

Coleoptera - Beetles

Beetles are extremely varied in both appearance and ecological niche. Well recorded in Fife only in some coastal sites. Thanks to Dr Garth Foster for providing most of the records of water beetles and to Adam Garside for providing the basis for the original list.

Update/Revision History: Revised by Gordon Corbet May 2006 and Garth Foster (Water beetles) March 2006.

Carabidae - ground beetles

Mainly predatory, nocturnal and active at ground level. Names follow the checklist at the Coleopterist' website of 16 Dec. 2005: www.coleopterist.org.uk.

- Abax parallelepipedus* (Piller & Mitterpacher): Cullaloe, Lielowan, Tentsmuir.
Aepus marinus (Ström): Flisk, and old records on Forth, intertidal, Nationally Scarce (B).
Aepus robinii (Laboulbène): Aberdour, 1901, intertidal, northernmost site in Britain, Nationally Scarce (B).
Agonum fuliginosum (Panzer): Cullaloe, Tentsmuir, by fresh-water.
Agonum gracile Sturm: Fleecefaulds, Lielowan, Star Moss, on wet ground.
Agonum marginatum (L.): Cameron Reservoir, Tentsmuir, wet ground.
Agonum muelleri (Herbst): Widespread, grassland.
[*Agonum piceum* (L.): NO21, Fife?]
Agonum thoreyi Dejean: Widespread in marshes; very local in Scotland.
Amara aenea (De Geer): Widespread.
Amara apricaria (Paykull): Widespread on coast.
Amara bifrons (Gyllenhal): I of May.
Amara communis (Panzer): Tentsmuir.
Amara eurynota (Panzer): Gilston, arable.
Amara familiaris (Duftschmid): Widespread.
Amara fulva (Müller): Tentsmuir, Nationally Scarce (B).
Amara lunicollis Schiödte: Tentsmuir.
Amara ovata (Fabricius): Widespread.
Amara plebeja (Gyllenhal): Widespread, arable etc.
Amara praetermissa (Sahlberg): Lundin Links, one of two Scottish sites; dunes.
Amara similata (Gyllenhal): Aberdour, Leven, both 1893, rare in Scotland.
[*Amara spreta* Dejean: 'Fife', 19th century, doubtful.]
Amara tibialis (Paykull): I of May, Lundin Links, Tentsmuir, dunes etc.
Anchomenus dorsalis (Pontoppidan): Widespread, including gardens; = *Agonum dorsale*.
Badister bullatus (Schrank): Widespread, especially on coast; = *Badister bipustulatus*.
Bembidion aeneum Germar: Widespread, waterside.
Bembidion femoratum Sturm: Dumbarnie Links, on tideline.
Bembidion guttula (Fabricius): Widespread.
Bembidion lampros (Herbst): Widespread, including gardens.
Bembidion mannerheimi Sahlberg: Widespread, moist sites.
Bembidion minimum (Fabricius): NO40, [saltmarsh etc.], rare in Scotland.
Bembidion obtusum Audinet-Serville: Gilston.
Bembidion properans (Stephens): St Andrews 1943, only Scottish record N of Solway.
Bembidion stephensii Crotch: Lundin Links.
Bembidion tetracolum Say: Widespread.
Blethisa multipunctata (L.): Aberdour, 1900, Nationally Scarce (B).
Bracteon litorale (Olivier): Near Elie 1904, bank of stream, Nationally Scarce (B); = *Bembidion litorale*.
Bradycellus harpalinus (Audinet-Serville): Widespread.
Bradycellus ruficollis (Stephens): Tentsmuir.
Bradycellus verbasci (Duftschmid): Widespread, including gardens.
Broscus cephalotes (L.): Widespread on coast.
Calathus erratus (Sahlberg): Tentsmuir, dunes.
Calathus fuscipes (Goeze): Widespread.
Calathus melanocephalus (L.) s.l.: Widespread.
Calathus melanocephalus (L.) s.s.: Dumbarnie Links
Calathus micropterus (Duftschmid): Roscobie Hills, Tentsmuir.
Calathus mollis (Marsham): Dumbarnie Links, Roscobie Hills, Tentsmuir.
Calathus rotundicollis Dejean: Widespread, woodland; = *Calathus piceus*.

Carabus granulatus L.: Tentsmuir.
Carabus nemoralis Müller: Widespread.
Carabus nitens L.: Tentsmuir.
Carabus problematicus Herbst: Widespread.
Carabus violaceus L.: Violet ground beetle, Carlingnose, Fleecefaulds, but probably more widespread.
Cicindela campestris L.: Green tiger beetle, Local, Tentsmuir and some inland sandy heaths.
[*Cicindela sylvatica* L.: Wood tiger beetle, listed for Torry Bay LNR, probably erroneous, not otherwise known in Scotland.]
Cillenus lateralis (Samouelle): Cocklemill Marsh, saltmarsh, Nationally Scarce (B); = *Bembidion laterale*.
Clivina collaris (Herbst): NO51.
Clivina fossor (L.): Widespread, subterranean, especially in grassland.
Curtonotus aulica (Panzer): Fleecefaulds, N Queensferry, Lundin Links, I of May; = *Amara aulica*.
Curtonotus convexiuscula (Marsham): Dumbarnie Links, + NO41, tideline; = *Amara convexiuscula*
Cychnus caraboides (L.): Widespread, a predator on snails.
Dicheirotichus gustavi Crotch: Local, saltmarshes, (including *D.pubescens*).
Dromius agilis (Fabricius): Tentsmuir.
Dromius linearis (Olivier): Widespread.
Dromius notatus Stephens: Widespread on coast.
Dromius quadrimaculatus (L.): Keils Den, Largo.
Dromius quadrisignatus Dejean: St Andrews, pre-1946, only Scottish record.
[*Dyschirius aeneus* (Dejean): Kincardine 1901, probably erroneous, perhaps = *D.luedersi*.]
Dyschirius globosus (Herbst): Widespread, wet ground,
Dyschirius salinus Schaum: Elie, saltmarsh, 1903.
Dyschirius thoracicus Rossi: Tentsmuir, wet ground.
Elaphrus cupreus Duftschmid: Cameron Res., Tentsmuir, water margins.
Elaphrus riparius (L.): Widespread, margins of standing water.
Harpalus affinis (Schrank): Widespread, (including *H.aeneus*).
Harpalus latus (L.): Lundin Links, dunes.
Harpalus rubripes (Duftschmid): Tentsmuir (and Aberdour 1893) (rare in Scotland).
Harpalus rufipes (De Geer): Gilston, Newburgh, arable.
Harpalus tardus (Panzer): Earlshall, Kincaig.
Laemostenus terricola (Herbst): I of May.
Lebia chlorocephala (Hoffmann): Kincaig cliffs (rare in Scotland).
Leistus ferrugineus (L.): N Queensferry.
Leistus fulvibarbis Dejean: Widespread.
Leistus terminatus Hellwig: Widespread. = *L.rufescens* Fabricius.
Loricera pilicornis (Fabricius): Widespread.
Nebria brevicollis (Fabricius): Widespread.
Nebria rufescens (Ström): Tentsmuir, = *N.gyllenhali*.
Nebria salina Fairmaire & Laboulbène: Brunton, I of May, Tentsmuir.
Notiophilus aquaticus (L.): Widespread.
Notiophilus biguttatus (Fabricius): Widespread, an active diurnal species.
Notiophilus germinyi Fauvel: Tentsmuir.
Notiophilus substriatus Waterhouse: Cullalloe, Tentsmuir.
Ocys harpaloides Audinet-Serville: Gilston, arable; = *Bembidion harpaloides*.
Ocys quinquestriatus Gyllenhal: Barnyards Marsh, I of May; = *Bembidion quinquestriatum*.
Ophonus rufibarbis (Fabricius): Widespread on S coast (rare in Scotland); = *Harpalus rufibarbis*.
Paranchus albipes (Fabricius): Widespread by running water, (including *Agonum ruficorne*).
Patrobis atrorufus (Ström): Gilston, Tentsmuir.
Platyderus depressus (Marsham): Aberdour, 2001, coastal grass, one of two sites in Scotland, the other being in East Lothian, 1935. (As *P.ruficollis*.)
Pterostichus adstrictus Eschscholz: Roscobie Hills, Tentsmuir.
[*Pterostichus aethiops* (Panzer): I of May, as *Feronia aethiops*; normally montane, needs confirmation.]
Pterostichus diligens (Sturm): Widespread.
Pterostichus madidus (Fabricius): Widespread, common in gardens.
Pterostichus melanarius (Illiger): Widespread.
Pterostichus niger (Schaller): Widespread.
Pterostichus nigrita (Paykull) s.s.: Dumbarnie Links.
Pterostichus nigrita (Paykull) s.l.: Widespread, some may be *P.rhaeticus*.
Pterostichus rhaeticus Heer: Calais Muir, Tentsmuir.
Pterostichus strenuus (Panzer): Widespread.

[*Sphodrus leucophthalmus* (L.): 1 of May, 1957, the only Scottish record; if correct, may be ephemeral (occurs in buildings).]

Stomis pumicatus (Panzer): Widespread.

Syntomis foveatus (Fourcroy): Widespread, coastal grass; = *Metabletus foveatus*.

Syntomis truncatellus (L.): 1 of May, 1911, in ants' nest (only site in Scotland); = *Metabletus truncatellus*.

