

Annual Deer Season Report
1982-83
Big Cypress Wildlife Management Area

Introduction

The following is a synopsis of the 1982-83 deer season on the Big Cypress Wildlife Management Area. Included is hunter pressure and success figures, harvest, analysis of various biological data taken from harvested animals, and miscellaneous other points of interest or significance.

Methods

Modes of Information Collection

Three modes of information collection were used: 1. Check Stations; 2. Area Surveillance; 3. Cooperation from Wildlife Officers and National Park Service personnel.

Check Stations

During the archery and muzzleloader season, two check stations were in operation (on weekends only). These were located at Bear Island and Forty Mile Bend. During the first nine days of the General Gun Season, additional stations were set up at Ochopee and Oasis Ranger Station. In addition, two "roving" check stations operated along US41, Turner River Road, Birdon/Wagon Wheel Road, and Loop Road. The Bear Island Check Station was operated each day of the entire General Gun Season. Forty Mile Bend check station was operated on weekends only. Arrangements were made at Oasis Ranger Station and the Ochopee house to properly document any deer brought in to these locations.

Check station operators came from four sources: 1. Assigned Commission Personnel; 2. O.P.S.; 3. Commission Reservists; and 4. National Park Service Personnel.

Area Surveillance

Surveillance by ground vehicle was made to check camps and camping areas, conduct car surveys, etc. Helicopter flights, provided by the Division of Law Enforcement, were also used to check camps, etc. Fixed wing aerial surveys (done in conjunction with radio tracking the panthers) were used to determine hunter usage.

Cooperation from Wildlife Officers

Invaluable cooperation and assistance was given by the Division of Law Enforcement. They assisted greatly by reporting numbers of hunters, directing hunters to check stations, reporting deer killed, and by bringing deer heads to the check stations. Without this cooperation much valuable data would have been lost.

Cooperation from National Park Service Personnel

Valuable cooperation was also given by the U.S. National Park Service. Not only did rangers from Big Cypress and Everglades National Park provide us with needed information, Oasis Ranger Station was made available as a check station.

Determination of Hunter Usage and Kill

Information to obtain hunter usage and number of deer harvested was collected as stated in the foregoing paragraphs.

Data collected from periodic vehicle and aerial surveys, plus information collected from check stations was used to determine man days of hunting on the separate management units.

Only those deer which were properly documented by check station operators or those personally observed and documented by Wildlife Officers and/or Park Rangers, were reported for the Weekly Harvest Report. In the past, various methods were used to try and give a more "total" harvest. Starting this year, however, we are using only the number checked for comparison purposes.

Biological Data Collection

Biological data was taken in accordance with instructions from the Regional Biologist and recorded on the Deer Biological Data Sheet. If possible, all deer jaws were pulled and examined by Biologist Dave Pylant, for consistency of aging.

Analysis of Biological Data

Where deemed appropriate, a distinction was made between "herds" and the data analyzed accordingly (e.g. Bear Island and Stairsteps).

After determining age by tooth wear and replacement, deer were put in the following age classes; .5, 1.5, 2.5, 3.5, 4.5, ... Age pyramids were constructed for each herd and overall.

The mean of the various measurements and weights were calculated. Distinctions were made of fawn, yearling, and adult.

Results and Discussion

Hunter Usage

Archery Season - September 11-October 3

During the Archery Season, bowhunters spent 1180 man days afield in the Big Cypress. This total is broken down into Units as follows: Bear Island - 405, Deep Lake - 70, Monument - 320, Stairsteps - 215, and Loop Road - 170. Tables 1 and 4 show hunter success, deer harvested, and compares this season with 1980-81 and 1981-82. Overall, the usage was up 23 percent from last season, with Bear Island, Loop Road and Monument showing increases, Stairsteps showing a decrease, and Deep Lake remaining the same.

Muzzleloader Season - October 9-31

Blackpowder hunters spent 2715 man days hunting during the 1982 Muzzleloader Season. By Unit, this breaks down to; Bear Island - 880, Deep Lake - 150, Monument - 795, Stairsteps - 720, and Loop Road - 170. This was an overall 42 percent increase over last year, with all units showing increases. (See Tables 2 and 5).

General Gun Season - November 13-January 9

A total of 14,730 man days were spent hunting during the General Gun Season, up 4 percent from 1981-82 and up 36 percent from 1980-81. This breaks down to Units as; Bear Island - 3165, Deep Lake - 940, Monument - 5255, Stairsteps - 4195, and Loop Road - 1175. All Units showed increases except Deep Lake and Monument which showed a drop. (See Tables 3 and 6).

