

## Hemiptera: Bugs

Insects with sucking mouthparts, feeding on plants and/or animals.

### Heteroptera (terrestrial)

The majority are plant-feeders but some are predators and some are both. The only site in Fife that has been intensively studied is Tentsmuir Point with about 90 species (Campbell, J.K. 1980: The true bugs (Heteroptera) of Tentsmuir Point, Fife. Forth Naturalist and Historian 5; 72-85).

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### Acanthosomidae - shield bugs

*Acanthosoma haemorrhoidale*: Hawthorn shield bug; St Andrews, 1997, Newburn 2000; a recent colonist in Scotland.

*Elasmostethus interstinctus*: Birch shieldbug; widespread; on birch.

*Elasmucha grisea*: Parent bug; Tentsmuir [birch].

### Pentatomidae - shield bugs

Predators and herbivores

*Dolycoris baccarum*: Sloebug; widespread, mainly on *Prunus*.

*Piezodorus lituratus*: Gorse shieldbug; widespread on gorse; [feed on seeds].

*Pentatoma rufipes*: Forest bug; widespread on trees; [prey on caterpillars].

*Picromerus bidens*: Widespread; woodland.

*Rhacognathus punctatus*: Tentsmuir; [heaths, prey on heather beetles].

### Lygaeidae - ground bugs; mostly dull-coloured, seed-eating bugs

*Chilacis typhae*: Morton Lochs; on heads of reedmace, *Typha*.

*Drymus brunneus*: Widespread; woodland ground litter.

*Drymus sylvaticus*: Dumbarrie Links, Earlsferry, Lundin Links; amongst grass.

*Gastrodes grossipes*: Pine-cone bug; Tentsmuir; [pines].

*Kleidocerys resedae*: Dumbarrie Links.

*Kleidocerys ericae*: Tentsmuir; as *K.truncatulus*; [heaths].

*Nysius ericae*: Dumbarrie Links.

*Nysius thymi*: Tentsmuir; [grassland].

*Peritrechus lundii*: Earlsferry Muir.

*Scolopostethus affinis*: Widespread on coast; often on nettles.

*Scolopostethus decoratus*: Tentsmuir; [heathland].

*Scolopostethus thomsoni*: Dumbarrie Links, Tentsmuir; dune grassland.

*Stygnocoris fuliginosus*: local.

*Stygnocoris rusticus*: Tentsmuir; [dune grassland].

*Stygnocoris sabulosus*: Dumbarrie Links, Kincaig, Tentsmuir; including *S. pedestris*.

### Berytinidae

*Berytinus signoreti*: Kincaig; [legumes].

### Piesmididae

*Piesma quadratum*: Beet leaf bug; coastal, on orache and other Chenopodiaceae.

### Tingidae – lacebugs

*Acalypta carinata*: 'Fife', pre-1892, as *Orthosteira cervina*.

*Acalypta nigrina*: Tentsmuir; [moss].

*Acalypta parvula*: Coastal dunes.

*Derephysia foliacea*: Ivy lacebug; Tentsmuir, Dumbarrie Links.

*Tingis cardui*: Spear thistle lacebug; mainly coastal.

## Reduviidae

*Coranus subapterus*: Heath assassin bug; Tentsmuir [heaths].

## Nabidae

*Hemacerus major*: Grey damsel bug; Dumbarnie Links; formerly *Anaptis major*.

*Nabis ferus*: Field damsel bug; Tentsmuir [grassland predator].

*Nabis flavomarginatus*: Broad damsel bug; Cullaloe, Dumbarnie Links, Tentsmuir; [grass].

*Nabis limbatus*: Dumbarnie Links, Lielowan, Tentsmuir.

## Anthocoridae - flower bugs

*Acompcoris pygmaeus*: Ladybank, Newburn, Tentsmuir, on pine.

*Anthocoris confusus*: Kemback, Tentsmuir; [woods].

*Anthocoris nemoralis*: Widespread; on trees and shrubs.

*Anthocoris nemorum*: Common flower bug; widespread.

*Anthocoris sarothamni*: Broom flower bug; Tentsmuir [broom].

*Temnostethus gracilis*: Kinkell; [predator, on tree trunks].