Synuchis vivalis (Illiger): Newburgh, arable; = *S.nivalis*.

Trechoblemus micros (Herbst): Cocklemill Burn, 1904; Roscobie Hills, scarce in Scotland; = *Trechus micros*.

Trechus obtusus Erichson: Widespread.

Trechus quadristriatus (Schrank): Widespread, including shoreline.

Trechus rubens (Fabricius): NO51.

Trichocellus cognatus (Gyllenhal): Tentsmuir.

Trichocellus placidus (Gyllenhal): Glenrothes, Red Myre, in wetland.

Halipidae

Small yellow beetles, usually in still or slow water.

Brychius elevatus (Panzer): Eden and Ore.

Haliplus confinis Stephens: In lochs with exposed silt.

Haliplus flavicollis Sturm: In four lochs.

Haliplus fulvus (Fabricius): In most lochs.

Haliplus immaculatus Gerhardt: Frequent in enriched lochs.

Haliplus lineatocollis (Marsham): Common in slow rivers and lochs.

Haliplus lineolatus Mannerheim: Abundant in large lochs.

Haliplus obliquus (Fabricius): Dumbarnie Links, + 3 old records, base-rich ponds.

Haliplus ruficollis (De Geer): Common in stagnant ponds and ditches.

Haliplus sibiricus Motschulsky: Common in lochs, reservoirs and slow, deep rivers.

Noteridae

Small brown beetles living in rafts of vegetation in standing water.

Noterus clavicornis (De Geer): Kilconquhar Loch.

Noterus crassicornis (Müller): Lindores Loch, one of two Scottish sites.

Dytiscidae - diving beetles

Larvae and adults aquatic and predatory.

Acilius canaliculatus (Nicolai): Old record at Moss Morran.

Acilius sulcatus (L.): Steep-sided edges of pools, 3 sites.

Agabus affinis (Paykull): In *Sphagnum* in bogs and fens.

Agabus arcticus (Paykull): Common in lochs of Cleish Hills.

Agabus biguttatus (Olivier): Sources of running water, sometimes deep in gravel beds.

Agabus bipustulatus (L.): Widespread.

Agabus guttatus (Paykull): In shallow running water.

Agabus labiatus (Brahm): Typical of pools with a tendency to dry out, including Morton Lochs.

Agabus nebulosus (Forster): Occasional.

Agabus paludosus (Fabricius): In slow-flowing streams.

Agabus sturmii (Gyllenhal): Ponds and small lochs with some vegetation.

Agabus unguicularis (Thomson): In base-rich fens, Morton Lochs, Moss Morran.

Colymbetes fuscus (L.): Ponds and lochs with vegetation.

Dytiscus marginalis L.: Great diving beetle; Occasional in ponds and vegetated loch edges.

Dytiscus semisulcatus Müller: Black-bellied diving beetle; in shallower habitats, often in slow running water.

Graptodytes pictus (Fabricius): Tulliallan L. and quarry pond, Kettlehill.

Hydroporus angustatus Sturm: Richly vegetated ponds and lochs.

Hydroporus discretus Fairmaire: Medium-sized, stagnant water bodies.

Hydroporus ferrugineus Stephens: Subterranean, associated with springs, one old record, Balmuto.

Hydroporus gyllenhalii Schiodte: Small acid pools and ditches, often in woodland.

Hydroporus incognitus Sharp: Small pools with dead leaves, in woodland.

Hydroporus longulus Mulsant & Rey: Drumcarrow Craig, in springs.

Hydroporus melanarius Sturm: Bankhead Moss, amongst *Sphagnum*.

Hydroporus memnonius Nicolai: Shallow water among vegetation.

Hydroporus morio Aubé: Peaty pools.

Hydroporus nigrita (Fabricius): Shallow ponds with plant litter.

Hydroporus obscurus Sturm: Amongst *Sphagnum* at edges of lochs and pools.
Hydroporus obsoletus Aubé: Subterranean in springs and drains, 4 records.
Hydroporus palustris (L.): Commonest species of vegetated edges of lochs etc.
Hydroporus planus (Fabricius): Lowland temporary pools.
Hydroporus pubescens (Gyllenhal): Widespread, mainly in temporary peaty pools.
Hydroporus striola (Gyllenhal): Common in pools and fens.
Hydroporus tessellatus Drapiez: Saltmarshes, one old record, Culross.
Hydroporus tristis (Paykull): Peaty pools etc.
Hydroporus umbrosus (Gyllenhal): Common in shaded and tussock fens.
Hygrotus confluens (Fabricius): I of May.
Hygrotus impressopunctatus (Schaller): Morton Lochs.
Hygrotus inaequalis (Fabricius): Common in vegetated ponds and lochs.
Hygrotus novemlineatus (Stephens): Shallow water on exposed loch shores.
Hygrotus quinquelineatus (Zetterstedt): Edges of lochs.
Ilybius aenescens Thomson: Moss Morran, Tentsmuir.
Ilybius ater (De Geer): Richly vegetated edges of old reservoirs and some lochs.
Ilybius fuliginosus (Fabricius): Lochs and ponds among thin vegetation.
Ilybius montanus (Stephens): Morton Lochs.
Laccophilus minutus (L.): Frequent in man-made ponds and reservoirs, occasionally in lochs.
Nebrioporus assimilis (Paykull): Widespread in lochs and reservoirs.
Nebrioporus elegans (Panzer): Common on open loch shores and rivers.
Oreodytes davisii (Curtis): Infrequent in shallow streams.
Oreodytes sanmarkii (Sahlberg): Common in streams, rivers and loch shores.
Oreodytes septentrionalis (Gyllenhal): Shingle shores of lochs and silt in rivers.
Platambus maculatus (L.): Small rivers and wave-washed loch shores.
Porhydrus lineatus (Fabricius): Lindores Loch.
Rhantus exsoletus (Forster): Fens in sheltered bays of lochs.
Rhantus frontalis (Marsham): Temporary pools on sand.
Rhantus suturalis (Macleay): a recent coloniser of man-made ponds.
Rhantus suturellus (Harris): Mainly in acid fens among sedges.
Stictonectes lepidus (Olivier): Deep quarry pools, peaty loch edges and streams, 7 sites.
Stictotarsus duodecimpustulatus (Fabricius): Deep pools in river edges and upland lochs.

Gyrinidae - whirligig beetles

Predators, on surface of water.

Gyrinus aeratus Stephens: Camilla Loch.
Gyrinus caspius Ménériés: Morton Lochs, Tayfield.
Gyrinus marinus Gyllenhal: Black Loch (Cleish), Lindores Loch.
Gyrinus minutus Fabricius: Culross, Moss Morran.
Gyrinus paykulli Ochs: Kilconquhar Loch, Lindores Loch (only sites in Scotland).
Gyrinus substriatus Stephens: Widespread.

Hydrophilidae

Globular beetles associated with aquatic vegetation or wet litter.

Anacaena globulus (Paykull): Common in damp habitats.
Anacaena lutescens (Stephens): Marshes and slow-flowing ditches.
Cercyon depressus Stephens: St Andrews, in seaweed.
Cercyon haemorrhoidalis (Fabricius): I of May, Tentsmuir.
Cercyon impressus (Sturm): Tentsmuir, [in dung]. As *C. atomarius*.
Cercyon lateralis (Marsham): Fleecefaulds, I of May, N Queensferry.
Cercyon littoralis (Gyllenhal): Dumbarnie Links, St Andrews, in seaweed.
Cercyon marinus Thomson: Tentsmuir.
Cercyon melanocephalus (L.): Widespread, in wet litter.
Cercyon tristis (Illiger): Tentsmuir.
Cercyon ustulatus (Preyssler): Calais Muir, Red Myre, in wet litter.
Coelostoma orbiculare (Fabricius): I of May.
Cryptopleurum minutum (Fabricius): Dumbarnie Links, Tentsmuir.
Enochrus affinis (Thunberg): Bankhead Moss, Moss Morran, wet *Sphagnum*.
Enochrus fuscipennis (Thomson): Kippo, Prior Muir, wet *Sphagnum*.
Enochrus ochropterus (Marsham): Bankhead Moss.

Enochrus quadripunctatus (Herbst): Morton Lochs.
Hydrobius fuscipes (L.): Widespread in marshes.
Laccobius bipunctatus (Fabricius): Commonest *Laccobius*, in marshes.
Laccobius colon (Stephens): Common on exposed shores of lochs, reservoirs and large ponds.
Laccobius minutus (L.): Widespread, including acid and upland waters.
Laccobius striatulus (Fabricius): Old brick pits and Kinessburn, edge of running water.
Megasternum concinnum (Marsham): In litter, scattered localities.
Sphaeridium bipustulatum (Fabricius) s.s.: Burnturk, in horse dung.
Sphaeridium scarabaeoides (L.): Dumbarnie Links, Ferry Hills, Tentsmuir.

Helophoridae

Small beetles, larvae predatory, adults herbivorous.

Helophorus aequalis Thomson: Common in marshes and ponds.
Helophorus arvernicus Mulsant: Dumbarnie Links.
Helophorus brevipalpis Bedel: The commonest water beetle, in most aquatic habitats.
Helophorus flavipes Fabricius: Common in wet peaty habitats.
Helophorus fulgidicollis Motschulsky: Eden Estuary, saltmarsh.
Helophorus grandis Illiger: Marshes and ponds.
Helophorus minutus Fabricius: Temporary pools on exposed silt and mud.
Helophorus nubilus Fabricius: Dumbarnie Links.
Helophorus obscurus Mulsant: One record, St Andrews.
Helophorus porculus Bedel: Old records from Moss Morran and Balmuto, at roots of vegetation.
Helophorus strigifrons Thomson: Loch Fitty, rushy pools.

