

## Annotated List of the Leaf Beetles (Coleoptera: Chrysomelidae) of Kentucky: Subfamily Cryptocephalinae

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### ABSTRACT

An examination of leaf beetle specimens (Coleoptera: Chrysomelidae) in the largest beetle collections in Kentucky, recent inventory work in state nature preserves and other protected areas, and a review of the literature revealed 59 species of Cryptocephalinae present in Kentucky, 27 of which were previously unreported for the state. Distribution maps and label data are presented for the 59 Kentucky species, including spatial (state and Kentucky county records), temporal (years and months of collection in Kentucky), and plant association information. The following species are reported from Kentucky for the first time: *Griburius scutellaris* (F.), *Pachybrachis bivittatus* (Say), *Pachybrachis confusus* Bowditch, *Pachybrachis diversus* Fall, *Pachybrachis hepaticus hepaticus* (F. E. Melsheimer), *Pachybrachis luridus* (F.), *Pachybrachis morosus* Haldeman, *Pachybrachis obsoletus* Suffrian, *Pachybrachis othonus othonus* (Say), *Pachybrachis peccans* Suffrian, *Pachybrachis pectoralis* (F. E. Melsheimer), *Pachybrachis praeclarus* Weise, *Pachybrachis spumarius* Suffrian, *Pachybrachis trinotatus* (F. E. Melsheimer), *Pachybrachis viduatus* (F.), *Bassareus lituratus* (F.), *Cryptocephalus calidus* Suffrian, *Cryptocephalus fulguratus* J. L. LeConte, *Cryptocephalus gibbicollis decrescens* R. White, *Cryptocephalus mutabilis* F. E. Melsheimer, *Cryptocephalus notatus* F., *Cryptocephalus striatulus* J. L. LeConte, *Diachus catarius* (Suffrian), *Diachus chlorizans* (Suffrian), *Triachus atomus* (Suffrian), *Coleophthorpa dominicana franciscana* (J. L. LeConte), and *Neochlamisus gibbosus* (F.).

KEY WORDS: Kentucky, leaf beetles, Coleoptera, Chrysomelidae, Cryptocephalinae, biodiversity, new state records

### INTRODUCTION

This paper is the seventh and final in a series intended to present a synopsis of the historical collection data on leaf beetles (Coleoptera: Chrysomelidae) from the major Coleoptera collections in Kentucky and augment those data with new information gained from recent monitoring in state preserves and other protected locations. The first six papers presented information on the subfamilies Cassidinae (Barney et al. 2007), Donaciinae and Criocerinae (Barney et al. 2008a), Chrysomelinae (Barney et al. 2008b), Galerucinae, tribes Galurucini and Luperini (Barney et al.

2009a), Galerucinae, tribe Alticini (Barney et al. 2009b), and Eumolpinae (Barney et al. 2010).

The subfamily Cryptocephalinae is known as the case bearers due to the fact that the larvae inhabit self-constructed cases built from a combination of fecal pellets, soil particles and plant detritus (LeSage 1982, 1984a, 1984b, 1986; Stiefel 1993; LeSage and Stiefel 1996). Cryptocephalinae is a moderate-sized group with over 340 species in 22 genera in America north of Mexico (Riley et al. 2002). Several reviews of cryptocephaline genera have been conducted including those treating *Pachybrachis* (Fall 1915), *Lexiphanes* (Balsbaugh 1966), *Exema* (Karren 1966), and *Cryptocephalus* (White 1968), and the subfamilies (now tribes) Clytrinae (Moldenke 1970) and Chlamisinae (Karren 1972).

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The purpose of this study is to present historical and current knowledge of the distribution, abundance, and plant associations of cryptocephaline leaf beetles in Kentucky.

## MATERIALS AND METHODS

To establish a historical perspective, leaf beetle specimens from the major insect collections in Kentucky (and from collections located in other states but known to contain Kentucky specimens) were examined, re-identified, and their label data recorded. The following collections were studied with the timeframe of their Kentucky specimens listed:

CMC	Cincinnati Museum Center, Cincinnati, OH 1871–1931
UKIC	University of Kentucky Insect Collection, Lexington, KY 1889–1993
WKUC	Western Kentucky University Collection, Bowling Green, KY 1958–2006
RJBC	Robert J. Barney Collection, Winfield, WV (private) 1983–2009
BYUC	Brigham Young University Collection, Provo, UT 1988–2009
CWC	Charles Wright Collection, Frankfort, KY (private) 1991–2009
KYSU	Kentucky State University Collection, Frankfort, KY 2004–2009

The Cincinnati Museum Collection, formerly known as the Cincinnati Museum of Natural History, houses the Charles Dury Collection comprising approximately 75,000 specimens primarily collected in the Cincinnati/northern Kentucky area (Vulinec and Davis 1984). Most of the leaf beetles have a label reading “Ky. near Cin. O.” They usually have no date. When a Dury specimen was the first or only specimen collected for a particular species, we have used “pre-1931” as an approximate collection date.

The Kentucky State University Insect Collection is primarily the specimens generated by the Kentucky Leaf Beetle Biodiversity Project. We conducted extensive collecting in many grass-dominated barrens and rock outcrop (glade) communities that are known for possessing uncommon plants and plant associations (Jones 2005) and have never been surveyed for leaf beetles. These

sites are managed by the Kentucky State Nature Preserves Commission, The Nature Conservancy, and the United States Army at Fort Campbell Military Reservation (Baskin et al. 1994). Most specimens were collected by the senior author within five state nature preserves in 2004–2009 and Fort Campbell in 2008–2009: Crooked Creek Barrens (Lewis County) and Blue Licks Battlefield (Robertson County) in northeastern Kentucky, Eastview Barrens (Hardin County) and Thompson Creek Glades (LaRue County) in central Kentucky, and Raymond Athey Barrens (Logan County) and Fort Campbell (Christian and Trigg Counties) in western Kentucky.

For each cryptocephaline species documented for Kentucky, the following data are presented: state-level distribution in the United States (from Riley et al. 2003), Kentucky county records, abundance by year and month in Kentucky, and specimens per collection. Other pertinent information present on specimen labels, such as the method of collection and plant association information, is presented in the “Comments” section for each species. This information helps to determine abundance, seasonality, and distribution from a historical perspective. Barney and Hall (2011) reported host plant data for 23 species of cryptocephalinae in Kentucky. One should note that plant collection records taken from specimen labels are notoriously inaccurate and may not reflect true host plants (Clark et al. 2004).

## RESULTS

According to the “Catalog of Leaf Beetles of America North of Mexico” (Riley et al. 2003), there are 102 species of Cryptocephalinae recorded in at least one of the seven states contiguous to Kentucky. However, only 32 species were reported from Kentucky. An examination of 2753 cryptocephalinae leaf beetle specimens from the major collections in the state and others known to contain Kentucky specimens revealed 59 species including 28 of the 32 recorded in Riley et al. (2003) and 27 new state records (Table 1). Three of the four species listed by Riley et al. (2003) as being from Kentucky but not recovered in this study were *Neochlamisus*, two of which were reported by Karren (1972).



Table 1. List of Cryptocephalinae (Coleoptera: Chrysomelidae) recorded from Kentucky, with number of Kentucky specimens examined, number of Kentucky county records, range of years of collection in Kentucky, and new state records.

Tribe Cryptocephalini	
<i>Griburius scutellaris</i> (F.)	71 specimens: 10 counties, 1970–2009 (new state record)
<i>Pachybrachis atomarius</i> (F. E. Melsheimer)	55 specimens: 3 counties, 1985–2009
<i>Pachybrachis bivittatus</i> (Say)	11 specimens: 5 counties, 1971–1998 (new state record)
<i>Pachybrachis confusus</i> Bowditch	23 specimens: 3 counties, 1976–2009 (new state record)
<i>Pachybrachis diversus</i> Fall	2 specimens: 2 counties, 1972 (new state record)
<i>Pachybrachis hepaticus hepaticus</i> (F. E. Melsheimer)	8 specimens: 4 counties, 1894–2009 (new state record)
<i>Pachybrachis luridus</i> (F.)	11 specimens: 4 counties, 1970–2009 (new state record)
<i>Pachybrachis m-nigrum</i> (F. E. Melsheimer)	74 specimens: 4 counties, 1971–2009
<i>Pachybrachis morosus</i> Haldeman	25 specimens: 2 counties, 2005–2009 (new state record)
<i>Pachybrachis nigricornis carbonarius</i> Haldeman	286 specimens: 9 counties, 1971–2009
<i>Pachybrachis obsoletus</i> Suffrian	5 specimens: 3 counties, 1971–2008 (new state record)
<i>Pachybrachis othonus othonus</i> (Say)	33 specimens: 6 counties, 1971–2009 (new state record)
<i>Pachybrachis peccans</i> Suffrian	1 specimen: 1 county, 1998 (new state record)
<i>Pachybrachis pectoralis</i> (F. E. Melsheimer)	10 specimens: 5 counties, 1891–2009 (new state record)
<i>Pachybrachis praeclarus</i> Weise	17 specimens: 2 counties, 2005–2009 (new state record)
<i>Pachybrachis relictus</i> Fall	unknown
<i>Pachybrachis spumarius</i> Suffrian	169 specimens: 12 counties, 1972–2009 (new state record)
<i>Pachybrachis subfasciatus</i> (J. L. LeConte)	3 specimens: 2 counties, 2003–2009
<i>Pachybrachis tridens</i> (F. E. Melsheimer)	1 specimen: 1 county, pre-1931
<i>Pachybrachis trinotatus</i> (F. E. Melsheimer)	78 specimens: 11 counties, 1966–2009 (new state record)
<i>Pachybrachis viduatus</i> (F.)	28 specimens: 2 counties, 2004–2009 (new state record)
<i>Lexiphanes saponatus</i> (F.)	17 specimens: 8 counties, 1893–2009
<i>Bassareus clathratus</i> (Melsheimer)	71 specimens: 17 counties, 1893–2009
<i>Bassareus formosus</i> (Melsheimer)	10 specimens: 4 counties, pre-1931–2009
<i>Bassareus lituratus</i> (F.)	153 specimens: 11 counties, 1892–2009 (new state record)
<i>Bassareus mammifer</i> (Newman)	12 specimens: 7 counties, 1907–2003
<i>Cryptocephalus badius</i> Suffrian	6 specimens: 2 counties, pre-1931–1971
<i>Cryptocephalus calidus</i> Suffrian	2 specimens: 2 counties, 1985 (new state record)
<i>Cryptocephalus fulguratus</i> LeConte	1 specimen: 1 county, 2005 (new state record)
<i>Cryptocephalus gibbicollis decrescens</i> R. White	1 specimen: 1 county, 1892 (new state record)
<i>Cryptocephalus guttulatus</i> Olivier	12 specimens: 8 counties, 1915–1995
<i>Cryptocephalus leucomelas leucomelas</i> Suffrian	14 specimens: 9 counties, 1894–2008
<i>Cryptocephalus mucoreus</i> LeConte	4 specimens: 3 counties, 1983–2009
<i>Cryptocephalus mutabilis</i> Melsheimer	13 specimens: 8 counties, 1894–2008 (new state record)
<i>Cryptocephalus nanus</i> F.	5 specimens: 4 counties, 1970–2009
<i>Cryptocephalus notatus</i> F.	27 specimens: 11 counties, 1939–2009 (new state record)
<i>Cryptocephalus quadruplex</i> Newman	24 specimens: 14 counties, 1891–2009
<i>Cryptocephalus striatulus</i> LeConte	54 specimens: 4 counties, 2005–2008 (new state record)
<i>Cryptocephalus venustus</i> F.	339 specimens: 23 counties, 1891–2009
<i>Diachus auratus</i> (F.)	6 specimens: 4 counties, pre-1931–1995
<i>Diachus catarius</i> (Suffrian)	4 specimens: 1 county, pre-1931 (new state record)
<i>Diachus chlorizans</i> (Suffrian)	34 specimens: 4 counties, 1972–1995 (new state record)
<i>Triachus atomus</i> (Suffrian)	1 specimen: 1 county, 2006 (new state record)
Tribe Clytrini	
<i>Anomoea flavokansiensis</i> Moldenke	71 specimens: 18 counties, 1955–2009
<i>Anomoea laticlavata laticlavata</i> (Forster)	115 specimens: 29 counties, 1892–2009
<i>Coleothorpa dominicana dominicana</i> (F.)	92 specimens: 18 counties, 1892–2009
<i>Coleothorpa dominicana franciscana</i> (LeConte)	1 specimen: 1 county, 2007 (new state record)
<i>Babia quadriguttata quadriguttata</i> (Olivier)	58 specimens: 16 counties, 1942–2009
<i>Saxinis omogera omogera</i> Lacordaire	274 specimens: 17 counties, pre-1931–2009
Tribe Chlamisini	
<i>Chlamisus foveolatus</i> (Knoch)	2 specimens: 2 counties, 1972–2004
<i>Exema canadensis</i> Pierce	198 specimens: 23 counties, 1971–2009
<i>Exema dispar</i> Lacordaire	135 specimens: 31 counties, 1971–2009
<i>Neochlamisus bebbianae</i> (Brown)	9 specimens: 4 counties, 2005–2008
<i>Neochlamisus bimaculatus</i> Karren	unknown
<i>Neochlamisus chamaedaphnes</i> (Brown)	unknown
<i>Neochlamisus eubati</i> (Brown)	49 specimens: 13 counties, 1971–2009
<i>Neochlamisus gibbosus</i> (F.)	16 specimens: 7 counties, 1985–2008 (new state record)
<i>Neochlamisus moestificus</i> (Lacordaire)	unknown
<i>Neochlamisus platani</i> (Brown)	2 specimens: 2 counties, 1983–1992



