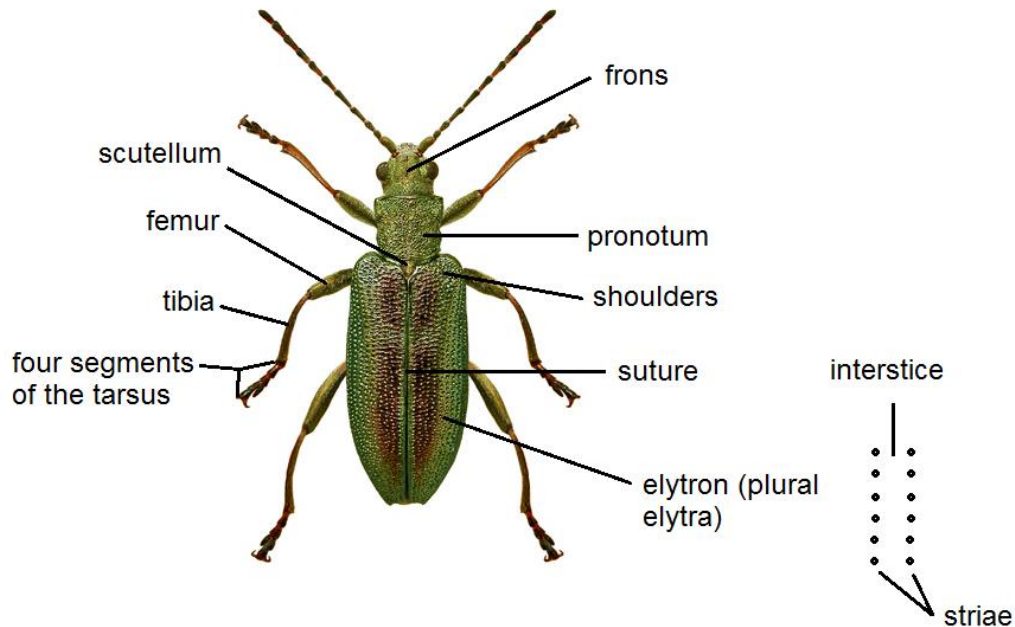


Subfamily Donaciinae

The keys in this document are derived partly from Joy (1932) A Practical Handbook of British Beetles and partly from the German keys by Arved Lompe, published at <http://www.coleo-net.de/coleo>. I have translated these and they are reproduced here with the author's permission.



Checklist

From the Checklist of Beetles of the British Isles, 2012 edition, edited by A. G. Duff (available from www.coleopterist.org.uk/checklist.htm).

Genus **Macrolea** Samouelle, 1819
appendiculata (Panzer, 1794)
mutica (Fabricius, 1792)

Genus **Plateumaris** Thomson, C.G., 1859
bracata (Scopoli, 1772)
discolor (Panzer, 1795)
rustica (Kunze, 1818)
sericea (Linnaeus, 1758)

Genus **Donacia** Fabricius, 1775
aquatica (Linnaeus, 1758)
bicolora Zschach, 1788
cinerea Herbst, 1784
clavipes Fabricius, 1792
crassipes Fabricius, 1775
dentata Hoppe, 1795
impressa Paykull, 1799
marginata Hoppe, 1795
obscura Gyllenhal, 1813
semicuprea Panzer, 1796
simplex Fabricius, 1775
sparganii Ahrens, 1810
thalassina Germar, 1811
versicolorea (Brahm, 1791)
vulgaris Zschach, 1788

Image Credits

The illustrations in this key are reproduced from the Iconographia Coleopterorum Poloniae, with permission kindly granted by Lech Borowiec.

