

TABLE 10.—TIME REQUIRED FOR *Baetisca rogersi* SUBIMAGOS TO EMERGE FROM NYMPH.

Date	Time emergence commenced	Time emergence completed	Total no. of minutes
Laboratory:			
2.V.1968	3:10 PM	3:15 PM	5
2.V.1968	3:15 PM	3:21 PM	6
6.V.1968	2:33 PM	2:41 PM	8
12.V.1968	1:54 PM	1:58 PM	4
13.V.1968	1:40 PM	1:48 PM	8
19.V.1968	1:14 PM	1:20 PM	6
20.IV.1969	11:50 AM	12:00 PM	10
Field:			
11.IV.1969	10:50 AM	10:55 AM	5
14.IV.1969	10:33 AM	10:41 AM	8
14.IV.1969	11:55 AM	12:01 PM	6
19.IV.1969	10:28 AM	10:35 AM	7
			Average = 6.63

before noon with the emergence peak between 8:30 AM and 10:30 AM. Table 9 also shows a general decrease in the number of emerging subimagos toward the end of the emergence season.

Subimagos in the laboratory emerged from 10:00 AM to 8:30 PM, a few hours later than in the field. In 1968 the earliest emergence time was 10:00 AM and the latest 7:50 PM, whereas in 1969 times ranged from 11:00 AM to 8:30 PM. For both years the peak time of laboratory emergence occurred between 12:00 PM and 3:00 PM.

*B. rogersi* emerges above the water surface, which makes it easy to record the time required for the emergence process (Table 10). The time ranged from 4 to 10 minutes, averaging 6.63 minutes. We noted no significant difference between subimagos emerging in the field and in the laboratory. The range of 4 to 10 minutes was probably caused by individual variability, the more vigorous individuals requiring less time to emerge.

Emerging nymphs crawl completely out of the water. At Rocky Comfort Creek they crawled 1½ to 4 inches above the surface of the water to a point just above the wet portion of the stumps (Fig. 23). In places without objects sticking from the water, we have found nymphal skins or exuviae attached just above the wet portion of the stream bank. In the laboratory the nymphs crawled 1 to 2 inches above the surface of the water on the strips of plastic screen. Occasionally nymphs emerged on the screen with the apical third of their caudal filaments still in the water, a phenomenon never observed in the field.