

REESTABLISHMENT OF RED WOLVES IN
EASTERN NORTH CAROLINA
ANNUAL SUMMARY
1 JANUARY 1994 TO DECEMBER 1994



U.S. FISH AND WILDLIFE SERVICE
REGION IV
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by

MICHAEL L. MORSE
ALLIGATOR RIVER/POCOSIN LAKES NATIONAL WILDLIFE REFUGES
U.S. FISH AND WILDLIFE SERVICE
MANTEO, NORTH CAROLINA

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INTRODUCTION

The purpose of this report is to summarize the activities of the U.S. Fish and Wildlife Service's (USFWS) efforts to reestablish a population of red wolves (Canis rufus) in eastern North Carolina in and around both the Alligator River (ARNWR) and Pocosin Lakes National Wildlife Refuges (PLNWR) from 1 January 1994 through 31 December 1994.

RELEASES

During 1994, staff released 8 wolves (4 adult pairs) west of Alligator River (Pocosin Lakes NWR /private land) [Table 1]. All adults released were captive born except 497M (wild born 1991). Of the 8 wolves released, only one (379F) is currently free-ranging; 3 were pulled for management reasons (374M, 437F, 448F), 2 were killed by automobile strikes (465M, 383F) and 2 were shot (375M, 497M). Released adults ranged in age from 34 months to 55 months. More releases are planned for Pocosin Lakes NWR during 1995.

PRODUCTION IN THE WILD

During 1994, a minimum of 34 pups were produced from at least 10 litters [Table 2]. Ten of the 13 wolf pairs consorting together in eastern NC during the 1994 breeding season produced litters [Table 3]. Five of the 10 breeding pairs had previously produced litters in the wild; one had prior captive breeding experience [Table 3]. Of the 20 adult wolves that bred in the wild during 1994, 12 were wild born (60%) and 8 were born in captivity (40%) [Table 3].

MONITORING

During 1994, project staff continued to conduct aerial telemetry in an effort to monitor the free ranging wolf population in eastern NC. We flew 117 flights for a total of 235 hours (2hr/flight) and recorded over 4000 wolf locations during 1994. Primarily using a modified version of the Woodstream #3 "soft-catch" leg hold trap we captured 62 wolves a total of 84 times, 23 of the 62 wolf captures were 1994 pups.

RED WOLF MORTALITY DURING 1994

During 1994 in Carolina, red wolf births were offset by the death of 24 wolves [Table 4]. Four wolves were killed by automobiles while 2 were shot during 1994.

Adult pair 319M and 300F (Gator Pack) were the first pair of red wolves to die of old age since the project began in 1987. 300F was first released on 04/12/88 as a yearling with adult 140M while 319M was first released on 09/04/89 as a 2 year old with adult 316F (contact was lost with 316F after 3.8 months in the wild). Male 140 was hit and killed by a vehicle after 5.8 months in the wild (140M had been released originally with 231F on 09/14/87 who died

from internal bleeding after 2 weeks in the wild). As you can see, 300F had established a long history with the project from the beginning. Female 300 became stepmother for the first red wolf pup born in the wild [(344F) - 88 litter 211M x 196F] when 196F died of a uterine infection on 06/25/88.

Female 300 was returned to captivity for breeding purposes on 01/08/89 and subsequently rereleased with adult 208M on 07/03/89. Male 208 was killed by a vehicle the same month on 07/31/89. We first located 319M and 300F together from the air on 11/15/89. From that time the pair produced a minimum of 7 pups [(442M, 443F, 444F - 1990), (509? -1991), (580F, 581M, 582F - 1992)] in the wild (300F did not den up during the 1993 breeding season). Male 319 spent a total of 55 months in the wild while 300F spent 66.6 months in the wild.

CURRENT POPULATION

The free ranging population of red wolves during 1994 had access to over 500,000 acres of public and private: forests, pocosins, swamps and agriculture fields on the Pamlico Peninsula in eastern NC.

