

during the second half of July, and in August, 1913, and obtained plenty of the nymphs from two or three small ponds at Rock City, a village near the Biological Station. From these a number of adults emerged on July 20 and 21.

Most of the adults taken have the legs entirely or almost entirely black and agree with Ris's description of *S. obtrusum morrisoni*. They intergrade, however, with pale-legged specimens and are undoubtedly conspecific with *S. pallipes*, as Ris himself suspected. But I cannot consider them as a variety of *obtrusum*, for, in the first place, I found both *pallipes* and typical *obtrusum*, in every respect like eastern specimens, at Okanagan Landing, B. C., on the Pacific Slope, while *pallipes* ranges eastward to Waterton, Alta. In the second place, the nymphs of *pallipes* are quite distinct from those of *obtrusum*, but are so extremely like those of *costiferum* as to be practically indistinguishable from that species. I have neglected to rear *S. obtrusum* and have no nymphs that I can refer to it with certainty, but I have a number of *S. rubicundulum*, which Professor Needham was unable to distinguish from *obtrusum*, and they are very easily separated from *pallipes*.

The nymphs of *pallipes* like those of *rubicundulum* frequent small stagnant pools or ditches, while *costiferum* seems to prefer shallow reed-grown parts of ponds or lakes.

*Nymph* (pl. XXV, figs. 6-8).—Eyes moderately prominent, lateral margins of head very oblique, passing into the posterior margins without any semblance of an angle. Mentum of labium narrow at base, the basal breadth being somewhat less than one-fourth the greatest breadth, which is almost equal to the length; sides moderately concavely curved, diverging in the distal fourth at an angle of about 90°, median lobe depressed at an angle of about 30° with the general surface of the mentum. Mental setæ 13-14, the 4th or 5th from the side longest. Lateral setæ 10-11. Movable hook slender, one-fourth to nearly one-third as long as the distal margin of the lateral lobe, the latter with very low crenulations, at the intervals between which are groups of 3 (sometimes a rudimentary fourth in some of the groups) successively longer setæ, the third much longer than the other two (see fig. 8).

Abdomen widening gradually from base to segment 6, narrowing more rapidly caudad, especially on segments 9 and 10. Dorsal