RECOGNITION OF SEVEN UHLER MANUSCRIPT NAMES, WITH NOTES ON THIRTEEN OTHER SPECIES USED BY HEIDEMANN (1892) (HEMIPTERA: MIRIDAE)

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RECOGNITION OF SEVEN UHLER MANUSCRIPT NAMES, WITH NOTES ON THIRTEEN OTHER SPECIES USED BY HEIDEMANN (1892) (HEMIPTERA: MIRIDAE)

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INTRODUCTION

In the course of our studies on the mirid fauna of Pennsylvania conifers, we noted that one of the few papers associating mirids with specific coniferous hosts in North America was Heidemann's (1892) "Note on the Food-Plants of Some Capsidae from the Vicinity of Washington, D.C." In that paper he listed 7 species from scrub pine, Pinus virginiana Mill., and 3 species from eastern red cedar, Juniperus virginiana L. Our original interest in the Heidemann paper was to associate the forms listed from red cedar and scrub pine under Uhler's manuscript names with the species we found breeding on the same 2 hosts. We had difficulty in making these associations because of our unfamiliarity with certain nomenclatorial combinations used by Heidemann, e.g., Lygus repletus reported from red cedar. Our knowledge of the mirid fauna of that plant, coupled with Heidemann's description of repletus as green, allowed us tentatively to associate the name L. repletus with Dichrooscytus viridicans Knight. Subsequent examination of Heidemann's specimens in the U.S. National Museum and Cornell University collections enabled us to verify this association.

Added interest in the Heidemann paper developed from discussions with C. W. Sabrosky and J. L. Herring at the U.S. National Museum. They indicated that Heidemann had included descriptive notes sufficient to validate several of the Uhler manuscript names. Heidemann had not intended to validate these names because he noted that Uhler probably would soon publish descriptions of his manuscript species in a monograph on North American Miridae. This work, however, was never completed.

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Further evidence that Heidemann did not intend to describe Uhler's species is shown by his redescription of *Psallus juniperi* as new in 1905.

Although the International Commission on Zoological Nomenclature does not specify what constitutes an adequate description, our opinion that Heidemann validated several Uhler manuscript names is supported by Opinion 52 rendered by the Commission in 1913. In that decision the Commission ruled that the description of *Cyprinus corporalis* as a "splendid silvery fish" along with the type locality was sufficient to recognize the species and to establish its priority over the later name *bullaris* applied to the same species.

Later we discovered that Knight and McAtee (1929:24) had recognized Heidemann's validation of 5 Uhler manuscript names when they stated: "... some are accompanied by descriptive matter sufficient to validate them." However, several of these names have not appeared in print since the Knight and McAtee paper. Knight may not have concurred with the decision to accept the 5 Heidemann names, or later changed his opinion, because in nearly all of his subsequent papers he used his own names rather than those of Heidemann. Kelton (1974) also accepted Heidemann's (1892) description of *Lygus repletus*.

Carvalho, in his "Catalogue of the Miridae of the World," recognized 5 of Heidemann's names but also listed as valid several species that should be regarded as junior synonyms of the Heidemann names. We also found that the Heidemann names are used in the U.S. National Museum collection. The specimens bear R. I. Sailer's labels referring to unpublished lectotypes in the Museum's type collection.

Although it is unfortunate that species published under manuscript names should be recognized, we feel that primarily because of inconsistency in usage of the Heidemann names and also because of precedent established by the International Commission, acceptance of these names is justified. Therefore, we are establishing the identity of forms associated with Uhler's manuscript names, and hence, Heidemann's species. This should make Heidemann's seasonal and host plant data more valuable but should not disrupt stability. The 3 Heidemann species we are giving new status
are conifer inhabitants that have been mentioned infrequently in
the literature. Of the other species described by Heidemann,
*sericeus* (described in the genus *Psallus*) has been accepted since
1941 when Knight synonymized his *Plagiognathus tiliae* under
*sericeus* Heidemann; *Pilophorus laetus* generally has been credited
to Van Duzee 1918 rather than Heidemann 1892; *Parthenicus
juniperi* (described in the genus *Psallus*) generally has been cred-
ited to Heidemann 1905 rather than 1892; and *Orthotylus
delicatus* is a primary homonym.

