

Frog and Toad Survey 1995

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Abstract

The number of frog survey observers increased to 95 in 1995. This was greater than the 1994 total of 93. The number of frog survey routes also increased to 100 in 1995 from a record number 97 in 1994. The number of sites with Wood Frog, Spring Peeper, Eastern Gray Tree Frog, American Toad, Mink Frog, Green Frog, and Bull Frog present were at or above their long-term averages.

Introduction

The Wisconsin Department of Natural Resources (WDNR) has coordinated a volunteer frog and toad survey since 1984. The survey arose from concerns about declines in populations of some frog species and was endorsed and expanded by the WDNR Surveys committee in 1990. Wisconsin has 12 anuran species. One species (Blanchard's cricket frog) is endangered and 2 species (bullfrog and pickerel frog) are included on the Natural Heritage working list as "special concern". In general, anurans are considered to be good indicator species for the habitats where they are found.

Methods

Survey routes are distributed statewide, with a goal of 2 survey routes in each county of Wisconsin. Survey routes consist of 10 sites which are monitored 3 times yearly, 8-30 April, 20 May - 5 June, and 1-15 July. Surveys are started at dusk on evenings with wind velocities of less than 8 miles per hour. Water temperature is recorded at each stop where possible. The presence or absence of each frog species is determined at each site by their song. The abundance of each species is ranked by the number individuals calling. Stops with species calling in which individuals can be counted has the abundance ranked as 1. When calls of individuals can be distinguished but there is some overlapping of calls the abundance is ranked as 2. When calls are constant, continuous and overlapping (full chorus) the abundance is ranked as 3. At the end of the survey period, these data sheet are returned to research and the data are entered into the DNRVAX computer. The data are analyzed using the Statistical Analysis System (SAS). The calling index for each species was summed to provide an index to the route population each year. These route populations are regressed on time to create a species population trend.

Results

The number of observers in 1995 was 95. This was an increase from the 1994 level of 93. The number of survey routes run also increased, from 97 in 1994 to a record 100 in 1995 (Fig 1). The number of routes run in each county is still well below our goal of 2 (Fig 2).

Wetlands remained at or above their normal levels for 1995. Of the 12 anuran species, 7 were above their long-term mean for percent occurrence. These were the Wood Frog, Spring Peeper, Eastern Gray Tree Frog, American Toad, Mink Frog, Green Frog, and Bull Frog (Fig 3). All other frog species were below their long-term means. Population trends, based on the call index, for each anuran species can be reviewed in figure 3.

Table 1. Number of prairie chicken cocks on Central Wisconsin booming grounds, 1950-96.
Location^a

