28 February 1979
PROC. ENTOMOL. SOC. WASH.
81(1), 1979, pp. 60–63

ORTHOTYLUS TRANSLUCENS: TAXONOMIC STATUS AND CORRECTION OF PUBLISHED MISIDENTIFICATIONS (HEMIPTERA: MIRIDAE)[1]

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Abstract.—The type-specimen of *Orthotylus translucens* Tucker 1907 has been examined. Although the condition of the type is poor, we are following Kelton and are regarding Tucker's species as a junior synonym of *Diaphnocoris provancheri* (Burque). Records of *O. translucens* in faunal lists probably should refer to *D. pellucida* (Uhler) and *D. ulmi* (Knight), as well as to *D. provancheri*. Published host records from onion and mesquite refer to *Labopidea allii* Knight and *Orthotylus vigilax* Van Duzee, respectively.

Elbert S. Tucker was F. H. Snow's student and museum assistant at the University of Kansas during the early years of this century (Hyder, 1953). He published a number of papers on economic entomology while employed as a special field agent by the U.S. Department of Agriculture. From extensive spare-time collecting he amassed considerable material from Colorado, Kansas, Louisiana and Texas and helped to catalogue the insects of Kansas. He identified much of his own material but usually had specialists verify his determinations. Tucker felt sufficiently confident to describe several new species of Diptera and Hymenoptera; his taxonomic work in Hemiptera was limited to the 1907 description of a new mirid, *Orthotylus translucens*.

Tucker described *O. translucens* from a male he collected in July 1894 near Colorado Springs, Colorado, which O. Heidemann had noted was most closely related to the European *O. prasinus* (Fallén). Tucker hesitated to describe a new species based on a single specimen but did so "to avoid listing a species as unknown."

In helping to complete the mirid fascicle for the forthcoming catalogue of

[1] Authorized for publication May 24, 1978 as paper no. 5521 in the Journal Series of the Pennsylvania Agricultural Experiment Station. A contribution from the Frost Entomological Museum (AES Project 2070).

the Hemiptera of America north of Mexico, we found that there is confusion surrounding the identity of Tucker's species. We discovered that Van Duzee (1916) had redescribed *translucens* without examining Tucker's type-specimen; that H. H. Knight at one time confused *translucens* with related orthotyline mirids; that the host plant records published under the name *O. translucens* by Glenn (1923) and Jones (1932) probably were based on misidentifications; and that Kelton (1965) synonymized *translucens* under *Diaphnocoris provancheri* (Burque) without indicating whether he had seen Tucker's type. We have examined the type and the specimens of Glenn, Jones, Knight and Van Duzee in order to clarify the taxonomic status of *O. translucens* and to correct published host plant records based on misidentifications.

Tucker's Type and Metatypes

Dr. P. D. Ashlock, Department of Entomology, University of Kansas, kindly permitted us to borrow Tucker's type-specimen from the Snow Entomological Museum. The specimen is badly faded with little hint of green and no fuscous tinge; its condition is poor. The antennae (except the right 1st segment) are missing and the genitalia are glued to a 2nd point beneath the specimen, but only the right paramere is visible. The specimen is suggestive of *Diaphnocoris provancheri,* or *D. pellucida* (Uhler), but as pointed out by Kelton (1965), these two species are at best difficult to separate. Kelton (1965) synonymized *translucens* under *D. provancheri,* probably as a practical way to dispose of a long troublesome name and apparently without studying the Tucker type-specimen. Tucker's specimen clearly belongs in the genus *Diaphnocoris,* and its general form most closely resembles specimens determined as *D. provancheri* from the eastern U.S. Because of its poor condition, it is impossible to identify the type with certainty; Tucker's specimen may well represent a species distinct from other known *Diaphnocoris*. We believe it best, however, to follow Kelton's disposition of *translucens* owing to the condition of Tucker's type-specimen.

Tucker's metatypes, four females collected at Kansas City, Missouri, May 13 and 20, could not be located. His description of this green orthotyline mirid strongly suggests the honeylocust plant bug, *D. chlorionis* (Say), based on the short rostrum (failing to attain mesocoxae), antennae (III–IV infuscated), and membrane (very slightly dusky). The collection of the metatypes from "trunks of locust trees" further supports our conclusion if the host indeed was honeylocust rather than black locust.

Van Duzee's and Knight's Concept of *Orthotylus Translucens*

In his 1916 monograph of the genus *Orthotylus* in North America, Van Duzee redescribed *O. translucens* based on a pair collected at Buffalo, New York and two males taken at Elma, New York (near Buffalo). He did not ex-

amine Tucker's type but thought that based on the original description he had correctly placed Tucker's species. Van Duzee's specimens from Buffalo (6-27-08) and Elma (Aug-25-12) were located in the collection of the California Academy of Sciences and were borrowed through the courtesy of Dr. P. H. Arnaud, Jr. These specimens cannot be referred to either *D. pellucida* or *D. provancheri* or to the similar-appearing *D. chlorionis*. Van Duzee's specimens appear to be *D. ulmi* (Knight).

H. H. Knight apparently was unsure of the identity of *O. translucens* and did not include Tucker's species in his major works of 1923, 1941 and 1968. He did, however, occasionally identify specimens as *translucens*. In material submitted by C. J. Drake and H. Osborn from their survey of the Hemiptera of Cranberry Lake, New York, Knight identified *D. pellucida, D. provancheri,* and *O. translucens?,* all taken on yellow birch (*Betula lutea*) at Barber Point during July and August. He also identified *translucens* from Batavia, New York (Knight, 1928) and Raleigh, North Carolina (Brimley, 1938). In addition, his personal collection, now housed at the U.S. National Museum of Natural History (USNM), contains a series of specimens standing under the name *O. translucens*. Three species comprise this series: *D. pellucida, D. provancheri,* and *D. ulmi*. The specimen from Lawrence, Kansas, noted by Knight (1922) to be closely related to *translucens* but evidently undescribed, appears to be *D. pellucida*.

Host Plant Records Based on Misidentifications

Glenn (1923) reported on seasonal history, damage and control of a mirid on wild garlic and cultivated onions in the vicinity of Olney, Illinois. C. S. Spooner misidentified Glenn's species as *O. translucens*. In the family Miridae we were aware of only *Allium* spp. serving as hosts of *Labopidea* spp. We located a specimen from Olney (June 1915, on onion) in the USNM collection that Knight had determined as *L. allii*. Knight (1941) lists *L. allii* from Olney, Illinois.

Jones (1932), based on Van Duzee's determination, recorded *O. translucens* from mesquite (*Prosopis glandulosa* and *P. velutina*) in southeastern Arizona. He reported that feeding by large numbers of mirids apparently was responsible for failure of a large percentage of leaves and flowers to develop on time. Some of his specimens from Cochise Co., Arizona, labeled "ex. mesquite," have been borrowed from the California Academy of Sciences; the species fits the description of *O. vigilax* Van Duzee. Knight (1968) reported *O. vigilax* from mesquite in California.

Acknowledgments

We are grateful to P. D. Ashlock, University of Kansas, for permitting us to borrow the Tucker type-specimen and to P. H. Arnaud, Jr., California Academy of Sciences, for the loan of Van Duzee's specimens. We thank R.

C. Froeschner, Department of Entomology, Smithsonian Institution, for allowing us to examine specimens in the H. H. Knight collection and J. L. Herring, Systematic Entomology Laboratory, IIBIII USDA, c/o U.S. National Museum, for letting us examine specimens under his care. K. C. Kim, Pennsylvania State University, kindly reviewed the manuscript and endorsed it for publication.

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