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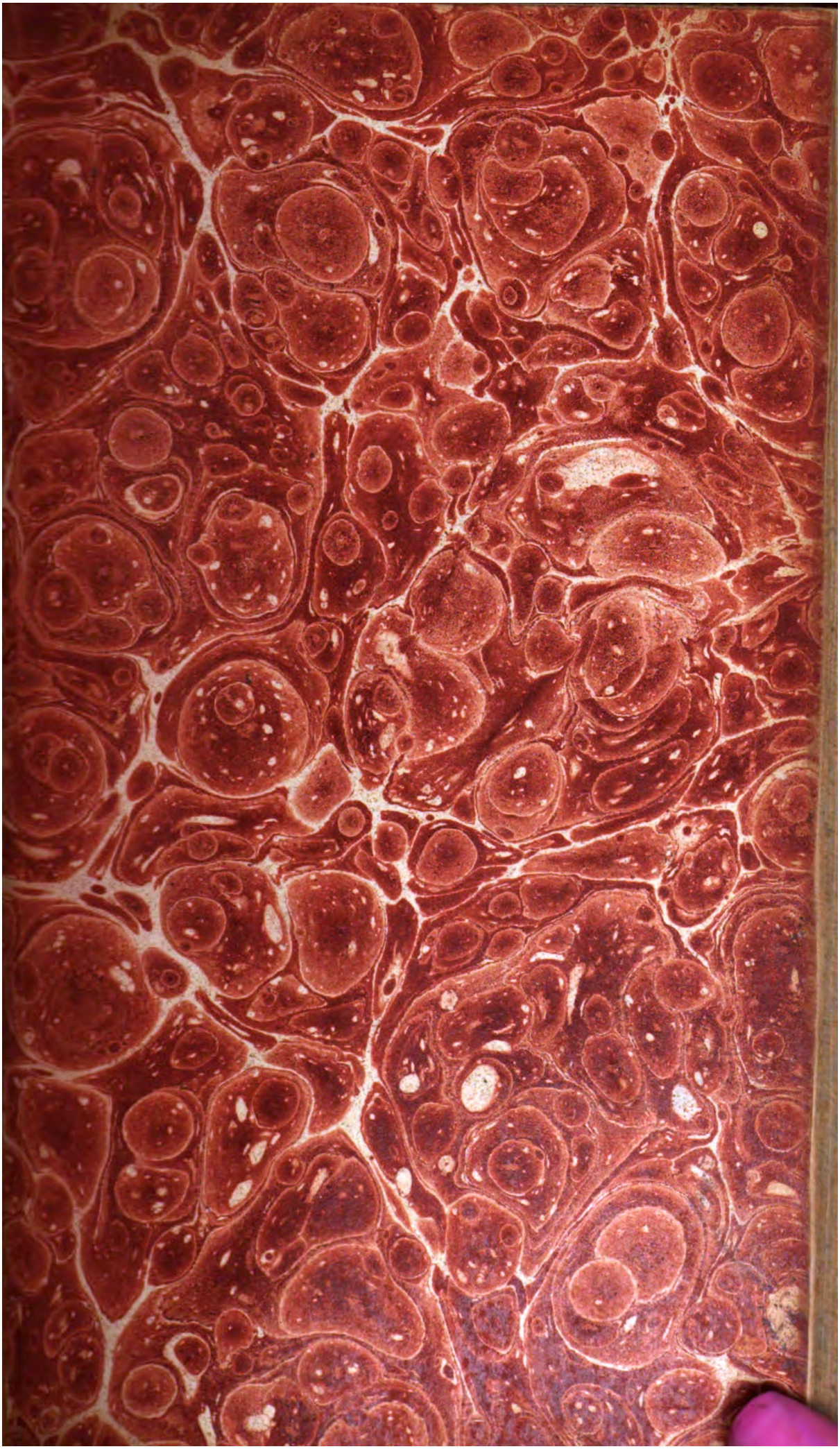

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ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

BRITISH PLANTS,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS,
AND PLACES OF GROWTH:

TO WHICH WILL BE ADDED,

OCCASIONAL REMARKS.

BY

JAMES EDWARD SMITH, M.D. F.R.S.

MEMBER OF THE IMP. ACAD. NATURÆ CURIOSORUM, THE ACADEMIES
OF STOCKHOLM, UPSAL, TURIN, LISBON, LUND, BERLIN,
PHILADELPHIA, AND THE NAT. HIST. SOCIETIES
OF PARIS AND MOSCOW;
PRESIDENT OF THE LINNÆAN SOCIETY.

THE FIGURES BY
JAMES SOWERBY, F.L.S.

——" VIRESQUE ACQUIRIT EUNDO."—— *Virg.*

VOL. VII.

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by all Booksellers, &c. in Town and Country.

MDCCXCVIII.

ASARUM europæum.
Asarabacca.

DODECANDRIA Monogynia.

GEN. CHAR. *Cal.* 3-cleft, ſtanding on the germen. *Cor.* none. *Stam.* 12. *Capſ.* coriaceous, of 6 cells, crowned with the calyx. *Stigma* in 6 ſegments.

SPEC. CHAR. Leaves two, kidney-ſhaped, obtuſe.

SYN. Aſarum europæum. *Linn. Sp. Pl.* 633. *Sm. Fl. Brit.* 509. *Hudſ.* 205. *With.* 440. *Hull.* 104. *Woodv. Med. Bot. t.* 86. *Dickſ. Dr. Pl.* 7.

Aſarum. *Raii Syn.* 158.

WE are indebted to the Rev. Charles Abbot, D.D. for wild ſpecimens of this very rare plant, gathered by himſelf this ſummer, by the road ſide, between Henley and Maidenhead. It has heretofore been remarked principally in Lancaſhire and its borders.

The Aſarabacca grows naturally in ſhady ſituations, and is perennial, flowering in May. The root conſiſts of many branched fibres, and has a ſtrong pungent ſmell, ſomewhat reſembling pepper and ginger. The ſtems are very ſhort and perfectly ſimple, bearing a pair only of dark-green, ſhining, kidney-ſhaped, entire, veiny leaves, on long, downy foot-ſtalks. Flower ſolitary, terminal, drooping, on a ſhort, downy ſtalk, and conſiſting of a downy, dull-purple, pitcher-ſhaped calyx, cut into three lobes, and crowning a roundiſh germen, which becomes a leathery capſule, containing ſix ſeeds in as many cells. The ſtamina, which are ſingularly beaked, and the 6-cleft ſtigma, are concealed in the bottom of the calyx, and like it in colour.

The leaves have a pungent ſmell, different from that of the root, and their powder is uſed in medicine to promote ſneezing. The root is ſaid to be emetic. In natural affinities and qualities this plant comes near *Ariſtolochia*.

Oct 1 1802 Published by Ja Sowerby London

LYTHRUM Salicaria.

Purple Looſeſtrife.

DODECANDRIA Monogynia.

GEN. CHAR. *Cal.* inferior, with 12 teeth. *Petals* 6, inſerted into the calyx. *Capſ.* with 2 cells, and many ſeeds.

SPEC. CHAR. Leaves oppoſite, lanceolate, heart-ſhaped at the baſe. Flowers ſpiked. Stamina twelve.

SYN. Lythrum Salicaria. *Linn. Sp. Pl.* 640. *Sm. Fl. Brit.* 510. *Hudſ.* 205. *With.* 441. *Hull.* 104. *Relh.* 182. *Sibth.* 149. *Abbot.* 103. *Curt. Lond. faſc.* 3. *t.* 28.

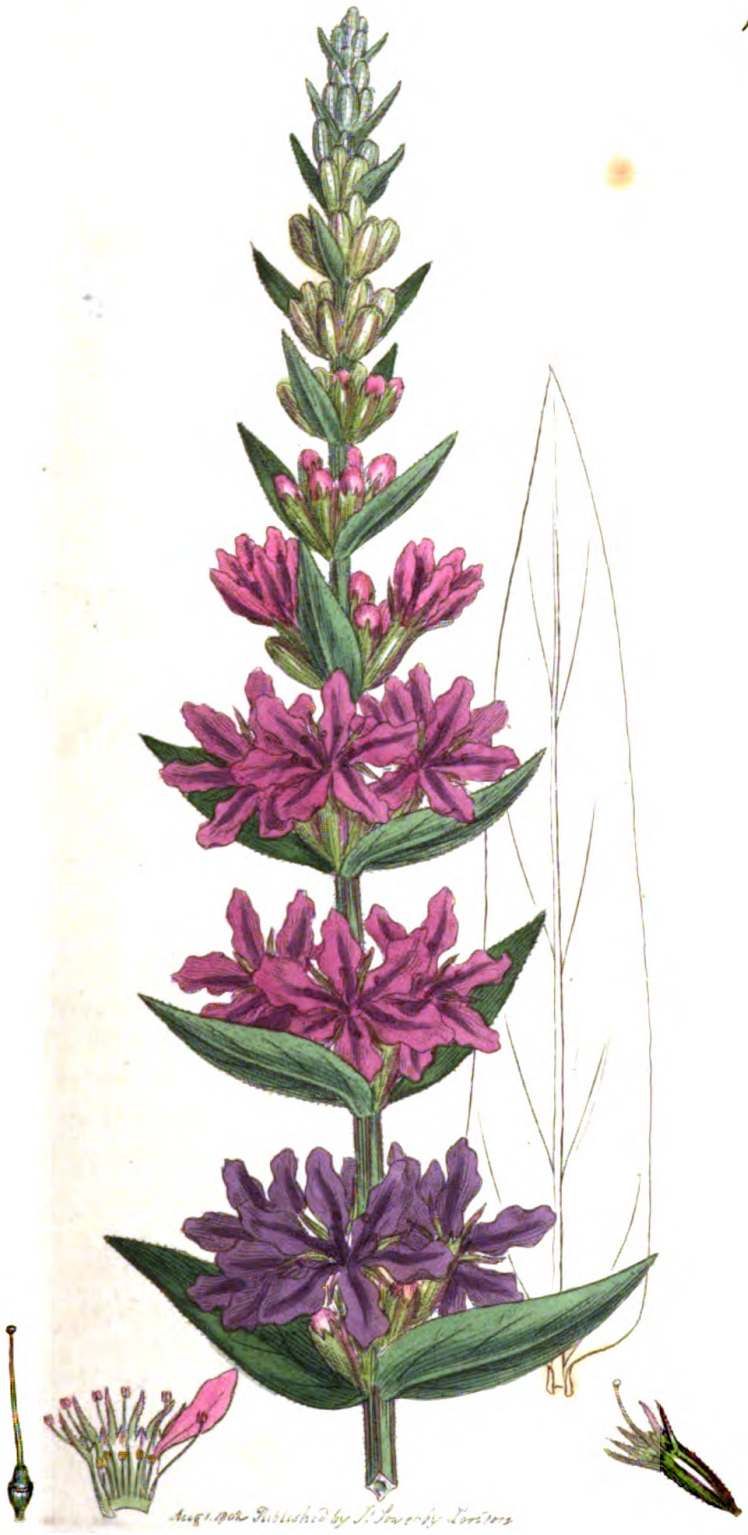
Salicaria vulgaris purpurea, foliis oblongis. *Rai Syn.* 367.

THIS, one of our moſt ſhowy wild plants, is to be ſeen luxuriantly flowering in July and Auguſt on the banks of rivers, ponds and ditches, where it makes a very ornamental appearance. It loves a black boggy ſoil, but will grow in more dry ſituations.

The root is perennial, branched and woody. Stems erect and wand-like, from 2 to 4 feet high, quadrangular, leafy. Leaves ſeſſile, oppoſite, entire, rough on the edge. Flowers in axillary whorls, which all together form a looſe ſpike, of a reddiſh variable purple. Calyx ribbed, with 6 long teeth and as many ſmall intermediate ones. Petals ſtanding within the mouth of the calyx, attached by ſmall points, oblong, waved, all equal and regular. Stamina always 12, in 2 ſets, incurved. Sometimes the pollen of all the 12 antheræ is green, at other times that of the 6 inner ones is yellow. Stigma globoſe. Capſule elliptical, ſmall. Seeds minute and numerous.

Occaſionally the ſtem has 6 angles, and then the leaves ſtand 3 together in whorls.

The other Britiſh ſpecies of *Lythrum*, much the moſt uncommon, may be ſeen *v.* 5. *t.* 292.


Aug. 1. 1802. Published by J. Sowerby London.

3.

LYTHRUM hyssopifolium.

Hyssop-leaved Grass-poly.

DODECANDRIA Monogynia.

GEN. CHAR. *Cal.* with 12 teeth. *Petals* 6, inserted into the calyx. *Capsule* with 2 cells, and many seeds.

SPEC. CHAR. Leaves alternate, linear-lanceolate. Stamina six.

SYN. Lythrum hyssopifolium. *Sibth. Ox.* 149.
L. Hyssopifolia. *Linn. Sp. Pl.* 642. *Huds. Fl. An.* 206. *With. Bot. Arr.* 490. *Relh. Cant.* 183.
Salicaria Hyssopi folio latiore, et angustiore. *Raii Syn.* 367.

ONE of our rarer English plants, for which we are obliged to the Rev. Mr. Abbot of Bedford and the Rev. Mr. Hemsted of Newmarket. It grows in pits and ditches which are partly dried up, or in places where water has stagnated during winter.

The root is annual, tapering, and not much branched. Stems several; the principal erect, often branched; lateral ones spreading and curved upwards; all square, purplish, smooth, clothed with numerous, alternate, smooth, entire, linear-lanceolate leaves, some of which now and then approach to an elliptical figure. Flowers solitary, axillary, sessile, delicate and short-lived, appearing in July, purple, and of a regular figure, as we think all true species of *Lythrum* ought to be, though Linnæus has admitted some with very unequal petals. They have generally 12 teeth to the calyx, alternately erect and spreading, 6 petals, and as many stamina; but some flowers have only 10 teeth, 5 petals and 5 stamina, or (as Linnæus says) exclude a sixth part of the natural number in their fructification. The seeds are exceedingly numerous and minute.

We have ventured, with professor Sibthorp, to make the Linnæan substantive specific name into an adjective, as on former occasions where it could be done.

4.

AGRIMONIA Eupatoria.

Common Agrimony.

DODECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-toothed, with an appendage at its base. *Petals* 5, inserted on the calyx. *Seeds* 2, in the bottom of the calyx.

SPEC. CHAR. Stem-leaves pinnated; the odd leaflet on a footstalk. Fruit bristly.

SYN. Agrimonia Eupatoria. *Linn. Sp. Pl.* 643. *Sm. Fl. Brit.* 511. *Huds.* 206. *With.* 443. *Hull.* 104. *Relh.* 182. *Sibth.* 150. *Abbot.* 104. *Curt. Lond. fasc.* 5. *t.* 32. *Mart. Rust. t.* 37. *Woodv. Suppl. t.* 258.
Agrimonia. *Raii Syn.* 202.

AGRIMONY is common every where in the rough borders of fields and other waste places, flowering in June and July. When rubbed it exhales a peculiar but not unpleasant aromatic scent. Its astringent and bitter qualities render it mildly tonic and stimulant: but it is rather a popular than a classical medicine, and makes the principal and most efficacious part of some empirical herb teas.