## Cimicidae – bedbugs

*Cimex lectularius*: Bedbug; sucks human blood, local.

*Cimex pipistrelli*: Bat bug; W Fife, 2000; at roost of pipistrelles.

## Miridae - mirid or capsid bugs

The largest family of heteropteran bugs, on all kinds of vegetation.

*Adelphocoris lineolatus*: Dumbarnie Links, Largo dunes.

*Asciodema obsoleta*: Widespread; broom [and gorse].

*Atractotomus magnicornis*: Tentsmuir; [spruce].

*Blepharidopterus angulatus*: Black-kneed capsid; Tentsmuir; [trees, predator].

*Bothynotus pilosus*: Falkland, Tentsmuir; [conifers].

*Calocoris norvegicus*: Potato capsid; widespread.

*Calocoris roseomaculatus*: Fleecefaulds, Tentsmuir; [feed on flowers].

*Calocoris stysi*: Widespread.

*Camptozygum aequale*: Tentsmuir.

*Capsus ater*: Widespread; on grass.

*Chlamydatus wilkinsoni*: Dumbarnie Links.

*Conostethus brevis*: Tentsmuir; [saltmarsh].

*Dichrooscytus rufipennis*: Tentsmuir; [feed on pine].

*Dicyphus annulatus*: Dumbarnie Links, Tentsmuir, Elie; [restharrow].

*Dicyphus epilobii*: Dumbarnie Links, Letham; on *Epilobium hirsutum*.

*Dicyphus globulifer*: Dumbarnie Links, Kemback; [campions].

*Dicyphus stachydis*: Widespread; [hedge woundwort].

*Hallodapus rufescens*: Tentsmuir; [heaths].

*Harpocera thoracica*: Devilla; [on oak].

*Heterocordylus genistae*: Tentsmuir; [broom].

*Heterocordylus tibialis*: Elie, Kemback; [broom].

*Leptopterna dolabrata*: Widespread; [grass].

*Leptopterna ferrugata*: Widespread; [dry grassland].

*Liocoris tripustulatus*: Widespread; on nettles.

*Lygocoris contaminatus*: Widespread; birch.

*Lygocoris lucorum*: Culross, Lielowan.

*Lygocoris pabulinus*: Common green capsid; Kemback, Tentsmuir.

*Lygocoris viridis*: Tentsmuir; [trees].

*Lygus maritimus*: Dumbarnie Links, Tentsmuir.

*Lygus rugulipennis*: Cullaloe, Dumbarnie Links, Tentsmuir.

*Lygus wagneri*: Fleecefaulds, Tentsmuir.

*Macrolophus pygmaeus*: Elie; [hedge woundwort]; as *M.nubilis*.

*Mecomma ambulans*: Devilla, Elie, Lielowan.

*Monalocoris filicis*: Bracken bug; widespread; [ferns].

*Miris striatus*: Newburn, Tentsmuir; [on oak].  
*Orthops basalis*: 'Fife'; [umbels].  
*Orthops campestris*: Dumbarnie Links.  
*Orthotylus adenocarpus*: Tentsmuir; [broom].  
*Orthotylus ericitorum*: Tentsmuir; [feeds on heather].  
*Orthotylus flavisparsus*: Dumbarnie Links, Torryburn; on *Atriplex* and *Chenopodium* near tideline.  
*Orthotylus marginalis*: Dark green apple capsid; Elie, Kemback; [trees].  
*Orthotylus virescens*: Tentsmuir; [broom].  
*Orthotylus viridinervis*: Kemback; [wych elm].  
*Pachytomella parallela*: Widespread; [grassland].  
*Phoenicocoris obscurellus*: Tentsmuir.  
*Phylus melanocephalus*: Elie; [oak].  
*Phytocoris dimidiatus*: Newburn.  
*Phytocoris longipennis*: Dumbarnie Links.  
*Phytocoris tiliae*: Newburn, Tentsmuir; [deciduous trees].  
*Pinalitus cervinus*: Kemback, Tentsmuir; [trees]; as *Orthops cervinus*.  
*Pinalitus rubricatus*: Tentsmuir; [spruce]; as *Orthops rubricatus*.  
*Pithanus maerkeli*: Widespread; grassland.  
*Plagiognathus arbustorum*: Widespread on nettles etc.  
*Plagiognathus chrysanthemi*: Cullaloe, Dumbarnie Links, Tentsmuir; [open ground].  
*Lygocoris rugicollis*: Apple capsid; Tentsmuir; [willow etc.]; as *Plesiocoris rugicollis*.  
*Polymerus nigrita*: Dumbarnie Links, Kemback; [bedstraws].  
*Polymerus unifasciatus*: Tentsmuir; [bedstraws].  
*Psallus ambiguus*: Tentsmuir, Elie; [trees].  
*Psallus betuleti*: Tentsmuir; [birch].  
*Psallus confusus*: Kemback; (as *P. diminutus*).  
*Psallus haematodes*: Tentsmuir.  
*Psallus lepidus*: Kemback; [ash].  
*Psallus varians*: Elie, Kemback; [oak].  
*Stenodema calcarata*: Widespread; grass.  
*Stenodema holsata*: Widespread; amongst grass.  
*Stenodema laevigata*: Widespread; amongst grass.  
*Systellonotus triguttatus*: Tentsmuir; [associated with ants].  
*Trigonotylus psammaecolor*: Tentsmuir; [grass on dunes].  
*Trigonotylus ruficornis*: 1 of May, Tentsmuir; [grass].