The fourth species was *Pachybrachis relictus* Fall that may have been present but not confirmed. A breakdown of specimens, species, and records by collection examined is presented in Table 2.

*Griburius scutellaris* (F.) (Figure 1A)  
(new state record)

*Kentucky Counties.* Bullitt, Christian, Grayson, Hardin, LaRue, Lewis, Logan, Meade, Robertson, Trigg  
*Years.* 1970 (1), 1972 (1), 1983 (1), 1985 (1), 2004 (3), 2005 (11), 2006 (32), 2007 (7), 2008 (9), 2009 (5)  
*Months.* May (32), June (35), July (4)  
*Abundance.* 71 specimens: 67-KYSU, 2-RJBC, 2-UKIC

*Comments.* The majority of specimens were recently collected in barren areas of state nature preserves managed with prescribed burning. Clark et al. (2004) reported this species from *Desmodium* (Fabaceae), *Quercus* (Fagaceae) and *Ceanothus* (Rhamnaceae).

*Pachybrachis atomarius* (F. E. Melsheimer)  
(Figure 1B)

*Kentucky Counties.* Christian, Nelson, Trigg  
*Years.* 1985 (2), 2008 (38), 2009 (14)  
*Months.* June (53), July (1)  
*Abundance.* 55 specimens: 1-CMC, 52-KYSU, 2-RJBC  
*Comments.* The Dury specimen was labeled as “Ky.”

Table 2. The number of specimens, species and new Kentucky state records of Cryptocephalinae beetles (Coleoptera: Chrysomelidae) found in the largest leaf beetle collections from Kentucky.

Collection	Specimens	Species	Records
Kentucky State University Collection	2144	40	5
University of Kentucky Insect Collection	238	37	13
Robert J. Barney Collection	237	30	4
Charles Wright Collection	67	15	0
Brigham Young University Collection	30	13	2
Cincinnati Museum Center	29	14	2
Western Kentucky University Collection	8	6	1
Totals	2753	55	27

*Pachybrachis bivittatus* (Say) (Figure 1C)  
(new state record)

*Kentucky Counties.* Bracken, Pendleton, Scott, Trigg, Webster  
*Years.* 1971 (9), 1972 (1), 1998 (1)  
*Months.* June (8), July (2)  
*Abundance.* 11 specimens: 1-BYUC, 10-UKIC  
*Comments.* Normal hosts are species of *Salix* (Salicaceae).

*Pachybrachis confusus* Bowditch (Figure 1D)  
(new state record)

*Kentucky Counties.* Christian, Hardin, Trigg  
*Years.* 1976 (1), 2004 (2), 2008 (15), 2009 (5)  
*Months.* June (19), July (4)  
*Abundance.* 23 specimens: 22-KYSU, 1-RJBC

*Comments.* All recently collected specimens were taken in barrens managed with prescribed burning. Minor feeding was observed in laboratory on *Chamaecrista fasciculata* (Michx.) Greene (Fabaceae) (Barney and Hall 2011).

*Pachybrachis diversus* Fall (Figure 1E)  
(new state record)

*Kentucky Counties.* Fulton, Hickman  
*Year.* 1972 (2)  
*Months.* May (1), July (1)  
*Abundance.* 2 specimens: 2-UKIC  
*Comments.* Normal hosts are species of *Salix* (Salicaceae).

*Pachybrachis hepaticus hepaticus* (F. E. Melsheimer) (Figure 1F) (new state record)

*Kentucky Counties.* Fayette, Hardin, LaRue, Robertson  
*Years.* 1894 (1), 1920 (2), 2004 (1), 2005 (1), 2006 (1), 2008 (1), 2009 (2)  
*Months.* June (7), July (1)  
*Abundance.* 8 specimens: 6-KYSU, 2-UKIC  
*Comments.* The specimen collected in 1894 had ‘on hemp’ written on the label.

*Pachybrachis luridus* (F.) (Figure 1G)  
(new state record)

*Kentucky Counties.* Calloway, Christian, Hardin, Trigg



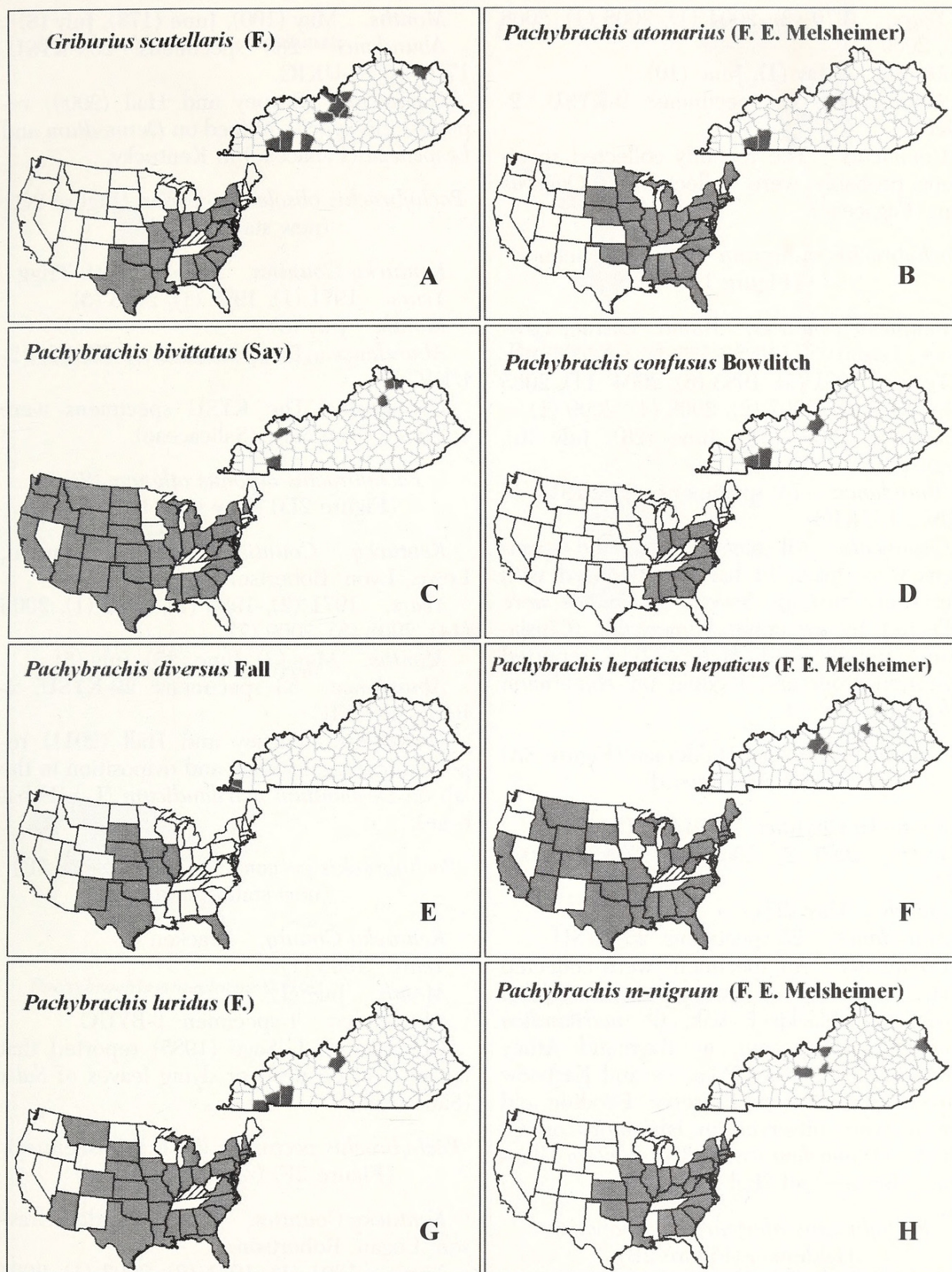


Figure 1. The known distribution of Cryptocephalinae (Coleoptera: Chrysomelidae) illustrated in grey shading for Kentucky counties and states of the United States. New state records reported herein are shown in cross-hatch.



*Years.* 1970 (2), 2004 (1), 2006 (1), 2008 (3), 2009 (4)

*Months.* May (1), June (10)

*Abundance.* 11 specimens: 9-KYSU, 2-UKIC

*Comments.* The recently collected specimens probably were collected on *Quercus* spp. (Fagaceae).

*Pachybrachis m-nigrum* (F. E. Melsheimer)  
(Figure 1H)

*Kentucky Counties.* Bullitt, LaRue, Lawrence, Logan

*Years.* 1971 (1), 1983 (6), 2004 (11), 2005 (41), 2006 (8), 2007 (2), 2008 (4), 2009 (1)

*Months.* May (31), June (26), July (6), August (1)

*Abundance.* 74 specimens: 67-KYSU, 6-RJBC, 1-UKIC

*Comments.* All recently collected specimens were taken in barrens managed with prescribed burning. Several specimens were collected by sweeping *Hypericum* (Clusiaceae). Barney and Hall (2011) reported collection from and feeding on *Hypericum dolabrifforme* Vent.