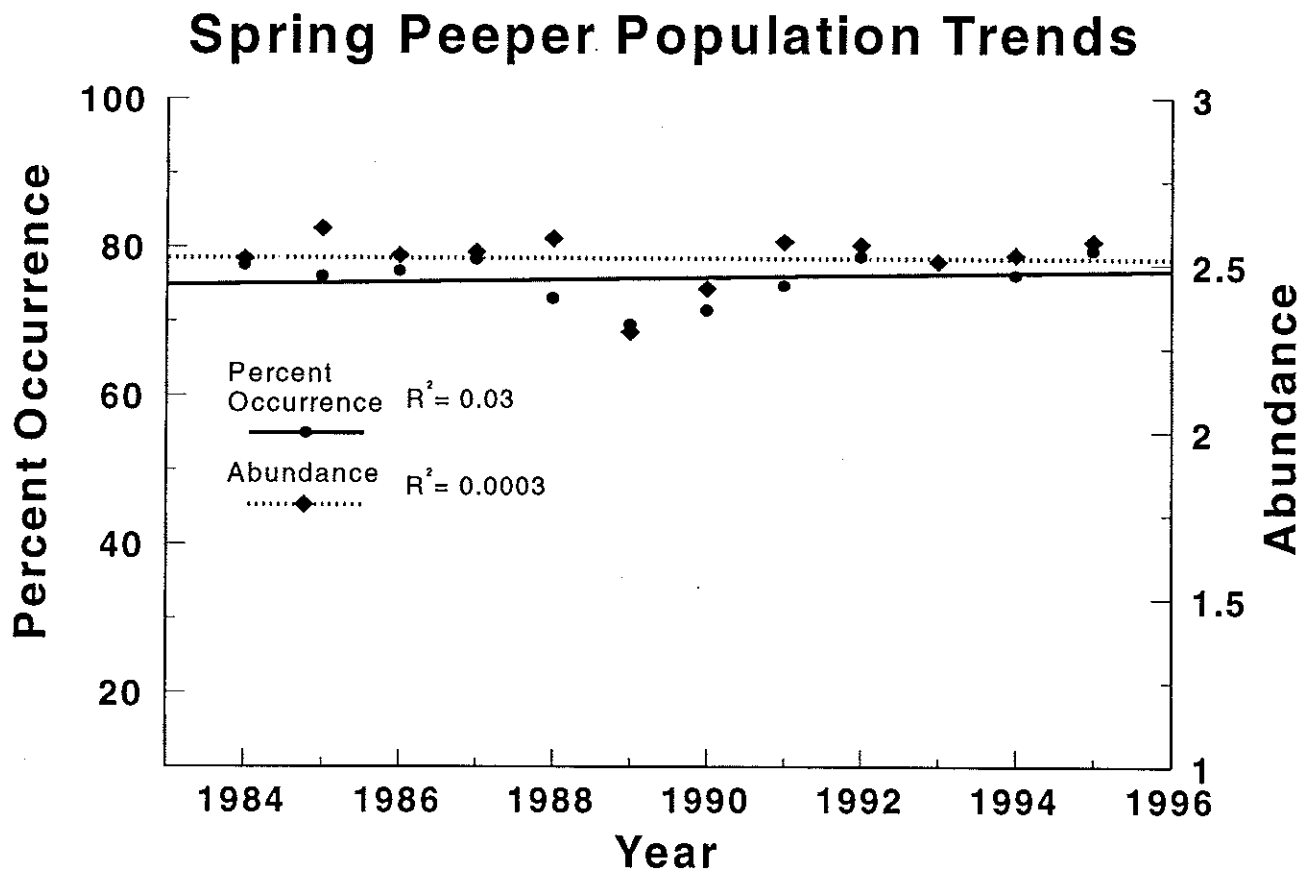
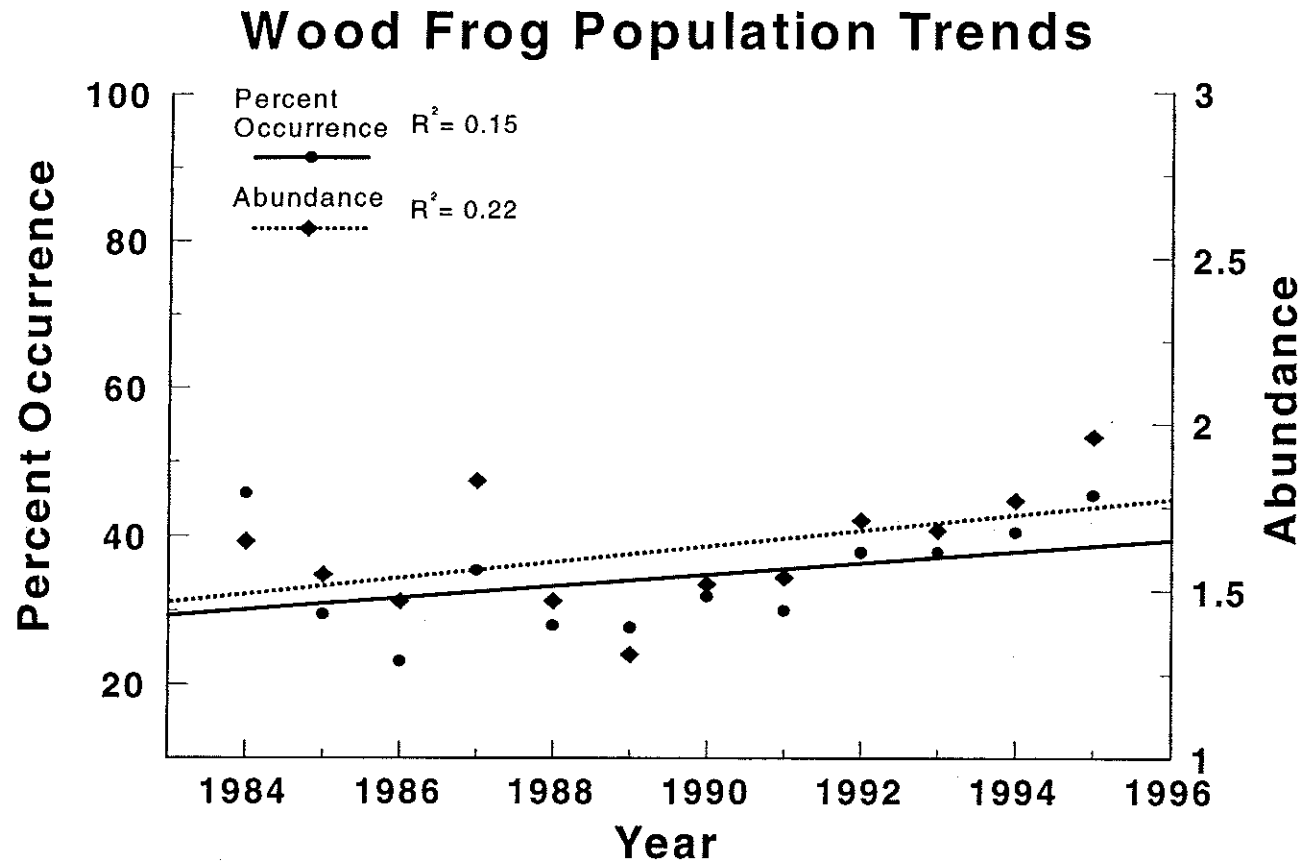
Year	Buena Vista	Leola	Paul Olson ^b	Mead ^b	Mc-Millian ^b	Dewey ^c	Outlying ^b	Total
1950	550	232						
1951	550	183						
1952	265	132						
1953	344	146						
1954	256	162						
1955	305	110						
1956	299	109						
1957	239	114						
1958	297	126						
1959	169	72						
1960	157	56						
1961	135	46						
1962	157	44	54					
1963	150	37	50					
1964	175	38	38					
1965	165	21	43					
1966	183	20	62					
1967	141	10	66					
1968	139	12	71					
1969	104	28	57	43				
1970	141	78	62	54				
1971	198	77	47	102				
1972	234	88	76	108				
1973	155	46	94	121				
1974	126	46	116	96				
1975	138	52	135	118				
1976	131	45	114	119				
1977	213	75	145	154				
1978	365	82	186	212				
1979	438	53	189	211				
1980	480	79	228	187				
1981	550	75	302	180	14			1,121
1982	535	69	256	163	13			1,036
1983	359	49	188	97	4			697
1984	245	22	152					
1985	275	69	175	144	7			677
1986	194	47	152					
1987	193	56	194	110	25			578
1988	269	65	206	101	31			672
1989	182	64	124	128	37		56	591
1990	281	80	110	129	60		49	709
1991	216	84	91	101	64		70	626
1992	239	63	56	58	30		60	506
1993	265	65	93	65	24		45	557
1994	247	70	91	53	19	(16c)	30	510
1995	275	87	83	38	24	©	31	538
1996	277	74	87	44	20	(1c)	39	541