Histeridae

Predators in carrion and dung.

Aetholus duodecimstriatus (Schrank): Tentsmuir.
Baeckmanniolus dimidiatus (Illiger): Widespread on dunes.
Hister impressus Fabricius: Earlshall, Newburn.
Paralister neglectus (Germar): 'Fife', pre-1853.
Saprinus semistriatus (Scriba): Dumbarnie Links.

Hydraenidae

Very small aquatic beetles.

Hydraena britteni Joy: Bankhead Moss, L Fitty, wet litter in fens and carr.
Hydraena gracilis Germar: Common in river gravel.
Hydraena minutissima Stephens: Culross, Stravithie, rocky streams.
Hydraena nigrita Germar: Shaded streams with sand and gravel.
Hydraena pulchella Germar: Culross, in streams.
Hydraena riparia Kugelann: Common in fens and stagnant water.
Limnebius nitidus (Marsham): Stravithie, in stream.
Limnebius truncatellus (Thunberg): Flooded litter and silt by ponds and running water.
Ochthebius auriculatus Rey: Dumbarnie Links, Eden Estuary, saltmarsh.
Ochthebius bicolon Germar: Mud at edge of ponds and burns, 3 sites.
Ochthebius dilatatus Stephens: Wet mud, especially saltmarshes, 3 sites.
Ochthebius marinus (Paykull): Brackish pools, 3 sites.
Ochthebius minimus (Fabricius): Common in muddy habitats.

Ptiliidae - feather-winged beetles

Very small beetles living under bark, in rotting seaweed etc.

Acrotrichis atomaria (De Geer): Dumbarnie Links, Tentsmuir.
Acrotrichis fascicularis (Herbst): Tentsmuir.
Acrotrichis insularis (Mäklin): Tentsmuir, naturalised.
Acrotrichis intermedia (Gillmeister): Tentsmuir.
Acrotrichis sitkaensis (Motschulsky). Barnyards Marsh. [An introduction from N America.]
Ptenidium punctatum (Gyllenhal): Dumbarnie Links, Tentsmuir, in rotting seaweed.
Ptenidium pusillum (Gyllenhal): Dumbarnie Links, dune slack.

Leptinidae

Leptinus testaceus Müller: Newburn, in fur of wood mouse, *Apodemus sylvaticus*.

Leiodidae

Small beetles, many associated with fungi, underground nests or carrion.

Agathidium convexum Sharp: Annsmuir Golf Course.
Agathidium laevigatum Erichson: Widespread on coast.
Agathidium nigrinum Sturm: N Queensferry.
Catops chrysomeloides (Panzer): E Neuk coast, 1 of May, Tentsmuir.
Catops coracinus Kellner: Dumbarrie Links, Tentsmuir.
Catops fuliginosus Erichson: Dumbarrie Links, N Queensferry, Tentsmuir.
Catops fuscus (Panzer): Dumbarrie Links.
Catops grandicollis Erichson: Dumbarrie Links, Tentsmuir, on carrion.
Catops morio (Fabricius): Dumbarrie Links.
Catops nigricans (Spence): Dumbarrie Links, N Queensferry.
Catops nigrita Erichson: N Queensferry.
Catops tristis (Panzer): Dumbarrie Links, Tentsmuir, on carrion.
Choleva angustata (Fabricius): Largo, N Queensferry.
Choleva fagniezi Jeannel: Dumbarrie Links.
Choleva jeanneli Britten: Dumbarrie Links.
Choleva oblonga Latreille: Dumbarrie Links, dunes.
Choleva spadicea (Sturm): N Queensferry.
Colon dentipes (Sahlberg): Balmuto, 19th century.
Colon zebei Kraatz: Balmuto, 19th century.
Hydnobius perrisi Fairmaire: Tentsmuir.
Hydnobius punctatus (Sturm): Tentsmuir.
Leiodes ciliaris (Schmidt): Tentsmuir.
Leiodes cinnamomea (Panzer): Earls Hall, in underground fungi.
Leiodes dubia (Kugelann): Tentsmuir, dunes.
Leiodes furva (Erichson): Tentsmuir.
Leiodes obesa (Schmidt): Widespread.
Leiodes polita (Marsham): Widespread.
Leiodes rugosa Stephens: Tentsmuir.
Nargus velox (Spence): Widespread.
Nargus wilkini (Spence): Tentsmuir.
Ptomaphagus subvillosus (Goeze): Dumbarrie Links, Tentsmuir.
Sciodrepoides watsoni (Spence): Dumbarrie Links, Tentsmuir, in carrion.
Trichohydobius suturalis (Zetterstedt): Earshall, Tentsmuir.

Silphidae - burying beetles etc.

Scavengers and predators.

Nicrophorus humator (Gleditsch): Widespread.
Nicrophorus interruptus Stephens: Tentsmuir.
Nicrophorus investigator Zetterstedt: Widespread.
Nicrophorus vespillo (L.): Tentsmuir, Elie Ness.
Nicrophorus vespilloides Herbst: Widespread.
Silpha atrata L.: Widespread.
Thanatophilus rugosus (L.): Widespread on coast.
Thanatophilus sinuatus (Fabricius): Flisk, pre-1853.

Scydmaenidae

Small shining beetles in leaf-litter etc.

Neuraphes angulatus (Müller & Kunze): Tentsmuir.
Stenichnus collaris (Müller & Kunze): Widespread.

Staphylinidae - rove beetles

Predators and scavengers with short wing-cases and projecting abdomens. Names follow the checklist at the Coleopterist' website of 23 March 2001: www.coleopterist.org.uk.

Omaliiinae

Acidota crenata (Fabricius): Culross, Tentsmuir.
Acidota cruentata Mannerheim: Widespread.
Anthobium atrocephalum (Gyllenhal): Widespread.
Anthobium unicolor (Marsham): Widespread.
Eucnecosum brachypterum (Gravenhorst): Roscobie Hills (as *Arpedium brachypterum*).
Eusphalerum minutum (Fabricius): Tentsmuir, on flowers.
Lesteva longoelytrata (Goeze): Dumbarrie Links, Isle of May.
Lesteva sicula Erichson: Widespread, especially on coast; = *L.heeri*.
Micralymma marinum (Ström): Culross 1886, Aberdour 1901, on shore.
Olophrum fuscum (Gravenhorst): Widespread.
Olophrum piceum (Gyllenhal): Widespread.
Omalium caesum Gravenhorst: Cocklemill Burn, Tentsmuir.
Omalium excavatum Stephens: Dumbarrie Links, Newburn, Tentsmuir.
Omalium italicum Bernhauer: Aberdour (as *O.nigriceps*), Dumbarrie Links.
Omalium laeviusculum Gyllenhal: Widespread, in rotting seaweed.
[*Omalium laticolle* Bernhauer: Dumbarrie Links, error for *O.oxyacanthae*.]
Omalium oxyacanthae Gravenhorst: Dumbarrie Links, Tentsmuir.
Omalium riparium Thomson: Dumbarrie Links, Tentsmuir, tideline.
Omalium rivulare (Paykull): Widespread.
Omalium rugulipenne Rye: Dumbarrie Links, Tentsmuir, tideline.
Phyllodrepa gracilicornis (Fairmaire & Laboulbène): Balmuto, pre-1890, as
Omalium gracilicornis, = *Dropephylla gracilicornis*.
Phyllodrepa devillei Bernhauer: Tentsmuir; as *Dropephylla grandiloqua*.
Phyllodrepa heerii Heer: Balmuto, pre-1890, as *Omalium heeri*, = *Dropephylla heeri*.
Philorinum sordidum (Stephens): Tentsmuir, on flowers.
Psephidonus nigrita (Müller): Largo Links 1897, margin of pool; as *Geodromicus nigrita*.

Proteininae

Megarthus denticollis (Beck): Is of May.
Megarthus depressus (Paykull): Widespread, especially on coast.
Megarthus sinuatocollis (Lacordaire): Dumbarrie Links.
Metopsia clypeata (Müller): Widespread, in grass tussocks; = *M.retusa*.
Proteinus brachypterus (Fabricius): Bankhead Moss, Tentsmuir.
Proteinus ovalis Stephens: Widespread.

Micropeplinae

Micropeplus fulvus Erichson: Newburn, in compost.
Micropeplus staphylinoides (Marsham): Widespread on coast.

Pselaphinae

Tiny beetles, to 3mm, in leaf-litter, formerly treated as a separate family, Pselaphidae.

Brachygluta helferi (Schmidt-Göbel): Kincardine, 1901, saltmarsh.
[*Euplectus cf. piceus* Motschulsky: I of May.]
Pselaphus heisei Herbst: Kincardine, 1901.
Reichenbachia juncorum (Leach): Tentsmuir, [waterside].

Tachyporinae

Bolitobius castaneus (Stephens): Local on coast; = *B.analis*.
Bolitobius cingulatus Mannerheim: Roscobie Hills.
Ischnosoma splendidus (Gravenhorst): I of May, Roscobie Hills, Tentsmuir; = *Mycetoporus splendidus*.
Lordithon lunulatus (L.): Tentsmuir, in fungi.
Lordithon thoracicus (Fabricius): Widespread, in fungi.
Mycetoporus clavicornis (Stephens): Tentsmuir, Thornton.

