

Pea Beetle × 4

Bean Beetle × 4

- ▲ **Pea Beetle** *Bruchus pisorum* Bruchidae. One of several similar beetles. A serious pest of peas. Legless grubs develop in growing pods. Adults emerge in spring and commonly sunbathe on walls.
- ▲ **Bean Beetle** *Acanthoscelides obtectus*. Like *Bruchus* but pronotum distinctly triangular instead of semi-circular. Hind femur has 3 teeth. A pest of beans, breeding in stored seeds and growing crops.

LEAF BEETLES Chrysomelidae A family of over 25,000 known species, almost all leaf-eaters. Often brightly coloured and mostly with smooth, rounded outlines. Tarsi appear 4-segmented, but actually 5-segmented: 4th segment is minute and concealed in expanded 3rd segment. Some species might be confused with ladybirds (p. 270) but latter have only 3 visible tarsal segments. Larvae soft and slug-like although they have short legs.

- ▲ ***Donacia vulgaris***. Elytra green or coppery with red or blue central area. On bur-reed 5-8. Larvae live in stems. One of several similar species on water plants.
- ▲ ***Oulema melanopus***. Head and elytra blue or black. Abundant in grass and sometimes a minor cereal pest. 4-7, often sunning itself on walls.
- ▲ **Asparagus Beetle** *Crioceris asparagi*. A pest of asparagus, adults and larvae chewing the fine, needle-like branches. 5-8, hibernating as adult. S & C.
- ▲ **Lily Beetle** *Lilioceris lilio*. 4-8 on various members of lily family, including cultivated forms. Orange larvae are clothed with slimy black droppings. S & C; a major pest.
- ▲ ***Clytra 4-punctata***. 5-8 on vegetation near wood ant nests. Scatters eggs on nest: larvae, protected by soil and excrement, eat scraps in the chambers and galleries.
- ▲ ***Cryptocephalus hypochaeridis***. One of a large genus of very metallic beetles, commonly seen on flowers, especially hawkweeds and other yellow composites, in summer.

C. sericeus is golden green to bluish or purplish green. 4-7 in grassland, especially on yellow umbellifers. S & C.

C. bipunctatus occurs mainly on hazel, birch, and oak. 4-7.

- ▲ **Bloody-nosed Beetle** *Timarcha tenebricosa*. Strongly domed and flightless: smooth elytra fused together. Pronotum narrows strongly towards rear. One of the largest leaf beetles. Named for habit of exuding red blood from mouth when alarmed - this frightens birds. 4-8 in grassy places, walking slowly over turf and bare ground. Feeds on bedstraws. S & C. ▲ *T. goettingensis* is smaller, with pronotum almost parallel-sided.

- ▲ ***Chrysolina polita***. Common all summer on herbage of river banks and other damp places, especially on mints. *C. grossa* of Mediterranean area is larger, with metallic blue thorax.

- ▲ ***C. menthastris*** is one of our most brilliant leaf beetles, found on mints and other labiates in damp places. 5-9. S & C.

- ▲ ***C. cerealis*** is usually metallic green with blue and red bands, but colours vary. Throughout summer in dry, sandy places, usually on wild thyme. S & C.

C. geminata is bronzy green or blue, sometimes all black. On St John's-worts (*Hypericum* species) throughout summer. N & C.

- ▲ ***Gastrophysa viridula***. Usually golden green: sometimes bluish. Gravid female has enormously swollen abdomen. 5-8 on docks and related plants, normally on edges of ponds and streams.

- ▲ **Colorado Beetle** *Leptinotarsa decemlineata*. A notorious potato pest, originally from N. America. Larvae (p. 295) and adults all destroy leaves, and also feed on tomato, nightshades, and related plants. Active 4-9, hibernating in soil as adult. Widely distributed in S & C; notify police if seen in B.

- ▲ ***Chrysomela populi***. Pronotum dark green or bronze or almost black. Elytra orange to bright red, often with dark spots. On sallows and poplars 4-9.

C. 20-punctata has 10 irregular black marks on each elytron. 4-8, usually near water and normally on willows. C.

- ▲ ***Phytodecta viminalis***. Shiny rusty brown: black marks variable and sometimes absent, but usually a black band or heart-shaped mark at rear of pronotum. 5-8, mainly on willows. N & C.