As a result of releases, births, deaths and some management actions, the free-ranging red wolf population fluctuated on nearly a monthly basis [Table 5]. As of 31 December the population included a minimum of 43 wolves (86.1% wild born) that had been in the wild for an average of 26.3 months [Table 6]. The average age was 29.5 months old. This population consist of 12 social groups [Table 7]. In addition, up to 21 wolves had unknown fates due to lost radio contact or wild-born wolves that were observed but not captured) [Table 8].

During February 1995, the staff expect about 10 red wolf pairs to breed in the wild. These breedings should result in the production of about 21 to 25 pups which will mature to an age of self-sufficiency. Thus, by December 1995, the red wolf population should include 65 to 75 animals, of which near 90% will have been born in the wild.

DISPERSAL

There were 4 dispersal events during 1994 in eastern NC [Table 9]. Dispersal ages for these red wolves ranged from 8 to 41 months for first time dispersers; 442M dispersed a second time at age 57 months (see table 9). Male 671 was displaced from his natal home range as a pup by 358M as 358M paired with 508F in January 1994. Male 507 (331M x 205F -91 litter) dispersed the shortest distance during 1994 to establish a home range just south of his natal home range (see Table 3 - a). Male 583 (392M x 344F 92 litter) dispersed and began consorting with 443F at the end of December 1994. Dispersal distances ranged from 14 km to 38 km.

CAPTIVE POPULATION

During 1994, 17 to 27 captive wolves were maintained at the Alligator River NWR breeding facility. As of December 31, 22 wolves resided at the facility [Table 10].

Due to an overall lack of pen space within the red wolf captive breeding program, captive wolves were separated at the Sandy Ridge captive facility (ARNWR) to prohibit production of litters in 1994. Nonetheless, released pair 374M & 437F had to be placed back into captivity after showing tolerance towards humans and subsequently whelped in captivity [Table 11].

Captive breeding at the refuge has become an increasingly important component of the restoration effort. Since 1986, 116 wolves have been maintained at the facilities' 15 pens for a varying periods of time. This has included 30 captive adult pairs which have been maintained through breeding seasons. Eleven of these pairs bred successfully and produced 47 pups.

PUBLIC COMMUNICATION

During this, the seventh year of the red wolf program in eastern NC, the red wolf crew continued to present programs designed to not only to educate the public about wolves but also to address concerns voiced by local communities. The wolf crew presented 31 red wolf programs including 8 wolf howlings in addition to filling 6 media requests for interviews and information [Table 12].

ACKNOWLEDGEMENTS

Many people and organizations have contributed to the success of the red wolf reestablishment effort in eastern NC during the last year. Biologists Art Beyer, Jennifer Gilbreath and Jonathan Windley continued to be highly productive during 1994. September 28, 1994 was Field Coordinator Mike Phillips last day with the eastern NC wolf project; he is a good friend and leader and we wish him and the grey wolf recovery effort at Yellowstone National Park the best of luck in the coming years. We would like to thank: the staffs at Alligator River and Pocosin Lakes National Wildlife Refuges; Red Wolf Species Coordinator, Gary Henry and the FWS Asheville Field Office for their support and help throughout the year; also the GSMNP red wolf field crew for their helping out on trapping details to NC during 1994. We would also like to thank the 1994 red wolf volunteer caretakers: Linda Bowers - September 93 - April 94, Heidi Michaels - May 94 - July 94, and Rae Braudaway - August 94 - December 94 for all their efforts while they were here; they all did an outstanding job. Many thanks go out to the Red Wolf SSP Coordinator Will Waddell, RW Primary Caretaker Sue Behrns and all of the Red Wolf SSP cooperating zoos and breeding facilities for their participation in the RWSSP. Special thanks go to both the North Banks Rotary Club for all their efforts with

funding our caretakers and for continuing to lead fund - raising programs and to the National Fish and Wildlife Foundation for continuing to administer the Red Wolf Fund. Thank you all.