Mycetoporus lepidus (Gravenhorst): N Queensferry, Roscobie Hills, Tentsmuir.
Mycetoporus longulus Mannerheim: Tentsmuir.
Mycetoporus piceolus Rey: Dumbarrie Links, Tentsmuir, dunes.
Mycetoporus punctus (Gravenhorst): Tentsmuir, predatory on fly larvae in decaying fungi.
Sepidophilus marshami (Stephens): Kincardine, W Wemyss (as *Conosoma pubescens*).
Sepidophilus nigripennis (Stephens): Widespread on coast.
 [*Tachinus bipustulatus* (Fabricius): Fife, pre-1853, needs confirmation.]
Tachinus corticinus Gravenhorst: Widespread.
Tachinus elongatus Gyllenhal: Roscobie Hills.
Tachinus laticollis Gravenhorst: Widespread, especially on coast.
Tachinus lignorum (L.): Tentsmuir.
Tachinus marginellus (Fabricius): Widespread.
Tachinus pallipes (Gravenhorst): Tentsmuir.
Tachinus proximus Kraatz: 1 of May.
Tachinus signatus Gravenhorst: Widespread and often very abundant in grassland (including *T. rufipes*).
Tachinus subterraneus (L.): Cullaloe, Newburn.
Tachyporus atriceps Stephens: N Queensferry, Tentsmuir.
Tachyporus chrysomelinus (L.): Widespread.
Tachyporus dispar (Paykull): Widespread.
Tachyporus formosus Matthews: Dumbarrie Links, Elie, 1 of May.
Tachyporus hypnorum (Fabricius): Widespread.
Tachyporus nitidulus (Fabricius): Widespread.
Tachyporus obtusus (L.): Widespread.
Tachyporus pallidus Sharp: Barnyards Marsh.
Tachyporus pusillus Gravenhorst: Widespread.
Tachyporus solutus Erichson: Ladybank Woods, Tentsmuir.
Tachyporus tersus Erichson: Roscobie Hills, Tentsmuir.
Tachyporus transversalis Gravenhorst: Tentsmuir.

Aleocharinae

Acrotona aterrima (Gravenhorst): Dumbarrie Links, Fleecefaulds Meadow; = *Atheta aterrima*.
Acrotona muscorum (Brisout): Tentsmuir; = *Atheta muscorum*.
Alaobia sodalis (Erichson): Tentsmuir; = *Atheta sodalis*.
Alaobia trinotata (Kraatz): Fleecefaulds Meadow, Tentsmuir; = *Atheta trinotata*.
Aleochara bipustulata (L.): Widespread on coast.
Aleochara cuniculorum Kraatz: Largo, mole nests.
Aleochara curtula (Goeze): Dumbarrie Links, on carrion.
Aleochara funebris Wollaston: Tentsmuir; = *A. diversa*, in part.
Aleochara grisea Kraatz: Dumbarrie Links, Tentsmuir, as *Polystomata grisea* and *Emplenota grisea*.
Aleochara lanuginosa Gravenhorst: Dumbarrie Links, Tentsmuir.
Aleochara moerens Gravenhorst: Tentsmuir.
Aleochara obscurella Gravenhorst: Burntisland, pre-1867; = *A. algarum*.
Aleochara punctatella Motschulsky: Dumbarrie Links, tideline; including *Emplenota obscurella*.
Aleochara spadicea (Erichson): Largo.
Aleochara sparsa Heer: Dumbarrie Links, on carrion.
Aloconota gregaria (Erichson): Widespread.
Amischa analis (Gravenhorst): Widespread.
Amischa bifoveolata (Mannerheim): Bankhead Moss, Cullaloe, Dumbarrie Links, including *A. cavifrons*.
Arena tabida (Kiesenwetter): Tentsmuir Forest;
Atheta aeneicollis (Sharp): Dumbarrie Links, Tentsmuir; including *A. pertyi* in part.
Atheta aquatica (Thomson): Dumbarrie Links, Tentsmuir.
Atheta brunneipennis (Thomson). Dumbarrie Links.
Atheta castanoptera (Mannerheim): Tentsmuir.
Atheta crassicornis (Fabricius): Tentsmuir; generic position uncertain.
Atheta graminicola (Gravenhorst) Widespread.
Atheta harwoodi (Williams): Tentsmuir; generic position uncertain.
Atheta nigritula (Gravenhorst): Tentsmuir; generic position uncertain.
Atheta xanthopus (Thomson): Tentsmuir.
Autalia impressa (Olivier): Tentsmuir, in fungi.
Bessobia occulta (Erichson): Tentsmuir, in fungi; = *Atheta occulta*.
Boreophilia eremita (Rye): Tentsmuir.

Calodera aethiops (Gravenhorst): Tentsmuir.
Chaetida longicornis (Gravenhorst): Bankhead Moss, Tentsmuir; = *Atheta longicornis*.
Cypha imitator (Luze): Tentsmuir.
Cypha laeviuscula (Mannerheim): I of May, as *Hypocyrtus laeviusculus*.
Cypha longicornis (Paykull): Dumbarrie Links, Tentsmuir.
Datomicra celata (Erichson): I of May, Tentsmuir; = *Atheta celata*.
Dimetrota atramentaria (Gyllenhal): Common, especially on coast; = *Atheta atramentaria*.
Dimetrota ischnocera (Thomson): I of May; = *Atheta ischnocera*.
Dimetrota nigripes (Thomson): Bankhead Moss, Tentsmuir; = *Atheta nigripes*.
Drusilla canaliculata (Fabricius): Widespread on coast.
Encephalus complicans Stephens: Dumbarrie Links, Kinghorn Loch, Tentsmuir.
Geostiba circellaris (Gravenhorst): Widespread.
Halobrecta algae (Hardy): Dumbarrie Links, Tentsmuir.
Halobrecta flavipes Thomson: Dumbarrie Links, tideline.
Haploglossa nidicola (Fairmaire): Largo 1906, in sand martin nests.
Holobus apicata (Boisduval & Lacordaire): Tentsmuir; = *Oligota apicata*.
Leptusa fumida (Erichson): Tentsmuir, under bark.
Liogluta granigera (Kiesenwetter): Dumbarrie Links.
Liogluta microptera Thomson: Widespread; = *L. oblongiuscula*.
Microdota amicula (Stephens): Dumbarrie Links, dunes; = *Atheta amicula*.
Microdota atricolor (Sharp): Tentsmuir; = *Atheta atricolor*.
Microdota indubia (Sharp): Tentsmuir; = *Atheta indubia*.
Mocyta amplicollis (Mulsant & Rey): Tentsmuir; = *Atheta amplicollis*.
Mocyta fungi (Gravenhorst): Common, especially on coast; = *Atheta fungi*.
Myllaena brevicornis (Matthews): Barnyards Marsh.
Myllaena minuta (Gravenhorst): Barnyards Marsh, Tentsmuir.
Myrmecopora sulcata (Kiesenwetter): Dumbarrie Links, tideline.
Oxypoda annularis Mannerheim: Ladybank Golf Course, Tentsmuir.
Oxypoda haemorrhoea (Mannerheim): Tentsmuir.
Oxypoda longipes Mulsant & Rey: Elie, Largo, mole nests.
Oxypoda opaca (Gravenhorst): Dumbarrie Links, Tentsmuir.
Oxypoda spectabilis Märkel: Dumbarrie Links, Roscobie Hills, Tentsmuir.
Oxypoda brevicornis (Stephens): Tentsmuir; = *O. umbrata*.
Philhygra debilis (Erichson): Tentsmuir; = *Atheta debilis*.
Philhygra elongatula (Gravenhorst): Dumbarrie Links, Tentsmuir; = *Atheta elongatula*.
Philhygra gyllenhalii (Thomson): Tentsmuir; = *Atheta gyllenhalii*.
Philhygra luridipennis (Mannerheim): Tentsmuir; = *Atheta luridipennis*.
Philhygra melanocera (Thomson): Tentsmuir; = *Atheta melanocera*.
Phytosus balticus Kraatz: Tentsmuir.
Schistoglossa curtipennis (Sharp): Tentsmuir.
Thinobaena vestita (Gravenhorst): Burntisland, Tentsmuir, shoreline; = *Atheta vestita*.
Tinotus morion (Gravenhorst): Dumbarrie Links, Tentsmuir.

Oxytelinae

Anotylus complanatus (Erichson): I of May, Newburn.
Anotylus inustus (Gravenhorst): Widespread on coast.
Anotylus maritimus Thomson: Dumbarrie Links, Tentsmuir, tideline.
Anotylus rugosus (Fabricius): Widespread.
Anotylus sculpturatus (Gravenhorst): Widespread.
Anotylus tetracarinatus (Block): Dumbarrie Links, Tentsmuir.
Bledius limicola Tottenham: Dumbarrie Links; = *B. germanicus*.
Bledius opacus (Block): Tentsmuir, coastal sand.
Bledius spectabilis Kraatz: Dumbarrie Links.
Bledius subniger Schneider: Tentsmuir, dunes.
Carpelimus elongatulus (Erichson): Barnyards Marsh, Cullaloe, Tentsmuir, wet ground.
Carpelimus impressus (Boisduval & Lacordaire): Calais Muir.
Oxytelus laqueatus (Marshall): Dumbarrie Links, dung.
Platystethus arenarius (Fourcroy): Tentsmuir, on dung, and NT18.

