Family Apionidae

References

The source of this translation can be found at http://www.coleo-net.de/coleo/texte/apioninae.htm. These German keys are derived from earlier work by Behne, Alonso-Zarazaga and Reitter. Translated by Mike Hackston and reproduced here with the kind permission of Dr Arved Lompe.

Morris (1992) Handbooks for the Identification of British Insects Volume 5, part 16 is still available in print from the Royal Entomological Society website. This contains a wealth of extra information about the species in the family.



Checklist of genera

From the Checklist of Beetles of the British Isles, 2012 edition, edited by A. G. Duff. Now updated and available here.

| Tribe APIONINI Schönherr, 1823 | Tribe MALVAPIINI Alonso-Zarazaga, 1990 |
|---|--|
| Genus Apion Herbst, 1797 | Genus <i>Malvapion</i> Hoffmann, Adolfe, 1958 |
| Tribe APLEMONINI Kissinger, 1968 | Genus Pseudapion Schilsky, 1906 |
| Genus Aizobius Alonso-Zarazaga, 1991 | Genus Rhopalapion Schilsky, 1906 |
| Genus Helianthemapion Wagner, 1930 | Tribe OXYSTOMATINI Alonso-Zarazaga, 1990 |
| Genus Perapion Wagner, 1907 | Genus Cyanapion Bokor, 1923 |
| Genus Pseudaplemonus Wagner, 1930 | Genus <i>Eutrichapion</i> Reitter, 1916 |
| Genus <i>Pseudoperapion</i> Wagner, 1930 | Genus <i>Hemitrichapion</i> Voss, 1959 |
| Tribe ASPIDAPIINI Alonso-Zarazaga, 1990 | Genus Holotrichapion Györffy, 1956 |
| Genus Aspidapion Schilsky, 1901 | Genus Oxystoma Duméril, 1806 |
| Tribe CERATAPIINI Alonso-Zarazaga, 1990 | Genus <i>Pirapion</i> Reitter, 1916 |
| Genus Acentrotypus Alonso-Zarazaga, 1990 | Genus Catapion Schilsky, 1906 |
| Genus Ceratapion Schilsky, 1901 | Genus <i>Ischnopterapion</i> Bokor, 1923 |
| Genus <i>Diplapion</i> Reitter, 1916 | Genus Protopirapion Alonso-Zarazaga, 1990 |
| Genus Omphalapion Schilsky, 1901 | Genus Stenopterapion Bokor, 1923 |
| Tribe EXAPIINI Alonso-Zarazaga, 1990 | Genus Synapion Schilsky, 1902 |
| Genus <i>Exapion</i> Bedel, 1887 | Genus Betulapion Ehret, 1994 |
| Tribe IXAPIINI Alonso-Zarazaga, 1990 | Tribe PIEZOTRACHELINI Voss, 1959 |
| Genus Ixapion Roudier & Tempère, 1973 | Genus Protapion Schilsky, 1908 |
| Tribe KALCAPIINI Alonso-Zarazaga, 1990 | Genus Pseudoprotapion Ehret, 1990 |
| Genus <i>Kalcapion</i> Schilsky, 1906 | |
| Genus <i>Melanapion</i> Wagner, 1930 | |
| Genus Squamapion Bokor, 1923 | |
| Genus <i>Taeniapion</i> Schilsky, 1906 | |

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Family Apionidae Key to British genera

1 Base of the rostrum with a tooth at the sides where the antennae are inserted (often downwardly-directed) or with a rounded thickening. Upper surface covered with dense, pale uniform hairs or scales. Legs completely red or with at least the front tibiae and femora red.

..... Genus Exapion

Four species, associated with woody leguminous shrubs of genera *Genista, Cytisus* and *Ulex*.



2 Body completely orange- to reddish-brown. Upper surface with inconspicuous hairs.

..... Genus Apion

5 species, associated with *Rumex* species. *A. frumetarium* is easily identified by size alone being over 3.6 mm, measured from the tip of the elytra to the base of the rostrum - i.e. level with front of eyes. Others are less than 3.3 mm.



| Body | otherwise coloure | d | 3 |
|------|-------------------|---|---|
|------|-------------------|---|---|



| Femora and tibiae black or only partly yellowish (in doubtful cases the upper | |
|---|---|
| surface is bare). |) |



Associated with mallow species. Locally abundant in southern and central England.



| Pronotum and elv | vtra otherwise coloured | 5 |
|-------------------|-------------------------|---|
| r tonotuni unu or | | • |



Associated with mistletoe.