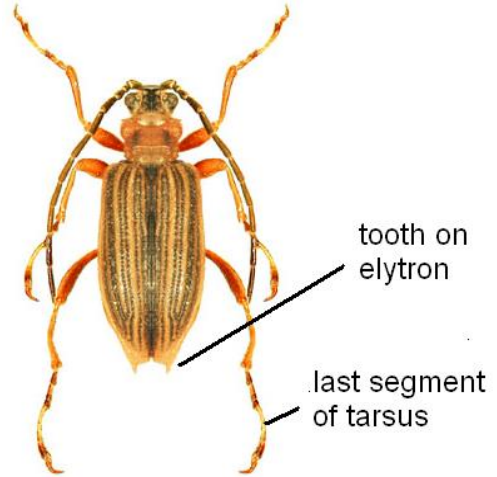


Subfamily Donaciinae
Key to genus, adapted from Joy (1932) by Mike Hackston

- 1 Elytra with a tooth at the apex. Last segment of tarsi longer than the previous segments combined.

..... **Genus *Macrolea***

Usually underwater species feeding the roots of freshwater and brackish water-plants.



Elytra untoothed at the tip. Last segment of tarsi shorter.[2](#)



- 2 Beetle more convex; elytra rounded at the apex; tibiae stouter.
..... Genus *Plateumaris*



- Beetle less convex; elytra truncated at apex as if cut off with scissors. Tibiae more slender.
..... Genus *Donacia*



Genus *Plateumaris*

This key is my translation of A. Lompe's German key, the original of which can be accessed at <http://www.coleo-net.de/coleo/texte/plateumaris.htm>. The translation was undertaken and is reproduced here with the author's permission. Lompe's key is based on the work of K. Mohr and E. Reitter.

- 1 Viewed from below, the lateral section of the pronotum with a rather deep cavity for the legs. Legs more slender and delicate; tips of the tibiae and the tarsi narrow in both sexes, widening only a little; first and second segment of the tarsi clearly longer than wide, comparatively quite weakly widening from the base to the tip. Femora on the outer surface densely punctured, almost wrinkled. Tibiae with a complete furrow on the outer surface and a foreshortened one on the inner surface. Hind femora not thickened, with a pointed tooth apparent in both sexes. Pronotum bare. Underside with quite dense yellow-grey or golden-yellow hair. Upper surface brassy, green, blue, red, purple or golden, rarely black.



..... ***Plateumaris sericea***

Associated with *Eriophorum*, *Iris pseudacorus* and *Carex* species. *Plateumaris discolor* will also key here. Askevold (1991) suggested that the species were not distinct.

Viewed from below the curved lateral section of the pronotum is not hollowed or only weakly so. Hind femora in the male with a pointed tooth; in the female with a blunt or vestigial tooth. The legs, particularly in males, more compact; tips of the tibiae conspicuously broadened. First and second segments of the tarsi as broad as or broader than long, narrow at the base and distinctly rounded at the tip.2



- 2 Pronotum broadest in the front third, clearly angled at the front angles and strongly convex in section. Femora on the outer surface quite densely punctured, the areas between the punctures shining or with an indistinct leathery texture. Elytra dark with a violet sheen. Pronotum often with a bluish or greenish shine.
 ***Plateumaris bracata***
 On *Phragmites communis*.



Pronotum with almost straight sides and with the front angles rounded. Outer surface of the femora with the area between the uniform punctures occupied by isolated larger and deeper pits (check with the light from different directions); the spaces between have a clear leathery texture. Length 7-9 mm.
 ***Plateumaris rustica***
 On *Cladium mariscus* and *Carex* species



Genus *Macroplea*

Key to species adapted from Joy (1932) by Mike Hackston

- 1 Elytra with the striae less strongly punctured; interstice three at least half as broad as interstices 2 and 4. Length 4.5-6.0 mm.

..... ***Macroplea mutica***

In brackish water, local in England at the roots of *Potamogeton pectinatus*, *Zostera marina*, *Zannichellia palustris* and *Ruppia maritima*.



- Elytra with the striae more strongly punctured; interstice three much narrower than interstices 2 and 4. Length 5.5-8.5 mm.

..... ***Macroplea appendiculata***

Very rare in England and Scotland, at the roots of *Potamogeton* species, *Myriophyllum*, *Sparganium*, *Sagittaria*, *Carex*, *Typha* and other freshwater species.