^a Names of census units. "Outlying" includes area from west of Wisconsin Rapids north to Medford; areas not associated with management properties.

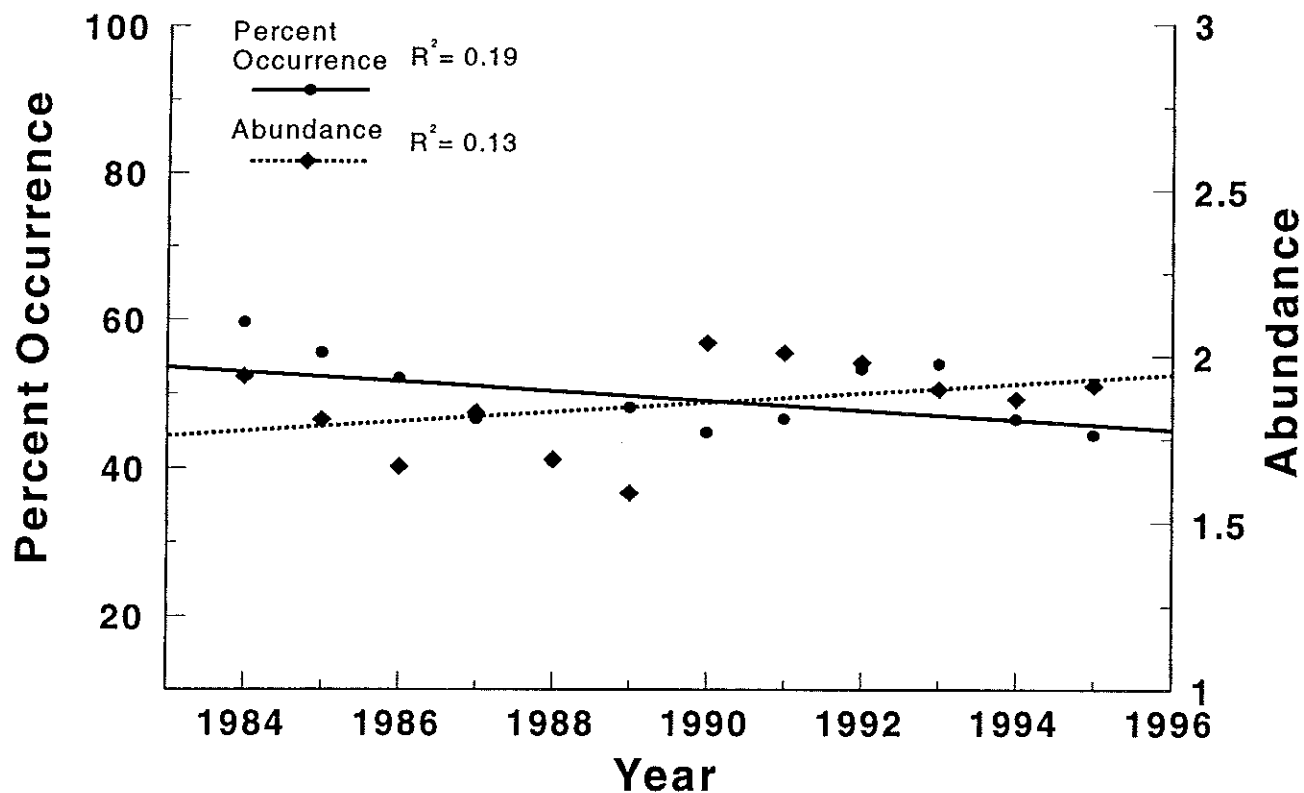
^b Blank spaces = censuses not conducted; prairie chickens may have been present.

^c Census run for the first time in 1994. Numbers not included in totals or annual comparison.

