

## List of the Sawflies (Hymenoptera: Symphyta) of Virginia

David R. Smith

Systematic Entomology Laboratory, PSI, Agricultural Research Service,  
U. S. Department of Agriculture, c/o National Museum of Natural History,  
Smithsonian Institution, P.O. Box 37012, MRC 168,  
Washington, DC 20013-7012  
[dsmith@sel.barc.usda.gov](mailto:dsmith@sel.barc.usda.gov)

### ABSTRACT

Confirmed records for 345 species of sawflies in 11 families are cited for Virginia. The results are based on extensive Malaise trap collecting at several sites, mainly in northern Virginia, and data from museum specimens. A list of 23 potential species likely to occur in Virginia is given. County records and recorded host plants are given for each species.

*Key words:* Argidae, Cephidae, Cimbicidae, Diprionidae, Orussidae, Pamphiliidae, Pergidae, Siricidae, Tenthredinidae, Xiphydriidae, Xyelidae.

### INTRODUCTION

Sawflies, a general term for members of the suborder Symphyta (Hymenoptera), are, with the exception of Orussidae, phytophagous in the larval stage. The caterpillar-like larvae are often confused with those of Lepidoptera, and some of the damage to plants may be attributed to Lepidoptera by the untrained observer. Larvae of a number of sawfly species can cause economic damage in forests, agricultural crops, and ornamental plants. Adults are short-lived and are less conspicuous and usually less commonly collected than larvae.

No modern comprehensive state list of sawflies exists and no other state has been so thoroughly sampled for sawflies as Virginia. Without other state lists, comparisons of numbers cannot be made, but simply the 345 species recorded herein represent about one-third of the known fauna of America north of Mexico (Smith, 1979a). Older state lists exist, but the nomenclature is so outdated that it is nearly impossible to accurately compare numbers. For the record, with approximate numbers of species and subspecies in parentheses, previous state lists include Colorado (85) (Ashmead, 1890), New Jersey (400) (MacGillivray, 1910), Connecticut (196) (MacGillivray, 1916), New York (445) (Bradley, 1928), and North Carolina (128)

(Brimley, 1938) with approximately 30 additions by Ahlstrom (1995). Smith & Barrows (1987) recorded 117 species from urban environments in the Washington, DC, area.

This list is intended as a precursor for a comprehensive taxonomic treatment of the sawflies of Virginia and neighboring states. Additional material and collections to examine are welcome.

### MATERIALS AND METHODS

Most of the records are from my collecting efforts over the past 25 or more years; other records are from the collections at VPI&SU, Blacksburg, VA; the National Museum of Natural History, Smithsonian Institution, Washington, DC (USNM); and a few from collections of other institutions (see acknowledgments). I have examined over 100,000 specimens for this study.

Sawfly sampling is most efficiently done with Malaise traps, and most records from the following counties are from sites where Malaise traps were used in several consecutive years. These localities are as follows (see Fig. 1):

Augusta Co., Deerfield Ranger District, George Washington National Forest, centered at 38° 07' 30" N, 79° 22' 30" W, with traps set at elevations of 561-744 m along the southeast slope of Great North Mountain.

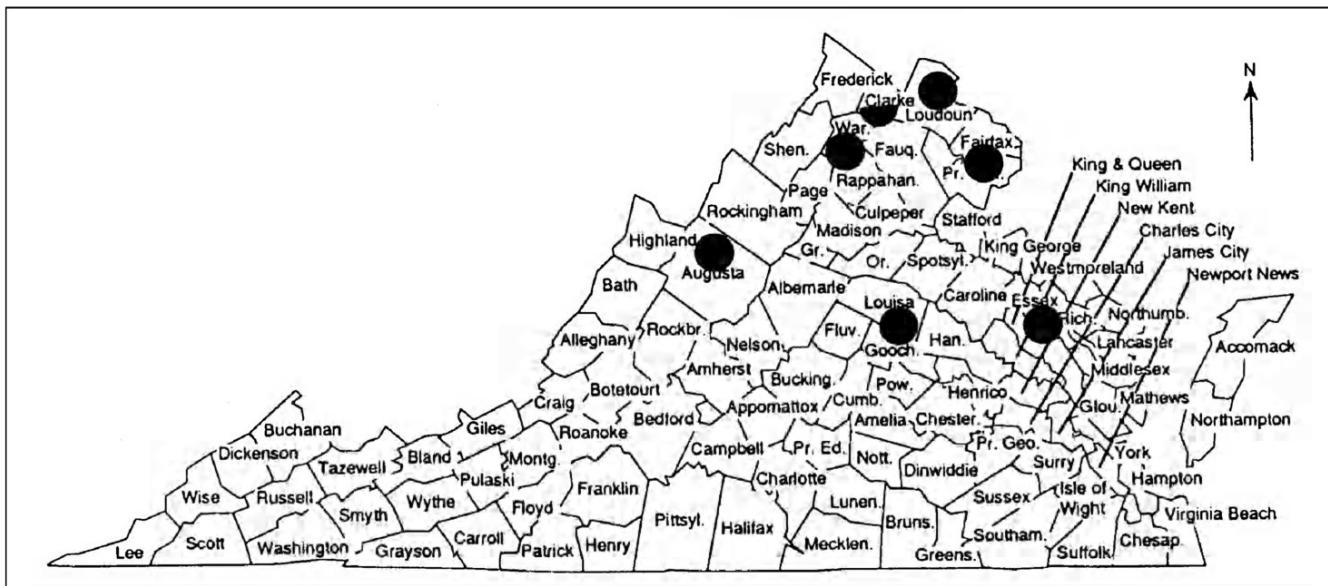


Fig. 1. Counties in Virginia. Dots indicate intensive sampling sites mentioned in Materials and Methods.

Five years collecting, 1995-1999, 20 traps per year, in mixed oak-pine forests. See studies by Braud et al. (2003) and Strazanac et al. (2003).

Clarke Co., University of Virginia Blandy Experimental Farm and State Arboretum of Virginia, 3 km [“2 mi” on labels] S Boyce,  $39^{\circ} 52' N$ ,  $78^{\circ} 10' W$ . Six years collecting, 1990-1996, with 10-15 traps per year. Over 600 acres (~1,300 ha) of various habitats, such as ponds, willow, and oak-hickory stands, and a large selection of trees and shrubs in the Arboretum.

Essex Co., 1.6 km [“1 mi” on labels] SE Dunnsville,  $37^{\circ} 52' N$ ,  $76^{\circ} 48' W$ . Nine years collecting, 1991-1999, with 15-20 traps each year. About a 100 acre (~250 ha) site of mixed hardwoods and pine, sandy soil, in the Coastal Plain.

Fairfax Co., near Annandale,  $38^{\circ} 50' N$ ,  $77^{\circ} 12' W$ . Twenty-six years collecting, 1981-2006, with one trap each year in the backyard of a suburban development.

Loudoun Co., near jct. of Sycolin Road and Goose Creek. Two years collecting, 1998-1999, with five traps each year. Floodplain area with mixed vegetation near Goose Creek.

Louisa Co., 6 km [“4 mi” on labels] S Cuckoo. Five years collecting, 1985-1989, with 10-15 traps each year set up on a 560 acre (~1,200 ha) site; oak, hickory, mixed pine, rolling hills, stream drainages, interspersed among grazing pastures.

Warren Co., near Linden. Two years collecting, 1993-1994, one trap in streambed.

Most specimens from the above collections are deposited in the USNM. Specimens from the Augusta County study are in the insect collection of West Virginia University, Morgantown, with representatives

in the USNM.

The traps at each site were set up in March or April and taken down in September or October, thus allowing continual sampling through the season. Collections were made and preserved in 95% ethyl alcohol and traps were serviced every two or three weeks, depending on the time of the season and the weather. Various habitats were sampled within each site.

The list is arranged by family (and by subfamily in the Tenthredinidae) according to Smith (1979a). The scientific name is followed by the common name, if any; counties from which I have examined specimens; note if an introduced species; recorded host plants (most are from Smith 1979a and most are recorded only by host-plant genus); and references or other miscellaneous notes. References are mostly restricted to studies in Virginia and general literature that may help in identification. Other references may be found in Smith (1979a).

## RESULTS

Most records are from the collection sites listed above. Many species are probably common throughout the state, such as some found on cultivated roses, oaks, and other widespread plants. Because of its proximity, northern Virginia is the best sampled area in this study, and with my field work in the Coastal Plain (Essex County), Piedmont (Fairfax and Louisa counties), and Shenandoah Valley (Clarke County), and studies by Braud et al. (2003) and Strazanac et al. (2003) in the Appalachians (Augusta County), I have obtained samples from a good cross-section of the state. Species

richness increases inland. In nine years of collecting in Essex County, I obtained about 170 species; in five years in Louisa and six years in Clarke counties, about 200 species at each site. However, the approximately 110 species collected in Augusta County are low because the traps were set within the forest. About 120 species have been taken over 26 years in a backyard trap in a suburban habitat in Fairfax County.

The following checklist presents records for 345 species I have examined, plus 23 species which I believe eventually will be found in the state. The list is not exhaustive and additional species are expected, most likely from parts of the state that have not been well sampled. More collections are needed in the higher elevations of the Appalachians and in southern and southwestern Virginia. There are some species that have been found in the Northeast, e.g., New York, Pennsylvania, higher elevations of West Virginia, and the mountains of Tennessee and North Carolina, for which there are no Virginia records. Certainly, some of these eventually will be found in Virginia.

Keys to genera of certain families or subfamilies are in references to revisions given under those taxa. The most comprehensive keys to families and genera are by Goulet (1992, 1993). Ross (1937) is still helpful for family, subfamily, and some generic identifications.

## XYELIDAE

*Xyela* larvae feed in the staminate cones of pines, *Pinus* spp., except *X. gallicaulis* which is a shoot borer. Species of *Xyela* are the earliest sawflies to fly in the spring; my earliest collection date is February 17 in Fairfax County. *Megaxyela* and *Macroxyela* larvae are external leaf feeders; adults are rarely collected. See Burdick (1961) for identification of *Xyela* and Smith & Schiff (1998) for *Macroxyela* and *Megaxyela*.

### *Macroxyela ferruginea* (Say).

Clarke, Fairfax, Montgomery. Host: *Ulmus*. Adults swept from elms, *Ulmus* spp., in the Arboretum during the first half of April.

### *Megaxyela bicoloripes* (Rohwer).

Arlington.

### *Megaxyela major* (Cresson).

Arlington (identity uncertain, based on larvae). Host: Larvae "on hickory."

### *Xyela alpigena* (Strobl).

Augusta, Botetourt, Clarke, Fairfax. Host: *Pinus*.

### *Xyela bakeri* Konow.

Essex, Fairfax, King William, Nelson. Host: *Pinus*.

### *Xyela gallicaulis* Smith.

King and Queen. Host: *Pinus* (Smith, 1970).