*Pachybrachis morosus* Haldeman (Figure 2A)  
(new state record)

*Kentucky Counties.* Hardin, Logan

*Years.* 2005 (2), 2006 (3), 2008 (3), 2009 (17)

*Month.* May (25)

*Abundance.* 25 specimens: 25-KYSU

*Comments.* All specimens were collected from southern red oak, *Quercus falcata* Michx., or blackjack oak, *Q. marilandica* Muenchh. (Fagaceae), at Raymond Athey Barrens State Nature Preserve and Eastview Barrens State Nature Preserve. Feeding and mating were observed in laboratory on *Q. falcata*, *Q. marilandica*, and *Q. stellata* Wanh. (Barney and Hall 2011).

*Pachybrachis nigricornis carbonarius*  
Haldeman (Figure 2B)

*Kentucky Counties.* Christian, Grayson, Henry, LaRue, Lewis, Logan, Pendleton, Robertson, Trigg

*Years.* 1971 (1), 1983 (11), 1985 (6), 2004 (1), 2005 (16), 2006 (69), 2007 (10), 2008 (95), 2009 (77)

*Months.* May (100), June (178), July (8)  
*Abundance.* 286 specimens: 268-KYSU, 17-RJBC, 1-UKIC

*Comments.* Barney and Hall (2009) reported this species to feed on *Desmodium* and *Lespedeza* (Fabaceae) in Kentucky.

*Pachybrachis obsoletus* Suffrian (Figure 2C)  
(new state record)

*Kentucky Counties.* Fulton, Scott, Trigg

*Years.* 1971 (1), 1972 (1), 2008 (3)

*Month.* July (5)

*Abundance.* 5 specimens: 3-KYSU, 2-UKIC

*Comments.* The KYSU specimens were collected from *Salix* (Salicaceae).

*Pachybrachis othonus othonus* (Say)  
(Figure 2D) (new state record)

*Kentucky Counties.* Carter, Grayson, Lewis, Lyon, Robertson, Trigg

*Years.* 1971 (2), 1983 (1), 1985 (1), 2006 (14), 2008 (8), 2009 (7)

*Months.* May (3), June (25), July (5)

*Abundance.* 33 specimens: 29-KYSU, 2-RJBC, 2-UKIC

*Comments.* Barney and Hall (2011) reported feeding, mating, and oviposition in the lab on *Desmodium marilandicum* (L.) (Fabaceae).

*Pachybrachis peccans* Suffrian (Figure 2E)  
(new state record)

*Kentucky County.* Bracken

*Year.* 1998 (1)

*Month.* July (1)

*Abundance.* 1 specimen: 1-BYUC

*Comments.* LeSage (1985) reported that larvae feed on dead or dying leaves of *Salix* (Salicaceae).

*Pachybrachis pectoralis* (F. E. Melsheimer)  
(Figure 2F) (new state record)

*Kentucky Counties.* Fulton, Hardin, Grayson, Logan, Robertson

*Years.* 1891 (1), 1971 (2), 2003 (1), 2004 (2), 2007 (1), 2008 (1), 2009 (1)

*Months.* June (3), July (5), September (1)

*Abundance.* 10 specimens: 1-CMC, 1-CWC, 5-KYSU, 3-UKIC

*Comments.* The Dury specimen was labeled "Ky." Clark et al (2004) reported this



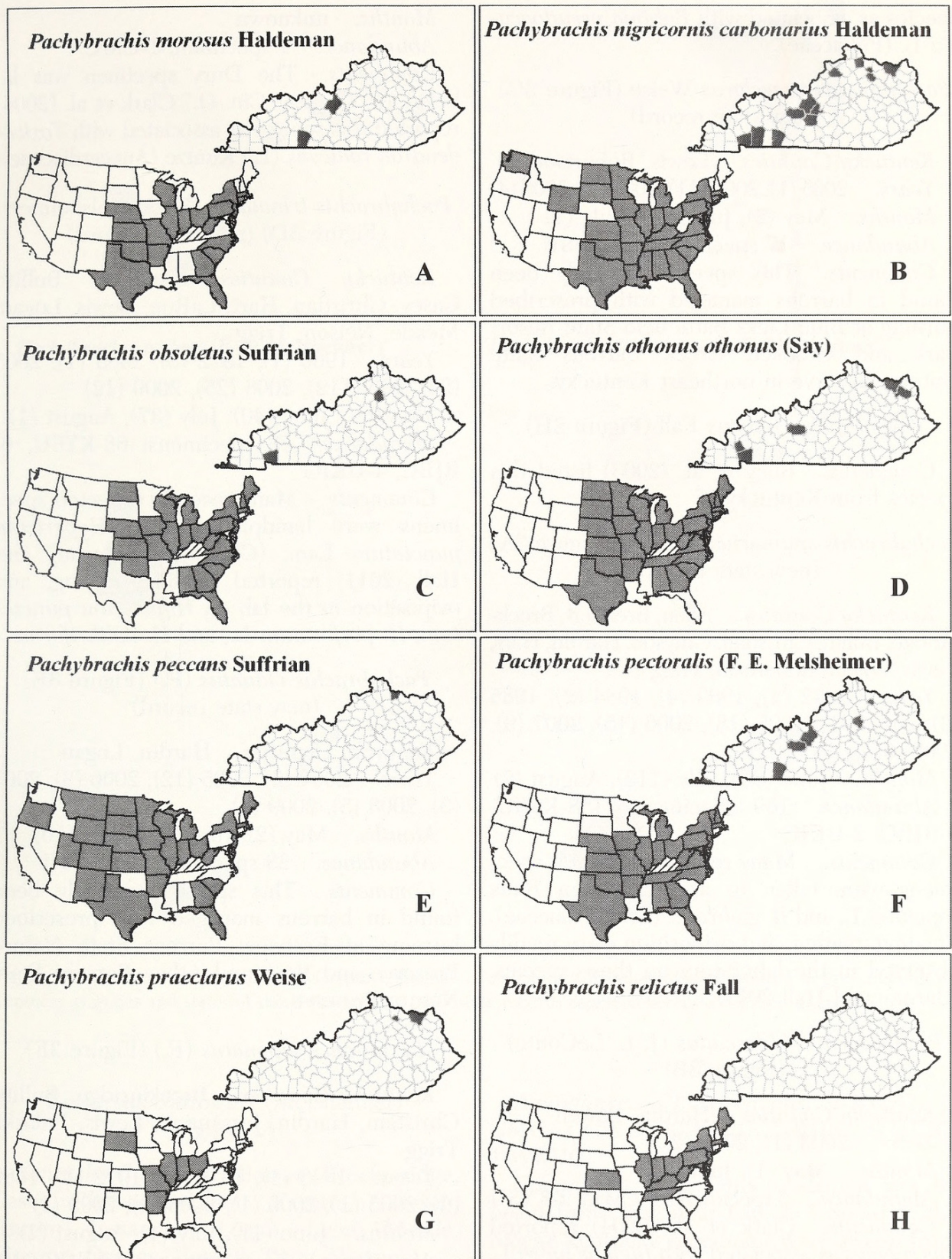


Figure 2. The known distribution of Cryptocephalinae (Coleoptera: Chrysomelidae) illustrated in grey shading for Kentucky counties and states of the United States. New state records reported herein are shown in cross-hatch.



species as associated with *Robinia pseudoacacia* L. (Fabaceae).

*Pachybrachis praeclarus* Weise (Figure 2G)  
(new state record)

*Kentucky Counties.* Lewis, Robertson

*Years.* 2005 (1), 2006 (11), 2008 (1), 2009 (4)

*Months.* May (2), June (14), July (1)

*Abundance.* 17 specimens: 17-KYSU

*Comments.* This species has only been found in barrens managed with prescribed burning at Blue Licks Battlefield State Resort Park and Crooked Creek Barrens State Nature Preserve in northeast Kentucky.

*Pachybrachis relictus* Fall (Figure 2H)

*Comments.* Riley et al. (2003) listed this species from Kentucky.

*Pachybrachis spumarius* Suffrian (Figure 3A)  
(new state record)

*Kentucky Counties.* Allen, Breathitt, Breckinridge, Bullitt, Christian, Grayson, Hardin, Hart, Lewis, Logan, Robertson, Trigg

*Years.* 1972 (2), 1983 (4), 1984 (2), 1985 (3), 2004 (31), 2005 (18), 2006 (15), 2007 (9), 2008 (65), 2009 (20)

*Months.* June (54), July (113), August (2)

*Abundance.* 169 specimens: 158-KYSU, 9-RJBC, 2-UKIC

*Comments.* Many recently collected specimens were taken in abundance on *Rhus copallina* L. and *R. glabra* L. (Anacardiaceae). Feeding, mating, and oviposition were readily observed in the laboratory on these species. (Barney and Hall 2011).

*Pachybrachis subfasciatus* (J. L. LeConte)  
(Figure 3B)

*Kentucky Counties.* Hardin, Powell

*Years.* 2003 (1), 2009 (2)

*Months.* May (1), June (2)

*Abundance.* 3 specimens: 1-CWC, 2-KYSU

*Comments.* Clark et al. (2004) reported this species as associated with *Juglans nigra* L. (Juglandaceae).

*Pachybrachis tridens* (F. E. Melsheimer)  
(Figure 3C)

*Kentucky Counties.* unknown

*Years.* pre-1931 (1)

*Months.* unknown

*Abundance.* 1 specimen: 1-CMC

*Comments.* The Dury specimen was labeled as "Ky. near Cin. O." Clark et al. (2004) reported this species as associated with *Toxicodendron radicans* (L.) Kuntze (Anacardiaceae).

*Pachybrachis trinotatus* (F. E. Melsheimer)  
(Figure 3D) (new state record)

*Kentucky Counties.* Breathitt, Bullitt, Casey, Christian, Hart, LaRue, Lewis, Logan, Meade, Nelson, Trigg

*Years.* 1966 (1), 1972 (3), 1985 (1), 2005 (24), 2006 (12), 2008 (25), 2009 (12)

*Months.* June (40), July (37), August (1)

*Abundance.* 78 specimens: 68-KYSU, 6-RJBC, 4-UKIC

*Comments.* Many recently collected specimens were handpicked from *Hypericum punctatum* Lam. (Clusiaceae). Barney and Hall (2011) reported feeding, mating, and oviposition in the lab on *Hypericum punctatum*, *H. perforatum* L., and *H. dolibriforme*.

*Pachybrachis viduatus* (F.) (Figure 3E)  
(new state record)

*Kentucky Counties.* Hardin, Logan

*Years.* 2004 (2), 2005 (12), 2006 (3), 2007 (3), 2008 (5), 2009 (3)

*Months.* May (2), June (16), July (10)

*Abundance.* 28 specimens: 28-KYSU

*Comments.* This species has only been found in barrens managed with prescribed burning at Eastview Barrens State Nature Preserve and Raymond Athey Barrens State Nature Preserve.

*Lexiphanes saponatus* (F.) (Figure 3F)

*Kentucky Counties.* Breckinridge, Bullitt, Christian, Hardin, Jessamine, Lewis, Pulaski, Trigg

*Years.* 1893 (1), 1970 (1), 1972 (1), 1989 (2), 2005 (1), 2006 (1), 2008 (9), 2009 (1)

*Months.* June (11), July (4), August (2)

*Abundance.* 17 specimens: 2-BYUC, 12-KYSU, 3-UKIC

*Comments.* Clark et al. (2004) reported this species to be primarily associated with *Chamaedaphne calyculata* (L.) Monench (Ericaceae), but a wide assortment of other plant associations has been published.



