

***Trends in Resident and Non-resident Hunter Effort and
Harvest for Gray Fox in Mississippi:
1980-91 to 2010-11 Seasons***



**Human Dimensions & Conservation Law Enforcement Laboratory
Forest and Wildlife Research Center
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***Trends in Resident and Non-resident Hunter Effort and
Harvest for Gray Fox in Mississippi:
1980-81 to 2010-11 Seasons***

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TABLE OF CONTENTS

TABLE OF CONTENTS.....	i
LIST OF TABLES.....	ii
INTRODUCTIONS & METHODS.....	1
LITERATURE CITED	2
RESULTS	3

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LIST OF TABLES & FIGURES

Table #	Page
1	Mississippi gray fox hunting effort & harvest trends for licensed resident hunters (1980-2011).....3
2	Mississippi gray fox hunting effort & harvest trends for licensed non-resident hunters (1980-2011).....8
Figure #	
1	Trends in total harvest of gray fox for licensed resident hunters (1980-2011).....4
2	Trends in average daily kill of gray fox for licensed resident hunters (1980-2011).....4
3	Trends in average seasonal harvest of gray fox for licensed resident hunters (1980-2011).....5
4	Trends in percent successful gray fox hunters for licensed resident hunters (1980-2011).....5
5	Trends in total man days gray fox hunting for licensed resident hunters (1980-2011).....6
6	Trends in average seasonal days gray fox hunting for licensed resident hunters (1980-2011).....6
7	Trends in total gray fox hunters for licensed resident hunters (1980-2011).....7
8	Trends in proportion of licensed resident hunters who hunted for gray fox (1980-2011).....7
9	Trends in total harvest of gray fox for licensed non-resident hunters (1980-2011).....9
10	Trends in average daily kill of gray fox for licensed non-resident hunters (1980-2011).....9
11	Trends in average seasonal harvest of gray fox for licensed non-resident hunters (1980-2011).....10
12	Trends in percent successful gray fox hunters for licensed non-resident hunters (1980-2011).....10

13	Trends in total man days gray fox hunting for licensed non-resident hunters (1980-2011).....	11
14	Trends in average seasonal days gray fox hunting for licensed non-resident hunters (1980-2011).....	11
15	Trends in total gray fox hunters for licensed non-resident hunters (1980-2011).....	12
16	Trends in proportion of licensed non-resident hunters who hunted for gray fox (1980-2011).....	12

INTRODUCTION & METHODS

Self-administered mail surveys of resident hunters have been conducted intermittently since the 1947-48 Mississippi hunting season to estimate hunter effort and game harvest in Mississippi, with annual surveys (unless noted) starting in 1980-1981 season. Non-resident hunter surveys began on an annual basis in 1994 (unless noted).

Currently, the annual surveys are administered by the Human Dimensions & Conservation Law Enforcement Laboratory in the Forest & Wildlife Research Center at Mississippi State University using the most recent mail survey methodology prescribed by Dillman (2000). This entails an introductory letter being sent to hunters followed one-week later by another letter, questionnaire, and business reply envelope (i.e., a complete packet). Ten days after that, hunters are sent a reminder/thank you postcard. Non-respondents are sent a complete packet as necessary three and seven weeks after the postcard.

These surveys provide information to biologists and researcher to determine trends in total harvest, average seasonal harvest per hunter, average daily harvest per hunter, average person-days spent afield, total person-days spent afield, percent successful hunters, and the proportion of hunters seeking 13 different game species, and feral hog. This report includes mail survey data for gray fox (*Urocyon cinereoargenteus*) spanning from the 1980 hunting season to the 2009-10 hunting season for resident hunters, and data spanning from the 1994 hunting season to the 2009-10 hunting season for non-resident hunters.

This document will be updated annually with most recent data and will evolve to include other measures and information as that information is extracted from archived files. This report does not attempt to determine and describe trends in hunter effort and harvest. It is meant to provide the reader with the data for these estimates in an organized manner.

LITERATURE CITED

Dillman, D.A. 2000. *Mail and Internet Surveys: The Tailored Design Method*. 2nd Edition. New York: John Wiley and Sons, Inc.

RESULTS

TABLE 1. Mississippi gray fox hunting effort and harvest trends for licensed resident hunters (1980-2011)

	TOTAL HARVEST	SE of TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN- DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT OF TOTAL LICENCEES (A)
1981	5,208	951	0.06	1.11	51.4	72,659	19.33	4,818	1.9
1982	9,811	3,953	0.09	2.4	66.7	52,289	17.36	4,222	1.7
1983	3,246	1,169	0.04	1.04	68.0	60,356	25.37	3,122	1.2
1984	4,743	1,800	0.07	1.68	55.0	61,217	21.74	2,963	1.1
1985	2,612	841	0.03	0.79	48.3	73,798	24.96	3,293	1.3
1986	1,850	399	0.06	0.79	63.6	22,626	12.21	2,394	0.9
1987	6,539	2,268	0.05	1.39	56.8	110,899	29.14	4,836	1.9
1988	4,353	1,062	0.04	0.67	53.3	79,046	15.06	6,529	2.5
1989	-	-	-	-	-	-	-	-	-
1990	3,069	830	0.05	1.10	75.0	52,234	21.72	23,394	10.2
1991	5,361	2,530	0.41	2.47	89.5	6,394	3.50	7,567	3.3
1992	6,167	2,059	0.31	2.92	69.2	19,081	10.35	2,082	0.9
1993	2,123	611	0.07	0.80	50.0	25,678	10.74	2,653	1.2
1994	1,496	419	0.07	1.06	73.5	12,734	10.93	1,413	0.6
1995	7,255	2,936	0.29	4.80	90.5	24,653	18.11	1,586	0.7
1996	1,291	487	0.09	1.08	69.2	11,533	11.36	1,198	0.6
1997	2,748	1,123	0.09	1.52	60.9	37,638	11.36	1,806	0.9
1998	3,031	1,772	0.18	2.00	76.5	13,270	11.77	1,472	0.7
1999	1,998	1,112	0.07	1.77	65.4	24,046	26.33	1,173	0.6
2000	-	-	-	-	-	-	-	-	-
2001	1,215	679.43	0.29	1.90	60.0	1,983	3.88	639	0.3
2002	290	216.24	0.03	0.50	33.3	9,189	15.83	580	0.3
2003	2,843	1,864.51	0.20	2.27	72.7	12,411	12.11	1,251	0.7
2004	708	470	1	1.67	100	141	1	425	0.2
2005	1,182	622	0.01	1.00	66.7	26,074	44	1,182	0.6
2006	3,387	1,855	0.12	3.30	60	16,555	23	1,026	0.6
2007	745	553	0.25	2.33	100	0	0	319	0.2
2008	3,472	2,212	0.54	2.58	83.3	5,217	5.33	1,302	0.7
2009	873	504	0.13	1.2	80	6,694	9.2	728	0.4
2010	1,757	943	0.32	2.5	100	2,582	7.33	703	0.4
2011	1,237	531	0.06	0.90	70	8,958	9.29	1,375	0.8