Table 1. Information about red wolf pairs released into eastern North Carolina (west of Alligator River) from 1 January 1994 to 31 December 1994.

Wolf Pair	Release Date	Release Age (mos)	# Months Paired ^a	Location of Home Range ^b	Produced Offspring (Y/N)	Outcome
375M	01/05/94	55	13	public	N	gunshot on 11/09/94
379F	"	55	"	"	N	free ranging
465M	02/02/94	34	7	private	N	killed by vehicle on 02/15/94
448F	"	34	"	"	N	pulled for management purposes
374M	02/03/94	55	7	public	Y	pulled for management purposes
437F	"	44	"	"	Y ^c	pulled for management purposes
497M	04/14/94	36	4	private	Y	gunshot on 12/31/94
383F	"	55	"	"	Y ^d	killed by vehicle on 05/29/94

^a - Number of months paired together before release.

^b - Public lands include State and Federal holdings; Private lands accessed through agreements with landowners.

^c - 437F & 374M bred in the wild after release but whelped in captivity due to being pulled for showing tolerance towards humans.

^d - 383F & 497M bred in captivity; 383F dispersed South from release area before whelping (3.2 pups) on 04/21/95; captured and removed from private land on 04/22/94 and re-released with pups on 04/25/94.

Table 2. Information about red wolves born in the wild in northeastern North Carolina during the 1994 breeding season.

34 #
30 #

Wolf# & sex	Parents (M/F)	Birth date	Period monitored	# Mos. monitored	Comments
693M	(497/383)	4/21/94	-----	-----	see mort. table
694M	" "	"	-----	-----	see mort. table
695M	" "	"	-----	-----	see mort. table
696F	" "	"	-----	-----	see mort. table
697F	" "	"	-----	-----	see mort. table
698F	(504/496)	4/21/94	08/31/94 12/31/94	4.0	free ranging
699F	" "	"	09/05/94 09/06/94		slipped collar free ranging
700	" "	"	-----	-----	observed 5/18/94
745M	(331/394)	4/5/94	12/19/94 12/31/94	0.4	free ranging
746M	" "	"	12/23/94 12/31/94	0.2	free ranging
747F	" "	"	-----		observed 6/18/94
748?	(507/444)	5/1/94	-----	-----	observed 8/09/94
749?	" "	"	-----	-----	observed 8/09/94
750?	" "	"	-----	-----	observed 8/09/94
751M	(372/382)	5/1/94	-----	-----	hit by vehicle
752M	" "	"	10/19/94 12/31/94	2.3	free ranging
753M	" "	"	10/19/94 11/07/94	0.6	slipped collar
754M	" "	"	10/25/94 12/31/94	2.2	free ranging
755M	(442/500)	5/1/94	09/23/94 12/31/94	3.2	free ranging
756F	" "	"	09/23/94 12/31/94	3.2	free ranging
757F	" "	"	09/23/94 10/07/94		died from pesti- cide ingestion
759M	(358/508)	4/12/94	10/26/94 12/31/94	2.2	free ranging
760F	" "	"	10/26/94 12/31/94	2.2	free ranging
761F	" "	"	10/26/94 12/31/94	2.2	free ranging
762?	" "	"	-----	-----	observed 10/94

Table 2 (Cont.) Information about red wolves born in the wild in northeastern North Carolina during the 1994 breeding season.

Wolf# & sex	Parents (M/F)	Birth date	Period monitored	# Mos. monitored	Comments
763F	(392/344)	4/27/94	11/03/94 12/31/94	2.0	free ranging
764F	" "	"	11/03/94 12/31/94	2.0	free ranging
795M	" "	"	-----	-----	captured 5/95
766M	(670/503)	4/18/94	12/18/94 12/31/94	0.5	free ranging
768M	" "	"	12/22/94 12/31/94	0.3	free ranging
770M (!/?) ??					
772M	(506/502)	5/1/94	-----	-----	captured 2/95
773M	" "	"	-----	-----	captured 2/95
774F	" "	"	-----	-----	captured 2/95
775?	" "	"	-----	-----	observed 2/95

35
 - 1 (770M)
 - 5 693-697

Table 3. Information about red wolves consorting together during the 1994 breeding season in eastern North Carolina.