- ▲ ***Lochmaea caprea***. Locally abundant on sallows in fens and other damp places: also on birch. 4-9. ▲ *L. crataegi* is redder and occurs on hawthorn.

leaf beetle tarsus showing the very small 4th segment almost enclosed in the 3rd segment

LEAF BEETLES



Donacia vulgaris × 2



Oulema melanopus × 3



Asparagus Beetle × 3



Lily Beetle × 3



Clytra 4-punctata × 2



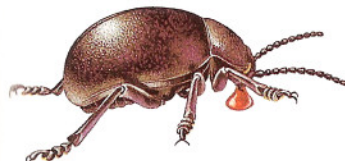
Cryptocephalus hypochaeridis × 3



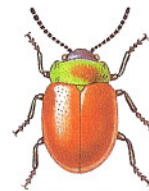
C. sericeus × 3



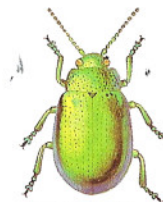
C. bipunctatus × 3



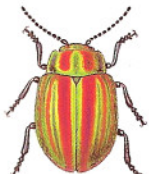
Bloody-nosed Beetle × 1.5



Chrysolina polita × 2



C. menthastris × 2



C. cerealis × 2



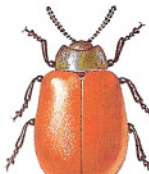
C. geminata × 2



Gastrophysa viridula × 2



Colorado Beetle × 2



Chrysomela populi × 2



C. 20-punctata × 2



Phytodecta viminalis × 2



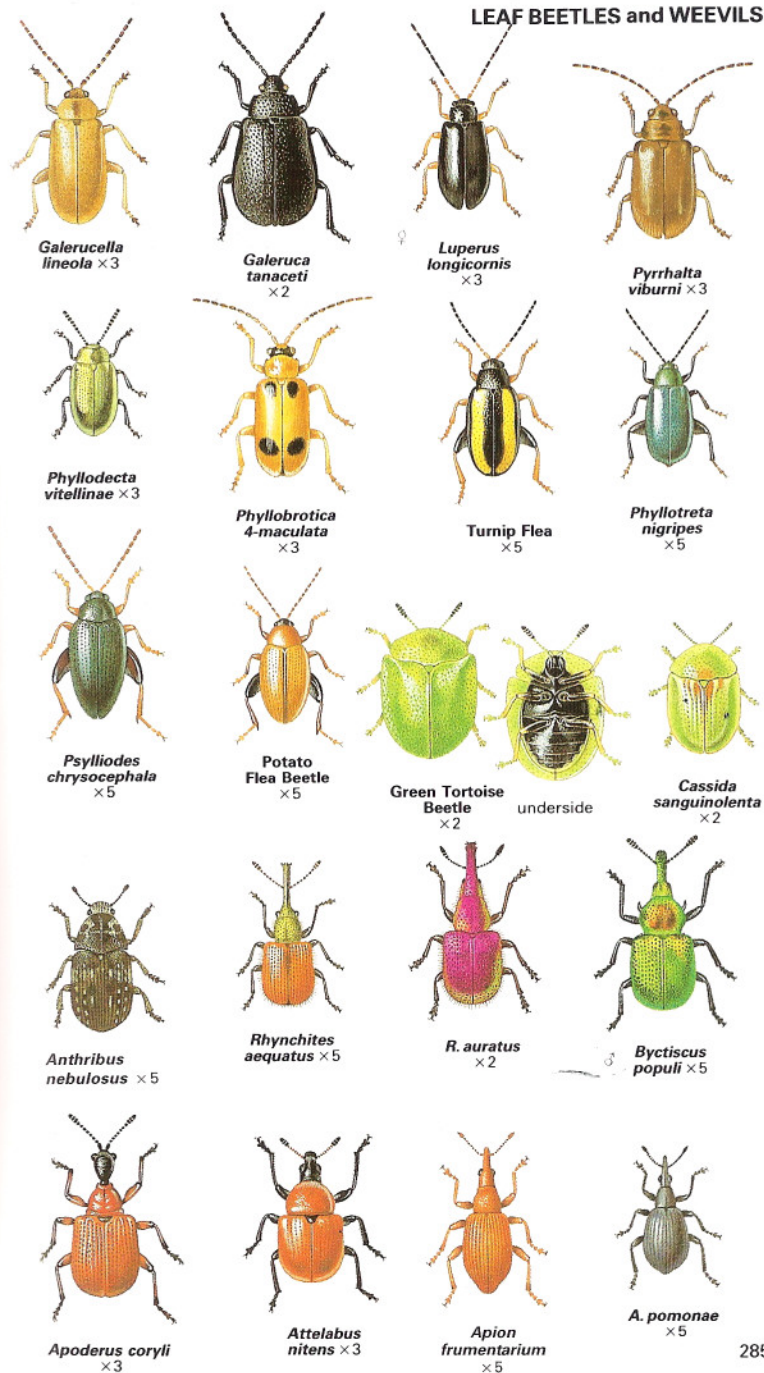
Lochmaea caprea × 2

- ▲ *Galerucella lineola*. A rather sombre, hairy beetle with pubescence lying parallel to suture. Often abundant on willows 3-9, feeding on flowers and leaves. Several similar species live on willows and other waterside plants.
- ▲ *Galeruca tanacetii*. Shiny black. Elytra distinctly wider at rear end, especially in female, where abdomen may protrude beyond elytra. Roadsides and other grassy places, often quite dry, feeding on yarrow and other composites. 4-9.
- ▲ *Luperus longicornis*. Male is more parallel-sided, with antennae much longer than body. On trees in damp places throughout the summer.
- ▲ *Pyrrhalta viburni*. Very like *G. lineola*, but pubescence runs at right angles to suture. On wayfaring tree throughout summer, often reducing leaves to skeletons.
- ▲ *Phyllodecta vitellinae*. Golden green, sometimes bluish or coppery. On poplars and willows, especially osiers, in spring and summer. Hibernates under bark.
- ▲ *Phyllobrotica 4-maculata*. 5-8, usually on skullcap in damp places.
- ▲ Turnip Flea *Phyllotreta nemorum*. One of the flea beetles – jumping species with enlarged hind femora. Like many other flea beetles, it is a pest of brassicas, including turnips. Adults feed mainly on seedlings, leaving them riddled with holes. Larvae tunnel in leaves and mature in autumn. Adults hibernate and reappear in spring to feed and lay eggs.
- ▲ *Phyllotreta nigripes* larvae feed on roots, but adult habits are like *nemorum*.
