

**MECONEMA THALASSINUM, A EUROPEAN KATYDID NEW TO THE  
UNITED STATES**

(ORTHOPTERA: TETTIGONIIDAE)

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Two specimens of a small European katydid, *Meconema thalassinum*<sup>1</sup> (De Geer), have been found on Long Island, N. Y., and probably the species is established there. This is the first record of *thalassinum* in America. Likewise, the subfamily Meconematinae is not native to the Western Hemisphere. The specimens were collected by John K. Terres, editor of Audubon Magazine, and generously deposited in the National Museum. On July 12, 1959, he took a living female on the terrace of his yard in Little Neck, on the north shore of Long Island near the line between Queens and Nassau Counties, and on July 14 he found a dead male on the floor in his home. The recorded distribution of *thalassinum*, including its synonym *varium* (F.), is from southern Sweden, Ireland, England, and Spain, east to the regions of the Adriatic Sea and the Caucasus.

This katydid is about 11 to 15 mm. in body length, exclusive of appendages, and the tegmina and wings extend 3 to 4 mm. beyond the apex of abdomen. The legs are moderately slender, the hind femur slightly shorter than the tegmen. The tympanum on each side of the front tibia is open. In *Conocephalus* and *Orchelimum*, two native genera comprising small katydids which in a superficial way resemble *Meconema*, each tympanum is covered except for a slitlike opening. Compound eyes are globose and prominent, and the acute, conelike fastigial vertex extends slightly in advance of the eyes. The male cerci are each about 4 mm. long, strongly curved, the apices scarcely specialized. The ovipositor is about 8 to 10 mm. long, usually extends about 3 mm. beyond the tegminal apices, and has no serrations. The color of *thalassinum* is a nearly uniform pale green except for a yellow longitudinal median stripe on the pronotum, often bordered on the

<sup>1</sup> As Roberts (Trans. Amer. Ent. Soc. 67: 28, 1941) has pointed out, the name *Meconema* is neuter, so that the corresponding spelling of the specific name, as well as the subfamily name Meconematinae—based on the stem *Meconemat*—is correct. This clarification is applicable because many references to *thalassina* and Meconeminae are in the literature.

metanotal disc with a dark spot on each side. Preserved specimens often fade to a straw color. Most guides to British and European Orthoptera refer to this katydid, and the accounts of Chopard (Faune de France, 56: 98-101, 1951), Hartz (Die Geradflügler Mitteleuropas: 173-176, 1957), and Lucas (Monograph Brit. Orth.: 189-193, 1920) are rather full and well illustrated.

Unlike most Tettigoniidae, the tegmina of male and female *thalassinum* are almost identical, though Petrunkevitch and Guaita (Zool. Jahrb., Syst., 14: pl. 17, fig. 25, 1901) show slight differences. In both sexes microscopic denticles of special interest are borne on the dorsal surface of the tegmen. These denticles, best seen at magnifications of 60 or more, are about two to three dozen in number and are located along the raised veins near the posterior margin about 3 to 4 mm. from the base of the tegmen. I have seen no ventral denticles, though Petrunkevitch and Guaita (l. c., p. 301) referred to their presence along the ventral side of some lengthwise veins. This katydid is sometimes regarded as silent, and Burr (Brit. Grasshoppers and their Allies, p. 130, 1936) considered it as the only group of Tettigoniidae that lacks male stridulatory apparatus. However, Ander (Opusc. Ent., Suppl., p. 54, 1939) reported a lack in the Phyllophorinae also.

Several authors have discussed the sound-producing behavior of *thalassinum*, and Kevan (Special Papers Univ. Nottingham Sch. Agric. Zool. Sect. 2: 3, 5, 1954), pointed out that several observers thought that sound was produced by the abdomen striking a leaf or other substratum. This was not confirmed by Currie (Ent. Record 65: 93-94, 1953), however. Cappe de Baillon (Ann. Soc. Ent. France 90: 69-80, 1921) thought that the tiny tegminal denticles serve as stridulatory organs, but neither has this view been confirmed. Currie referred to the sound produced by *thalassinum* as a faint "drumming" audible up to 12 feet away. Sound was not of more than  $\frac{1}{2}$  second duration, repeated at 2- to 3-second intervals. He stated that when "drumming" the tegmina and wings were closely appressed and raised perpendicular to the long axis of the body, and the tip of the abdomen was vibrated very rapidly. It is evident that *thalassinum* is a species of more than ordinary interest, and that the patient observer may be well repaid for his efforts.

*M. thalassinum* is reported to occur especially on oaks, as well as various other deciduous trees. Currie (l. c.) stated that a specimen in captivity fed readily on leaves of oak, rose, and birch, and that in the field he observed the species feeding on sawfly larvae. Lucas (l. c.) also reported it as occasionally carnivorous. Eggs are inserted into ridges or cracks on the bark. Lucas (Entomologist 45: 114-117, 1912) described oviposition on oaks in England, and Chopard (Biol de Orth., Encyclopedie Ent. 20: 186, 1938) said that oviposition occurs most often among lichens on the west side of tree trunks. Mr. Terres has reported that the garden of his Long Island home is well supplied with native and exotic trees and shrubs, so that an introduction by means of eggs may have occurred.