Wolf# & sex	Birth location	Produced litter 94	Produced litter previously	Months spent together	Outcome
497M ^a 383F	wild captivity	yes "	no yes(c)	0.25	gunshot vehicle
331M 394F	captivity captivity	yes "	yes(w) yes(w)	38	free ranging free ranging
319M 300F	captivity captivity	no no	yes(w) yes(w)	52.5	died 04/94 died 08/94
374M 437F	captivity captivity	yes(c) yes(c)	no no	.75	pulled pulled
507M 444F	wild wild	yes yes	no no	3 ^b	free ranging free ranging
372M 382F	captivity captivity	yes yes	yes(c) yes(c)	20	drowned ^c free ranging
506M 502F	wild wild	yes yes	yes(w) yes(w)	21.5	free ranging free ranging
392M 344F	captivity wild	yes yes	yes(w) yes(w)	65	free ranging free ranging
442M 500F	wild wild	yes yes	no no	20.5	free ranging free ranging
504M 496M	wild wild	yes yes	yes(w) ^d yes(w)	21 ^e	free ranging free ranging
358M 508F	captivity wild	yes yes	no yes(w)	10.2	died-mange free ranging
670M 503F	wild wild	yes yes	no no	12.5	free ranging free ranging
375M 379F	captivity captivity	no no	no no	10	gunshot free ranging

^a - 497M and 383F released after breeding in captivity.

- b - 444F and 507M were located in the extreme western portion of 507M's natal home range (NHR) (5 km North of 444F's NHR) from 02/07/94 through 02/14/94 and then in the extreme northern portion of 444F's NHR through 02/23/94. 444F whelped alone in the extreme eastern portion of her NHR around 05/01/94. 507M moved back to his NHR till 09/21/94 when he was again located with 444F in her NHR; this was after 444F's parents had died [(319M - 04/01/94) & (300F - 08/12/94)] from old age.
- c - 372M drowned during processing on 04/03/94.
- d - Although 496F whelped in 1993, we can't be positive about 504M being her mate because his radio collar quit and was off the air till captured in 1995.
- e - 21 months is the minimum amount of time we believe that 504M spent with 496F due to lost radio contact with 504M in the fall of 1992 before 504M dispersed from his natal home range.

Table 4. Information on mortality of red wolves born in the wild from 1 January through 31 December 1994.

Wolf	Date of Death	# Mos in Wild	Cause of Death
377F	01/02/94	0.5	killed in collision with vehicle
465M	02/15/94	0.5	killed in collision with vehicle
319M	04/01/94	55.0	old age (300F's mate)
372M	04/03/94	20.0	drowned during processing
676M	04/15/94	---	died at 2 days old in captivity
383F	05/29/94	1.5	killed in collision with vehicle
693M	05/29/94	1.25	6 wk-old pup of 383F presumed dead
694M	05/29/94	1.25	6 wk-old pup of 383F presumed dead
695M	05/29/94	1.25	6 wk-old pup of 383F presumed dead
696F	05/29/94	1.25	6 wk-old pup of 383F presumed dead
697F	05/29/94	1.25	6 wk-old pup of 383F presumed dead
588F	06/17/94	10.5	unknown-possible starvation
589F	06/22/94	10.5	unknown-possible starvation
586M	08/07/94	12.0	unknown-possible starvation
300F	08/12/94	66.6	old age (319M's mate)
591F	08/16/94	8.5	euthanized-emaciation/heart failure
751M	08/18/94	4.0	killed in collision with vehicle
408F	08/26/94	12.0	unknown-possible starvation
757F	10/07/94	6.0	pesticide poisoning
358M	10/12/94	10.5	poor health-mange
375M	11/09/94	10.0	gunshot
664M	12/15/94	19.5	unknown
770M	12/24/94	20.0	euthanized-severely broken leg while in captivity
497M	12/31/94	39.0	gunshot

Table 5. Information on monthly population fluxes of red wolves in eastern North Carolina during 1994.