- ▲ *Psylliodes chrysocephala*. Another troublesome flea beetle, with very large hind femora. Elytra sometimes yellowish brown. Larvae live in stems and mid-ribs of brassicas, especially cauliflowers and turnips. They also damage oil-seed rape. Adults nibble flowers and leaves. Winter is passed in the larval stage.
- ▲ Potato Flea Beetle *P. affinis* is common on nightshades and is sometimes a pest of potatoes (rarely a problem in B.) Adults nibble leaves while larvae tunnel in roots.
- ▲ Green Tortoise Beetle *Cassida viridis*. One of several similar species in which the pronotum and elytra extend well beyond the body. When pulled tightly down against a leaf they eliminate shadows and make the beetles very hard to see. Rear angles of pronotum rounded (more sharply angled in most other species). 6-9, usually in damp places on leaves of mint and other labiates. The larvae of all *Cassida* species (p. 295) camouflage themselves with excrement.
- ▲ *C. sanguinolenta* is more convex and usually marked with red. It occurs on thistles and yarrow in grassland in summer.

WEEVILS A very large group, with over 40,000 known species arranged in several families. Most weevils have a prominent snout (the rostrum), with jaws at the end and elbowed antennae normally attached about half way along. Many are clothed with scales and many are flightless, often with elytra fused together. Almost all are vegetarians throughout their lives. Larvae are usually legless and usually live inside their food-plants: many live in seeds.

- ▲ *Anthribus nebulosus* Anthribidae. Similar to *Bruchus* (p. 282), with short snout, although elytra cover abdomen. On various broad-leaved and coniferous trees and shrubs 5-7. Larvae have legs and feed on various scale insects.
- ▲ *Rhynchites aequatus* Attelabidae. On hawthorn and other rosaceous trees from spring to autumn. Female rostrum much longer than head and thorax together: male rostrum about as long as head and thorax together. There are several similar species, although their colours vary slightly.
- R. auratus* ranges from brassy green to purple. 5-7 on blackthorn, the larvae living inside the kernel of the fruit. The largest member of its family, it is widely distributed but uncommon in Europe.
- ▲ *Byctiscus populi*. Female lacks spines on front of thorax and has shorter rostrum. 6-9 on aspen and other poplars. Female rolls leaf around eggs. ▲ *B. betulae*, found on birch, hazel, and various other trees, is similar but has very shiny, metallic legs. Both species often blue or violet.

