

TABLE 6.—SUBSTRATUM PREFERENCES OF THE NYMPHS OF *Baetisca rogersi*.

Trial	Type of bottom	12 hr.	36 hr.	48 hr.	Total	
					No.	%
I	A (stony)	7	13	12	32	71.1
	B (sandy)	1	1	2	4	8.9
	C (leaf-litter)	7	1	1	9	20.0
II	A (stony)	12	14	13	39	86.7
	B (sandy)	0	1	1	2	4.4
	C (leaf-litter)	3	0	1	4	8.9
III	A (stony)	10	13	15	38	84.4
	B (Sandy)	2	1	0	3	6.7
	C (leaf-litter)	3	1	0	4	8.9
Total	A (stony)	29	40	40	109	80.7
	B (sandy)	3	3	3	9	6.7
	C (leaf-litter)	13	2	2	17	12.6

be those that achieved most of their growth in spring, thus maturing faster. Favorable water temperatures (Fig. 7) an increased supply of diatoms (Table 8), and increased photoperiod are probably the major factors accelerating nymphal growth in spring (Thibault 1971).

In summary, although laboratory data show that *B. rogersi* could support two or more generations each year, only one occurs in north Florida. Thus unknown factors prolong the life cycle, delaying hatching or young nymph development until fall and slowing nymphal overwinter growth. We agree with the conclusions of other workers, most recently Thibault (1971), that while temperature is not the only factor regulating the length of the life cycle, it is among the most important. For *B. rogersi*, temperature (Fig. 7), oxygen (Fig. 8), and food supply (Table 8) appear significant; we did not investigate photoperiod.

HABITAT AND HABITS

Mature *Baetisca rogersi* nymphs in Rocky Comfort Creek were typical members of a lithophilous association, living in the exposed, stony substratum of the sampling station. Younger nymphs, the fourth through seventh instars, lived only in areas with a thick growth of filamentous algae and water moss (*Spirogyra* sp. and *Leptodictyum riparium*). Also as nymphs approached emergence they moved to quiet, shallow sections of the stream. This move to a quiet area may be associated with the search for objects or places to leave the stream and emerge.

The habitat of the nymphs in Bear Creek was similar. Most early