Conocephalus cinereus (Thunberg) (Orthoptera, Tettigoniidae)

Figures 7-8, 11

U. S. records: Sebring, Fla., Nov. 25, 1954 (H. V. Weems, Jr.), 1 male; Martin Co., Fla., Nov. 5, 1954 (H. V. Weems, Jr.), 8 males, 2 females; Dade Co., Fla., Oct. 22, 1954 (H. V. Weems, Jr.), 2 males, 4 females; Homestead, Fla., Dec. 2, 1946 (D. O. Wolfenbarger), 1 male. (Foregoing specimens Fla. Plant Board and USNM). 8 miles east of Homestead, Fla., Jan. 17, 1957 (R. M. Baranowski), 2 males (Baranowski and Strohecker collections).

Other records: This is a well known species of the Neotropical region, occurring from the Bahamas and northern Mexico to British Guiana and Peru. Tampico and Mazatlan are northern known limits in Mexico. It is a dominant species of the genus in the Bahamas, Greater Antilles, and northernmost Lesser Antilles (Rehn and Hebard, Trans. Amer. Ent. Soc. 41: 243-248, 1915); Hebard, Ibid. 58: 335, 1932). It was not listed by Piran in his catalogue of Argentine Tettigoniidae (Rev. Soc. Ent. Arg. 11: 119-168, 240-287, 1941 and 1942).

Conocephalus cinereus was originally described from Jamaica, and has been discussed fully by Rehn and Hebard (l. c.). It has been reported as injurious to tobacco seedlings at San Lorenzo, Puerto Rico, by Wolcott (Jour. Agric., Univ. P. R. 32: 54, 1950). Dr. R. M. Baranowski (*in litt.*, May 19, 1958) has reported that the specimens he collected were actively feeding on the banded cucumber beetle, *Diabrotica balteata* Lec. Among the few studies of food habits of the genus *Conocephalus* are those of the late F. B. Isely dealing with *C. fasciatus* (De G.) (Isely, Ann. Ent. Soc. Amer. 37: 62, 1944; Isely and Alexander, Science 109: 115-116, 1949), on the basis of which he concluded that *Conocephalus* is mainly carnivorous and seed-eating. It appears that careful observations are required to determine the exact food preferences of these small orthopterons.

C. cinereus is a small, slender katydid, or "meadow grasshopper," about 16 to 27 millimeters in length (including apices of folded tegmina). It is

most likely to be confused with *C. fasciatus*, a species very widespread in the United States. The best feature enabling the separation of the two species is the cerci of adult males (figs. 6-9). The cercus of *cinereus* has on the dorsal surface a distinct flattened apical portion, but that of *fasciatus* is tapered near the apex. The cercus of *cinereus* usually is the same color as the apical portion of the abdomen, normally yellowish or light brown, while that of *fasciatus* usually is green, in contrast to the abdomen. In both sexes the lateral lobe of the pronotum is a helpful separating feature: In *cinereus* the humeral sinus is less evenly and broadly rounded, and the ventral margin is about right-angled, in contrast to the more evenly and broadly rounded humeral sinus and very broadly rounded ventral margin in *fasciatus* (see Rehn and Hebard, Trans. Amer. Ent. Soc. 41: pl. 17, fig. 2, pl. 22, fig. 12, 1915). When seen in dorsal view, the apical portion of the fastigium of *cinereus* usually shows lateral expansion, rather than approximately equal width as in *fasciatus* (figs. 10-11).

Other species of *Conocephalus* recorded from Florida are *aigialus* R. & H., *brevipennis* (Scudd.), *fasciatus fasciatus* (De G.), *gracillimus* (Morse), *nigropleuroides* (Fox), and *spartinae* (Fox). Material of *fasciatus* from Martin Co., Fla., with label data identical to that of *cinereus*, has been examined, suggesting that both species may occur together in some areas. The most distant Floridian localities occupied by *cinereus* are some 150 miles apart, and the earliest record is 1946, so the species appears to be well established. It is one of the very few katydids occurring in both the United States and South America. Isely (Ecol. Monogr. 2: 470, 1941) stated that *Neoconocephalus triops* (L.) is unique in such a distribution, and in a hasty check I had found no others until, now, *C. cinereus*.