Anthonomus and Furcipus. Weevils with long rostrums, and long front legs. The front legs are often slightly crooked, and the eyes bulging or sticking out at the sides. Front femur with a tooth. Some species have bands of pale scales across the wing-cases, others are plain. Most are on trees of the rose family (Rosaceae), but there are species on elms Ulmus, pines Pinus, or herbaceous members of the rose family. The tree-feeding species are easily found by beating the host plants. Some of them are active in winter and early in the year, laying their eggs before the buds burst.

Anthonomus = habitually on flowers. Furcipus = forked foot.



Similar species



a narrower rostrum, more oval shape, and larger, flat eyes.



Curculio spp have Bradybatus fallax has shorter front legs and a narrower band of scales on the wingcases.



Brachonyx pineti is proportionately much narrower and longer.



Some Dorytomus are similar, but they either have mottled wing-cases without distinct bands, or they are plain. Anthonomus conspersus is mottled too, but it has bulging eyes. The plain Dorytomus have proportionately longer wing-cases than the plain Anthonomus. Dorytomus has slender, untoothed claws. Most Anthonomus have toothed claws; the exception is the plain Anthonomus varians, which has more protruding eyes, more crooked front legs, and proportionately shorter wing-cases than any Dorytomus.

This is a difficult group. The current names have been muddled in the past, and specimens in museum collections are often misidentified. The species with patterned wing-cases are particularly tricky. The most similar species are separated by their foodplants, and this is a good clue to identification, but beware that some of these plants (particularly blackthorn Prunus and hawthorn Crataegus) often grow intermingled.

A useful hint is that Anthonomus pedicularius and Anthonomus bituberculatus are by far the commonest patterned species. If you have found an Anthonomus on a hawthorn, assume it is one of these two first. They are not difficult to tell apart if you look for the long wonky legs and longer and narrower rostrum of bituberculatus. Anthonomus pomorum is the only other common patterned species. It lives on apple Malus blossom.

Larval foodplants of Anthonomus and Furcipus. * = scarce, ** = very scarce, *** = rare.

Patterned species

Crataegus hawthorns Crataegus hawthorns Crataegus hawthorns Malus apples Malus apples or Pyrus pears Prunus spinosa Blackthorn Sorbus aucuparia Rowan Prunus padus Bird Cherry Ulmus elms Plain species Rosaceae (cinquefoils and other herbs) Rosaceae (cinquefoils and other herbs) Pinus pines

bituberculatus pedicularius chevrolati*** pomorum piri*** rufus* conspersus** rectirostris* ulmi**

brunnipennis rubi varians**

Widespread and common. Widespread and common. South-east England, rare. Widespread but local. Very rare, perhaps extinct. South and west, scarce. North and west, scarce. North and west, scarce. Widespread but scarce.

Widespread but uncommon. Widespread and common. Scottish pinewoods only.

Guide to the species groups

Group 1 Wonky legs, large single tooth on front femur *Anthonomus bituberculatus, pomorum, chevrolati, ulmi, piri*



Wing-cases with **patterns** of yellow or white scales. Front tibia **strongly expanded** half way, like a meat cleaver. Front **femur larger**, disproportionately long, and with a single **large tooth**. The front legs appear **odd**, long and crooked.

Group 3 Wonky legs, large double tooth on front femur *Furcipus rectirostris*



Wing cases with **jagged bands** of white or yellow scales. **Long scutellum**. Front legs bizarre and large, with a **double tooth** on the front femur.

Group 2 Normal legs, medium single tooth on front femur *Anthonomus pedicularius, conspersus, rufus*



Wing-cases with **patterns** of yellow or white scales. Front tibia only slightly expanded half way. Front femur large, but not disproportionately so, and with a single **smaller tooth**. The front legs look **normal**.

Group 4 Plain wing-cases *Anthonomus rubi, brunnipennis, varians*



Wing cases with fine hair-scales only, appearing **plain** black, brown, red, or orange.



Anthonomus bituberculatus is a Group 1 species, with wonky, outsize legs, and a large tooth on the front femur.



Anthonomus pedicularius is a Group 2 species. The front legs are not outlandish, and the tooth on the front femur is smaller.



