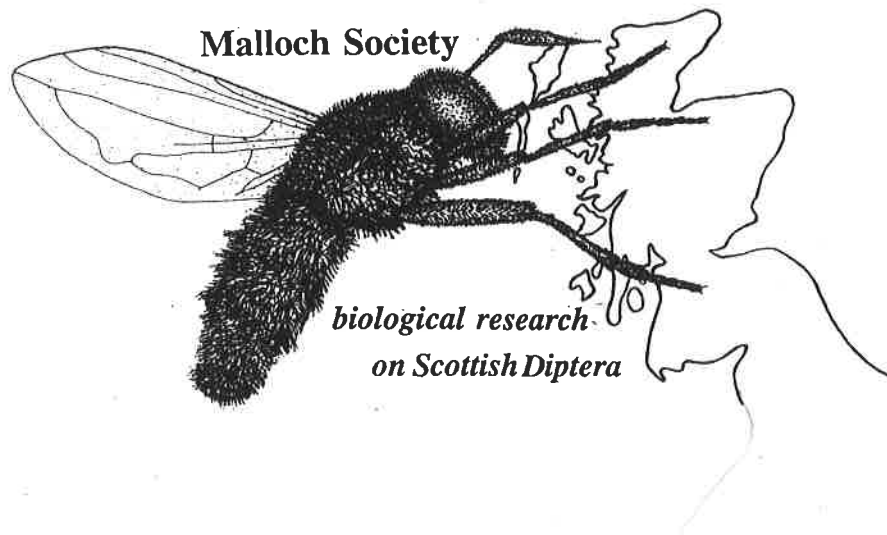


# **MALLOCH SOCIETY RESEARCH REPORT No 2**



## **Insects from Shingle Banks and Riverside Habitats in Strathspey**

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# **MALLOCH SOCIETY RESEARCH REPORT No 2**

## **Insects from Shingle Banks and Riverside Habitats in Strathspey**

by  
**Graham E Rotheray & David Robertson**

based on research carried out  
by members of the  
Malloch Society

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**Roy Crossley**

## **Introduction and background**

Over the past five years there has been an upsurge of concern in the Upper Strathspey area due to flooding. The environmental impact of proposed flood alleviation schemes is uncertain owing to the complex nature of the water course system at various points along the Spey, the Feshie Fan and the Insh Marshes (Dorin, 1992).

The area concerned is of high nature conservation interest. The River Spey and Insh Marshes SSSI was first notified in 1963 and the present Government acknowledges the site as a candidate for RAMSAR designation and also as a Special Protection Area under EC legislation (Dorin, 1992).

Entomologically the site is known to contain populations of 25 Red Data Book species and 55 notable species (Stubbs, 1991) making it the highest scoring SSSI in Britain.

## **Aims of the survey**

The aims of the Malloch Society survey were to build on the work already carried out on Diptera (flies) and Coleoptera (beetles) and summarised in Stubbs (1991). Specifically the aims were:

- (i) To determine where RDB species occur and what requirements they have.
- (ii) To assess microhabitats and their characteristic features in relation to their importance for beetles and flies.

## **Methods**

For poorly worked sites and for many insect groups, specialists working on the ground can often achieve more than a system of regular trapping. For this reason the chosen method of investigation was to put a team of specialists into the area over three long weekends (28-30 June 1991; 4-6 October 1991 and 8-10 May 1992). These weekends were selected to cover the main periods of abundance for insects emerging in the spring, summer and autumn.

The basic sampling techniques were sweep netting and hand-searching. Sweep-netting involves passing a large net rapidly over the surface of the substrate or through the vegetation. Hand-searching involves careful examination of habitat features such as plants, rocks, pools, sand bars etc and catching insects individually.

## **Results**

In all about 50 man-days were spent in the field. A total of 514 species (Diptera = 405, Coleoptera = 109) were collected from the following sites:

- Feshie Shingle (NH 8401, NH 8503, NH 8504) visited on 29.vi.91, 5.x.91 & 8-10.v.92;
- Newtonmore Golf Course (NN 7298) 29.vi.91 & 5.x.91;
- Insh Marshes (NH 7902, NH 8002) 30.vi.91 & 6.x.91;
- Kincaig (NH 8305) 30.vi.91;

- Nethy Bridge (NH 9922) 5.x.91 and
- Aviemore (NH 8911, NH 8912) 8-10.v.92.

The species collected are listed according to order and family along with the sites in which they were found. Of the total number of species sampled, sixty-nine are accorded RDB categories (Shirt, 1987; Falk, 1991; Hyman and Parsons 1992) and these categories are given in the species list. Our captures include several species which are only known from Scotland on the basis of less than ten records and several which are apparently confined to Strathspey. For example, only two captures exist of *Empis picipes* Meigen (Diptera, Empididae). Below is a species by species account of RDB Diptera found during the course of the survey. The compilation of these accounts is mainly from Falk (1991) supplemented heavily by our own mostly unpublished experiences. Except where stated, Coleoptera records are due to Richard Lyszkowski.

## **Diptera (flies)**

### **TIPULIDAE**

#### ***Triogma trisulcata* (Schummel)**

RDB status - RDB 3

Malloch Survey - Insh Marshes.

Previous records - southern Scotland & Perthshire; northern England and north Wales.

Not previously known from Strathspey. Our records extend the northern limit of this species. It breeds in boggy areas and in mountain streams.

#### ***Helius pallirostris* Edwards**

Notable

Malloch Survey - Insh Marshes

Previous records - widely distributed throughout Britain and known previously only from the Insh Marshes in Strathspey (Falk, *pers. comm.*)

A species characteristic of marshy areas, ditches and rivers. Larvae associated with emergent vegetation.

#### ***Dicranota guerina* Zetterstedt**

Notable

Malloch Survey - shingle at Aviemore

Previous records - a northern and western species in upland areas of Scotland and northern England as far south as Cheshire.

Apparently our records are the first in Strathspey and fairly eastern for this species. A species usually associated with streams and boggy areas in montane areas. May prefer well vegetated streamsides in lower altitude sites such as at Aviemore. Larvae aquatic in sand and gravel, probably predators of smaller invertebrates.

***Limnophila apicata* (Loew)**

Notable

Malloch Survey - shingle and grassland at Feshie Fan

Previous records - a northern and western species as far south as north Wales.

Apparently our records are the first for Strathspey. Associated with streams where larvae are thought to breed in the bottom sediment.

***Limnophila verralli* (Bergroth)**

Notable

Malloch Survey - Newtonmore

Previous records - a northern and western species. Known previously from Aviemore in Strathspey (Falk, *pers. comm.*).

This species seems to prefer shaded streamsides. The larvae are aquatic in sediment.

***Limnophila pulchella* (Meigen)**

Notable

Malloch Survey - Newtonmore

Previous records - mainly in Scotland and northern England with isolated records as far south as Dorset and Hampshire. Known from several sites along the Spey including Feshie Fan and Insh Marshes (Stubbs, 1991).

Can be found at high and low altitudes. It seems to prefer boggy areas with moss or peat.

***Limnophila abdominalis* Staeger**

Notable

Malloch Survey - Insh Marshes

Previous records - widely distributed in Britain. Known previously from the Insh Marshes and several other sites along the Spey and Feshie (Stubbs, 1991).

Usually a species of boggy areas and fens where the larvae are thought to breed in areas of wet decaying vegetation and peat.

***Rhabdomastix hilaris* Edwards**

RDB3

Malloch Survey - Feshie shingle and Newtonmore

Previous records - known mostly from the Central Highlands of Scotland. Also known from Wales and Sussex. In Strathspey it has been recorded from the Feshie Fan (Stubbs, 1991) and from Grantown (Falk, *pers. comm.*).

Seems to prefer sandy areas where the larvae probably develop.

***Rhabdomastix inclinata* Edwards**

RDB2

Malloch Survey - Feshie shingle

Previous records - only known from three sites, one each in Wales and Yorkshire and Glen Quoich in Aberdeenshire. Our records are apparently the first for Strathspey.

Biology unknown, may prefer shaded areas along riverside habitats.

**ASILIDAE**

***Rhadiurgus variabilis* (Zetterstedt)**

RDB3

Malloch Survey - Feshie shingle

Previous records - mostly from the Central Highlands of Scotland with isolated records as far south as Fife. Strathspey is a stronghold for the species, particularly Rothiemurchus.