In the following section the 20 species listed from coniferous
and deciduous trees by Heidemann (1892) and identified by Uhler
will be discussed in the order presented by Heidemann. First
we will list the name we consider valid, and then in parentheses
beneath, we will give the name as cited in the 1892 paper. We
will list new synonymy, correct Uhler’s misidentifications, estab-
lish the validity of 6 Uhler manuscript names used by Heidemann
(a seventh name validated is a primary homonym), and designate
lectotypes for these species. We will provide a new name as a
replacement name for *Dichrooscytus elegans* Uhler 1904 and
elevate the name *Pilophorus americanus* Poppius 1914 for *P.
crassipes* Poppius 1914.

**Species Listed From Scrub Pine, Pinus Virginiana**


(*Phytocoris eximus* [sic] Reut.)

We have examined Heidemann’s specimens from the Washing-
ton area and have found that the species he listed from scrub pine
was not Reuter’s *eximus*, but an undescribed species, later
described as *P. conspersipes*.

2. *Phytocoris mundus* Reuter 1909:18

(*Phytocoris mundus* Uhl. MS)

Uhler recognized this species as new and assigned to it but
never validated the name *mundus*. Heidemann’s notes on *mundus*
were not sufficient to validate the name. Reuter later described
this species.

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3. **Eustictus grossus** (Uhler) 1887b:70  
(*Megacoelum grossum* Uhl.)

This species was correctly identified by Uhler. Knight and McAtee (1929) listed Heidemann's specimens from Washington and vicinity under the name *E. filicornis* Walker.

4. **Pilophorus amoenus** Uhler 1887a:30  
(*Pilophorus amoenus* Uhl.)

We have seen Heidemann's specimens collected from the Washington area during 1887-92. Uhler's determination was correct.

5. **Pilophorus crassipes** Heidemann 1892:225, new status  
(*Pilophorus crassipes* Uhl. MS)

*Pilophorus crassipes*, Felt 1906:686 (incorrectly credited to Uhler); Moore 1907:163 (incorrectly credited to Stål); Smith 1910:162 (credited to Uhler); Van Duzee 1917:380 (in part; Uhler MS name); Knight and McAtee 1929:14.

*Pilophorus crassipes* Poppius 1914:242 (in part); Carvalho 1958:146 (in part).

*Pilophorus crassipes* Van Duzee 1918:293.

*Pilophorus vanduzeei* Knight 1923:540; 1926a:19; Blatchley 1926:809; Knight 1928:123; 1941:120; Froeschner 1949:173; Carvalho 1958:149; Akingbohungbe et al. 1972:12; Knight 1973:135. [NEW SYNONYMY].

Heidemann validated this Uhler manuscript name when he stated: "Allied to the former [*P. amoenus* Uhler], but more robust, and darker in color . . . ." Van Duzee, however, believed that Heidemann had not validated Uhler's manuscript name and in 1918 redescribed this species as *crassipes*, using Heidemann's specimens. Knight and McAtee (1929:14), however, recognized Heidemann's description of *P. crassipes* and (p. 27) noted that *crassipes* Van Duzee 1918 was a primary homonym.

In 1914 Poppius described *P. crassipes* from Colorado and included a specimen from Washington, D.C. in the type series. Knight (1923) described *P. vanduzeei* from New York and Massachusetts but apparently was not aware that Heidemann's *crassipes* was the same species. Later, he stated that the Washington speci-
men listed by Poppius (1914) was not the same species as Poppius’ holotype from Colorado but was *P. vanduzeei* (Knight 1926a). We have examined some of Heidemann’s specimens from scrub pine that bear his determination as *P. crassipes* MS Uhl. and Knight’s subsequent identification of them as *P. vanduzeei*. Blatchley (1926) noted that *P. crassipes* Van Duzee nec. Poppius was a synonym of *P. vanduzeei* Knight.

We are recognizing *P. crassipes* Heidemann 1892 as the senior synonym of *P. vanduzeei* Knight 1923. Mention of *crassipes* by Knight and McAtee (1929) prevents the Heidemann name from being a *nomen oblitum*, although the 50-year rule is not generally followed by entomologists and workers in other groups with a less active literature (see Sabrosky (1967) for comments on the application of this rule in entomology).

**Type.** — Lectotype, male, here designated, with labels: “Wash-[i]ng[t]o[n, DC, 11/7. 90”; “Philophorus [sic] crassipes (Uhl.)”; “O. Heidemann”; “Lectotype, *Philophorus crassipes* Heidemann” (red label); “Lectotype 62619” (red label) (number assigned by R. I. Sailer).