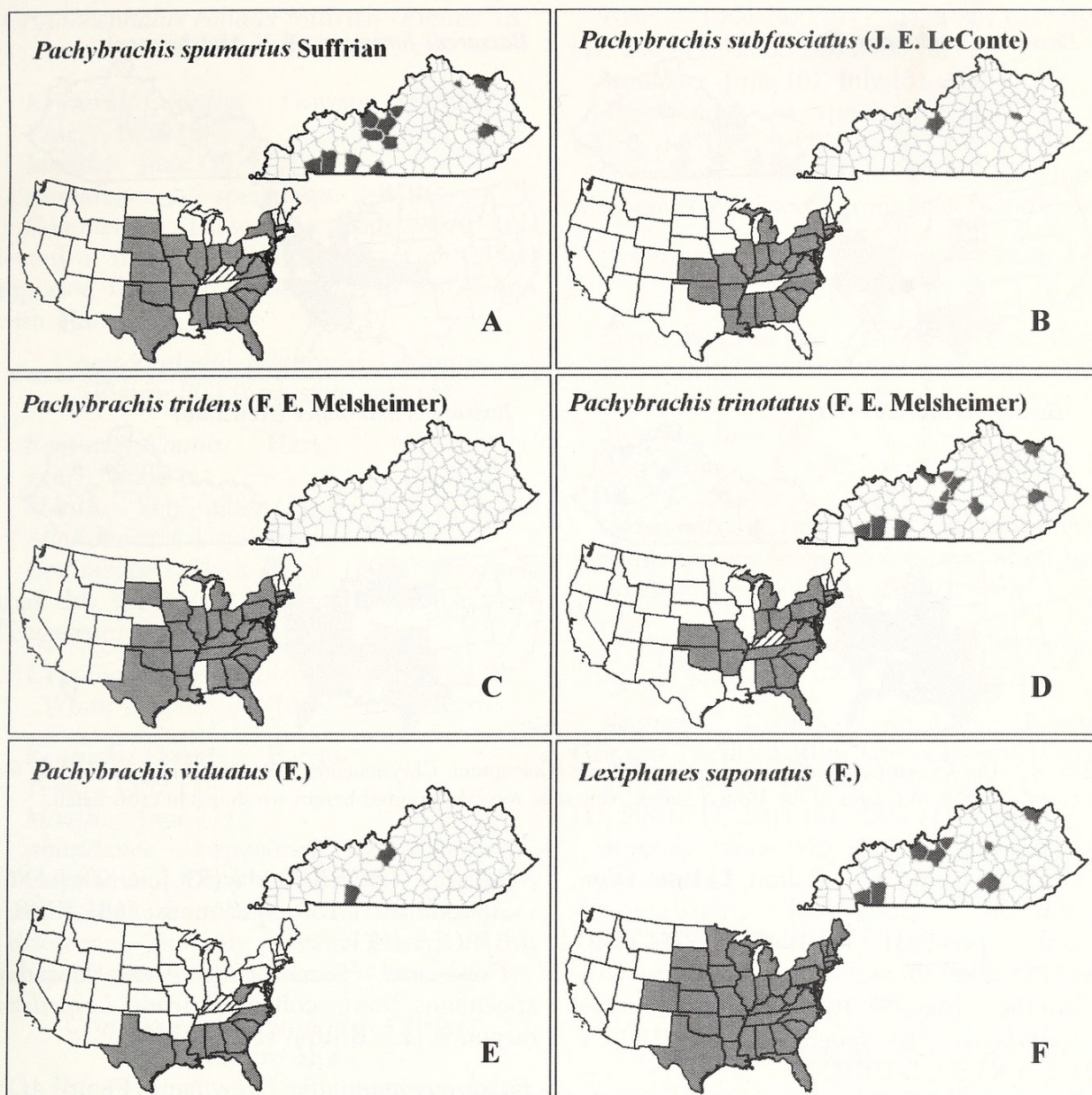


Figure 3. The known distribution of Cryptocephalinae (Coleoptera: Chrysomelidae) illustrated in grey shading for Kentucky counties and states of the United States. New state records reported herein are shown in cross-hatch.

*Bassareus clathratus* (Melsheimer)  
(Figure 4A)

**Kentucky Counties.** Barren, Breckinridge, Casey, Christian, Elliott, Fayette, Grayson, Hardin, Jessamine, Logan, Lyon, Meade, Monroe, Owsley, Russell, Trigg, Wayne

**Years.** 1893 (1), 1894 (1), 1952 (2), 1961 (1), 1963 (1), 1970 (1), 1971 (2), 1972 (2), 1983 (3), 1985 (4), 1987 (1), 1994 (1), 2004 (7), 2005 (15), 2006 (5), 2007 (5), 2008 (16), 2009 (2)

**Months.** June (29), July (38), August (2), November (1)

**Abundance.** 71 specimens: 2-BYUC, 1-CMC, 1-CWC, 50-KYSU, 7-RJBC, 9-UKIC, 1-WKUC

**Comments.** The Dury specimen was labeled from "Ky. near Cin. O." Some of the recent Kentucky specimens were sweep from winged sumac [*Rhus copallina* L.] (Anacardiaceae). Clark et al. (2004) reported this species from alder [*Alnus*] (Betulaceae), *Clethra* (Clethraceae) and *Salix nigra* Marsh. (Salicaceae).

*Bassareus formosus* (Melsheimer) (Figure 4B)



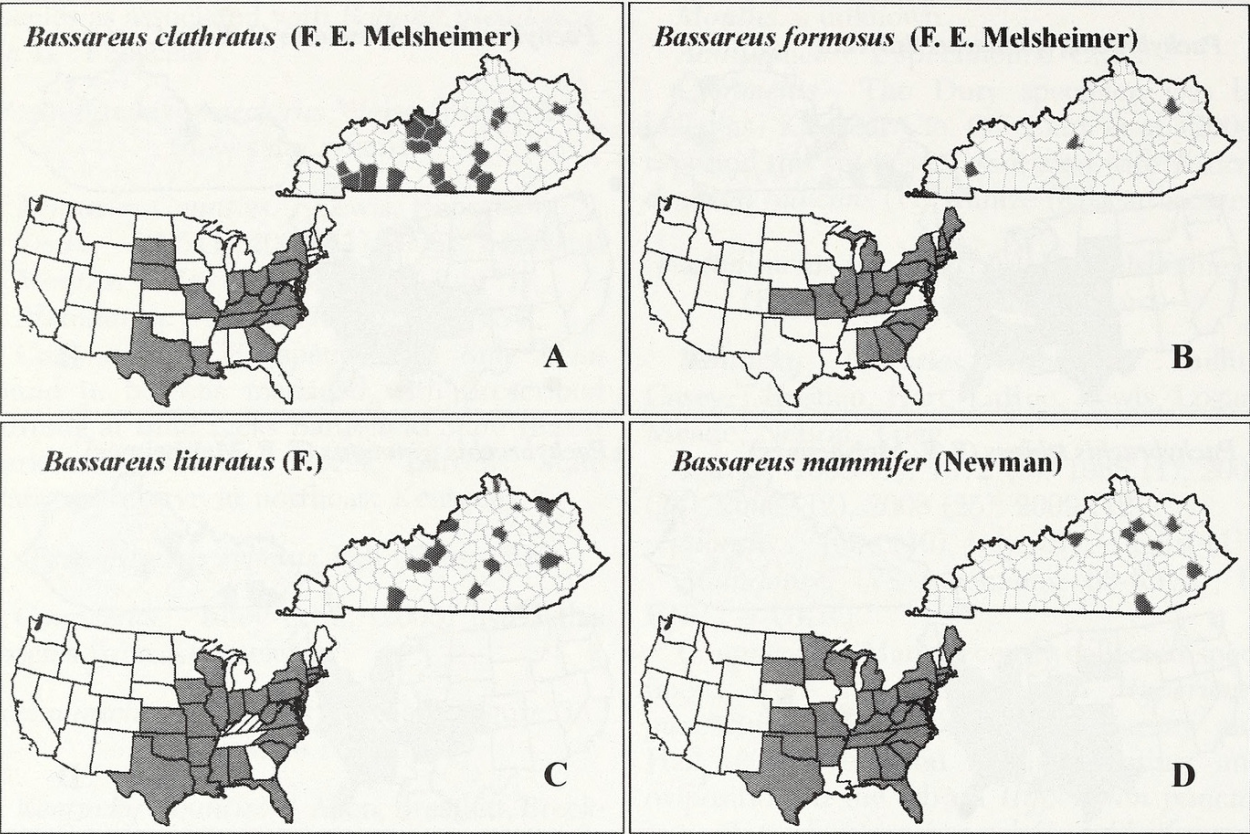


Figure 4. The known distribution of Cryptoccephalinae (Coleoptera: Chrysomelidae) illustrated in grey shading for Kentucky counties and states of the United States. New state records reported herein are shown in cross-hatch.

*Kentucky Counties.* Fulton, LaRue, Lyon, Rowan

*Years.* pre-1931 (1), 1947 (1), 1971 (3), 2006 (1), 2009 (4)

*Months.* May (5), June (3), July (1)  
*Abundance.* 10 specimens: 1-BYUC, 1-CMC, 5-KYSU, 3-UKIC

*Comments.* The Dury specimen was labeled as “Ky. near Cin. O.” Some of the recent Kentucky specimens were sweep from *Ostrya virginiana* (Mill.) K. Koch. (Betulaceae), and captive beetles fed on this plant (Barney and Hall 2011). Clark et al. (2004) reported many plant associations, including those involving *Rhus* (Anacardiaceae) and *Alnus* (Betulaceae).

*Bassareus lituratus* (F.) (Figure 4C) (new state record)

*Kentucky Counties.* Breathitt, Fayette, Grayson, Hardin, Jefferson, Kenton, Lewis, Lincoln, Logan, Robertson, Russell

*Years.* 1892 (1), 1945 (1), 1972 (1), 1976 (1), 1981 (1), 1983 (6), 2004 (9), 2005 (15), 2006 (36), 2007 (7), 2008 (68), 2009 (7)

*Months.* March (1), May (53), June (93), July (6)  
*Abundance.* 153 specimens: 141-KYSU, 9-RJBC, 3-UKIC

*Comments.* Some of the recent Kentucky specimens were collected from *Lespedeza virginica* (L.) Britton (Fabaceae).

*Bassareus mammifer* (Newman) (Figure 4D)

*Kentucky Counties.* Bourbon, Bullitt, Fayette, Knott, Powell, Rowan, Whitley

*Years.* 1907 (4), 1912 (1), 1939 (1), 1947 (2), 1955 (1), 1971 (1), 1998 (1), 2003 (1)  
*Months.* May (3), June (9)

*Abundance.* 12 specimens: 1-BYUC, 4-CMC, 2-CWC, 5-UKIC  
*Comments.* The Dury specimens were labeled as from “Ky. near Cin. O.”