Usually found on shingle banks, but also occurs in sandy areas of pine forests. Larvae are predators, probably in damp sandy soil.

**THEREVIDAE**

***Thereva inornata* Verrall**

RDB 3

Malloch Survey - Kingcraig

Previous records - a riverbank species known only from Scotland, especially along the Spey.

***Thereva lunulata* Zetterstedt**

RDB 3

Malloch Survey - Feshie Shingle and Newtonmore

Previous records - a riverside species known mostly from Scotland but also known from northern England and Wales.

## **HYBOTIDAE**

***Platypalpus difficilis* Frey**

Notable

Malloch Survey - Newtonmore

Previous records - Only known six times previously from Scotland including Rum.

***Platypalpus ecalceatus* (Zetterstedt)**

Notable

Malloch Survey - Aviemore

Previous records - a northern species confined to the Scottish Highlands with records extending from Rannoch in the south to Sutherland in the north. The eastern Highlands in particular would seem to be a stronghold for this species.

Often found as a characteristic part of the fauna within Caledonian pinewoods particularly favouring open situations with well drained soils.

***Platypalpus pallidicoxa* Frey**

RDB2

Malloch Survey - Newtonmore

Previous records - a northern species apparently confined to Scotland. The main centre of abundance would seem to be in Strathspey - Findhorn area but there is an old record from Beattock in Dumfriesshire.

***Oedelea zetterstedti* Collin**

Notable

Malloch Survey - Aviemore

Previous records - a widely distributed although uncommon species. There are some 16 Scottish records to date mostly from Perthshire northwards.

Biology unknown but there is evidence to suggest that this species is confined to areas of ancient woodland where the larvae probably develop in decaying wood.

**EMPIDIDAE**

***Rhamphomyia micropyga* Collin**

Notable

Malloch Survey - Aviemore

Previous records - Only two captures previously from Scotland, Rannoch in the 1870's and Aviemore.

***Rhamphomyia sulcatina* Collin**

Notable

Malloch Survey - Aviemore

Previous records - a northern species confined to the Scottish Highlands. At present only known from Strathspey although it has been searched for in apparently suitable habitats elsewhere. with less than 10 recent records it deserves raising to RDB2.

Larvae probably predators in woodland soils. Adults confined mainly to birchwoods where they feed in spring upon birch pollen.

***Rhamphomyia trigenina* Oldenberg**

RDB1

Malloch Survey - Insh Marshes

Previous records - a very rare species with apparently only 4 known British records, all from riverside habitats in Strathspey.



***Empis picipes* Meigen**

Notable

Malloch Survey - Aviemore

Previous records - Fairly widespread in England. Only taken once before in Scotland at Elgin. In England a species of dry grasslands and woodlands.

***Hilara abdominalis* Zetterstedt**

Notable

Malloch Survey - Feshie shingle

Previous records - a species which although widespread in the eastern Highlands is never very common. Usually associated with birchwoods.

***Hilara barbipes* Frey**

RDB3

Malloch Survey - Insh Marshes

Previous records - most records are from the Scottish Highlands from areas such as Strath Glas and Strathspey although there is a recent record from Perthshire. Seems to be associated with riverside habitats.

***Hilara germanica* Engel**

Notable

Malloch Survey - Feshie Shingle

Previous records - early records all from Strathspey but has been found more recently on the Isle of Rum and on the banks of the River Ness. Could be under-recorded in Scotland.

Biology - as with other members of the genus, the larvae are probably generalised predators in semi-aquatic situations.

***Hilara lugubris* (Zetterstedt)**

Notable

Malloch Survey - Feshie Shingle

Previous records - apparently not recorded previously from Scotland.

***Hilara woodi* Collin**

Notable

Malloch Survey - Newtonmore

Previous records - only record from Scotland is from Strathspey.

***Chelifera monostigma* (Meigen)**

Notable

Malloch Survey - Newtonmore

Previous records - known mainly from the Highlands.

***Wiedemannia phantasma* Mik**

RDB3

Malloch Survey - Nethie Bridge

Previous records - a species confined to highland rivers with notable populations on the Spey where it occurs from Newtonmore right down to Spey Bay. It may well occur in other large clean rivers in Scotland. Larvae probably predators in riverside sand and shingle.

**DOLICHOPIDIDAE**

***Dolichopus argyrotarsis* Wahlberg**

Notable

Malloch Survey - Feshie shingle

Previous records - although known in other parts of Britain it is most common in Scotland. There have been some 16 Scottish records ranging from Perthshire to Inverness-shire. It is a characteristic species of riverside vegetation along the banks of the larger rivers.

***Hydrophorus rufibarbis* Gerstaecker**

Notable

Malloch Survey - Nethy Bridge

Previous records - this species is widely distributed throughout much of the Scottish Highlands but is not recorded from elsewhere in Britain. Normally it is found above 600m but also occurs at lower altitudes in the Highlands. It is associated with wet habitats, most frequently, peaty pools (Horsfield and MacGowan, *pers. comm.*).

***Rhaphium gravipes* Haliday**

Notable

Malloch Survey - Feshie shingle

Previous records - one of the few dolichopodid species confined to Scotland. To date recorded from only 12 localities including recent records from the Lothians. It is associated with river shingle and is an early spring species.

***Rhaphium lanceolatum* Loew**

Notable

Malloch Survey - Newtonmore

Previous records - confined to the Highlands of Scotland where it is found along riverbanks.

***Campsicnemus marginatus* Loew**

Notable

Malloch Survey - Nethy Bridge

Previous records - known principally from N.E. Scotland.

This species may be underrecorded due to its restricted flight period of spring and autumn.

**SYRPHIDAE**

***Platycheirus immarginatus* (Zetterstedt)**

Notable

Malloch Survey - Insh Marshes

Previous records - widespread throughout Britain, particularly coastal marshes. Larva feeds on reed and sedge-associated aphids.

***Platycheirus perpallidus* Verrall**

Notable

Malloch Survey - Insh Marshes

Previous records - most records from Scotland and N.W. England. Larva feeds on reed and sedge-associated aphids.

***Platycheirus podagratus* (Zetterstedt)**

Notable

Malloch Survey - Insh Marshes

Previous records - most records from Scotland and N.W. England. Larva probably feeds on reed and sedge-associated aphids.

***Chrysogaster macquarti* Loew**

RDB3

Malloch Survey - Insh Marshes

Previous records - this species is more frequent in the north and Strathspey is a main centre of abundance. It is a species characteristic of boggy marshes and flushes. The larva is probably aquatic feeding among decaying vegetation in such sites.

***Microdon eggeri* Mik**

Notable

Malloch Survey - Feshie shingle

Previous records - a single larva of this species was found in a *Formica* ant nest in a well-decayed pine log washed down the Feshie and lying on the shingle. Many ant nests were present in such logs. This is a disjunctly distributed species known from the south of England and N.E. Scotland including the Black Rannoch of Rannoch.

**MICROPEZIDAE**

***Calobata stylifera* Loew**

RDB3

Malloch Survey - Newtonmore and Insh Marshes

Previous records - Known only from Strathspey.

**HELEOMYZIDAE**

~~***Suillia oxyphora* (Mik)**~~

A mis-identification, is a common species:

***Suillia fuscicornis* (Zetterstedt)**

~~RDB 2~~

Malloch Survey - Feshie Shingle

Previous records - known from scattered records in the Scottish Highlands.

***Neoleria propinqua* Collin**

Notable

Malloch Survey - Nethy Bridge

Previous records - not previously recorded from Scotland.

**SCIOMYZIDAE**

***Pelidnoptera nigripennis* (Fabricius)**

Notable

Malloch Survey - Feshie Shingle

Previous records - known mainly from Scotland with a few records widely scattered in England and Wales.

***Sciomyza simplex* Fallen**

Notable

Malloch Survey - Insh Marshes

Previous records - scattered records throughout Britain. Known previously from Strathspey. Adults associated with ponds and ditches.

***Renocera striata* (Meigen)**

Notable

Malloch Survey - Insh Marshes

Previous records - known mainly from N.E. Scotland and Cumbria in England. Associated with flushes in peaty areas.