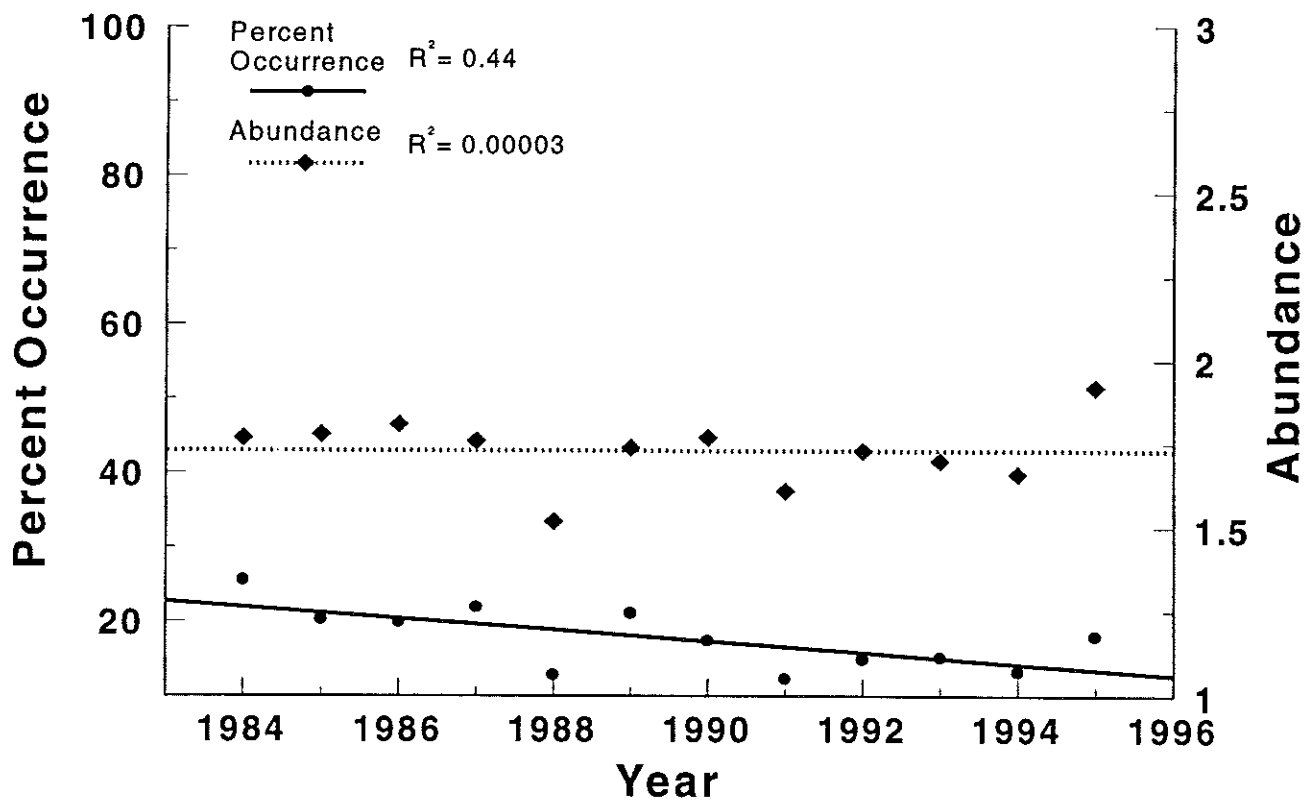
Figure 3. Percent occurrence and abundance of the 12 anuran species in Wisconsin, 1984-95.