*Cryptoccephalus badius* Suffrian (Figure 5A)

*Kentucky Counties.* Fayette, Hickman  
*Years.* pre-1931 (3), 1971 (3)

*Months.* June (1), July (1), August (1)  
*Abundance.* 6 specimens: 3-CMC, 3-UKIC  
*Comments.* The Dury specimens were labeled as from “Ky. near Cin. O.”



*Cryptocephalus calidus* Suffrian (Figure 5B)  
(new state record)*Kentucky Counties.* Grayson, Hardin*Year.* 1985 (2)*Month.* June (2)*Abundance.* 2 specimens: 2-RJBC*Comments.* These specimens were collected in railroad prairies. Clark *et al.* (2004) reported that this species has an association with Fabaceae.*Cryptocephalus fulguratus* LeConte  
(Figure 5C) (new state record)*Kentucky County.* Hart*Year.* 2005 (1)*Month.* September (1)*Abundance.* 1 specimen: 1-WKUC*Comments.* Clark *et al.* (2004) reported that this species is associated with *Quercus* (Fagaceae).*Cryptocephalus gibbicollis decrescens* R.  
White (Figure 5D) (new state record)*Kentucky County.* Barren*Year.* 1892 (1)*Month.* June (1)*Abundance.* 1 specimen: 1-UKIC*Comments.* Clark *et al.* (2004) reported rearing adults from larvae found on *Vaccinium* (Ericaceae). The only previous records of this subspecies are from Florida and Massachusetts.*Cryptocephalus guttulatus* Olivier  
(Figure 5E)*Kentucky Counties.* Breathitt, Fayette, Franklin, Jessamine, McCracken, Rowan, Union, Warren*Years.* 1915 (1), 1945 (2), 1967 (1), 1971 (1), 1979 (1), 1983 (1), 1984 (1), 1987 (2), 1995 (1)*Months.* May (3), June (3), July (3), August (1), October (1)*Abundance.* 12 specimens: 1-BYUC, 1-CMC, 4-RJBC, 5-UKIC, 1-WKUC*Comments.* The Dury specimen was labeled as "Ky. near Cin. O." One specimen was collected via Malaise trap.*Cryptocephalus leucomelas leucomelas*  
Suffrian (Figure 5F)*Kentucky Counties.* Crittenden, Franklin, Graves, Grayson, Jefferson, McLean, Powell, Rowan, Trigg*Years.* 1954 (4), 1971 (1), 1973 (3), 1985 (1), 1994 (1), 2005 (2), 2008 (2)*Months.* June (6), July (5), August (3)*Abundance.* 14 specimens: 1-CWC, 4-KYSU, 1-RJBC, 8-UKIC*Comments.* Several Kentucky specimens were collected directly from *Salix* (Salicaceae).*Cryptocephalus mucoreus* LeConte  
(Figure 5G)*Kentucky Counties.* Grayson, Hart, Trigg*Years.* 1983 (1), 1985 (1), 2008 (1), 2009 (1)*Month.* June (4)*Abundance.* 4 specimens: 2-KYSU, 2-RJBC*Comments.* Clark *et al.* (2004) reported that this species has been collected abundantly on *Rhus glabra* L. (Anacardiaceae).*Cryptocephalus mutabilis* Melsheimer  
(Figure 5H) (new state record)*Kentucky Counties.* Breathitt, Fayette, Grayson, Hardin, LaRue, Logan, Powell, Warren*Years.* 1894 (1), 1916 (1), 1971 (1), 1972 (1), 2001 (1), 2004 (6), 2005 (1), 2008 (1)*Months.* June (2), July (4), August (4), September (3)*Abundance.* 13 specimens: 8-KYSU, 4-UKIC, 1-WKUC*Comments.* Some specimens were collected via Malaise trap.*Cryptocephalus nanus* F. (Figure 6A)*Kentucky Counties.* Calloway, Grayson, Pulaski, Trigg*Years.* 1970 (1), 1983 (1), 2008 (2), 2009 (1)*Months.* June (4), July (1)*Abundance.* 5 specimens: 3-KYSU, 1-RJBC, 1-UKIC*Comments.* Several Kentucky specimens were collected directly from *Salix* (Salicaceae).*Cryptocephalus notatus* F. (Figure 6B)  
(new state record)*Kentucky Counties.* Breathitt, Carter, Fayette, Grayson, Hardin, Jessamine, Logan, Madison, McCreary, Mercer, Trigg*Years.* 1939 (1), 1941 (1), 1942 (4), 1943 (1), 1946 (1), 1950 (1), 1971 (1), 1983 (6), 1985 (1), 2005 (1), 2006 (1), 2008 (2), 2009 (5)



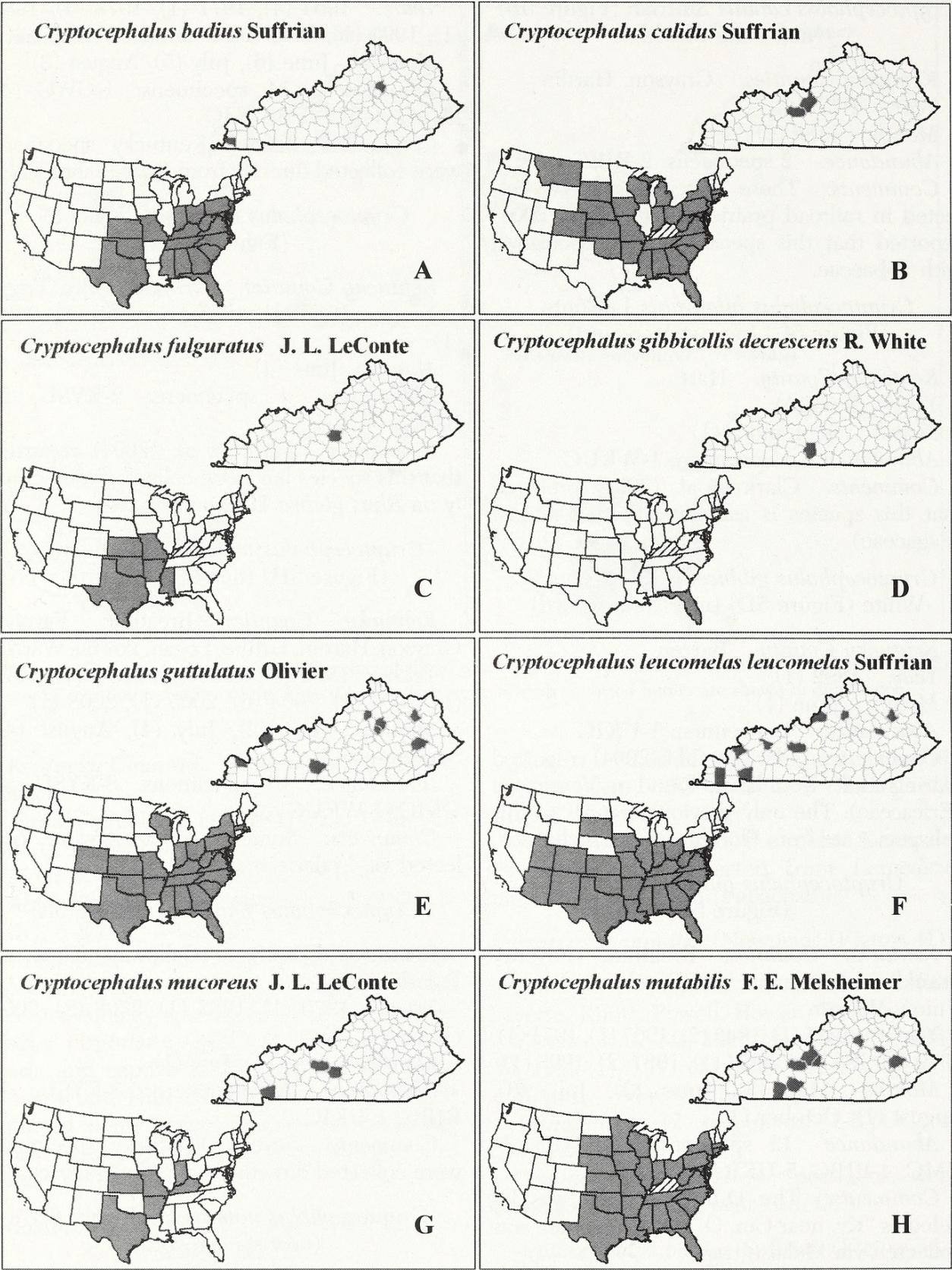


Figure 5. The known distribution of *Cryptocephalinae* (Coleoptera: Chrysomelidae) illustrated in grey shading for Kentucky counties and states of the United States. New state records reported herein are shown in cross-hatch.



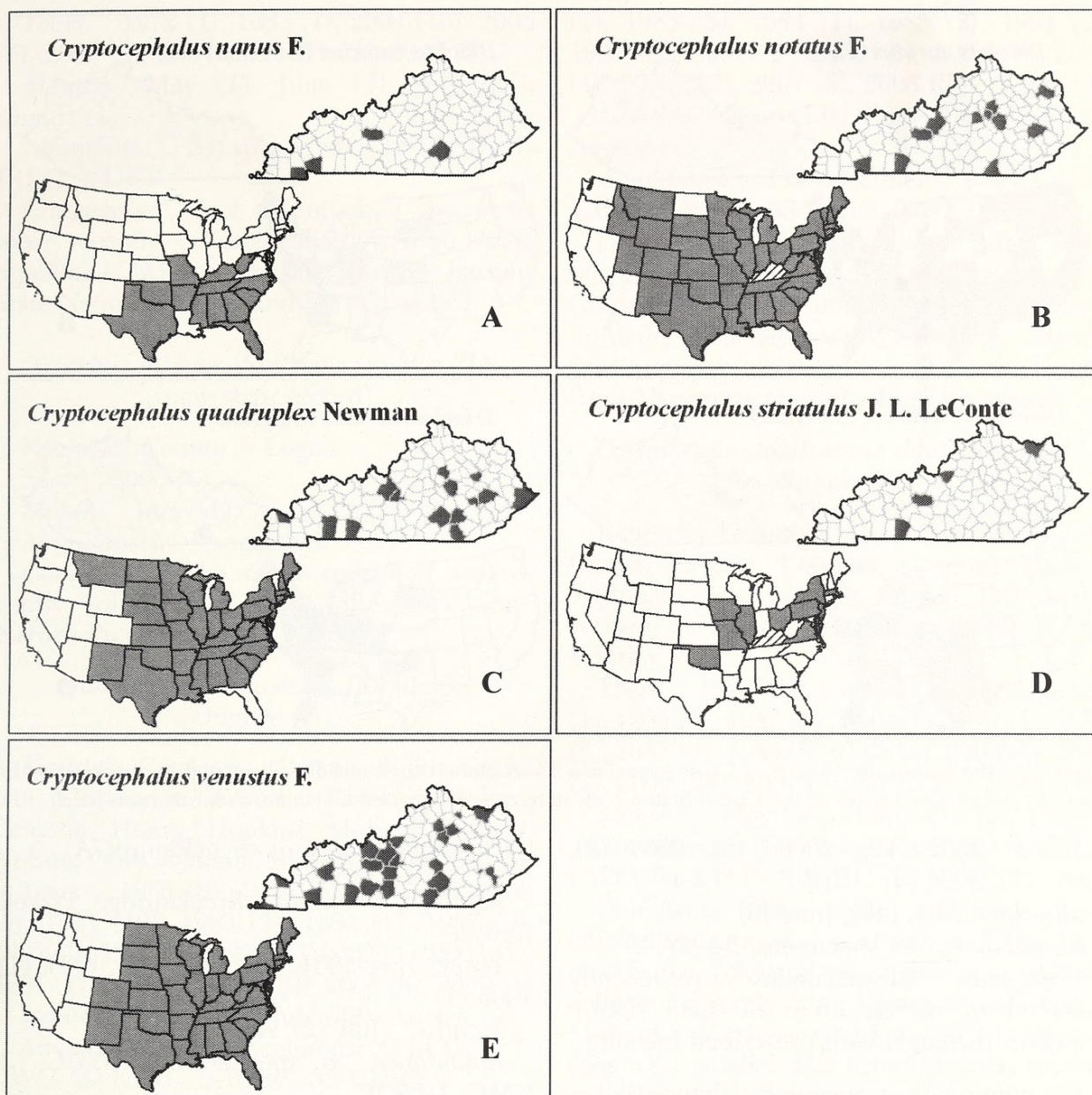


Figure 6. The known distribution of Cryptocephalinae (Coleoptera: Chrysomelidae) illustrated in grey shading for Kentucky counties and states of the United States. New state records reported herein are shown in cross-hatch.