(A) Calculated as a percent of small game license holders only

Figure 1. Trends in total harvest of gray fox for licensed resident hunters (1980-2011)

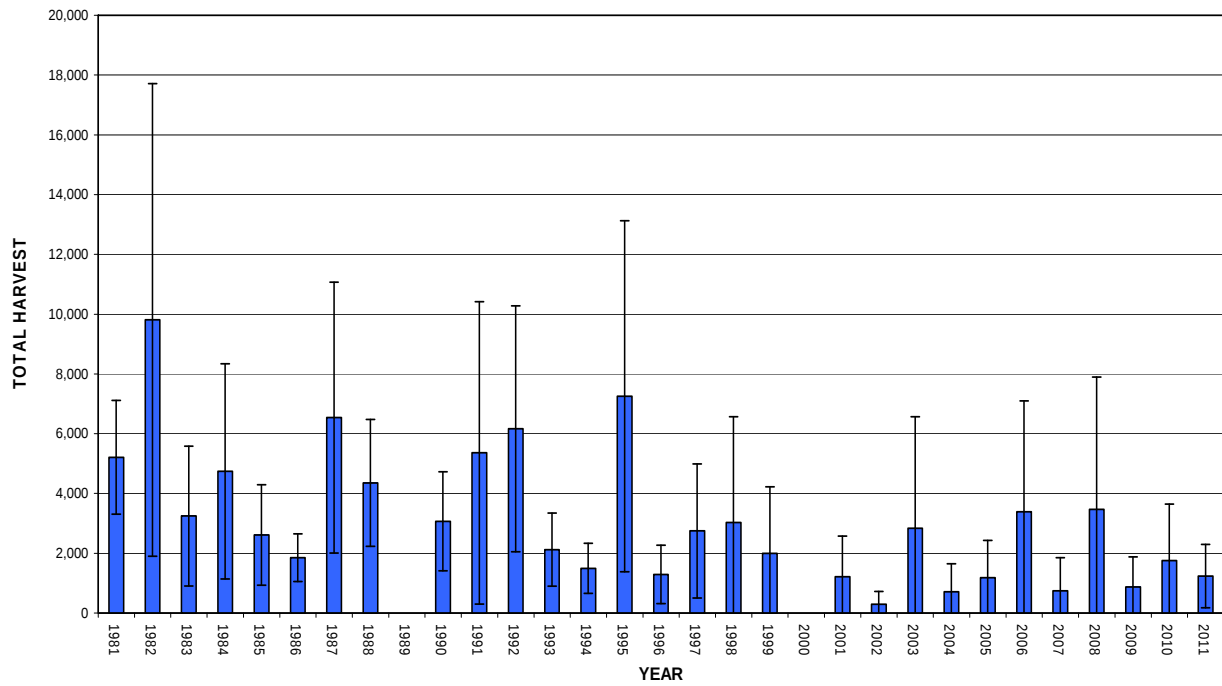


Figure 2. Trends in average daily kill of gray fox for licensed resident hunters (1980-2011)

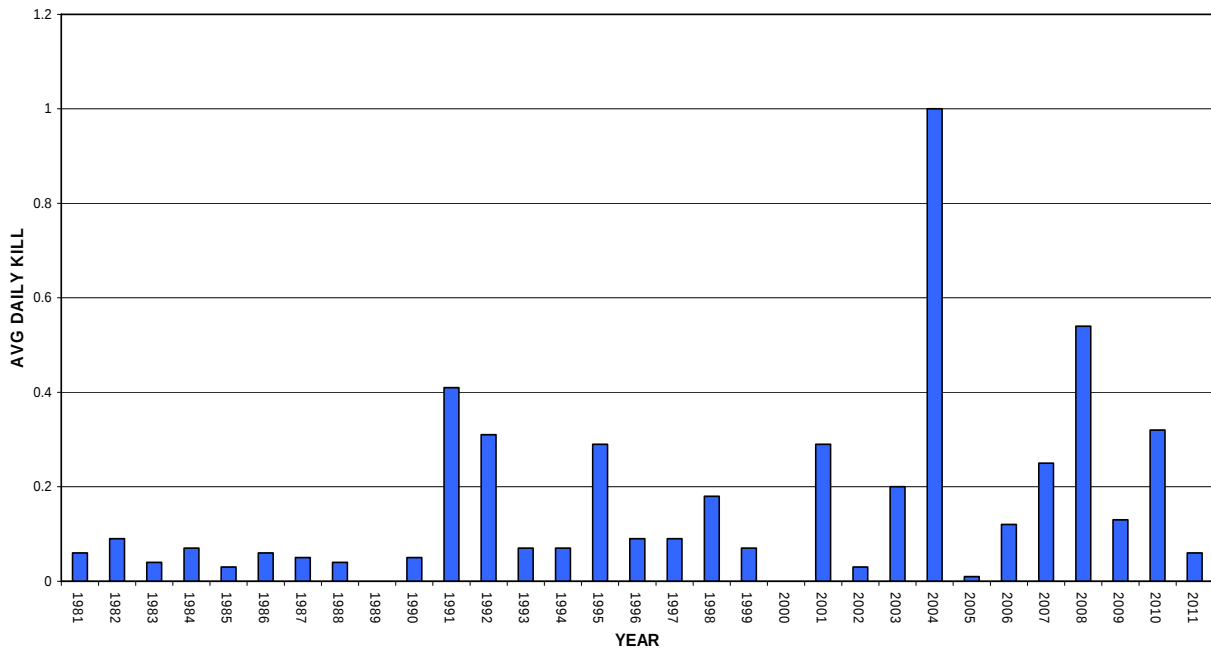


Figure 3. Trends in average seasonal harvest of gray fox for licensed resident hunters (1980-2011)