### *Xyela minor* Norton.

Arlington, Botetourt, Essex, Fairfax, Fauquier, King and Queen, King William, Louisa, New Kent, Stafford. Host: *Pinus*.

### *Xyela obscura* (Strobl).

Arlington, Clarke, Essex, Fairfax, Fauquier, Henry, King and Queen, King William, Louisa, Montgomery, New Kent, Stafford. Host: *Pinus*.

### *Xyela styrax* Burdick.

Arlington, Essex, Fairfax. Host: *Pinus*.

## PAMPHILIIDAE

Larvae of *Acantholyda*, *Cephalcia*, and *Neurotoma* are gregarious and live and feed in webs of their own making on their host plant. Larvae of *Onycholyda* and *Pamphilius* are leaf rollers. See Middlekauff (1958, 1964) for revisions of this family; species currently placed in the genus *Onycholyda* were treated by Middlekauff (1964) as *Pamphilius* in couplets 1-10 and 15-31 of his key.

### *Acantholyda angulata* (MacGillivray).

Essex. Host: *Pinus*.

### *Acantholyda atripes* (Cresson).

Henrico. Host: *Pinus taeda* L.

### *Acantholyda bicolorata* (Norton).

Essex.

### *Acantholyda circumcincta* (Klug).

Essex. Host: *Pinus*.

### *Acantholyda maculiventris* (Norton).

Clarke. Hosts: *Abies*, *Picea*, *Pinus*.

### *Acantholyda marginiventris* (Cresson).

Fairfax, Montgomery.

### *Acantholyda ochrocera* (Norton).

Clarke.

### *Acantholyda pini* Rohwer.

Fairfax, Nottoway.

*Acantholyda tesselata* (Klug).  
Essex, Fauquier. Host: *Pinus*.

*Acantholyda zappei* (Rohwer).  
Augusta, Essex, City of Lynchburg. Host: *Pinus*.

*Cephalcia marginata* Middlekauff.  
“Va.” Host: *Pinus*.

*Neurotoma fasciata* (Norton).  
Arlington, Augusta, Essex, Fairfax, Louisa.  
Host: *Prunus*.

*Neurotoma inconspicua* (Norton).  
Plum webspinning sawfly. Clarke. Host: *Prunus*.

*Neurotoma willi* Middlekauff.  
Rockingham. Host: *Crataegus* (?).

*Onycholyda amplexa* (Fabricius).  
Albemarle, Arlington, Clarke, Essex, Fairfax, Loudoun,  
Louisa, Rockingham, Shenandoah, City of Suffolk.  
Host: *Rubus*.

*Onycholyda excavata* (Norton).  
Arlington, Essex, Loudoun, Louisa, Montgomery.  
Host: *Cornus*.

*Onycholyda luteicornis* (Norton).  
Arlington, Augusta, Clarke, Essex, Fairfax, Highland,  
Loudoun, Louisa, Montgomery, Rockingham, Warren.  
Host: *Rubus*.

*Onycholyda multisignata* (Norton).  
Montgomery.

*Onycholyda quebecensis* (Provancher).  
Augusta, Clarke, Essex, Fairfax, Louisa, Warren.

*Onycholyda rufofasciata* (Norton).  
Clarke, Essex, Fairfax, Loudoun, Louisa, Smyth,  
Warren.

*Pamphilius burquei* (Provancher).  
Giles.

*Pamphilius greenei* Rohwer.  
Essex.

*Pamphilius middlekauffi* Shinohara & Smith.  
Arlington, Augusta, Essex, Fairfax, Fauquier, Loudoun,  
Louisa. Host: *Corylus*.

*Pamphilius ochreipes* (Cresson).  
Arlington, Augusta, Clarke, Essex, Fairfax, Louisa.  
Host: *Viburnum*.

*Pamphilius ocreatus* (Say).  
Clarke, Essex, Louisa.

*Pamphilius pallimaculus* (Norton).  
Augusta, Clarke, Essex, Giles. Host: Adults collected  
from *Rosa*.

*Pamphilius persicum* MacGillivray.  
Essex, Loudoun, Louisa. Host: *Prunus*.

*Pamphilius phyllisae* Middlekauff.  
Clarke, Culpeper, Essex, Fairfax, Giles, Loudoun,  
Warren. Host: *Quercus*.

*Pamphilius pullatus* (Cresson).  
Clarke, Fairfax, Rockingham. Host: *Viburnum*.

*Pamphilius rileyi* (Cresson).  
Augusta, Fairfax, Warren. Host: *Amelanchier*.

*Pamphilius semicinctus* (Norton).  
Essex, Fairfax. Hosts: *Amelanchier*, *Pyrus*, *Prunus*.

## PERGIDAE

All larvae are external leaf feeders, feeding and skeletonizing the leaf from the underside. The genus needs study. *Acordulecera dorsalis* is a complex of color forms and probably several species are masquerading under this name. There are two or three additional species which are not recorded below. The following list (as given by Smith, 1979a) will have to suffice until taxonomic problems are resolved.

*Acordulecera dorsalis* Say.  
Augusta, Clarke, Essex, Fairfax, Franklin, Loudoun,  
Louisa, Montgomery, Warren. Hosts: *Castanea*, *Carya*,  
*Juglans*, *Quercus*.

*Acordulecera maculata* MacGillivray.  
Augusta, Clarke, Essex, Fairfax, Loudoun, Louisa.

*Acordulecera mellina* MacGillivray.  
Augusta, Essex, Fairfax, Loudoun.

*Acordulecera pellucida* (Konow).  
Augusta, Clarke, Essex, Fairfax, Loudoun,  
Montgomery, Warren.

## ARGIDAE

All except *Schizocerella pilicornis* are external leaf feeders; *S. pilicornis* larvae mine leaves of *Portulaca*. Smith (1969d, 1971b, 1989) treated the North American Argidae.

*Arge abdominalis* (Leach).  
Essex, Loudoun, Louisa. Host: *Rhododendron canescens* (Michx.) Sweet.

*Arge azaleae* Smith.  
Skyline Drive [Shenandoah National Park]. Host: *Rhododendron viscosum* (L.) Torr., *Rhododendron* sp.

*Arge cerulea* (Norton).  
Essex, Fairfax, Loudoun.

*Arge coccinea* (Fabricius).  
Arlington, Essex, Fairfax, New Kent, City of Norfolk, Prince William, City of Virginia Beach. Hosts: *Rhus copallina* L., *R. glabra* L., *Rhus* sp.

*Arge cyra* (Kirby).  
Fairfax. Hosts: *Betula*, *Salix*.

*Arge humeralis* (Beauvois).  
Accomack, Arlington, City of Chesapeake, Clarke, Essex, Fairfax, Fauquier, Giles, City of Hampton, Louisa, Madison, Montgomery, Nelson, New Kent, City of Norfolk, Northampton, Page, Prince William. Hosts: *Toxicodendron pubescens* P. Mill., *T. radicans* (L.) Kuntze, *T. vernix* (L.) Kuntze.

*Arge macleayi* (Leach).  
Arlington, Augusta, Clarke, Fairfax, Grayson, Highland, Louisa, Page. Hosts: *Amelanchier*, *Prunus*, *Sorbus*.

*Arge onerosa* (MacGillivray).  
Fairfax. Host: *Salix*.

*Arge pectoralis* (Leach). Birch sawfly.  
Arlington, Augusta, Clarke, Essex, Fairfax, Louisa, Nelson, Page, Prince William. Hosts: *Alnus*, *Betula*, *Corylus*.

*Arge quidia* Smith.  
Augusta, Essex, Fairfax, Giles, Montgomery, Prince William, Warren. Host: *Quercus*.

*Arge salicis* Rohwer.  
Arlington, Fairfax. Host: *Salix*.

*Arge scapularis* (Klug).  
Amherst, Clarke, Fairfax, Giles, Louisa, Nelson, City of Richmond, Warren. Host: *Ulmus*.

*Arge willi* Smith.  
Augusta, Essex, Fairfax, Louisa, Prince William, Wythe. Host: *Corylus*.

*Atomacera debilis* Say.  
Arlington, Clarke, Essex, Fairfax, Louisa, Nelson, Page, Rockingham, Shenandoah. Hosts: *Desmodium*, *Lespedeza*.

*Atomacera decepta* Rohwer.  
Clarke, Essex, Fairfax, Greene, Louisa, Montgomery, Prince William, Washington. Hosts: Common on some ornamental hibiscus; hardy herbaceous hibiscus, scarlet rose, crimsoned rose mallow, confederate rose (*Hibiscus mutabilis* L.), *Hibiscus moscheutos* L. cultivars (Boyd, 2005).

*Schizocerella lineata* (Rohwer).  
Fairfax. Host: *Portulaca oleracea* L. An external feeder.

*Schizocerella pilicornis* (Holmgren). Purslane sawfly.  
Arlington, Augusta, Clarke, Essex, Fairfax, Louisa, Montgomery, Page, Westmoreland. Host: *Portulaca oleracea* L. A leafminer.

*Sphacophilus cellularis* (Say).  
Augusta, Clarke, Essex, Fairfax, King George, Loudoun, Louisa, City of Norfolk, Northampton, City of Virginia Beach, Westmoreland. Hosts: *Ipomoea*, *Convolvulus*. See Chapman & Gould (1929).

*Sterictiphora cruenta* Smith.  
Essex. Host: *Prunus*.

*Sterictiphora sericea* (Norton).  
Clarke, Essex, Louisa.

*Sterictiphora serotina* Smith.  
Augusta, Clarke, Essex, Fairfax, Louisa, Page. Host: *Prunus serotina*.

*Sterictiphora transversa* Smith.  
Clarke, Louisa.

## CIMBICIDAE

(1956).

All larvae are external leaf feeders. The species of *Cimbex* and *Trichiosoma* are seldom collected in the state.

*Abia lonicerae* (Linnaeus).

Clarke, Essex, Fairfax, Halifax, Loudoun, Louisa, Montgomery, Patrick, Roanoke, Stafford, Warren, Wise. Host: *Lonicera*. In previous literature as *Zaraea lonicerae* (Smith, 1979a). An introduced species.

*Cimbex americana* Leach. Elm sawfly.

Bath, Fairfax, Giles, Highland, Montgomery, Rockbridge, Shenandoah. Hosts: *Acer*, *Alnus*, *Betula*, *Malus*, *Populus*, *Prunus*, *Salix*, *Ulmus*.

*Trichiosoma triangulum* Kirby.

Montgomery, Roanoke, Smyth. Host: *Alnus*.

## DIPRIONIDAE

All species feed on foliage of conifers and some can cause serious damage during outbreaks. Some are destructive on ornamentals. *Abies*- and *Tsuga*-feeding species eventually may be found at higher elevations. The treatment of *Neodiprion* by Ross (1955) is helpful for identification.