<u>Month</u>	<u>Population</u>	<u>Month</u>	<u>Population</u>
January	44	July	40
February	48	August	44
March	47	September	39
April	52	October	44
May	52	November	41
June	46	December	43

Table 6. Free-ranging red wolves in eastern North Carolina as of 31 December 1994.

Wolf# & sex	Birth location	Age ^a (mos)	# Mos. in wild (mos) ^b	Location of home range	Comments
331M	captivity	79.2	66.7	public land	consorting with 394F
344F	wild	79.7	79.7	private land	consorting with 392M
379F	captivity	67.5	11.8	private land	consorting with 674M
382F	captivity	66.4	28.9	private land	lone female
392M	captivity	67.1	59.5	private land	consorting with 344F
394F	captivity	67.1	58.8	public land	consorting with 331M
442M	wild	55.8	54.6	private land	consorting with 508F
443F	wild	55.8	53.7	private land	consorting with 583M
444F	wild	55.8	53.2	public land	consorting with 507M
496F	wild	44.5	40.6	private land	consorting with unknown male (504M?)
500F	wild	44.0	43.0	private land	consorting with 519M
503F	wild	44.0	43.0	private land	consorting with 670M
505F	wild	44.1	44.1	private land	lone female
506M	wild	44.1	44.1	private land	consorting w/ 502F?
507M	wild	44.1	44.1	public land	consorting with 444F
508F	wild	44.1	42.5	private land	consorting with 442M
519M	captivity	31.5	28.9	private land	consorting with 500F
583M	wild	32.1	32.1	private land	consorting with 443F
660F	wild	20.5	20.5	public land	pack member
661M	wild	20.5	20.5	public land	pack member
662M	wild	20.5	20.5	public land	pack member
663M	wild	20.5	20.5	public land	pack member
665F	wild	8.0	8.0	private land	pack member
666M	wild	8.0	8.0	private land	pack member
670M	wild	20.0	20.0	private land	consorting with 503F
671M	wild	20.0	20.0	private land	consorting with 673F
673F	wild	20.0	20.0	private land	consorting with 671M
674M	wild	20.0	19.5	private land	consorting with 379F
698F	wild	8.6	8.6	private land	pack member
745M	wild	8.8	8.8	public land	pack member
746M	wild	8.8	8.8	public land	pack member
747F	wild	8.8	8.8	public land	pack member
752M	wild	8.0	8.0	public land	pack member
754M	wild	8.0	8.0	public land	pack member
755M	wild	8.0	8.0	private land	pack member
756F	wild	8.0	8.0	private land	pack member
759M	wild	8.5	8.5	private land	pack member
760F	wild	8.5	8.5	private land	pack member
761F	wild	8.5	8.5	private land	pack member

Table 6 (cont.) Free-ranging red wolves in eastern North Carolina as of 31 December 1994.

Wolf# & sex	Birth location	Age ^a (mos)	# Mos. in wild (mos) ^b	Location of home range	Comments
763F	wild	8.1	8.1	private land	pack member
764F	wild	8.1	8.1	private land	pack member
766M	wild	8.6	8.6	private land	pack member
768M	wild	8.6	8.6	private land	pack member

^a - Age was calculated as of 31 December 1994.

^b - Number of months in the wild did not necessarily span the period from the date of release for animals born in captivity or from birth for animals born in the wild, as some wolves were placed in captivity for varying periods of time and subsequently re-released.

Table 7. Information on social structure of red wolves free ranging in eastern North Carolina on 31 December 1994.