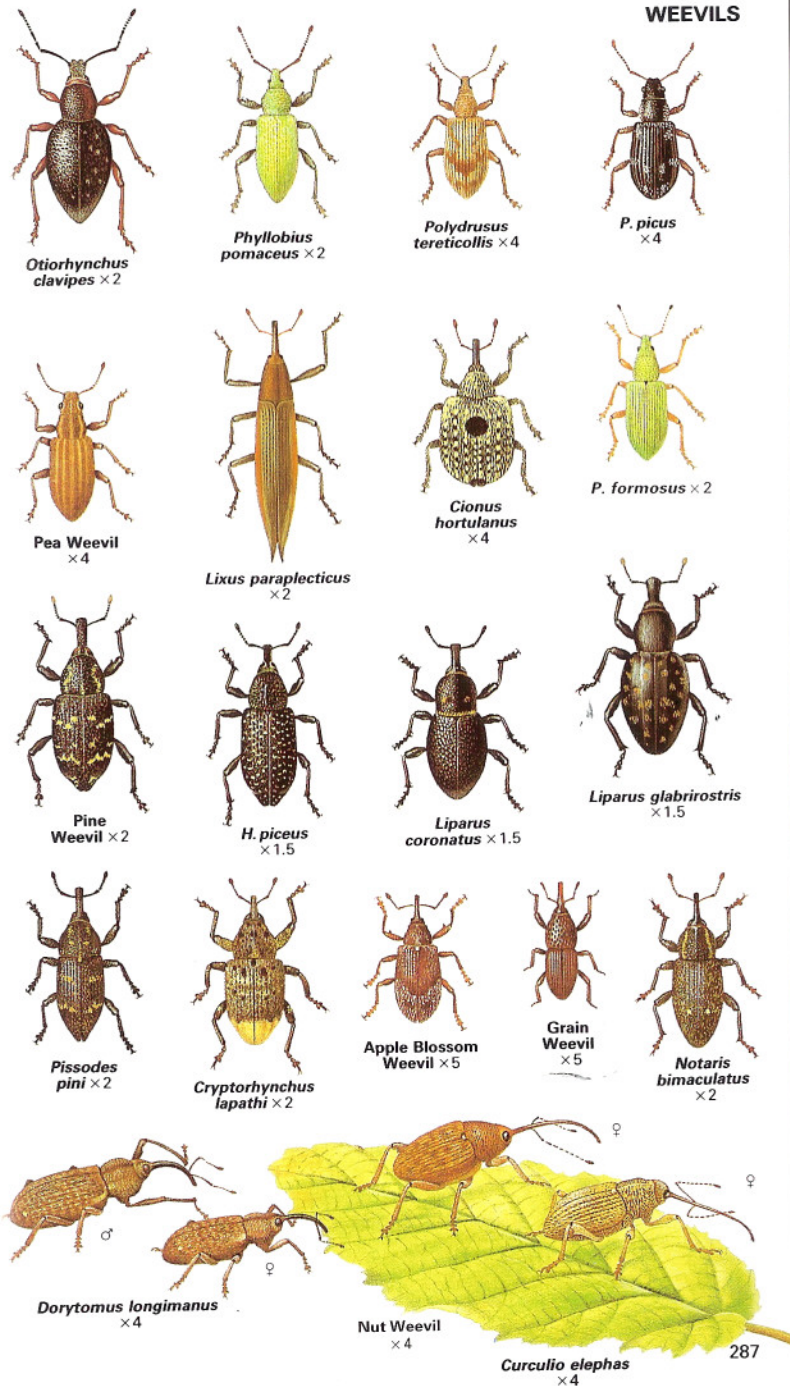
- ▲ *Apoderus coryli*. Head narrows at rear, forming a distinct neck. 5-7, mainly on hazel. Larva feeds in rolled-up leaf.
- ▲ *Attelabus nitens*. Like *Apoderus* but head not narrowed at rear. 5-7 on young oaks and sweet chestnuts. Larva feeds in rolled-up leaf.
- ▲ *Apion frumentarium* Apionidae. One of several similar species in this large genus. All are small, with characteristically pointed fronts. On docks, especially in damp habitats. 5-8.
- ▲ *A. pomonae* Rather downy: elytra sometimes greenish blue. Legs black. 5-8 on peas and vetches: larvae feed in the pods.