This work by Mark Gurney is licensed under a <u>Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License</u>. Photo of *Furcipus rectirostris* by <u>Udo Schmidt</u> is licensed under a Creative Commons Attribution-ShareAlike 2.0 License.

Thanks to James McGill for specimens of *Anthonomus rufus*, and to the Angela Marmont Centre for UK Biodiversity at the Natural History Museum for photos of *Anthonomus pomorum*, *chevrolati*, *piri*, *ulmi*, and *conspersus*.

Group 1 Wonky legs, large single tooth on front femur.

	Anthonomus bituberculatus	Anthonomus pomorum	Anthonomus chevrolati	Anthonomus ulmi	Anthonomus piri
Size	2.0-3.5 mm	2.5-4.5 mm	2.5 -3.5 mm	2.5-3.5 mm	3.5-4.5 mm
Eyes	Flattened in front, strongly protruding at sides.	Rounded, bulging	Rounded, bulging.	Slightly flattened in front, hardly protruding.	lightly flattened in front, slightly protruding at sides.
Rear femur	No tooth.	Small tooth	Small tooth	Small tooth or a tiny tooth.	Small tooth
Rear band on wing-cases	Straight or angled slightly forward.	Angled strongly forward, speckled .	Straight or angled slightly forward.	Straight or angled slightly forward.	Straight or angled slightly forward.
Rostrum	Slender, especially at base.	Female rostrum slender, but male thicker.	Slender.	Slender	Slender.
Colour	Red-brown to purple- brown.	Dark purple-brown.	Red-brown.	Red-brown to purple- brown.	Red-brown to purple- brown.
Foodplant	Hawthorns	Apples	Hawthorns	Elms	Apples or pears
Other features	Common. Eyes squashed in front and strongly sticking out at the sides. Rear femur has no tooth.	Longer and usually darker wing-cases. Bands of scales strongly angled, with speckled edges.	Rare. Wing-cases without hollows and bumps at the base. No centre parting on forehead.	Very like bituberculatus, but with eyes not sticking out at the sides. Found on elms	Very rare. Large, with a broad white stripe down the pronotum.

The eyes are important characters in this group.

bituberculatus



Eyes flattened in front, strongly protruding at sides.

pomorum



Eyes rounded and bulging.

chevrolati



Eyes rounded and bulging. Hairs between eyes pointing forward.

ulmi



Eyes hardly protruding at sides, appearing almost pressed against the head.

piri



Eyes slightly protruding at sides, but not as flat in front as in *bituberculatus*.

Note that *chevrolati* is the only one without a centre parting in the scales on the forehead: in all other species the scales are angled out and over the inside edge of the eyes.

Full size versions of the photos of specimens used in this guide can be found in the Typical weevils album at http://tinyurl.com/weevilalbums.

Anthonomus bituberculatus

2.0-3.5 mm. Widespread on hawthorns Crataegus.

By far the commonest of the species with crooked legs and patterned wing-cases: always rule this one out before claiming any of the others. It is likely to be found with *pedicularius*, which has normal legs and a stouter rostrum.



Eyes flattened in front and protruding strongly at the sides, more so than in other *Anthonomus*. Has **no** tooth on the underside of the rear femur. Wing-cases with uneven surface of shallow dips at the front.





Similar species



Anthonomus chevrolati. No centre parting on forehead. Eyes rounded. Wing cases with even surface.



Anthonomus pomorum.
Proportionately longer wingcases, bands strongly angled
forward, and with white
specks. Eyes rounded.



Anthonomus ulmi. Eyes not sticking out at sides. Usually has a small tooth on the rear femur. On elms.



Anthonomus piri. Larger. Bright white stripe down pronotum.
Eyes less flat in front, not sticking out so much at sides.



Anthonomus pedicularius.
Rostrum stouter, especially at base. Front legs not very crooked, front femur with smaller tooth.

Anthonomus pomorum

2.5-4.5 mm. Widespread but local on apples Malus.

Wing-cases proportionately **longer** and usually darker than other species in the group. The white dark and white bands on the wing-cases are more strongly **angled forward**, and there are specks of white, like a dusting of icing sugar, usually along the front and rear edge of the white bands.