Oxyporinae

Oxyporus rufus (L.): St Andrews, in fungi.

Steninae

Stenus bifoveolatus Gyllenhal: Red Myre, marsh.

Stenus brunripes Stephens: Widespread, especially on coast.

Stenus canaliculatus Gyllenhal: Roscobie Hills, Tentsmuir.

Stenus clavicornis (Scopoli): Widespread, especially on coast.

Stenus flavipes Stephens: Lielowan Meadow.

Stenus fulvicornis Stephens: Barnyards Marsh, Roscobie Hills, Tentsmuir, wet ground.

Stenus geniculatus Gravenhorst: Tentsmuir, [dry grassland].

Stenus impressus Germar: Widespread, wet ground.

Stenus juno (Paykull): Widespread.

Stenus nanus Stephens: Lielowan Meadow, Roscobie Hills, Tentsmuir, wet ground.

Stenus nitidiusculus Stephens: Lomonds, Tentsmuir.

[*Stenus ochropus* Kiesenwetter: Ruddons Point; as *S. erichsoni*; needs confirmation.]

Stenus ossium Stephens: Dumbarnie Links.

Stenus pallitarsis Stephens: Barnyards Marsh, Black Loch (Abdie).

Stenus picipes Stephens: Calais Muir, Kilminning coast.

Stenus pubescens Stephens: Calais Muir.

Stenus pusillus Stephens: Tentsmuir.

Stenus similis (Herbst): Widespread.

Stenus tarsalis Ljungh: Tentsmuir, [wet ground].

Euaesthetinae

Euaesthetus bipunctatus (Ljungh): Cullaloe, Tentsmuir.

Paederinae

Astenus lyonessius (Joy): Kincaig cliffs (as *A. angustatus*).

Lathrobium brunripes (Fabricius): Widespread, wet ground.

Lathrobium fulvipenne (Gravenhorst): Widespread.

Lathrobium multipunctum Gravenhorst: I of May.

Rugilus erichsonii (Fauvel): Ruddons Point.

Rugilus orbiculatus (Paykull): N Queensferry, pre-1900, as *Stilcticus affinis*.

Rugilus rufipes Germar: Kincardine, 1901.

Staphylininae

Atrecus affinis (Paykull): Ladybank pine plantations, = *Baptolinus affinis*.

Bisnius cephalotes (Gravenhorst): S coast, I of May; = *Philonthus cephalotes*.

Bisnius fimetarius (Gravenhorst): Tentsmuir, in dung; = *Philonthus fimetarius*.

Bisnius puella (Nordmann): Roscobie Hills.

Bisnius nigriventris (Thomson): Roscobie Hills.

Cafius fucicola Curtis: Aberdour, pre-1900.

Cafius xantholoma (Gravenhorst): Widespread on tideline.

Creophilus maxillosus (L.): Newburn, probably also on coast.

Dinothenarus pubescens (De Geer): Tentsmuir.

Gabrius appendiculatus Sharp: Roscobie Hills.

Gabrius bishopi Sharp: Tentsmuir.

Gabrius nigrutilus (Gravenhorst): Bankhead Moss, Fleecefaulds Meadow.

Gabrius trossulus (Nordmann): Roscobie Hills, Tentsmuir.

Gyrohypnus angustatus Stephens: Dumbarnie Links, I of May.

Gyrohypnus fracticornis (Müller): Barnyards Marsh, fen tussock.

Gyrohypnus liebei Scheerpeltz: I of May, Tentsmuir; = *G. punctulatus*.

Heterothops binotatus (Gravenhorst): Tentsmuir.

Leptacinus pusillus (Stephens): Tentsmuir.

Megalinus glabratus (Gravenhorst): Widespread; = *Xantholinus glabratus*.

Ocypus aeneocephalus (De Geer): Widespread.

Ocypus fuscatus (Gravenhorst): Pre-1853.

Ocypus olens (Müller): Devil's coach-horse; Widespread.

Othius angustus Stephens: Roscobie Hills, Tentsmuir.
Othius laeviusculus Stephens: Widespread.
Othius subuliformis Stephens: Widespread; = *O. myrmecophilus*.
Othius punctulatus (Goeze): Widespread.
Philonthus carbonarius (Gravenhorst): Widespread, especially on coast; = *P. varius*.
Philonthus cognatus Stephens: Widespread.
Philonthus decorus (Gravenhorst): Roscobie Hills, Ruddons Point, Tentsmuir.
Philonthus laminatus (Creutzer): Widespread.
Philonthus longicornis Stephens: Tentsmuir.
Philonthus marginatus (Ström): Magus Muir, Roscobie Hills, Tentsmuir.
Philonthus micans (Gravenhorst): Tentsmuir, wet ground.
Philonthus politus (L.): 1 of May, Tentsmuir.
Philonthus rotundicollis (Ménétriés): Tentsmuir.
Philonthus splendens Thomson: Dumbarnie Links, Tentsmuir.
Philonthus succicola Thomson: Dumbarnie Links, 1 of May.
Philonthus tenuicornis Mulsant & Rey: Widespread, especially on coast.
Philonthus varians (Paykull): Fleecefaulds Meadow, Roscobie Hills, Tentsmuir.
Platydracus stercorarius (Olivier): Dumbarnie Links, Roscobie Hills, Tentsmuir.
Quedius assimilis: Aberdour, pre-1900; = *Q. fulgidus*.
Quedius boopoides Munster: Roscobie Hills, Tentsmuir.
Quedius boops (Gravenhorst): N Queensferry, Roscobie Hills, Tentsmuir.
Quedius cinctus (Paykull): Newburn, Tentsmuir.
Quedius curtipennis Bernhauer: Widespread.
Quedius fuliginosus (Gravenhorst): Dumbarnie Links, Fleecefaulds Meadow.
Quedius fulvicollis (Stephens): Red Myre.
Quedius fumatus (Stephens): Calais Muir, Red Myre.
Quedius humeralis Stephens: Tentsmuir.
Quedius invreae Gridelli: Tentsmuir, [in wasps nests].
Quedius lateralis (Gravenhorst): Tentsmuir.
Quedius levicollis (Brull.): Widespread; = *Q. tristis*.
Quedius longicornis Kraatze: Elie - Largo, mole nests.
Quedius maurorufus (Gravenhorst): Widespread.
Quedius mesomelinus (Marsham): Newburn.
Quedius molochinus (Gravenhorst): Widespread, especially on coast.
Quedius nemoralis Baudi: Tentsmuir.
Quedius nigriceps Kraatz: Tentsmuir.
Quedius nitipennis (Stephens): Tentsmuir.
Quedius persimilis Mulsant & Rey: 1 of May, Tentsmuir; = *Q. aridulus*.
Quedius picipes (Mannerheim): Dumbarnie Links.
Quedius schatzmeyri Gridelli: Roscobie Hills.
Quedius scintillans (Stephens): 1 of May, Tentsmuir.
Quedius semiaeneus (Stephens): Tentsmuir.
Quedius semiobscurus (Marsham): N Queensferry.
Quedius umbrinus Erichson: Roscobie Hills.
Staphylinus erythropterus L.: Fleecefaulds Meadow.
Tasgius ater (Gravenhorst): 1 of May; = *Ocypus ater*.
Tasgius globulifer (Geoffroy): Widespread; = *Ocypus globulifer*.
Tasgius melanarius (Heer): Widespread on coast; = *Ocypus melanarius*.
Xantholinus jarrigei Coiffait: Tentsmuir.
Xantholinus laevigatus Jacobson: Tentsmuir.
Xantholinus linearis (Olivier): Widespread, especially on coast.
Xantholinus longiventris Heer: Dumbarnie Links, Roscobie Hills, Tentsmuir.
Xantholinus tricolor (Fabricius): Tentsmuir.

Geotrupidae

Large iridescent dung beetles.

Anoplotrupes stercorosus (Hartmann): Auchtermuchty, Cullaloe, as *Geotrupes stercorosus*.
Geotrupes spiniger (Marsham): Dumbarnie Links, Newburn, in horse dung.
Geotrupes stercorarius (L.): 1 of May, Newburgh.

Scarabaeidae - scarabs and chafers

Includes many large beetles, some feeding on dung (*Aphodius* spp.), others herbivorous, feeding on roots.

Aegialia arenaria (Fabricius): Dumbarrie Links, Earlsferry, Tentsmuir, dunes.

Anomala dubia (Scopoli): St Andrews, Tentsmuir, dunes.

Aphodius ater (De Geer): Widespread.

Aphodius contaminatus (Herbst): Widespread on coast.

Aphodius depressus (Kugelann): Fleecefaulds, in sheep dung.

Aphodius distinctus (Müller): Tentsmuir.

Aphodius fimetarius (L.): Tentsmuir.

Aphodius foetens (Fabricius): N Queensferry, pre-1867.

Aphodius foetidus (Herbst): 'Fife', pre-1853.

Aphodius fossor (L.): Kinghorn L, 1903.

[*Aphodius paykulli* Bedel: Brunton, Inverkeithing, needs confirmation.]

Aphodius prodromus (Brahm): Widespread.

Aphodius rufipes (L.): Widespread.

Aphodius rufus (Moll): I of May, (as *A. rufescens*).