6 Club of the antennae long and slender, almost parallel-sided, as long as the previous six segments combined. Slender species, thickly white hairy above. Rostrum in females (on the right) almost as long as the body. *Rhopalapion longirostre* On marsh-mallow, (*Althea*) and hollyhocks.



Club of the antennae shorter and more oval.7



Rostrum straight, in males with an orange-brown tip. Underside covered with white scales. Underside of the head without a furrow. On average larger – length 2.1-3.5 mm.
Pseudapion rufirostre Associated with species of mallow.



| Rostrum completely dark and curved in females. Underside of the head with a | |
|---|---|
| furrow which is sharply bordered at the sides. On average smaller – length 1.7- | |
| 2.4 mm | 3 |



8 Upper surface black. Elytra with uniformly-coloured pale hairs or with a transversely oval bare area in the middle.

......... Genus *Kalcapion* 2 species, associated with *Mercurialis*. *K pallipes* (on *M. perennis*) on the left and *K semivittatum* on the right (on *M. annua*).







9 Rostrum conspicuously thickened towards the base, either gently or suddenly narrowing beyond; the narrower section, viewed from above, usually only half as wide as the basal section.

..... Genus Oxystoma

4 species, associated with leguminous plants of genera *Vicia* and *Lathyrus*. Top left *O. pomonae*; top right *O. cerdo*; bottom left *O craccae* and bottom right *O subulatum*.



| ostrum otherwise |
|------------------|
|------------------|









club-shaped.

11 Frons with two deep longitudinal furrows which join to form a V or U shape.Pronotum with fine and dispersed punctures.

On Asteraceae of genera *Chrysanthemum, Anthemis* and *Matricaria*. 2 species, *D. confluens* (left) and *D. stolidum* (right).





12 Pronotum with the punctures relatively coarse, dense or moderately dense. Base of the rostrum with a small tooth at the point of attachment of the antennae. Upper surface quite clearly hairy, sometimes only very fine. Elytra more elongate.

...... <u>Genus *Ceratapion*</u>

Four species associated with thistles and other Asteraceae.



Photograph © U Schmidt. Associated with species of Filago and Gnaphalium.







Three species. On Matricaria and Anthemis.









| 16 | Elytra black. | .17 | • |
|----|---|-----|---|
| | If the elytra are dark with a very weak blue or brassy shine, follow this lead. | | |









| Elytra shaped otherwise. | If the elytra are somewhat pear-shaped | then a distinct |
|----------------------------|--|-----------------|
| bulge is present on the sh | oulders | 20 |



19 Frons finely punctured and wrinkled, dull, clearly contrasting with the smooth and shining vertex behind the eyes. Pronotum with a clear longitudinal furrow. Scutellum clearly visible. First segment of the tarsi 1.3-1.6 times as long as wide. Elytra more bulbous. Length 2.2-3.1 mm.

...... **Protopirapion atratulum** Mostly associated with *Cytisus scoparius*, occasionally on gorse. Generally common in England and Wales, becoming less common into Scotland.



Associated with *Cytisus scoparius*, therefore on heaths and other sandy habitats. Local but widely distributed.







| Elytra usually shorter and broader, | rarely elongate, | but then oval an | d broadest in |
|-------------------------------------|------------------|------------------|---------------|
| front of the middle | | | 21 |



Three species. *H aethiops* (top left), *H. ononis* (top right) and *H. pisi* (below)



Underside of the rostrum bare or with the hairs lying on the surface.22



22 Rostrum conspicuously broad in males, wider than the front femora. The groove from which the antennae arise is extended both forwards and backwards from the point of insertion.

..... <u>Genus</u> Cyanapion Three species. *C. afer* (top left), *C gyllenhalii* (top right) and *C. spencii* (below).



| Rostrum and | d antennal | grooves otherwise. | 23 | 3 |
|-----------------|------------|--------------------|----|---|
| 1 COSti uni uni | a antonnai | grooved outerwide. | C | , |



Four species associated with Lamiaceae. *S. atomarium* (top left), *S. cineraceum* (top right), *S. flavimanum* (bottom left) and *S. vicinum* (bottom right).





24 Lower margin of the eyes with long, dense lines of white hairs (clearer in males). Front coxae and the sides of the mesosternum with dense white hairs. Elytra broadest behind the middle.25



Lower margin of the elytra with short pale hairs. Front coxae always sparsely hairy like the femur. Sides of the mesosternum usually also sparsely hairy.26



25 Frons with diffuse punctures, without a longitudinal furrow or keel. Elytra relatively long. Antennae and legs black. Upper surface sometimes with a weak metallic shine. *Betulapion simile* On birch.









| Elytra with clear and more or less dense hairs. | If in doubt then the punctures on |
|---|-----------------------------------|
| the pronotum are almost absent | |





Associated with Sedum and Sempervivum species.