With recognition of Heidemann’s *crassipes*, *P. crassipes* Poppius 1914 becomes preoccupied and requires a replacement name. We are elevating the name *P. americanus* Poppius 1914, synonymized under *P. crassipes* Poppius by Knight (1968).

5a. **Pilophorus americanus** Poppius 1914:243, new status

*Philophorus crassipes* Poppius (1914:242; Van Duzee 1917:380 (in part); Carvalho 1958:146 (in part); Knight 1968:167; 1973:137. [Name preoccupied by *P. crassipes* Heidemann 1892].

6. **Pilophorus laetus** Heidemann 1892:225

(*Philophorus laetus* Uhl. [MS])

This was a Uhler manuscript name, but the notation “MS” was omitted, an omission that resulted in the crediting of authorship to Uhler by Poppius (1914). Van Duzee (1918) redescribed *laetus* because he believed that Heidemann’s notes did not form a proper description. Authorship generally has been credited to Van Duzee, including Knight and McAtee (1929), even though they recog-
nized other species described by Heidemann (1892). Carvalho (1958) gave credit to Heidemann. We agree that Heidemann validated the name laetus by stating it is: "Smaller, and easily recognized by the form of the antennae, the second joint being abruptly enlarged at the tip . . . ."

Type. — Lectotype, female, here designated, with labels: "Wash-[i]ngt[o]n, DC, 11/7. 90"; "Heideman [sic] Collector"; "Pilophorus laetus Uhl."; "Lectotype Pilophorus laetus Heid." (red label); "Lectotype 62620" (red label) (number assigned by R. I. Sailer).

7. Ceratocapsus barbatus Knight 1927b:150
   (Melinna modesta Uhl.)

Uhler (1887b) applied the name modesta to a pine-inhabiting species common in the Baltimore, MD. vicinity, and his description, although not entirely accurate, appears to be of this species. In his type series, however, Uhler included specimens of a second species that had been sent to him from other states and Ontario, Canada. We have examined a Uhler specimen in the USNM type collection and have found it to be of this second species, which must take Uhler's name modesta. Ceratocapsus modestus (Uhler) occurs on various deciduous trees and grape (Knight 1941), and according to our observations, especially on oaks. Wirtner (1904), in his list of Hemiptera from western Pennsylvania, reported Melinna modesta Uhler from pine and mentioned also that a "dark variety" had been taken on oak.

Blatchley (1926) alluded to a possible problem when he noted that specimens of C. modestus determined by Knight did not fit Uhler's description of pronotum "coarsely unevenly punctate." In describing C. barbatus, Knight (1927b) stated that the species keyed to modestus in Knight (1923). He must have been aware that the pine-inhabiting species was without a name and therefore described barbatus as a species apparently restricted to breeding on scrub pine. He included as paratypes specimens collected by Heidemann in the Washington area from 1892 to 1909. We feel it is clear that Heidemann (1892) was reporting from pine a species now known as C. barbatus.
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SPECIES LISTED FROM EASTERN RED CEDAR,
JUNIPERUS VIRGINIANA

8. Parthenicus juniperi (Heidemann) 1892:225
(Psallus juniperi Uhl. MS)

Heidemann validated this name in 1892, but not realizing this, redescribed juniperi in 1905. Carvalho (1958) recognized Heidemann's earlier description; we agree with this interpretation.

Type. — Lectotype, female, here designated, with labels: "Wash[il]ngt[on], DC, 19/6. 91"; "PR Uhler Collection"; "Heidemann Collector"; "Psallus juniperi, Uhl., D.C."; "Psallus juniperi Uhler, D.C. Det. UHLER"; "Lectotype Psallus juniperi Heidemann 1892" (red label); "Lectotype 62621" (red label) (number assigned by R. I. Sailer).

9. Dichrooscytus repletus (Heidemann) 1892:225, new status
(Lyagus repletus Uhl. MS)

Lygus repletus, Carvalho 1959:127.
Dichrooscytus elegans var. viridicans Knight 1918:114. [NEW SYNONYM].
Dichrooscytus repletus, Knight and McAtee 1929:19.