**SCATHOPHAGIDAE**

***Cordilura atrata* Zetterstedt**

Notable

Malloch Survey - Insh Marshes

Previous records - known from a few sites in Scotland.

***Cordilura similis* Siebke**

RDB3

Malloch Survey - Insh Marshes

Previous records - known previously from Strathspey, not recorded elsewhere in Scotland.

***Microprosopa pallidicauda* (Zetterstedt)**

RDB3

Malloch Survey - Insh Marshes

Previous records - a few records from N.E. Scotland.

***Acanthocnema glaucescens* (Loew)**

Notable

Malloch Survey - Feshie shingle

Previous records - scattered records in Scotland.

***Gimnomera tarsea* (Fallén)**

Notable

Malloch Survey - Insh Marshes

Previous records - fairly widespread in Scotland.

**MUSCIDAE**

***Thricops albibasilis* (Zetterstedt)**

Notable

Malloch Survey - Feshie shingle

Previous records - known only from Scotland.

***Thricops innocuus* (Zetterstedt)**

Notable

Malloch Survey - Feshie shingle

Previous records - Known mainly from the Highlands of Scotland, rare in England.

***Phaonia falleni* Michelson**

Notable

Malloch Survey - Insh Marshes

Previous records - apparently a disjunctly distributed species, known from Strathspey then a gap until Cheshire southwards in England and Wales.

***Mydaea deserta* (Zetterstedt)**

Notable

Malloch Survey - Newtonmore

Previous records - widespread in the Highlands of Scotland and also known from Wales.

***Spilogona litorea* (Fallen)**

RDB3

Malloch Survey - Feshie shingle, Newtonmore, Kincraig

Previous records - Frequent in the Highlands of Scotland, rare elsewhere.

***Caricea spuria* (Zetterstedt)**

Notable

Malloch Survey - Feshie Shingle

Previous records - known from southern Scotland and western side of England and Wales.

**The significance of the Feshie Fan and Insh Marshes as wildlife habitats**

These are important habitats for wildlife from the number of RDB species occurring there alone. Many of these species are specialised to live only in association with the river and are not found away from it. Moreover it is not just the number of rare species that is important. It is what they represent. These rich assemblages of insects have a long history and were probably early pioneers of the Scottish landscape following the retreat of the ice sheet over 10,000 years ago. They are the tangible outcome of unique climatological, geographical and biological processes. The outcome of these processes have no known counterpart in biodiversity elsewhere. It is extremely unlikely that other river systems in Britain have resulted in such rich invertebrate communities or, possibly, elsewhere in northern Europe now that the Spey is one of the last remaining unaltered river systems.

Part of the reason why it is unlikely that these processes have a counterpart elsewhere is the particular nature of the Spey itself. On this river system more than any other is a huge diversity of microhabitats ranging from isolated pools of various sizes, types and depths, marshy areas, fens, bogs, sand banks, sand bars, dry to partially submerged shingle, braided beds of varying types and partially to fully vegetated areas. Within many of these microhabitats live specialised insects. What appears to be just a river with areas of bare stones and sand is, in fact, a highly complex mosaic of separate microhabitats.

The dynamic nature of the river changes continuously the distribution and abundance of these microhabitats but the sheer size of the area around the Feshie Fan and Insh Marshes always means that somewhere, each type continues to be represented. The danger is that human management of the river system will destroy or alter many of these microhabitats so that they, and their specialised wildlife, can no longer survive.

Many of the 500 or so species recorded over just three weekends by the Malloch Society do not, however, depend on the river or its microhabitats for breeding sites. The reason why they are found along the river is the shelter and food they find there. The wealth of vegetation and associated flowers attracts probably the insects in from the surrounding countryside. Along with the insects comes a wealth of other wildlife attracted for similar reasons, particularly birds. The river is therefore a very important "honeypot" for wildlife. However the attractiveness of the river varies along its length. The most valuable sites for conservation are those with the greatest diversity of microhabitats. The Feshie Fan and the Insh Marshes are particularly important in this respect.

The danger is that managing water flow in the Feshie Fan and Insh Marshes could degrade their associated habitats and destroy their ability to support the wildlife that use it for food and shelter. Only time will tell.

### **Acknowledgements**

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# Diptera and Coleoptera collected at Spey valley shingle and marsh sites 1983-1991

Site	Locality	Grid	Habitat
FS	Feshie Shingle	NH 8401 NH 8503 NH 8504	Shingle, grassland and scrub, open water
NE	Newtonmore (Golf course)	NN 7298	As above with riverside meadow
IM	Insh Marshes	NH 7902 NH 8002	Marsh with tall herbs, carr and open water
KI	Kincraig	NH 8305	Riverside meadow and rush pasture
NB	Nethy Bridge	NH 9922	Shingle, grassland and scrub, open water
AV	Aviemore	NH 8911 NH 8912	Shingle

	FS	NE	IM	KI	NB	AV	Status
<b>Diptera</b>							
<b>TIPULIDAE</b>							
<i>Prionocera turcica</i> (Fabricius)	.	.	X	.	.	.	
<i>Nephrotoma appendiculata</i> (Pierre)	X	.	.	.	.	.	
<i>Tipula pagana</i> Meigen	X	X	.	.	X	.	
<i>signata</i> Staeger	.	.	.	.	X	.	
<i>staegeri</i> Neilsen	.	.	X	.	.	.	
<i>unca</i> Wiedemann	.	X	X	.	.	.	
<i>lunata</i> Linnaeus	.	X	.	.	.	.	
<i>vernalis</i> Meigen	.	X	.	.	.	.	
<i>luteipennis</i> Meigen	X	.	X	.	.	.	
<i>montium</i> Egger	X	X	.	.	.	.	
<i>oleracea</i> Linnaeus	.	.	.	.	X	.	
<i>Triogma trisulcata</i> (Schummel)	.	.	X	.	.	.	RDB 3
<i>Limonia flavipes</i> (Fabricius)	X	.	.	.	.	.	
<i>macrostigma</i> (Schummel)	X	X	.	.	.	.	
<i>nubeculosa</i> Meigen	X	X	.	.	X	.	
<i>tripunctata</i> (Fabricius)	X	.	.	.	.	.	
<i>dumetorum</i> Meigen	.	X	.	.	.	.	
<i>autumnalis</i> Staeger	X	X	.	.	X	.	
<i>chorea</i> (Meigen)	X	.	.	.	X	.	
<i>modesta</i> (Meigen)	X	X	X	.	X	.	
<i>Helius longirostris</i> (Meigen)	.	.	X	.	.	.	
<i>pallirostris</i> Edwards	.	.	X	.	.	.	Notable
<i>Pedicia rivosa</i> (Linnaeus)	.	.	X	.	.	.	
<i>immaculata</i> (Meigen)	.	.	X	.	.	.	
<i>schummeli</i> (Edwards)	.	.	X	.	.	.	
<i>Dicranota guerini</i> Zetterstedt	.	.	.	.	.	X	Notable
<i>Limnophila apicata</i> (Loew)	X	.	.	.	.	.	Notable
<i>verralli</i> (Bergroth)	.	X	.	.	.	.	Notable
<i>pulchella</i> (Meigen)	.	X	.	.	.	.	Notable
<i>abdominalis</i> Staeger	.	.	X	.	.	.	Notable
<i>ferruginea</i> (Meigen)	X	X	.	.	.	.	
<i>fulvonervosa</i> (Schummel)	X	X	X	.	.	.	
<i>nemoralis</i> (Meigen)	.	.	.	.	.	.	
-f. <i>separata</i> (Walker)	X	.	.	.	.	.	
<i>Pilaria discicollis</i> (Meigen)	.	X	.	.	.	.	
<i>Hexatoma bicolor</i> (Meigen)	X	X	.	.	.	.	