The root is perennial, red, and very astringent. Stem upright, about 2 feet in height, leafy, angular and hairy. Leaves alternate, hairy, interruptedly pinnate, with a terminal stalked leaflet; the larger leaflets somewhat elliptical, acute, deeply serrated; the little intermediate ones roundish, lobed. Stipulæ falcate, cut. Spike terminal, long, of many deep-yellow, nearly sessile, flowers. Calyx bell-shaped, furrowed, 5-cleft, hairy, with a lobed appendage at its base, which we should call a bractea. Stamina and 5 petals inserted into the rim of the calyx. Germens and styles 2. The permanent hardened calyx, rough with hooked bristles, serves as a capsule to the 2 seeds.

This genus evidently belongs to the natural order of *Rosaceæ*, with which it agrees in qualities.

July 1. 1804. Published by Jas. Sowerby, London.

RESEDA Luteola.

Dyer's-weed, or Yellow-weed.

DODECANDRIA Trigynia.

GEN. CHAR. *Cal.* of one leaf, divided. *Petals* jagged. *Caps.* of one cell, open at the top.

SPEC. CHAR. Leaves lanceolate, entire, with one tooth on each side at the base. Calyx in 4 segments.

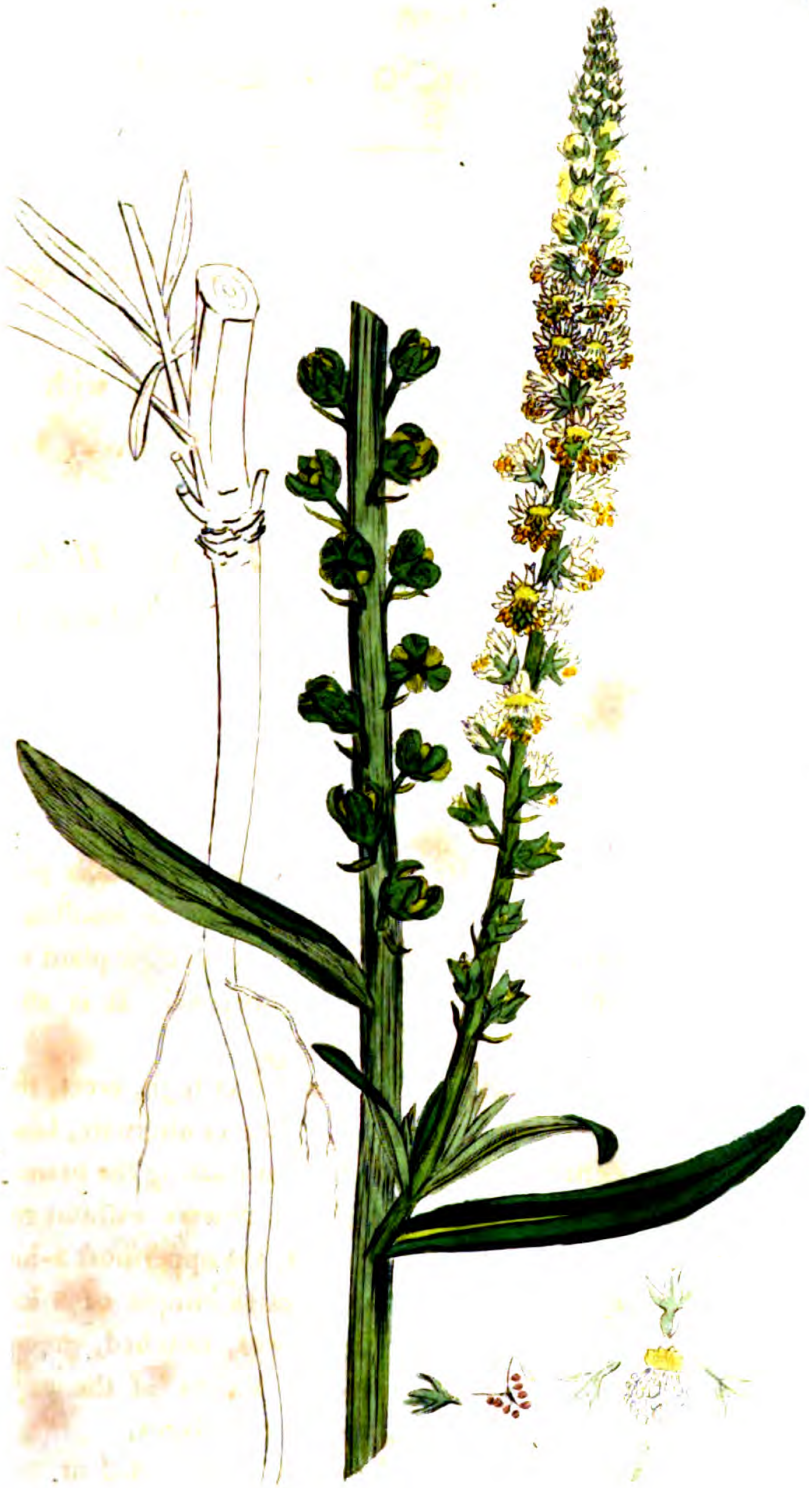
SYN. Reseda Luteola. *Linn. Sp. Pl.* 643. *Huds. Fl. An.* 207. *With. Bot. Arr.* 492. *Relh. Cant.* 184. *Sibth. Ox.* 150.

Luteola. *Raii Syn.* 366.

FOUND chiefly on waste ground, walls and similar places, plentifully about Norwich, where it is used in the woollen manufactory for dyeing yellow and green. The entire plant when about flowering is employed for that purpose. It is an annual, and flowers about Midsummer.

Root small and taper. Stem 2 or 3 feet high, erect, thick, somewhat angular, branched, leafy. Leaves alternate, lanceolate, obtuse, entire, smooth. Spikes terminating the branches, consisting of numerous pale greenish flowers without much smell. Calyx in 4 segments. Petals 3, the uppermost 3-lobed, its middle lobe cloven; the lateral ones simple or 3-lobed. Nectary on the upper side of the flower, notched, greenish. Stamina numerous, hanging down. Valves of the capsule acute, with 3 yellowish intermediate appendages.

There is a variety mentioned by Ray with curled or undulated leaves. The gaping capsule of this genus is remarkable.



RESEDA lutea.

Wild Mignonette, or Base Rocket.

DODECANDRIA Trigynia.

GEN. CHAR. *Cal.* of one leaf, divided. *Petals* jagged. *Caps.* of one cell, open at the top.

SPEC. CHAR. All the leaves with three segments; the lowermost pinnate.

SYN. Reseda lutea. *Linn. Sp. Pl.* 645. *Huds. Fl. An.* 207. *With. Bot. Arr.* 493. *Relh. Cant.* 184. *Sibth. Ox.* 151.
R. vulgaris. *Raii Syn.* 366.

THIS species is rather less general than the preceding, being confined to chalk countries, where however it grows very abundantly, and is very ornamental, flowering from June to the end of autumn.

Root annual, strong and woody in substance. Stems several, branching into a thick bushy tuft, round, smooth, leafy. Leaves alternate, in three or more linear undulated pointed segments, paler beneath; the lower ones once or even twice pinnated. Spikes terminating the branches, of numerous sulphur-coloured flowers. Calyx in six segments. Petals six, singularly lobed as expressed in our figure. Nectary green.

The *Reseda crispa gallica* of Boccone and Ray seems to be a very trivial variety, having leaves a little more curled, and, in consequence of a mild climate or season, living through the winter, as happens to other species of this genus.


May 1796 Published by P. Sowerby London

EUPHORBIA Peplis.

Purple Spurge.

DODECANDRIA Trigynia.

GEN. CHAR. *Cal.* of 1 leaf, inflated, inferior. *Nectaries* 4 or 5, standing on the calyx. *Caps.* stalked, 3-lobed.

SPEC. CHAR. Leaves nearly entire, half-heartshaped. Flowers solitary, axillary. Stems procumbent. Capsule smooth.

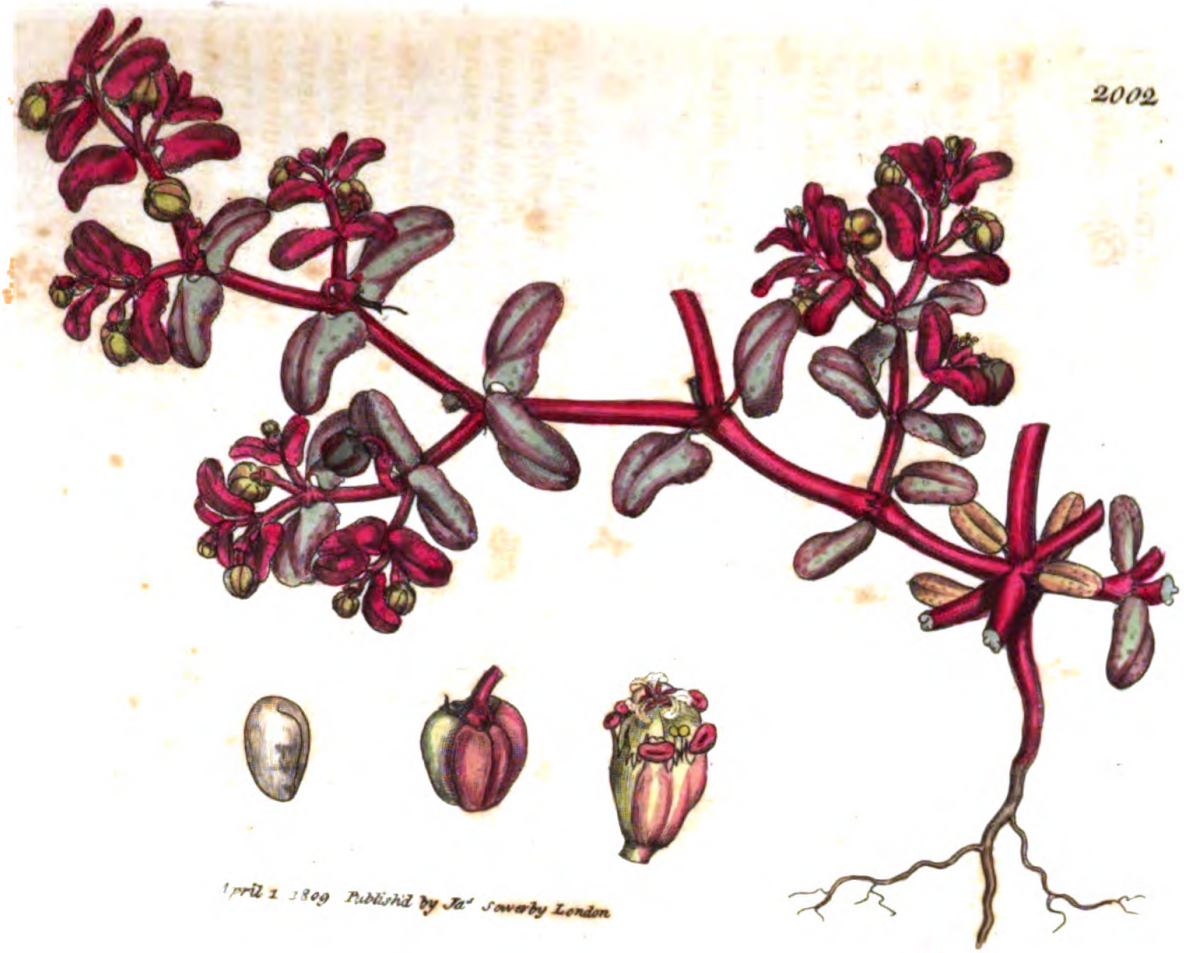
SYN. Euphorbia Peplis. *Linn. Sp. Pl.* 652. *Sm. Fl. Brit.* 514. *Huds.* 207. *With.* 446. *Hull.* 105. *ed.* 2. 140.

Tithymalus maritimus supinus annuus, Peplis dictus. *Raii Syn.* 313.

A PRODUCTION of no other parts of this island than the sandy sea shores of Cornwall and Devonshire, of which fresh wild specimens have been communicated to us from between Tor quay and Payngton, Tor bay, by our very intelligent young friend Mr. Charles Sinclair Cullen, last September.

Root annual, deeply fixed in the sand. Stems several, procumbent, widely spreading, repeatedly branched and forked in an alternate manner, leafy; roundish when fresh; quadrangular when dry. Leaves opposite, on short stalks, half-heartshaped, obtuse, single-ribbed, often quite entire, sometimes finely toothed at the base and summit. Stipulas small, intrafoliaceous, in several setaceous segments. Flowerstalks from the forks of the stem or bosoms of the upper leaves, solitary, single-flowered, curved. Flowers small, with four entire, roundish, umbilicated, yellow or red nectaries. Capsule turned downwards, smooth, discharging the seeds elastically as it dries. Seeds smooth.

The whole herb is very milky, smooth, either of a livid glaucous green thickly dotted with crimson, or more frequently the stems and stalks are entirely of the latter colour, the flowers and fruit being more faintly stained with it. The less luxuriant plants are, as Mr. Cullen observes, most highly coloured.



April 1 1809 Published by Jas Sowerby London

EUPHORBIA Peplus.

Petty Spurge.

DODECANDRIA Trigynia.

GEN. CHAR. *Cal.* of 1 leaf, inflated, inferior. *Nectaries* 4 or 5, ſtanding on the calyx. *Capſ.* ſtalked, 3-lobed.

SPEC. CHAR. Umbel three-branched, forked. Partial involucra ovate. Leaves entire, obovate, on footſtalks.

SYN. Euphorbia Peplus. *Linn. Sp. Pl.* 653. *Sm. Fl. Brit.* 514. *Hudſ.* 208. *With.* 447. *Hull.* 105. *Relh.* 185. *Sibth.* 151. *Abbot.* 105. *Curt. Lond. faſc.* 1. *t.* 35.

Tithymalus parvus annuus, foliis ſubrotundis non crenatis, Peplus dictus. *Raii Syn.* 313.

FEW weeds are more general, in all kinds of arable land, than this Spurge, which is known from its companion the *E. helioſcopia*, *t.* 883, by being generally rather more ſlender and delicate, but eſpecially by its entire leaves, horned nectaries, and three-cleft umbel. It flowers at the ſame ſeaſon, and is equally efficacious in curing warts.

Root annual, tapering. Herb graſs-green, ſmooth, occaſionally tinged with purple. Stem erect, moſtly branched at the baſe, leafy. Leaves ſcattered, ſtalked, obovate, entire. Umbel of 3 branches, repeatedly forked, its leaves, or partial involucra, oppoſite, nearly ſeſſile, ovate, entire, unequal at the baſe. Nectaries 4, creſcent-ſhaped with taper horns, green, yellow in decay. Capſule ſmooth. Seeds marked with depreſſed dots.

The ſpecific name of this plant is much too near that of *E. Peplis*, more eſpecially as they appear to have one common derivation.

Nicol sc. Published by J. Sowerby, London.

EUPHORBIA exigua.

Dwarf Spurge.

DODECANDRIA Trigynia.

GEN. CHAR. *Cal.* of 1 leaf, inflated, inferior. *Nectaries* 4 or 5, standing on the calyx. *Caps.* stalked, 3-lobed.

SPEC. CHAR. Umbel of three dichotomous rays. Partial involucra lanceolate. Leaves linear.

SYN. Euphorbia exigua. *Linn. Sp. Pl.* 654. *Sm. Fl. Brit.* 515. *Huds.* 208. *With.* 447. *Hull.* 105. *Lightf.* 250. *Relh.* 183. *Sibth.* 151. *Abbot.* 105. *Curt. Lond. fasc.* 4. *t.* 36. *Dicks. H. Sicc. fasc.* 9. 6. *Wade Dubl.* 131.