*Diprion similis* (Hartig). Introduced pine sawfly.

Fairfax, Grayson, Smyth, Washington, Wythe. Host: *Pinus strobus* L. See Thomas et al. (1982) for southwestern counties. An introduced species.

*Monoctenus melliceps* (Cresson).

Clarke, Essex, Louisa. Host: *Juniperus*.

*Neodiprion abbotii* (Leach).

Clarke, Essex, Fairfax, Louisa, Powhatan, Prince Edward. Hosts: *Pinus taeda* L. probably preferred; also, *P. echinata* Mill., *P. palustris* Mill., *P. resinosa* Ait. See Hetrick (1956).

*Neodiprion compar* (Leach).

Essex, Fairfax, King and Queen, City of Norfolk, Patrick. Hosts: *Pinus banksiana* Lamb., *P. resinosa* Ait.

*Neodiprion excitans* Rohwer.

Blackheaded pine sawfly. King and Queen. Hosts: *Pinus echinata* Mill., *P. elliottii* Engelm., *P. rigida* Mill., *P. serotina* Michx., *P. taeda* L. See Hetrick

*Neodiprion hetricki* Ross.

Caroline, Essex, Mathews. Host: *Pinus taeda* L. See Hetrick (1956).

*Neodiprion lecontei* (Fitch). Redheaded pine sawfly.

Albemarle, Augusta, Bedford, City of Chesapeake, Essex, Fairfax, James City, New Kent, Prince Edward, Richmond. Host: *Pinus*; various pines. Especially common on ornamentals.

*Neodiprion nannulus* *nannulus* Schedl.

Wise. Host: *Pinus virginiana* Mill.

*Neodiprion pinetum* (Norton). White pine sawfly.

Fluvanna, Rappahannock, City of Staunton. Host: *Pinus strobus* L.

*Neodiprion pratti* *pratti* (Dyar). Virginia pine sawfly.

Albemarle, Buckingham, Culpeper, Cumberland, Fairfax, Gloucester, Halifax, King and Queen, Louisa, Mecklenburg, Middlesex, Nelson, Prince Edward. Hosts: *Pinus echinata* Mill., *P. palustris* Mill., *P. resinosa* Ait., *P. taeda* L., *P. virginiana* Mill. See Hetrick (1956), Morris et al. (1963), and Bobb (1963, 1965) for reports of extensive outbreaks in the 1950s and early 1960s.

*Neodiprion taedae* *taedae* Ross.

Spotted loblolly pine sawfly. Accomack, Essex, King and Queen, King William, Mathews, Middlesex. Host: *Pinus taeda* L. See Hetrick (1941, 1956).

*Neodiprion virginiana* Rohwer.

Caroline, Fairfax. Host: *Pinus taeda* L.

## TENTHREDINIDAE

## Selandriinae

Most species are associated with ferns, with one on moss. The grass- or sedge-feeding species have not been found in Virginia. Smith (1969c) revised this subfamily for North America.

*Aneugmenus flavipes* (Norton).

Arlington, Augusta, Clarke, Essex, Fairfax, Giles, Grayson, Louisa, City of Norfolk, Page, Wythe. Hosts: *Pteridium aquilinum* (L.) Kuhn and probably other ferns.

*Hemitaxonus albidopictus* (Norton).

Arlington, Augusta, Bedford, Clarke, Essex, Fairfax, Louisa, Warren. Hosts: ferns.

*Hemitaxonus dubitatus* (Norton).

Arlington, Clarke, Essex, Fairfax, Louisa, Page. Host: *Onoclea sensibilis* L. Common on this fern in gardens.

*Heptamelus ochroleucus* (Stephens).

Fairfax. Introduced (Smith, 2003). Hosts: In Europe, *Athyrium*, *Blechnum*, *Polypodium*. Larvae bore in stems.

*Nesoselandria morio* (Fabricius).

Fairfax. Introduced (Smith, 2003). Host: moss.

*Strongylogaster impressata* Provancher.

Clarke, Essex, Fairfax, Louisa, Page, Warren. Hosts: ferns.

*Strongylogaster multicincta* Norton.

Arlington, Augusta, Essex, Montgomery. Host: *Pteridium aquilinum* (L.) Kuhn.

*Strongylogaster polita* Cresson.

Augusta, Essex, Louisa, Page.

*Strongylogaster remota* Rohwer.

Warren.

*Strongylogaster soriculatipes* Cresson.

Augusta, Loudoun, Warren. Hosts: ferns.

*Strongylogaster tacita* (Norton).

Arlington, Essex, Fairfax, Giles, Highland, Louisa, Tazewell. Hosts: ferns. Adults taken from *Pteridium aquilinum* (L.) Kuhn. and *Osmunda regalis* L. (Goulet, pers. comm.).

## Dolerinae

Larvae of most species feed on grasses, including grain crops; several are on *Equisetum*. Goulet (1986) revised this group for North America, treating it as a tribe of the Selandriinae.

*Dolerus abdominalis* (Norton).

Louisa.

*Dolerus agcistus* MacGillivray.

Clarke.

*Dolerus alutaceus* Goulet.

Rockingham.

*Dolerus apricus* (Norton).

Arlington, Charlotte, Clarke, Fairfax, Fauquier, Montgomery. Host: *Equisetum*.

*Dolerus aprilis* (Norton).

Bland, Craig, Fairfax, City of Hampton, Montgomery, York.

*Dolerus bicolor* (Beauvois).

Essex, Loudoun, Louisa, Montgomery.

*Dolerus centralis* Ross.

Clarke, Fairfax, Louisa.

*Dolerus hebes* Goulet.

Augusta, Clarke, Essex, Louisa.

*Dolerus kennedyi* Ross.

Louisa.

*Dolerus klokeorum* Goulet & Smith.

Essex, Fairfax, Louisa.

*Dolerus neoagcistus* MacGillivray.

Arlington, Bedford, Clarke, Essex, Fairfax, Loudoun, Louisa, Montgomery, Pulaski, Rockingham, Stafford.

*Dolerus neocollaris* MacGillivray.

Clarke.

*Dolerus neosericeus* MacGillivray.

Grayson.

*Dolerus nitens* Zaddach.

Bedford, Clarke, Fairfax, Giles, Loudoun, Montgomery, Warren. Introduced. Hosts: grasses. A common, early sawfly in northern Virginia. None were collected in Essex and Louisa counties from 1985 through 1999.

*Dolerus nortoni* Ross.

Clarke, Fairfax.

*Dolerus polysericeus* MacGillivray.

Giles.

*Dolerus sericeus* Say.

Clarke, Louisa, Montgomery. Host: wheat.

*Dolerus subfasciatus* Smith.

Clarke, Montgomery.

*Dolerus tibialis conjugatus* MacGillivray.

Charlotte, Craig, Fairfax, Giles, Montgomery,

Rockingham, Washington. Host: *Equisetum*.

*Dolerus unicolor* (Beauvois).

Augusta, Bedford, Clarke, Craig, Fairfax, Fauquier, Louisa, Montgomery, Pulaski, Rockingham, Tazewell, Wythe. Hosts: grasses.

*Dolerus versus* Norton.

Clarke, Essex, Fairfax, Louisa, City of Richmond.

#### Nematinae

Most species are external leaf feeders. Larvae of *Euura* form stem galls on willow, *Pontania* form leaf galls on willow, *Phyllocolpa* form leaf rolls on poplar and willow, *Pseudodineura parva* is a leaf miner, larvae of *Caulocampus* are petiole miners, and larvae of *Hoplocampa* live and feed in developing fruits of their hosts. Several genera are relatively unstudied, and a complete listing cannot be given until taxonomic problems are resolved. These include *Amauronematus*, *Euura*, *Nematus*, *Pachynematus*, *Phyllocolpa*, and *Pontania*. Studies on these genera could increase this list by 20 or more species. Literature that may be helpful for species identification of some genera is as follows: *Caulocampus* (Smith, 1968); *Cladiini* (*Cladius*, *Priophorus*) (Smith, 1974); *Craesus* (Smith, 1972); *Craterocercus* (Smith, 1969a); *Hemichroa* (Smith, 1975b); *Hoplocampa* (Ross, 1943b); *Nepionema* (Smith, 1994a); *Pachynematus* (Ross, 1945); and *Pseudodineura* (Smith, 1976).

*Adelomos cleone* Ross.

Tazewell.

*Amauronematus amentorum* (Foerster).

Fairfax. Host: *Salix*.

*Amauronematus brunneus* (Norton).

Clarke.

*Amauronematus nr. lineatus* (Harrington).

Clarke.

*Amauronematus orbitalis* Marlatt.

Clarke, Fairfax, Louisa.

*Caulocampus matthewsi* Smith.

Giles.

*Cladius difformis* (Panzer). Bristly roseslug.

Albemarle, Arlington, Clarke, Fairfax, Loudoun, Montgomery, Rockingham. Host: *Rosa*. A common pest of cultivated roses.

*Craesus castaneae* Rohwer.  
Fairfax, Franklin. Host: *Castanea*.

*Craesus latitarsus* Norton. Dusky birch sawfly.  
Louisa. Host: *Betula*.

*Craterocercus fraternalis* (Norton).  
Augusta, Clarke, Essex, Fairfax, Giles, Louisa, Montgomery, Rockingham, Warren. Host: *Quercus*.

*Craterocercus furcatus* Smith.  
Clarke, Essex, Montgomery.

*Craterocercus obtusus* (Klug).  
Augusta, Essex, Giles, Louisa, Rockingham. Host: *Quercus*.

*Euura salicicola* Smith ?.  
Clarke, Fairfax. Host: *Salix*. The species identity is questionable.

*Hemichroa militaris* (Cresson).  
Clarke, Giles, Grayson, Montgomery, Page, Washington. Hosts: *Amelanchier*, *Prunus*.

*Hoplocampa halcyon* (Norton).  
Essex, Fairfax, Franklin. Host: *Amelanchier*.

*Hoplocampa marlatti* Rohwer.  
Arlington, Augusta, Clarke, Essex, Fairfax, Louisa. Host: probably *Prunus*.

*Nematus abbotii* (Kirby).  
Augusta, Clarke, Essex, Fairfax, Loudoun, Warren. Host: *Robinia*.

*Nematus nr. atriceps* (Marlatt).  
Augusta.

*Nematus attus* Smith.  
Montgomery. Host: *Populus*.

*Nematus carpini* (Marlatt).  
Bedford, Fairfax, Louisa, Patrick. Host: *Carpinus*.

*Nematus corylus* Cresson.  
Clarke, Essex, Fairfax, Louisa, Warren. Host: *Corylus*.

*Nematus erythrogaster* Norton.  
Arlington, City of Chesapeake, Clarke, Essex, Fairfax, Louisa. Host: *Alnus*.

*Nematus hudsoniimagnus* Dyar.  
Clarke, Louisa, Rockingham. Host: *Populus*.