### **Ceratocombidae**

Small bugs found on wet ground.

*Ceratocombus coleoptratus*: Widespread on coast; in dune slacks.

### **Saldidae - shore bugs**

Small bugs found in marshes, including salt-marshes.

*Chartoscirta cincta*: Lielowan, Tentsmuir; [marshes].  
*Chartoscirta elegantula*: Kincardine, 1900; ditch.  
*Saldula orthochila*: Carlingnose, Elie, Tentsmuir; dry grassland.  
*Saldula palustris*: Eden Estuary; [around HWM].  
*Saldula pilosella*: Cocklemill saltmarsh.  
*Saldula saltatoria*: Dumbarnie Links, Tentsmuir; [muddy water margins].

### **Heteroptera (aquatic) – Water bugs**

In a wide variety of fresh water habitats. Most of the following have been recorded since 1990. The annotations are based on the detailed accounts and maps by T.Huxley (2004): *The water bugs of Fife & Kinross (vice-county 85)*, published by FERN.

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### **Hydrometridae**

*Hydrometra stagnorum*: Water-measurer; Otterston Loch.

### **Veliidae – water crickets**

*Microvelia reticulata*: Widespread but sparse, in ponds with lots of emergent vegetation.

*Velia caprai*: Widespread, mostly in flowing water.

*Velia saulii*: Sparse in reservoirs, and in 2 burns in E Neuk.

### **Gerridae - pond-skaters**

*Gerris costai*: A few small moorland pools and ditches.

*Gerris lacustris*: Widespread; the commonest pond-skater.

*Gerris lateralis*: Local in central Fife.

*Gerris odontogaster*: Fairly common.

*Gerris thoracicus*: Widespread, usually in small still ponds.

### **Nepidae**

*Nepa cinerea*: Water scorpion. A very distinctive species recorded in only 5 sites in recent years.

### **Notonectidae – backswimmers**

*Notonecta glauca*: Common backswimmer. Widespread in weedy standing water.

### **Corixidae - Water boatmen**

*Arctocorisa germari*: Widespread but sparse.

*Callicorixa praeusta*: Widespread and common.

*Callicorixa wollastoni*: Cleish Hills and Moss Morran; older records from the Kemback area.

*Corixa dentipes*: Fairly widespread.

*Corixa panzeri*: In a pond on the Eden Golf Course, St Andrews.

*Corixa punctata*: Common in weedy ponds.

*Cymatia bonndorffi*: Widespread but sparse.

*Hesperocorixa castanea*: Only at Loch Glow (1948?).

*Hesperocorixa linnaei*: Occasional, weedy ponds.

*Hesperocorixa sahlbergi*: Widespread, weedy ponds

*Sigara concinna*: Widespread but patchy.

*Sigara distincta*: Widespread and common.

*Sigara dorsalis*: Widespread, in slow-flowing as well as standing water.