Tithymalus leptophyllos. *Raii Syn.* 313.

THIS, the smallest British *Euphorbia*, occurs sometimes in gravelly corn-fields, flowering in July. We have gathered it at Battersea, Harefield, and other places about London, as well as in Norfolk. Dr. Wade finds it about Dublin; in Scotland it is rare.

The root is small and annual. Stem one, or more, erect, from 3 to 6 inches high, round, leafy. Whole herb smooth, of a pale, somewhat glaucous, green. Leaves alternate, sessile, linear-lanceolate, upright, acute, entire. General umbel of 3 or 4, rarely 5, rays, which are repeatedly forked. General and partial involucra lanceolate. Nectaries 4, roundish, yellowish brown, each with a pair of green horns. Capsule smooth. Seeds quadrangular, rugged.

We presume the Tithymalus segetum longifolius, *Raii Syn.* 312, can be nothing else than a variety of this plant; which we have found to vary in the size of all its parts according to the richness of the soil.

July 1 1804. Published by Jas. Sowerby London.

EUPHORBIA Lathyris.

Caper Spurge.

DODECANDRIA Trigynia.

GEN. CHAR. *Cal.* of 1 leaf, inflated, inferior. *Nectaries* 4 or 5, standing on the calyx. *Caps.* stalked, 3-lobed.

SPEC. CHAR. Umbel of four branches, repeatedly forked. Leaves opposite, sessile, entire; heartshaped at the base.

SYN. Euphorbia Lathyris. *Linn. Sp. Pl.* 655. *Turn. & Dillw. Guide,* 27. *Ait. Hort. Kew. v.* 2. 140. *Sm. Prod. Fl. Græc. v.* 1. 326. *Bulliard. Fr. t.* 103.

Lathyris. *Camer. Epit.* 968. *Fuchs. Hist.* 455. *Ger. em.* 503.

SENT last July from Berkshire by the Rev. Dr. Becke, on whose authority it is said, in The Botanist's Guide, to be "certainly wild, and perhaps indigenous, in several places in and near the parish of Ufton near Reading, springing up in dry stony thickets, periodically for a year or two after they have been cut, and till choked by briars, &c."

The root is biennial, with numerous strong spreading fibres. Herb of a dark but glaucous green. Stem solitary, two to four feet high, erect, round, hollow, beset with numerous oblong sessile entire spreading opposite leaves, crossing each other in pairs, heartshaped at the base. Four great branches compose the umbel, each of which is repeatedly forked, and so large that we can exhibit only a part of one. General and partial involucrums heartshaped, pointed. Flowers pale yellow, with tinges of purple about them and their stalks. Capsules large, smooth. The latter are called Capers by cottagers, and, as we have heard, are sometimes pickled for such, though when recent abounding with a virulent milky juice; but the real Caper, *Capparis*, when fresh, is perhaps not less acrid or poisonous, like other vegetables used for pickling, which the vinegar renders eatable at least, if not wholesome. We cannot recommend a trial of this Spurge on our own knowledge; and should be very loth to venture upon it.

Marinus published by J. Sowerby London.

✓

EUPHORBIA Portlandica.

Portland Spurge.

DODECANDRIA Trigynia.

GEN. CHAR. *Petals* 4 or 5, ſtanding on the calyx. *Cal.* of one leaf, inflated. *Capſ.* 3-lobed.

SPEC. CHAR. Umbel of 5 rays, forked. Partial involucra nearly heart-ſhaped, concave. Leaves linear-lanceolate, pointed, ſmooth, ſpreading.

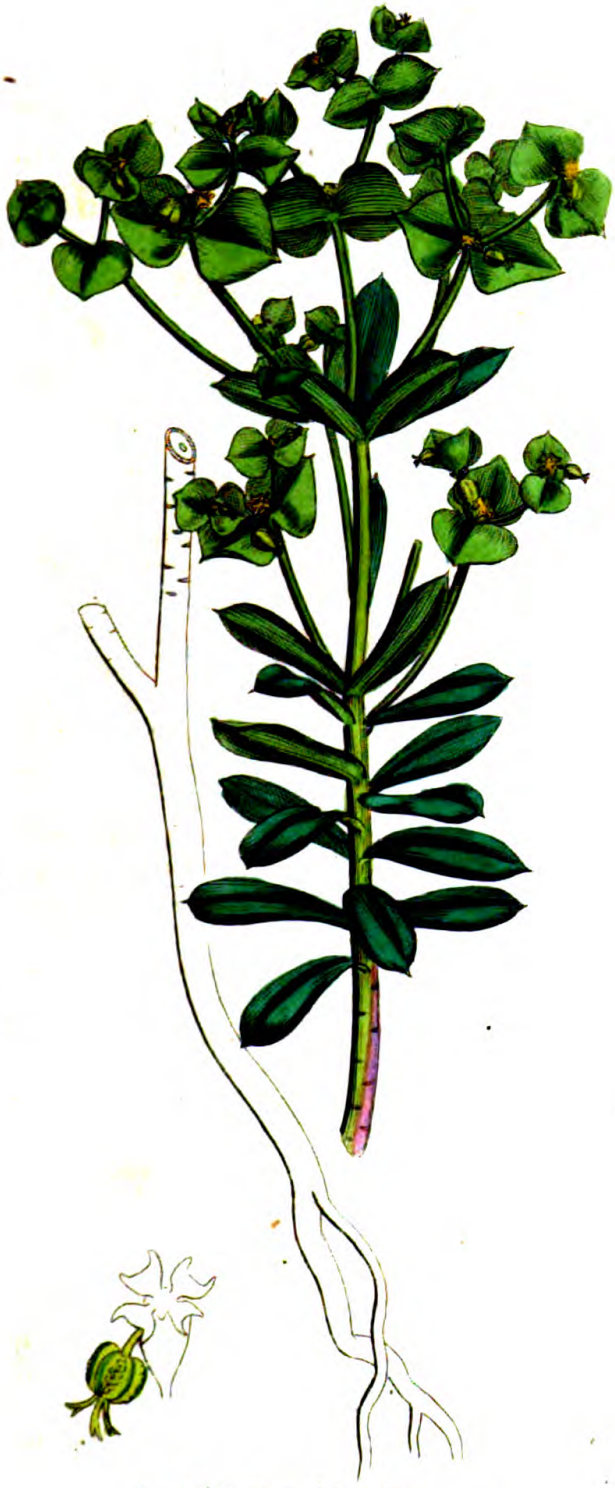
SYN. Euphorbia Portlandica. *Linn. Sp. Pl.* 656. *Hudſ.* 208. *With.* 448.

Tithymalus maritimus minor Portlandicus. *Raii Syn.* 313, *t.* 24, *f.* 6.

SPECIFIC names taken from the local ſituations of plants are generally exceptionable, but in the preſent caſe leſs ſo than uſual; the Portland Spurge being found wild chiefly on or about the peninſula called Portland-iſland on the Dorſetſhire coaſt. It ſometimes indeed occurs on the ſhores of Devonſhire, and we have a ſpecimen collected by F. Borone in Cornwall. That here delineated was gathered by A. B. Lambert, Eſq. on rocks hanging over the ſea on the ſouth ſide of Portland-iſland, flowering in Auguſt.

Root (we believe) perennial, long, branching, whitiſh. Stem ſcarcely a foot high, round, woody, leafy, purpliſh in autumn, terminating in a 5-rayed umbel, with 2 or 3 ſtraggling flower-ſtalks beneath it, which, like thoſe that compoſe the umbel, are about twice forked. Leaves ſcattered, linear-lanceolate, inclining to be obovate or ſpatulate, obtuſe with a ſharp point, ſpreading, glaucous, as is every other part of the herb. General involucrum of 5 leaves like thoſe of the ſtem; partial ones in pairs, rhomboid, ſcarcely heart-ſhaped, a little concave, pointed, entire. Calyx pale. Petals 4, greeniſh yellow, horned. Fruit ſlightly tuberculated at the projecting parts. Linnæus, in cultivating this plant, obſerved the firſt and ſecond flowers to be only males, and to have blunt petals without horns. We have found none ſuch.

We beg leave to correct an unaccountable error into which we have fallen in the generic character of all the *Euphorbiæ* hitherto figured in this work, *t.* 195, 256 and 333; inſtead of the petals being 3 or 4, we ought to have ſaid 4 or 5. Thoſe who are moſt uſed to compoſe works of ſcience, will moſt readily pardon ſimilar blunders.



Jan.y 1798 Published by J.s Sowerby London

EUPHORBIA paralia.

Sea Spurge.

DODECANDRIA Trigynia.

GEN. CHAR. *Cor.* of three or four petals, ſtanding on the calyx. *Cal.* of one leaf, inflated. *Capſ.* three-lobed.

SPEC. CHAR. Umbel moſtly five-branched, branches cloven. Partial flower-leaves heart kidney-ſhaped. Leaves imbricated, erect.

SYN. Euphorbia Paralias. *Linn. Sp. Pl.* 657. *Hudſ. Fl. An.* 209. *With. Bot. Arr.* 496.

Tithymalus paralius. *Raii Syn.* 312.

ON the ſandy ſhores of the ſea in various parts of England. Mr. Lightfoot does not mention it as a native of Scotland.

The root is ſtrong, woody, and perennial. Stems numerous, about a foot high, furniſhed near the baſe with ſeveral erect leafy branches, and terminated by a large ſpreading umbel of four to ſix rays, ſet with numerous *involucra* or flower-leaves, which vary in their form from a kidney to a heart-ſhape, and accompany ſmall ſolitary flowers, with orange coloured creſcent-ſhaped petals. The herb is rendered conſpicuous by its very glaucous colour, and its numerous imbricated leaves, concave above, and convex on their under ſide, which laſt is the only part viſible as they grow. In plants ſo circumſtanced no doubt the light acts on the *under* ſide of their leaves, though in moſt that part will not bear its influence.

This ſpecies flowers in Auguſt and September.

EUPHORBIA heliofcopia.
Sun Spurge.

DODECANDRIA Trigynia.

GEN. CHAR. *Cal.* of 1 leaf, inflated, inferior. *Nectaries* 4 or 5, ſtanding on the calyx. *Capſule* ſtalked, 3-lobed.

SPEC. CHAR. Umbel five-cleft, then three-cleft and forked. Partial involucra obovate. Leaves wedge-ſhaped, ſerrated.

SYN. Euphorbia helioſcopia. *Linn. Sp. Pl.* 658. *Sm. Fl. Brit.* 516. *Hudſ.* 209. *With.* 449. *Hull.* 105. *Relh.* 185. *Sibth.* 152. *Abbot.* 105. *Curt. Lond. faſc.* 1. *t.* 36.

Tithymalus helioſcopius. *Raii Syn.* 313.

A VERY common weed in cultivated land, known to country people by the name of Wart-wort, (ſometimes corrupted into Rat-weed), the acrid milky juice being uſed to take off warts from the ſkin; but it ſometimes cauſes dangerous inflammation. When ſuch an accident happens, oil plentifully applied is the beſt cure.

The herb is annual, flowering in July and Auguſt, when its umbel being always turned to the ſun has procured it the name *helioſcopia*, a ſun-gazer, a name equally applicable to the generality of flowers. The main ſtem is upright, round, furniſhed at the baſe with lateral branches, except in a very ſtarved ſtate. Leaves ſcattered, wedge-ſhaped or obovate, ſmooth, tender, ſerrated towards the top. Umbel of 5 ſpreading rays, which are three-cleft, and then forked. The general and partial *involucra* reſemble the leaves. Calyx as in the reſt of the genus. Nectaries 4, roundiſh and entire, at firſt green, then yellow. Capſule quite deſtitute of warts or pubeſcence.

14.

EUPHORBIA stricta.

Upright warty Spurge.

DODECANDRIA Trigynia.

GEN. CHAR. *Cor.* of 3 or 4 petals, standing on the calyx. *Cal.* of one leaf, inflated. *Caps.* 3-lobed.

SPEC. CHAR. Umbel of 4 or 5 rays, 3-cleft and cloven. Partial involucra nearly ovate. Leaves lanceolate, serrated, entire at the base, smooth. Fruit warty, without hairs.

SYN. Euphorbia stricta. *Linn. Syst. Nat. ed.* 10. 1049.
E. verrucosa. *Huds. Fl. An.* 209. *With. Bot. Arr.* 497. *Relh. Cant.* 186.
Tithymalus verrucosus. *Raii Syn.* 312.

FOUND by the Rev. Mr. Relhan on the north side of Eversden wood, Cambridgeshire, from whom we received fresh wild specimens Aug. 10, 1795. This very rare plant has been hitherto misunderstood. The true *E. verrucosa* of Linnæus is a perfectly distinct species, found in the south of Europe, with very hairy involucra and capsules. His *stricta*, though so well described in the 10th edition of *Syst. Nat.* was afterwards omitted by Linnæus, and confounded (as his herbarium shows) with *verrucosa*. The specimen there preserved, being from the Levant, is more luxuriant than ours, so that the second divisions of the umbel are mostly three together. The synonyms of the *verrucosa* are in all authors so excessively confused, that we can answer for none but the above. Ray seems (which is seldom the case with him) to have begun the confusion, by taking this English plant for the *Tithymalus verrucosus* of John Bauhin, a species with a creeping root.

Ours appears to be annual, having a very small fibrous root. Whole herb destitute of hairiness. Stem simple, erect, round, purplish. Leaves lanceolate, varying in breadth, entire, and somewhat contracted, towards the base, serrated above. General involucra ovate; partial heart-shaped; all serrated. Petals round, entire, yellow. Germen clothed with tubercles, which as the fruit ripens become prominent prickles. Styles permanent, cloven, united half their length into one.

July 1st 1796 Published by J. Sowerby London.

EUPHORBIA Esula.

Leafy-branched Spurge.

DODECANDRIA Trigynia.