- Nematus laticulus* (Norton).  
Clarke, Essex, Fairfax, Frederick, Montgomery, Orange.
- Nematus latifasciatus* Cresson.  
Grayson. Host: *Betula*.
- Nematus limbatus* Cresson.  
Clarke. Hosts: *Salix*, *Populus*.
- Nematus lipovskyi* Smith.  
Augusta, Clarke, Essex, Fairfax, Louisa, Loudoun. Host: *Rhododendron*.
- Nematus oligospilus* Foerster.  
Arlington, Charlotte, Clarke, Fairfax, Louisa, Montgomery, City of Suffolk. Host: *Salix*.
- Nematus ostryae* (Marlatt).  
Augusta, Giles, Fairfax, Fauquier. Host: *Ostrya*.
- Nematus radialis* Smith.  
Augusta, Clarke.
- Nematus ribesii* (Scopoli). Imported currantworm.  
Clarke, Fairfax. Host: *Ribes*.
- Nematus salicisodoratus* Dyar.  
Clarke, Essex, Fairfax, Louisa, Montgomery. Hosts: *Populus*, *Salix*.
- Nematus superbus* (Provancher).  
Fairfax, Highland, Rockbridge.
- Nematus tibialis* Newman.  
Accomack, Arlington, Augusta, Clarke, Essex, Fairfax, Fauquier, King and Queen, King William, Loudoun, Louisa, Montgomery, Page, Patrick, Rockingham, Shenandoah, Warren. Host: *Robinia pseudoacacia* L.
- Nematus ventralis* Say. Willow sawfly.  
Arlington, Clarke, Fairfax, Montgomery, City of Richmond. Host: *Salix*.
- Neopareophora litura* (Klug).  
Arlington, Augusta, Clarke, Essex, Fairfax, Louisa, Montgomery, Page, Warren. Host: *Vaccinium*.
- Nepionema appalachiana* Smith.  
Essex.
- Pachynematus corniger* (Norton).  
Arlington, Augusta, Clarke, Essex, Fairfax, Giles,
- Loudoun, Louisa, Montgomery, City of Richmond, Rockingham, Warren. Hosts: *Carex* and possibly grasses.
- Pachynematus extensicornis* (Norton). Grass sawfly.  
Augusta, Clarke, Essex, Loudoun, Montgomery. Hosts: wheat, probably other grasses.
- Phyllocolpa nigrita* (Marlatt).  
"Virginia."
- Phyllocolpa populi* (Marlatt) (?).  
Clarke.
- Pontania gracilis* Marlatt.  
"Va." Host: *Salix*.
- Priophorus morio* (Lepeletier).  
Clarke. Host: *Rubus*.
- Priophorus pallipes* (Lepeletier).  
Arlington, Augusta, Clarke, Essex, Fairfax, Louisa, Washington. Hosts: *Alnus*, *Crataegus*, *Prunus*.
- Pristiphora abbreviata* (Hartig). California pear sawfly.  
Clarke, Fairfax, Fauquier, Louisa, Rockingham. Introduced. Host: *Pyrus*.
- Pristiphora acidovalva* Wong.  
Clarke, Fairfax, Louisa. Host: *Salix*.
- Pristiphora appendiculata* (Hartig).  
Clarke, Essex, Fairfax, Giles, Louisa, Page, Warren. Host: *Ribes*. In previous literature as *Pristiphora rufipes* Lepeletier.
- Pristiphora banksi* Marlatt.  
Accomack, Augusta, Clarke, Essex, Fairfax, Giles, Loudoun, Louisa, City of Suffolk, City of Virginia Beach, Warren. Host: *Vaccinium*.
- Pristiphora bivittata* (Norton).  
Augusta, Clarke, Fairfax, Loudoun, Montgomery, Rockingham, Warren. Host: *Spiraea*.
- Pristiphora chlorea* (Norton).  
Augusta, Clarke, Essex, Fairfax, Fauquier, Loudoun, Louisa, Montgomery, Roanoke, Warren. Host: *Quercus*.
- Pristiphora cincta* Newman.  
Augusta, Clarke, Essex, Fairfax, Giles, Grayson, Louisa, Smyth. Hosts: *Betula*, *Salix*, *Vaccinium*.

*Pristiphora erichsonii* (Hartig). Larch sawfly.  
Montgomery. An introduced species. Host: *Larix*.

*Pristiphora geniculata* (Hartig). Mountain ash sawfly.  
Grayson. Host: *Sorbus*.

*Pristiphora mollis* (Hartig).  
Clarke, Louisa, Warren. Host: *Vaccinium*.

*Pristiphora paloma* Wong & Ross.  
Clarke, Fairfax.

*Pristiphora siskiyouensis* Marlatt.  
Essex, Fairfax, Halifax, Louisa. Hosts: *Alnus*, *Betula*.

*Pristiphora sycophanta* Walsh.  
Arlington, Clarke, Craig, Fairfax, Essex, Louisa. Host:  
*Salix*.

*Pristiphora zella* Rohwer.  
Augusta, Clarke, Fairfax, Giles, Louisa, Warren.

*Pseudodineura parva* (Norton).  
Clarke, Essex, Louisa. Host: *Hepatica*.

#### Heterarthrinae

Larvae of *Caliroa* and *Endelomyia* are external leaf feeders. *Caliroa cerasi* may be a pest in orchards and *E. aethiops* a pest of cultivated roses. Species of the remaining genera are leaf miners in their host plants. Smith (1971a) revised this subfamily for North America.

*Caliroa cerasi* (Linnaeus). Pear sawfly.  
Arlington, Fairfax. Hosts: *Pyrus*, *Prunus*, *Crataegus*, and probably other Rosaceae.

*Caliroa fasciata* (Norton).  
Clarke, Essex, Fairfax, Louisa. Host: *Quercus*.

*Caliroa liturata* MacGillivray.  
Fairfax, City of Suffolk. Host: *Prunus*.

*Caliroa lobata* MacGillivray.  
Augusta, Clarke, Fairfax, Essex, Louisa. Host: *Quercus*.

*Caliroa lorata* MacGillivray.  
Arlington, Clarke, Fairfax, Louisa. Host: *Castanea*.

*Caliroa lunata* MacGillivray.  
Arlington, Augusta, Clarke, Essex, Fairfax, Louisa, Warren.

*Caliroa nyssae* Smith.  
Essex, Fairfax, Louisa. Host: *Nyssa sylvatica* Marsh.

*Caliroa obsoleta* (Norton).  
Arlington, Clarke, Essex, Fairfax, Louisa. Host:  
*Quercus*.

*Caliroa petiolata* Smith.  
Arlington, Caroline, Clarke, Essex, Louisa. Host:  
*Quercus*.

*Caliroa quercuscoccinea* (Dyar). Scarlet oak sawfly.  
Augusta, Clarke, Essex, Fairfax, Mecklenburg, Washington. Host: *Quercus*.

*Endelomyia aethiops* (Fabricius). Roseslug.  
Albemarle, Arlington, Clarke, Fairfax, Henrico, Loudoun, Montgomery, Rockingham. Host: *Rosa*, common on cultivated roses.

*Kaliofenus ulmi* (Sundevall). Elm leafminer.  
Clarke. Introduced. Host: *Ulmus*. See Smith (1995) for discovery in Virginia.

*Metallus ochreus* Smith.  
Essex, Fairfax, Loudoun, Louisa.

*Metallus rohweri* MacGillivray.  
Arlington, Clarke, Essex, Fairfax, Loudoun, Louisa, Page. Host: *Rubus*.

*Nefusa ambigua* (Norton).  
Augusta, Clarke, Fairfax, Loudoun, Montgomery, Page. Host: *Viola*.

*Profemusa alumna* (MacGillivray).  
Augusta, Clarke, Fairfax. Host: *Quercus*.

*Profemusa canadensis* (Marlatt).  
Clarke, Page. Host: *Crataegus*.

#### Blennocampinae

All larvae are external leaf feeders except those of *Ardis brunniventris* which is a shoot borer in roses. Smith (1969b) revised this subfamily for North America.

*Ardis brunniventris* (Hartig).  
Clarke, Essex, Louisa, Page. Host: *Rosa*.

*Erythraspides carbonarius* (Cresson).  
Arlington, Clarke, Fairfax, Loudoun, Montgomery, Warren. Host: *Oenothera*.

*Erythraspides vitis* (Harris). Grape sawfly.  
Albemarle, Augusta, Chesterfield, Clarke, Essex,  
Fairfax, Loudoun, Louisa, Smyth, Rockingham.  
Host: *Vitis*.

*Eupareophora parca* (Cresson).  
Clarke, Essex, Fairfax, Henry, Loudoun, Louisa,  
Warren. Host: *Fraxinus*.

*Eutomostethus ephippium* (Panzer).  
Arlington, Augusta, Clarke, Craig, Fairfax, Loudoun,  
Warren. Introduced. Hosts: *Poa*, possibly Graminae.

*Eutomostethus luteiventris* (Klug).  
Clarke, Fairfax, Montgomery, Page. Introduced. Host:  
*Juncus*.

*Halidamia affinis* (Fallén).  
Clarke, Essex, Fairfax, Loudoun, Louisa, Montgomery,  
Northampton, Page, Warren. Introduced. Host: *Galium*.

*Monophadnoides conspiculatus* MacGillivray.  
Arlington, Augusta, City of Chesapeake, Clarke, Essex,  
Fairfax, Loudoun, Louisa.

*Monophadnoides pauper* (Provancher).  
Augusta, Clarke, Essex, Fairfax, Giles, Louisa, Page,  
Warren.

*Monophadnoides rubi* (Harris). Raspberry sawfly.  
Augusta, City of Chesapeake, Clarke, Essex, Fairfax,  
Loudoun, Louisa, Montgomery, Page, Warren.  
Host: *Rubus*. In previous literature as *Monophadnoides*  
*geniculatus* (Hartig) (Smith, 1979a).

*Monophadnus aequalis* MacGillivray.  
Augusta, Clarke, Essex, Fairfax, Loudoun, Louisa,  
Page. Host: probably *Ranunculus*.

*Monophadnus bakeri* Smith.  
Fairfax, Loudoun.

*Monophadnus pallescens* (Gmelin).  
Clarke, Essex. Host: *Ranunculus*.

*Paracharactus niger* (Harrington).  
Clarke, Loudoun, Louisa, Page. Host: probably sedges  
(*Carex*).

*Paracharactus rufus* (Norton).  
Arlington, Augusta, Clarke, Essex, Fairfax, Loudoun,  
Louisa, Page, Warren.

*Periclista albicollis* (Norton).  
Augusta, Clarke, Essex, Fairfax, Fauquier, Giles,  
Loudoun, Louisa, Page, Prince William, Rockingham,  
Warren. Host: *Quercus*.

*Periclista bipartita* (Cresson).  
Louisa.