	FS	NE	IM	KI	NB	AV	Status
TIPULIDAE - contd							
<i>Hexatoma fuscipennis</i> (Curtis)	.	X	X	.	.	.	
<i>Rhabdomastix parva</i> (Siebke)	X	X	.	.	X	.	
<i>hilaris</i> Edwards	X	X	.	.	.	.	RDB 3
<i>inclinata</i> Edwards	X	.	.	.	.	.	RDB 2
<i>Cheilotrichia imbuta</i> (Meigen)	.	.	X	.	.	.	
<i>cinerascens</i> (Meigen)	.	X	.	.	X	.	
<i>Erioptera diuturna</i> (Walker)	X	.	.	.	.	.	
<i>gemina</i> Tjeder	X	X	X	.	.	.	
<i>lutea</i> Meigen							
-f. <i>taeniota</i> Meigen	X	.	.	.	X	.	
<i>trivialis</i> Meigen	.	X	X	.	.	.	
<i>Ormosia pseudosimilis</i> (Lundstroem)	X	.	.	.	.	.	
<i>Molophilus appendiculatus</i> (Staeger)	X	.	.	.	.	.	
<i>griseus</i> (Meigen)	X	.	.	.	.	.	
PTYCHOPTERIDAE							
<i>Ptychoptera minuta</i> Tonnoir	.	.	X	.	.	.	
<i>scutellaris</i> Meigen	.	X	.	.	.	.	
DIXIDAE							
<i>Dixa puberula</i> Loew	X	.	.	.	.	.	
<i>Dixella aestivalis</i> Meigen	.	.	X	.	.	.	
ANISOPODIDAE							
<i>Sylvicola cinctus</i> (Fabricius)	.	X	.	.	.	.	
BIBIONIDAE							
<i>Bibio johannis</i> (Linnaeus)	X	.	.	.	.	.	
<i>lanigerus</i> Meigen	X	.	.	.	.	.	
<i>lepidus</i> Loew	X	.	X	.	X	.	
<i>nigriventris</i> Haliday	X	.	.	.	.	.	
STRATIOMYIDAE							
<i>Beris chalybeata</i> (Forster)	.	X	X	.	.	.	
<i>vallata</i> (Forster)	X	.	.	.	.	.	
<i>Microchrysa cyaneiventris</i> (Zetterstedt)	X	.	.	.	.	.	
RHAGIONIDAE							
<i>Symphoromyia crassicornis</i> (Panzer)	.	X	X	.	.	.	
TABANIDAE							
<i>Tabanus maculicornis</i> Zetterstedt	X	.	.	.	.	.	
ASILIDAE							
<i>Rhadiurgus variabilis</i> (Zetterstedt)	X	.	.	.	.	.	RDB 3
THEREVIDAE							
<i>Thereva annulata</i> Fabricius	.	X	.	.	.	.	
<i>inornata</i> Verrall	.	.	.	X	.	.	RDB 3
<i>lunulata</i> Zetterstedt	X	X	.	.	.	.	RDB 3
HYBOTIDAE							
<i>Tachydromia morio</i> (Zetterstedt)	.	X	.	.	.	.	
<i>Platypalpus agilis</i> (Meigen)	.	X	X	.	.	X	
<i>candicans</i> (Fallén)	.	.	X	.	.	.	
<i>cursitans</i> Fabricius	X	X	X	.	.	X	
<i>difficilis</i> Frey	.	X	.	.	.	.	Notable
<i>ecalceatus</i> (Zetterstedt)	.	.	.	.	.	X	Notable
<i>laticinctus</i> Walker	.	.	X	.	.	.	
<i>longicornis</i> (Meigen)	X	X	X	.	.	X	

	FS	NE	IM	KI	NB	AV	Status
HYBOTIDAE - contd							
<i>Platypalpus maculipes</i> (Meigen)	.	X	.	.	X	.	
<i>minutus</i> (Meigen)	X	.	.	.	.	.	
<i>notatus</i> (Meigen)	X	X	X	.	.	.	
<i>pallidicoxa</i> Frey	.	X	.	.	.	.	RDB 2
<i>pallidiventris</i> (Meigen)	.	X	.	.	.	.	
<i>verralli</i> (Collin)	.	X	X	.	.	.	
<i>Hybos culiciformis</i> (Fabricius)	X	.	.	.	.	.	
<i>grossipes</i> (Linnaeus)	X	.	.	.	.	.	
<i>Bicellaria intermedia</i> Lundbeck	X	.	.	.	.	.	
<i>nigra</i> (Meigen)	X	.	.	.	.	.	
<i>simplicipes</i> (Zetterstedt)	.	X	.	.	.	.	
<i>sulcata</i> (Zetterstedt)	X	.	.	.	.	.	
<i>vana</i> Collin	.	.	X	.	.	.	
<i>Ocydromia glabricula</i> (Fallén)	X	X	X	.	.	X	
<i>Trichinomyia flavipes</i> (Meigen)	X	.	.	.	.	.	
<i>Trichina clavipes</i> Meigen	.	X	.	.	.	.	
<i>elongata</i> Haliday	.	.	X	.	.	.	
<i>Oedalea zetterstedti</i> Collin	.	.	.	.	.	X	Notable
EMPIDIDAE							
<i>Rhamphomyia anomalipennis</i> Meigen	.	.	.	.	.	X	
<i>crassirostris</i> (Fallén)	X	X	X	.	.	X	
<i>dentipes</i> Zetterstedt	X	.	X	.	.	X	
<i>geniculata</i> Meigen	.	X	X	.	.	X	
<i>micropyga</i> Collin	.	.	.	.	.	X	Notable
<i>tarsata</i> Meigen	.	X	X	.	.	X	
<i>tibiella</i> Zetterstedt	.	X	X	.	.	X	
<i>spinipes</i> (Fallén)	X	X	X	.	X	.	
<i>stigmosa</i> Macquart	X	X	X	.	.	X	
<i>subcinerascens</i> Collin	.	.	X	.	.	.	
<i>sulcata</i> (Meigen)	.	.	.	.	.	X	
<i>sulcatina</i> Collin	.	.	.	.	.	X	Notable
<i>albohirta</i> Collin	X	.	.	.	.	X	
<i>culicina</i> (Fallén)	.	.	X	X	.	.	
<i>flava</i> (Fallén)	.	X	.	.	.	.	
<i>trigemina</i> Oldenberg	.	.	X	.	.	.	RDB 1
<i>umbripennis</i> Meigen	X	X	.	.	.	X	
<i>Empis aemula</i> Loew	.	.	X	.	.	.	
<i>digramma</i> Meigen	X	X	X	.	.	.	
<i>trigramma</i> Meigen	.	X	X	.	.	X	
<i>lucidus</i> Zetterstedt	.	.	.	.	.	X	
<i>verralli</i> Collin	.	.	X	.	.	.	
<i>picipes</i> Meigen	.	.	.	.	.	X	Notable
<i>punctata</i> Meigen	.	X	X	X	.	.	
<i>stercorea</i> Linnaeus	.	X	.	.	.	.	
<i>tessellata</i> Fabricius	X	.	.	.	.	X	
<i>chioptera</i> Meigen	X	X	.	.	.	X	
<i>nigripes</i> Fabricius	.	X	.	.	.	X	
<i>Hilara abdominalis</i> Zetterstedt	X	.	.	.	.	.	Notable
<i>barbipes</i> Frey	.	.	X	.	.	.	RDB 3
<i>bistriata</i> Zetterstedt	X	X	X	.	.	X	
<i>brevistyla</i> Collin	.	.	.	.	.	X	
<i>canescens</i> Zetterstedt	X	X	.	X	.	.	
<i>chorica</i> (Fallén)	X	X	X	X	.	.	
<i>clavipes</i> (Harris)	.	X	X	.	.	.	
<i>germanica</i> Engel	X	.	.	.	.	.	Notable
<i>intermedia</i> (Fallén)	X	.	X	.	.	.	
<i>interstincta</i> Fallén	X	.	X	X	.	X	
<i>litorea</i> (Fallén)	.	X	.	.	.	.	
<i>lugubris</i> (Zetterstedt)	X	.	.	.	.	.	Notable