Genus *Donacia*

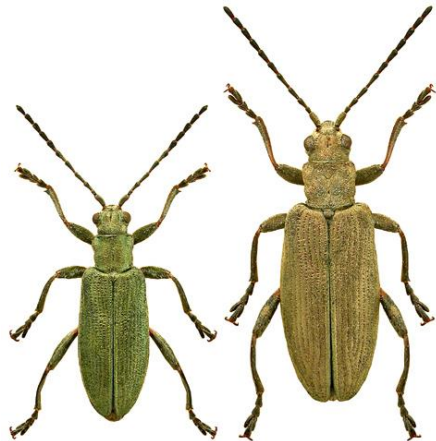
This key is my translation of A. Lompe's German key, the original of which can be accessed here: <http://www.coleo-net.de/coleo/texte/donacia.htm>. The translation was undertaken and is reproduced here with the author's permission. Lompe's key is based on the previous works of K. Mohr and E. Reitter.

- 1 At least the elytra without hair.2

The whole upper surface covered with dense matted hair. Elytra long and almost parallel. Legs partly reddish. Hind femora untoothed. Subgenus *Donaciella*.

..... ***Donacia cinerea***

Associated with *Typha*, *Sparganium*, *Phragmites* and *Carex* species.



2	Antennae and legs completely or partly yellow or reddish-brown.	<u>3</u>
	Antennae and legs completely black or metallic.	<u>9</u>

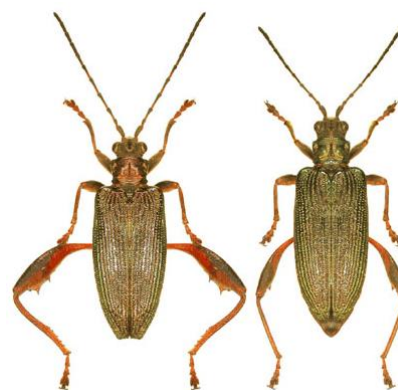


- 3 Hind femora elongate, reaching beyond the end of the abdomen in males and reaching the end of the abdomen in females; hind femora with one or more pointed teeth (which may be very small in females).[4](#)



Hind femora shorter, falling well short of the tip of the abdomen; hind femora toothed or not.[6](#)

- 4 Pronotum distinctly broader than long, very finely sculptured, without distinct punctures. Elytra broad, flattened, appearing sheared off at the tip; striae finer towards the tip, interstices almost smooth. Hind femora with two teeth in males and a single tooth in females. Upper surface golden green, coppery or purple. Length 9-11 mm.
 ***Donacia crassipes***
 Associated with water lilies.



Pronotum clearly punctured or with a wrinkled texture.5

- 5 Tips of the elytra appearing sheared off with the outer angles rounded. Central part of the pronotum shining with fine punctures. Elytra usually blackish with a bluish sheen, violet or greenish towards the margins, usually with a similarly coloured strip down the middle. Third segment of the antennae shorter than the first. Both sexes with a callosity on the first segment of the abdomen viewed from below.

..... ***Donacia veriscolorea***

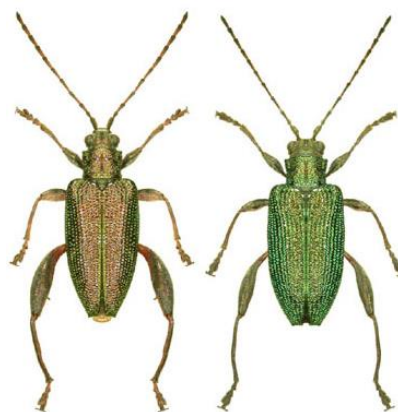
Associated with *Potamogeton natans* and other freshwater plants.



Tips of the elytra appearing sheared off but obliquely towards the centre, the outer angles thus well-marked. Pronotum densely punctured and with a wrinkled texture on the central part. Elytra uniformly coppery or bronzy-brown, sometimes with a greenish sheen. Third segment of the antennae at least as long as the first segment. Males with two callosities before the middle of the first sternite; females with a single callosity at the tip; occasionally these callosities are indistinct. Length 7-11 mm.

..... ***Donacia dentata***

Associated with *Alisma*, *Sagittaria* and *Nuphar lutea*.