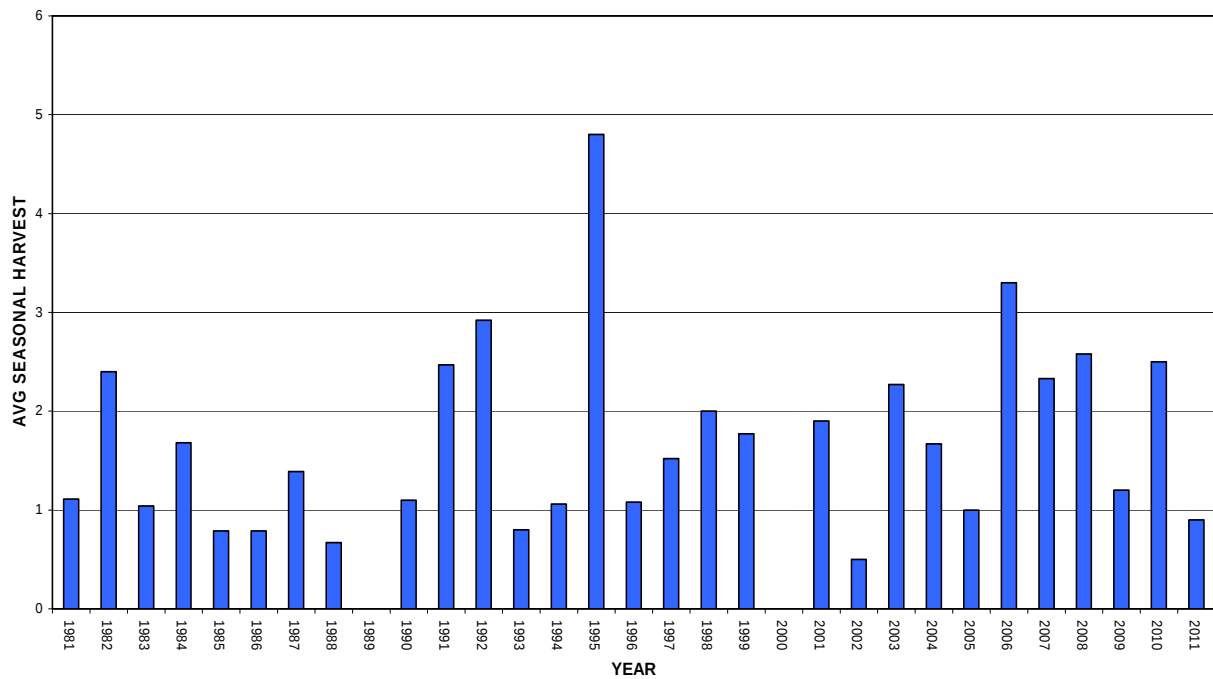


Figure 4. Trends in percent successful gray fox hunters for licensed resident hunters (1980-2009)

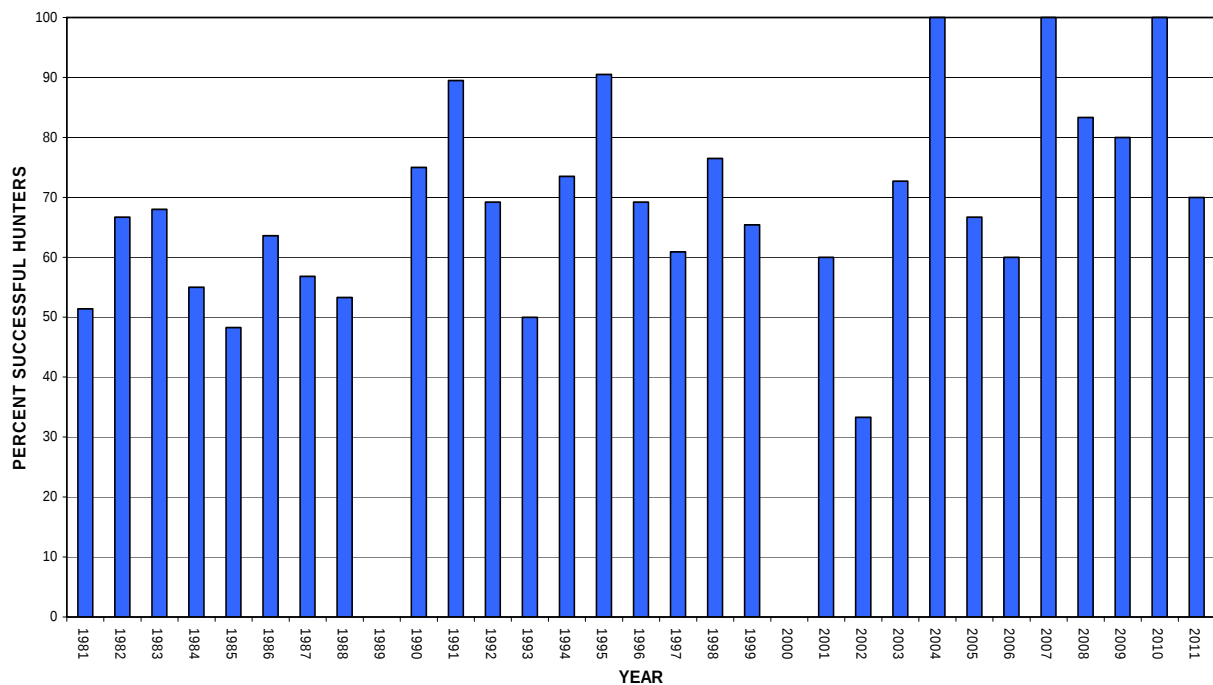


Figure 5. Trends in total man days gray fox hunting for licensed resident hunters (1980-2011)