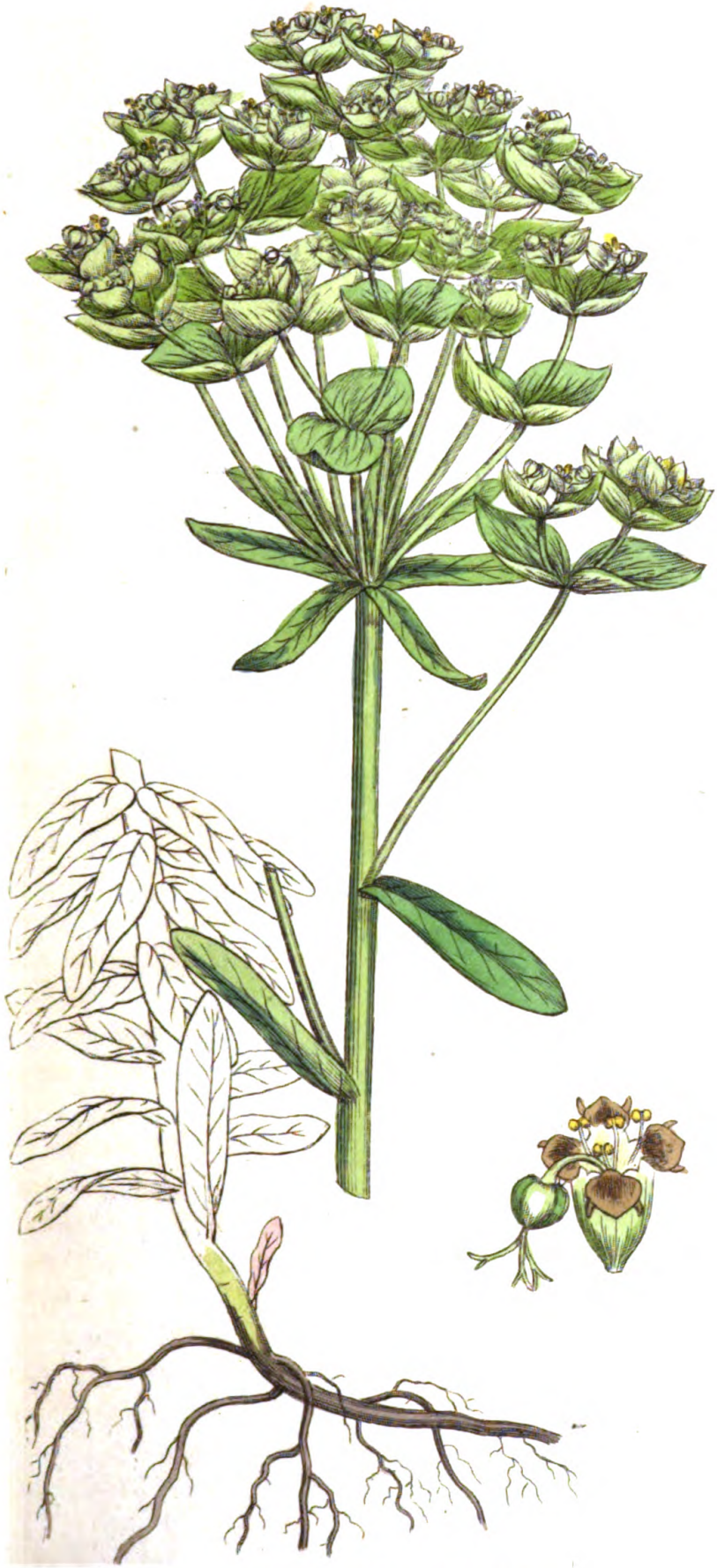
GEN. CHAR. *Cal.* of 1 leaf, inflated, inferior. *Nectaries* 4 or 5, standing on the calyx. *Caps.* stalked, 3-lobed.

SPEC. CHAR. Umbel of many dichotomous rays. Partial involucra somewhat heart-shaped. Nectaries two-horned. All the leaves uniform.

SYN. Euphorbia Esula. *Linn. Sp. Pl.* 660. *Lightf.* 1185. *Sm. Fl. Brit.* 518.
Tithymalus pineus. *Ger. em.* 499.

MR. LIGHTFOOT did not think himself authorized to admit this plant into his *Flora*, as he had not seen specimens. He therefore merely mentions the report of its being a native, in doing which he falls into a small error respecting the precise place of its growth, which is in a wood near a rivulet at Abercorn, thirteen miles west of Edinburgh, from which the late Mr. J. Mackay sent us wild specimens. That in our plate came from Mr. W. Borrer's garden, the root having been found at Sheffield, Sussex. As this species is never cultivated in gardens for ornament or use, we see no reason to doubt its being wild in our island. Mr. Benjamin Charlesworth appears to have first discovered it.

The root is woody, creeping and perennial. Stems a foot high or more, erect, smooth like all the rest of the herb. [illegible] branches numerous, hard, chiefly without flowers [illegible] which respects it agrees with [illegible] in having all the leaves of [illegible] form. The flowers [illegible] of many rays, with heart-shaped [illegible] nectaries are of a tawny brown, [illegible] hairs.



Jan.ᵗ 1. 1806. Published by Jᵒ. Sowerby. London.

V

16.

EUPHORBIA Cyparissias.

Cypress Spurge.

DODECANDRIA Trigynia.

GEN. CHAR. *Cal.* of one leaf, inflated, inferior. *Nectaries* 4 or 5, standing on the calyx. *Capsule* stalked, 3-lobed.

SPEC. CHAR. Umbel of many dichotomous rays. Partial involucra somewhat heart-shaped. Stem-leaves lanceolate; those on the side branches very narrow.

SYN. Euphorbia Cyparissias. *Linn. Sp. Pl.* 661. *Sm. Fl. Brit.* 519. *With.* 451. *Sym.* 117. *Hull.* 106.

THIS *Euphorbia* was first introduced to the knowledge of the British botanist by Dr. Withering, who mentions it as growing wild in Lord Stamford's woods in Staffordshire. Our specimen confirms his assertion, having been gathered by the Rev. Mr. Abbot in Barton Leat Wood, Bedfordshire, in August 1799.

The root creeps to a considerable extent, but not very rapidly. Stems about a foot high, round, smooth, leafy, furnished with several alternate, upright, lateral, very leafy branches. Leaves entire, linear, scattered; those on the main stem broader and almost lanceolate; the rest very narrow, almost setaceous. Umbel of from 7 to 15 rays, which are forked repeatedly, and a few shorter axillary rays are scattered down the stem, as in many other species. General involucra of several broad lanceolate leaves; partial of broader yellowish smooth heart-shaped ones. Nectaries four, yellow, crescent-shaped, a little pointed. Capsule smooth; Roth in his excellent *Flora Germanica* mentions it as being sometimes tuberculated.

The involucella, and even the leaves, frequently assume a bright saffron or vermilion hue in autumn, exactly like that of the wild Box-tree, a plant of the same natural order.

Feb. 1. 1801. Published by Jas. Sowerby, London.

EUPHORBIA hiberna.

Irish Spurge.

DODECANDRIA Trigynia.

GEN. CHAR. *Cal.* of 1 leaf, inflated, inferior. *Nectaries* 4 or 5, standing on the calyx. *Caps.* stalked, 3-lobed.

SPEC. CHAR. Umbel of six dichotomous rays. Partial involucra oval. Leaves obtuse, entire. Branches none. Capsules warty.

SYN. Euphorbia hiberna. *Linn. Sp. Pl.* 662. *Sm. Fl. Brit.* 519. *Huds.* 210. *With.* 450. *Hull.* 106. Tithymalus hibernicus. *How. Phyt.* 121. *Raii Syn.* 312.

MR. TEMPLETON has favoured us with fresh wild specimens of this plant from the neighbourhood of Belfast, flowering in June. The Rev. Mr. Butt has observed it plentifully about the beautiful lake of Killarney, also in the counties of Cork and Kerry. Doody is reported to have found the same about Twickenham, and Hudson in Kent. We have never been lucky enough to see English specimens. It is said to grow in fields, as well as in bushy or woody places.

Root tapering, perennial. Stem 2 feet high, smooth, leafy, simple, or only a little branched occasionally at the base. Leaves alternate, uniform, obovate, obtuse, entire, smooth, the youngest only being a little hairy. Umbel generally of 6 forked rays, besides which there are often solitary stalks from the bosoms of the upper leaves, and a single flower, which, as far as we can find, has no germen, in the centre of the umbel. Partial involucra elliptical, entire, yellowish-green. Nectaries 4, kidney-shaped, tawny or brownish. Capsule erect, roundish, warty. The whole plant is excessively milky when wounded.

July 2 1804. Published by Jas Sowerby, London.

V

18.

EUPHORBIA amygdaloides.

Wood Spurge.

DODECANDRIA Trigynia.

GEN. CHAR. *Cor.* of 3 or 4 petals, ſtanding on the calyx. *Cal.* of one leaf, inflated. *Capſ.* three-lobed.

SPEC. CHAR. Flower-ſtalks ſcattered and umbellate, cloven. Involucra perfoliate, orbicular. Leaves obtuſe.

SYN. Euphorbia amygdaloides. *Linn. Sp. Pl.* 662. *Hudſ. Fl. An.* 210. *With. Bot. Arr.* 499. *Relh. Cant.* 186. *Sibth. Oxon.* 152.

Tithymalus characias amygdaloides. *Raii Syn.* 312.

THIS is found in woods, groves and thickets, frequently and plentifully, more eſpecially in a clay ſoil. It begins to flower in March, and continues ſome time. The leaves are almoſt ever-green, though of a ſoft delicate texture, and the whole plant is of an elegant habit and appearance, ſomewhat ſhrubby.

Root perennial. Stems ſeveral, 2 feet high, ſimple, curved, round, fleſhy, downy, often red; naked below, leafy above. Leaves alternate, thick-ſet, ſpreading, obovato-lanceolate, entire, blunt, downy, paler beneath. Flowers ſmall, yellow, on forked flower-ſtalks, of which the lower ones are axillary (the leaves which accompany them being more or leſs coloured, ſerrated, and reſembling *bracteæ*), the uppermoſt about 5 together in a terminal umbel. The *antheræ* are formed of two ſingular wedge-ſhaped lobes. Every part abounds with acrid milk. There is a variegated variety kept in green-houſes.

V

19.

EUPHORBIA Characias.
Red Spurge.

DODECANDRIA Trigynia.

GEN. CHAR. *Petals* 4 or 5, ſtanding on the calyx. *Cal.* of one leaf, inflated. *Capſ.* 3-lobed.

SPEC. CHAR. Flower-ſtalks ſcattered and umbellate, cloven. Partial involucra perfoliate with a notch between, and tipped with a ſmall point. Leaves lanceolate, entire. Stem ſhrubby. Fruit hairy.

SYN. Euphorbia Characias. *Linn. Sp. Pl.* 662. *Hudſ.* 211. *With.* 451.

Tithymalus characias Monſpelienſium. *Raii. Syn.* 312.

OBSERVED in the foreſt of Needwood, Staffordſhire, in great plenty, undoubtedly wild, by Mr. Whately, ſurgeon in the Old Jewry, London. Ray mentions its growing in that county, but ſuſpected it to have been planted there. The root from which our ſpecimen was taken, was found wild two years ſince.

This is a large handſome ſpecies; but not pleaſant in a garden, on account of the diſagreeable ſmell of its flowers. The root is perennial. Stem ſhrubby, 3 or 4 feet high, round, clothed with ſoft down; as are alſo the leaves, which are numerous, thick-ſet about the upper part of the branches, lanceolate, bluntiſh, dark green above, pale beneath, ſpreading. Flower-ſtalks, many of them axillary, the reſt forming a terminal many-rayed umbel, as in E. *amygdaloides*, *t.* 256, with which E. *Characias* agrees much in habit, but is more ſhrubby, the leaves more thickly clothed with ſhorter downineſs, the petals dark-red and leſs pointed, the antheræ of two roundiſh (not wedge-ſhaped) lobes, and the germen and fruit very hairy inſtead of being quite ſmooth. The partial involucra in both are perfoliate, with a notch between them on each ſide half way to the baſe, to which we preſume Linnæus alluded when he defined thoſe of the *Characias* " emarginate ;" for in their termination they are rather more pointed than thoſe of the *amygdaloides*, and by no means notched either in his own or any other ſpecimens. If his definition is not to be reconciled on this ground, it is erroneous, and at any rate it belongs equally to both theſe ſpecies. The above-mentioned differences diſtinguiſh them beſt.

SEMPERVIVUM tectorum.
Common Houseleek.

DODECANDRIA Dodecagynia.

GEN. CHAR. *Cal.* inferior, in 12 deep segments. *Petals* 12. *Capsules* 12, with many seeds.

SPEC. CHAR. Leaves fringed. Offsets spreading.

SYN. Sempervivum tectorum. *Linn. Sp. Pl.* 664. *Sm. Fl. Brit.* 522. *Huds.* 211. *With.* 452. *Hull.* 106. *Relh.* 185. *Sibth.* 153. *Abbot.* 106. *Curt. Lond. fasc.* 3. *t.* 29.

S. majus. *Raii Syn.* 269.

COMMON, as every one must have remarked, on tiles of houses, old walls, and especially on decaying thatched roofs, where it forms large dense tufts, flowering, though sparingly, in July.

The fibrous perennial roots throw out runners, each of which terminates in a rosaceous tuft of numerous, imbricated, spreading, very fleshy leaves, which are ovate, acute, strongly fringed; flattish, smooth and shining above; paler, convex, somewhat carinated, beneath. The larger and stronger tufts produce each a strong, round, hairy, leafy stem 8 to 12 inches high, terminating in a large many-flowered corymbus, with racemose branches. Flowers on very short partial stalks, with small awlshaped bracteæ. Calyx downy and viscid, mostly tinged with brown, and divided into 12 or more linear segments. Petals agreeing with them in number, lanceolate, fringed, either rose-coloured or of a pale reddish buff. A stamen accompanies each petal, and the germens are about as many in number, with short styles spreading in a starry form. No scales accompany the germens; by which this genus is more certainly distinguished from *Sedum* than by the number of the parts.

The bruised leaves are by rustic surgeons used as a cooling external application, but their virtues are inconsiderable.

June 1. 1804. Published by Jas Sowerby, London.

PRUNUS Padus.

Bird Cherry.

ICOSANDRIA Monogynia.

GEN. CHAR. *Cal.* 5-cleft, inferior. *Pet.* 5. *Stone* of the *drupa* with slightly prominent seams.

SPEC. CHAR. Flowers in long pendulous clusters. Leaves deciduous, with two glands on the under side at the base.

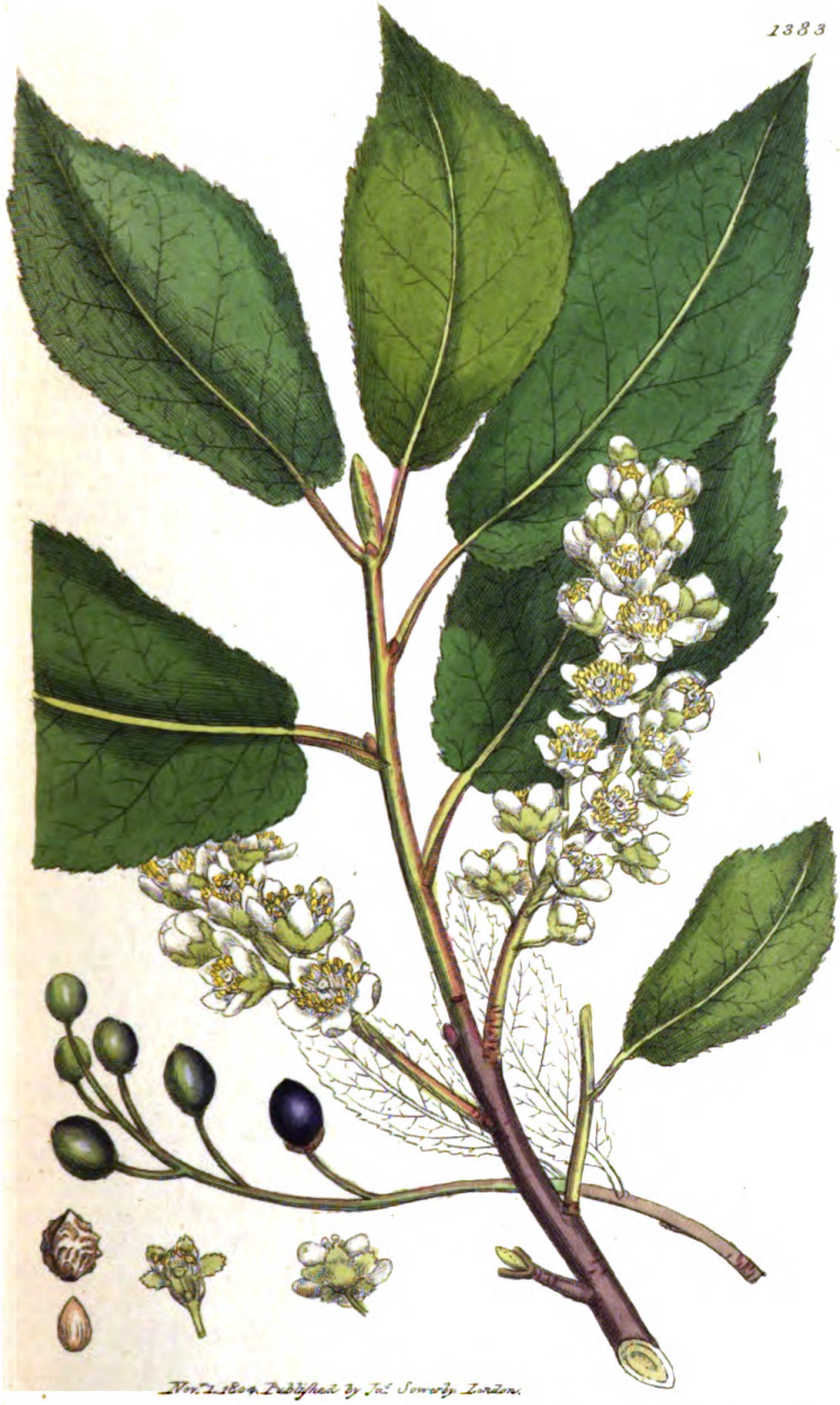
SYN. Prunus Padus. *Linn. Sp. Pl.* 677. *Sm. Fl. Brit.* 526. *Huds.* 213. *With.* 455. *Hull.* 108. *Dicks. H. Sicc. fasc.* 18. 15.