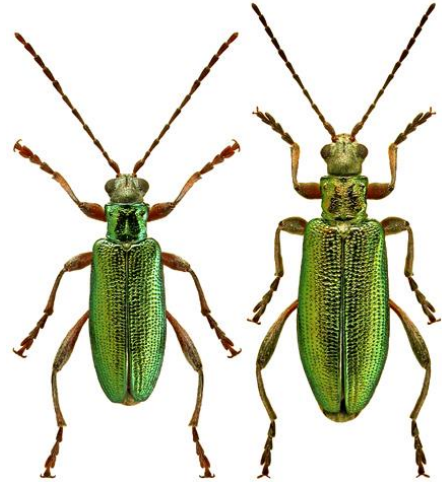


- 6 Elytra with indentations along the suture.7
 Take care with *D. semicuprea* in which the indentations may be very indistinct.

Elytra without indentations along the suture.

..... ***Donacia clavipes***

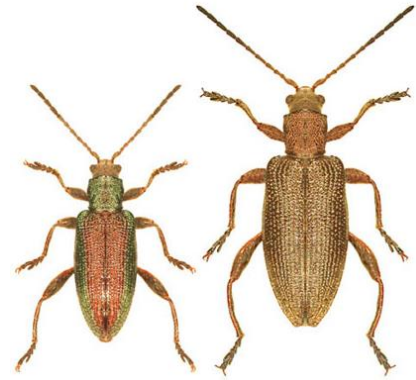
Associated with species of *Carex* and *Phragmites*. Antennae and legs usually completely yellowish to pale brown. Third segment of the antennae at least as long as the first segment. Elytra very long, almost parallel, bluntly rounded at the tip. Hind femora slender, untoothed. Upper surface green, coppery or golden. Pronotum shining with only fine and scattered punctures in the middle. Length 7-12 mm.



- 7 Elytra shining with the first indentation just before the middle next to the suture, often scarcely visible. Elytra coarsely wrinkled, with the tips usually rounded; rarely uniform in colour, usually being coppery or green along the centre and the margins. Third segment of the antennae shorter than the first. Hind femora in males sometimes with weak teeth. Length 5-8 mm.

..... ***Donacia semicuprea***

Associated with *Glyceria* species and *Sparganium*.

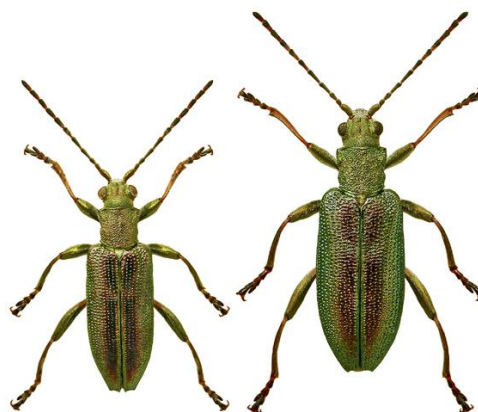


Elytra almost dull with all the interstices and the suture with a distinct leathery or wrinkled texture. Tips of the elytra appear sheared off or rounded; elytra usually with two or three indentations next to the suture.8

- 8 Elytra not narrowing until well beyond the middle, then more distinctly tapering to the tip, appearing sheared off at the tip and usually with slight points from the outer and sutural angles. Striae distinct right to the tip. Upper surface green or coppery, each elytron often with a purplish longitudinal band alongside the suture. Length 6.8 mm.

..... ***Donacia vulgaris***

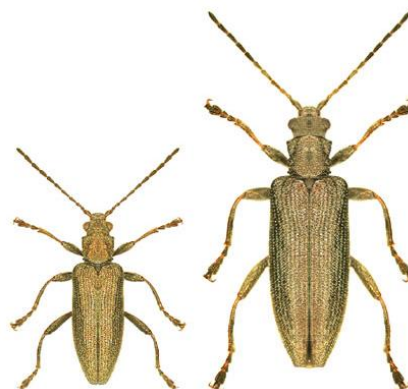
Associated with species of *Typha*, *Nuphar*, *Nymphaea*, *Glyceria*, *Schoenoplectus*, *Carex*, *Sparganium* and *Scirpus*.