tortoise beetle
camouflaged
on leaf

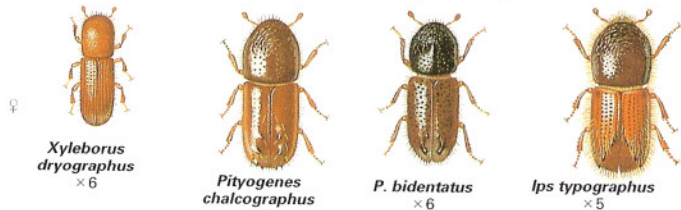
- ▲ **Otiorynchus clavipes** Curculionidae. One of our largest weevils, with very long antennae. Distinguished from *Liparus* and some other similar weevils by short rostrum with antennae attached to the upper surface instead of the sides. Pale markings due to clusters of hairs, which often rub off with age. On hawthorn and other rosaceous trees and in dense grass tufts in summer. ▲ **Vine Weevil** *O. sulcatus*, slightly smaller and with a tooth on the front femur, attacks a wide range of garden and greenhouse plants and is particularly troublesome on pot plants. The larvae chew roots. There are several similar species. Adults are mostly nocturnal.
- ▲ **Phyllobius pomaceus**. One of several similar species clothed with golden green or bluish green scales: scales easily rub off and older specimens may be bald and black. Front femur toothed. Abundant on nettles 4-9.
- ▲ **Polydrusus tereticollis**. 4-6 in oak, aspen, and alder coppice. Elytra with alternating bands of bronze and paler brassy scales. This genus can usually be distinguished from *Phyllobius* because front femur is usually untoothed.
- P. picus* inhabits birch, oak, and beech in summer. Patches of pale scales often missing in older specimens. S & C.
- ▲ *P. formosus* is very shiny, 4-7 on deciduous trees, especially birch.
- ▲ **Pea Weevil** *Sitona lineatus*. Prominent eyes and striped elytra. Abundant on peas, clovers, and other legumes in autumn and spring: hibernates as adult. Nibbles leaf margins, leaving them with frilly edges. Larva feeds in root nodules. A serious pest of peas in some years. There are several similar species.
- △ **Lixus paraplecticus**. Elytra dark, clothed with yellow scales. On stems of various umbellifers in damp places in autumn and spring: hibernates as adult. S & C: possibly extinct in B.
- ▲ **Cionus hortulanus**. Grey or greenish grey, with shiny rostrum and two more-or-less equal black spots on the back. 6-9 on dark mullein. Larva feeds externally, surrounded by gelatinous secretion. S & C. There are several similar species, but the black spots are unequal.
- ▲ **Pine Weevil** *Hylobius abietis*. Pubescent patches usually pale but may be deep chestnut: legs black or deep red: femora toothed. A serious pest of pine and spruce, damaging young shoots by chewing bark and stopping growth. Adult all year, but hibernates and seen mainly 4-10. Larvae develop in old stumps.
- H. piceus*, usually a little larger, is associated mainly with larch. N & C.
- Liparus glabriorstris*. Superficially like *Hylobius*, but plumper and elytra clearly rounded at front without angled 'shoulders'. Rather shiny. On umbellifers, butterbur, and other waterside plants in upland regions in spring and summer. C. △ *L. germanus* has yellow scales on pronotum as well.
- ▲ *L. coronatus* is smaller, often without yellow scales on elytra. In turf and other low-growing vegetation in spring and early summer. Larvae feed in roots, including cultivated carrots.
- ▲ **Pissodes pini**. Resembles *Hylobius* but more slender, with antennae inserted further back on rostrum. Femora not toothed. On pine and spruce, mostly in upland forests but lower down in N. Hibernates as adult. Larva under bark of living or dead conifers.
- ▲ **Cryptorhynchus lapathi**. Pale scales are white or yellowish. On willows, poplars, birches, and alders in spring and summer. Larvae develop in timber and may kill branches and small trees: a serious pest in osier beds.
- △ **Apple Blossom Weevil** *Anthonomus pomorum*. Eggs are laid in flower buds of apple and pear. The flowers do not open properly and the larvae develop inside them. The buds eventually fall and adults emerge later to hibernate under loose bark.
- ▲ **Grain Weevil** *Sitophilus granarius*. Chestnut brown or black: elytra shiny. All year in granaries and similar places, breeding in stored grain of all kinds.
- ▲ **Notaris bimaculatus**. Striped pubescence often less obvious in older specimens. On waterside vegetation, including willows and sedges, in spring. There are several similar species.
- △ **Dorytomus longimanus**. Male has extremely long front legs. Both sexes with very long shiny black rostrum. 4-9 on poplars. Larvae in catkins and young shoots.
- ▲ **Nut Weevil** *Curculio nucum*. Female uses long rostrum to gnaw into young hazel nuts. She then lays an egg there and larva feeds on developing kernel. The grub remains in the nut until it falls in autumn, and then chews its way out and pupates in the soil. Rostrum is shorter in males and antennae are attached nearer the tip. 4-7, often visiting hawthorn flowers for pollen and nectar. ▲ *C. villosus* is black with scanty grey scales and a red antennal scape. Grubs develop as inquilines on oak apple galls of *Biorhiza pallida* (p. 228). ▲ *C. salicivorus*, only 2.5mm long, is black with a scaly white covering. Abundant on willows in summer, its larvae living in galls of *Pontania* sawflies (p. 224). *C. elephas*, with longer and straighter rostrum, breeds in acorns and sweet chestnuts. 6-9. S & C (mainly south).

