** (0) (*****-*****)

% OF EXAMINED DEER WITH LUNG WORMS	: *****Z (0 OUT OF 0)
AVERAGE NG. OF LUNG WORMS PER INFECTED DEER	: ****(*** TO ***)
% OF EXAMINED DEER WITH LIVER FLUKES	: *****Z (0 OUT OF 0)
AVERAGE NG. OF LIVER FLUKES PER INFECTED DEER	: *** (*** TO ***)

Appendix D. continued

BIG CYPRESS
DATA COLLECTED ON 63 DEER (63 BUCKS, 0 DOES) IN THIS AREA IN THE 1989-90 SEASON
AGE CLASS

HARVEST BY SEX

	0.5	1.5	2.5	3.5	4.5	5.5+	TOTAL
BUCKS	0.0% (0)	20.6% (13)	54.0% (34)	19.0% (12)	1.6% (1)	4.8% (3)	100.0% (63)
DOES	***** (0)	***** (0)	***** (0)	***** (0)	***** (0)	***** (0)	***** (0)
TOTAL	0.0% (0)	20.6% (13)	54.0% (34)	19.0% (12)	1.6% (1)	4.8% (3)	100.0% (63)

TOTAL 1.5+

AVERAGES

LIVE WEIGHT (LBS)

	0.5	1.5	2.5	3.5	4.5	5.5+	TOTAL
BUCKS	***** (0) (*** TO ***)	***** (0) (*** TO ***)	78.00 (2) (60 TO 96)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	78.00 (2) (60 TO 96)
DOES	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
TOTAL	***** (0) (*** TO ***)	***** (0) (*** TO ***)	78.00 (2) (60 TO 96)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	78.00 (2) (60 TO 96)

30X WEIGHT (LBS)

	0.5	1.5	2.5	3.5	4.5	5.5+	TOTAL
BUCKS	***** (0) (*** TO ***)	59.00 (4) (51 TO 70)	67.15 (26) (50 TO 100)	77.00 (5) (65 TO 90)	105.00 (1) (105 TO 105)	81.00 (2) (80 TO 82)	69.32 (38) (50 TO 105)
DOES	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
TOTAL	***** (0) (*** TO ***)	59.00 (4) (51 TO 70)	67.15 (26) (50 TO 100)	77.00 (5) (65 TO 90)	105.00 (1) (105 TO 105)	81.00 (2) (80 TO 82)	69.32 (38) (50 TO 105)

CONDITION INDEX

	0.5	1.5	2.5	3.5	4.5	5.5+	TOTAL
BUCKS	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
DOES	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
TOTAL	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)

MAIN BEAM CIRCUM. (CM)

	0.5	1.5	2.5	3.5	4.5	5.5+	TOTAL
BUCKS	***** (0) (*****-*****)	5.02 (13) (4.00- 6.50)	5.62 (33) (4.00- 7.50)	6.90 (11) (5.50- 8.00)	10.50 (1) (10.50-10.50)	8.50 (3) (8.00- 9.50)	5.94 (61) (4.00-10.50)

REPORT 15

Appendix D. continued

BIG CYPRESS	WILDLIFE MANAGEMENT AREA						REPORT 15
AGE CLASS	0.5	1.5	2.5	3.5	4.5	5.5+	TOTAL 1.5+
MAIN BEAM LENGTH (CM)							
BUCKS	***** (0) (*****-*****)	16.35 (13) (10.00-27.50)	20.33 (33) (11.50-35.00)	27.47 (11) (19.00-36.00)	30.50 (1) (30.00-31.00)	32.08 (3) (30.00-34.50)	21.43 (61) (13.00-36.00)
NUMBER OF POINTS							
2	0(*****Z)	6(46.15Z)	10(30.30Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	16(27.12Z)
3	0(*****Z)	3(23.08Z)	3(9.09Z)	1(11.11Z)	0(0.00Z)	0(0.00Z)	7(11.86Z)
4	0(*****Z)	1(7.69Z)	7(21.21Z)	2(22.22Z)	0(0.00Z)	0(0.00Z)	13(16.95Z)
5	0(*****Z)	1(7.69Z)	2(6.06Z)	1(11.11Z)	0(0.00Z)	0(0.00Z)	4(6.78Z)
6	0(*****Z)	2(15.38Z)	9(27.27Z)	3(33.33Z)	1(100.00Z)	0(0.00Z)	15(25.42Z)
7	0(*****Z)	0(0.00Z)	0(0.00Z)	1(11.11Z)	0(0.00Z)	1(33.33Z)	2(3.39Z)
8	0(*****Z)	0(0.00Z)	2(6.06Z)	1(11.11Z)	0(0.00Z)	1(33.33Z)	4(6.78Z)
9	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)
10	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	1(33.33Z)	1(1.69Z)
11	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)
12	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)
AVERAGE	****	3.2	4.2	5.4	6.0	8.3	4.4

SUMMARY OF REPRODUCTION

FAWNS PER EXAMINED DOE FROM FETUS COLLECTIONS	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)
IN UTERO SEX RATIO MALE/FEMALE:	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z
AVG. CONCEPTION DATE	***** (0) (*****-*****)						
AVG. PARTURITION DATE	***** (0) (*****-*****)						
						NUMBER OF ADULT(1.5+) DOES WITH	0 FETUSES = 0(*****Z) 1 FETUS = 3(*****Z) 2 FETUSES = 0(*****Z) 3 FETUSES = 0(*****Z)