	FS	NE	IM	KI	NB	AV	Status
EMPIDIDAE - contd							
<i>Hilara maura</i> (Fabricius)	X	X	X	.	.	X	
<i>monedula</i> Collin	.	.	X	.	.	.	
<i>nitidula</i> Zetterstedt	.	.	.	.	.	X	
<i>quadrivittata</i> Meigen	.	X	X	.	.	.	
<i>woodi</i> Collin	.	X	.	.	.	.	Notable
<i>Chelifera monostigma</i> (Meigen)	.	X	.	.	.	.	Notable
<i>precatoria</i> (Fallén)	X	X	X	.	X	.	
<i>Dolichocephala guttata</i> (Haliday)	.	X	.	.	.	X	
<i>Trichopeza longicornis</i> (Meigen)	X	.	.	.	.	.	
<i>Clinocera fontinalis</i> (Haliday)	X	X	.	.	X	.	
<i>stagnalis</i> (Haliday)	X	X	.	.	X	.	
<i>Wiedemannia bistigma</i> (Curtis)	X	.	.	.	X	.	
<i>rhynchops</i> (Nowicki)	X	X	.	.	.	X	
<i>phantasma</i> Mik	.	.	.	.	X	.	RDB 3
DOLICHOPODIDAE							
<i>Dolichopus argyrotarsis</i> Wahlberg	X	.	.	.	.	.	Notable
<i>discifer</i> Stannius	.	X	.	.	.	.	
<i>lepidus</i> Staeger	.	.	X	.	.	.	
<i>longicornis</i> Stannius	.	X	.	.	.	.	
<i>pennatus</i> Meigen	.	X	.	.	.	.	
<i>plumipes</i> (Scopoli)	X	X	.	X	.	.	
<i>popularis</i> Wiedemann	.	X	X	.	.	.	
<i>simplex</i> Meigen	.	X	.	.	.	.	
<i>subpennatus</i> Fonseca	X	X	.	.	.	.	
<i>ungulatus</i> (Linnaeus)	.	X	X	.	.	.	
<i>Hercostomus aerosus</i> (Fallén)	X	X	X	.	.	.	
<i>brevicornis</i> (Staeger)	X	.	X	.	.	.	
<i>celer</i> (Meigen)	.	X	.	.	.	.	
<i>cupreus</i> (Fallén)	.	X	.	.	.	.	
<i>Hydrophorus bipunctatus</i> (Lehmann)	.	.	.	.	X	.	
<i>litoreus</i> Fallén	.	.	.	.	X	.	
<i>rufibarbis</i> Gerstaecker	.	.	.	.	X	.	Notable
<i>Rhaphium crassipes</i> (Meigen)	X	.	.	.	.	X	
<i>elegantulum</i> Meigen	.	.	.	X	.	.	
<i>gravipes</i> Haliday	X	.	.	.	.	.	Notable
<i>lanceolatum</i> Loew	.	X	.	.	.	.	Notable
<i>monotrichum</i> Loew	.	.	X	.	.	.	
<i>riparium</i> (Meigen)	X	X	.	.	.	.	
<i>Syntormon tarsatus</i> (Fallén)	.	X	.	.	.	.	
<i>Chrysotus pulchellus</i> Kowarz	X	X	.	.	.	.	
<i>Campsicnemus curvipes</i> (Fallén)	X	.	.	.	X	.	
<i>loripes</i> (Haliday)	.	X	.	.	.	.	
<i>marginatus</i> Loew	.	.	.	.	X	.	Notable
<i>scambus</i> (Fallén)	X	.	X	.	X	.	
<i>Sympycnus aneicoxa</i> Meigen	.	.	X	.	.	.	
<i>desoutteri</i> Parent	.	X	X	.	.	.	
<i>Xanthochlorus ornatus</i> (Haliday)	.	.	X	.	.	.	
SYRPHIDAE							
<i>Melanostoma mellinum</i> (Linnaeus)	X	X	X	.	X	.	
<i>scalare</i> (Fabricius)	X	.	X	X	.	.	
<i>Platycheirus angustatus</i> (Zetterstedt)	X	X	.	.	.	.	
<i>clypeatus</i> (Meigen)	X	X	X	.	.	.	
<i>cyaneus</i> (Müller)	X	.	X	X	.	.	
<i>fulviventris</i> (Macquart)	.	.	X	.	.	.	
<i>immarginatus</i> (Zetterstedt)	.	.	X	.	.	.	Notable
<i>manicatus</i> (Meigen)	.	X	.	.	.	.	
<i>nielsenii</i> Vockeroth	X	X	X	.	.	.	
<i>peltatus</i> (Meigen)	.	.	X	.	.	.	

	FS	NE	IM	KI	NB	AV	Status
SYRPHIDAE - contd							
<i>Platycheirus perpallidus</i> Verrall	.	.	X	.	.	.	Notable
<i>podagratus</i> (Zetterstedt)	.	X	X	.	.	.	Notable
<i>scambus</i> (Staeger)	X	X	X	X	.	.	
<i>tarsalis</i> (Schummel)	.	X	.	.	.	.	
<i>granditarsa</i> (Forster)	.	.	X	.	.	.	
<i>Chrysotoxum arcuatum</i> (Linnaeus)	X	.	.	.	.	.	
<i>Dasysyrphus lunulatus</i> (Meigen)	X	.	.	.	.	.	
<i>tricinctus</i> (Fallén)	X	.	X	.	.	.	
<i>venustus</i> (Meigen)	X	.	.	.	.	.	
<i>Episyrphus balteatus</i> (Degeer)	X	.	X	.	.	.	
<i>Eupeodes corollae</i> (Fabricius)	.	.	X	.	.	.	
<i>luniger</i> (Meigen)	.	X	.	.	.	.	
<i>Melangyna arctica</i> (Zetterstedt)	.	X	X	.	.	.	
<i>compositarum</i> (Verrall)	X	.	X	.	.	.	
<i>lasiophthalma</i> (Zetterstedt)	X	.	.	.	.	.	
<i>Meliscaeva cinctella</i> (Zetterstedt)	X	.	.	.	.	.	
<i>Parasyrphus vittiger</i> (Zetterstedt)	X	.	.	.	.	.	
<i>Scaeva pyrastris</i> (Linnaeus)	.	.	X	.	.	.	
<i>selenitica</i> (Meigen)	.	X	.	.	.	.	
<i>Sphaerophoria fatarum</i> Goeldlin de Tiefenau	.	X	.	.	.	.	
<i>menthastris</i> (Linnaeus)	X	X	X	.	.	.	
<i>Syrphus ribesii</i> (Linnaeus)	.	X	X	.	.	.	
<i>Cheilosia albitarsis</i> Meigen	.	.	X	.	.	.	
<i>antiqua</i> Meigen	.	X	X	.	.	.	
<i>berganstammi</i> Becker	.	.	X	.	.	.	
<i>longula</i> (Zetterstedt)	X	.	X	.	.	.	
<i>nasutula</i> Becker	X	X	.	.	.	.	
<i>Chrysogaster hirtella</i> Loew	X	X	.	.	.	.	
<i>macquarti</i> Loew	.	.	X	.	.	.	Notable
<i>virescens</i> Loew	X	.	X	.	.	.	
<i>Neoascia meticulosa</i> (Scopoli)	.	.	X	.	.	.	
<i>podagrica</i> (Fabricius)	.	.	X	.	.	.	
<i>tenur</i> (Harris)	.	.	X	.	.	.	
<i>Sphegina clunipes</i> (Harris)	X	.	.	.	.	.	
<i>Anasimyia lineata</i> (Fabricius)	.	.	X	.	.	.	
<i>Eristalis arbustorum</i> (Linnaeus)	.	.	X	.	.	.	
<i>pertinax</i> (Scopoli)	.	X	X	.	.	.	
<i>tenax</i> (Linnaeus)	.	X	X	.	.	.	
<i>Helophilus pendulus</i> (Linnaeus)	.	.	X	.	.	.	
<i>Sericomyia silentis</i> (Harris)	.	X	X	.	.	.	
<i>Syritta pipiens</i> (Linnaeus)	.	X	X	.	.	.	
<i>Xylota segnis</i> (Linnaeus)	.	X	.	.	.	.	
<i>Microdon eggeri</i> Mik	X	.	.	.	.	.	Notable
OTITIDAE							
<i>Herina frondescantiae</i> (Linnaeus)	.	.	X	.	.	.	
MICROPEZIDAE							
<i>Micropeza corrigiolata</i> (Linnaeus)	X	.	.	.	.	.	
<i>Calobata cibaria</i> (Linnaeus)	X	X	.	.	.	.	
<i>commutata</i> (Czerny)	.	.	X	.	.	.	
<i>petronella</i> (Linnaeus)	X	.	.	.	.	.	
<i>stylifera</i> Loew	.	X	X	.	.	.	RDB 3
PSILIDAE							
<i>Loxocera ichneumonea</i> (Linnaeus)	.	X	.	.	.	.	
DRYOMYZIDAE							
<i>Dryomyza analis</i> Fallén	.	.	.	.	X	.	
<i>flaveola</i> (Fabricius)	.	X	.	.	.	.	