Elytra evenly tapering from just beyond the middle towards the tip, appearing sheared off at the tip but without points at the angles. Striae almost completely fade before reaching the tip. Upper surface uniformly coloured, usually bronzy or greenish, rarely purple or greenish-blue. Length 7-8 mm.

..... ***Donacia simplex***

Associated with species of *Phragmites*, *Glyceria*, *Sparganium*, *Carex* and *Typha*.



- 9 Third segment of the antennae almost as long as the first. Hind femora longer. EITHER hind femora with several thorn-like teeth OR elytra with broad, red, longitudinal stripes.10

Third segment of the antennae shorter than the first (rarely equal - *obscura*). Hind femora shorter, never with several teeth. Elytra without red longitudinal stripes.11



- 10 Pronotum finely wrinkled and weakly punctured. Elytra shining, the first interstice next to the suture narrow, with a few weak impressions near the suture. Hind femora with two pointed teeth (rarely three). Upper surface coppery, greenish or violet, often clearly green or golden towards the margins. Length 7-8 mm.

..... ***Donacia sparganii***

Associated with species of *Glyceria*, *Nuphar*, *Sparganium* and *Butomus*



Pronotum clearly punctured and wrinkled. Elytra with a silky sheen. First interstice next to the suture broad, with a dull leathery texture, with a single pit right against the suture in the front third, which is often extended as a furrow running obliquely towards the inner impression on the shoulder. Elytra with a broad coppery red longitudinal stripe. Hind femora with a single sharp tooth before the middle. Length 6-10 mm.

..... ***Donacia aquatica***

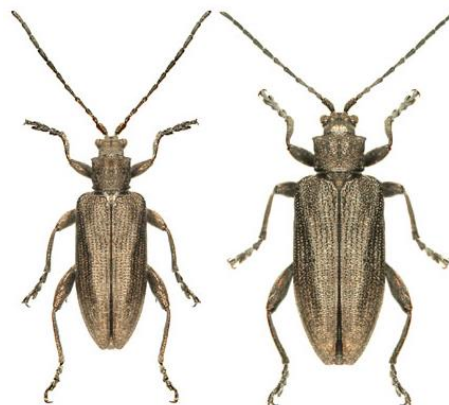


- 11 Last segment of the tarsi bearing the claws short, the lobes of the third segment of the hind tarsi reaching at least half the length of the last segment. Pronotum with the punctures in the centre weak or indistinct.12

Last segment of the tarsi longer with the lobes of the third segment of the hind tarsi reaching at most to the middle of the last segment. Pronotum with the punctures in the middle more or less distinct, usually clearly wrinkled. Tooth of the hind femora always clear, usually robust.

..... ***Donacia obscura***

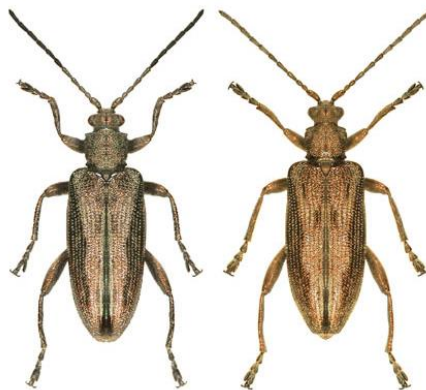
On species of *Scirpus* and *Carex*



- 12 The first interstice of the elytra has a texture of irregular long wrinkles; viewing the first interstice towards the tip from the side it can be seen to be raised like the teeth of a comb. Striae finer. Frons broad. Eyes clearly protruding. Tooth of the hind femora weak or indistinct. Hind tibiae distinctly curved. Front angles of the pronotum distinctly projecting like a tooth, this tooth a little before the side margin of the lateral tooth. Length 6-10 mm.

..... ***Donacia impressa***

Associated with species of *Glyceria*, *Schoenoplectus*, *Scirpus* and *Carex*.