Heidemann validated this name by stating: "This pretty insect is quite hard to detect on account of its green color matching exactly that of the leaves of its food-plant ... ." Knight and McAtee (1929) used the Heidemann name, and Carvalho (1959) likewise listed Heidemann's repletus but then also recognized D. viridicans Knight. Kelton (1974) also accepted Heidemann's description of repletus and pointed out that the species should be transferred to Dichrooscytus Fieber. He noted that D. viridicans Knight is thus a junior synonym of the Heidemann name, but invoked the 50-year rule as an argument for retaining the Knight name. Apparently he overlooked Knight and McAatee's (1929) paper. We regard D. viridicans as a junior synonym of D. repletus (Heidemann) 1892.

10. Dichrooscytus elegans Heidemann 1892:225, new status
   (Dichrooscytus [sic] elegans Uhl. MS)

   Dichrooscytus elegans, Knight and McAtee 1929:19; Carvalho 1959:82 (in part).


By noting the “dark-red color of the corium,” Heidemann validated the name elegans. This validation was accepted by Knight and McAtee (1929) and by Carvalho (1959). However, Heidemann’s D. elegans generally has been referred to as D. elegans Uhler or D. tinctipennis Knight.

Confusion arose when Uhler (1904) described D. elegans based on a single specimen collected at Las Vegas Hot Springs, N. M.¹ He believed that his species was identical to the one Heidemann reported breeding on red cedar in the Washington, D.C. vicinity. It is not clear whether Uhler had Heidemann’s specimens before him when describing elegans and designated them as cotypes, or whether Heidemann later designated the Washington specimens as cotypes (Kelton and Schaffner, 1972). It seems obvious that Uhler believed Heidemann had not validated the manuscript name elegans and that now he was validating that

¹ Uhler (1904) indicated he had only 1 New Mexico specimen by stating: “one specimen was secured August 16.” Kelton and Schaffner (1972) redescribed D. elegans based on a type specimen (♂) in poor condition (No. 6850, USNM Collection). However, we recently found a specimen (♀) in perfect condition in the USNM Type Collection bearing the type No. 6850 and the other data cited by Uhler.
name for a species that occurred in New Mexico in addition to Washington, D.C. and elsewhere in eastern North America.

The series of specimens from the eastern U.S. designated as cotypes of *elegans* Uhler contained both Heidemann's *D. repletus* (=*viridicans* Knight) and *D. elegans* (=*tinctipennis* Knight). In 1918 Knight recognized *viridicans* as a new variety of *elegans* Uhler, then raised *viridicans* to specific rank in 1923. In that year he reported *D. elegans* Uhler from New York, but later realized that this species was not the *elegans* of Uhler and described *D. tinctipennis* (Knight, 1927a). Kelton and Schaffner (1972) listed *elegans* Heidemann as a synonym of *elegans* Uhler, but the *elegans* of Heidemann refers to the eastern species; the *elegans* of Uhler, to a western species. We recognize Heidemann's validation of *elegans* and regard *tinctipennis* Knight as a junior synonym.

**Type.** — Lectotype, female, here designated, with labels: "Washington DC, 15/6. 91"; "PR Uhler Collection"; "Dichrooscytus *elegans*, Uhl., O. H."; "Lectotype Dichrooscytus *elegans* Heidemann" (red label); "Lectotype 62623" (red label) (number assigned by R. I. Sailer).

We are renaming *D. elegans* Uhler 1904 which is preoccupied by *D. elegans* Heidemann 1892.

**10a. Dichrooscytus uhleri, new name**


**Species Listed From Black Willow, Salix nigra**

**11. Orthotylus sp.**

*(Orthotylus alternatus* Uhl. MS)*

Heidemann did not validate this Uhler manuscript name. In the Cornell and USNM collections we have found specimens of *O. modestus* Van Duzee and *O. viridis*, both common on *Salix* spp., collected by Heidemann in the Washington, D.C. area during 1887-1891. A single specimen of *O. modestus* var. *immaculatus* Knight bears the label "found on willow." A single specimen of
O. viridis collected in 1893, after publication of the Heidemann paper, bears the label “MS Uhl./O. alternatus.” It seems likely that either or both species could have been represented in Heidemann’s series of O. alternatus.

12. Pilophorus brunneus Poppius 1914:244

(Pilophorus confusus Kirschb.)

Heidemann’s species from willow was not P. confusus, a Pale-arctic species (Carvalho 1958), but a species later described by Poppius as P. brunneus, using a Heidemann specimen from Washington, D.C.