Cerasus Avium nigra et racemosa. *Raii Syn.* 463.

THE Bird Cherry forms a small tree, very ornamental in May when covered with its light snowy blossoms, for the sake of which it is sometimes allowed a place in gardens or shrubberies. The small black bitter fruit ripens in June or July, and is soon devoured by birds. The plant is common in the north of England; less so in the south. Mr. Woods gathered our specimen of the fruit at Temple Mills, Essex.

A singularity is observable in the stone of the *drupa*, which is rugged, answering to the character of *Amygdalus;* not smooth as it ought to be in *Prunus*. This confirms the assertion of Gærtner, that no solid character exists between these two *genera*.

The branches of the Bird Cherry are round and smooth. Leaves obovate, pointed, serrated, smooth, veiny, a little glaucous, with 2 glands at the base. Their smell is unpleasant, somewhat like rue; and they, no doubt, possess the poisonous qualities of their *genus* in an eminent degree. The stipulæ are linear, serrated, and soon fall off. Petals serrated.



Nov. 1, 1806. Published by Jas. Sowerby, London.

PRUNUS Cerasus.

Wild Cherry-tree.

ICOSANDRIA Monogynia.

GEN. CHAR. *Cal.* 5-cleft, inferior. *Pet.* 5. *Stone* of the *drupa* with slightly prominent seams.

SPEC. CHAR. Umbels nearly sessile. Leaves ovato-lanceolate, folded when young.

SYN. Prunus Cerasus. *Linn. Sp. Pl.* 679. *Sm. Fl. Brit.* 526. *Hudf.* 213. *With.* 455. *Hull.* 108. *Relh.* 189. *Sibth.* 155. *Willd.* 107.

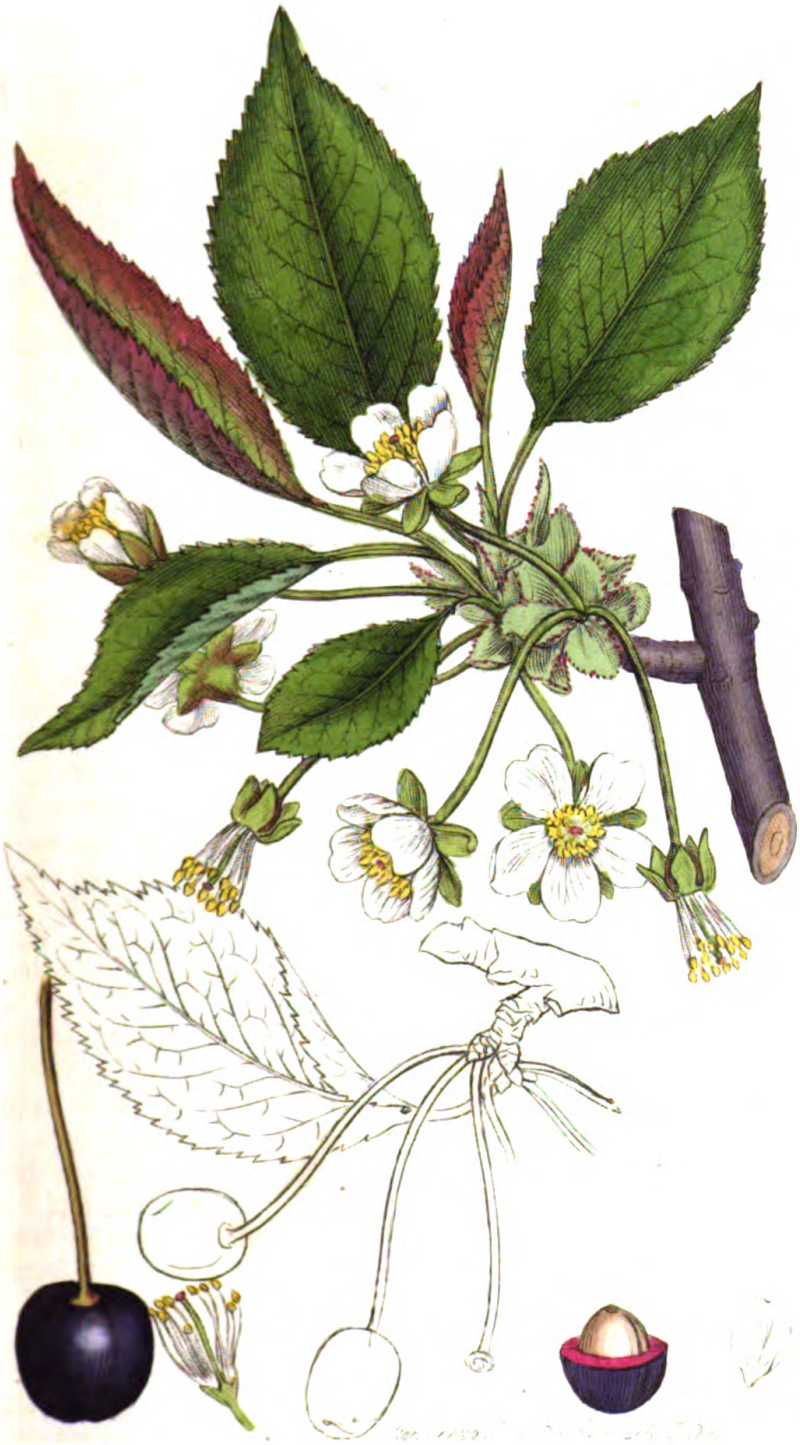
P. avium. *With.* 456. *Hull.* 108. *Sibth.* 154. *Willd.* 107.

Cerasus sylvestris fructu rubro, et fructu nigro. *Raii Syn.* 463.

CULTIVATED plants in general are liable to so many alterations, we can scarcely say when we meet with them in a truly natural state, or which variety has the greatest claim to originality. This is the case with the wild black cherry here delineated, and the still more common red one. The first is the P. *avium* of British writers, but by no means certainly the *avium* of Linnæus, which he says has a red fruit. However that may be, there can be no doubt of this and the common red P. *Cerasus* being one species, which, like the apple, pear, gooseberry, &c. varies almost infinitely in the flavour, colour, and size of its fruit.

Both the wild cherries flower in May, when, as Linnæus elegantly expresses himself, Pomona, dressed in her snow-white garment, celebrates her nuptials. The fruit ripens in August. The tree is known by its polished ash-coloured bark. Each leaf when young is folded; and more or less downy beneath. Umbels of few flowers, produced by different buds from the leaves, always white, and with copious stamina not all in perfection at once, so that the impregnation less rarely fails than in some other fruits. Stipulæ toothed, glandular. Calyx reflexed.

This genus is no less striking an example than the *Ribes*, t. 704, of the insertion of the stamina into the calyx indicating a wholesome fruit in spite of any other sign to the contrary. Many of its species, as the *Padus* and *Laurocerasus*, are in all their parts, except the pulpy fruit, as poisonous as any vegetable we know. The fruit, though not always pleasant or wholesome, is never dangerous.



PRUNUS domestica.

Wild Plum-tree.

ICOSANDRIA Monogynia.

GEN. CHAR. *Cal* 5-cleft, inferior. *Pet.* 5. *Stone* of the *drupa* with slightly prominent seams.

SPEC. CHAR. Flower-stalks mostly solitary. Leaves lanceolate-ovate, convolute when young. Branches without spines.

SYN. Prunus domestica. *Linn. Sp. Pl.* 680. *Sm. Fl. Brit.* 527. *With.* 456. *Hull.* 108. *Ger. em.* 1497. *Woodv. Med. Bot. t.* 85.

P. communis δ. *Huds.* 212.

P. curvata. *Ehrh. Arb.* 144.

GATHERED by Mr. W. Borrer at Twineham, Sussex, apparently in a wild state, the blossoms early in May, the fruit late in August.

This is a larger tree than *P. insititia*, *t.* 841, and further differs from that in being destitute of thorns. The flower-stalks moreover are reported to be most frequently solitary, and the fruit is more inclined to be elliptical or obovate; but this, as appears by our figure, is not constant, neither do we find the number of the flower-stalks to be depended on.

We are persuaded Mr. Hudson has done right in considering these trees as one species, the thorns probably disappearing by culture as in the *Pyrus communis*. Whether from the curvature of the style we know not, but Ehrhart has distinguished this among his *Arbores exsiccatæ* by the above name, without any specific definition. If the curvature alluded to be constant, it might serve as a character; but we find great reason, from Ehrhart's own specimens, to doubt it; nor is this author of great authority in the genus in question, he having separated the cherry tribe into species, by the truly puerile distinction of the colour of their juice alone.

An error in our character of *P. insititia* requires correction; the young leaves are "convolute," or "coiled inward," not revolute.

Sept.r 1.1807. Published by Ja.s Sowerby, London.

PRUNUS insititia.

Wild Bullace-tree.

ICOSANDRIA Monogynia.

GEN. CHAR. *Cal.* 5-cleft, inferior. *Pet.* 5. *Stone* of the *drupa* with slightly prominent seams.

SPEC. CHAR. Flower-stalks in pairs. Leaves lanceolate-ovate, revolute when young, downy beneath. Branches ending in a spine.

convolute

SYN. Prunus insititia. *Linn. Sp. Pl.* 680. *Sm. Fl. Brit.* 528. *With.* 456. *Hull.* 108. *Relh.* 188. *Sibth.* 154. *Abbot.* 107.

P. sylvestris major. *Raii Syn.* 462.

FOUND not unfrequently in hedges and woody places, growing to the size of a small tree, and covered with blossoms in April, when the leaves are beginning to expand.

The branches spread in various directions, and are round, stiff, clothed with a reddish rather glaucous bark, and terminating for the most part in a strong sharp thorn. Leaves alternate, on footstalks, ovate, tapering toward each end, serrated, veiny, downy beneath, coming forth at first with the edges coiled backward, not folded flatly together. Scales of the buds imbricated, concave, entire, brown, the innermost fringed, and greenish. Flowers from different buds, in pairs, on simple shortish stalks. Calyx smooth, entire, but little spreading. Petals obovate, large, white. Stamina numerous. Stigma capitate. Fruit globular, black with a blue bloom, sour and austere, scarcely eatable in a crude state.

The more grateful white bullace differs from this only as the white currant or white elder differ from the common wild kinds of each. The red austere plum, mentioned by Ray as growing in Essex, must have been either a variety of this, or some stray plant of the garden *P. domestica.*

Feb. 1. 1801 Published by Jas Sowerby. London.

PRUNUS ſpinoſa.

Sloe-tree, or Black-thorn.

ICOSANDRIA Monogynia.

GEN. CHAR. *Cal.* 5-cleft, inferior. *Pet.* 5. *Stone* of the *drupa* with ſlightly prominent ſeams.

SPEC. CHAR. Flower-ſtalks ſolitary. Leaves lanceolate, ſmooth. Branches ending in a ſpine.

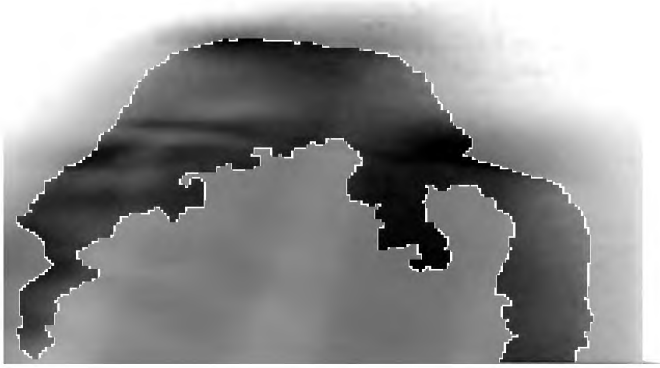
SYN. Prunus ſpinoſa. *Linn. Sp. Pl.* 681. *Sm. Fl. Brit.* 528. *Hudſ.* 212. *With.* 457. *Hull.* 108. *Relh.* 189. *Sibth.* 155. *Abbot.* 108. *Woodv. Med. Bot. t.* 84.

P. ſylveſtris. *Raii Syn.* 462.

COMMON in every hedge and thicket, where its bloſſoms are very conſpicuous in March or April, and are one of the earlieſt harbingers of ſpring. They generally cover the branches in great profuſion before any leaves appear.

This ſhrub is naturally low and depreſſed, formed of ſpreading hard rigid and thorny branches, clothed with a black rather glaucous bark. Leaves on ſtalks, lanceolate, or inverſely ovate, (at leaſt the earlier ones), ſerrated, ſmooth, dark-green. Scales of the buds much like thoſe of the laſt. Flowers ſolitary, each on a ſhort ſtalk, from a ſmall bud at the baſe of each leaf-bud. Calyx ſpreading. Petals white, roundiſh. Fruit globular, black, very auſtere and not eatable raw, though it may be made palatable by being prepared with a great quantity of ſugar. Its expreſſed juice inſpiſſated over a ſlow fire is a ſubſtitute for the Egyptian Acacia, and not an unuſeful aſtringent medicine. The recent fruit is one of the many articles uſed to adulterate port wine in England. The dried leaves are ſaid to be a ſubſtitute for tea, and are perhaps often mixed with it in this country. They may be one cauſe of its proving ſometimes pernicious; for the green parts of all the plum and cherry tribe are highly poiſonous, and it is fortunate if they act merely as a purgative.

Feb 1. 1801. Published by Jas Sowerby. London.



26.

MESPILUS Oxyacantha.

Common Hawthorn, Whitethorn, or May.

ICOSANDRIA Pentagynia.

GEN. CHAR. *Cal.* in 5 segments. *Petals* 5. *Drupa* inferior. *Nuts* 2 to 5, with two kernels each.

SPEC. CHAR. Thorny. Leaves obtuse, deeply three-cleft, serrated, smooth. Styles one or two.