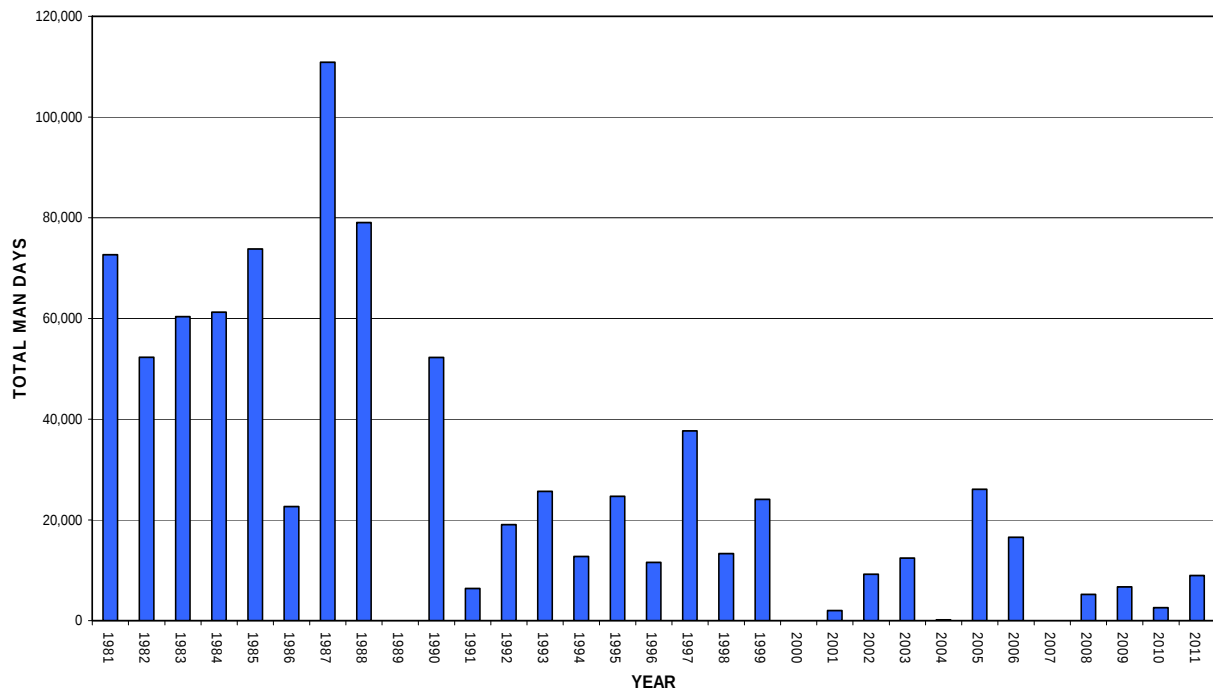


Figure 6. Trends in average seasonal days gray fox hunting for licensed resident hunters (1980-2011)

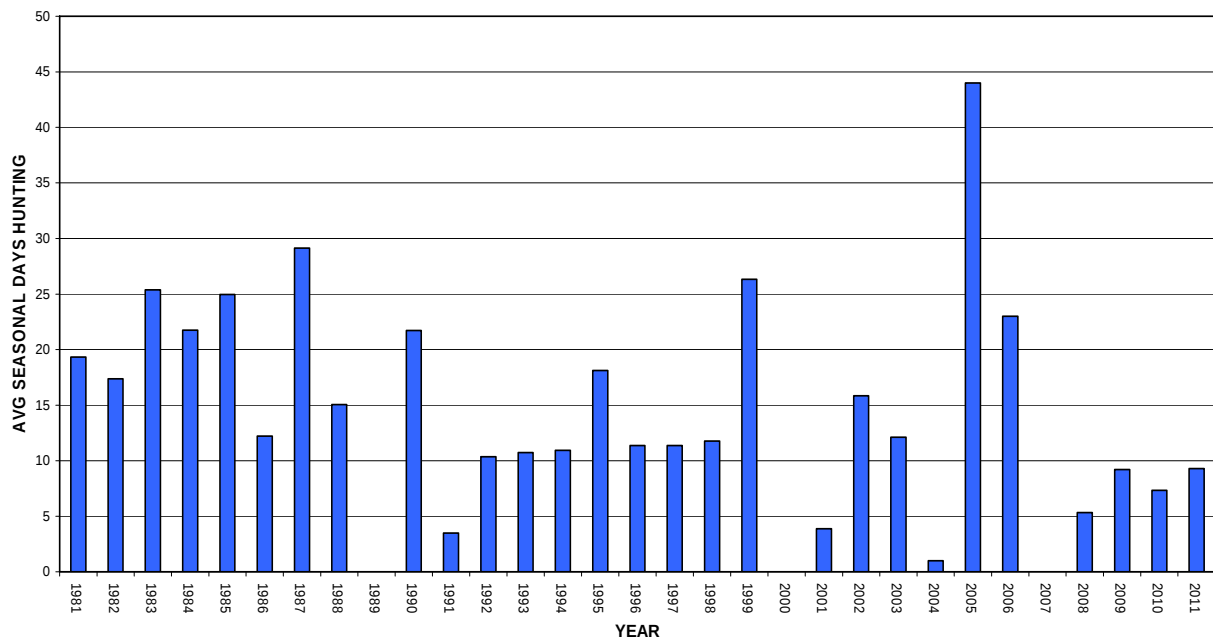


Figure 7. Trends in total gray fox hunters for licensed resident hunters (1980-2009)