*Periclista diluta* (Cresson).  
Augusta, Clarke, Essex, Giles, Loudoun, Louisa,  
Montgomery, Warren. Host: *Quercus*.

*Periclista inaequidens* (Norton).  
Arlington, Essex, Page, Rockingham. Host: *Quercus*.

*Periclista marginicollis* (Norton).  
Arlington, Augusta, Clarke, Essex, Loudoun,  
Louisa, Montgomery, Page, Rockingham, Warren.  
Host: *Carya*.

*Periclista media* (Norton).  
Augusta, Essex, Fairfax, Rockingham, Warren. Host:  
*Quercus*.

*Periclista subtruncata* Dyar.  
Essex, Fairfax, Fauquier, Loudoun. Host: *Quercus*.

*Phymatocera fumipennis* (Norton).  
Arlington, Clarke, Culpeper, Essex, Fairfax, Giles,  
Loudoun, Louisa, Warren. Host: *Smilacina*.

*Phymatocera racemosae* Smith.  
Clarke, Essex, Fairfax, Louisa, Warren. Host:  
*Polygonatum*.

*Phymatocera smilacinae* Smith.  
Arlington, Loudoun. Host: Adults collected from  
*Polygonatum* and *Smilacina*.

*Rhadinoceraea nubilipennis* (Norton).  
Page. Host: *Veratrum*.

*Stethomostus fuliginosus* (Schrank).  
Clarke. Introduced. Host: *Ranunculus*.

*Tethida barda* (Say). Blackheaded ash sawfly.  
Clarke, Essex, Fairfax, Giles, Loudoun, Louisa,  
Montgomery. Host: *Fraxinus*.

*Tomostethus multicinctus* (Rohwer).  
Brownheaded ash sawfly. Fairfax. Host: *Fraxinus*.

- Allantinae
- Larvae of all species are external leaf feeders. Smith (1979b) revised this subfamily for North America.
- Allantus cinctus* (Linnaeus). Curled rose sawfly. Fairfax. Hosts: *Fragaria*, *Rosa*.
- Allantus mellipes* (Norton). Clarke, Fairfax, Loudoun, Page, Roanoke, Tazewell. Host: *Fragaria*.
- Allantus nigritibialis* Rohwer. Clarke, Fairfax, Loudoun. Host: *Rosa*.
- Allantus viennensis* (Schrank). Clarke, Fairfax, Loudoun. Introduced. Host: *Rosa*. See Smith (1975a).
- Ametastegia aperta* (Norton). Arlington, Augusta, Clarke, Essex, Fairfax, Giles, Lee, Louisa, Page, Warren.
- Ametastegia articulata* (Klug). Arlington, Chesterfield, Clarke, Essex, Fairfax, Giles, Loudoun, Louisa, Nelson, Northampton, Montgomery, Rockingham, Warren. Hosts: *Polygonum*, *Rumex*.
- Ametastegia becra* Smith. Augusta, Clarke, Essex, Fairfax, Giles, Louisa, Page, Warren.
- Ametastegia equiseti* (Fallén). Clarke, Essex, Fairfax, Louisa, Page. Host: *Rumex*.
- Ametastegia glabrata* (Fallén). Dock sawfly. Clarke, Louisa, Montgomery. Hosts: *Polygonum*, *Rumex*.
- Ametastegia pallipes* (Spinola). Violet sawfly. Arlington, Clarke, Fairfax, Louisa, Page, Patrick. Host: *Viola*.
- Ametastegia pulchella* (Rohwer). Arlington, Augusta, Clarke, Essex, Fairfax, Loudoun, Louisa, Prince William, Warren. Host: *Polygonum*.
- Ametastegia recens* (Say). Giles, Louisa.
- Ametastegia rocia* Smith. "Va." Host: *Salix* (?)
- Ametastegia tener* (Fallén). Clarke, Essex, Fairfax, Montgomery, Page. Host: *Rumex*.
- Ametastegia xenia* Smith. Appomattox, Floyd.
- Dimorphopteryx autumnalis* Rohwer. Fairfax. Host: *Quercus*.
- Dimorphopteryx melanognathus* Rohwer. Giles. Hosts: *Alnus*, *Betula*.
- Dimorphopteryx pinguis* (Norton). Arlington, Augusta, Essex, Fairfax, King and Queen, Louisa. Hosts: *Alnus*, *Betula*.
- Dimorphopteryx virginicus* Rohwer. Arlington, Fairfax, Louisa. Host: *Castanea*.
- Empria coryli* (Dyar). Essex, Louisa, Warren. Host: *Corylus*.
- Empria evansi* Smith. Louisa.
- Empria maculata* (Norton). Accomack, Arlington, Augusta, Clarke, Essex, Fairfax, Grayson, Highland, Loudoun, Louisa, Madison, Page, City of Petersburg, Rockingham, Warren. Hosts: *Fragaria*, *Potentilla*, *Rubus*.
- Empria multicolor* (Norton). Arlington, Augusta, Chesterfield, Clarke, Essex, Fairfax, Fauquier, Floyd, Giles, Grayson, Highland, Louisa. Hosts: *Alnus*, *Betula*.
- Eriocampa juglandis* (Fitch). Clarke, Essex, Louisa. Host: *Juglans*.
- Macremphytus semicornis* (Say). Clarke. Host: *Cornus*.
- Macremphytus tarsatus* (Say). Augusta, Clarke, Loudoun, Warren. Host: *Cornus*.
- Macremphytus testaceus* (Norton). Arlington, Augusta, Clarke, Essex, Fairfax, Floyd, Giles, Loudoun, Louisa, Montgomery, Nelson, Rockingham. Host: *Cornus*.
- Monosoma inferentia* (Norton). Louisa. Host: *Alnus*.

*Monostegia abdominalis* (Fabricius).

Clarke, Essex, Fairfax, Louisa, Montgomery. Host: *Lysimachia*.

*Phrontosoma belfragei* (Cresson).

Fairfax. Host: *Cornus* (?).

*Pseudosiobia excavata* (Norton).

Arlington, Essex, Fairfax, Louisa, City of Richmond, Spotsylvania. Host: *Cephalanthus*.

*Taxonus borealis* MacGillivray.

Augusta.

*Taxonus epicera* (Say).

Augusta, Clarke, Essex, Fairfax, Lee, Loudoun, Louisa, City of Richmond, Warren.

*Taxonus pallicoxus* (Provancher).

Augusta, Clarke, Loudoun, Louisa. Host: *Fragaria*.

*Taxonus pallidicornis* (Norton).

Augusta, Clarke, Essex, Fairfax, Loudoun, Louisa, Montgomery, Warren. Host: *Rubus*.

*Taxonus pallipes* (Say).

Augusta, Clarke, Essex, Fairfax, Loudoun, Louisa, Warren. Host: *Fragaria*.

*Taxonus proximus* (Provancher).

Augusta, Louisa.

*Taxonus rufocinctus* (Norton).

Augusta, Clarke, Loudoun, Louisa. Host: *Rubus*.

*Taxonus spiculatus* (MacGillivray).

Augusta.

*Taxonus terminalis* (Say).

Augusta, Clarke, Essex, Fairfax, Loudoun, Louisa, Roanoke, Warren. Host: *Rubus*.

#### Tenthredininae

Larvae of all species are external leaf feeders. Host plants are poorly known for members of this subfamily. See Smith (1991) for flight records for 28 species of *Macrophyia*. *Tenthredo* is the large remaining group that needs study; there are no keys to species that occur in Virginia. Literature that is helpful for other groups is as follows: *Aglaostigma* (Ross, 1943a); *Macrophyia* (Gibson, 1980); and *Lagium* (Smith, 1986a, 1994b). Goulet & Smith (1993) described several species of *Tenthredo* from eastern United States.

*Aglaostigma quattuordecimpunctatum* (Norton).

Augusta, Grayson, Smyth. Host: *Podophyllum peltatum* L.

*Aglaostigma semiluteum* (Norton).

Arlington, Clarke, Essex, Fairfax, Frederick, Grayson, City of James, Loudoun, Louisa, Montgomery, Page, Smyth, Warren, Washington. Host: *Impatiens capensis* Meerb.

*Lagium atroviolaceum* (Norton).

Albemarle, Arlington, City of Chesapeake, Clarke, Essex, Fairfax, Giles, Henrico, Loudoun, Louisa, Madison, Montgomery, Nelson, Patrick, Rockingham, Washington. Host: *Sambucus*.

*Leucopelmonus annulicornis* (Harrington).

Augusta, Clarke, Fairfax, Giles, Grayson, Lee, Madison, Smyth.

*Macrophyia alba* MacGillivray.

Clarke, Fairfax, Loudoun, Louisa, Montgomery, Rockingham, Smyth, Warren.

*Macrophyia albomaculata* (Norton).

Arlington, Carroll, Clarke, Essex, Fairfax, Grayson, Loudoun, Louisa, Rockingham, Warren. Host: *Sambucus*.

*Macrophyia bifasciata* (Say).

Clarke, Essex, Giles, Loudoun, Louisa, Montgomery, Tazewell.

*Macrophyia cassandra* Kirby.

Arlington, Augusta, Clarke, Essex, Fairfax, Giles, Hanover, Loudoun, Louisa, Montgomery, Rockbridge, Warren. Host: *Carya*.

*Macrophyia cinctula* (Norton).

Arlington, Campbell, City of Chesapeake, Essex, Fairfax, Giles, Loudoun, Louisa.

*Macrophyia epinota* (Say).

Clarke, Essex, Fairfax, Grayson, Louisa, Montgomery, Rockingham. Host: *Sambucus*.

*Macrophyia externa* (Say).

Fairfax, Louisa.

*Macrophyia flavicoxae* (Norton).

Arlington, Clarke, Essex, Fairfax, Floyd, Giles, Grayson, Greensville, Loudoun, Louisa, Montgomery, Rockingham, Smyth, Washington.

*Macrophyia flavolineata* (Norton).

Clarke, Essex, Fairfax, Giles, Loudoun, Louisa, Montgomery, Russell, Smyth, Warren.

*Macrophyia flicita* MacGillivray.

Arlington, Augusta, Clarke, Essex, Fairfax, Giles, Loudoun, Louisa, Montgomery, Rockingham. Host: *Prunus*.

*Macrophyia formosa* (Klug).

Arlington, Augusta, Clarke, Craig, Essex, Fairfax, Giles, Grayson, Loudoun, Louisa, Montgomery, Page, Rockingham, Warren.

*Macrophyia fuliginea* Norton.

Essex, Fairfax, Giles, Louisa. Host: *Castanea*.

*Macrophyia goniphora* (Say).

Arlington, Augusta, City of Chesapeake, Clarke, Essex, Fairfax, Giles, Loudoun, Louisa, Montgomery, Rockingham.

*Macrophyia lineatana* Rohwer.