	FS	NE	IM	KI	NB	AV	Status
<b>HELEOMYZIDAE</b>							
<i>Suillia bicolor</i> (Zetterstedt)	X	X	.	.	.	.	
<i>collini</i> Hackman	X	.	X	.	.	.	
<i>flavifrons</i> (Zetterstedt)	X	.	X	.	.	.	
<i>fuscicornis</i> (Zetterstedt)	X	.	.	.	.	.	
<i>Neoleria inscripta</i> (Meigen)	.	.	X	.	X	.	
<i>Neoleria propinqua</i> Collin	.	.	.	.	X	.	Notable
<b>SEPSIDAE</b>							
<i>Themira lucida</i> (Staeger)	.	.	.	.	.	X	
<i>Sepsis fulgens</i> Meigen	.	.	X	.	.	.	
<b>SCIOMYZIDAE</b>							
<i>Pelidnoptera nigripennis</i> (Fabricius)	X	.	.	.	.	.	Notable
<i>Pherbellia schoenherri</i> (Fallen)	X	.	X	.	.	.	
<i>ventralis</i> (Fallen)	X	.	.	.	.	.	
<i>Sciomyza simplex</i> Fallén	.	.	X	.	.	.	Notable
<i>Elgiva cucularia</i> (Linnaeus)	X	.	X	.	.	.	
<i>Hydromya dorsalis</i> (Fabricius)	.	.	X	.	.	.	
<i>Ilione albiseta</i> (Scopoli)	.	.	.	X	.	.	
<i>lineata</i> (Fallén)	.	.	X	.	.	.	
<i>Limnia paludicola</i> Elberg	.	.	X	.	.	.	
<i>Pherbina coryleti</i> (Scopoli)	.	X	X	.	.	.	
<i>Renocera pallida</i> (Fallén)	.	.	X	.	.	.	
<i>striata</i> (Meigen)	.	.	X	.	.	.	Notable
<i>Sepedon sphegea</i> (Fabricius)	.	.	X	.	.	.	
<i>Tetanocera arrogans</i> Meigen	.	.	X	.	.	.	
<i>elata</i> Fabricius)	.	X	.	X	.	.	
<i>ferruginea</i> Fallén	.	X	X	.	.	.	
<i>fuscinervis</i> (Zetterstedt)	.	.	X	.	.	.	
<i>robusta</i> Loew	.	.	X	.	.	.	
<i>silvatica</i> Meigen	.	.	X	.	.	.	
<b>LONCHAEIDAE</b>							
<i>Lonchaea flavipennis</i> Zetterstedt	.	X	.	.	.	.	
<b>EPHYDRIDAE</b>							
<i>Ochthera mantis</i> (De Geer)	.	.	X	.	.	.	
<b>RHINOPHORIDAE</b>							
<i>Melanomya nana</i> (Meigen)	X	.	.	.	.	.	
<b>CALLIPHORIDAE</b>							
<i>Calliphora vicina</i> Robineau-Desvoidy	.	X	X	.	.	.	
<i>Cynomya mortuorum</i> (Linnaeus)	.	X	X	.	.	.	
<i>Pollenia intermedia</i> Macquart	.	X	.	.	.	.	
<b>SCATHOPHAGIDAE</b>							
<i>Norellisoma liturata</i> (Wiedemann)	.	.	X	.	.	.	
<i>Cordilura atrata</i> Zetterstedt	X	.	X	.	.	.	Notable
<i>pubera</i> (Linnaeus)	.	.	X	.	.	.	
<i>similis</i> Siebke	.	.	X	.	.	.	RDB 3
<i>Cordilurina albipes</i> (Fallén)	.	.	X	.	.	.	
<i>Nanna fasciata</i> (Meigen)	X	.	.	.	.	.	
<i>Pogonata barbata</i> (Zetterstedt)	.	.	X	.	.	.	
<i>Microprosopa pallidicauda</i> (Zetterstedt)	.	.	X	.	.	.	RDB 3
<i>Acanthocnema glaucescens</i> (Loew)	X	.	.	.	.	.	Notable
<i>Spaziphora hydromyzina</i> (Fallén)	.	.	X	.	.	.	
<i>Chaetosa punctipes</i> (Meigen)	.	.	X	.	.	.	
<i>Scathophaga furcata</i> (Say)	.	X	X	.	.	.	
<i>inquinata</i> Meigen	.	.	X	.	.	.	

	FS	NE	IM	KI	NB	AV	Status	
SCATHOPHAGIDAE - contd								
<i>Scathophaga stercoraria</i> (Linnaeus)	X	X	X	X	.	.	Notable	
<i>suilla</i> (Fabricius)	X	X	X	.	.	.		
<i>taeniopa</i> (Rondani)	X	.	.	.	.	.		
<i>Gimnomera tarsea</i> (Fallén)	.	.	X	.	.	.		
<i>Leptopa filiiformis</i> Zetterstedt	.	.	X	.	.	.		
ANTHOMYIIDAE								
<i>Chirosia betuleti</i> Ringdahl	.	.	X	.	.	.	Notable	
<i>Myopina myopina</i> (Fallén)	X	.	.	.	.	X		
<i>Pegohylemia brunneilinea</i> (Zetterstedt)	.	X	.	.	.	.		
<i>fugax</i> (Meigen)	.	.	X	.	.	.		
<i>hucketti</i> (Ringdahl)	.	.	X	.	.	.		
<i>humeralis</i> Hennig	X	.	.	.	.	.		
<i>lineatula</i> (Karl)	.	X	.	.	.	.		
<i>obscura</i> (Zetterstedt)	.	X	X	.	.	.		
<i>profuga</i> (Stein)	.	X	.	.	.	.		
<i>silvatica</i> (Robineau-Desvoidy)	X	X	.	.	.	.		
<i>Paraprosalpia billbergi</i> (Zetterstedt)	X	.	.	.	.	.		
<i>conifrons</i> (Zetterstedt)	.	.	.	.	.	X		
<i>longiceps</i> (Ringdahl)	X	.	.	.	.	X		
<i>Hydrophoria ambigua</i> (Fallén)	X	.	X	X	.	.		
<i>caudata</i> (Zetterstedt)	X	.	X	.	.	.		
<i>conica</i> (Wiedemann)	.	X	X	.	.	.		
<i>linogrisea</i> (Meigen)	.	.	X	.	.	.		
<i>nuda</i> (Schnabl and Dziedziecki)	.	.	X	.	.	.		
<i>Craspedochaeta pullula</i> (Stein)	.	X	.	.	.	.		
<i>Phorbia sepia</i> (Meigen)	X	.	.	.	.	.		
<i>Delia cardui</i> (Meigen)	.	X	.	.	.	.		
<i>flabellifera</i> (Pandelle)	.	X	X	.	.	.		
<i>florilega</i> (Zetterstedt)	.	.	.	.	.	X		
<i>frontella</i> (Zetterstedt)								
-v. <i>exigua</i> (Meade)	X	.	.	.	.	.		
<i>lamelliseta</i> (Stein)	.	.	X	X	.	.		
<i>Subhylemia longula</i> (Fallén)	X	.	.	.	.	.		
<i>Hylemia partita</i> (Meigen)	.	.	X	.	.	.		
<i>strenua</i> Robineau-Desvoidy	X	.	.	.	.	.		
<i>variata</i> (Fallén)	X	X	X	X	X	.		
<i>Heterostylodes nominabilis</i> (Collin)	.	X	.	.	.	.		
<i>Nupedia aestiva</i> (Meigen)	X	X	X	X	.	.		
<i>infirmus</i> (Meigen)	X	X	X	.	.	.		
<i>Pseudonupedia intersecta</i> (Meigen)	X	X	.	.	.	.		
<i>Pegomya haemorrhoea</i> (Zetterstedt)	X	.	X	.	.	.		
<i>nigritarsis</i> (Zetterstedt)	.	.	X	.	.	.		
FANNIIDAE								
<i>Fannia armata</i> (Meigen)	X	X	.	.	.	.	Notable	
<i>fuscata</i> (Fallén)	.	X	.	.	.	.		
<i>mollissima</i> (Haliday)	.	.	X	.	.	.		
<i>parva</i> (Stein)	X	.	.	.	.	.		
<i>postica</i> (Stein)	X	.	.	.	.	.		
<i>rondanii</i> (Strobl)	.	X	.	.	.	.		
<i>serena</i> (Fallén)	X	X	X	X	.	.		
<i>similis</i> (Stein)	.	X	.	.	.	.		
MUSCIDAE								
<i>Mesembrina meridiana</i> (Linnaeus)	.	.	X	.	.	.		Notable
<i>Azelia aterrima</i> (Meigen)	.	.	X	.	.	.		
<i>cilipes</i> (Haliday)	.	X	.	.	.	.		
<i>nebulosa</i> Robineau-Desvoidy	X	X	.	.	X	.		
<i>Thricops albibasilis</i> (Zetterstedt)	X	.	.	.	.	.		