**

Eyes rounded, bulging slightly to the front and sides. Has a small tooth on the underside of the rear femur.

Small examples of pomorum have been mistaken for *Anthonomus humeralis*. So far all the British specimens have proven to be *pomorum*, and the past records of *humeralis* are errors. The true *humeralis* feeds on Bird Cherry *Prunus padus*.





Male Female Similar species. All have proportionately shorter wing-cases than *pomorum*.



Anthonomus chevrolati. No centre parting on forehead. Wing cases with even surface.



Anthonomus bituberculatus. Proportionately shorter wing-cases, bands less strongly angled. Eyes flatter in front.



Anthonomus ulmi. Eyes pressed against the surface, not bulging. On elms



Anthonomus piri. Bright white stripe down pronotum. Eyes flatter in front. White bands less strongly angled.



Anthonomus pedicularius. Front legs not very crooked, front femur with smaller tooth. White bands less strongly angled.

Anthonomus chevrolati

2.5-3.0 mm. Rare in south-east England only. On hawthorns Crataegus.

Unlike all other patterned *Anthonomus*, this one lacks a centre parting: the **hair-scales on the forehead point forward**, not sideways. The wing-cases have an **even surface** without the bumps and hollows at the base.

Eyes rounded, bulging slightly to the front and sides. No tuft of black hairs at the front of each wing-case. Has a small tooth on the underside of the rear femur.

There are few recent records of the species. Like bituberculatus, it is active during the winter, so it might be overlooked.







Anthonomus bituberculatus. Eyes flat in front. Wing-cases with bumps and hollows at the front, and usually a tuft of black hairs on each side.



Anthonomus pedicularius. Front legs not very crooked, front femur with smaller tooth. Eyes more angled at the sides.



Anthonomus ulmi. Eyes pressed against the surface, not bulging. On elms.



Anthonomus piri. Bright white stripe down pronotum. Eyes flatter in front. White bands less strongly angled.



Anthonomus pomorum. Usually darker. Proportionately longer wing-cases, bands strongly angled forward, and with white specks.

Anthonomus ulmi = of elm

2.5-3.5 mm. May be widespread, but many of the records could be errors from confusion with *bituberculatus*. Very few recent, verified records. As far as we know, this species is now rare. Please report any finds.

Eyes more closely follow the surface of the head, not bulging forwards or sideways, and hardly sticking out at the sides. This is a key feature of this species, which is otherwise very like *bituberculatus*. Appears **less strongly patterned** than most *bituberculatus*.



No tuft of black hairs at the front of each wing-case. Has a small tooth on the underside of the rear femur, which will also distinguish it from *bituberculatus*, but it can be hard to see.

The larva lives in the flowers of **elms** *Ulmus*. It lays its eggs in the buds in the autumn; the new generation of adults emerges in May and June.





Anthonomus bituberculatus. Eyes flat in front, sticking out strongly at the sides. Wing-cases usually have a tuft of black hairs on each side at the front. No tooth on the hind femur.



Anthonomus piri. Bright white stripe down pronotum. Eyes flatter in front. Bands white, clear, and usually outlined in black.



Anthonomus pedicularius. Front legs not very crooked, front femur with smaller tooth. Eyes more angled at the sides.



Anthonomus chevrolati. No centre parting on forehead. Wing cases with even surface at front.



Anthonomus pomorum. Usually darker. Proportionately longer wing-cases, bands strongly angled forward, and with white specks.

Anthonomus piri = of pear

3.5-4.5 mm. Very rare, perhaps extinct. Please report any finds.

Larger than other species with crooked legs, apart from *pomorum*. The bright white line of scales down the pronotum is striking, as are the clear white bands on the wing-cases. However, these may be less obvious in some specimens. Eyes slightly sideways, slightly sticking out at the sides, less rounded than in *chevrolati*, more protruding sideways than in *ulmi*, but less so than in *bituberculatus*.



There is a tuft of black hairs at the front of each wing-case. Has a small tooth on the underside of the rear femur, which will also distinguish it from *bituberculatus*, but it can be hard to see.





Anthonomus bituberculatus. Eyes flat in front, sticking out strongly at the sides. No tooth on the hind femur.