Arlington, Clarke, Essex, Fairfax, Loudoun, Louisa.

*Macrophyia macgillivrayi* Gibson.

Arlington, Bath, Clarke, Essex, Fairfax, Giles, Loudoun, Louisa, Montgomery, Rockingham, Russell, Warren.

*Macrophyia maculilabris* Konow.

Arlington, Clarke, Fairfax, Floyd, Louisa, Montgomery, Rockingham. Host: *Sambucus*.

*Macrophyia masneri* Gibson.

Clarke, Loudoun, Rockingham.

*Macrophyia masoni* Gibson.

Augusta, Fairfax, Giles, Louisa.

*Macrophyia mensa* Gibson.

Augusta, Clarke, Essex, Fairfax, Giles, Loudoun, Louisa, Stafford.

*Macrophyia mixta* MacGillivray.

Giles, Louisa. Host: *Viburnum*.

*Macrophyia nigra* (Norton).

Augusta, Bath, Essex, Fairfax, Grayson, Lee, Loudoun, Louisa, Rockingham. Host: *Chelone*. See Stamp (1984).

*Macrophyia nigristigma* Rohwer.

Arlington, Clarke, Fairfax, Louisa. Host: *Carya*.

*Macrophyia nirvana* Gibson.

Rockingham.

*Macrophyia pannosa* (Say).

Clarke, Essex, Fairfax, Greene, Loudoun, Louisa, Montgomery, Patrick, Smyth, Tazewell. Host: *Sambucus*.

*Macrophyia phylacida* Gibson.

Carroll, Clarke, Essex, Fairfax, Loudoun, Smyth, Tazewell.

*Macrophyia pulchella* (Klug).

Arlington, Augusta, Clarke, Essex, Fairfax, Floyd, Giles, Loudoun, Louisa, Montgomery, Warren.

*Macrophyia punctata* MacGillivray.

Clarke, Fairfax, Loudoun. Host: *Sambucus*.

*Macrophyia senacca* Gibson.

Clarke, Essex, Fairfax, Loudoun, Louisa.

*Macrophyia serratalineata* Gibson.

Giles.

*Macrophyia simillima* Rohwer.

Clarke, Carroll, Fairfax, Loudoun, Rockingham. Host: *Rudbeckia*.

*Macrophyia succincta* Cresson.

Clarke, Loudoun, Montgomery.

*Macrophyia tibiator* Norton.

Arlington, Augusta, Fairfax, Loudoun, Louisa, Montgomery.

*Macrophyia trisyllaba* (Norton).

Arlington, Clarke, Essex, Fairfax, Giles, Grayson, Loudoun, Louisa, Montgomery, Page, City of Richmond, Rockingham, Warren. Host: *Sambucus*.

*Macrophyia varia* (Norton).

Augusta, Clarke, Essex, Fairfax, Giles, Loudoun, Louisa.

*Macrophyia zoe* Kirby.

Clarke, Fairfax, Louisa, Warren, Washington.

*Pachyprotasis rapae* (Linnaeus).

Grayson, Smyth. Hosts: *Antirrhinum*, *Betonica*, *Fraxinus*, *Scrophularia*, *Solidago*.

*Tenthredo angulifera* (Norton).

Arlington, Grayson, Montgomery, Page.

*Tenthredo basilaris* Say.  
Giles, Page, Washington.

*Tenthredo carolina* (Rohwer).  
Clarke, Essex, Fairfax, Wise.

*Tenthredo fennowi* Goulet & Smith.  
Augusta, Clarke, Fairfax, Giles, Loudoun, Shenandoah,  
Warren.

*Tenthredo fisheri* (Rohwer).  
Arlington, Clarke, Fairfax, Rockingham, Smyth.

*Tenthredo grandis* (Norton).  
Arlington, Clarke, Essex, Fairfax, Louisa, Page,  
Warren. Host: *Chelone glabra* L. See Stamp (1984).

*Tenthredo leucostoma* Kirby.  
Giles, Grayson, Rockingham.

*Tenthredo lobata* (Norton).  
Augusta, Page, Rockingham.

*Tenthredo mantha* Ross.  
Fairfax, Pulaski, Rockingham.

*Tenthredo masneri* Goulet & Smith.  
Giles, Grayson, Stony Man Mountain [on Madison-  
Page county line].

*Tenthredo mellicoxa* Provancher.  
Clarke, Fairfax, Loudoun, Warren.

*Tenthredo nimbipennis* Cresson.  
Clarke, Rockingham.

*Tenthredo piceocincta* (Norton) (?).  
Page. Identity uncertain.

*Tenthredo prosopa* Stannard.  
Giles.

*Tenthredo rufopecta* (Norton).  
Arlington, Augusta, Clarke, Essex, Fairfax, Fauquier,  
Giles, Grayson, Loudoun, Louisa, Montgomery, Page,  
Rockingham, Warren.

*Tenthredo rurigena* MacGillivray.  
Clarke, Giles, Louisa.

*Tenthredo secunda* MacGillivray.  
Giles, Grayson.

*Tenthredo verticalis* Say.  
Arlington, Clarke, Essex, Fairfax, Giles, Grayson,  
Loudoun, Louisa, Rockingham.

*Tenthredo yuasi* MacGillivray.  
Clarke, Loudoun, Louisa.

## SIRICIDAE

Larvae are wood borers. Some are easily transported by commerce in lumber outside their native ranges (e.g., the record of *S. longicauda*). Other species also could be found emerging from construction wood imported from the West. Smith & Schiff (2002) treated the species for eastern United States.

*Eriotremex formosanus* (Matsumura).  
Northampton, City of Virginia Beach. Hosts: *Quercus* preferred, also *Carya*, *Liquidambar*. Introduced. See Smith (1996). These are the northernmost records for this species in the United States.

*Sirex areolatus* (Cresson).  
City of Virginia Beach (Cape Henry). Hosts: *Cupressus* sp., *Juniperus* spp., *Libocedrus*, *Pinus*, *Pseudotsuga*, *Sequoia*, *Taxodium*, *Thuja*.

*Sirex edwardsii* Brullé.  
Essex, Fairfax, Montgomery, City of Virginia Beach.  
Hosts: *Pinus echinata* Mill., *P. elliotti* Engelm.,  
*P. palustris* Mill., *P. rigida* Mill., *P. strobus* L.,  
*P. virginiana* Mill. Also recorded from *Picea*.

*Sirex longicauda* Middlekauff.  
Campbell (Lynchburg). A western species, probably imported in building materials (Smith & Schiff, 2002).  
Hosts: *Abies*, *Pinus*, *Pseudotsuga*.

*Sirex nigricornis* Fabricius.  
Essex, Fairfax, Montgomery, City of Norfolk,  
Page, City of Richmond, City of Virginia Beach.  
Hosts: *Pinus clausa* (Chapm. ex Engelm.) Vasey ex  
Sarg., *P. echinata* Mill., *P. palustris* Mill., *P. rigida*  
Mill., *P. strobus* L., *P. taeda* L., *P. virginiana* Mill.  
Also recorded from *Picea*.

*Tremex columba* (Linnaeus). Pigeon tremex.  
Appomattox, Arlington, Augusta, Bedford, Clarke,  
Essex, Fairfax, Frederick, Giles, Hanover, Louisa,  
Loudoun, Montgomery, City of Norfolk, Nottoway,  
City of Richmond, Roanoke, Smyth, Warren,  
Washington. Hosts: *Acer*, *Carpinus*, *Carya*, *Celtis*,  
*Fagus*, *Malus*, *Platanus*, *Pyrus*, *Quercus*, *Ulmus*.

*Urocerus albicornis* (Fabricius).

Arlington, Montgomery, Washington. Hosts: *Abies*, *Larix*, *Picea*, *Pinus*, *Pseudostuga*, *Thuja*, *Tsuga*.

*Urocerus cressoni* Norton.

Essex, Fairfax, Montgomery. Hosts: *Abies*, *Picea*, *Pinus rigida* Mill., *P. taeda* L.

*Urocerus taxodii* (Ashmead).

Essex, City of Virginia Beach. Host: *Taxodium distichum* (L.) Rich.

America.

*Orussus minutus* Middlekauff.

Clarke, Essex, Fairfax, Louisa, Warren.

*Orussus sayii* (Westwood).

Essex

*Orussus terminalis* (Newman).

Clarke, Essex.

## XIPHYDRIIDAE

Larvae are wood borers in small limbs of their host plants. Smith (1976b) revised this family for North America.

*Xiphydria abdominalis* Say.

Louisa. Host: *Tilia americana* L.

*Xiphydria canadensis* Provancher.

City of Virginia Beach (June 24, 1915).

*Xiphydria champlaini* Rohwer.

Fairfax. Host: *Carpinus caroliniana* Walt.

*Xiphydria maculata* Say.

Augusta, City of Chesapeake, Clarke, Essex, Fairfax, Giles, Loudoun, Louisa, City of Newport News, Page. Hosts: *Acer*, also recorded from *Tilia* and *Malus*.

*Xiphydria mellipes* Harris.

Arlington, Grayson, Madison, Roanoke. Host: *Betula*.

*Xiphydria polia* Smith.

Fairfax, Montgomery.

*Xiphydria scafa* Smith.

Arlington, Fairfax, Louisa. Host: *Carpinus americana* Walt.

*Xiphydria tibialis* Say.

Clarke, Essex, Fairfax, Loudoun, Louisa. Hosts: *Ulmus americana*, also recorded from *Acer*, *Betula*, *Crataegus*, *Fagus*, *Fraxinus*, *Prunus*, *Quercus*, *Rhus*, *Tilia*.

## ORUSSIDAE

Larvae are parasitoids of wood-boring Coleoptera. Middlekauff (1983) revised this family for North

America.

*Orussus minutus* Middlekauff.

Clarke, Essex, Fairfax, Louisa, Warren.

*Orussus sayii* (Westwood).

Essex

*Orussus terminalis* (Newman).

Clarke, Essex.

## CEPHIDAE

Larvae of *Cephus* and *Trachelus* are stem borers in grasses; those of *Hartigia* and *Janus* are stem or twig borers in their host plants. *Hartigia* was revised by Smith (1986b) and Smith & Solomon (1989) provided a key to species of *Janus*.

*Cephus pygmaeus* (Linnaeus).

European wheat stem sawfly. Clarke, Essex, Giles. Hosts: Cultivated grasses such as wheat and, to a lesser extent, barley and rye. *Bromus secalinus* L., *Hordeum vulgare* L., *Secale cereale* L., *Triticum aestivum* L.

*Hartigia bicincta* (Provancher).

Louisa.

*Hartigia trimaculata* (Say).

Arlington, Clarke, Essex, Fairfax, Loudoun, Louisa, Montgomery, Scott. Hosts: *Rosa*, *Rubus*.

*Janus abbreviatus* (Say). Willow shoot sawfly.

