

THE ENICOCEPHALIDAE (HEMIPTERA) IN ILLINOIS

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ABSTRACT

Systelloderes biceps is the only species of Enicocephalidae (Hemiptera) collected in Illinois. Notes on S. biceps mating swarms and distribution are presented.

The Enicocephalidae, or gnat bugs, are small predaceous Hemiptera. In Illinois, there is one species, Systelloderes biceps (fig. 1), which is about 3 mm long. They have a brown head and thorax with a light abdomen and membranous wings. The adults can be macropterous or micropterous. Micropterous forms of S. biceps have been described under other names.

S. biceps have been collected from early April to late November in decaying logs, leaf litter, and in mating swarms. They have also been attracted to black light traps.

The enicocephalid mating swarm is formed over a marker or station. The swarm consists predominately of males and resembles a chironomid mating swarm (Schuh 1970). Four such swarms have been collected in Illinois, two from Champaign, and two from Urbana. The largest swarm collected was taken by Dr. H. B. Mills in August 1950 in Champaign; it consisted of 303 males and 7 females.

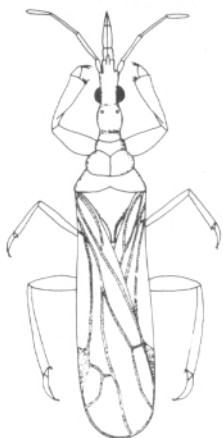
The known record of S. biceps in Illinois is shown in figure 2. The LaSalle County collection may be the most northern Illinois distribution because they have not been collected in Wisconsin.

Illinois records include Piatt Co.: Nette Hart Mem. Woods, Mahomet, 6-8-1966 to 11-24-1966, 3 macropterous males and 5 macropterous females, M.W. Sanderson, blacklight; Monticello, 6-12-1958, 1 macropterous male, M.D. Farrar; Alerton Park, 5-17-1967, 2 nymphs, L.J. Stannard, woodland debris; Allerton Park, 6-14-1973, 1 macropterous female, J.D. Unzicker, blacklight; White Heath, 10-29-1939, 1 nymph, J.C. Dirks, soil; Champaign Co.: Urbana, 4-27-1945, 7 nymphs, H.H. Ross and L.J. Stannard, under log; Urbana, 9-17-1950, 8 macropterous males, S. Sanderson, sweeping grass; Trelease Woods near Urbana, 5-25-1951, 1 macropterous male, R.K. Benjamin, leaf mold; University of Illinois Ecological Research Area near Urbana, 6-6-1971 to 7-17-1971, 14 macropterous males and 1 macropterous female, P.W. Price, pan traps; University of Illinois Ecological Research Area

near Urbana, 6-4-1972 to 7-19-1972, 42 macropterous males and 7 macropterous females, P.W. Price, pan traps; Champaign, 8-10-1949, 5 macropterous males, H.H. Ross and L.J. Stannard, flying at dusk; Champaign, 8-16-1949, 19 macropterous males and 2 macropterous females, H.B. Mills, swarming at dusk; Champaign, 8-10-1957, 1 macropterous female, J. Kingsolver, landed on arm; Champaign, August 1950, 303 macropterous males and 7 macropterous females, H.B. Mills, swarming at dusk; Mayview, 9-18-1939, 1 nymph, M.D. Farrar, bunchgrass sod; 2 miles north of Homer over Salt Fork, 9-28-1973, 1 macropterous female, J.D. Unzicker, blacklight. LaSalle Co.: Starved Rock State Park, 5-6-1944, 1 nymph, M.W. Sanderson. Clay Co.: Bible Grove, 4-10-1947, 1 nymph, B. Burks. Adams Co.: Quincy, 5-22-1943, 2 micropterous females, C. Hoff, leaf litter. Vermilion Co.: Muncie, September 1953, 5 nymphs, Ross and Somerman, under bark. Union Co.: Union Co. Wildlife Refuge near Ware, 10-24-1957, 5 nymphs, M.W. Sanderson. Perry Co.: Du Quion, 9-24-1948, 3 nymphs, H.H. Ross and L.J. Stannard. McLean Co.: Funks Grove near Bloomington, 9-2-1962, 1 macropterous male. Mason Co.: San Ridge State Forest, 9-14-1975, 12 nymphs, G.R. Kritsky, under bark. Fayette Co.: Brownstown, 8-8-1960, 1 nymph and 1 micropterous female, G.T. Riegel, sawdust pile. Moultrie Co.: Lake Shelbyville, 6-3-1975, 1 macropterous male, D. Webb, blacklight.

LITERATURE CITED

Schuh, Toby. 1970. Swarming in an undescribed enicocephalid from Costa Rica. Ent. News., 81:66-68.



1



2

Fig. 1 - Systelloderes biceps, male.

Fig. 2 - Illinois distribution of S. biceps.