We are aware, as should the reader of this report, that we have refined survey techniques and most probably are doing a more efficient job of "counting people."

Hunter Kill and Success

Archery Season

During Archery Season, a total of 21 deer were checked, four from Bear Island and 17 from Stairsteps. Success rate for Bear Island was 1 deer per 101 man days of hunting, while Stairsteps was 1 deer per 13 man-days. It must be noted the deer killed in Stairsteps were killed in the area south of Loop Road which is airboat country. See Tables 1 and 4 for comparative data.

Muzzleloader Season

A total of 25 deer were checked during the 1982 Muzzleloader Season, twenty one from Bear Island and four from the Stairsteps. One deer per 42 man days of hunting was taken from Bear Island, and one per 180 days taken from Stairsteps. This harvest is a 105 percent increase over 1981. Tables 2 and 5 give additional comparative data.

General Gun Season

One hundred and four deer were checked during the 1982-83 General Gun Season, 26 from Bear Island, two from Deep Lake, 27 from Monument, 45 from Stairsteps, and four from Loop Road. This represents a 14 percent increase over last year. Success was highest on the Stairsteps and Bear Island Units, and lowest on the Deep Lake Unit. It must again be noted that we had check stations at Bear Island and Forty Mile Bend, so obviously we would check more deer on these Units. The data, however, can be compared to previous years because check stations were in the same locations and ran approximately at the same times. Tables 3 and 6 show comparative data.

Seasons Totals

A total of 150 deer were checked during the combined seasons. This compares with 104 during 1981-82 and 103 during 1982-83. This is an increase of 31 percent. Table 7 shows comparative data by Unit.

Table 1. Hunter days, deer checked, and hunter success on the Big Cypress Wildlife Management Area during the 1982-83 Archery Season.

Unit	Hunter	Deer Checked	Man Days per Deer
Bear Island	405	4	101
Deep Lake	70		
Monument	320		
Stairsteps	215	17	13
Loop Road	170		
Total	1180	21	56

Table 2. Hunter days, deer checked, and hunter success on the Big Cypress Wildlife Management Area during the 1982 Muzzleloader Season.

Unit	Hunter Days	Deer Checked	Man Days per Deer
Bear Island	880	21	42
Deep Lake	150		
Monument	795		
Stairsteps	720	4	180
Loop Road	170		
Total	2715	25	107

Table 3. Hunter days, deer checked, and hunter success on the Big Cypress Wildlife Management Area during the 1982-83 General Gun Season.

Units	Hunter Days	Deer Checked	Man Days per Deer
Bear Island	3165	26	122
Deep Lake	940	2	470
Monument	5255	27	195
Stairsteps	4195	45	93
Loop Road	1175	4	294
Total	14,730	104	142

Table 4. A comparison of man days of hunting and number of deer checked during Archery season during 1980, 1981, and 1982.

Unit	Man Days			Deer Checked		
	<u>80</u>	<u>81</u>	<u>82</u>	<u>80</u>	<u>81</u>	<u>82</u>
Bear Island	160	220	405	2	2	4
Deep Lake	120	70	70			
Monument	305	180	320			
Stairstpes	275	385	215	2	2	17
Loop Road	120	56	170			
Total	980	911	1180	4	4	21

Table 5. A comparison of man days of hunting and number of deer checked during Muzzleloader season during 1980, 1981, and 1982.

Unit	Man Days			Deer Checked		
	<u>80</u>	<u>81</u>	<u>82</u>	<u>80</u>	<u>81</u>	<u>82</u>
Bear Island	385	580	880	5	6	21
Deep Lake	180	85	150			
Monument	350	310	795		1	
Stairsteps	320	455	720	2	1	4
Loop Road	150	135	170		2	
Total	1385	1565	2715	7	10	25

Table 6. A comparison of man days of hunting and number of deer checked during the General Gun season during 1980, 1981, and 1982.

Unit	Man Days			Deer Checked		
	<u>80</u>	<u>81</u>	<u>82</u>	<u>80</u>	<u>81</u>	<u>82</u>
Bear Island	2055	2550	3165	32	24	26
Deep Lake	735	1243	940	1	1	2
Monument	4130	5340	5255	3	19	27
Stairsteps	3750	3835	4195	50	44	45
Loop Road	1205	1145	1175	6	2	4
Total	11,875	14,113	14,730	92	90	104

Table 7. A comparison of man days of hunting and number of deer checked during the combined seasons during 1980, 1981, and 1982.