Anthonomus pedicularius. Front legs not very crooked, front femur with smaller tooth. Eyes more angled at the sides.



Anthonomus chevrolati. No centre parting on forehead. Wing cases with even surface at front. Eyes rounded and bulging.



Anthonomus ulmi. Smaller. Eyes pressed against the surface, hardly bulging sideways. On elms.



Anthonomus pomorum. Usually darker. Proportionately longer wing-cases, bands strongly angled forward, and with white specks.

Group 2 Normal legs, medium single tooth on front femur.

	Anthonomus pedicularius	Anthonomus conspersus	Anthonomus rufus
Size	2.5-4.0 mm	2.5-3.0 mm	2.5-3.0 mm
Eyes	Bulging.	Bulging.	Flatter in front, protruding at sides.
Rear femur	With a small tooth.	With a small tooth.	No tooth.
Rear band on wing-cases	Slightly forward to angled forward.	Slightly forward to angled forward, usually obscured by white scales scattered across the wing-cases.	Slightly forward to angled forward.
Rostrum	Thick throughout.	Thick throughout.	Slender, especially at base.
Colour	Red-brown to purple-brown.	Red-brown to purple-brown.	Red-brown to purple-brown.
Foodplant	Hawthorns	Rowan	Blackthorn
Other	By far the commonest patterned	Pattern on wing-cases obscures the	Larger tooth on front femur, but still
features	Anthonomus.	bands.	smaller than the tooth of the Group 1 species.

The eyes are less important in this group, but they are still useful characters.

All have a centre parting: the scales are angled out and over the inside edge of the eyes.

pedicularius



Bulging, slightly angled at the sides.

conspersus



Bulging and rounded, slightly less angled at sides.

rufus



Flatter in front.

Anthonomus pedicularius

2.5-4.0 mm. Widespread and generally common, but rarer in Scotland.

The **commonest** patterned *Anthonomus*. Recognised by its normal legs, and **thicker rostrum**, a pair of features shared only with *conspersus*.



Has a small tooth on the rear femur.

Easily found by beating hawthorns Crataegus in the spring.







Anthonomus bituberculatus. Long, wonky legs. Rostrum longer and narrower, especially narrow at base. Eyes flatter in front.



Anthonomus conspersus. Smaller. Bands merging with white patches over rest of wing-cases. Eyes more rounded.





Anthonomus rufus. Eyes flatter. No tooth on hind femur. Rostrum narrower and more slender.



Anthonomus chevrolati. Long, wonky legs. No centre parting on forehead. Wing cases with even surface at front.

Anthonomus conspersus

conspersus = sprinkled, strewn (the white scales are strewn all over the wing-cases)

2.5-3.0 mm. Scarce in the north and west, very rare elsewhere.

White patches and bands muddled across the wing-cases, unlike any other patterned *Anthonomus*. Otherwise very like *pedicularius*, but smaller, and with slightly more rounded eyes. Worn specimens would be difficult to identify, but the host tree would be a good clue.



There is a small tooth on the hind femur.

A northern species, living on Rowan Sorbus aucuparia. There are few recent records, please report any finds.





Anthonomus pedicularius. Larger. Clear bands on rear of wing-cases. Eyes slightly more angled at the sides.



Anthonomus bituberculatus. Long, wonky legs. Rostrum longer and narrower, especially narrow at base. Eyes flatter in front.



Anthonomus rufus. Eyes flatter. No tooth on hind femur. Rostrum narrower and more slender.

Anthonomus rufus rūfus = reddish

2.5-3.0 mm. Wales and southern and western England. Uncommon but perhaps overlooked.

Rostrum more **slender** than in *pedicularius* and *conspersus*. **Eyes flatter** in front and **no** tooth on the hind femur. Intermediate between the other Group 2 species and bituberculatus. The eyes are like those of bituberculatus, and like, *bituberculatus*, it has no tooth on the hind femur. But the front legs are not as crooked, the front femur is not so long. The tooth on the front femur is larger than in *pedicularius* and *conspersus*, but so large as in the Group 1 species.



Found on Blackthorn Prunus early in the year.





Similar species.



Anthonomus bituberculatus. Long, wonky legs. Larger tooth on front femur.



