

CHAPTER 13

Meconematinae: Quiet-Calling Katydids

This subfamily is represented in the United States by a single species, introduced from Europe. About 200 species occur worldwide, including 3 that are known to make wholly ultrasonic songs—that is, the songs can only be heard by human ears with the help of an ultrasonic detector.

The U.S. species has no male stridulatory apparatus of the usual kind. There are, however, minute teeth on the forewings that may substitute in a quiet way. In addition it has another method of calling, as indicated by the name.

DRUMMING KATYDID *Meconema thalassinum* Map 13-1

Identification: (Fig. 13-1) (14-19 mm) A tiny katydid with a tympanum exposed on each foretibia (Fig. 13-1, arrow). Forewings longer than hindwings. No stridulatory area apparent at base of male forewings.

Habitat: Deciduous trees and the vegetation beneath.

Season: July-Oct.? (Aug.-Nov. in England). U.S. records are so far only for July and August.

Song: (Song 13-1) Males call at night by rapidly tapping one of the hind feet on the substrate—such as the surface of a leaf. The pad under the first tarsal segment of the male is hardened while that of the female is soft. The sound varies with the substrate but under favorable conditions can be heard 12 feet away. A bout of drumming consists of several bursts, the initial ones being brief and the later ones lasting about 1 sec. Foot impact frequency is ca. 43/sec.

Similar Species: (1) Meadow katydids—tympanum visible only through slits in expanded foretibia; males with conspicuous stridulatory areas on fore wings. (2) False katydids—larger; hind wings often longer than fore wings.

Remarks: The drumming katydid is native to Europe. It lays its eggs in crevices in bark and may have been imported to the United States as eggs on woody ornamental plants. Whatever the means, by 1957 it had become established on western Long Island, New York, and by 1980 it had extended its range to Rhode Island and to Scarsdale and Ithaca, New York, by 1980.

No function has been proved for the male's drumming, and either the air-borne or the substrate-transmitted vibrations might be the more important. Tegminal stridulation (using the minute teeth) may also occur—if so, the signal is likely ultrasonic.

References: Gurney 1960*, Hoebeker 1981(range); Ingrisch 1985 (diapause); Johnston 1970 (notes); Sismondo 1978 (prey of *Sphex*), 1980 (drumming).