WEEVILS

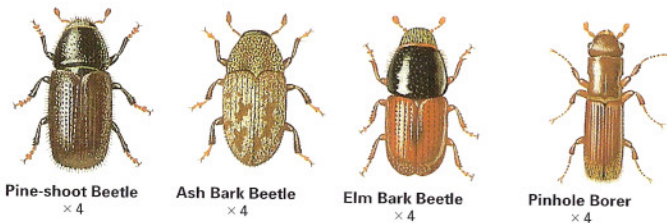


BARK BEETLES Scolytidae. Cylindrical beetles, related to weevils but with almost no rostrum. Head almost hidden from above. Antennae distinctly elbowed. Elytra usually concave at rear and used as shovels when excavating. Adults normally mate in a chamber under the bark of the host tree, and female then excavates one or more galleries in which she lays her eggs. The larvae then make their own tunnels just under the bark and produce characteristic patterns (right) as they leave the main galleries and chew their way through the nutritious tissues. After pupation, adults emerge through small holes in the bark. A few species live deeper in the timber.

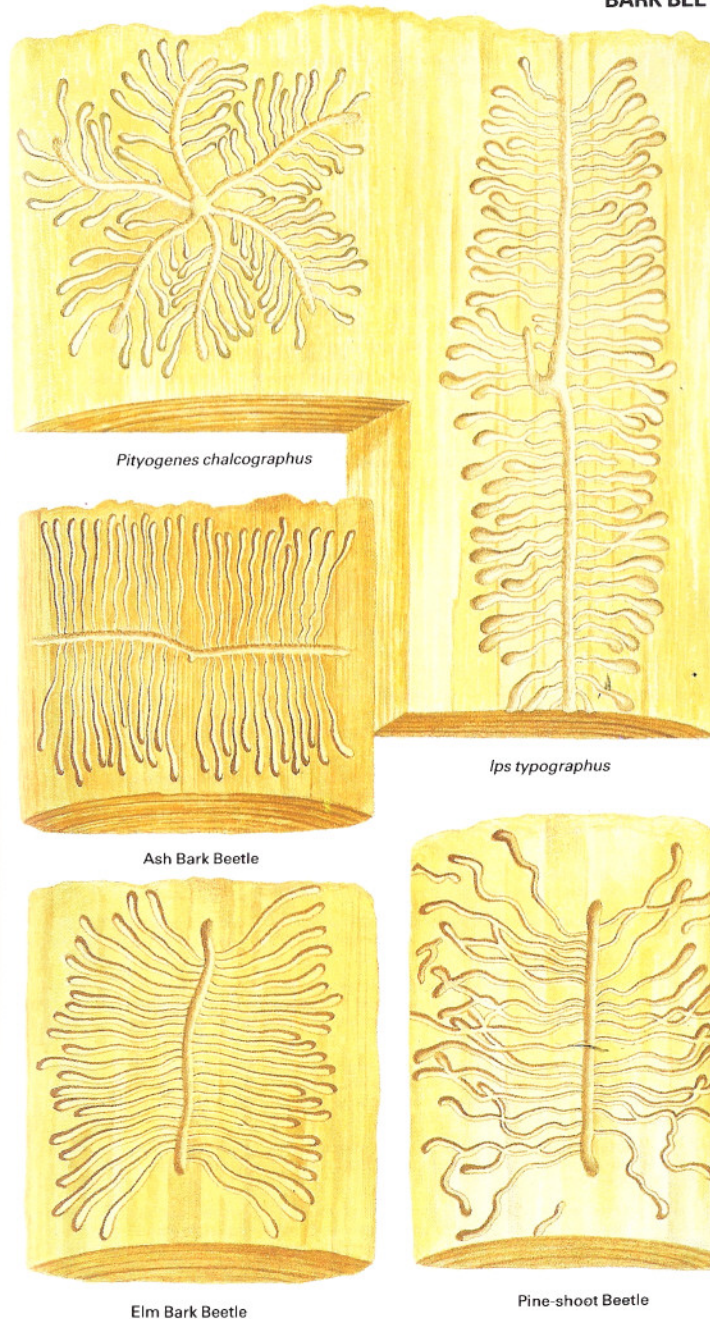
- ▲ *Xyleborus dryographus*. Dark orange to chestnut. Male has a pit at front of pronotum and is more pointed in front. Adults and larvae bore deeply into timber – mainly oak and chestnut – and feed on fungi growing on the tunnel walls. S & C.
- ▲ *Pityogenes chalcographus*. Deep brown to black, with 3 teeth on each side of elytral hollow. Mainly on spruce, often swarming round trees 5-6. Sometimes a 2nd brood in late summer. Female makes radiating galleries from nuptial chamber and larvae tunnel at right angles from them. ▲ *P. bidentatus*. Only the male has the 2 downward-pointing teeth on each side of elytral hollow. On pine and spruce.



