

segment. Segments of abdomen ventrally whitish with two somewhat triangular-shaped brown areas on each segment as in case of adult. The gills are of the typical *Siphonurus* type. See Pl. X, fig. 11-15. Setæ once banded beyond middle.

This species is rather larger than *S. alternatus*. It was found emerging at Ithaca from June 5 to the 18th from a quiet spring-fed pond. This pond was very much grown up with aquatic vegetation, especially *Spirogyra*, and many of the nymphs were covered with colonial *Vorticellæ*.

*Transformation*.—The pond was about 40 ft. by 15 ft. with a maximum depth of about 2 ft., but the greater part of it only 6 in. or so. The water was very clear, so that the bottom could be seen in many places through the vegetation. The nymphs could be seen clambering about the water plants, swimming swiftly from place to place by means of the very efficient tail fin and gill lamellæ, or quietly clinging to some object, while the gills moved in gently undulating movements and the abdomen swayed up and down. Most of the nymphs were mature, and subimagos were continually flying up from the pond. One mature nymph swam about with its head up to the surface of the water as though looking for a suitable place for emergence, going from plants, to dead leaves and to twigs. It tried to climb upon a small twig, endeavouring to hang on with its legs and bending its abdomen and setæ around in its attempts to get up on top. It was almost successful, but suddenly abandoned the twig for a dead leaf. The leaf was only partly submerged and the nymph climbed up over the edge and up on top until only the abdomen was left in the water. Thus it remained quietly for two minutes with its gills in constant motion. It then crawled farther up the leaf until entirely out of the water, and remained quietly for about 3 minutes, when the body, especially the abdomen began to move convulsively, and in a couple of seconds the thorax split and the body of the subimago gently slid out over the surface of the leaf. When the legs were freed they were extended and at the same time the wings. Then the subimago took a few steps, leaving only the setæ still in the nymph slough.

It remained on the leaf for about four minutes, moving its legs and wings occasionally, and finally twisted and bent the abdomen