Aphodius sordidus (Fabricius): 'Fife', pre-1853.

Aphodius sphacelatus (Panzer): Widespread, in horse dung.

Euheptaulacus villosus (Gyllenhal): St Andrews, 1955, 'Notable A'.

Melolontha melolontha (L.): Cockchafer; Kinghorn 1873, I of May c.1993.

Onthophagus joannae Goljan: Kinraig 1955, on carrion.

Psammoporus sabuleti (Panzer): Tentsmuir, as *Aegialia sabuleti*.

Serica brunnea (L.): Widespread on coast.

Clambidae

Minute beetles in leaf-litter.

Calyptomerus dubius (Marsham): Dumbarrie Links, Tentsmuir, marram litter.

Byrrhidae

Byrrhus fasciatus (Forster): Tentsmuir.

Byrrhus pilula (L.): Newburn, Tentsmuir.

Byrrhus pustulatus (Forster): Dumbarrie Links.

Cytilus sericeus (Forster): Tentsmuir.

Morychus aeneus (Fabricius): Tentsmuir, [waterside].

Simplocaria semistriata (Fabricius): Widespread in coastal grass.

Dryopidae

By water, larvae aquatic.

Dryops ernesti des Gozis: Dumbarrie Links, St Andrews, Tentsmuir, on damp vegetation.

Dryops luridus (Erichson): Common in muddy margins of lochs.

Elmidae - riffle beetles

Mainly in fast streams.

Elmis aenea (Müller): Common in mossy streams.

Esolus parallelipipedus (Müller): In Eden, Lothrie and Ore.

Limnius volckmari (Panzer): R Eden, Lade Braes.

Oulimnius troglodytes (Gyllenhal): Lindores Loch.

Oulimnius tuberculatus (Müller): Frequent in streams and wave-washed loch shores.

Riolus subviolaceus (Müller): Stravithie.

Elateridae - click beetles

Larvae (wireworms) in soil or wood.

Adrastus pallens (Fabricius): Newburgh, arable.

Agriotes obscurus (L.): Widespread, pest on arable and pasture land.

Agriotes pallidulus (Illiger): Keils Den.

Agriotes sputator (L.): Aberdour, 1893.

Agrypnus murinus (L.): Dumbarrie Links, Lundin Links, Ruddons Point, rare in Scotland.

Athous haemorrhoidalis (Fabricius): Widespread.
Athous hirtus (Herbst): Widespread.
Athous vittatus (Fabricius): Balmerino, woodland.
Ctenicera cuprea (Fabricius): Auchtermuchty Common, Tentsmuir.
Dalopius marginatus (L.): Widespread.
Denticollis linearis (L.): Newburn, on ash.
Hypnoidus riparius (Fabricius): Benarty Hill, Dumbarrie Links, Tentsmuir.
Selatosomus aeneus (L.): I of May, as *Corymbites aeneus*.

Cantharidae - soldier beetles

Predators, often active, and actively copulating, on flowers by day.

Ancistronycha abdominalis (Fabricius): 'Fife' pre-1853, as *Telephorus cyanipennis*.
Cantharis cryptica Ashe: Kittock's Den, Tentsmuir.
Cantharis decipiens Baudi: Tentsmuir.
Cantharis figurata Mannerheim: Tentsmuir.
Cantharis nigra (De Geer): Fleecefaulds, Tentsmuir.
Cantharis nigricans (Müller): Widespread.
Cantharis pallida Goeze: Tentsmuir.
Cantharis rufa L.: Widespread.
Malthinus flaveolus (Herbst): Tentsmuir.
Malthinus seriepunctatus Kiesenwetter: Tentsmuir.
Malthodes fuscus (Waltl): Tentsmuir.
Malthodes mysticus Kiesenwetter: Devilla, Tentsmuir.
Malthodes pumilus (Brebisson): I of May, Tentsmuir, including *M.atomus*.
Rhagonycha elongata (Fallén): Widespread.
Rhagonycha fulva (Scopoli): Widespread and abundant on umbel flower-heads in July.
Rhagonycha lignosa (Müller): Keils Den, Tentsmuir.
Rhagonycha limbata Thomson: Dumbarrie Links, Tentsmuir.

Dermestidae - carpet beetles etc.

Larvae feed on hair, leather etc.

Attagenus pellio (L.): Leven, 1893, Newburn.
Reesa vespulae (Milliron): Dunfermline 1981, indoors.

Anobiidae - timber beetles

Anobium punctatum (De Geer): Woodworm. 'Fife', c.1933.
Dryophilus pusillus (Gyllenhal): Earlshall [on pine].

Ptinidae - spider beetles

Small, rather globular beetles found in stored food.

Niptus hololeucus (Faldermann): I of May, 1956 or before.
Ptinus fur (L.): 'Fife', pre-1853.
Ptinus tectus Boieldieu: Dunfermline, 1905.

Cleridae

Medium-sized beetles with predatory larvae.

Thanasimus formicarius (L.): Flisk, pre-1853.

Kateretidae

Brachypterus glaber (Stephens): I of May, on nettles.
Brachypterus urticae (Fabricius): Tentsmuir [on nettles].
Kateretes pedicularius (L.): Black Loch (Abdie).

Nitidulidae

Small beetles with truncate wing cases, often on flowers.

Eपुरaea aestiva (L.): Dumbarnie Links, Tentsmuir.
Eपुरaea silicea (Herbst): Kenly Den, as *E.deleta*.
Eपुरaea unicolor (Olivier): Tentsmuir.
Meligethes aeneus (Fabricius): Widespread, common on oil-seed rape and other brassica crops, causing damage by eating flower buds.
Meligethes carinulatus Förster: Tentsmuir, as *M.erythropus* [on flowers of *Lotus corniculatus*].
Nitidula bipunctata (L.): Tentsmuir, [carrion].
Omosita colon (L.): Dumbarnie Links, in rotting seaweed
Omosita discoidea (Fabricius): Aberdour, 1899.
Pocadius adustus Reitter: Tentsmuir.
Pocadius ferrugineus (Fabricius) s.s.: Tentsmuir, on puffballs.

Rhizophagidae

Rhizophagus dispar (Paykull): Balmuto, pre-1853.

Sphindidae

Aspidophorus orbiculatus (Gyllenhal): Tentsmuir.

Cryptophagidae

Small beetles, in decaying vegetation.

Antherophagus nigricornis (Fabricius): Elie Ness.
Antherophagus pallens (L.): Tentsmuir, [in bumble bee nests].
Atomaria apicalis Erichson: E Neuk.
Atomaria atra (Herbst): Lochgelly.
Atomaria atricapilla Stephens: Widespread.
Atomaria diluta Erichson: Fife, pre-1870.
Atomaria fuscata (Schönherr): Widespread.
Atomaria fuscipes (Gyllenhal): Balmuto, Loch Gelly, [dung].
Atomaria lewisi Reitter: Widespread, [grass].
Atomaria munda Erichson: Crail.
Atomaria nigrirostris Stephens: S coast, [woodland].
Atomaria nigriventris Stephens: Burntisland, Kinghorn, [grassland].
Atomaria nitidula (Marsham): Widespread.
Atomaria pusilla (Paykull): Dumbarnie Links, Tentsmuir, [grassland].
Atomaria rubella Heer: Widespread.
Atomaria strandi Johnson: Tentsmuir.
Atomaria testacea Stephens: Widespread, [grassland]
Atomaria umbrina (Gyllenhal): Balmuto, 19th century [woodland]
Atomaria wollastoni Sharp: Balmuto, 19th century.
Cryptophagus dentatus (Herbst): Dumbarnie Links, Tentsmuir.
Cryptophagus distinguendus Sturm: Dumbarnie Links.
Cryptophagus pseudodentatus Bruce: Tentsmuir.
Cryptophagus pubescens Sturm: Balmuto, pre-1887.
Cryptophagus setulosus Sturm: Dumbarnie Links.
Ephistemus globulus (Paykull): S coast, gardens etc.
Micrambe villosa (Heer): I of May, on thistles.
Micrambe vini (Panzer): Dumbarnie Links, Keils Den, Tentsmuir, on whin.

Byturidae

Byturus tomentosus (De Geer): Carlingnose, Newburn, a pest on rasps.

Cerylonidae

Anommatus duodecimstriatus (Müller): Fife', pre-1982.

Cucujidae

[*Oryzaephilus cf.mercator* (Fauve): Glenrothes; a pest in stored food, perhaps an ephemeral introduction.]

Coccinellidae – ladybirds etc.

Adults and larvae of many species prey upon aphids.

Adalia bipunctata (L.): 2-spot ladybird; Widespread.

Adalia decempunctata (L.): 10-spot ladybird; Widespread.

Anatis ocellata (L.): Eyed ladybird; Widespread, on pines.

Aphidecta oblitterata (L.): Larch ladybird; St Andrews, Tentsmuir.

Calvia 14-guttata (L.): Cream-spot ladybird; Charleton, Keils Den, Tentsmuir.

Coccidula rufa (Herbst): Widespread.

Coccinella hieroglyphica L.: Hieroglyphic ladybird; Widespread on heather. [Predator of heather beetle.]

Coccinella septempunctata L.: 7-spot ladybird; Ubiquitous and often very abundant.

Coccinella undecimpunctata L.: 11-spot ladybird; Widespread on coast.

Exochomus quadripustulatus (L.): Pine ladybird; Tentsmuir, Kinkell.