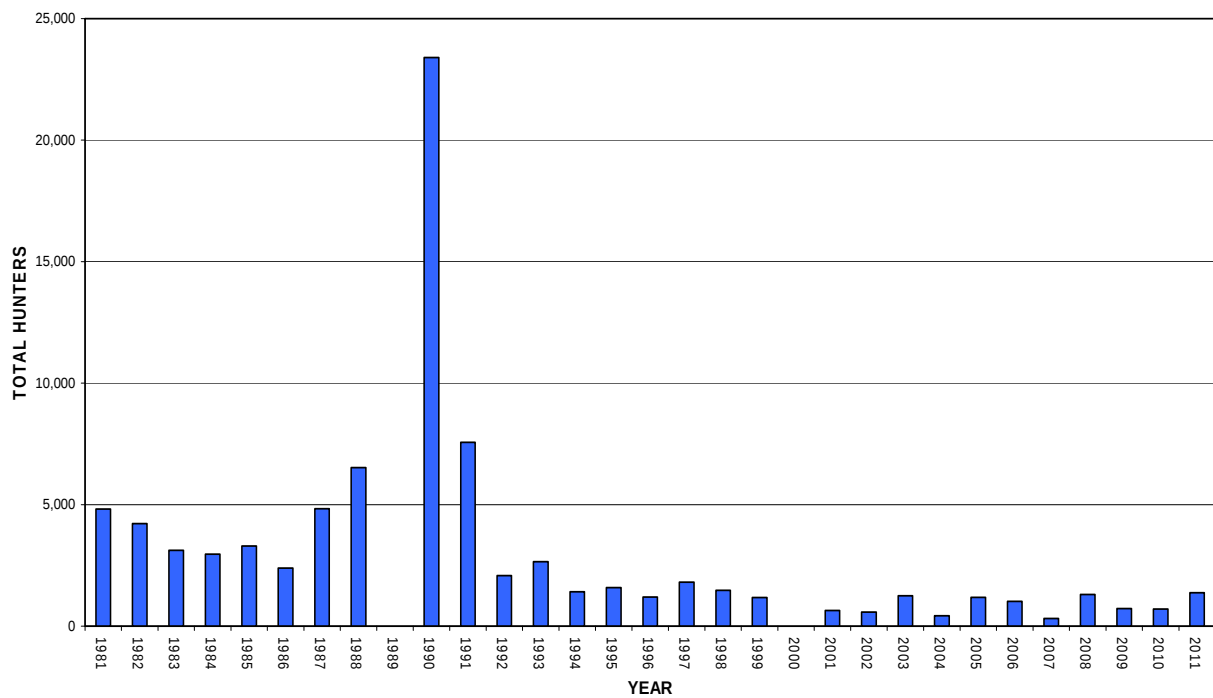


Figure 8. Trends in proportion of licensed resident hunters who hunted for gray fox (1980-2011)

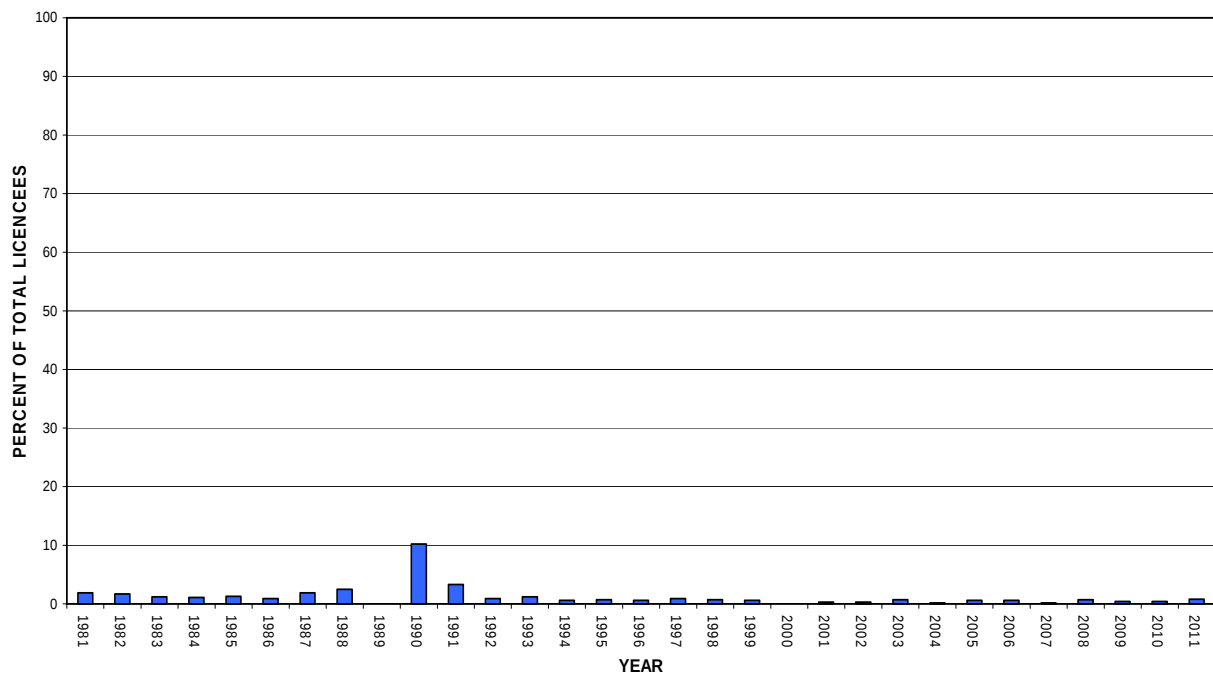


TABLE 2. Mississippi gray fox hunting effort and harvest trends for licensed non-resident hunters (1994-2011)

	TOTAL HARVEST	SE of TOTAL HARVEST	AVERAGE DAILY KILL	AVERAGE SEASONAL HARVEST	PERCENT SUCCESSFUL HUNTERS	TOTAL MAN- DAYS	AVERAGE SEASONAL DAYS HUNTING	TOTAL HUNTERS	PERCENT OF TOTAL LICENCEES (A)
1995	178	-	0.34	1.91	1	516	5.55	93	0.006
1996	34	-	0.22	0.8	80	155	3.6	43	0.3
1997	-	-	-	-	-	-	-	-	-
1998	129	-	1.75	2.9	100	78	1.6	58	0.25
1999	11	-	0.25	0.66	67	43	1	16	0.1
2000	-	-	-	-	-	-	-	-	-
2001	88	31.25	0.04	0.88	87.5	1,328	20	88	0.3
2002	60	36.63	0.13	1.33	1	479	10.67	45	0.1
2003	24.47	54.47	0	1	1	0	0	24	0.1
2004	135	93	0.6	2	75	169	3.33	68	0.2
2005	0	0	0	0	0	265	12	23	0.07
2006	32	22	0.2	1	100	158	5	32	0.1
2007	0	0	0	0	0	140	4	35	0.1
2008	67	47	0.07	1	100	1,169	35	67	0.2
2009	0	0	0	0	0	0	0	0	0
2010	41	41	0	1	100	0	0	41	0.1
2011	166	102	0.13	1	75	665	5.33	166	0.5

(A) Calculated as a percent of small game license holders only

Figure 9. Trends in total harvest of gray fox for licensed non-resident hunters (1994-2011)