Unit	Man Days			Deer Checked		
	<u>80</u>	<u>81</u>	<u>82</u>	<u>80</u>	<u>81</u>	<u>82</u>
Bear Island	2600	3350	4450	39	32	51
Deep Lake	1035	1398	1160	1	1	2
Monument	4785	5830	6370	3	20	27
Stairsteps	4345	4675	5130	54	47	66
Loop Road	1475	1336	1515	6	4	4
Total	14,240	16,589	18,625	103	104	150

Analysis of Biological Data

Age Structure

Figures 2,3,4, and 5 show the age structure of the deer harvested on the Bear Island, Monument/Deep Lake, Bear Island/Monument/Deep Lake, and the Stairsteps/Loop Road Units respectively.

On the Bear Island Unit, 43 percent were in the 1.5 age class, 31 percent in the 2.5 age class, 10 percent in the 3.5, and 4 percent in the 4.5 and 5.5+ age classes. Eight percent were in the .5 age class, all illegal deer. Table 8 shows a comparison of age classes harvested during 1980-81, 1981-82, and 1982-83. During 1981-82, 24 percent of the deer harvested were in the 3.5 and older age classes, while this year 18 percent were in these age classes. In 1981-82, 28 percent were in the 2.5, 36 percent in the 1.5 and 12 percent in the .5. When taking into consideration the relatively small sample size (around 50), where one deer in a given age class could make a significant change in the percentages, I really don't see much of a difference. As noted in last years report, 1980-81 figures are hard to compare due to a slight modification in age classification.

I would judge from the age structure that this herd appears to have normal reproduction and not overharvested to any great extent, although the percentage of 3.5 and older has decreased the past two years. This could be a function of increased harvest (true), increased reproduction, or sample size.

Sample size for the Monument/Deep Lake Units was small but age structure is shown on Figure 8. Note that 25 percent were in the 3.5 and older and only 25 percent in the 1.5. Due to the inadequate sample size, I don't think we can draw any definite conclusions except to note that all age classes are present in the harvest in "expected" percentages (except for the 1.5).

Figure 4 shows the combined age structure of the deer harvested on the Bear Island, Deep Lake, and Monument Units. These units compare favorably in terms of age structure as well as weights and antler measurements (as seen in the next section).

On the Stairsteps Unit 2 percent were in the .5 age class (illegal deer), 44 percent in the 1.5, 42 percent in the 2.5, and 12 percent in the 3.5 and older (see Figure 10). Table 9 compares this with the previous two years. From last year, the percentage of .5 dropped from 12.5 to 2 percent. Increased hunter awareness of what is "legal" is probably the reason. The percentage of 3.5 and older deer is roughly the same as 1981-82 (12 percent). The increase in the percentage of 1.5's probably has more to do with the drop in percentage of the .5's rather than increased production, although that certainly is a possibility.

Figure 2. Age structure of male deer harvested from the Monument and Deep Lake Units, Big Cypress Wildlife Management Area, during the combined deer seasons, 1982-83.

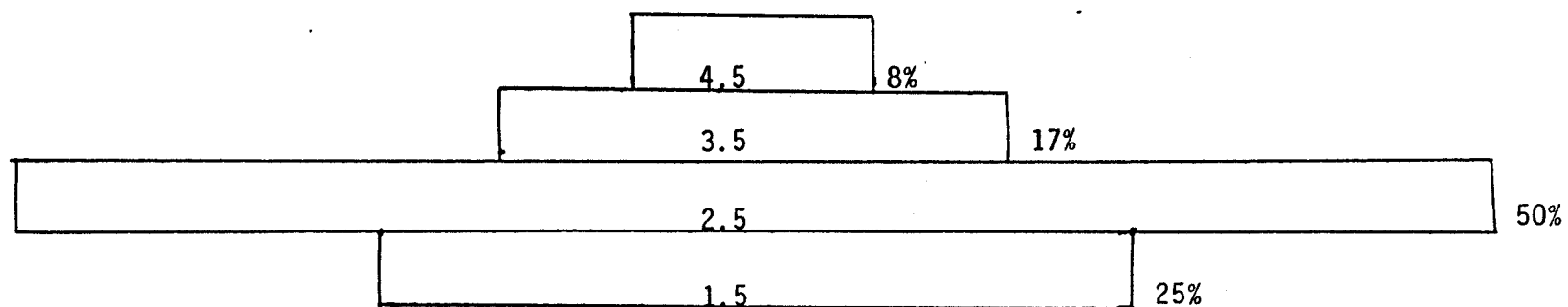


Figure 3. Age structure of male white-tailed deer harvested from the Bear Island, Monument, and Deep Lake Unit, Big Cypress Wildlife Management Area, during the combined deer seasons, 1982-83.