- ▲ *Ips typographus*. Very hairy and much larger than *Pityogenes*. Elytral pit has 3 teeth on each side. 5-7. Breeds in spruce, with 2 vertical egg galleries made by two females mated to one male.
- ▲ **Pine-shoot Beetle** *Tomiscus piniperda*. Chestnut to black. Mainly in stumps of pine. Main gallery vertical with pairing chamber at base. Adults hibernate and are active mainly in spring, when they nibble the shoots. ▲ *T. minor* is similar, but galleries are like those of Ash Bark Beetle. N & C.



- ▲ **Ash Bark Beetle** *Leperisinus varius*. Black, with irregular pattern of scales. 4-10 in 2 broods. Usually breed in diseased or fallen trunks and branches of ash. Main galleries horizontal, with 2 more or less equal arms. Adults often emerge in large numbers from logs brought indoors for the fire.
- ▲ **Elm Bark Beetle** *Scolytus scolytus*. Notorious carrier of Dutch elm disease, the adults carrying spores from tunnels and infecting new trees as they chew the young shoots. 5-9. Egg gallery vertical and quite short; larval galleries irregular.
- ▲ **Pinhole Borer** *Platypus cylindrus*. Platypodidae. Very cylindrical. 6-7, producing characteristically splintery debris when tunnelling before egg-laying. Usually in oak, larvae tunnelling deeply into standing trunks or unseasoned logs. S & C.





Dytiscus renewing air supply, which is carried between the body and the elytra

Family Dytiscidae A large family, related to the ground beetles (p. 256) although much modified for life in the water. The head is sunk partly back into the thorax and the whole body outline is smoothly rounded, while the hind legs are usually broad and flat and fringed with hairs for efficient swimming. Males of many species have swollen front tarsi, with which they grip the females while mating. The beetles renew their air supplies by coming to the surface tail-first. They nearly all fly well. Most can be found throughout the year, although they may hibernate in the coldest months. Adults and larvae are all fiercely carnivorous.

▲ **Great Diving Beetle** *Dytiscus marginalis*. Reddish brown with a deep green sheen, although latter fades after death. Pronotum has yellow border all round. Male elytra very smooth; female elytra usually dull and ribbed. Weedy ponds and other still waters: often very common. Larva (p. 297) and adult both attack frogs and newts as well as fishes, tadpoles, and various invertebrates. *D. latissimus* is larger and blacker, with elytra expanded sideways. Prefers large lakes. N & C. There are several similar species, mostly without yellow all round the pronotum.

Cybister laterimarginalis resembles *D. marginalis* but pronotum has yellow only at the sides. 3-7 in still and running water in lowlands. Not in far north.

▲ ***Acilius sulcatus***. Elytra shiny in male; ribbed in female, with dense hair between ridges. Black pattern on elytra often indistinct. Ponds and other still or slow-moving water.

▲ ***Platambus maculatus***. Readily identified by its pattern, although this does vary slightly. 5-10. Occurs in some well-aerated lakes, but mainly in running water – from fast-flowing mountain streams to weedy rivers and even brackish stretches: prefers stony or sandy bottoms. Absent from far south.

▲ ***Noterus clavicornis***. Yellowish brown to brick-coloured. Very convex and tapering markedly towards the rear. Antennae dilated, especially in male. 3-10 in densely vegetated ponds and lakes. Widely distributed, but local. Often placed in a separate family – the Noteridae.

▲ ***Nebrioporus depressus***. Clothed with short hair. Elytra toothed near apex. Amounts of black and yellow on elytra vary, some beetles being largely black and others mainly yellow. Yellow deepens with age. Essentially a bottom-dwelling species with legs less modified for swimming than in most other dytiscids. Lakes and rivers with gravelly beds.

▲ ***Laccophilus minutus***. Rather flat, with distinctly lobed hind tarsi. Elytra sometimes quite green and frequently decorated with pale spots. Ponds and ditches.