	FS	NE	IM	KI	NB	AV	Status
MUSCIDAE - contd							
<i>Thricops cunctans</i> (Meigen)	X	X	X	.	.	.	Notable
<i>diaphanus</i> (Wiedemann)	.	X	.	.	.	.	
<i>innocuus</i> (Zetterstedt)	X	.	.	.	.	.	
<i>longipes</i> (Zetterstedt)	.	X	X	.	.	.	
<i>nigrifrons</i> (Robineau-Desvoidy)	.	X	X	.	.	.	
<i>semicinerea</i> (Wiedemann)	X	.	.	.	.	.	
<i>sudeticus</i> (Schnabl)	X	.	.	.	.	.	
<i>Hydrotaea armipes</i> (Fallén)	.	.	.	.	X	.	Notable
<i>dentipes</i> (Fabricius)	X	X	X	.	.	.	
<i>irritans</i> (Fallén)	X	X	X	.	.	.	
<i>palaestrica</i> (Meigen)	.	.	.	X	.	.	
<i>similis</i> Meade	.	.	X	.	.	.	
<i>Drymeia hamata</i> (Fallén)	.	.	X	.	.	.	
<i>Polietes lardaria</i> (Fabricius)	.	X	.	.	.	.	
<i>Neomyia cornicina</i> (Fabricius)	X	.	.	.	.	.	Notable
<i>Morellia hortorum</i> (Fallén)	.	X	.	.	.	.	
<i>Eudasyphora cyanicolor</i> (Zetterstedt)	X	X	.	.	.	.	
<i>Phaonia angelicae</i> (Scopoli)	.	.	X	.	.	.	
<i>errans</i> (Meigen)	.	X	.	.	.	.	
<i>falleni</i> Michelsen	.	.	X	.	.	.	
<i>rufiventris</i> (Scopoli)	X	.	.	.	.	.	
<i>serva</i> (Meigen)	X	.	X	.	.	.	Notable
<i>subventa</i> (Harris)	X	.	.	.	.	.	
<i>tuguriorum</i> (Scopoli)	X	X	X	.	.	.	
<i>Lophosceles cinereiventris</i> (Zetterstedt)	X	X	X	.	X	.	
<i>mutatus</i> (Fallén)	X	.	.	.	.	.	
<i>Helina atricolor</i> (Fallén)	X	X	.	X	.	.	
<i>depuncta</i> Fallén	X	.	.	.	.	.	Notable
<i>evecia</i> (Harris)	X	X	X	X	.	.	
<i>fratercula</i> (Zetterstedt)	X	.	.	.	.	.	
<i>impuncta</i> Fallén	X	X	X	.	.	.	
<i>obscurata</i> (Meigen)	X	X	X	X	.	.	
<i>quadrinaculella</i> Hennig	.	.	X	.	.	.	
<i>quadrum</i> (Fabricius)	X	X	.	.	.	.	
<i>reversio</i> (Harris)	X	X	X	.	X	.	Notable
<i>subvittata</i> (Seguy)	.	X	.	X	.	.	
<i>Mydaea corni</i> (Scopoli)	X	X	X	.	.	.	
<i>deserta</i> (Zetterstedt)	.	X	.	.	.	.	
<i>humeralis</i> Robineau-Desvoidy	X	.	.	.	.	.	
<i>Myospila mediatubunda</i> (Fabricius)	.	X	X	.	.	.	
<i>Hebecnema nigricolor</i> (Fallén)	X	.	.	.	X	.	Notable
<i>umbratica</i> (Meigen)	.	.	X	.	.	.	
<i>Graphomya minor</i> Robineau-Desvoidy	.	.	X	.	.	.	
<i>Spilogona contractifrons</i> (Zetterstedt)	X	X	.	.	.	.	
<i>denigrata</i> (Meigen)	.	X	X	.	.	.	
<i>litorea</i> (Fallén)	X	X	.	X	.	.	
<i>surda</i> (Zetterstedt)	.	X	X	X	.	.	
<i>vana</i> (Zetterstedt)	.	X	.	.	.	.	Notable
<i>Lispe tentaculata</i> (De Geer)	X	.	.	X	.	.	
<i>Pseudocoenosia solitaria</i> (Zetterstedt)	.	.	X	.	.	.	
<i>Caricea alma</i> (Meigen)	X	.	X	.	.	.	
<i>erythrocerata</i> (Robineau-Desvoidy)	X	.	X	.	.	.	
<i>spuria</i> (Zetterstedt)	X	.	.	.	.	.	
<i>Macrorchis meditata</i> (Fallén)	X	X	.	X	.	.	
<i>Coenosia albicornis</i> Meigen	.	.	X	.	.	.	Notable
<i>bilineella</i> (Zetterstedt)	.	X	X	.	.	.	
<i>flavicauda</i> Ringdahl	.	X	.	.	.	.	
<i>intermedia</i> (Fallén)	.	X	X	X	.	.	
<i>means</i> Meigen	X	X	.	.	.	.	
<i>mollicula</i> (Fallén)	.	.	X	.	.	.	