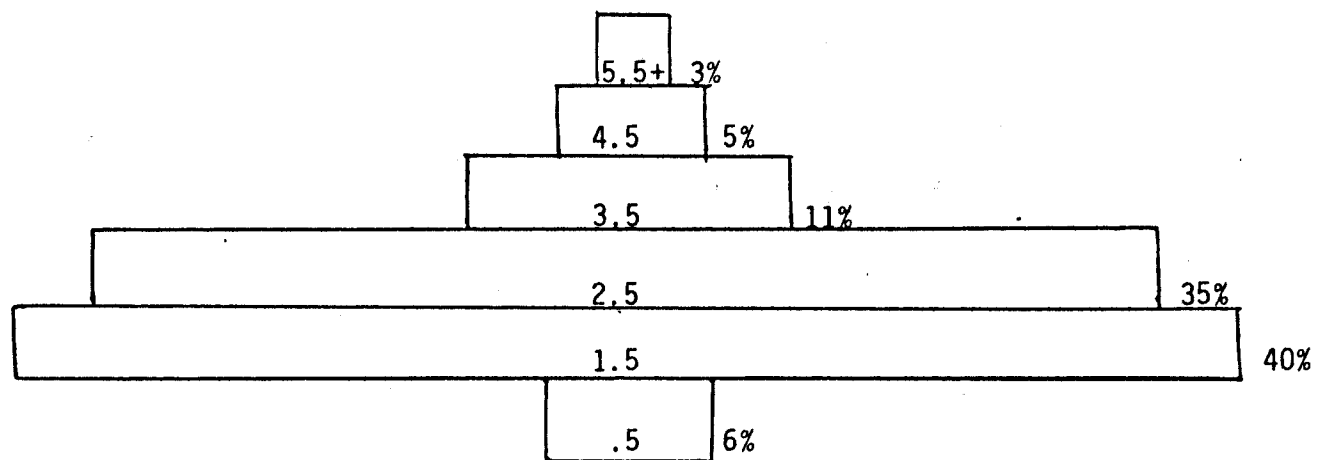


Figure 4. Age structure of male white-tailed deer harvested from the Stairsteps Unit, Big Cypress Wildlife Management Area, during the combined deer seasons, 1982-83.