Clarke, Essex, Fairfax, Louisa. Hosts: *Populus*, *Salix*.

*Janus bimaculatus* (Norton).

Augusta, Clarke, Essex, Fairfax, Loudoun, Louisa. Host: *Viburnum*.

*Janus integer* (Norton). Currant stem girdler.

Augusta, Clarke, Essex, Fairfax, Loudoun, Louisa, Montgomery. Host: *Ribes*.

*Janus quercusae* Smith.

Essex, Louisa. Host: *Quercus*.

*Trachelus tabidus* (Fabricius). Black grain stem sawfly. Arlington, Fairfax, Fauquier, Mecklenburg, Montgomery, Rockingham. Introduced. Hosts: Cultivated grasses such as wheat, barley, rye, oats. No wild grass hosts known in North America. *Avena*, *Hordeum vulgare* L., *Secale cereale* L., *Triticum aestivum* L.

## POTENTIAL SPECIES

Following is a list of species for which I have not seen Virginia records but are likely to occur in the state. The list is undoubtedly incomplete and other species are likely to extend either south or north to Virginia.

## PAMPHILIIDAE

*Acantholyda angulata* (MacGillivray).  
Southeastern Canada south to North Carolina, Georgia.  
Host: *Pinus*.

*Acantholyda erythrocephala* (Linnaeus).  
Pine false webworm. Northeastern states to Pennsylvania.  
Hosts: Various *Pinus*.

*Acantholyda ruficeps* (Harrington).  
Quebec south to North Carolina. Host: *Pinus*.

*Acantholyda poepigii* (Brischke & Zaddach).  
Pennsylvania, North Carolina, Georgia.

*Pamphilius nigritibialis* Rohwer.  
Quebec to North Carolina.

## DIPRIONIDAE

*Neodiprion sertifer* (Geoffroy).  
European pine sawfly. Introduced. Known in the northeastern states south to Pennsylvania. Host: *Pinus*. I have not seen specimens from Virginia; identities of this species on certain websites reporting it from Virginia need confirmation.

## TENTHREDINIDAE

## Nematinae

*Caulocampus acericaulis* (MacGillivray).  
Maple petiole borer. Northeastern states south to Maryland, West Virginia. Host: *Acer*.

*Hemicroea crocea* (Geoffroy).  
Striped alder sawfly. This species has been taken in New York and Pennsylvania and in the mountains of North Carolina. Host: *Alnus*.

*Hoplocampa brevis* (Klug).  
Northeastern states south to Maryland. Host: *Pyrus*, larvae feed in developing fruit or pears.

*Hoplocampa testudinea* (Hartig).

European apple sawfly. Introduced. Northeastern states, and has been taken in Montgomery Co., Maryland (Smith, 2003). Host: *Malus*. Larvae feed in developing fruits.

*Pikonema dimmockii* (Cresson).

Greenheaded spruce sawfly. Known in the northeastern states and in the mountains of North Carolina.

*Pristiphora rufipes* (Serville).

Introduced. Northeastern states south to West Virginia. Host: *Aquilegia*. In previous literature as *Pristiphora aquilegiae* (Vollenhoven).

## Heterarthrinae

*Fenella nigrita* Westwood.

Northeastern states south to West Virginia. Hosts: *Agrimonia*, *Potentilla*. A leafminer.

*Fenusia dohrnii* (Tischbein).

European alder leafminer. Host: *Alnus*. Has been found as far south as Garrett Co., Maryland.

*Fenusia pusilla* (Lepeletier).

Birch leafminer. Host: *Betula*. Has been taken on ornamental birch in Silver Spring, Maryland.

## Blennocampinae

*Monophadnoides quebecensis* Smith.

Known from Quebec, West Virginia, and the mountains of North Carolina.

*Stethomostus fuliginosus* (Schrank).

Northeastern, south to Maryland. Host: *Ranunculus*.

## Allantinae

*Dimorphopteryx abnormis* Rohwer.

Occurs in nearby West Virginia.

Hosts: *Amelanchier*, *Crataegus*, *Prunus*, *Pyrus*.

## Tenthredininae

*Macrophyia propinqua* Harrington.

Northeastern; occurs in nearby West Virginia.

*Tenthredo appalachia* Goulet & Smith.

Recorded from nearby West Virginia.

*Tenthredo mellina* (Norton).

Recorded from Maryland.

*Tenthredo semirufa* Norton.  
New Hampshire south to North Carolina.

*Tenthredo subcoerulea* Eschscholtz.  
Quebec to Florida.

#### ACKNOWLEDGMENTS

My sincere thanks to the following: Mr. and Mrs. J. G. Kloke for allowing collecting on their properties in Lousia and Essex counties; Mike Bowers for allowing collecting at the University of Virginia Blandy Experimental Farm and State Arboretum of Virginia; Virginia Power for allowing collections on their property in Loudoun County; Terry Nuhn for allowing me to sort his trap collections from Warren County; Cathy Apgar and Tami Carlow for servicing traps and sorting collections from Loudoun County; M. Kosztarab for allowing examination of the collection at VPI&SU, Blacksburg; R. L. Hoffman, Virginia Museum of Natural History, Martinsville; and the following collections from which I have obtained some records: University of California, Davis; Colorado State University, Fort Collins; Ohio State University, Columbus, and West Virginia University, Morgantown. H. Goulet, Agriculture and Agri-Food Canada, Ottawa, provided information on the host of *Strongylogaster tacita*. I thank the following for review of the manuscript: N. M Schiff, U.S. Forest Service, Stoneville, MS, and R. A. Ochoa and T. J. Henry, Systematic Entomology Laboratory, USDA, Beltsville, MD, and Washington, DC, respectively.

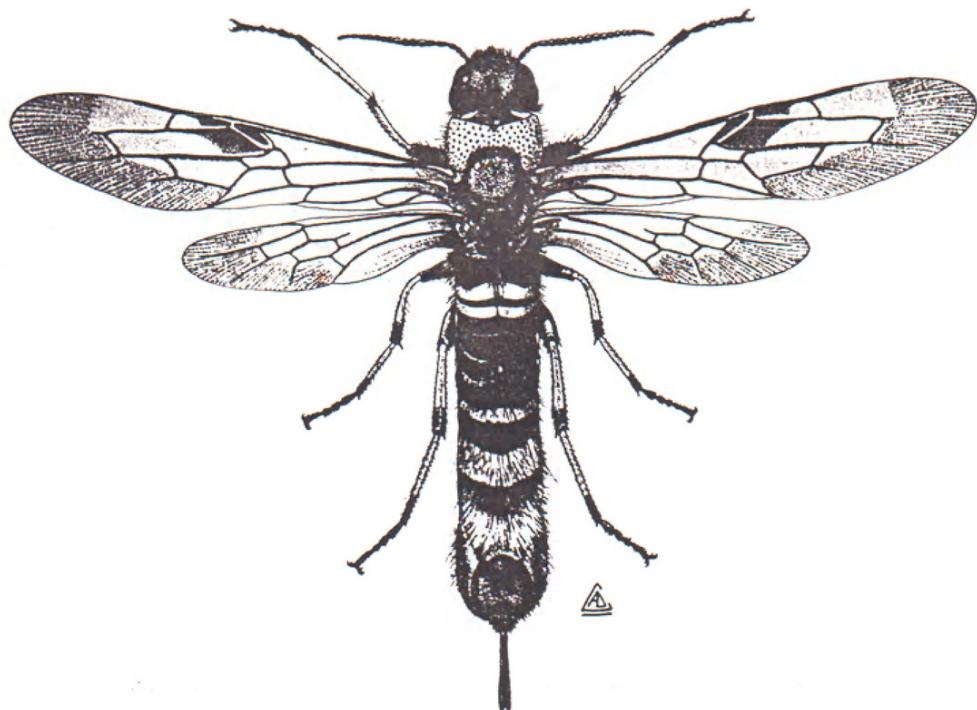
#### LITERATURE CITED

- Ahlstrom, K. R. 1995. Insects of North Carolina, Fourth Supplement. Part I: Hymenoptera. North Carolina Department of Agriculture, Plant Industry Division, Raleigh. 147 pp.
- Ashmead, W. H. 1890. On the Hymenoptera of Colorado: Descriptions of new species, notes, and a list of the species found in the state. Colorado Biological Association Bulletin No. 1. 46 pp.
- Bobb, M. L. 1963. Insect parasites of the Virginia pine sawfly, *Neodiprion pratti pratti*. Journal of Economic Entomology 56: 618-621.
- Bobb, M. L. 1965. Insect parasite and predator studies in a declining sawfly population. Journal of Economic Entomology 58: 925-926.
- Boyd, D., Jr. 2005. Beating the hibiscus sawfly. American Nurseryman, Feb. 15, 2005, pp. 22-25.
- Bradley, J. C. 1928. Tenthredinoidea. Pp. 870-895 In M. D. Leonard (ed.), A list of the insects of New York, with a list of spiders and certain other allied groups. Cornell University, Agriculture Experiment Station Memoir 101. 1,121 pp.
- Braud, R., D. R. Smith, J. S. Strazanac, & L. Butler. 2003. Diversity, abundance, and seasonality of adult and larval Symphyta (Hymenoptera) in the George Washington National Forest, Virginia, and the Monongahela National Forest, West Virginia. Proceedings of the Entomological Society of Washington 105: 756-768.
- Brimley, C. S. 1938. The Insects of North Carolina. North Carolina Department of Agriculture, Division of Entomology, Raleigh. 560 pp.
- Burdick, D. J. 1961. A taxonomic and biological study of the genus *Xyela* Dalman in North America. University of California Publications in Entomology 17: 285-356.
- Chapman, P. J., & G. E. Gould. 1929. Sweet potato sawfly. Virginia Truck Experiment Station Bulletin 68, pp. 769-786.
- Gibson, G. A. P. 1980. A revision of the genus *Macrophya* Dahlbom (Hymenoptera: Symphyta, Tenthredinidae) of North America. Memoirs of the Entomological Society of Canada, No. 114. 167 pp.
- Goulet, H. 1986. The genera and species of the Nearctic Dolerini (Symphyta: Tenthredinidae: Selandriinae): Classification and phylogeny. Memoirs of the Entomological Society of Canada, No. 135. 208 pp.
- Goulet, H. 1992. The genera and subgenera of sawflies of Canada and Alaska. The Insects and Arachnids of Canada. Part 20. Agriculture Canada Publications, Ottawa. 235 pp.
- Goulet, H. 1993. Superfamilies Cephoidea, Megalodontoidea, Orussoidea, Siricoidea, Tenthredinoidea, and Xyeloidea. Pp. 101-129 In H. Goulet & J. T. Huber (eds.), Hymenoptera of the World: An Identification Guide to Families. Research Branch, Agriculture Canada Publication 1894/E, Ottawa. 668 pp.