Halyzia sedecimguttata L.: Orange ladybird; Burntisland, 2005.

Myrrha octodecimguttata (L.): 18-spot ladybird; Tentsmuir [and just over the border in W Fife, in tops of mature pine].

Myzia oblongoguttata (L.): Striped ladybird; Widespread, [on pine].

Nephus redtenbacheri Mulsant: Dumbarnie Links, Tentsmuir.

Rhizobius litura (Fabricius): Dumbarnie Links.

Scymnus femoralis Gyllenhal: Tentsmuir, [grassland].

Scymnus nigrinus Kugelann: Tentsmuir, [pines].

Scymnus schmidti Först: Dumbarnie Links.

Scymnus suturalis Thunberg: Ladybank, Tentsmuir + NT39, on pine.

Endomychidae

Mycetaea hirta (Marsham): Thornton, 1905, in poultry house; Dumbarnie Links, in vole nest.

Lathridiidae

Tiny beetles on foliage and in leaf-litter.

Aridius bifasciatus (Reitter): Widespread; introduced from Australia.

Aridius nodifer (Westwood): Barnyards Marsh, Newburn, Tentsmuir.

Corticaria crenulata (Gyllenhal): Dumbarnie Links.

Corticaria elongata (Gyllenhal): Tentsmuir, [pine].

Corticaria impressa (Olivier): Dumbarnie Links, Tentsmuir.

Corticaria umbilicata (Beck): Dumbarnie Links, Tentsmuir.

Corticarina fuscula (Gyllenhal): Dumbarnie Links, Tentsmuir.

Cotinicara gibbosa (Herbst): Tentsmuir.

Enicmus histrio Joy & Tomlin: Tentsmuir.

Lithostygnus serripennis Broun: Cupar, in stored barley, as *Metopthalmus serripennis*.

Stephostethus lardarius (De Geer): Widespread.

Mycetophagidae - fungus beetles

Antherophagus nigricornis (Fabricius): Elie.

Typhaea stercorea (L.): Tentsmuir.

Colydiidae

Orthocerus clavicornis (L.): Tentsmuir, dunes.

Tenebrionidae

Includes the mealworm beetle, *Tenebrio molitor*, often bred for bird-food etc.

Isomera murina (L.): I of May, Kincaig, St David's (including *Cistela murina* and *Gonodera murina*).

Melanimon tibialis (Fabricius): Tentsmuir, dunes.

Salpingidae

Salpingus reyi (Abeille): Saline, 1901, as *S.aeratus*.

Oedomeridae

Nacerdes melanura (L.): Recorded on a pleasure boat off Methil, 1914.

Meloidae - oil beetles

Meloe proscarabaeus L.: Near St Andrews, 1946.

Anthicidae

Notoxus monoceros (L.): Old record at St Andrews.

Cerambycidae - longhorn beetles

Large beetles with wood-boring larvae.

Acanthocinus aedilis (L.): Timberman beetle; Kirkcaldy, probably in imported timber.

Asemum striatum (L.): Tentsmuir Forest, on bark of pine.

Rhagium bifasciatum Fabricius: Blairadam, Cullaloe, pines.

Scraptiidae

Anaspis frontalis (L.): Black L (Abdie).

Anaspis maculata Geoffroy: Culross, Newburn, Tentsmuir, [on flowers].

Anaspis rufilabris Gyllenhal: Oakley (pre-1900), Tentsmuir.

Anaspis regimbarti Schilsky: Newburn.

Chrysomelidae - leaf beetles

Herbivores, often found on foliage as larvae and adults.

Altica oleracea (L.): Craigluscar, Townhill Muir.

Aphthona nigriceps (Redtenbacher): Kirkcaldy, [on *Geranium pratense*].

Cassida rubiginosa Müller: Green tortoise beetle. Dumbarrie Links, on thistles and knapweed.

Chaetocnema concinna (Marsham): Bankhead Moss, Dumbarrie Links, Tentsmuir; on dock etc.

Chaetocnema hortensis (Fourcroy): I of May.

Chalcoides fulvicornis (Fabricius): Coul Den, Tentsmuir, [on *Salix*].

Chrysolina haemoptera (L.): Tentsmuir.

Chrysolina hyperici (Forster): Tentsmuir, [on *Hypericum* spp.].

Chrysolina polita (L.): Tentsmuir.

Chrysolina staphylaea (L.): Widespread, [on Ranunculaceae].

Crepidodera ferruginea (Scopoli): S coast, [on thistles].

Crepidodera transversa (Marsham): Widespread, [on thistles].

Cryptocephalus labiatus (L.): Keils Den, on birch.

Donacia simplex Fabricius: Kilconquhar Loch; [on aquatic vegetation].

Donacia thalassina Germar: Kilconquhar Loch.

Donacia vulgaris Zschach: Kilconquhar Loch; [on burr-reed, *Sparganium* sp.].

Galerucella lineola (Fabricius): Craigluscar, Tentsmuir, [on *Salix*].

Galerucella nymphaeae (L.): Tentsmuir.

Galerucella sagittariae (Gyllenhal): Craigluscar, Tentsmuir, on *Salix*; including *G.grisescens*.

Gonioctena olivacea (Forster): Melville Wood, on broom.

Leptinotarsa decemlineata Say: Colorado beetle; occasionally introduced, e.g. in cargoes of grain in 1976 and 1977, but probably not established; potentially a serious pest of potatoes.

Lochmaea suturalis (Thomson): Heather beetle; Tentsmuir, Townhill Muir, on heather, *Calluna*.

Longitarsus curtus (Allard): Dumbarrie Links.

Longitarsus exoletus (L.): Kinraig cliffs [on Viper's bugloss, *Echium vulgare*].

Longitarsus ganglbaueri Heikertinger: Tentsmuir, [on ragwort].

Longitarsus gracilis Kutschera: Dumbarrie Links, I of May, Tentsmuir, on ragwort.

Longitarsus jacobaeae (Waterhouse): Widespread on dunes, [on ragwort].

[*Longitarsus* cf. *kutscheri* (Rye): Dumbarrie Links, needs confirmation.]

Longitarsus luridus (Scopoli): Widespread.

Longitarsus membranaceus (Foudras): Balmuto, 19th C.

Longitarsus ochroleucus (Marsham): Kirkcaldy [on *Senecio* spp].

Longitarsus succineus (Foudras): Dumbarnie Links.
Longitarsus suturellus (Duftschmid): Dumbarnie Links [on ragwort].
Luperus longicornis Fabricius: Devilla, on pine.
Mantura matthewsi (Curtis): Kincaig, on rock-rose.
Oulema melanopa (L.) s.s.: Newburn.
Oulema melanopa (L.) s.l.: Bankhead Moss, Red Myre, [on grass and cereal crops].
Phaedon tumidulus (Germar): Widespread, on umbellifers.
Phratora laticollis (Suffrian): Cullaloe, on *Salix*, = *Phyllodecta laticollis*.
Phratora vitellinae (L.): Widespread, on *Salix*, = *Phyllodecta vitellinae*.
Phratora vulgatissima (L.): Widespread, on *Salix*.
Phyllotreta undulata Kutschera: Small turnip flea beetle; Widespread on crucifers including gardens.
Plateumaris discolor (Panzer): Bankhead Moss [on *Sphagnum*].
Plateumaris sericea (L.): Loch Fitty.
Prasocuris junci (Brahm): Cullaloe [on Brooklime speedwell, *Veronica beccabungii*].
Psylliodes marcida (Illiger): Widespread on foredunes, on Sea rocket, *Cakile maritima*.
Psylliodes napi (Fabricius): Tentsmuir, [on crucifers].
Sphaeroderma rubidum (Graells): Dumbarnie Links, [a leaf-miner on thistles].
Sphaeroderma testaceum (Fabricius): Dumbarnie Links, Elie, Tentsmuir, on thistles.

Nemonychidae

Cimberis attelaboides (Fabricius): Tentsmuir, on pine.

Attelabidae

Rhynchites nanus (Paykull): Tentsmuir; [on willows and birch].

Apionidae

Similar to weevils, on herbs and shrubs.

[*Apion frumentarium* (L.): Tentsmuir, needs confirmation.]
 [*Apion haematodes* Kirby: Tentsmuir, needs confirmation.]
Apion rubens Stephens: Balmuto, 19th century.
Ceratapion carduorum Kirby: Dumbarnie Links.
Ceratapion gibbirostre (Gyllenhal): Dumbarnie Links, Tentsmuir [on thistles].
Ceratapion onopordi (Kirby): Elie.
 [*Cyanapion gyllenhalii* (Kirby): St Andrews, on *Vicia hirsuta*, needs confirmation.]
Eutrichapion ervi (Kirby): Dumbarnie Links; [on legumes.]
Exapion ulicis (Forster): Carlingnose, Tentsmuir.
Holotrichapion aethiops Herbst: Tentsmuir.
Holotrichapion ononis (Kirby): Dumbarnie Links, on *Ononis*, = *Eutrichapion ononis*.
Holotrichapion pisi (Fabricius): Kincaig.
Ischnopterapion loti (Kirby): Tentsmuir, [on *Lotus corniculatus*].
Ischnopterapion virens (Herbst): 'Fife', coastal.
Oxystoma subulatum (Kirby): Black L (Abdie), [on *Lathyrus*].
Perapion curtirostre Germar: Dumbarnie Links, Lielowan Meadow [on *Rumex* spp.].
Perapion marchicum (Herbst): Dumbarnie Links, Tentsmuir, [on *Rumex*].
Perapion violaceum (Kirby): Fleecefaulds, Tentsmuir, [on *Rumex*].
Protapion assimile Kirby: Fleecefaulds, [on clover].
Protapion fulvipes (Geoffroy): Barnyards Marsh, Dumbarnie Links, Newburn, [on clover], = *P. dichroum*.
Protapion nigrifemur (Kirby): Hawkraig Point.
 [*Protopirapion cf. atratum* Germar: Dumbarnie Links.]
 [*Pseudoprotapion astragali* (Paykull): N Queensferry, needs confirmation.]