28 Elytra oval or elongate-oval. Flagellum of the antennae with outstanding hairs. Rostrum in females narrower and longer than in males. Mesosternum usually more densely hairy than the rest of the underside.



Three species, *C. pubescens* (left) and *C. seniculus* (right). The third species *C. curtisii* is illustrated on http://apions.blogspot.co.uk/

..... Genus *Catapion*





| Otherwise coloured |
|--------------------|
|--------------------|



Associated with rock roses.



| Body broader, particularly in species with a completely metallic upper surface. | lf |
|---|----|
| the body is slender then the pronotum is black and the rostrum is longer or | |
| curved | 31 |





32 Quite sparsely white hairy. Club of the antennae clearly contrasting with the flagellum; last segment of the flagellum only slightly broader than the second-to-last. First segment of the hind tarsi in males with a downwardly-directed spur. Elytra green to blue or with a brassy shine.

..... Genus Perapion

Six species. Associated with docks. *Perapion affine* top left, *P. curtirostre* top right, *P. hydrolapathi* middle left, *P. lemoroi* middle right, *P. marchicum* bottom left, *P. violaceum* bottom right.



Comparatively densely white hairy. Males with denser and longer hairs on the underside than females. Club of the antennae less distinctly contrasting with the last segment of the flagellum because the last segment of the flagellum is broader thus forming a transition from flagellum to club. Antennae in females inserted in the basal third of the rostrum. Elytra with a brassy shine.

..... **Pseudoperapion brevirostre** Associated with St John's Wort.







| Frons flat or weakly raised between the eyes, rarely slightly furrowed but then | |
|---|-----|
| with three low keels. | .34 |



| 4 Upper surface clearly hairy | 34 |
|-----------------------------------|----|
| | |
| | |
| Upper surface appearing bar | |





Three species. *I. loti* top left, *I. modestum* top right and *I. virens* below. On clovers and trefoils (*Trifolium* and *Lotus*).





Associated with vetches (genus *Vicia*)



| Antennae black. | Scutellum may be bare and the pronotum may have a fine | |
|--------------------|--|-----|
| longitudinal furro | w in front of this | .37 |



Two species may key here, *I. loti* (left) and *I. modestum* (right). On clovers and trefoils (*Trifolium* and *Lotus*).





Two species, *H. reflexum* (left, on *Onobrychis*) and *H. waltoni* (right, on *Hippocrepis*).









40 Rostrum straight or almost so, rather narrowing towards the front. Eyes noticeably convex. Frons with three, often indistinct longitudinal furrows. Elytra relatively short and distinctly rounded, blue or blackish-blue, very rarely black. ..

..... *Eutrichapion punctigerum* On peas



male head, from Behne





Genus Apion

Reference

The source of this translation can be found at http://www.coleo-net.de/coleo/texte/apion.htm. These German keys are derived from earlier work by Dieckmann and Behne. Translated by Mike Hackston and reproduced here with the kind permission of Dr Arved Lompe.

Easily recognised by the uniformly red-orange body. The upper surface is usually covered with thin and fine hair (only longer and more distinct in *rubens*). Several different species may be found together on the same host plant. Exclusively associated with *Rumex* species (docks, Polygonaceae).

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 APION Herbst, 1797 cruentatum Walton, 1844 frumentarium (Linnaeus, 1758) haematodes Kirby, 1808 rubens Stephens, 1839 rubiginosum Grill, 1893

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| 1 | Head between the eyes and the pronotum uniformly |
|---|--|
| | coarsely punctured2 |







2 Head long and conical, with the distance from the front margin of the eyes to the pronotum considerably longer than the width across the eyes. Viewed from the sides the temples are more than 1.5 times as long as the diameter of the eyes (distinguishing this species from all others in the genus). Pronotum rounded at the sides and distinctly constricted towards the front, with strong punctures and with a longitudinal furrow that extends almost to the middle. Largest species of the genus, 3.3-4.5 mm.



..... Apion frumentarium

On various broad-leaved species of *Rumex* such as *R. hydrolapathum, R. obtusifolia, R. crispus* and *R. conglomeratus.* Larvae feed in the stems and the top of the root. Widely distributed and quite common.

Head more rectangular with the distance from the front of the eyes to the front of the pronotum shorter than the breadth across the eyes. Sides of the pronotum almost straight with a short longitudinal impression in front of the scutellum. Length 2.4-3.6 mm.