- Goulet, H., & D. R. Smith. 1995. Four new sawflies from eastern North America, three species of *Tenthredo* and one of *Dolerus* (Hymenoptera: Tenthredinidae). Proceedings of the Entomological Society of Washington 97: 50-62.
- Hetrick, L. A. 1941. Life history studies of *Neodiprion americanum* (Leach). Journal of Economic Entomology 34: 373-377.
- Hetrick, L. A. 1956. Life history studies of five species of *Neodiprion* sawflies. Forest Science 2: 181-185.
- Hetrick, L. A. 1959. Ecology of the pine sawfly, *Neodiprion excitans* (Rohwer) (Hymenoptera: Diprionidae). Florida Entomologist 42: 159-162.
- MacGillivray, A. D. 1910. Phytophaga. Pp. 580-595 In J. B. Smith (ed.), Insects of New Jersey. Annual Report of the New Jersey State Museum. Including a Report of the Insects of New Jersey, 1909. Trenton, NJ. 880 pp.
- MacGillivray, A. D. 1916. Tenthredinoidea. Pp. 25-175 In H. L. Viereck (ed.), Guide to the Insects of Connecticut, Part 3, The Hymenoptera, or Wasp-Like Insects of Connecticut. Connecticut Geological and Natural History Survey Bulletin 22.
- Middlekauff, W. W. 1958. The North American sawflies of the genera *Acantholyda*, *Cephalcia*, and *Neurotoma* (Hymenoptera: Pamphiliidae). University of California Publications in Entomology 14: 51-174.
- Middlekauff, W. W. 1964. The North American sawflies of the genus *Pamphilus* (Hymenoptera: Pamphiliidae). University of California Publications in Entomology 38: 1-80.
- Middlekauff, W. W. 1983. A revision of the sawfly family Orussidae for North and Central America (Hymenoptera: Symphyta, Orussidae). University of California Publications in Entomology 101: 1-46.
- Morris, C. L., W. J. Schroeder, & M. L. Bobb. 1963. A pine sawfly *Neodiprion pratti pratti* (Dyar) in Virginia. Virginia Division of Forestry, Department of Conservation and Economic Development. 42 pp.
- Ross, H. H. 1937. A generic classification of the Nearctic sawflies (Hymenoptera: Symphyta). Illinois Biological Monographs 15. 173 pp.
- Ross, H. H. 1943a. The Nearctic sawflies of the genus *Aglaostigma* (Hymenoptera). Proceedings of the Entomological Society of Washington 45: 79-84.
- Ross, H. H. 1943b. The North American species of the genus *Hoplocampa* (Hymenoptera: Tenthredinidae). Transactions of the American Entomological Society 69: 61-92.
- Ross, H. H. 1945. A taxonomic outline of the Nearctic species of *Pachynematus* (Tenthredinidae, Hymenoptera). Proceedings of the Entomological Society of Washington 47: 105-120.
- Ross, H. H. 1955. The taxonomy and evolution of the sawfly genus *Neodiprion*. Forest Science 1: 196-209.
- Smith, D. R. 1966. Recognition of the European apple sawfly and the pear sawfly (Hymenoptera: Tenthredinidae). Cooperative Economic Insect Report 16: 228-230.
- Smith, D. R. 1968. The genus *Caulocampus* Rohwer (Hymenoptera: Tenthredinidae). Proceedings of the Entomological Society of Washington 70: 126-129.
- Smith, D. R. 1969a. The genus *Craterocercus* Rohwer (Hymenoptera: Tenthredinidae). Proceedings of the Entomological Society of Washington 71: 153-161.
- Smith, D. R. 1969b. Nearctic sawflies I: Blennocampinae: Adults and larvae (Hymenoptera: Tenthredinidae). U.S. Department of Agriculture Technical Bulletin No. 1397. 176 pp., 19 pls.
- Smith, D. R. 1969c. Nearctic sawflies II: Selandriinae: Adults (Hymenoptera: Tenthredinidae). U.S. Department of Agriculture Technical Bulletin No. 1398. 48 pp., 10 pls.
- Smith, D. R. 1969d. Key to genera of Nearctic Argidae (Hymenoptera) with revisions of the genera *Atomacera* Say and *Sterictiphora* Billberg. Transactions of the American Entomological Society 95: 439-457.
- Smith, D. R. 1970. A new Nearctic *Xyela* causing galls on *Pinus* spp. (Hymenoptera: Xyelidae). Journal of the Georgia Entomological Society 5: 69-72.
- Smith, D. R. 1971a. Nearctic sawflies III: Heterarthrinae: Adults and larvae (Hymenoptera:

- Tenthredinidae). U.S. Department of Agriculture Technical Bulletin No. 1420. 84 pp., 18 pls.
- Smith, D. R. 1971b. Nearctic sawflies of the genera *Neoptilia* Ashmead, *Schizocerella* Forsius, *Aprosthemia* Konow, and *Sphacophilus* Provancher (Hymenoptera: Argidae). Transactions of the American Entomological Society 97: 537-594.
- Smith, D. R. 1972. Sawflies of the genus *Croesus* Leach in North America (Hymenoptera: Tenthredinidae). Proceedings of the Entomological Society of Washington 74: 169-180.
- Smith, D. R. 1974. Sawflies of the tribe Cladiini in North America (Hymenoptera: Tenthredinidae: Nematinae). Transactions of the American Entomological Society 100: 1-28.
- Smith, D. R. 1975a. A rose sawfly new to North America (Hymenoptera: Tenthredinidae). Cooperative Economic Insect Report 25: 163-165.
- Smith, D. R. 1975b. The sawfly genus *Hemichroa* Stephens: A review of species (Hymenoptera: Tenthredinidae). Entomologica Scandinavica 6: 297-302.
- Smith, D. R. 1976a. Sawflies of the tribe Pseudodineurini in North America (Hymenoptera: Tenthredinidae). Proceedings of the Entomological Society of Washington 78: 67-79.
- Smith, D. R. 1976b. The xiphydriid woodwasps of North America (Hymenoptera: Xiphydriidae). Transactions of the American Entomological Society 102: 101-131.
- Smith, D. R. 1979a. Symphyta. Pp. 1-137 In K. V. Krombein, P. D. Hurd, Jr., D. R. Smith, & B. D. Burks (eds.), Catalog of Hymenoptera in America North of Mexico, Vol. 1, Symphyta and Apocrita (Parasitica). Smithsonian Institution Press, Washington, DC. xvi + 1,198 pp.
- Smith, D. R. 1979b. Nearctic sawflies IV: Allantinae: Adults and larvae (Hymenoptera: Tenthredinidae). U.S. Department of Agriculture Technical Bulletin 1595. 172 pp., 24 pls.
- Smith, D. R. 1986a. Review of the sawfly genus *Lagium* (Hymenoptera: Tenthredinidae). Proceedings of the Entomological Society of Washington 88: 179-184.
- Smith, D. R. 1986b. The berry and rose stem-borers of the genus *Hartigia* in North America (Hymenoptera: Cephidae). Transactions of the American Entomological Society 112: 129-156.
- Smith, D. R. 1989. The sawfly genus *Arge* (Hymenoptera: Argidae) in the Western Hemisphere. Transactions of the American Entomological Society 115: 83-205.
- Smith, D. R. 1991. Flight records for twenty-eight species of *Macrophya* Dahlbom (Hymenoptera: Tenthredinidae) in Virginia, and an unusual specimen of *M. epinota* (Say). Proceedings of the Entomological Society of Washington 93: 772-775.
- Smith, D. R. 1994a. *Nepionema*, a nematine sawfly genus new to North America, and an unusual new species of *Nematus* (Hymenoptera: Tenthredinidae). Proceedings of the Entomological Society of Washington 96: 133-138.
- Smith, D. R. 1994b. The larva of *Lagium atroviolaceum* (Norton) (Hymenoptera: Tenthredinidae). Proceedings of the Entomological Society of Washington 96: 139-142.
- Smith, D. R. 1995. The elm leafminer, *Kaliofenusula ulmi* (Sundevall) (Hymenoptera: Tenthredinidae) in Virginia, and summary of host records. Banisteria 5: 39-41.
- Smith, D. R. 1996. Discovery and spread of the Asian horntail, *Eriotremex formosanus* (Matsumura) (Hymenoptera: Siricidae), in the United States. Journal of Entomological Science 31: 166-171.
- Smith, D. R. 2003. Expanding ranges for four species of invasive sawflies (Hymenoptera: Tenthredinidae) in eastern United States. Proceedings of the Entomological Society of Washington 105: 246-248.
- Smith, D. R., & E. M. Barrows. 1987. Sawflies (Hymenoptera: Symphyta) in urban environments in the Washington, D.C. area. Proceedings of the Entomological Society of Washington 89: 147-156.
- Smith, D. R., & N. M. Schiff. 1998. The genera *Macroxyela* Kirby and *Megaxyela* Ashmead (Hymenoptera: Xyelidae) in North America. Proceedings of the Entomological Society of Washington 100: 636-657.

- Smith, D. R., & N. M. Schiff. 2002. A review of the siricid woodwasps and their ibaliid parasitoids (Hymenoptera: Siricidae, Ibalidae) in the mid-Atlantic region. Proceedings of the Entomological Society of Washington 104: 174-194.
- Smith, D. R., & J. D. Solomon. 1989. A new *Janus* (Hymenoptera: Cephidae) from *Quercus*, and a key to North American species. Entomological News 100: 1-5.
- Stamp, N. E. 1984. Effect of defoliation by checkerspot caterpillars (*Euphydryas phaeton*) and sawfly larvae (*Macrophyia nigra* and *Tenthredo grandis*) on their host plants (*Chelone* spp.). Oecologia 63: 275-280.
- Strazanac, J.S., D. R. Smith, R. A. Braud, C. J. Fritzler, & L. Butler. 2003. Symphyta (Hymenoptera) species richness in mixed oak-pine forests in the central Appalachians. Proceedings of the Entomological Society of Washington 105: 131-137.
- Thomas, H. H., J. H. Ghent, & C. G. Stone. 1982. Use of pheromone traps as a new technique in a large-scale survey of the introduced pine sawfly (Hymenoptera: Diprionidae). Bulletin of the Entomological Society of America 28: 303-304.





BHL

# Biodiversity Heritage Library

Smith, David R. 2006. "List of the sawflies (Hymenoptera: Symphyta) of Virginia." *Banisteria : a journal devoted to the natural history of Virginia* 28, 3-23.

**View This Item Online:** <https://www.biodiversitylibrary.org/item/258356>

**Permalink:** <https://www.biodiversitylibrary.org/partpdf/298297>

**Holding Institution**

Virginia Natural History Society

**Sponsored by**

IMLS LG-70-15-0138-15

**Copyright & Reuse**

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Virginia Natural History Society

License: <http://creativecommons.org/licenses/by-nc-sa/4.0/>

Rights: <http://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.