	FS	NE	IM	KI	NB	AV	Status
MUSCIDAE - contd							
<i>Coenosia pumila</i> (Fallén)	.	.	X	X	.	.	
<i>rufipalpis</i> Meigen	X	X	.	.	.	.	
<i>tigrina</i> (Fabricius)	.	X	.	.	.	.	
<b>Coleoptera</b>							
CARABIDAE							
<i>Nebria gyllenhali</i> (Schoenherr)	X	.	.	.	.	.	
<i>Notiophilus biguttatus</i> (Fabricius)	X	.	.	.	.	.	
<i>Elaphrus cupreus</i> Duftschmid	X	X	X	.	.	.	
<i>riparius</i> (Linnaeus)	X	.	X	.	.	.	
<i>Loricera pilicornis</i> (Fabricius)	X	.	X	.	.	.	
<i>Clivina fossor</i> (Linnaeus)	X	.	.	.	.	.	
<i>Miscodera arctica</i> (Paykull)	X	.	.	.	.	.	Notable b
<i>Trechus quadristriatus</i> (Schrank)	X	.X	.	.	.	.	
<i>Asaphidion pallipes</i> (Duftschmid)	X	.	.	.	.	.	Notable b
<i>Bembidion litorale</i> (Olivier)	X	X	.	.	.	.	Notable b
<i>punctulatum</i> Drapiez	X	.	.	.	.	.	
<i>bipunctatum</i> (Linnaeus)	X	.	.	.	.	.	Notable b
<i>atrocoeruleum</i> Stephens	.	X	.	.	.	.	
<i>bruxellense</i> Wesmael	X	X	.	.	.	.	
<i>doris</i> (Panzer)	.	.	X	.	.	.	
<i>Pterostichus lepidus</i> (Leske)	X	.	.	.	.	.	Notable b
<i>madidus</i> (Fabricius)	X	.	.	.	.	.	
<i>niger</i> (Schaller)	X	.	.	.	.	.	
<i>versicolor</i> (Sturm)	X	.	.	.	.	.	
<i>Calathus melanocephalus</i> (Linnaeus)	X	X	.	.	.	.	
<i>Agonum assimile</i> (Paykull)	X	.	.	.	.	.	
<i>gracile</i> Sturm	.	.	X	.	.	.	
<i>piceum</i> (Linnaeus)	.	X	.	.	.	.	
<i>Amara fulva</i> (Müller, O F)	X	.	.	.	.	.	Notable b
LEIODIDAE							
<i>Leiodes obesa</i> (Schmidt, W L E)	.	X	.	.	.	.	
<i>Choleva jeanneli</i> Britten	X	.	.	.	.	.	
<i>Catops coracinus</i> Kellner	X	.	.	.	.	.	
<i>Silpha atrata</i> Linnaeus	X	.	X	.	.	.	
STAPHYLINIDAE							
<i>Metopsia retusa</i> (Stephens)	X	.	X	.	.	.	
<i>Proteinus ovalis</i> Stephens	X	.	.	.	.	.	
<i>Anthobium atrocephalum</i> (Gyllenhal)	X	.	.	.	.	.	
<i>unicolor</i> (Marsham)	X	.	X	.	.	.	
<i>Olophrum fuscum</i> (Gravenhorst)	X	.	.	.	.	.	
<i>piceum</i> (Gyllenhal)	X	.	X	.	.	.	
<i>Lesteva heeri</i> Fauvel	X	.	.	.	.	.	
<i>longelytrata</i> (Goeze)	X	.	.	.	.	.	
<i>Geodromicus nigrata</i> (Müller, P W J)	X	X	.	.	.	.	
<i>Anthophagus caraboides</i> (Linnaeus)	X	.	X	.	.	.	
<i>Eusphalerum minutum</i> (Fabricius)	X	.	X	.	.	.	
<i>Bledius arcticus</i> Sahlberg	X	X	.	.	.	.	
<i>longulus</i> Erichson	X	X	.	.	.	.	
<i>subterraneus</i> Erichson	X	X	.	.	.	.	
<i>Thinobius bicolor</i> Joy	X	.	.	.	.	.	
<i>major</i> Kraatz	X	.	.	.	.	.	RDB 3
<i>praetor</i> Smetana	.	X	.	.	.	.	
<i>Anotylus rugosus</i> (Fabricius)	.	.	X	.	.	.	
<i>Stenus clavicornis</i> (Scopoli)	X	.	.	.	.	.	

	FS	NE	IM	KI	NB	AV	Status
STAPHYLINIDAE - contd							
<i>Stenus fulvicornis</i> Stephens	.	.	X	.	.	.	
<i>guttula</i> Müller, P W J	X	X	.	.	.	.	
<i>impressus</i> Germar	X	.	X	.	.	.	
<i>incanus</i> Erichson	X	.	.	.	.	.	RDB 3
<i>juno</i> (Paykull)	.	.	X	.	.	.	
<i>similis</i> (Herbst)	X	.	X	.	.	.	
<i>Dianous coerulescens</i> (Gyllenhal)	X	.	.	.	.	.	
<i>Lathrobium angusticolle</i> Boisdual & Lacordaire	X	.	.	.	.	.	
<i>dilutum</i> Erichson	X	.	.	.	.	.	RDB 3
<i>elongatum</i> (Linnaeus)	.	.	X	.	.	.	
<i>Othius angustus</i> Stephens	.	.	X	.	.	.	
<i>Staphylinus aeneocephalus</i> Degeer	X	.	.	.	.	.	
<i>erythropterus</i> Linnaeus	X	.	.	.	.	.	
<i>ophthalmicus</i> Scopoli	X	.	.	.	.	.	RDB 3
<i>Tachinus corticinus</i> Gravenhorst	.	.	X	.	.	.	
<i>Encephalus complicans</i> Stephens	X	.	X	.	.	.	
<i>Tachyusa atra</i> (Gravenhorst)	.	.	X	.	.	.	
<i>leucopus</i> (Marsham)	X	.	.	.	.	.	
<i>scitula</i> Erichson	X	.	.	.	.	.	
<i>Gnypeta caerulea</i> (Sahlberg, C R)	X	.	.	.	.	.	
<i>Boreophila islandica</i> (Kraatz)	X	.	X	.	.	.	
<i>Hydrosmeeta delicatula</i> (Sharp)	X	.	.	.	.	.	
<i>eximia</i> (Sharp)	X	.	.	.	.	.	
<i>fragilis</i> (Kraatz)	X	X	.	.	.	.	
<i>thinobioides</i> (Kraatz)	X	X	.	.	.	.	
<i>Hydrosmeeta subtilissima</i> (Kraatz)	X	X	.	.	.	.	
<i>Aloconota cambrica</i> (Wollaston)	X	.	.	.	.	.	
<i>currax</i> (Kraatz)	X	.	.	.	.	.	
<i>gregaria</i> (Erichson)	X	.	.	.	.	.	
<i>insecta</i> (Thomson, C G)	X	.	.	.	.	.	
<i>Amischa analis</i> (Gravenhorst)	X	.	X	.	.	.	
<i>Geostiba circellaris</i> (Gravenhorst)	X	X	X	.	.	.	
<i>Liogluta longiuscula</i> (Gravenhorst)	X	.	.	.	.	.	
<i>Atheta graminicola</i> (Gravenhorst)	.	.	X	.	.	.	
<i>Ocalea picata</i> (Stephens)	X	.	.	.	.	.	
<i>Oxypoda elongatula</i> Aubé	.	.	X	.	.	.	
<i>Tinotus morion</i> (Gravenhorst)	X	.	.	.	.	.	
<i>Aleochara bipustulata</i> (Linnaeus)	X	.	.	.	.	.	
<i>lanuginosa</i> Gravenhorst	X	.	.	.	.	.	
BYRRHIDAE							
<i>Morychus aeneus</i> (Fabricius)	X	.	.	.	.	.	
<i>Cytilus sericeus</i> (Förster)	X	.	.	.	.	.	
DRYOPIDAE							
<i>Dryops ernesti</i> des Gozis	.	X	.	.	.	.	
ELATERIDAE							
<i>Hypnoidus riparius</i> (Fabricius)	X	.	.	.	.	.	
<i>Fleutiauxellus maritimus</i> (Curtis)	X	.	.	.	.	.	Notable a
<i>Zorochros minimus</i> (Boisdual & Lacordaire)	X	.	.	.	.	.	
COCCINELLIDAE							
<i>Coccidula rufa</i> (Herbst)	.	.	X	.	.	.	
SALPINGIDAE							
<i>Salpingus ater</i> (Paykull)	.	X	.	.	.	.	

	FS	NE	IM	KI	NB	AV	Status
<b>ANTHICIDAE</b>							
<i>Anthicus formicarius</i> (Goeze)	.	X	.	.	.	.	
<b>CHRYSOMELIDAE</b>							
<i>Donacia aquatica</i> (Linnaeus)	.	.	X	.	.	.	RDB 3
<i>Plateumaris discolor</i> (Panzer)	.	.	X	.	.	.	
<i>sericea</i> (Linnaeus)	.	.	X	.	.	.	
<i>Prasocuris phellandrii</i> (Linnaeus)	.	.	X	.	.	.	
<i>Chrysomela aenea</i> Linnaeus	X	.	.	.	.	.	
<i>Lochmaea suturalis</i> (Thomson, C G)	X	.	.	.	.	.	
<i>Luperus flavipes</i> (Linnaeus)	X	.	.	.	.	.	Notable b
<i>longicornis</i> (Fabricius)	X	.	.	.	.	.	
<b>NEMONYCHIDAE</b>							
<i>Rhinomacer attelaboides</i> Fabricius	.	X	.	.	.	.	
<b>CURCULIONIDAE</b>							
<i>Otiorhynchus arcticus</i> (Fabricius, O)	.	X	.	.	.	.	
<i>Tropiphorus obtusus</i> (Bonsdorff)	.	X	.	.	.	.	
<i>Notaris aethiops</i> (Fabricius)	.	.	X	.	.	.	Notable a
<i>Mecinus pyraister</i> (Herbst)	.	X	.	.	.	.	
<i>Gymnetron beccabungae</i> (Linnaeus)	.	.	X	.	.	.	Notable a