*Sigara falleni*: Widespread, mainly in still clear water.

*Sigara fossarum*: Widespread but sparse.

*Sigara lateralis*: Widespread, often in stagnant ponds.

*Sigara nigrolineata*: Widespread, mainly in small shallow ponds.

*Sigara scotti*: Very local in peaty lochs, especially in the Lomonds.

*Sigara semistriata*: Widespread but sparse.

*Sigara venusta*: Known only at Cleish Hills and near Tayport.

### **Homoptera**

All are sap-suckers. The following represent a small proportion of the species likely to be present; in particular little information is available on the many species of aphids that certainly occur.

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### **Cercopidae – froghoppers**

*Aphrophora alni*: Craighluscar, Lielowan; on trees.

*Neophilaenus exclamationis*: Dumbarnie Links, Glenduckie Hill.

*Neophilaenus lineatus*: Widespread; grassland.

*Philaenus spumarius*: Common spittle-bug; widespread.

## **Cicadellidae - leafhoppers**

Jumping bugs with long hind legs.

*Agallia consobrina*: Inchcolm, Inverkeithing, Leven; grass; including *A.punctipes*.

*Aphrodes albifrons*: Dumbarnie Links.

*Aphrodes bicinctus*: Widespread; grass.

*Aphrodes bifasciatus*: Benarty Hill.

*Aphrodes flavostriatus*: Dumbarnie Links.

*Aphrodes histrionicus*: Dumbarnie Links, Elie Ness.

*Arthaldeus pascuellus*: Cullaloe.

*Arocephalus punctum*: Tentsmuir.

*Balclutha punctata*: Cullaloe.

*Cicadella viridis*: Widespread, in wet grassland.

*Cicadula intermedia*: Barnyards Marsh, in sedge litter.

*Cicadula persimilis*: Cullaloe, Elie.

*Cicadula saturata*: Cullaloe, Elie, 1 of May.

*Dikraneura variata*: Widespread in grassland.

*Doratura stylata*: 'Fife'.

*Elymana sulphurella*: Cullaloe.

*Empoasca vitis*: Dumbarnie Links, hibernating on ivy.

*Eupelix cuspidata*: Falkland, Leven.

*Eupteryx aurata*: Keils Den, 1s of May; on herbs.

*Eupteryx stachydearum*: Tentsmuir.

*Eupteryx urticae*: Dumbarnie Links, Keils Den; on nettles.

*Eupteryx vittata*: Leven.

*Evacanthus interruptus*: Widespread in grassland.

*Fagocyba carri*: Colinsburgh; on oak.

*Hardya melanopsis*: Tentsmuir.

*Idiocerus confusus*: Craigluscar; on willows.

*Kybos betulicola*: Bankhead Moss; [on birch].

*Kybos smaragdala*: Keils Den; alder.

[*Macrosteles alpinus*: Dunfermline, in error.]

*Macrosteles viridigriseus*: Cullaloe.

*Macustus grisescens*: Widespread; dunes and inland grassland.

*Megophthalmus scanicus*: Cullaloe, Dumbarnie Links, Inchcolm; grass.

*Psammotettix sabulicola*: Dumbarnie Links, on dunes.

*Speudotettix subfuscus*: Cullaloe.

*Streptanus aemulans*: Cullaloe, Dumbarnie Links, Largo; dunes.

*Streptanus marginatus*: Culross Moor, Dumbarnie Links; grassland.

*Streptanus sordidus*: Cullaloe, Tentsmuir.

*Thamnotettix confinis*: Widespread.

*Ulopa reticulata*: Bankhead Moss, Townhill Muir; amongst heather.

## **Cixiidae**

*Cixius nervosus*: Widespread; grassland.

*Cixius similis*: Culross.

## **Delphacidae**

*Dicranotropis hamata*: Dumbarnie Links.

*Javesella discolor*: Culross; as *Delphacodes discolor*.

*Javesella pellucida*: Dumbarnie Links.

*Kelisia sabulicola*: Dumbarnie Links; St Andrew, as *K.ribauti* form *sabulicola*; dunes.

*Muirodelphax aubei*: Dumbarnie Links, on foredune.