ABDOMASUM PARASITE COUNT SUMMARY

FAWNS	***** (0) (*****-*****)
ADULTS	***** (0) (*****-*****)
TOTAL	***** (0) (*****-*****)

NUMBER LARGE WORMS

FAWNS	***** (0) (*****-*****)
ADULTS	***** (0) (*****-*****)
TOTAL	***** (0) (*****-*****)

% OF EXAMINED DEER WITH LUNG WORMS : *****Z (0 OUT OF 0)
 AVERAGE NO. OF LUNG WORMS PER INFECTED DEER : *** (*** TO ***)
 % OF EXAMINED DEER WITH LIVER FLUKES : *****Z (0 OUT OF 0)
 AVERAGE NO. OF LIVER FLUKES PER INFECTED DEER : *** (*** TO ***)

Appendix D. continued

REPORT 16

BIG CYPRESS		WILDLIFE MANAGEMENT AREA					ZONE NO. 6
DATA COLLECTED ON		8 DEER (8 BUCKS, 0 DOES) IN THIS AREA IN THE 1989-90 SEASON					
AGE CLASS		0.5	1.5	2.5	3.5	4.5	5.5+
HARVEST BY SEX							TOTAL
BUCKS		0.0% (0)	12.5% (1)	25.0% (2)	50.0% (4)	12.5% (1)	0.0% (0)
DOES		***** (0)	***** (0)	***** (0)	***** (0)	***** (0)	***** (0)
TOTAL		0.0% (0)	12.5% (1)	25.0% (2)	50.0% (4)	12.5% (1)	0.0% (0)
AVERAGES							TOTAL 1.5+
LIVE WEIGHT (LBS)							
BUCKS		***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
DOES		***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
TOTAL		***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
30% WEIGHT (LBS)							
BUCKS		***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	82.50 (2) (80 TO 85)	***** (0) (*** TO ***)	82.50 (2) (80 TO 85)
DOES		***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
TOTAL		***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	82.50 (2) (80 TO 85)	***** (0) (*** TO ***)	82.50 (2) (80 TO 85)
CONDITION INDEX							
BUCKS		***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
DOES		***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
TOTAL		***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)	***** (0) (*** TO ***)
MAIN BEAM CIRCUM. (CM)							
BUCKS		***** (0) (*****-*****)	4.50 (1) (4.50-4.50)	6.25 (2) (6.00-6.50)	8.43 (4) (7.00-10.00)	***** (0) (*****-*****)	***** (0) (*****-*****)

Appendix D. continued

BIG CYPRESS	WILDLIFE MANAGEMENT AREA						REPORT 16
AGE CLASS	0.5	1.5	2.5	3.5	4.5	5.5+	TOTAL 1.5+
MAIN BEAM LENGTH (CM)							
BUCKS	***** (0) (*****-*****)	16.75 (1) (16.50-17.00)	25.00 (2) (21.00-28.50)	34.21 (4) (29.00-39.00)	***** (0) (*****-*****)	***** (0) (*****-*****)	28.69 (7) (16.50-39.00)
NUMBER OF POINTS							
2	0(*****Z)	1(100.00Z)	0(0.00Z)	0(0.00Z)	0(*****Z)	0(*****Z)	1(16.67Z)
3	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(*****Z)	0(*****Z)	0(0.00Z)
4	0(*****Z)	0(0.00Z)	1(50.00Z)	0(0.00Z)	0(*****Z)	0(*****Z)	1(16.67Z)
5	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(*****Z)	0(*****Z)	0(0.00Z)
6	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(*****Z)	0(*****Z)	0(0.00Z)
7	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(*****Z)	0(*****Z)	0(0.00Z)
8	0(*****Z)	0(0.00Z)	1(50.00Z)	3(100.00Z)	0(*****Z)	0(*****Z)	4(66.67Z)
9	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(*****Z)	0(*****Z)	0(0.00Z)
10	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(*****Z)	0(*****Z)	0(0.00Z)
11	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(*****Z)	0(*****Z)	0(0.00Z)
12	0(*****Z)	0(0.00Z)	0(0.00Z)	0(0.00Z)	0(*****Z)	0(*****Z)	0(0.00Z)
AVERAGE	****	2.0	6.0	8.0	****	****	5.3

SUMMARY OF REPRODUCTION

FAWNS PER EXAMINED DOE FROM FETUS COLLECTIONS	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)	*** (0)
IN UTERO SEX RATIO MALE/FEMALE:	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z	*****Z/*****Z
AVG. CONCEPTION DATE ***** (0) (*****-*****)	NUMBER OF ADULT(1.5+) DOES WITH 0 FETUSES = 0(*****Z)						1 FETUS = 0(*****Z)
							2 FETUSES = 0(*****Z)
							3 FETUSES = 0(*****Z)
AVG. PARTURITION DATE ***** (0) (*****-*****)							

ABOMASUM PARASITE COUNT SUMMARY

FAWNS	***** (0) (*****-*****)
ADULTS	***** (0) (*****-*****)
TOTAL	***** (0) (*****-*****)

NUMBER LARGE WORMS

FAWNS	***** (0) (*****-*****)
ADULTS	***** (0) (*****-*****)
TOTAL	***** (0) (*****-*****)

% OF EXAMINED DEER WITH LUNG WORMS : *****Z (0 OUT OF 0)
 AVERAGE NO. OF LUNG WORMS PER INFECTED DEER : ***(** TO ***)
 % OF EXAMINED DEER WITH LIVER FLUKES : *****Z (0 OUT OF 0)
 AVERAGE NO. OF LIVER FLUKES PER INFECTED DEER : ***(** TO ***)