

Palaemonetes kadiakensis (Crustacea: Decapoda) in Oklahoma, 1982 and 1987.

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Freshwater shrimp have received limited attention in Oklahoma (1). This paper compares the abundance and distribution of *Palaemonetes kadiakensis* samples collected in 1987 to those collected in 1982.

Collection methods and tabulation of individuals has been described (1). Table 1 shows size range, sex ratio, and mean size for specimens at all collection sites ($n = 19$) in 1987, with the corresponding data for 1982. When the data for these two years are compared, three differences are obvious. First, the recent mean size is larger; second, there are fewer juveniles and gravid females; and third, there are more females per male. The life history of *Palaemonetes kadiakensis* has been described in studies conducted in Louisiana (2), Missouri (3), Ohio (4), and Wisconsin (5). These surveys indicate that shrimp reproduction occurs from May through August with a peak in mid June. The post-reproductive individuals die, and the offspring grow rapidly, obtaining 50% of their ultimate length in the first three months of life (3). Shrimp are active during the winter, mature in the spring, and then die. The *P. kadiakensis* collected in this study also appear to have a one-year life cycle. The sampling dates for the specimens collected in 1982 were mainly in July; the population consisted of newborn and some reproductive adults. The sampling dates for shrimp collected in 1987 ranged from July through October; the newborn shrimp were a few months older and therefore larger; egg-bearing females and mature males were mostly absent. Thus, *P. kadiakensis* populations in this study consists of individuals that appear in the summer, grow during the autumn, survive over winter, and reproduce and die in the late spring (a one-year life cycle).

Although results of this study are in agreement with data from other investigations, further research is needed on the life history of this species, including sampling during the winter and spring seasons.

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TABLE 1. Size range, mean length, and sex ratio of *Palaemonetes kadiakensis* in Oklahoma, 1982 and 1987.

	Year	Size range (mm)	Mean length (mm)	Sample size	Sex ratio (M:F)
Juveniles	1982	12-14	13.4	30	
	1987	14	14.0	3	
Males	1982	15-37	23.1	291	
	1987	15-36	25.9	227	
Females ^a	1982	15-46	23.7	522	
	1987	16-42	27.3	594	
Gravid females	1982	26-46	34.5	58	
	1987	28-42	34.0	8	
TOTAL	1982	12-46	23.2	843	1:1.8
	1987	14-42	26.9	824	1:2.6

^a gravid and nongravid.