*Months.* May (13), June (13)

*Abundance.* 27 specimens: 1-CMC, 9-KYSU, 7-RJBC, 10-UKIC

*Comments.* The Dury specimen was labeled as "Ky. near Cin. O." Many Kentucky specimens were collected directly from *Salix* (Salicaceae).

*Cryptocephalus quadruplex* Newman  
(Figure 6C)

*Kentucky Counties.* Breathitt, Christian, Fayette, Hardin, LaRue, Laurel, Logan, Madison, McCracken, Menifee, Owsley, Pike, Pulas-ki, Whitley

*Years.* 1891 (1), 1916 (1), 1945 (2), 1971 (2), 1972 (1), 1976 (1), 1983 (1), 1992 (1), 1994 (1), 1995 (2), 1999 (1), 2004 (1), 2005 (1), 2006 (3), 2008 (2), 2009 (3)

*Months.* May (6), June (17), July (1)

*Abundance.* 24 specimens: 1-BYUC, 4-CWC, 10-KYSU, 2-RJBC, 7-UKIC

*Comments.* Some specimens were collected via Malaise trap.

*Cryptocephalus striatulus* LeConte  
(Figure 6D) (new state record)

*Kentucky Counties.* Bullitt, Grayson, Lewis, Logan



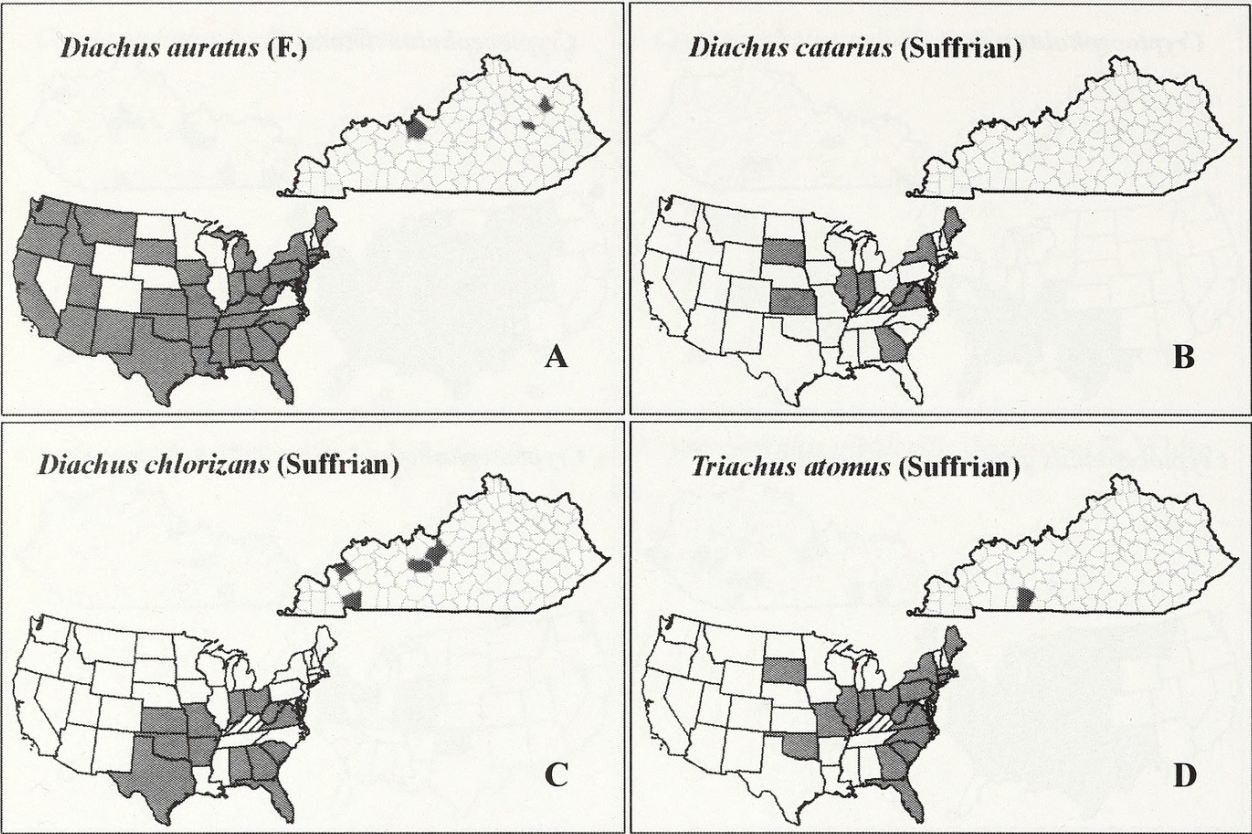


Figure 7. The known distribution of Cryptocephalinae (Coleoptera: Chrysomelidae) illustrated in grey shading for Kentucky counties and states of the United States. New state records reported herein are shown in cross-hatch.

*Years.* 2005 (15), 2006 (16), 2007 (2), 2008 (17), 2009 (4)  
*Months.* May (48), June (6)  
*Abundance.* 54 specimens: 54-KYSU  
*Comments.* All specimens were recently collected in barren areas of state nature preserves managed with prescribed burning.

*Cryptocephalus venustus* F. (Figure 6E)  
*Kentucky Counties.* Barren, Bourbon, Breckinridge, Bullitt, Christian, Fayette, Fulton, Grayson, Hardin, Hart, Hopkins, Lewis, Logan, McCracken, Nelson, Perry, Powell, Pulaski, Robertson, Scott, Trigg, Warren, Wayne  
*Years.* 1891 (2), 1892 (3), 1894 (2), 1913 (2), 1917 (1), 1920 (9), 1925 (1), 1938 (1), 1971 (2), 1972 (6), 1976 (1), 1983 (11), 1985 (31), 2004 (5), 2005 (93), 2006 (68), 2007 (17), 2008 (62), 2009 (21)  
*Months.* May (2), June (192), July (134), August (9), September (1)  
*Abundance.* 339 specimens: 1-CMC, 264-KYSU, 42-RJBC, 30-UKIC, 2-WKUC  
*Comments.* The Dury specimen was labeled as “Ky. near Cin. O.” Some specimens were collected via Malaise trap.

*Diachus auratus* (F.) (Figure 7A)  
*Kentucky Counties.* Breckinridge, Powell, Rowan  
*Years.* pre-1931 (3), 1972 (1), 1984 (1), 1995 (1)  
*Months.* July (2), August (1)  
*Abundance.* 6 specimens: 2-BYUC, 3-CMC, 1-UKIC  
*Comments.* The Dury specimens were labeled as from “Ky.”

*Diachus catarius* (Suffrian) (Figure 7B)  
(new state record)  
*Kentucky County.* unknown  
*Year.* pre-1931 (4)  
*Month.* unknown  
*Abundance.* 4 specimens: 4-CMC  
*Comments.* The Dury specimen was labeled as “Ky.” and “Horn” and were presumably from the collection of George Henry Horn.

*Diachus chlorizans* (Suffrian) (Figure 7C)  
(new state record)  
*Kentucky Counties.* Crittenden, Grayson, Hardin, Trigg



*Years.* 1972 (1), 1983 (1), 2004 (16), 2005 (7), 2006 (1), 2007 (1), 2008 (2), 2009 (5)

*Months.* May (1), June (5), July (27), August (1)

*Abundance.* 34 specimens: 32-KYSU, 1-RJBC, 1-UKIC

*Comments.* Most Kentucky specimens were recently collected directly from *Rhus copallina* L. (winged sumac) at Eastview Barrens State Nature Preserve and Fort Campbell.

*Triachus atomus* (Suffrian) (Figure 7D)  
(new state record)

*Kentucky County.* Logan

*Year.* 2006 (1)

*Month.* June (1)

*Abundance.* 1 specimen: 1-KYSU

*Comments.* The single specimen was recently collected at Raymond Athey State Nature Preserve.

*Anomoea flavokansiensis* Moldenke  
(Figure 8A)

*Kentucky Counties.* Barren, Bullitt, Christian, Crittenden, Fayette, Franklin, Fulton, Grayson, Henry, Hopkins, McLean, Meade, Nelson, Ohio, Oldham, Russell, Trigg, Warren

*Years.* 1955 (8), 1959 (5), 1962 (4), 1963 (5), 1971 (10), 1983 (2), 1984 (1), 1987 (9), 1992 (1), 1994 (3), 1998 (1), 2002 (1), 2003 (1), 2004 (1), 2005 (2), 2007 (9), 2008 (4), 2009 (4)

*Months.* June (27), July (42), August (2)

*Abundance.* 71 specimens: 9-BYUC, 7-CWC, 20-KYSU, 3-RJBC, 32-UKIC

*Comments.* Several specimens were recently collected directly from *Desmanthus illinoensis* (Michx.) MacMill. ex. Robinson & Fern. (Fabaceae). Earlier label data listed *Salix*, mimosa, locust, and collection via Malaise trap.

*Anomoea laticlavata laticlavata* (Forster)  
(Figure 8B)

*Kentucky Counties.* Allen, Barren, Bath, Breathitt, Breckinridge, Bullitt, Calloway, Christian, Fayette, Grayson, Hardin, Jessamine, Kenton, LaRue, Lee, Lewis, Logan, Madison, McCracken, Meade, Owsley, Powell, Pulaski, Rockcastle, Scott, Trigg, Whitley, Wolfe, Woodford

*Years.* 1892 (3), 1895 (1), 1916 (2), 1929 (1), 1938 (3), 1939 (2), 1945 (11), 1968 (1), 1970 (1), 1971 (4), 1972 (4), 1979 (1), 1980

(1), 1983 (3), 1984 (1), 1985 (2), 1991 (2), 1992 (3), 2001 (2), 2003 (2), 2004 (7), 2005 (4), 2006 (12), 2007 (5), 2008 (23), 2009 (14)

*Months.* May (13), June (94), July (7), August (1)

*Abundance.* 115 specimens: 9-CWC, 64-KYSU, 7-RJBC, 33-UKIC, 2-WKUC

*Comments.* Early label data listed *Salix*, black locust, and collection via Malaise trap. Clark *et al.* (2004) reported that this species is normally associated with Fabaceae. Several specimens were recently collected directly from *Diospyros virginica* L. (Ebenaceae).