SYN. Mespilus Oxyacantha. *Sm. Fl. Brit.* 529. *Hull. ed.* 2. 145. *Relh.* 190.

M. apii folio sylvestris spinosa, sive Oxyacantha. *Raii Syn.* 453.

Cratægus Oxyacantha. *Linn. Sp. Pl.* 683. *Huds.* 214. *With.* 459. *Fl. Dan. t.* 634.

C. monogyna. *Jacq. Austr. t.* 292. *Sibth.* 156. *Abbot.* 108.

THIS beautiful and useful shrub, whose abundance and luxuriance with us may well counterbalance the myrtle of more genial climates, forms the natural thickets of most parts of England. It adorns our parks, and makes our best fences. Its ruby-tipped buds are the first sign of vegetation in spring; its sweet blossoms the decoration and the pledge of approaching summer; its fruit the chief wild treasure of autumn. The hard and tough wood is useful for many different purposes, but of slow growth, and generally of no great size. The branches bear clipping to any extent, and the whole bush, if cut nearly to the ground, is speedily restored.

The branches are furnished with rigid spines. The leaves are alternate, stalked, deciduous, of a dark shining green, smooth, in three or five deep serrated segments. Stipulas lunate, varying much in size. Flowers corymbose, terminal, with smooth stalks. Calyx reflexed. Petals concave, usually white; of a beautiful red on a strong or deep soil. Anthers pink, changing to black. Styles one or two in different flowers of the same bunch. Fruit red, rarely yellow, mealy, insipid, with one or two hard nuts. Sometimes there are three styles and as many nuts.—The leaves vary in shape, but we have in vain laboured to ascertain two species of Hawthorn in Britain; nor do the *Oxyacantha* and *monogyna* of Jacquin appear to us permanently distinct.

Pubd by Jas. Sowerby, Lond.

MESPILUS germanica.

Common Medlar.

ICOSANDRIA Pentagynia.

GEN. CHAR. *Cal.* in 5 segments. *Petals* 5. *Drupa* inferior. *Nuts* 2 to 5, with 2 *seeds* each.

SPEC. CHAR. Thorns none. Leaves lanceolate, almost entire, a little downy. Flowers solitary, nearly sessile, terminal. Styles five.

SYN. Mespilus germanica. *Linn. Sp. Pl.* 684. *Sm. Fl. Brit.* 530. *Huds.* 217. *With.* 461. *Hull.* 109.
Mespilus. *Dill. in Raii Syn.* 453.

HAVING never found this tree wild, we are obliged to have recourse to a garden specimen. Dillenius admitted it into his edition of Ray's *Synopsis* at the instigation of Du Bois, who thought it wild in all the hedges about Minshull, Cheshire; an opinion we have not been able to confirm or to disprove. It forms a moderate-sized spreading tree, flowering in May or June. The fruit is perfected in autumn; but the pulp is harsh and astringent, not eatable till it has been mellowed by keeping. It is subject to many variations in size and flavour, like the apple and pear.

The leaves are deciduous, spreading, oblong, on footstalks, soft and pliable, veiny, most downy beneath, for the most part entire, except sometimes towards the point. Flowers solitary at the end of each branch, encompassed with leaves, nearly sessile, large, white, inodorous. Calyx downy; its teeth long, narrow, permanent. Petals roundish, notched. Styles 5, their base surrounded with a brownish ring or nectary. Fruit depressed, concave at the top. Nuts hard, compressed, angular.

Nov.r 1. 1805. Published by Jas. Sowerby, London.

PYRUS communis.

Wild Pear-tree.

ICOSANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Apple* inferior, of from 2 to 5 cells. *Seeds* in pairs.

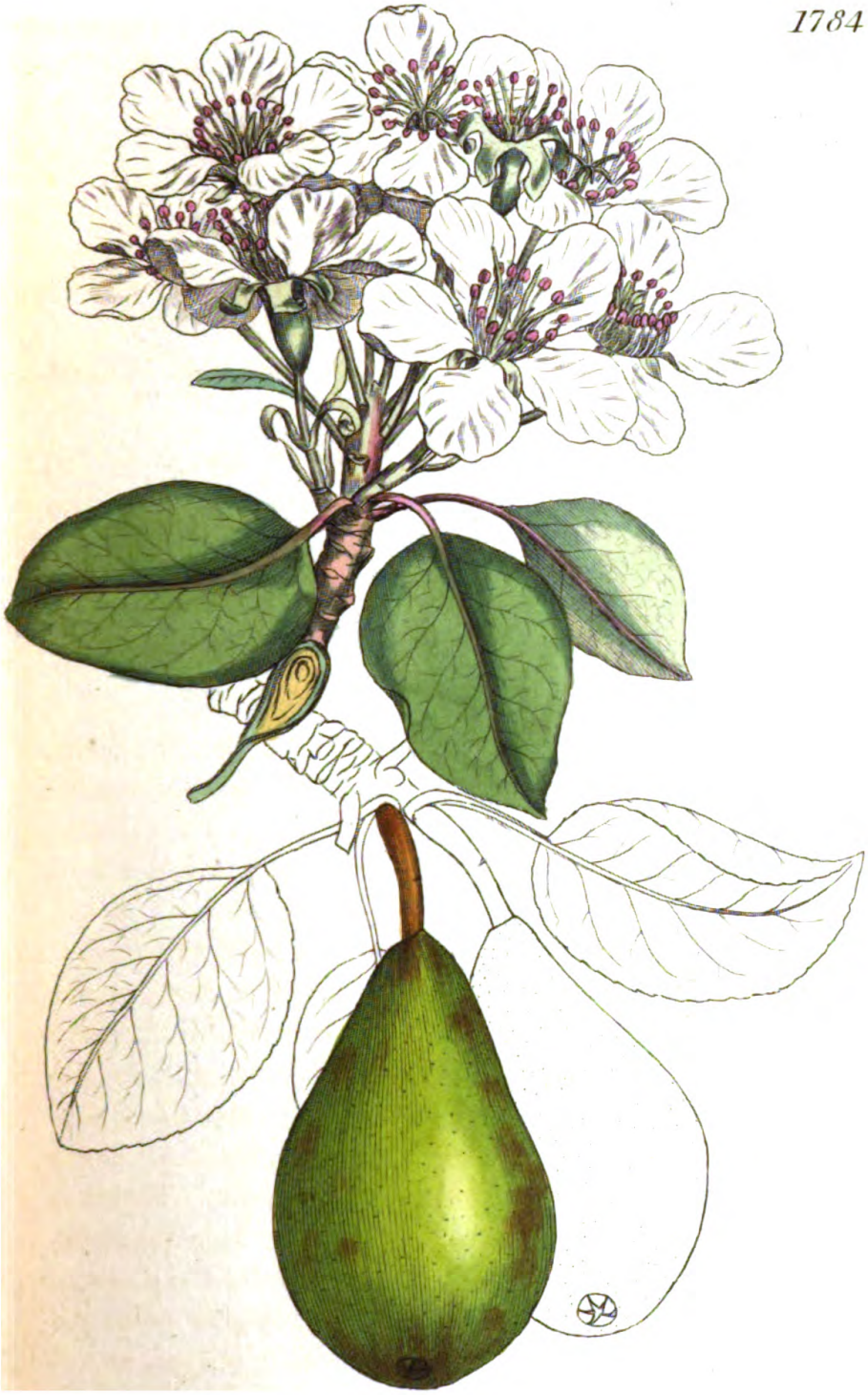
SPEC. CHAR. Leaves simple, ovate, serrated. Flower-stalks corymbose.

SYN. Pyrus communis. *Linn. Sp. Pl.* 686. *Sm. Fl. Brit.* 531. *Huds.* 216. *With.* 462. *Hull.* 109. *Relh.* 190. *Sibth.* 156. *Abbot.* 109.

Pyraster, seu Pyrus sylvestris. *Raii Syn.* 452.

FOUND wild at Cuckfield, Sussex, by Mr. W. Borrer, blossoming early in May, and ripening its fruit towards the end of August. In Worcestershire, particularly, the snow-white blossoms of this tree make a beautiful appearance in the hedges in spring.

The tree is tall and handsome, the wood light, fine-grained, and tolerably hard. The branches grow first erect, and are then curved downwards and gracefully pendulous. Leaves ovate or elliptical, bluntish, serrated, but the serratures disappear by culture, as do the thorns which sometimes occur on very wild starved pear-trees. The young leaves are downy beneath, and fringed with white. Stipulas linear. Flowers in a terminal downy corymbus; not umbellate as in the Apple, *t.* 179. Styles 5. Fruit obovate, generally hard and austere, but the specimens sent by Mr. Borrer proved sweet and agreeable. In fact, wild pears vary much in flavour, as well as wild crab-apples; though the cultivated varieties of both are, as every body knows, still more different. The iron pear is absolutely not eatable.



Sept.r 1. 1807. Publish'd by Ja.s Sowerby, London.

PYRUS Malus.

Wild Apple, or Crab-tree.

ICOSANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Apple* inferior, with 5 cells, and ſeveral ſeeds.

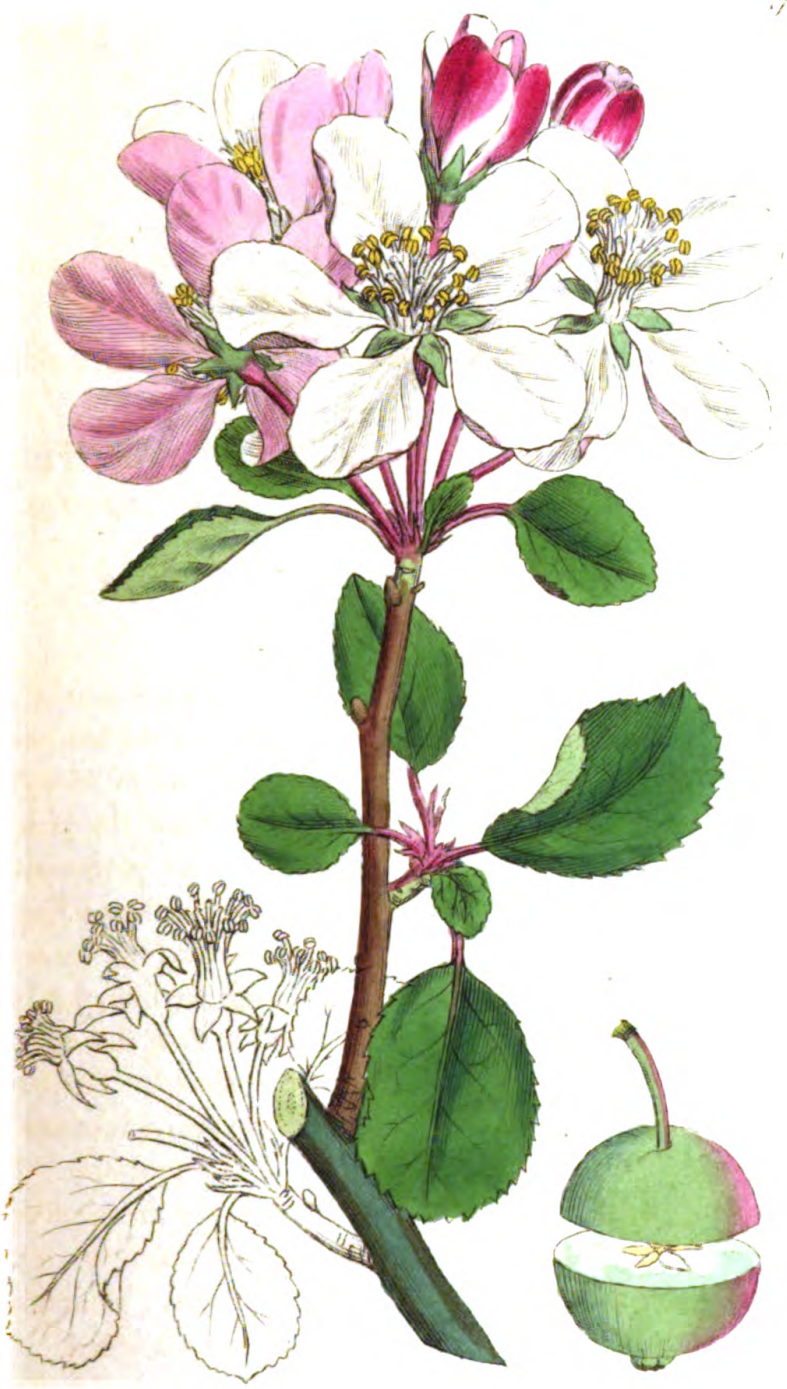
SPEC. CHAR. Leaves ſerrated. Flowers in a ſeſſile umbel.

SYN. Pyrus Malus. *Linn. Sp. Pl.* 686. *Hudſ. Fl. An.* 216. *With. Bot. Arr.* 517. *Relh. Cant.* 191. Malus ſylveſtris. *Raii Syn.* 452.

THE common original of all our valuable varieties of apples grows wild in almoſt every natural grove or thicket, nor is it unfrequent in hedges. When about the end of May it is covered with bloom, few if any ſhrubs ſurpaſs the crab in beauty. Its elegant roſe-colour bears a greater proportion to the white than in any cultivated variety, except the codling.

The tree is of a moderate ſize, diſtinguiſhable from our foreſt trees, when without leaves, by its very irregular branches, and particularly its ſhort, knobby, and rugged bearing ſhoots, from which alone the leaves and flowers are produced. The leaves are roundiſh, or oval; their ſerratures diſappear ſometimes by cultivation, but not ſo completely as in the pear-tree. The flower-ſtalks form a ſimple terminal umbel, and are rarely ſubdivided. They are moſtly covered with ſoft down, as is the inſide (and ſometimes the outſide) of the calyx. Fruit ſmall, hard, and very acid, yellowiſh green with a tinge of red.

The wood is hard, with a fine grain. The acid liquor of the fruit, called verjuice, is uſeful to cure ſprains and ſcalds. See Dr. Withering's conciſe and full account of the uſes of this and the pear-tree.



CRATÆGUS torminalis.

Wild Service Tree.

ICOSANDRIA Digynia.

GEN. CHAR. *Cal.* in 5 segments. *Petals* 5. *Berry* inferior, with two seeds.

SPEC. CHAR. Leaves somewhat heart-shaped, serrated, seven-lobed; the lower lobes divaricating.

SYN. Cratægus torminalis. *Linn. Sp. Pl.* 681. *Huds. Fl. An.* 214. *With. Bot. Arr.* 511. *Sibth. Ox.* 156. Mespilus Apii folio sylvestris non spinosa, seu Sorbus torminalis. *Raii Syn.* 453.

THIS tree is most frequent in the north-west and midland counties, though also found here and there in Essex, Suffolk, and Norfolk. We received it wild from Mr. Woodward.

It is of considerable size, but of slow growth, and the wood is consequently hard. The bark is smooth and ash-coloured. Young branches green and slightly downy, clothed with alternate handsome smooth leaves, of a firm not succulent substance, always more or less accurately 7-lobed, reticulated with small veins, serrated, deciduous. Flowers numerous, in large terminal cymose panicles, appearing early in May; their flower-stalks and calyx downy; petals cream-coloured; styles 3, 4, or 5, and the seeds in proportion, an instance (among many others) how very ill-founded the orders and genera are of Linnæus's *Icosandria Digynia*, *Trigynia*, and *Pentagynia*, as Haller and his disciples long ago contended.

