TABLE 11.—DURATION OF SUBIMAGOS OF *Baetisca rogersi* AT DIFFERENT TEMPERATURES.

Air Temp. ° C	Number	Range of duration (hours)	Average Duration
19.4–20.6	6	15 hr 30 min—34 hr	23 hr 44 min
21.1–22.2	9	17 hr 5 min—30 hr	24 hr 26 min
25.5–26.7	4	16 hr 55 min—23 hr 30 min	19 hr 38 min
27.2–28.3	4	11 hr 50 min—25 hr 50 min	18 hr 57 min

Although individual variations occurred, higher temperatures seemed to shorten the subimaginal stage. Table 11 includes only those subimagos for which exact durations are known. No experimental work was done, but these observations support Lyman's (1944) conclusion that temperature controls the length of the subimago stage.

Relative humidity in the laboratory ranged from 33% to 77%, and did not appear to affect the subimagos' duration.

MOLTING

The molt from subimago to imago required 8 to 11 minutes and averaged 9 min 45 sec for five laboratory specimens. The mechanism was similar to subimaginal emergence from nymphs, except that the ecdysial line of the head vertex split first, followed by the median dorsal line of the thorax. The head appeared first, then the thorax. Finally the imago pulled the abdomen, wings, and caudal filaments from the subimaginal skin with strong undulations of the body.

PREDATION

Spiders on tree stumps where nymphs emerged preyed upon the subimagos. On several occasions, the senior author saw spiders seize newly emerged subimagos. Most of the subimagos were able to escape by beating their wings strongly. Birds also preyed upon the subimagos.

The amount of subimago mortality from predation is unknown, but the color pattern of *B. rogersi* appears to provide excellent camouflage. The mottled pattern of the wings obscures the red spot (conspicuous in the imagos) and breaks up the outline of the wings. Newly emerged subimagos were difficult to recognize when motionless on the tree stumps.

THE IMAGOS

EXTERNAL MORPHOLOGY

Male Imagos (live specimens) (Fig. 1): Length: Body 6.5-8.6 mm; fore wings