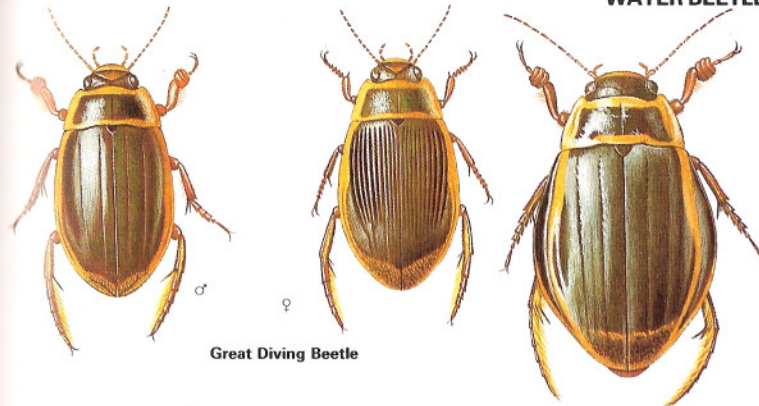
▲ ***Hygrotus versicolor***. Relatively large eyes, together with the characteristic elytral pattern, distinguish this from several closely related species. Very common in lakes, canals, and slow-moving rivers.

▲ ***Hydroporus palustris***. One of several closely related species, but usually distinguished quite easily by the orange or yellow borders of the elytra. The rest of the elytral pattern varies and may be absent. Very common in all kinds of still water, including mountain tarns.

▲ ***Ilybius fenestratus***. One of several very similar species with unequal claws on hind feet. Most are black or bronze, but *fenestratus* has a reddish tinge above and a red underside. 4-10 in ponds and lakes; less often in slow-moving streams. Larva (p. 297) is typical of many dytiscids in shape. N & C.

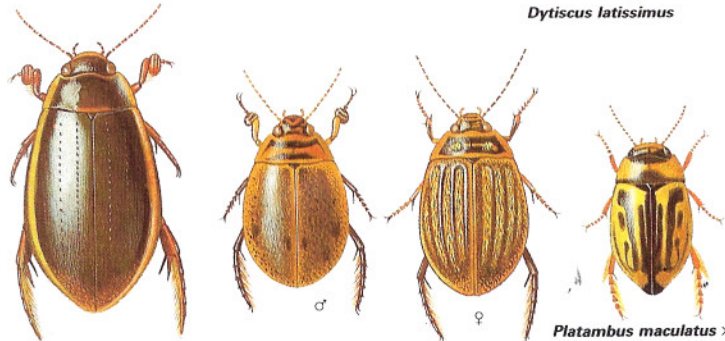
▲ ***Colymbetes fuscus***. Distinguished by its narrow shape (relative to *Dytiscus*) and by the yellow margins of elytra and thorax. Often with a green iridescence. Abundant in weedy and muddy ponds and ditches.

▲ ***Agabus bipustulatus***. Antennae and front legs reddish brown; rest of body black, with a faint shine in male but dull in female. Claws on hind feet equal. In standing water of all kinds: often abundant. Flies very readily and not uncommon at lights at night. There are several similar species, but most are smaller.



Great Diving Beetle

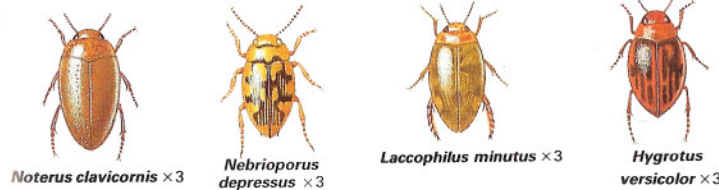
Dytiscus latissimus



Cybister laterimarginalis

Acilius sulcatus
× 1.25

Platambus maculatus × 3

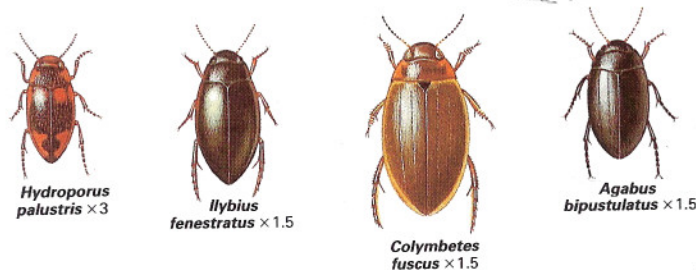


Noterus clavicornis × 3

Nebrioporus depressus × 3

Laccophilus minutus × 3

Hygrotus versicolor × 3



Hydroporus palustris × 3

Ilybius fenestratus × 1.5

Colymbetes fuscus × 1.5

Agabus bipustulatus × 1.5