Anthonomus conspersus.
Bands merging with white patches over rest of wingcases. Eyes more rounded.
Small tooth on hind femur.



Anthonomus pedicularius. Eyes more rounded and bulging in front. Rostrum thicker. Small tooth on hind femur.



Anthonomus chevrolati.
Long, wonky legs. No
centre parting on
forehead. Wing cases
with even surface at
front. Large tooth on
front femur.

Furcipus rectirostris

3.5-5.0 mm. Uncommon in the north and west.

Easily recognised by the **double tooth** on the front femurs, the **jagged bands** across the wing-cases, and **narrow pronotum**, and the **long scutellum**.



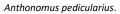
A northern and western species, following the distribution of its foodplant, Bird Cherry *Prunus padus*. There are few recent records, please report any finds.



Similar species

All other *Anthonomus*: single tooth on front femur. Bands not jagged. Scutellum shorter







Anthonomus bituberculatus.



Anthonomus rufus.

Anthonomus varians = different, variable

3.0-3.5 mm. In Scottish pinewoods only.

Comes in a variety of colours: orange, red, brown, or black. The red and orange forms are easily distinguished from the other Group 4 species, which are black or dark brown. Dark forms of varians can be recognised by their proportionately wider and more swollen pronotum, stouter legs, finer, hardly apparent hair-scales, more bulging eyes, more shining rostrum, and slender, untoothed claws.



This species could be mistaken for a Dorytomus, especially Dorytomus tortrix, which often looks plain.

Found in a few Scottish pinewoods, but probably in others where it has not been looked for.





Similar species.



Anthonomus rubi. More obvious hair-scales. Proportionately narrower pronotum. Toothed claws. Slimmer legs. Duller rostrum.



Anthonomus brunnipennis. More obvious hair-scales. Proportionately narrower pronotum. Toothed claws. Slimmer legs. Duller rostrum.



Dorytomus tortrix.
Proportionately longer
and narrower wing-cases.
Less bulging eyes.



Dorytomus longimanus. Proportionately longer wingcases. Usually thicker hairscales. Less bulging eyes.



Some pine-feeding insects have established themselves in plantations in England and Wales, whereas others are restricted to native pinewoods in Scotland. *Anthonomus varians* is one of the latter. It has a limited range, but can be common where it occurs.

Anthonomus rubi rubi = of Rubus

2.0-3.5 mm. Common in the south, rare in the north.

A very common weevil, often found on the ground or on low vegetation, unlike the tree-dwelling patterned Anthonomus.

If it were not for *brunnipennis* this would be an easy species to identify. It often accompanies other dark weevils in a sweep net or a vacuum sample: its all-dark colour, very long rostrum, long, elbowed antennae, and broad, square shoulders will distinguish it from everything else except *brunnipennis*.



On a variety of herbs and shrubs of the rose family, including strawberries *Fragaria*, brambles *Rubus*, cinquefoils *Potentilla*, and roses *Rosa*.



Similar species



Anthonomus brunnipennis.
Usually smaller. See the main species account for differences between these two.



Anthonomus varians. Proportionately wider and more swollen pronotum. Stouter legs. Less obvious hairs on wingcases. Untoothed claws. More bulging eyes.

Anthonomus brunnipennis

rubi = of *Rubus*

1.5-2.5 mm. Widespread, but uncommon. More common in the north than rubi.

Like rubi, often found on the ground or on low vegetation.

Very like *rubi*, but usually **smaller**, and wing-cases **dark mahogany brown** rather than black (young *rubi* can be brown). The second segment of the filament is proportionately shorter.



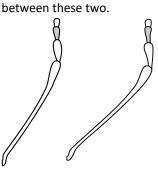
Fond of Tormentil *Potentilla erecta*, but also on other *Potentilla* and *Comarum* palustre, and perhaps other members of the rose family.



Similar species



Anthonomus rubi. Usually larger. See the main species account for differences between these two





Anthonomus varians. Proportionately wider and more swollen pronotum. Stouter legs. Less obvious hairs on wing-cases. Untoothed claws. More bulging eyes.

Second segment of filament (grey) of *brunnipennis* (left) is proportionately shorter than that of *rubi* (right)