..... Apion cruentatum

Larvae feed in the stems of *Rumex acetosa* (rarely in *R. alpestris* and *R. acetosella* on the Continent). Rather local but widely distributed. Line drawings from Dieckmann





3 In side view the rostrum is almost straight, with the underside only weakly angled towards the base. Rostrum as long as the pronotum in males and longer than that in females and shining. Pronotum not or only slightly broader than long, almost straight at the sides. Elytra rather flattened dorsally. Length 2.5-3.2 mm.



δ

Q

..... Apion rubiginosum Larvae produce root galls in Rumex acetosella. Very local and uncommon, but widely distributed. Line drawings from Dieckmann

In side view the rostrum is clearly curved. Relatively smaller beetles.4 Photograph from Lompe (2012)





4 Paler red in colour, like the preceding three species with thin and short hair. Pronotum scarcely broader than long with the sides almost parallel or only clearly narrowing towards the front. Elytra convex and quite clearly and roundly broadened towards the rear.



Larvae in the very top of the roots of *Rumex acetosella*. The commonest red weevil on *R. acetosella*, often abundant.



More dull red in colour with the hairs distinctly longer. Pronotum comparatively small and clearly broader than long, broadest in the middle and clearly rounded at the sides. Elytra more than three times as long as the pronotum, slender, little broadening in the rear half, almost parallel-sided. Head rather wider than in other species. Length 2.2-2.7 mm.

..... Apion rubens

Larvae produce galls in the petioles and midribs of *Rumex acetosella*. Local but widely distributed.





Genus Diplapion

Translated from http://www.coleo-net.de/coleo/texte/diplapion.htm

Genus *DIPLAPION* Reitter, 1916 *confluens* (Kirby, 1808) *stolidum* (Germar, 1817)

Frons with two parallel or posteriorly convergent longitudinal furrows which unit to form a V- or U-shape. Segments 2-8 of the antennal funicle are equal in width. Second segment of the funicle (third antennal segment) distinctly cylindrical, like the first funicular segment, but usually clearly narrower than it. Pronotum cylindrical, sparsely punctured. Elytra slightly broadening towards the rear, broadest behind the middle or almost parallel-sided. Black distinctly hairy species although the hairs are often very fine. Length 1.8-2.5 mm. Larvae develop on Asteraceae of genera *Matricaria, Anthemis* and *Chrysanthemum*.



Larvae at the top of the roots of species of *Tripleurospermum* and *Matricaria* (also on *Anthemis* on the Continent). Locally common with a preference for coastal habitats.



Larvae probably develop in the stems of *Leucanthemum vulgare* (possibly in *Anthemis* and *Matricaria* species on the Continent). Local but widely distributed.



Genus Ceratapion

Genus *CERATAPION* Schilsky, 1901 Subgenus *CERATAPION* Schilsky, 1901 *armatum* (Gerstaecker, 1854) *carduorum* (Kirby, 1808) *gibbirostre* (Gyllenhal, 1813)

Subgenus ACANEPHODUS Alonso-Zarazaga, 1990 onopordi (Kirby, 1808)

Antennae inserted in the basal quarter of the rostrum (rarely further forward in male *armatum*). Rostrum usually bluntly or acutely broadening at the point of insertion. Antennal funicle as broad as the scape with the first and second segments clearly cylindrical; second segment not or only slightly narrower than the first and at least as wide as the remaining segments. Elytra long ovate. Rostrum curved. Often with a marked sexual dimorphism. Larvae develop in family Asteraceae, tribe Cynaraeae (thistles).





| 2 | Base of the rostrum with an angle tooth each side | .3 |
|---|---|----|
|---|---|----|





3 Elytra dark blue, clearly broadening towards the rear, distinctly and densely hairy. Frons and vertex with fine and dense longitudinal striations. Rostrum as long as the head and pronotum combined. Pronotum cylindrical and finely punctured. Male: inner angle of the front tibiae and the underside of the first segment of the tarsi with a small tooth. Length 2.2-2.9 mm.



Upper surface completely black with fine and sparse pale hairs. Smaller, more slender species, 1.8-2.3 mm with the elytra only weakly broadened towards the rear, appearing much more elongate. Male: front tibiae broadened towards the tip and flattened, curved at the tip; first segment of the hind tarsi with a large tooth.