The fruit of this tree ripens late in autumn, and forms panicles of brown punctated berries, larger than those of the Hawthorn, which, when the frost has touched them, are of an exceedingly pleasant acid flavour, and are sometimes sold in the London fruit-shops. They are esteemed strengthening to the stomach and bowels. Old Tragus, whose figures and their accompaniments sometimes express the virtues of plants with more truth than decorum, gives a ludicrous exhibition of two little boys under this kind of Service tree, p. 1010, in order to illustrate its (apparently very powerful) effects in expelling worms.

Jan.y 1.st 90 Published by J.n Sowerby London

PYRUS domestica.

Service Tree.

ICOSANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Apple* inferior, with 5 cells and several seeds.

SPEC. CHAR. Leaves pinnate: leaflets equal, downy beneath, serrated towards the point. Flowers in panicles.

SYN. Sorbus domestica. *Linn. Sp. Pl.* 684. *Huds. Fl. An.* 215. *With. Bot. Arr.* 514. *Crantz. Stirp. fasc.* 2. 48. *tab.* 2. *f.* 3.
Sorbus. *Raii Syn.* 452.

WE have been favoured by Lord Viscount Valentia with fresh wild specimens of this rare British plant, gathered from a solitary tree in the middle of Wire forest, near Bewdley, Worcestershire, the same probably that was observed by Mr. Pitts in Ray's time. It is said to grow also in the mountainous parts of Cornwall and Staffordshire, and may now and then be met with in old gardens, having been formerly cultivated for the sake of its fruit, which is like, but inferior to, a Medlar. It flowers in May.

The tree is of a middle size, not unlike the Mountain Ash, of very slow growth, not flowering till it arrives at a great age, and the wood is very hard. Leaves alternate, composed of about 7 or 9 pair of opposite, sessile, ovate or oblong leaflets, with an odd terminal one of the same size; all entire at the base, serrated from about half way to the end, smooth above, downy beneath, but that downiness goes off towards autumn. Flowers in panicles, cream-coloured. Calyx very woolly. Petals concave, with hairy claws. Stamina numerous. Styles always 5, with oblique concave stigmas. Fruit pear-shaped, reddish and spotted, extremely austere, and not eatable till it is quite mellowed by frost or time, when it becomes brown and very soft. Cells 5, with one seed in each.

Every botanical principle whatever obliges us to remove this tree from the genus of Sorbus, as Crantz also observes, who would have been more regarded in many cases than he is, if he had written with more temper. From an accurate examination of the half-ripe fruit, we have found it a genuine pyrus, having indeed only one seed in each bivalve capsule of the apple, but that is not peculiar to this species. The pinnated leaves are (as to *habit*) a much more important objection.

SORBUS aucuparia.

Mountain Ash, or Quicken Tree.

ICOSANDRIA Trigynia.

GEN. CHAR. *Cal.* in 5 segments. *Petals* 5. *Berry* inferior, with 3 seeds.

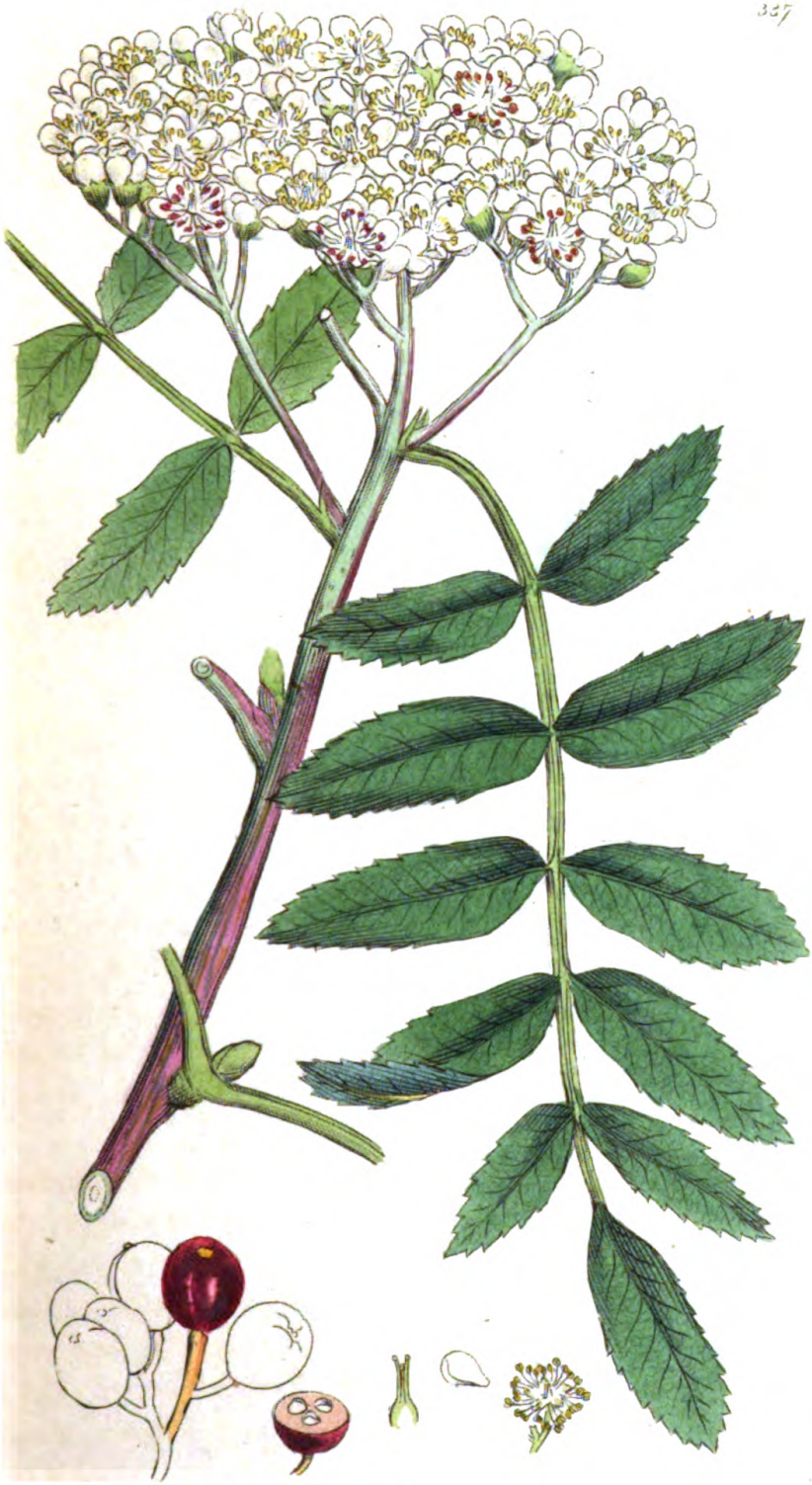
SPEC. CHAR. Leaves pinnated, smooth on both sides.

SYN. Sorbus aucuparia. *Linn. Sp. Pl.* 683. *Huds. Fl. An.* 215. *With. Bot. Arr.* 513. *Relh. Cant.* 190.

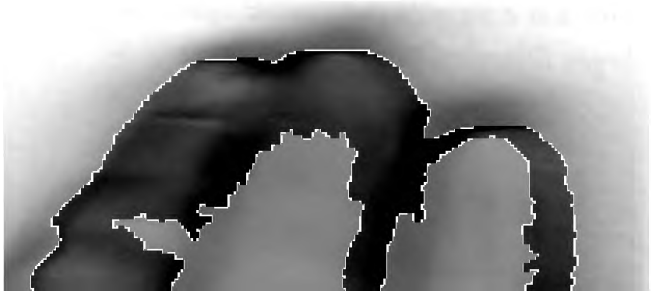
S. sylvestris, foliis domesticæ similis. *Raii Syn.* 452.

THIS elegant tree grows very abundantly in mountainous (not alpine) woods, especially in the northern counties, and is now indeed pretty generally dispersed through the kingdom, having been so very frequently planted about houses for ornament. The flowers appear in May, and the berries ripen in September.

It is of slow growth; the wood tough and close-grained, not very hard; bark smooth, greyish. Leaves winged; their leaflets serrated, entire at the base, smooth above, and nearly so beneath, except a few fine scattered hairs, and their under side is also glaucous. The flowers are white, in large terminal corymbi. Petals very concave. Germen hairy; styles 3, sometimes 4, the seeds answering to them in number. Berries bright red, very juicy, acid astringent and bitter, scarcely eatable when raw, though a not unpleasant jelly is prepared from them in the Highlands with sugar.



Oct.r 1796 Publ. Sowerby Lond.



PYRUS pinnatifida.

Bastard Mountain Ash.

ICOSANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Apple* inferior, of from 2 to 5 cells. *Seeds* in pairs.

SPEC. CHAR. Leaves deeply pinnatifid, or half pinnate, downy beneath. Flowers corymbose, with about three styles.

SYN. Pyrus pinnatifida. *Ehrh. Beitr. fasc.* 6. 93. *Exsicc. n.* 145.

P. hybrida. *Sm. Fl. Brit.* 534. *Hull. ed.* 2. 147.

Sorbus hybrida. *Linn. Sp. Pl.* 684. *Huds.* 216. *With.* 461. *Linn. Fil. fasc.* 1. *t.* 6. *Fl. Dan. t.* 301. not 302.

HUDSON admitted this tree into his *Flora*, solely because it was said to grow on the walls of castle Dinas y brān, Denbighshire; but Dr. Prattinton having brought us specimens from the spot, which proved *P. Aria, t.* 1858, a mark of doubt was prefixed to the present species in *Fl. Brit.* This doubt however is since removed by wild specimens, sent by the late Mr. J. Mackay, which he gathered in rocky parts of several mountains at the north end of the isle of Arran, and which are the true Linnæan *Sorbus hybrida*. For this we now gladly adopt Ehrhart's most excellent name, published in 1791, nine years before the *Fl. Brit.* though till lately unknown to us. This measure is become necessary, as Willdenow has another *Pyrus hybrida*. We never scruple yielding to any authority by which science is advanced, though we struggle, sometimes in vain, against what deforms it.

The tree in question is more nearly allied in habit to *P. Aria* than to *aucuparia, t.* 337, differing chiefly in having the leaves deeply pinnatifid, and their lower half almost pinnate, whence Linnæus judged it a mule between these two species. It is however propagated by seed and remains unaltered, being frequent in gardens, flowering in May, and making a pretty appearance with its dense tufts of scarlet fruit in August and September.

Oct: 1811. published by J. Sowerby, London.

PYRUS Aria.

White Beam-tree.

ICOSANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Apple* inferior, of from 2 to 5 cells. *Seeds* in pairs.

SPEC. CHAR. Leaves simple, ovate, cut, serrated, scored, downy beneath. Flowers corymbose, with about two styles.

SYN. Pyrus Aria. *Sm. Fl. Brit.* 534. *Winch. v.* 1. 47.
Cratægus Aria. *Linn. Sp. Pl.* 681. *Huds.* 214. *With.* 458. *Hull.* 109. *Sibth.* 155. *Abbot.* 108.
Mespilus alni folio subtùs incano, Aria Theophrasti dicta. *Raii Syn.* 453.

IN mountainous woods, especially in the fissures of calcareous rocks, flowering about May, and ripening fruit towards October. It is a handsome small tree, much cultivated for its beauty in home plantations, where it grows to a greater height than on its native hills. The young branches, as well as the stalks, calyx, and under side of the leaves, are white with a mealy hoariness. Leaves on footstalks, alternate, ovate, acute, doubly and irregularly cut and serrated, smooth, green, with straight sunk veins above. Flowers in large, terminal, compound corymbs. Petals white, longer than the stamens. Styles two, often three or four. Fruit a scarlet, globose, mealy, astringent apple, whose cells are coriaceous rather than horny, agreeing with the styles in number, and each containing two seeds.—A variety with more deeply cut leaves than ordinary, found on a castle in Denbighshire, has been taken for the *Sorbus* (rather *Pyrus*) *hybrida* of Linnæus, which latter is however found in the isle of Arran.

The Welch call this plant a lemon tree, whence that tender exotic has been reported by ignorant travellers to grow on the bleak crags of Penmaen Mawr. Surely such travellers might be more usefully employed at home! Mr. Bingley has corrected their error in his *North Wales*, *v.* 2. 390.

Mar. 1.1808. Published by Ja.t Sowerby London.

V

SPIRÆA salicifolia.

Willow-leaved Spiræa.

ICOSANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Capsules* superior, of 2 valves, with many seeds.

SPEC. CHAR. Leaves lanceolate, bluntish, serrated, smooth. Clusters terminal, compound.

SYN. Spiræa salicifolia. *Linn. Sp. Pl.* 700. *Sm. Fl. Brit.* 535. *With.* 463. *Hull.* 110. *Pallas. Ross. t.* 21. *Don. Herb. fasc.* 2. 32.
S. Theophrasti fortè. *Ger. em.* 1601.

THIS pretty shrub, frequent in ornamented ground, seems to be really a native of Britain; for besides the counties of Westmoreland and Cumberland, where it is said on good authority to grow, Mr. G. Don assures us that it is wild in Scotland. It prefers moist shady situations among mountains, and flowers in July.

The stems are numerous and shrubby, rising to the height of 4 feet; their bark smooth, of a yellowish or tawny hue. Leaves alternate, numerous, deciduous, on short stalks, of a broad lanceolate bluntish figure, unequally serrated, smooth on both sides, veiny. Clusters of flowers terminal, erect, dense, obtuse, compound, of many flowers, with linear solitary bracteæ interspersed. Calyx spreading, dark red, smooth. Petals and stamina of an elegant rose colour, much longer than the calyx. Germen depressed. Styles 5. Capsules 5, brown, opening at their inner edge. Seeds many, small.

June 1 1805. Published by Jas Sowerby, London.

SPIRÆA Filipendula.

Common Dropwort.

ICOSANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Capsules* with many seeds.

SPEC. CHAR. Leaves interruptedly pinnated; leaflets uniform, serrated. Stem herbaceous. Flowers cymose, with many styles.