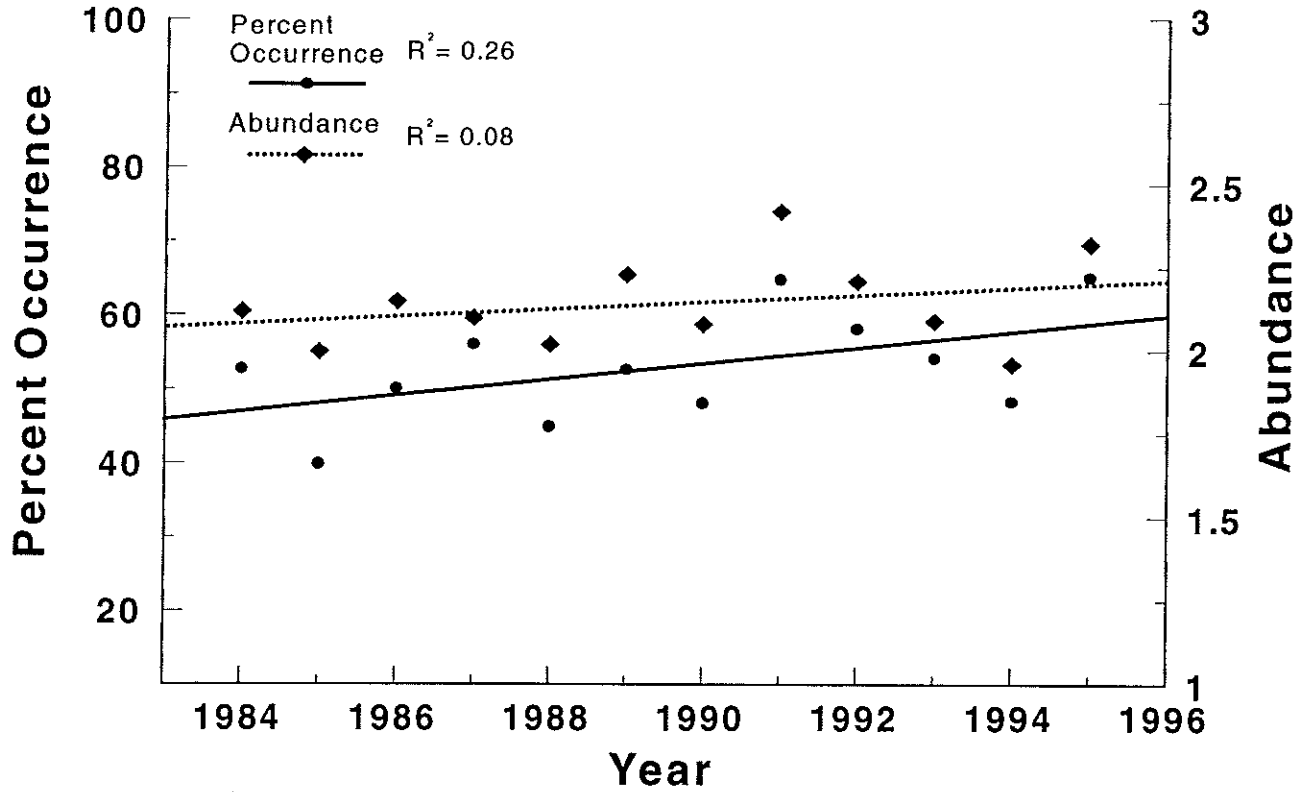
Chorus Frog Population Trends



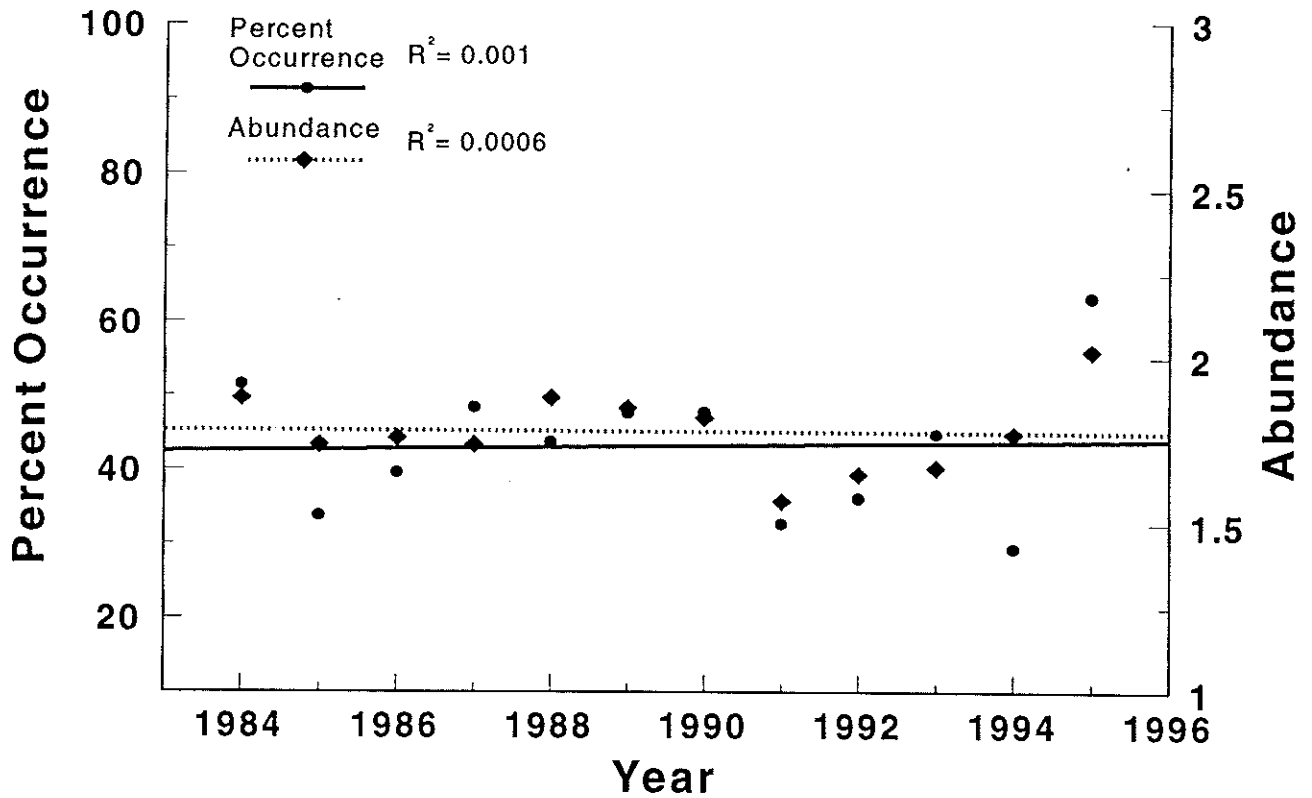
