

roaking of toads has "been struck ear the only dis- w in pitch for an served its resem-

Saussure regards i, or *krrrá*; the single strain by nd, but they may up and shrill and

heard two choirs, of each chirped to the influence of variably chirped a perfect accord of e to their former each other with

nd in Cambridge, emobius was not developed males ridulation comes

of November, I was about 67° ater at the same ed by what, was mhyus) o that of *Gryllus* e a French word.

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etimes for several

he song was mild e prolonged; then At this time the s; the female ran

away, and the male, after a short chase, returned to his old haunt, singing with the same vigor as before, but with more frequent pauses; at last, finding all persuasion unavailing he brought his serenade to a close. The pauses of his song were almost instantly followed by a peculiar jerk of the body; it consisted of an impulsive movement backward, and then as suddenly forward, and was accompanied by a corresponding movement of the antennae together and then apart. The female was near enough to be touched by the antennae of the male during the first movement, and usually started in a nearly similar way as soon as touched.

The tegmina of the male are held at an angle of about twenty degrees from the body during stridulation, and perhaps at a slightly greater angle from each other. Even when most violent, the sound is produced by the friction of the inner edges of the tegmina only, and not by the whole surface.

In different years I have noted the first time in spring that I have heard this creature stridulate in the vicinity of Boston, Mass. In 1869, June 13; 1874, May 31; 1875, May 26 (and the same year at Compton, N.H., June 1); 1878, May 18 (on the summit of Blue Hill, Milton); 1879, May 31. July and August, 1867, were spent north of the White Mountains, at Jefferson, N.H., and no *Nemobius* was heard there before Aug. 7.

Mr. W. T. Davis says that on Staten Island there is a small form of this species, perhaps distinct, in which the stridulation is "a continuous rolling whirr, instead of the ordinary creak, creak, creak."

*Nemobius fasciatus* Scudd. I have noticed no difference between the chirp of this species and that of the preceding, of which it is probably only a long winged form.

*Ecanthus niveus* Serv. The song of the common tree cricket (Fig. 39), consists of a continuously sustained, equable, creaking roll, which varies much in intensity and differs by day and by night. Dr. Harris speaks only of their song by night, remarking: "When arrived at maturity the males begin their nocturnal serenades at the approach of twilight and continue it with little or no intermission till the dawn of day. Should one of these little musicians get admission to the chamber, his incessant and loud shrilling will effectually banish sleep."



Fig. 39.

The day song of this insect is exceedingly shrill, and may be represented by the accompanying figure, though the notes vary in rapidity; when slowest they are about sixteen a second. The song is of varied length, sometimes lasting but two or three seconds, sometimes continuing for a minute or two uninterruptedly; it is a nearly uniform, equally sustained trill, but the insect often begins its note at a different pitch from the normal one—the fourth F above middle C—as if it required a little practice to attain it. When singing the tegmina are raised at fully a right angle to the body. The night song consists of *thrrr* repeated incessantly, three parts of song and one of rest in every three seconds.



Fig. 40. Note of *Ecanthus niveus* by day.

McNeill remarks that the day song indicated by the musical notation given above "seems to be the song of *fasciatus*, while the night song certainly resembles that of *angustipennis* more than the song of *niveus*." These different species were not recognized by me when I made my earliest notes, represented by the notation above, so that a revision of the "score" of our *Ecanthus* seems desirable.