Pack	Land ownership	Adults		Yearlings		Pups	
		M	F	M	F	M	F
Milltail	public	331	394	661 662 663	660	745 746	747
Gator	public	507	444			*748?/749?/750?	
Air Force	public		382			752 754	
Lux Farms	private	506	502 ^a			772 ^a 773 ^a	774 ^a *775?
Mattamuskeet Ventures	private	392	344	666	665	795 ^a	763 764
Matt. Farms	private	671	673				
Kilkenny Farms	private	442	508			759	760 761
Fairfield	private	519	500			755	756
Whitetail	private	504 ^a	496		698		
Weyerhauser	private	583	443				
Pocosin	public	670	503			766 768	
Pungo	public	674	379				

^a - 502F, 504M, 772M, 773M, 774F and 795M captured in 1995.

* - Wolves observed but not captured.

Note: 505F continued to be a lone wolf during 1994 as of 31 December 1994.

Table 8. Information about red wolves free ranging in eastern North Carolina with fates unknown as of 31 December 1994.

Wolf # & sex	Age ^a	Birth location	Comments
316F	7	captivity	last location 12/20/89
499?	3	wild	observed 06/08/91, never captured
501F	3	wild	last location 11/20/92
502F	3	wild	last location 11/23/93
509?	???	wild	observed 06/10/92, never captured
517M	2	captivity	last location 09/07/92
582F	2	wild	last location 07/29/94
587F	1	captivity	last location 09/17/93
634M	1	captivity	last location 12/01/93
667?	1	wild	observed with 392M and 344F on 07/02/93, never captured
669F	1	wild	last location 11/23/93
699F	pup	wild	captured, processed and released on 09/05/94 (slipped collar on 09/06/94)
700?	pup	wild	observed with 496F and siblings 698F and 699? on 05/18/94
748?	pup	wild	observed with siblings (749? and 750?) and mother (444F) on 08/09/94
749?	pup	wild	observed with siblings (748? and 750?) and mother (444F) on 08/09/94
750?	pup	wild	observed with siblings (748? and 749?) and mother (444F) on 08/09/94
753M	pup	wild	captured, processed, and released on 10/19/94 (slipped collar on 11/07/94)
758?	1	wild	observed on 10/01/94, sibling of 670M & 671M [1993 litter of (? x 508F)]
762?	pup	wild	observed in wild while siblings (759M, 760F, 761F) were in captivity at SR
???	adult	????	496F's mate during 1993 (504M-?)
???	adult	????	508F's mate during 1993

^a - Age was calculated as if wolf was alive as of 31 December 1994.

Table 9. Information about dispersal by red wolves born in the wild in eastern North Carolina during 1994.

Wolf# & sex	Birth date	Dispersal date	age (mos)	Dist/Dir travelled	Comments
442M	05/07/90	12/21/94	57 ^a	29 km N	consorting w/ female
507M	04/28/91	09/21/94	41	14 km S	consorting w/ female
583M	04/28/92	12/30/94	32	38 km SW	consorting w/ female
671M	05/01/93	01/14/94	8	27 km se	consorting w/ female

^a - 442M dispersed earlier on 01/10/92 at 20 months of age a distance of 21 km sw of his natal home range. 442M was displaced from his established home range by 519M on 12/21/94

Table 10. Information about the captive population of red wolves housed at ARNWR (Sandy Ridge) captive facility as of 31 December 1994.