..... Ceratapion armatum





Genus Exapion

Genus *Exapion* Bedel, 1887 *difficile* (Herbst, 1797) *fuscirostre* (Fabricius, 1775) *genistae* (Kirby, 1811) *ulicis* (Forster, 1771)

1 Upper surface more generally uniform in colour with the scales or bristles of the same size all over - beware that if the scales are rubbed off, an impression of varied colour may be given with the colour of the underneath showing through. Pronotum with the hairs at most only slightly denser at the sides than on top.2



2 Head punctured on the vertex (although this is often covered by the front of the pronotum). Elytra with elongate-oval scales with a rather metallic shine, which cover both the striae and the intervals between them – these give the upper surface a silky sheen. Antennae and legs yellowish red; tip of the antennae along with the middle and hind legs usually largely black. Rostrum long and almost straight in both sexes, even longer in females (1.3 times the length of the head and pronotum combined). Antennae very long and slender. Males lack a spur on the first segment of the middle and hind tarsi. Length 1.9-2.5 mm.





Larvae develop in the seeds of *Ulex europaeus*. Common in England and Wales, becoming less so into Scotland.

Vertex lacking punctures and shining. Elytra at least on the inner intervals with hairs although there may be more scale-like hairs in a strip behind the scutellum. Rostrum in females at most only slightly longer than the head and pronotum combined; tarsi black or dark brown. Males have the first segment of the middle and hind tarsi with a spur. Length 2-2.3 mm.



..... Exapion difficile

Larvae develop in the seeds of *Genista* species. Very local and scarce species.



3 Elytra with paler hair-like scales forming an oblique band running from the shoulders towards the middle, extending about three-quarters of the length of the elytra; remainder with rusty-red or brown hair-like scales. Elytra relatively narrower and more elongate, appearing higher than wide when viewed from behind.



..... Exapion fuscirostre

Larvae develop in the seeds of *Cytisus scoparius* (broom). Locally common in the south east and south of England but there are suggestions that it is declining in numbers. Rostrum clearly narrowing towards the tip. Head, pronotum and elytra dark brown. Antennae and legs rusty-red; club of the antennae and the tarsi and the base of the femora more darkened. Length 2.4-3 mm.

Elytra with the paler hair-like scales forming a straight band between the third and fifth intervals. Elytra relatively shorter and broader, more rounded at the sides and flatter on top - viewed from behind the elytra are at least as broad as high - this gives the weevil an altogether dumpier appearance. Pronotum broader than long. Legs relatively shorter.

..... Exapion genistae

On *Genista anglica* with the larvae feeding in the pods. Local but widely distributed from Dorset to Scotland with an eastern bias. For a photograph see https://www.flickr.com/photos/roger_key/2678949753/



Genus Cyanapion

Subgenus *Cyanapion* Bokor, 1923 *spencii* (Kirby, 1808) Subgenus *Bothryorrhynchapion* Bokor, 1923 *afer* (Gyllenhal, 1833) *gyllenhalii* (Kirby, 1808)

Elytra blue or dull black, shortly oval or obovate, clearly hairy. Antennae often paler brownish towards the base. Eyes evenly bulging, with the frons between them with a groove or with fine longitudinal striations. Rostrum relatively thick in males, weakly curved. Pronotum often with an almost complete median furrow (may be indistinct or only really clear towards the base), strongly and rather densely punctured, weakly constricted behind the front margin and before the base. In males of subgenus *Cyanapion* the metasternum has a tubercle or tooth before the front margin.

1 Elytra blue, shortly oval with a groove along the centre of the frons. Metasternum in males with a pointed tubercle or tooth before the front margin. Subgenus *Cyanapion*. Length 1.9-2.5 mm.

...... **Cyanapion spencei** Oligophagous on vetches (*Vicia*). In damp habitats and fens, but also roadsides, on species of *Vicia*, particularly *Vicia cracca*. Rather local but widely distributed in Great Britain.



Elytra dull black, shortly oval, obovate. Frons with fine longitudinal striations. Metasternum in males without a tooth. Subgenus *Bothryorrhynchapion*......2



2 Head forming an even tapering outline from the pronotum to the base of the rostrum (only slightly interrupted by the almost flattened eyes). Head in males as long as wide; longer in females; temples as long as or almost as long as the diameter of the eyes, viewed from above. Pronotum not clearly tapering towards the front. Eyes, viewed from the side, usually elongate oval or shortly oval. Length 2.3-2.9 mm.



..... Cyanapion gyllenhalii

Larval development is in galls in the transition between stem and root on species of vetch particularly *Vicia cracca*. Widely distributed in the British Isles but local in hedgerows, trackways and woodland margins.

Widely distributed in Great Britain but local in hedgerows, trackways and woodland margins.