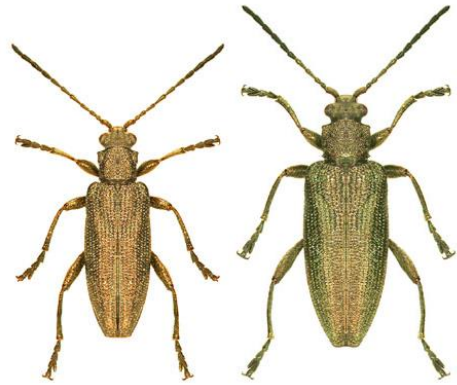
First interstice of the elytra with a texture of irregular transverse wrinkles which do not have the appearance of a comb towards the tip when viewed from the side. Striae of the elytra coarser.[13](#)

- 13 The two outermost striae of the elytra separated by significantly more than their width in the area around the swelling on the shoulder (and often remaining this far apart at least partly to the middle of the elytra), the area between them sometimes with isolated irregular punctures. Elytra along the suture generally with 2-4 usually deep impressions (not counting the impression by the scutellum). Tooth of the hind femora generally well-developed.14

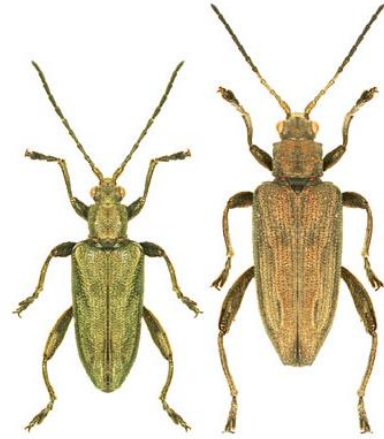
The two outermost striae of the elytra much closer together in the area around the shoulder swelling and beyond, being as close as the diameter of a puncture or less. Elytra generally only with 1-2 impressions along the suture (apart from the scutellar impression). Tooth of the hind femora weak at least in females.

..... ***Donacia thalassina***

Associated with various freshwater plants such as species of *Typha*, *Schoenoplectus*, *Eleocharis*, *Carex*, *Bolboschoenus*, *Scirpus* and *Iris*.



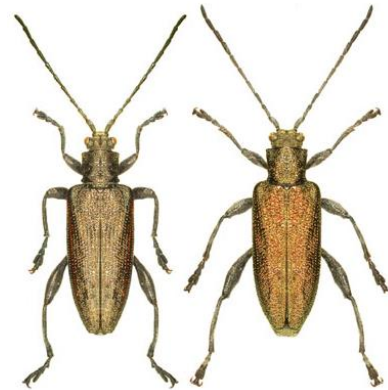
- 14 Back edge of the tip of the abdomen in females rounded, appearing sheared off or indistinctly notched and in males weakly notched. Elytra with distinctive impressions: 3-4 impressions next to the suture, one on the scutellum along with a large lateral longitudinal impression (in addition to further small bumps). Elytra with a dull silky sheen, generally uniformly green to yellowish-green (sometimes with reddish or coppery shine, rarely bluish). The interstices between the striae are quite strongly wrinkled resulting in the striae themselves becoming unclear. Underside golden-yellow hairy. Length 8.6-11 mm.



..... ***Donacia bicolora***

On species of *Sparganium* in Britain. Recorded on *Carex* and *Scirpus* on the Continent.

Hind margin of the abdomen notched in both sexes. Impressions on the elytra usually less numerous and less deep: 2-4 impressions next to the suture (of which only two are clear), the scutellar impression and the lateral impression are often indistinct or absent. Elytra broadest at the shoulders, usually somewhat shining, generally bronzy, brassy, coppery or grey-greenish with a narrow reddish or bluish longitudinal stripe around the border and a similar coloured patch next to the scutellum (this marking may be faded or absent). Striae usually clearer. Underside with yellowish-grey or brassy hairs (sometimes also with golden-yellow hair mixed in). A very variable species in the number of impressions on the elytra, the colouring and the shape of the pronotum. Length 8-11 mm.



..... ***Donacia marginata***

On the same species as *bicolora* and sometimes collected together with it.