Wolf # & sex	Age ^a	Birth location	Comments
374M	5	captivity	paired with coyote 011F for display
437F	4	captivity	whelped 04/13/94, pups 677M and 678F
448F	3	captivity	paired with 521M
464M	3	captivity	placed in captivity on 09/14/94
501M	3	wild	to be paired with free ranging female; for early 1995 release in GSMNP
520M	2	captivity	placed with 561F
521M	2	captivity	placed with 448F
522F	2	captivity	placed with 633M
537M	2	captivity	transferred from GSMNP, placed in captivity on 09/02/94; placed with 603F on 11/03/94
539M	2	captivity	transferred from GSMNP, placed in captivity on 09/02/94
561F	2	captivity	placed with 520M
592M	1	wild	placed with 604F on 12/22/94
593F	1	wild	paired with 675M, scheduled to be released during January 1995
602F	1	captivity	due to be transferred with siblings 603F & 604F to a breeding facility (N.C. Zoo) in January
603F	1	captivity	placed with 537M on 11/03/94
604F	1	captivity	placed with 592M on 12/22/94
632M	1	captivity	placed in pen alone
633M	1	captivity	placed with 522F
675M	1	wild	paired with 593F, scheduled to be released during January 1995
668M	1	wild	placed in captivity on 09/08/94
677M	pup	captivity	born 04/13/94, parents 374M and 437F sibling 678F
678F	pup	captivity	born 04/13/94, parents 374M and 437F sibling 677M

^a - age calculated as of 31 December 1994.

Table 11. Information about red wolves born at the Sandy Ridge Captive Colony (ARNWR) during the 1995 breeding season.

<u>Pups</u>	<u>Adult Pair</u>	<u>Birthdate</u>			<u>Outcome</u>
676M	(374/437)	4/13/94	-----	-----	see mort. table
677M	" "	"	-----	-----	captive colony
678F	" "	"	-----	-----	captive colony

Table 12. Media request and public programs provided by eastern North Carolina red wolf personnel from 1 January 1994 through 31 December 1994.

DATE	ORGANIZATION/INDIVIDUAL	NUMBER	PURPOSE OF CONTACT
01/20/94	Tyrrell Co. grade school	30	RW Program
03/4-6	Dixie Deer Classic	1000's	RW Booth
03/08/94	State Univ. of NY	11	RW Program & Tour
03/10/94	Missouri Botanical Gardens	10	RW Program & Tour
04/20/94	Wayne Brewster Yellowstone NP	1	Tour
04/20/94	Doug Chadwick Nat. Geographic	1	Photo Shoot
04/22/94	Earth Day Howling Safari	15	RW Program/Howling
04/28/94	Currituck Co. grade school	400	RW Booth
05/17/94	John Manual - journalist	1	Article
05/21/94	Engelhard Seafood Festival	100's	RW Booth
05/24/94	Joel Sartore Nat. Geographic	1	Film
05/25/94	Raleigh grade school	60	RW Program
06/07/94	Bill McKibben - journalist	1	<u>New Yorker</u> Article
06/14-15	Will Waddell RW SSP Coord.	1	Tour
06/19/94	Grace Lutheran Church	20	RW Program
06/20/94	North Carolina Aquarium	35	RW Program
06/30/94	WUNC Public Radio	1	Interviews
07/18/94	North Carolina Aquarium	60	RW Program
07/22-23	Fossil Rim Wildlife Center	200	RW Programs/Howlings
07/26/94	Defenders of Wildlife	1	Tour/Interview
08/08/94	North Banks Rotary Club	45	RW Program
08/10/94	Edenton K-5 school	50	RW Program
08/16/94	North Banks Rotary Club	60	RW Program
08/22/94	North Carolina Aquarium	45	RW Program
09/11/94	Sierra Club Conference	50	RW/ESA Programs
10/05/94	Perquimans Co. 4th Grade	60	RW program
10/08/94	Scuppernong River Festival	100's	RW Booth
10/21/94	Clemson Univ. Ecology Club	25	RW Program/Howling
10/24/94	Dare Co.	25	RW Program/Howling
10/27/94	Greenville High School	25	RW Program/Howling
10/28/94	3rd Annual "Howl-O-Ween"	85	RW Program/Howling
11/04/94	Rod Hackney NC Zoo	1	Video Interview
11/12/94	NC State Univ. Wildlife Club	15	RW Program/Howling
12/06/94	NC Public TV	3	Tour/Interview
12/16/94	Christmas Howling	35	RW Program/Howling