*Coleothorpa dominicana dominicana* (F.)  
(Figure 8C)

*Kentucky Counties.* Breckinridge, Bullitt, Carter, Fayette, Franklin, Grayson, Hardin, LaRue, Lewis, Lincoln, Logan, McCreary, Nelson, Pendleton, Powell, Robertson, Trigg, Whitley

*Years.* 1892 (1), 1895 (4), 1908 (1), 1924 (1), 1939 (1), 1942 (1), 1946 (1), 1947 (1), 1971 (5), 1983 (4), 1985 (5), 1995 (2), 2004 (1), 2005 (7), 2006 (24), 2007 (3), 2008 (18), 2009 (11)

*Months.* May (36), June (45), July (10)

*Abundance.* 92 specimens: 2-CMC, 2-CWC, 64-KYSU, 9-RJBC, 15-UKIC

*Comments.* The Dury specimens were labeled as from “Ky. near Cin. O.” and “Ky. near bridge.” Several specimens were recently collected directly from *Quercus marilandica* Münchh. (Fagaceae) and *Nyssa* sp. (Nyssaceae). Early label data listed *Quercus macrocarpa* Michx. (Fagaceae) and raspberry (*Rubus* spp.) (Rosaceae).

*Coleothorpa dominicana franciscana*  
(LeConte) (Figure 8D) (new state record)

*Kentucky County.* Ohio

*Year.* 2007 (1)

*Month.* May (1)

*Abundance.* 1 specimen: 1-BYUC

*Babia quadriguttata quadriguttata* (Olivier)  
(Figure 8E)

*Kentucky Counties.* Breathitt, Bullitt, Fayette, Franklin, Hardin, Knott, LaRue, Laurel, Lewis, Logan, Madison, Powell, Pulaski, Robertson, Trigg, Whitley

*Years.* 1942 (1), 1945 (1), 1947 (2), 1971 (2), 1972 (1), 1995 (1), 2000 (2), 2001 (2),



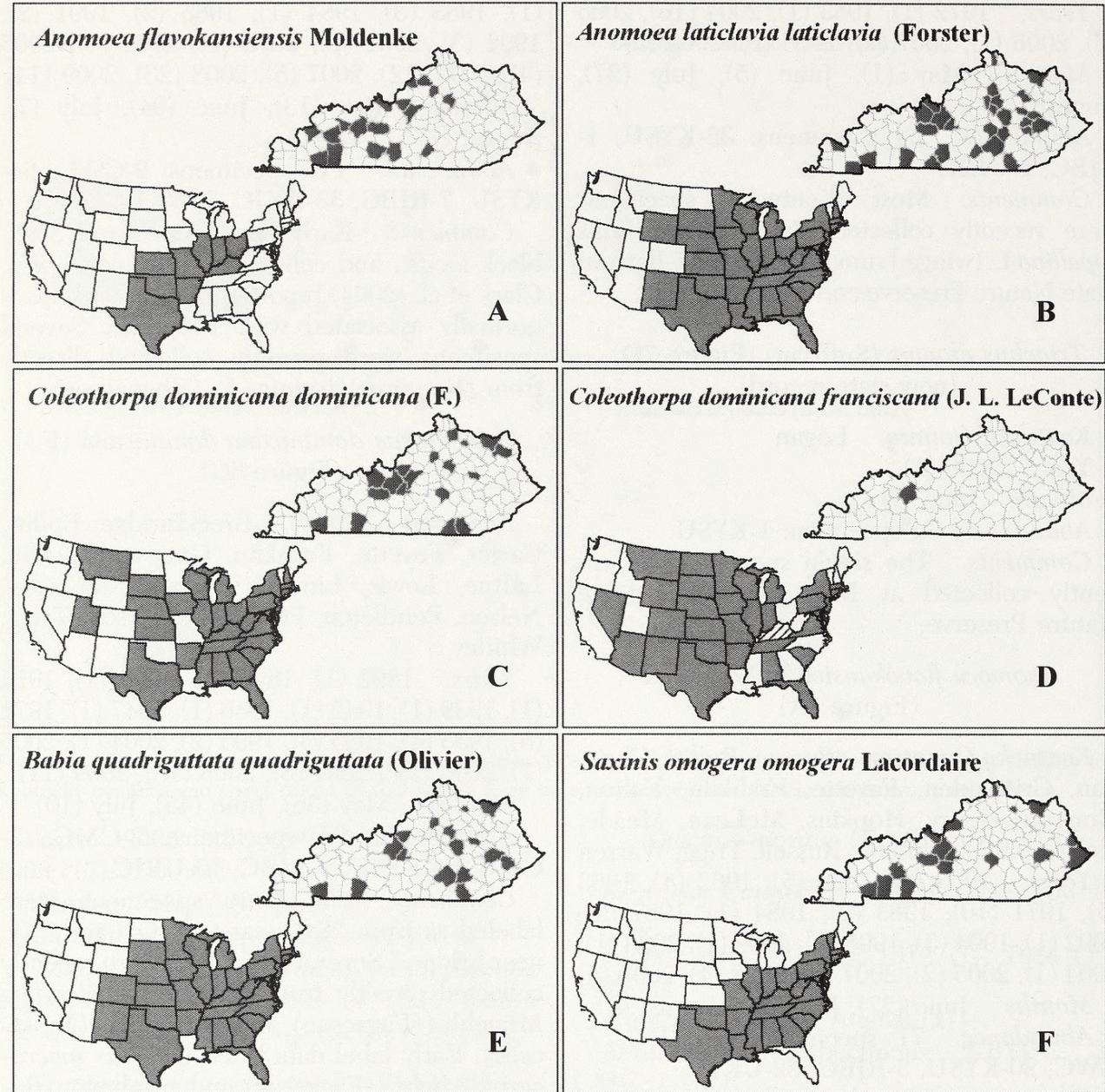


Figure 8. The known distribution of Cryptocephalinae (Coleoptera: Chrysomelidae) illustrated in grey shading for Kentucky counties and states of the United States. New state records reported herein are shown in cross-hatch.

2003 (2), 2005 (1), 2006 (13), 2008 (9), 2009 (19)

*Months.* May (30), June (23), July (3)  
*Abundance.* 58 specimens: 2-CMC, 7-CWC, 42-KYSU, 7-UKIC

*Comments.* The Dury specimens were labeled as from “Ky. near bridge.” Several specimens were recently collected directly from *Ulmus americana* L. (Ulmaceae), *Quercus falcata* Michx. (Fagaceae), and *Carya tomentosa* (Poir.) Nutt. (Juglandaceae). Laboratory feeding was observed on *Quercus falcata*, *Q. stellata*, and *Q. marilandica* (Barney and Hall 2011).

*Saxinis omogera omogera* Lacordaire (Figure 8F)

*Kentucky Counties.* Breathitt, Bullitt, Christian, Grayson, Hardin, Hart, Jefferson, LaRue, Lewis, Lincoln, Logan, Martin, Meade, Muhlenberg, Pike, Robertson, Trigg  
*Years.* pre-1931 (3), 1938 (1), 1943 (3), 1971 (7), 1972 (3), 1976 (2), 1983 (5), 1985 (2), 2003 (5), 2004 (12), 2005 (49), 2006 (104), 2007 (24), 2008 (52), 2009 (2)

*Months.* May (91), June (167), July (13)  
*Abundance.* 274 specimens: 3-CMC, 7-CWC, 239-KYSU, 11-RJBC, 13-UKIC



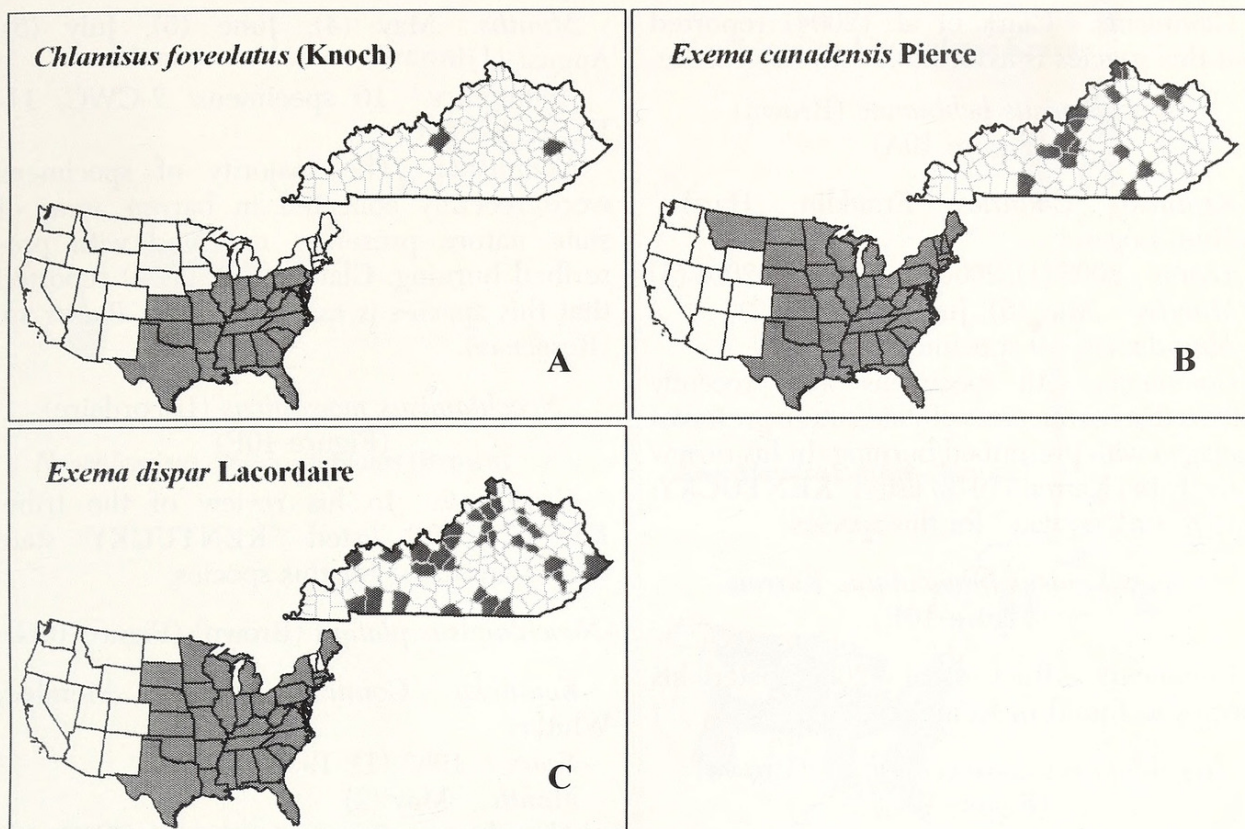


Figure 9. The known distribution of Cryptocephalinae (Coleoptera: Chrysomelidae) illustrated in grey shading for Kentucky counties and states of the United States. New state records reported herein are shown in cross-hatch.

**Comments.** The Dury specimens were labeled “Ky. near bridge.” Several specimens were recently collected directly from *Desmodium* (Fabaceae) and *Quercus muhlenbergii* Englem. (Fagaceae).