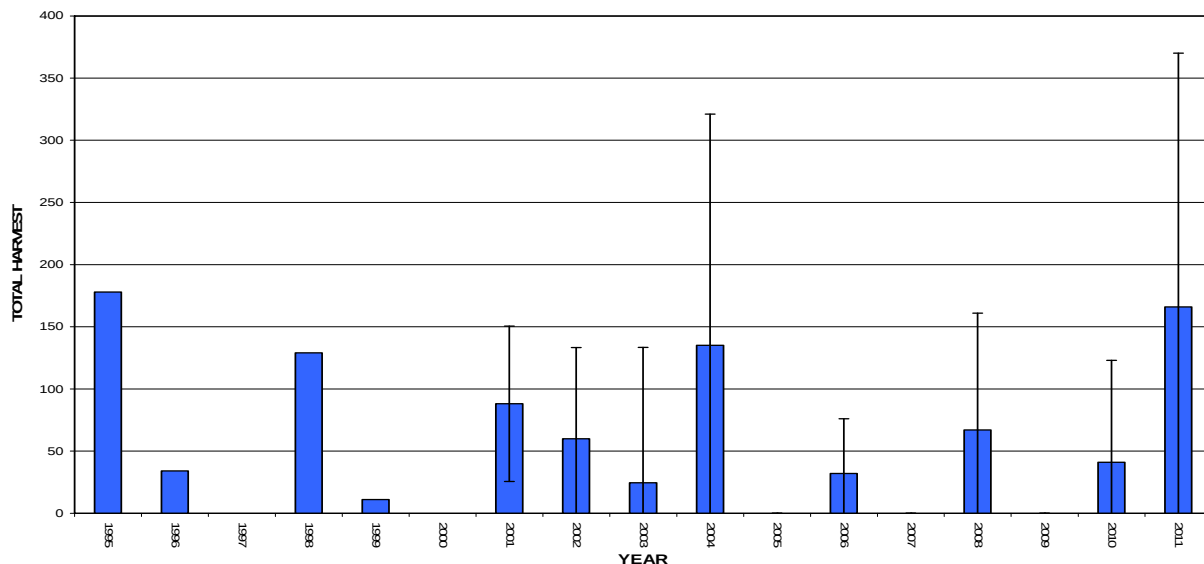


Figure 10. Trends in average daily kill of gray fox for licensed non-resident hunters (1994-2011)

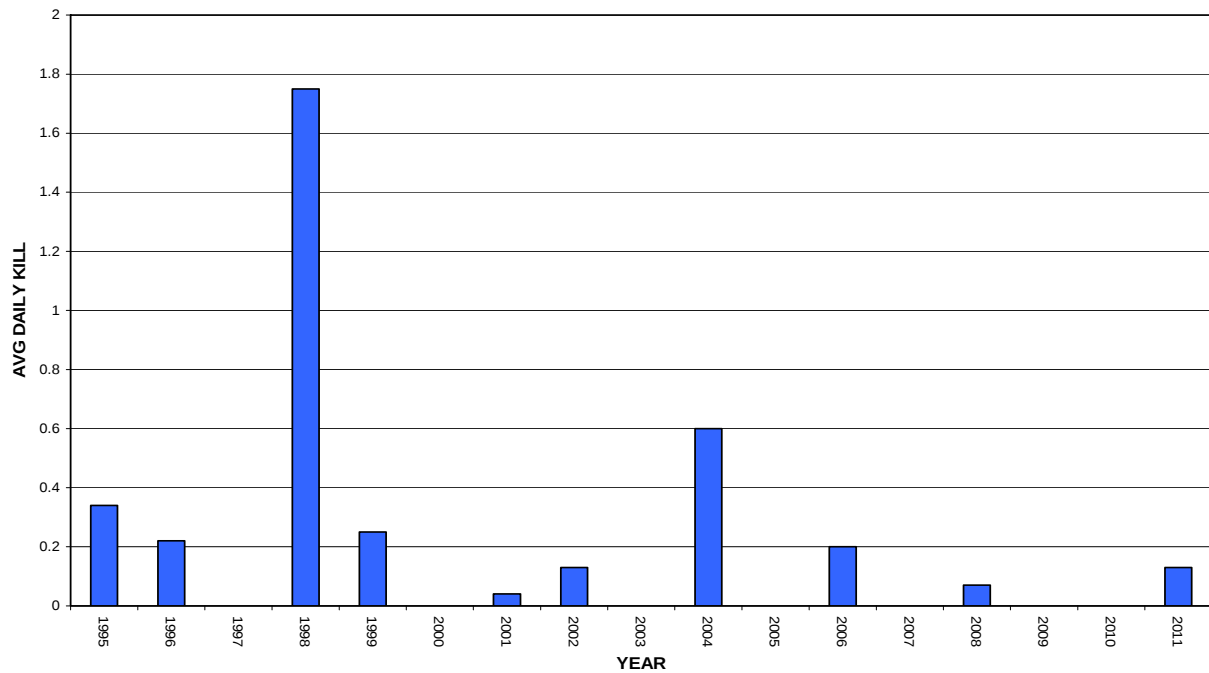


Figure 11. Trends in average seasonal harvest of gray fox for licensed non-resident hunters (1994-2011)