*Stenocranus minutus*: Dumbarnie Links; dune grass; only known Scottish site.

## **Psyllidae - jumping plant-lice**

*Arytaina genistae*: Newburn, Tentsmuir; on broom.  
*Arytainilla spartiophila*: Newburn; on broom.  
*Livia juncorum*: Tentsmuir; on Juncus.  
*Psylla alni*: Tentsmuir; on alder.  
*Psylla hippophaes*: Tentsmuir; on sea buckthorn.  
*Psylla melanoneura*: Dumbarnie Links, Newburn; on hawthorn, hibernating on marram and pine.  
*Psylla peregrina*: Dumbarnie Links; on hawthorn.  
*Psylla pulchra*: Tentsmuir; on conifers.  
*Psyllopsis fraxini*: Newburn; galled leaves on ash.

### **Triozidae - jumping plant-lice**

*Trioza curvatinervis*: Tentsmuir.  
*Trioza salicivora*: Balmuto, pre-1876. [A rare species, on willow.]  
*Trioza urticae*: Widespread; on nettles.

### **Aleyrodidae - white-fly**

Common in greenhouses and conservatories; species not yet identified.

### **Eriococcidae - scale insects**

*Cryptococcus fagisuga*, Beech scale: Widespread; forms white, wooly flock on bark of beech.

### **Pseudococcidae - scale insects**

*Chnaurococcus subterraneus*: N Queensferry, 1906; in ants' nest; as *Ripersia subterraneus*.  
*Rhizoecus halophilus*: I of May, 1912; as *Ripersia halophila*.

### **Orthezidae**

*Arctorthezia cataphracta*: Lomonds, Tentsmuir.

### **Aphididae – aphids**

*Acyrtosyphon pisum*: St Andrews; on clover.  
*Amphorophora gei*: Balmerino; on *Geum rivale*.  
*Amphorophora rubi*: Commonest aphid on raspberries.  
*Aphis fabae*: Black bean aphid; on beans and many other plants.  
*Aphis idaei*: On raspberries.  
*Aphis nasturtii*: On potatoes.  
*Atheroides hirtellus*: Cameron reservoir; on *Deschampsia cespitosa*.  
*Aulacorthum solani*: on potatoes.  
*Brachycaudus helichrysi*: Newburn; causes leaf-curl on plum.  
*Brevicoryne brassicae*: Widespread on crucifers.  
*Drepanosiphum platanoides*: on sycamore.  
*Elatobium abietinum*: 'Fife'.  
*Hayhurstia atriplicis*: Dumbarnie Links, Elie; galls on leaves of *Atriplex* spp.  
*Hyalopterus pruni*: St Andrews; on cherries.  
*Idiopterus nephrolepidis*: Strathkinness; on fern in greenhouse.  
*Macrosiphum euphorbiae*: Widespread on potatoes.  
*Macrosiphum gei*: 'Fife'.  
*Macrosiphum hellebori*: St Andrews, on *Helleborus niger*.  
*Macrosiphum rosae*: The dominant aphid on cultivated roses.  
*Metopolophium albidum*: Balmerino, on grass.  
*Microlophium carnosum*: On nettles.  
*Myzus cerasi*: Dunfermline; on cherry.  
*Myzus persicae*: On brassicas and potatoes.  
*Rhopalosiphum oxyacanthae*: St Andrews; on apple.  
*Sitobion avenae*: On cereals.  
*Sitobion fragariae*: On brambles.

### **Pemphigidae - aphids**

*Eriosoma lanigerum*: Woolly aphid; on apple.

*Eriosoma ulmi*: Leaf-roll on elm.

*Forda formicaria*: 1 of May; in ants' nests; [on grass roots].

*Paracletus cimiciformis*: In nest of ant, *Lasius flavus*, N Queensferry, 1906.

*Pemphigus bursarius*: St Andrews (on roots of letuce), Tayport (galls on poplar).

*Tetranura ulmi*: on grass roots and in galls on elm leaves.

### **Adelgidae – aphids**

*Adelges abietis*: Green spruce aphid; widespread on conifers.

*Adelges cooleyi*: St Andrews; galls on spruce.

### **Lachnidae**

*Cinara piceae*: Tentsmuir.