Cope's Gray Tree Frog Population Trends



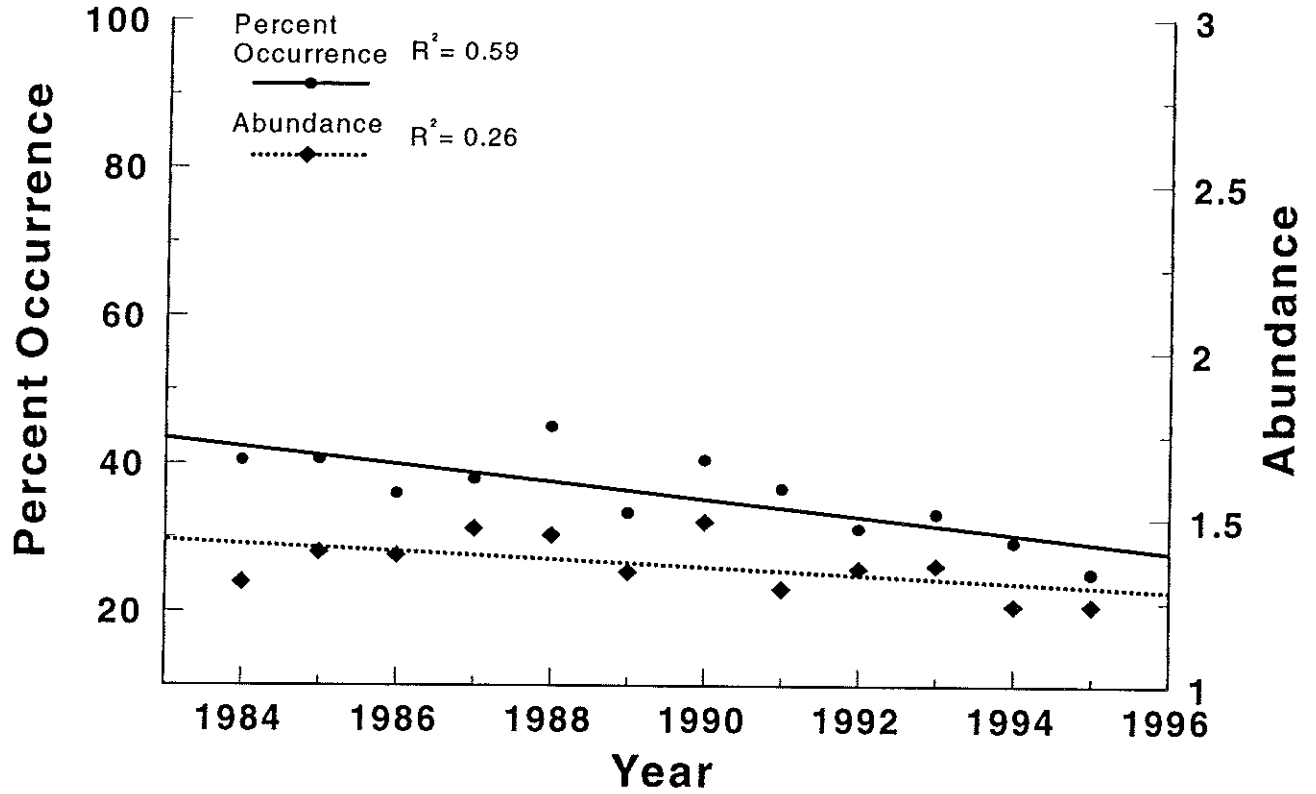
Eastern Gray Tree Frog Population Trends