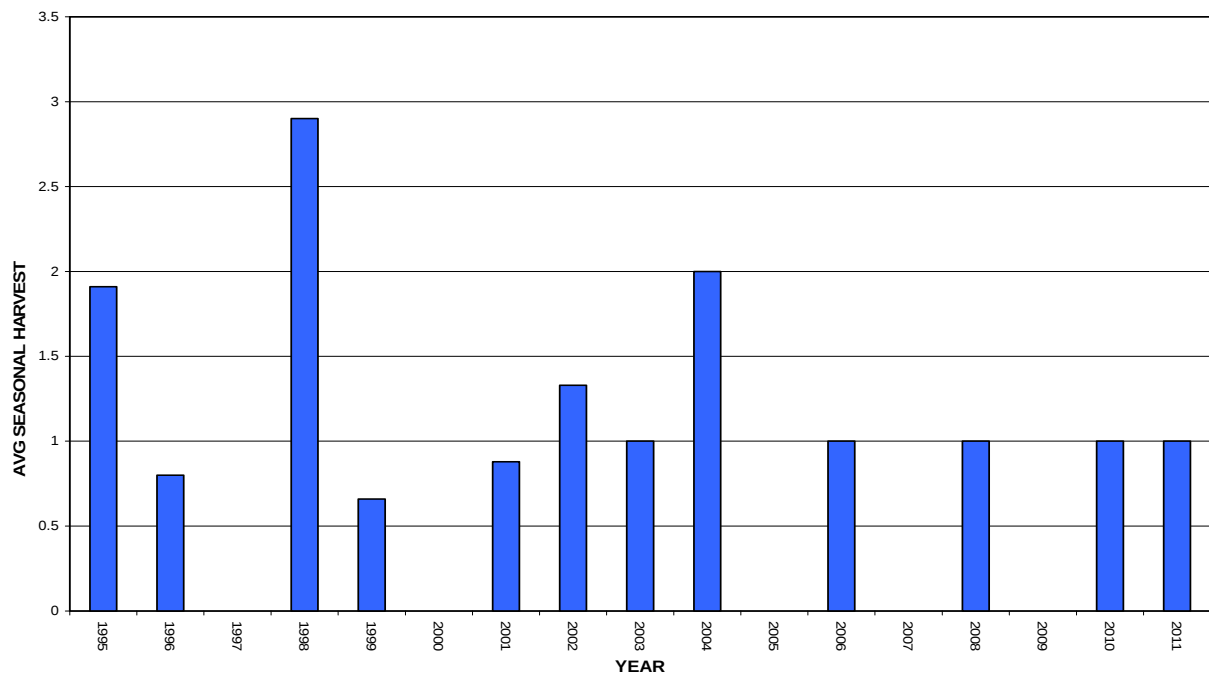


Figure 12. Trends in percent successful gray fox hunters for licensed non-resident hunters (1994-2011)

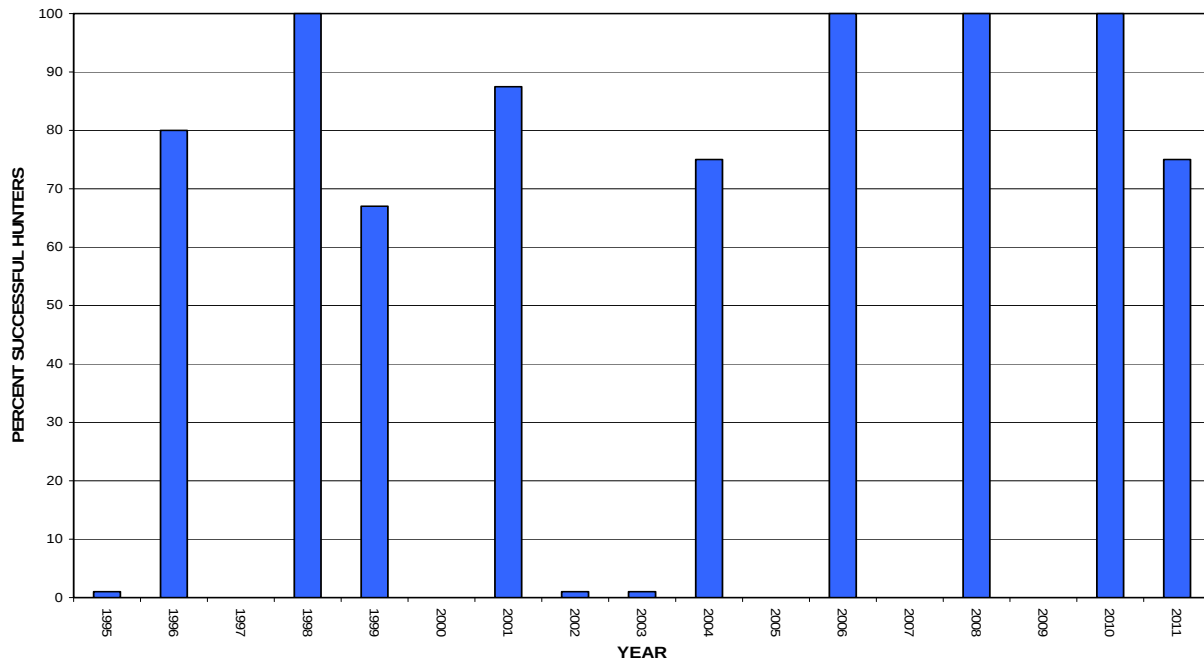


Figure 13. Trends in total man days gray fox hunting for licensed non-resident hunters (1994-2011)

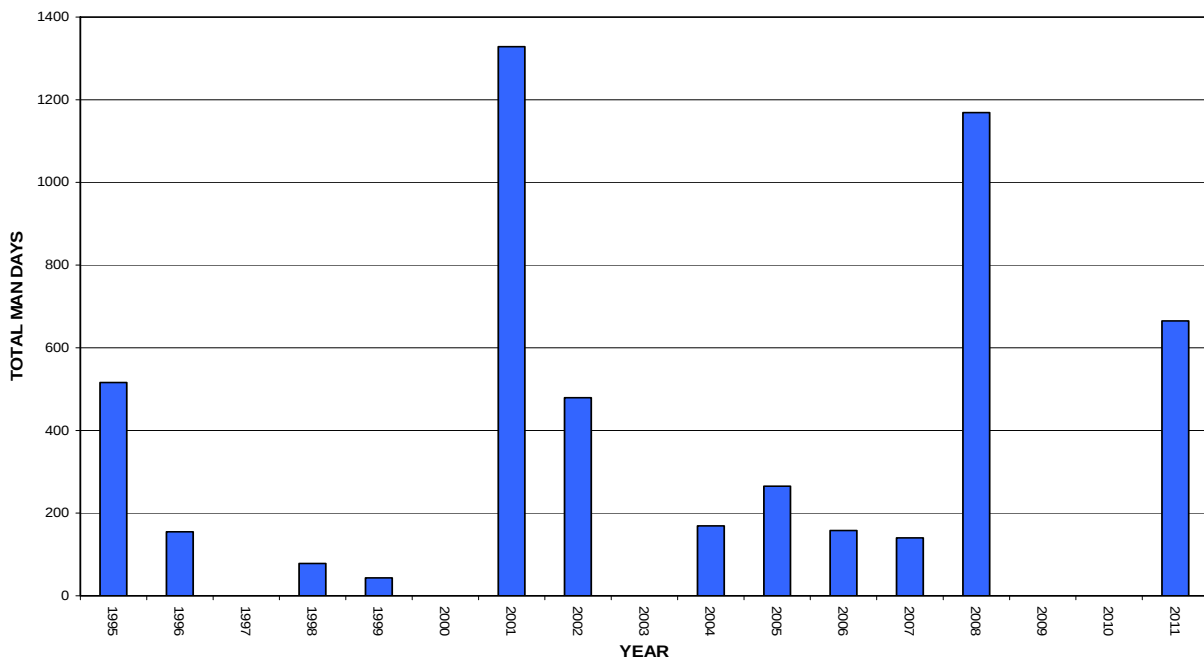


Figure 14. Trends in average seasonal days gray fox hunting for licensed non-resident hunters (1994-2011)