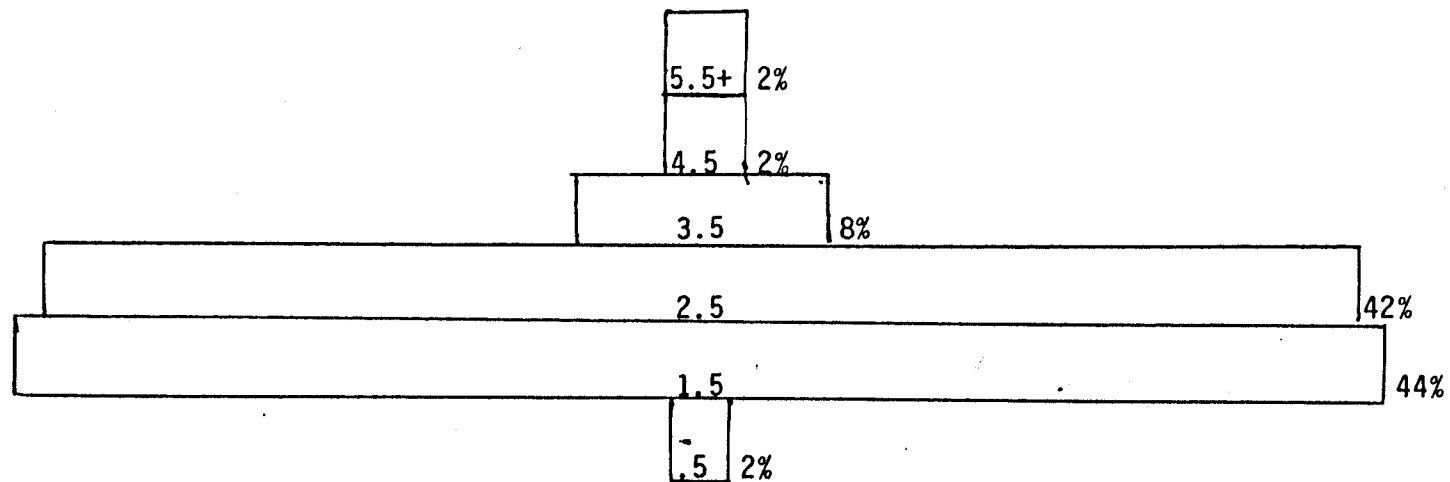


Table 8. Comparison of age structures on the Bear Island Unit, Big Cypress Wildlife Management Area, during 1980, 1981, and 1982.

<u>Year</u>	<u>Age Class</u>					
	<u>.5</u>	<u>1.5</u>	<u>2.5</u>	<u>3.5</u>	<u>4.5</u>	<u>5.5+</u>
1980	15.5%	18%	38%	15.5%	8%	5%
1981	12%	36%	28%	12%	8%	4%
1982	8%	43%	31%	10%	4%	4%

Table 9. Comparison of age structures on the Stairsteps Unit, Big Cypress Wildlife Management Area, during 1980, 1981, and 1982.

<u>Year</u>	<u>Age Class</u>					
	<u>.5</u>	<u>1.5</u>	<u>2.5</u>	<u>3.5</u>	<u>4.5</u>	<u>5.5+</u>
1980	18%	31%	33%	16%	2%	
1981	12.5%	30%	45%	12.5%		
1982	2%	44%	42%	8%	2%	2%

Physical Characteristics

Tables 10 and 11 show various antler measurements and average weights of adult and yearling deer harvested. Average antler data and weights are approximately the same for the Bear Island and Monument herds. In comparing these with the Stairsteps herd, however, there is an apparent (if not statistically) significant difference. Average weight, in both the yearling and adult age classes, was 20 pounds lighter in the Stairsteps herd. Antler measurements and average number of points were also less.

In comparing measurements with the past two years, there is very little change on either herd. Weight wise, the only apparent significant change was a drop of 13 pounds on the Stairsteps Unit. Tables 11 and 12 from the 1980-81 and 1981-82 reports respectively, show measurements and weights from those years.

Table 12. Comparison of various antler measurements and weights of adult deer (2.5+) from the Bear Island Unit, Big Cypress Wildlife Management Area, during 1980, 1981, and 1982.

Year	<u>Ant. Cir. Rt. (cm)</u>	<u>Ant. Cir. Lt. (cm)</u>	<u>Main Beam Rt. (cm)</u>	<u>Main Beam Lt. (cm)</u>	<u>Spread (cm)</u>	<u>Number Pts.</u>	<u>Wt. live (lbs.)</u>
1980	6.5	7.0	25	26	25	6	120
1981	8.0	8.0	29.5	27.5	27.5	7	112
1982	7.0	7.0	27	27	23	6	107

Table 13. Comparison of various antler measurements and weights of adult deer (2.5+) from the Stairsteps Unit, Big Cypress Wildlife Management Area, during 1980, 1981, and 1982.

Year	<u>Ant. Cir. Rt. (cm)</u>	<u>Ant. Cir. Lt. (cm)</u>	<u>Main Beam Rt. (cm)</u>	<u>Main Beam Lt. (cm)</u>	<u>Spread (cm)</u>	<u>Number Pts.</u>	<u>Wt. live (lbs.)</u>
1980	6.5	6.0	22	22	23	6	100
1981	6.5	6.5	22.5	21.5	24	5	100
1982	6.0	6.0	20	20	21	5	87

Closing Comments

Reflecting back on the past deer season, I would like to point out some positives and negatives. Some of these (+and-) were beyond our control, some caused by good (or poor) planning.

On the positive side, having a full time check station at Bear Island helped immensely, both in relieving our assigned personnel and adding additional control to the area. Increased participation by Wildlife Officers in documenting game harvested as well as a similar increase by Park Rangers certainly improved our overall efficiency of harvest determination. Oasis Ranger Station was made available to document any game brought there, and our neighbor at Ochopee, Steve Turchik, made himself available to anyone bringing any game there.

On the negative side, the camping situation on Loop Road and the condition of Pahrokee Grade were the main ones. Hopefully we can resolve these. Other negatives were recurring ones; no good place for a check station for the Monument Unit and getting commitments to work check stations and then not showing. I don't think we'll ever work these out.

Overall, it was a pretty good year.