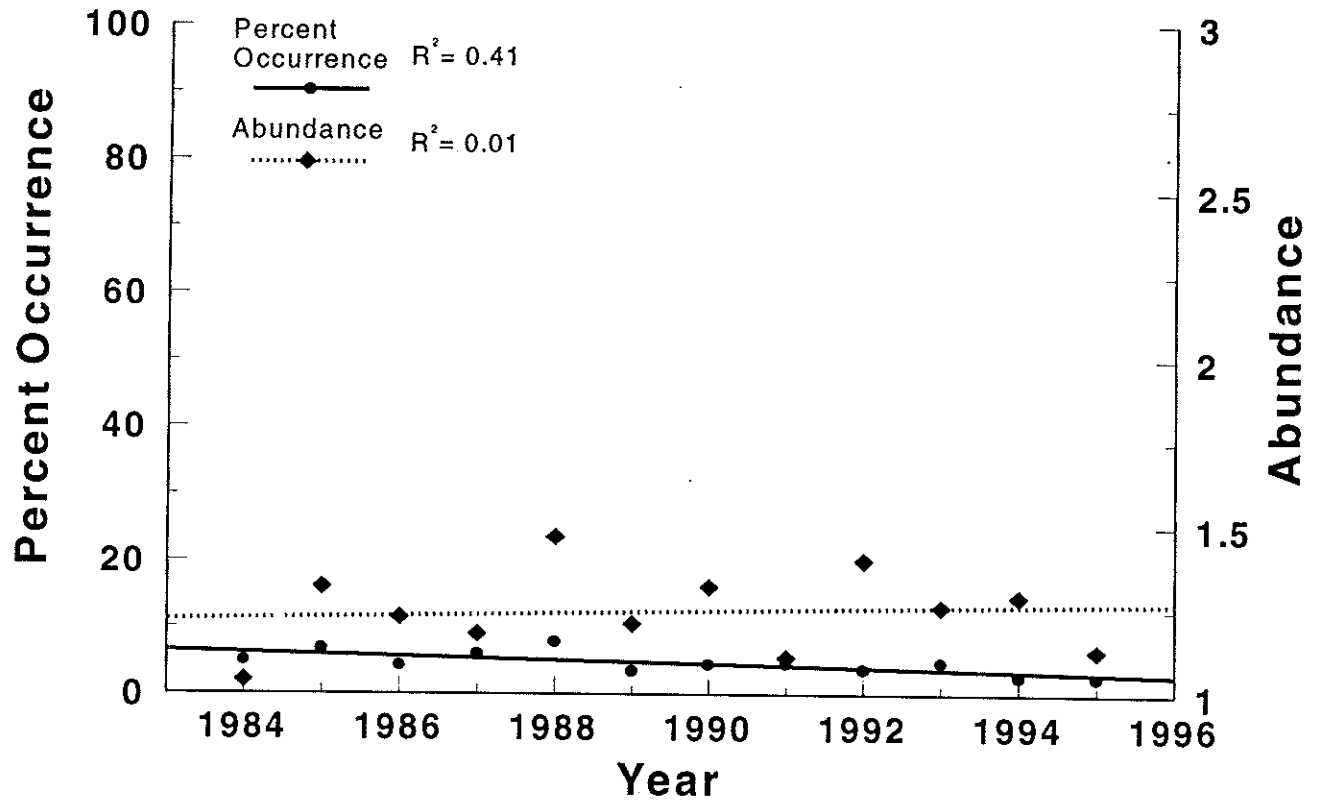
American Toad Population Trends



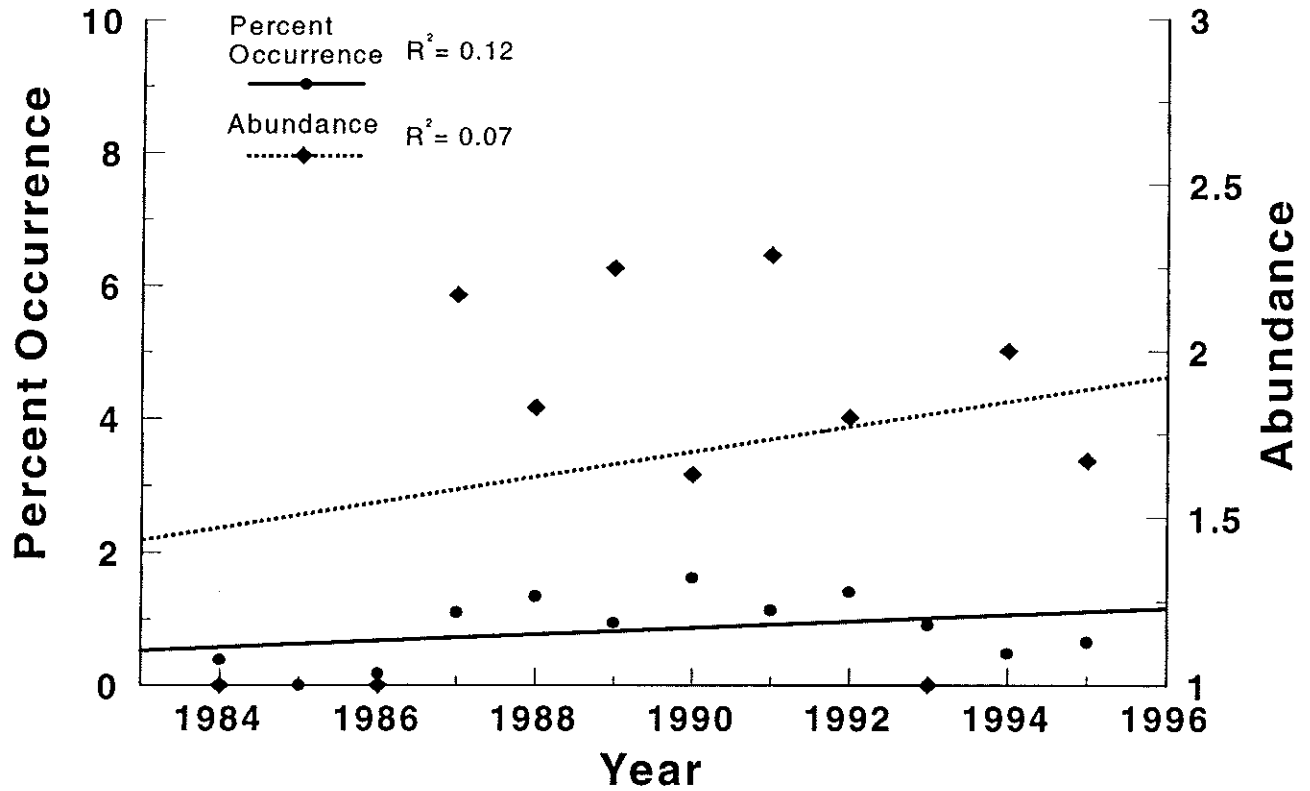
Leopard Frog Population Trends



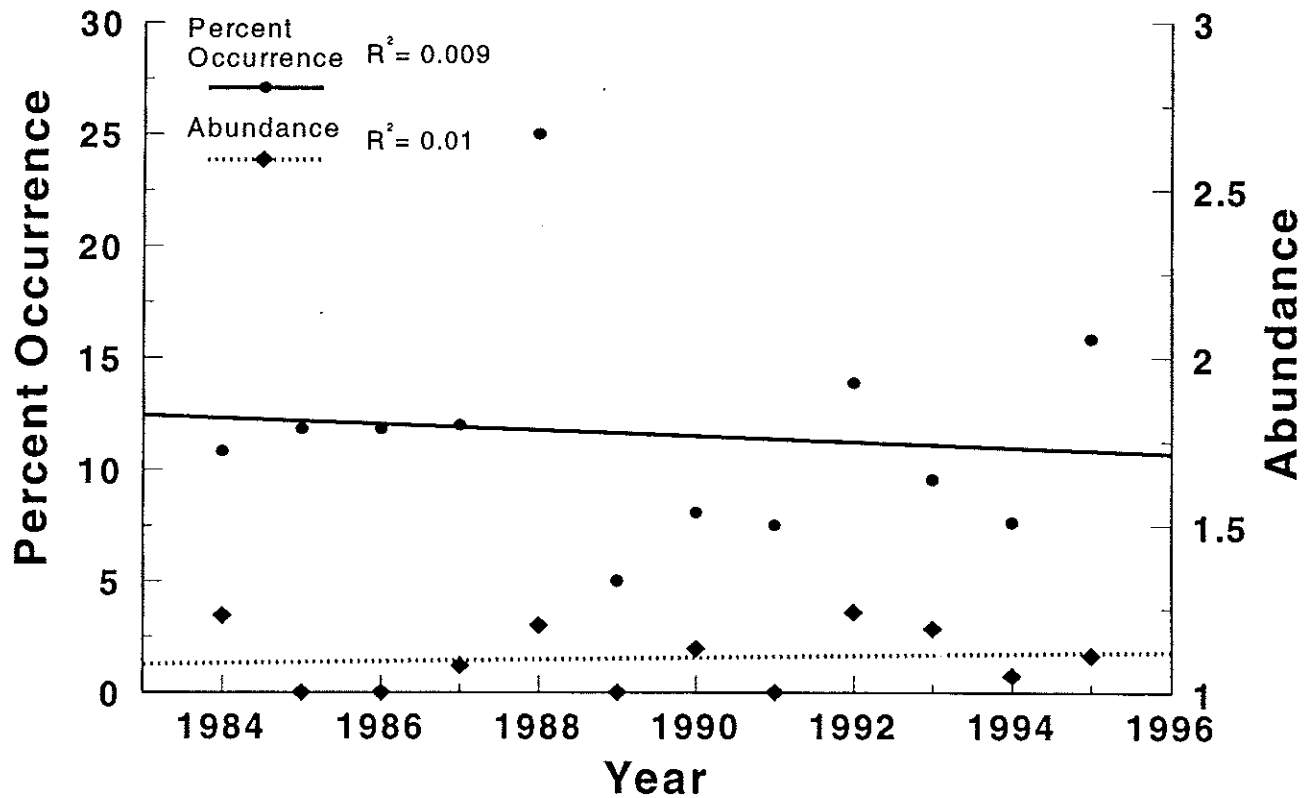