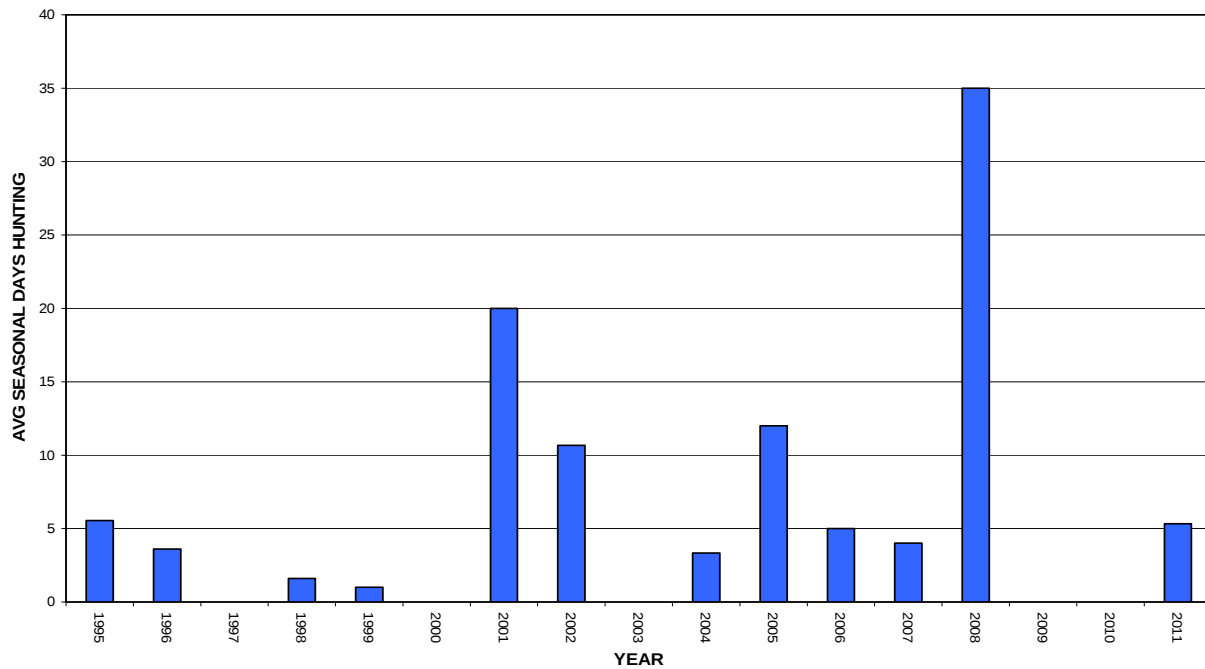


Figure 15. Trends in total gray fox hunters for licensed non-resident hunters (1994-2011)

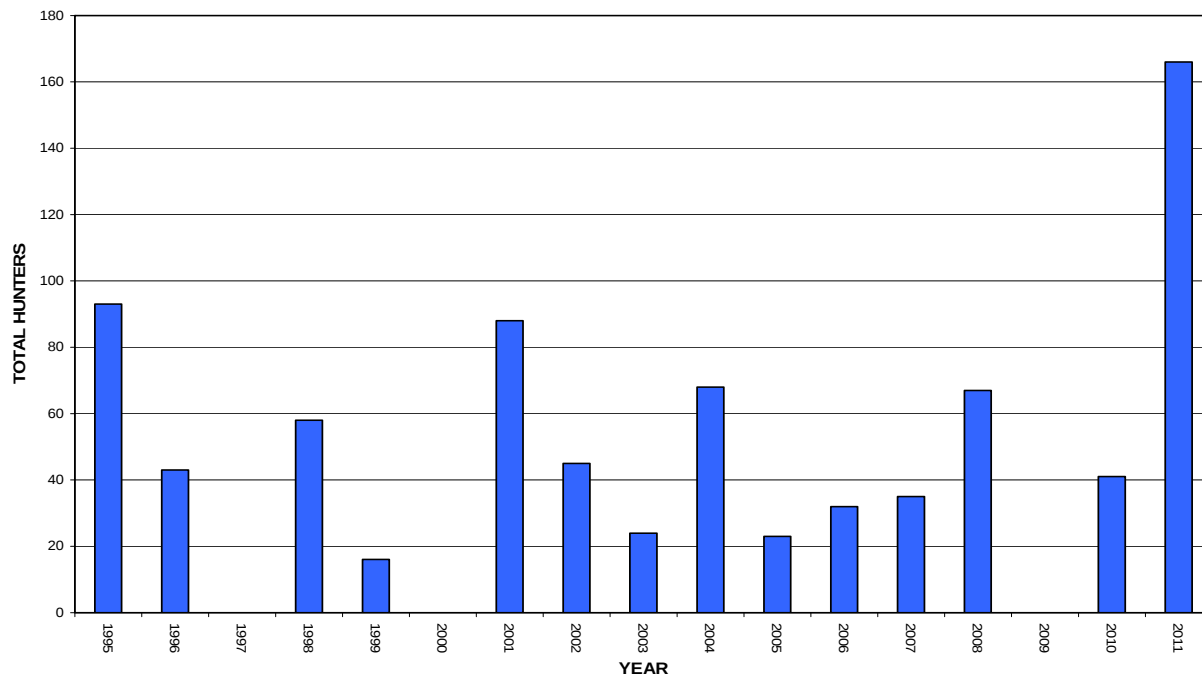


Figure 16. Trends in proportion of licensed non-resident hunters who hunted for gray fox (1994-2011)