*Chlamisus foveolatus* (Knoch) (Figure 9A)

**Kentucky Counties.** Breathitt, Hardin

**Years.** 1972 (1), 2004 (1)

**Months.** June (1), July (1)

**Abundance.** 2 specimens: 1-KYSU, 1-UKIC

**Comments.** In his review of the tribe, Karren (1972) listed “KENTUCKY: state record, no date” for this species. The UKIC specimen was collected via Malaise trap.

*Exema canadensis* Pierce (Figure 9B)

**Kentucky Counties.** Boone, Breckinridge, Bullitt, Christian, Fleming, Grayson, Hardin, Hart, Jefferson, Kenton, LaRue, Laurel, Lewis, Lincoln, Logan, Madison, Marion, McCreary, Owen, Pulaski, Robertson, Rowan, Trigg

**Years.** 1971 (2), 1976 (3), 1981 (10), 1982 (2), 1983 (10), 1985 (1), 1992 (2), 1993 (1),

1995 (1), 1998 (3), 2003 (2), 2004 (15), 2005 (43), 2006 (45), 2007 (4), 2008 (48), 2009 (6)

**Months.** March (3), April (4), May (71), June (59), July (57), August (4)

**Abundance.** 198 specimens: 6-BYUC, 4-CWC, 156-KYSU, 30-RJBC, 2-UKIC

**Comments.** Clark et al. (2004) reported that this species is associated with Asteraceae.

*Exema dispar* Lacordaire (Figure 9C)

**Kentucky Counties.** Anderson, Bath, Boone, Breathitt, Breckinridge, Bullitt, Christian, Clark, Daviess, Franklin, Grant, Grayson, Hardin, Henry, Jefferson, LaRue, Lewis, Logan, McCreary, Monroe, Nicholas, Owen, Perry, Pike, Powell, Robertson, Russell, Trigg, Union, Wayne, Woodford

**Years.** 1971 (5), 1972 (1), 1981 (8), 1983 (10), 1984 (1), 1985 (1), 1993 (2), 1994 (1), 2000 (1), 2002 (1), 2003 (10), 2004 (15), 2005 (15), 2006 (40), 2007 (3), 2008 (17), 2009 (4)

**Months.** April (1), May (78), June (45), July (9), August (2)

**Abundance.** 135 specimens: 2-BYUC, 18-CWC, 85-KYSU, 24-RJBC, 6-UKIC



*Comments.* Clark et al. (2004) reported that this species is associated with Asteraceae.

*Neochlamisus bebbianae* (Brown)  
(Figure 10A)

*Kentucky Counties.* Franklin, Hardin, LaRue, Logan

*Years.* 2005 (1), 2006 (3), 2007 (2), 2008 (3)

*Months.* May (5), June (2), July (2)

*Abundance.* 9 specimens: 9-KYSU

*Comments.* All specimens were recently collected in barren areas of state nature preserves managed with prescribed burning. In his review of the tribe, Karren (1972) listed "KENTUCKY: state record, no date" for this species.

*Neochlamisus bimaculatus* Karren  
(Figure 10B)

*Comments.* Riley et al. (2003) listed his species as found in Kentucky.

*Neochlamisus chamaedaphnes* (Brown)  
(Figure 10C)

*Comments.* In his review of the tribe, Karren (1972) listed "KENTUCKY: state record, no date" for this species.

*Neochlamisus eubati* (Brown) (Figure 10D)

*Kentucky Counties.* Bullitt, Christian, Franklin, Hardin, Henry, LaRue, Laurel, Lewis, Logan, McCreary, Pulaski, Robertson, Whitley

*Years.* 1971 (1), 1978 (1), 1983 (4), 2004 (2), 2005 (9), 2006 (21), 2007 (2), 2008 (5), 2009 (4)

*Months.* April (15), May (17), June (13), July (3), September (1)

*Abundance.* 49 specimens: 25-KYSU, 23-RJBC, 1-UKIC

*Comments.* A long series of specimens was recently collected directly from a cultivated variety of thornless blackberry, *Rubus* sp. (Rosaceae). In his review of the tribe, Karren (1972) listed "KENTUCKY: Bullitt Co., 9 May" for this species.

*Neochlamisus gibbosus* (F.) (Figure 10E)  
(new state record)

*Kentucky Counties.* Christian, Daviess, Grayson, Hardin, Logan, Powell, Trigg

*Years.* 1985 (1), 1993 (2), 2004 (3), 2005 (1), 2007 (4), 2008 (5)

*Months.* May (4), June (6), July (5), August (1)

*Abundance.* 16 specimens: 2-CWC, 11-KYSU, 3-RJBC

*Comments.* The majority of specimens were recently collected in barren areas of state nature preserves managed with prescribed burning. Clark et al. (2004) reported that this species is associated with *Rubus* sp. (Rosaceae).

*Neochlamisus moestificus* (Lacordaire)  
(Figure 10F)

*Comments.* In his review of the tribe, Karren (1972) listed "KENTUCKY: state record, no date" for this species.

*Neochlamisus platani* (Brown) (Figure 10G)

*Kentucky Counties.* Butler, Menifee, Whitley

*Years.* 1983 (1), 1992 (1)

*Month.* May (2)

*Abundance.* 2 specimens: 1-CWC, 1-RJBC

*Comments.* In his review of the tribe, Karren (1972) listed "Butler Co, 16 June" for this species. Clark et al. (2004) reported that this species fed on *Plantanus* (Plantanceae).

## DISCUSSION

The data presented here are the most complete representation of the cryptocephaline leaf beetles known from Kentucky. The large number of new state records documented here (27 of 59 species, or 46%), and the fact that 30 species were first collected after 1970, reflect a historical lack of leaf beetle collecting in Kentucky. A large percentage of the new records (14 of 20 species) is for species of *Pachybrachis*. The last revision of *Pachybrachis* was done by Fall (1915) almost 100 years ago.

The fact that three species of *Neochlamisus* were cited in the literature but not recovered in this study may reflect how difficult species identification is in this genus. This is due to the similarity among species, as well as to the variability within species. The situation is further complicated by the possibility of as yet undescribed species, very similar to those that are currently being recognized. This is especially so with regards to *N. bebbianae*.



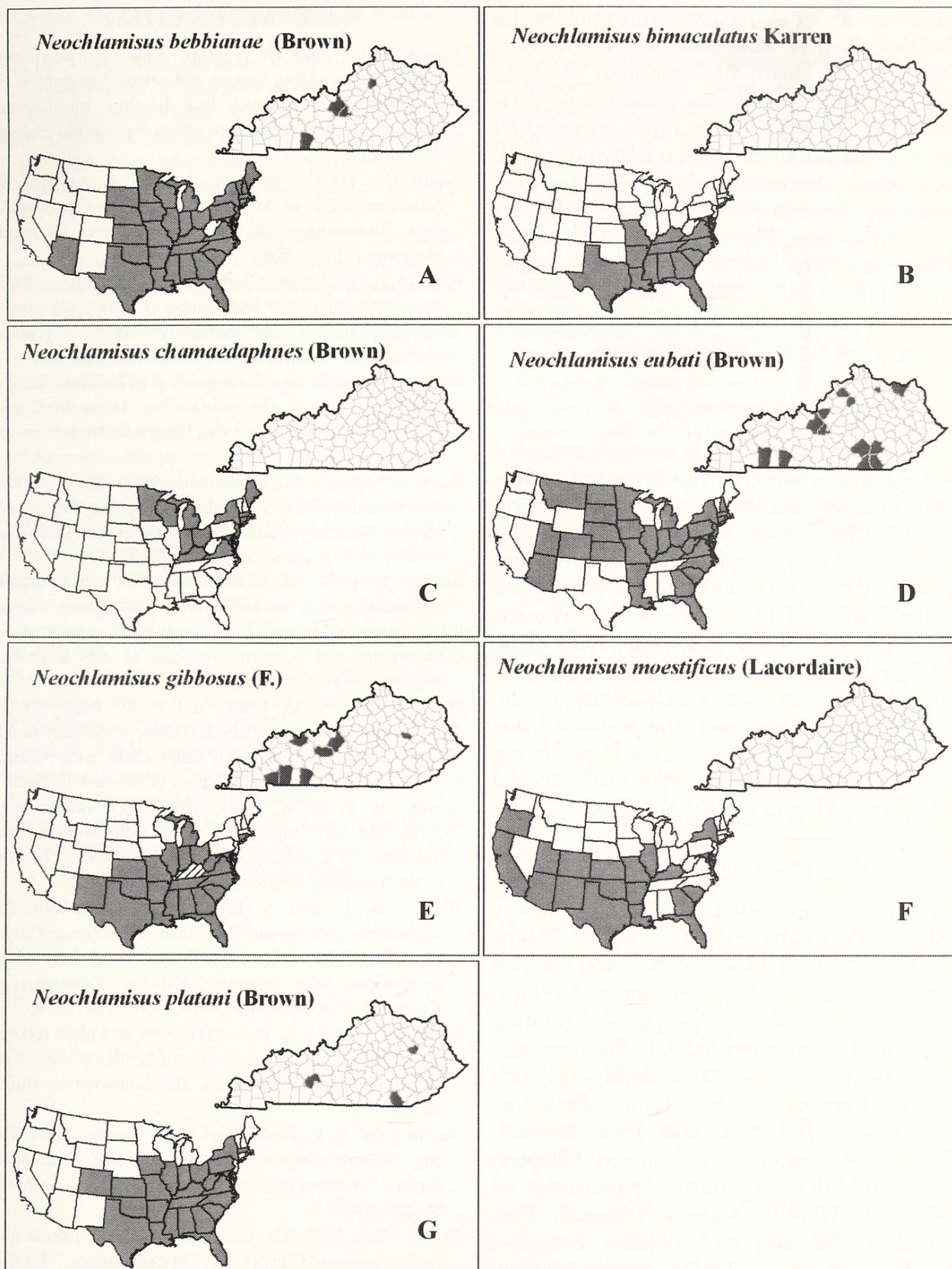


Figure 10. The known distribution of Cryptocephalinae (Coleoptera: Chrysomelidae) illustrated in grey shading for Kentucky counties and states of the United States. New state records reported herein are shown in cross-hatch.



When Brown (1943) named this species, he also described *N. alni* (Brown). A few years later (Brown 1946), he described *N. tecta* (Brown). Subsequently, in a taxonomic revision of the genus, Karren (1972) regarded all three of these names to be synonymous with each other. Notwithstanding this proposed synonymy, LeSage (1984a) reinstated *N. alni* as a valid species. The recent investigations of Adams and Funk (1997), Funk (1998, 1999), and Funk et al. (2002) suggest that *N. bebbianae*, as currently recognized, is actually a complex of several sibling species.

### CONCLUSIONS

This is the final paper in a series intended to present a synopsis of the historical collection data on Kentucky leaf beetles and augment these with new information from recent monitoring. A total of 283 species were found in the 12,910 specimens examined and re-identified, and 132 were new state records for Kentucky. Prior to this study, Riley et al. (2003) reported Kentucky to have the sixth most depauperate leaf beetle fauna in the lower 48 states. However, the results of this study, with 47% of the species found being new state records, demonstrate the historical lack of collecting done in Kentucky.

### ACKNOWLEDGEMENTS

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*Pachybrachis trinotatus* (F. E. Melsheimer) (Coleoptera: Chrysomelidae: Cryptocephalinae) from Kentucky. See article by Barney, Clark, and Riley, page 3 of this issue.





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