13. Ceratocapsus pumilus (Uhler) 1887b:69

(Melinna pumila Uhl.)

We have seen several Heidemann specimens of pumilus (without host labels) that were collected in Washington during 1890. There are, however, several other species of Ceratocapsus associated with Salix nigra, some undescribed at the time, that could have been represented in Heidemann’s series of specimens.

Species Listed from Linden, Tilia spp.

14. Plesiodema sericea (Heidemann) 1892:226

(Psallus sericeus Uhl. MS)

Heidemann described this species when he stated: “it is easily overlooked, as its straw-yellow color does not offer the slightest contrast with the faded blossoms.” Knight (1941) recognized the validity of this description because he synonymized his own Plagiognathus tiliae (Knight 1926b) under Plagiognathus sericeus (Heidemann). Carvalho (1955) followed Knight’s synonymy, and transferred sericeus to the genus Plesiodema.

15. Microphylellus modestus Reuter 1909:76
(Phylus modestus Uhl. [MS.])

This was a Uhler manuscript name but the “MS” was omitted. In the Cornell University collection we found specimens collected by Heidemann on linden blossoms in Washington and labeled as Phylus modestus Uhl. MS. These were determined later by Knight as Microphylellus modestus Reuter.

16. Deraeocoris nitenatus Knight 1921:141
(Camptobrochis grandis Uhl.)

We found a specimen of D. nitenatus among undetermined material in the Cornell University collection bearing the labels: “D.C., 20/6. 88,” “found on Linden Blossom.” There is a second specimen with the same data but no host label. Since Knight (1921) showed Uhler’s type series of grandis to be a composite of at least 4 species, it is possible that other species of Deraeocoris could have been represented in Heidemann’s series from linden. However, only the single specimen of nitenatus among many Heidemann specimens of Deraeocoris spp. examined in the Cornell and USNM collections bore a Tilia host label.

Species Listed From Ash, Fraxinus Sp.

17. Xenoborus pettiti (Reuter) 1909:50
(Neoborus pettitii [sic] Uhl. MS)

Heidemann did not validate this name; Reuter (1909) described this species.

18. Brachynotocoris heidemanni (Knight) 1927a:13
(Orthotylus delicatus Uhl. MS)

Heidemann validated this name by describing delicatus as: “A very delicate capsid of a light green color.” Knight (1927a) described Diaphnidia heidemanni and included as holotype, allo-type, and several paratypes specimens collected by Heidemann before 1892 (his holotype bears the label “Orthotylus delicatus, Uhler, D.C.”). Knight noted that Heidemann had given the host as
FAMILY MIRIDAE

Fraxinus excelsior L. [European ash]. These specimens are those referred to by Heidemann (1892) from F. excelsior. If Knight (1927a) did not accept Heidemann's description of delicasus, then this treatment appears contrary to that given Heidemann's Psallus sericeus. However, Knight may have realized that O. delicatus Heidemann was preoccupied by O. (Psallus) delicatus Cook 1891. We would regard Knight's D. heidemanni as a junior synonym of Heidemann's O. delicatus, but because Heidemann's delicatus is a junior primary homonym, Knight's heidemanni must be recognized. Kelton (1961) transferred heidemanni to the genus Brachynotocoris.

SPECIES LISTED FROM BLACK BIRCH, Betula nigra

19. Reuteria irrorata (Say) 1832:25
(Malacocoris irroratus Say)

We have examined Heidemann's specimens collected from black birch in the Washington area. Uhler's identification was correct.

20. Phytocoris sp.
(Phytocoris puella Reut.)

We have found a Heidemann specimen collected in Washington during 1891 that was determined as Phytocoris puella var. confluen. P. confluen was described as a variety of puella by Reuter (1909) using Heidemann specimens from Washington and was given specific rank by Knight (1923). We have not found any Heidemann specimens of puella. However, since both confluen and puella are known from birch (Knight 1941) and from the Washington area (Knight and McAtee 1929), either or both species could have been represented in Heidemann's series from birch.

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2 Cook's name also was preoccupied and his species was renamed O. altheae by Hussey (1924).
script in various stages of its development and making suggestions for its improvement. We also thank Drs. Froeschner, Herring, and C. W. Sabrosky for discussing with us their views on the Heidemann names and Drs. Herring and Pechuman for allowing us to examine Heidemann specimens in the U.S. National Museum and Cornell University collections.

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