Pickereel Frog Population Trends



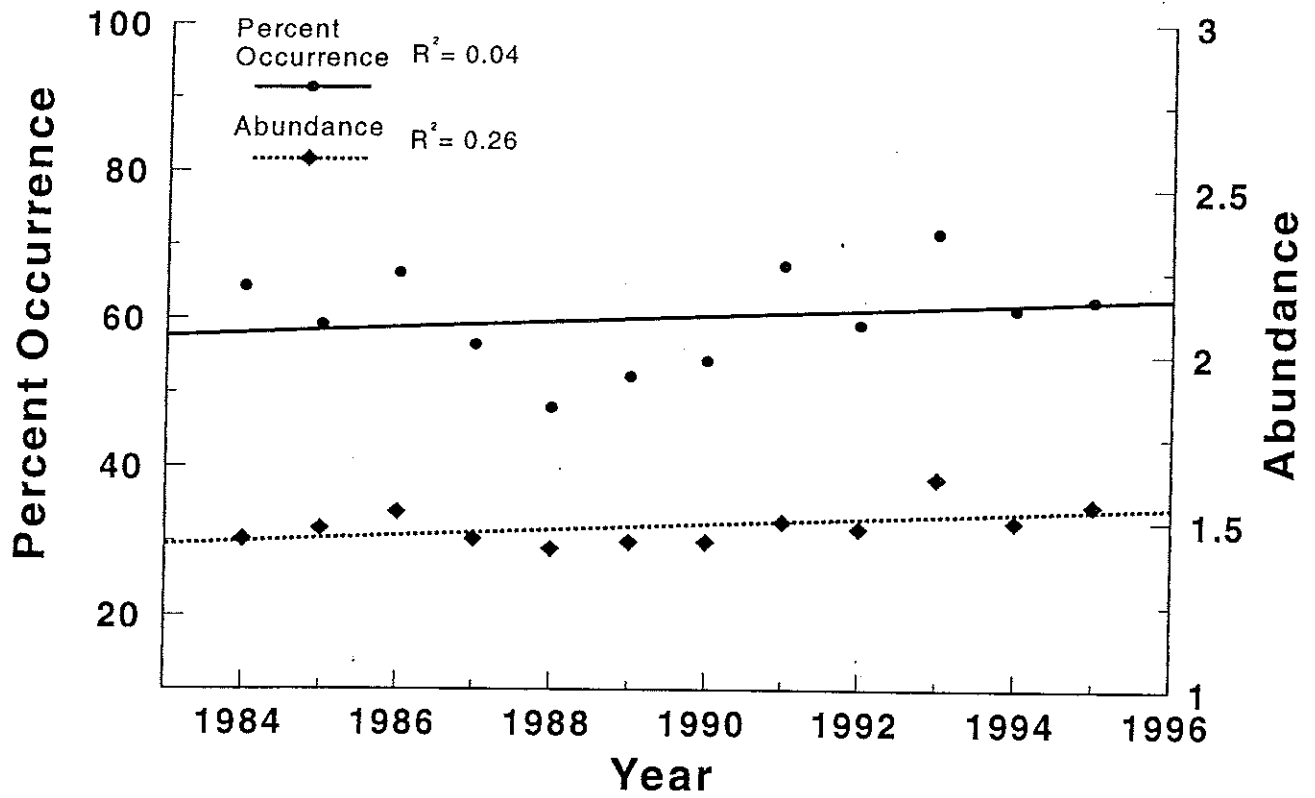
Cricket Frog Population Trends



Mink Frog Population Trends



Green Frog Population Trends



Bull Frog Population Trends