Curculionidae - weevils

Herbivores, many seed-eating.

Anoplis plantaris (Naezen): Tentsmuir, on birch.
Anthonomus brunnipennis Curtis: Tentsmuir, [on *Potentilla*].
Anthonomus rubi (Herbst): 'Fife'.
Archarius salicivorus Paykull: Tentsmuir, as *Curculio salicivorus*.
Barynotus moerens (Fabricius): Newburgh.

Barynotus obscurus (Fabricius): Dumbarrie Links, + St Andrews 1890.
Barypeithes araneiformis (Schrank): Widespread.
Barypeithes pellucidus (Boheman): Devilla, Kincaig.
Ceutorhynchus alliariae Brisout: Lundin Links, hibernating in woodland litter [feed on *Alliaria*].
Ceutorhynchus contractus (Marsham): Dumbarrie Links, Lindin Links, on *Cochlearia* [and other crucifers].
Ceutorhynchus erysimi (Fabricius): Dumbarrie Links, St Monans [feed on shepherd's purse, *Capsella bursa-pastoris*].
Ceutorhynchus typhae (Herbst): Dumbarrie Links, Newburn, as *C.floralis* [on crucifers].
Ceutorhynchus marginatus (Paykull): Balmuto, 19th century.
Ceutorhynchus obstrictus (Marsham): Dumbarrie Links, Keils Den, formerly *C.assimilis*.
Ceutorhynchus pallidactylus (Marsham): Dumbarrie Links, [on crucifers]; including *C.quadridens* (Panzer).
Cidnorhinus quadrimaculatus (L.): Dumbarrie Links, Fleecefaulds.
Cionus alauda (Herbst): Culross, 1900.
Cionus scrophulariae (L.): Inverkeithing, Thornton, both pre-1900.
Cleonis pigra (Scopoli): Dumbarrie Links, Tentsmuir, [on thistles], = *Cleonus piger*.
Dorytomus melanophthalmus (Paykull): Tentsmuir, [on trees].
Dorytomus taeniatus (Fabricius): St Andrews, on *Salix*.
Euophryum confine (Broun): St Andrews, pre-1951 [bores in dead wood, an introduction from New Zealand].
Grypus equiseti (Fabricius): Dumbarrie Links, Tentsmuir, [on *Equisetum*].
Gymnetron beccabungae (L.): Morton L.
Hylastes ater (Paykull): N Queensferry, 1896, pine.
Hylastes brunneus Erichson: Tentsmuir, [pine].
Hylastinus obscurus (Marsham): Cardenden, 1915, broom.
Hylurgops palliatus (Gyllenhal): Cullaloe, 1897, conifers.
Hylobius abietis (L.): Pine weevil; Widespread in pine plantations.
Hypera arator (L.): Dumbarrie Links.
Hypera nigrirostris (Fabricius): Dumbarrie Links, Ferryhills.
Hypera plantaginis (De Geer): Tentsmuir, [on *Lotus*].
Hypera rumicis (L.): Birnie Loch.
Hypera suspiciosa (Herbst): Dumbarrie Links.
Leiosoma deflexum (Panzer): Fleecefaulds Meadow, Newburn.
Limnobaris t-album (L.): Thornton, pre-1900.
Litodactylus leucogaster (Marsham): Morton L, Otterston L.
Magdalis duplicata Germar: Earlshall, pine.
Magdalis phlegmatica (Herbst): Earlshall, pine.
Mecinus collaris Germar: Kincaig cliffs, galls on *Plantago*.
Mecinus pascuorum (Gyllenhal): Dumbarrie Links, in seed-heads of *Plantago lanceolatum*.
Mecinus pyraister (Herbst): Kincaig cliffs, on *Plantago*.
Miarus campanulae (L.): Coastal, [on *Campanula* spp.]
Micrelus ericae (Gyllenhal): Bankhead Moss, Tentsmuir.
Microplontus rugulosus (Herbst): Kincaig, Tentsmuir, as *Ceutorhynchus rugulosus*.
Orchestes fagi (L.): Keils Den, as *Rhynchaenus fagi* [on beech].
[*Orchestes pilosus* (Fabricius): Tentsmuir, as *Rhynchaenus pilosus*
[leaf-miner on oak] - needs confirmation].
Orchestes rusci (Herbst): Tentsmuir, as *Rhynchaenus rusci* [leaf-miner on birch].
Orthochaetes setiger (Beck): Kincaig, [on composites].
Otiorhynchus arcticus (Fabricius):, Aberdour, Dalgety, I of May, rocky coasts.
Otiorhynchus atroapterus (De Geer): Widespread on marram dunes.
Otiorhynchus desertus Rosenhauer: I of May.
Otiorhynchus ligneus (Olivier): Cocklemill Burn.
Otiorhynchus ovatus (L.): Widespread on coast.
Otiorhynchus porcatus Herbst: St Andrews Botanic Garden, on roots of *Primula*.
Otiorhynchus rugifrons (Gyllenhal): I of May, Kincaig, Pettycur.
Otiorhynchus rugosostriatus (Goeze): Ruddons Point.
Otiorhynchus scaber (L.): Kilminning coast.
Otiorhynchus singularis (L.): Widespread.
Otiorhynchus sulcatus (L.): Vine weevil; Widespread, a common pest of house plants, but also found out-doors.
Parathelcus pollinarius (Forster): Newburn, on nettles, = *Ceutorhynchus pollinarius*.
Pelonemus quadrituberculatus (Fabricius): Tentsmuir; as *Phytobius quadrituberculatus*.
Philopeton plagiatum (Schaller): Dumbarrie Links, Tentsmuir, dunes, on marram.
Phyllobius argentatus (L.): Keils Den, Tentsmuir.
Phyllobius maculicornis Germar: Tentsmuir.

Phyllobius pomaceus Gyllenhal: Barnyards Marsh, Dumbarnie Links.
Phyllobius pyri (L.): Dumbarnie Links, Tentsmuir.
Phyllobius roboretanus Gredler: Newburn.
Phyllobius viridiaeris (Laicharting): Tentsmuir.
Phyllobius viridicollis (Fabricius): Dumbarnie Links.
Pissodes pini (L.): 'Fife', pre-1853.
Pissodes validirostris (Sahlberg): Earlshall, pine.
 [Polydrusus cervinus (L.): Tentsmuir, needs confirmation.]
Polydrusus pilosus Greder: Tentsmuir.
Rhamphus pulicarius (Herbst): Tentsmuir.
Rhinoncus castor (Fabricius): Widespread, [dock].
Rhinoncus pericarpus (L.): Dumbarnie Links.
Rhinoncus perpendicularis (Reich): Lundin Links.
Sitona ambiguus Gyllenhal: Dumbarnie Links [on legumes].
Sitona griseus (Fabricius): Tentsmuir [on legumes].
Sitona hispidulus (Fabricius): Coastal grassland [on clover etc.].
Sitona lepidus Gyllenhal: Carlhurlie Reservoir, Ferryhills, = *S. flavescens*.
Sitona lineatus (L.): Widespread, grass and tall herb [on legumes].
Sitona lineellus (Bonsdorff): Pettycur, Tentsmuir, [on legumes].
Sitona puncticollis Stephens: Newburn, [on clover].
Sitona regensteinensis (Herbst): Widespread, on whin [and broom].
Sitona striatellus Gyllenhal: Aberdour, 1893, as *S. tibialis*.
Sitona suturalis Stephens: Fleecefaulds Meadow [on nettles].
Strophosoma melanogrammum (Forster): Widespread on trees.
Strophosoma sus (Stephens): Tentsmuir, [on heather].
Tachyerges salicis (L.): Tentsmuir.
Tachyerges stigma (Germar): Tentsmuir, [on trees].
Trachyphloeus bifoveolatus (Beck): Ferryhills, Kincaig.
Trichosirocalus troglodytes (Fabricius): Widespread on coast, on *Plantago*.
Tropiphorus obtusus (Bonsdorff): Earlshall, on dog's mercury, *Mercurialis perennis*.
Zacladus geranii (Paykull): Kincaig, on Bloody crane's-bill, *Geranium sanguineum*.

Scirtidae

Larvae aquatic, adults terrestrial.

Cyphon coarctatus Paykull: Fen vegetation around several lochs.
Cyphon hiliaris Nyholm: Kilconquhar Loch.
Cyphon ochraceus Stephens: Kilconquhar Loch.
Cyphon padi (L.): Star Moss.
Cyphon punctipennis Sharp: Miller's Loch (Lomonds).
Cyphon variabilis (Thunberg): Lindores Loch, Miller's Loch.
Elodes minuta (L.): Craigtoun.
Microcara testacea (L.): Prior Muir.