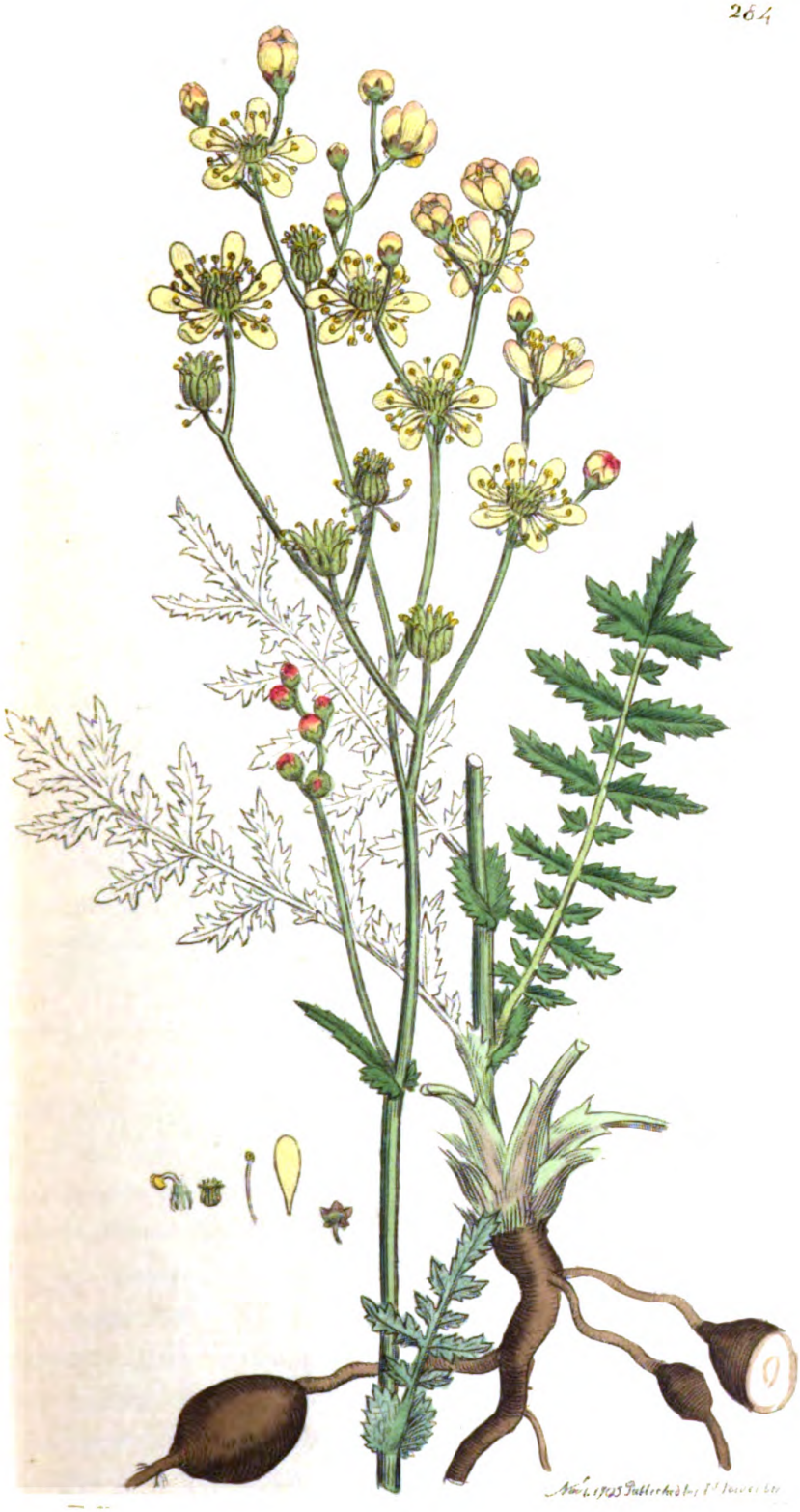
SYN. Spiræa Filipendula. *Linn. Sp. Pl.* 702. *Huds. Fl. An.* 217. *With. Bot. Arr.* 518. *Relh. Cant.* 191. *Sibth. Oxon.* 157.

Filipendula. *Raii Syn.* 259.

IN mountainous pastures on a calcareous soil, especially in Cambridgeshire, Worcestershire, and Surrey, plentiful enough wherever it occurs at all. In Mr. Lock's park near Leatherhead this elegant plant grows abundantly, flowering early in July.

The very extraordinary perennial root consists of oval solid lumps hanging by threads from the main body, which lumps, being reservoirs of nourishment, enable the herb to resist drought, and render it besides very difficult to be eradicated. Stem erect, about a foot high, with a few alternate smooth leaves, which are a fine example of the *folium interruptè pinnatum*, consisting of one set of larger leaflets, with intermediate smaller ones; all of them are serrated and jagged, and all the leaflets of each set are uniform, or nearly corresponding in size. A pair of roundish united indented stipulæ, at the base of each compound leaf, embrace the stem. Flowers in a cymose loose panicle, cream-coloured, often tipped with red in a wild state. The styles in this and *S. Ulmaria* are numerous; so that a young student would be puzzled to find our only 2 species of *Spiræa* in the order *Pentagynia*, to which however the genus is very rightly referred by Linnæus, most of the other numerous species (if not all) having but 5 styles. These irregular species ought always to be enumerated at the end of the order or class to which they individually belong, as Linnæus generally practised.

In a garden soil this plant grows very luxuriant, and has often double flowers. The whole herb is astringent.



SPIRÆA Ulmaria.

Meadow-sweet.

ICOSANDRIA Pentagynia.

Gen. Char. *Cal.* 5-cleft. *Petals* 5. *Capsules* superior, of 2 valves, with many seeds.

Spec. Char. Leaves interruptedly pinnate, downy beneath: the terminal leaflet largest and lobed. Flowers cymose, with many styles.

Syn. Spiræa Ulmaria. *Linn. Sp. Pl.* 702. *Sm. Fl. Brit.* 531. *Hall.* 217. *With.* 464. *Hull.* 110. *Relh.* 122. *Sow.* 157. *Abbot.* 110. *Curt. Lond. fasc.* 5. t. 33.

Ulmaria. *Ger. Em.* 252.

MEADOW-SWEET, or Queen of the Meadows, as it is sometimes called, abounds in moist meadows about the banks of rivers and streams, perfuming the air with the sweet hawthorn-like scent of its plentiful blossoms from June to August. The green parts of the herb partake of a similar aromatic flavour when bruised or chewed, approaching to the taste of orange-flower water, a flavour possessed in higher perfection by the American *Gaultheria*. It is amusing, at least, to remark such resemblances; and the student of Natural Orders may in many cases be assisted by them, though in the present instance they may baffle his skill.

The root is fibrous and perennial. Stems erect, 3 or 4 feet high, angular and furrowed, leafy, branched in the upper part. Leaves interruptedly pinnate; their leaflets very unequal in size, sharply serrated, clothed beneath with white down; the terminal one remarkably large and three-lobed. A pair of rounded serrated stipulæ are joined to the common leaf-stalk, and clasp the stem. Flowers in a large very compound cyme, whose side branches rise much above the central one. Stamina numerous. Styles 6 or 8, on which subject we have already enlarged in vol. 4. *p.* 284. Germens and capsules twisted.

ROSA ſpinoſiſſima.

Burnet Roſe.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* urn-ſhaped, fleſhy, contracted at the orifice, terminating in 5 ſegments. Petals 5. *Seeds* ſeveral, briſtly, fixed to the inſide of the calyx.

SPEC. CHAR. Fruit globoſe, ſmooth as well as the flower-ſtalks. Stem clothed with very numerous ſtraight ſlender ſpines. Leaflets ſmooth and round.

SYN. Roſa ſpinoſiſſima. *Linn. Sp. Pl.* 705. *Hudſ. Fl. An.* 218. *With. Bot. Arr.* 522. *Lightf. Fl. Sc.* 260. *Fl. Dan. t.* 398.
R. pimpinellifolia. *Linn. Syſt. Nat. ed.* 10. 1062.
R. pumila ſpinoſiſſima, foliis Pimpinellæ glabris, flore albo. *Raii Syn.* 455.

ROSES, the delight of gardeners, of poets, in ſhort of all who have ever conſidered any plant as an object of admiration, and which compoſe perhaps the moſt elegant genus on the whole that we know, are by no means eaſily intelligible to a botaniſt. Their beautiful forms, ſo delicately varied, are yet ſo nearly allied, that the line of ſpecific diſcrimination can ſcarcely be accurately drawn. This ſpecies, indeed, is one of the moſt diſtinct; yet even this has been deſcribed twice by our great maſter. It appears from his herbarium, that his R. pimpinellifolia is exactly (as Haller believed) the ſame plant, not even a variety, as his original ſpinoſiſſima; of which, not happening to have it before him when he wrote the 10th edition of *Syſt. Naturæ*, he forgot the appearance.

It occurs with us in the borders of fields on a gravelly or ſandy ſoil, flowering in July. The buſhes are about 2 feet high, much branched, and may be known by the very numerous needle-like prickles, abundant on the young branches, but which often diſappear from the old ones. The leaflets are about 9, round, ſmooth, ſerrated, very like the leaves of burnet (Poterium Sanguiſorba); their common ſtalk is ſometimes prickly, and the flower-ſtalk more rarely ſo. Petals cream-coloured, yellow at the baſe, delicately fragrant, ſometimes (but rarely) ſtriped with red. Fruit globoſe, deep red, black when quite ripe, ſmooth, though Haller deſcribes it as ſpinous.

Fl. Dan. t. 398. is this plant, and not R. arvenſis.

39.

ROSA rubella.

Red-fruited Dwarf Rose.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* urn-shaped, fleshy, contracted at the orifice, terminating in 5 segments. *Petals* 5. *Seeds* numerous, bristly, fixed to the inside of the calyx.

SPEC. CHAR. Fruit globose, somewhat bristly. Flower-stalks bristly. Stem spreading, clothed with straight slender spines. Leaflets elliptical, smooth. Segments of the calyx entire.

SYN. Rosa spinosissima γ. *Sm. Fl. Brit.* 537 ? *With.* 465 ? *Hull. ed.* 2. 148 ?

IT may literally be said that Roses spring up under our steps as we approach the close of our undertaking, for we have of late added more than could have been imagined to the species of that favourite but difficult tribe.

The present beautiful plant was sent from Newcastle by Mr. Winch. It differs from the common *R. spinosissima*, *t.* 187, in being a small, spreading bush, whereas the flowering stems of that species are strong and erect, more in the manner of *canina*. The leaflets are more elliptical and rather acute. Flowerstalks longer, and densely covered with glandular bristles, some of which are found also on the lower part of the germen, which is rather less globular than in *spinosissima*. About these marks however we might have hesitated; but the perfectly ripe fruit sent by Mr. Winch, though too much bruised to be drawn, is scarlet, not black, which is a character we have never known to vary. That in our *t.* 187, it must be observed, is but half ripe. The flowers and leaves are elegantly tinged with red, which may be accidental. The segments of the calyx, in both these species, are simple and entire; the leaflets smooth, with glandular stalks and ribs.

Mar. 1, 1813 published by J. & J. Lindley, Lambeth.

40.

ROSA involuta.

Prickly Unexpanded Rose.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* urn-shaped, fleshy, contracted at the orifice, terminating in 5 segments. *Petals* 5. *Seeds* numerous, bristly, fixed to the inside of the calyx.

SPEC. CHAR. Fruit globose, very prickly, as well as the flower-stalks. Prickles of the stem very numerous and nearly straight. Petals involute and imperfectly expanded. Leaflets elliptical.

SYN. Rosa involuta. *Sm. Fl. Brit.* 1398.

THE late Mr. J. Mackay communicated a wild specimen of this Rose from the Hebrides, which is described in the *Flora Britannica*. The present grew in Cambridge garden, under the care of its able Curator Mr. James Donn, and was sent to Mr. Sowerby, June 13th last.

This shrub has the general habit of *R. spinosissima*, *t.* 187, with which the numerous prickles of its stem, various in size and rarely very slightly curved, agree. But it differs from that species in having extremely prickly leaf-stalks and flower-stalks, as well as larger, more elliptical, leaflets, whose ribs underneath are more generally hairy. The germen inclines to ovate, and is all over strongly armed with prickles; whereas that of the *spinosissima* is smooth and much depressed. The calyx-segments are long, simple and pointed, rough externally with glandular prickles. Petals whitish, variegated more or less with red, concave and involute, seldom above half expanded. We have not seen the ripe fruit.

Oct. 1809 published by J. Sowerby London.

44.

ROSA hibernica.

Irish Rose.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* urn-shaped, fleshy, contracted at the orifice, terminating in *5* segments. *Petals 5.* *Seeds* numerous, bristly, fixed to the inside of the calyx.

SPEC. CHAR. Fruit nearly globose, smooth, as well as the flower-stalks. Prickles of the stem slightly hooked. Leaflets elliptical, smooth, with hairy ribs.

DISCOVERED many years ago in the county of Down, about Belfast harbour, where it grows abundantly, by our often-mentioned friend John Templeton, Esq., who consequently found himself entitled to the reward of 50*l.* so liberally offered by the patrons of botany at Dublin for the discovery of a new Irish plant. We adopt the name by which Mr. Templeton has communicated wild specimens to us, for the singularity of the anecdote, and that we may not rob him or his countrymen of a particle of their honours. Otherwise we profess ourselves totally adverse to geographical specific names, except of the most comprehensive kinds, like *borealis, europæa, americana, &c.*

This is easily known from every described Rose with a globose germen, by the above characters. The fruit indeed is slightly elongated upwards, so as to approach an ovate figure, but is always round and broad at the base. The stem is 6 feet high, upright, much branched and very prickly. Prickles scattered, slightly hooked or deflexed. Leaflets broad-ovate or roundish, smooth, their ribs and veins hairy at the back, as in *R. collina* and *scabriuscula, t.* 1895, 1896. Flower-stalks often solitary, often 2 or 3 together, smooth. Petals pale blush-coloured. Styles distinct at the base. It is remarkable for continuing in blossom from the early part of June till the middle of November. The scarlet fruit distinguishes this species from every variety of *R. spinosissima, t.* 187.

Engraved & published by Jos. Pancoucke, Paris

V

ROSA arvenſis.

White Dog-roſe.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* urn-ſhaped, fleſhy, contracted at the orifice, terminating in 5 ſegments. *Petals* 5. *Seeds* ſeveral, briſtly, fixed to the inſide of the calyx.

SPEC. CHAR. Fruit globoſe, ſmooth as well as the flower-ſtalks. Stem and leaf-ſtalks prickly. Flowers generally cluſtered.

SYN. Roſa arvenſis. *Hudſ. Fl. An. ed.* 1. 192. *ed.* 2. 219. *Linn. Mant.* 2. 245. *With. Bot. Arr.* 521. *Relh. Cant.* 193.

R. ſylveſtris altera minor, flore albo noſtras. *Raii Syn.* 455.

FREQUENT in our hedges, and thickets in the borders of fields, where it flowers in June and July; yet though here ſo common, it ſeems to be almoſt peculiar to Britain. Perhaps it may grow in other parts of Europe, but may not have been well diſcriminated by botanical writers. The figure in *Flora Dan. t.* 398, quoted by Linnæus, is R. ſpinoſiſſima; and it is wonderful Mr. Hudſon ſhould follow him in ſo groſs an error, though, having himſelf eſtabliſhed this ſpecies, he ought to have known it well. We beg leave on this occaſion to hint a general admonition againſt copying ſynonyms without examining them.

Roſa arvenſis has round, glaucous, often mahogany-coloured ſtems, of which laſt colour are commonly the germens and flower-ſtalks; and the laſt are covered with a glandular roughneſs. The prickles are hooked, but differ from thoſe of R. canina in being ſmaller. The leaflets are moſtly 5, oval, pointed and ſmooth. Flower-ſtalks about 3 or 5 in a terminal cluſter (rarely ſolitary), not all exactly from one point, accompanied by a few lanceolate bracteæ, and each bearing a ſingle white flower, like the common dog-roſe, but never red or bluſh-coloured, and leſs fragrant. The germen is oblong, but in ripening becomes globoſe, and deep red, terminated by the ſimple baſe of the ſtyles, at that period elongated, as is well remarked by Dr. Stokes in *Bot. Arr.* 522.

ROSA villosa.
Apple Rose.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* urn-shaped, fleshy, contracted at the orifice, terminating in 5 segments. *Petals* 5. *Seeds* several, bristly, fixed to the inside of the calyx.

SPEC. CHAR. Fruit globose, bristly as well as the flower-stalks. Prickles of the stem straightish. Leaflets elliptical, downy on both sides.

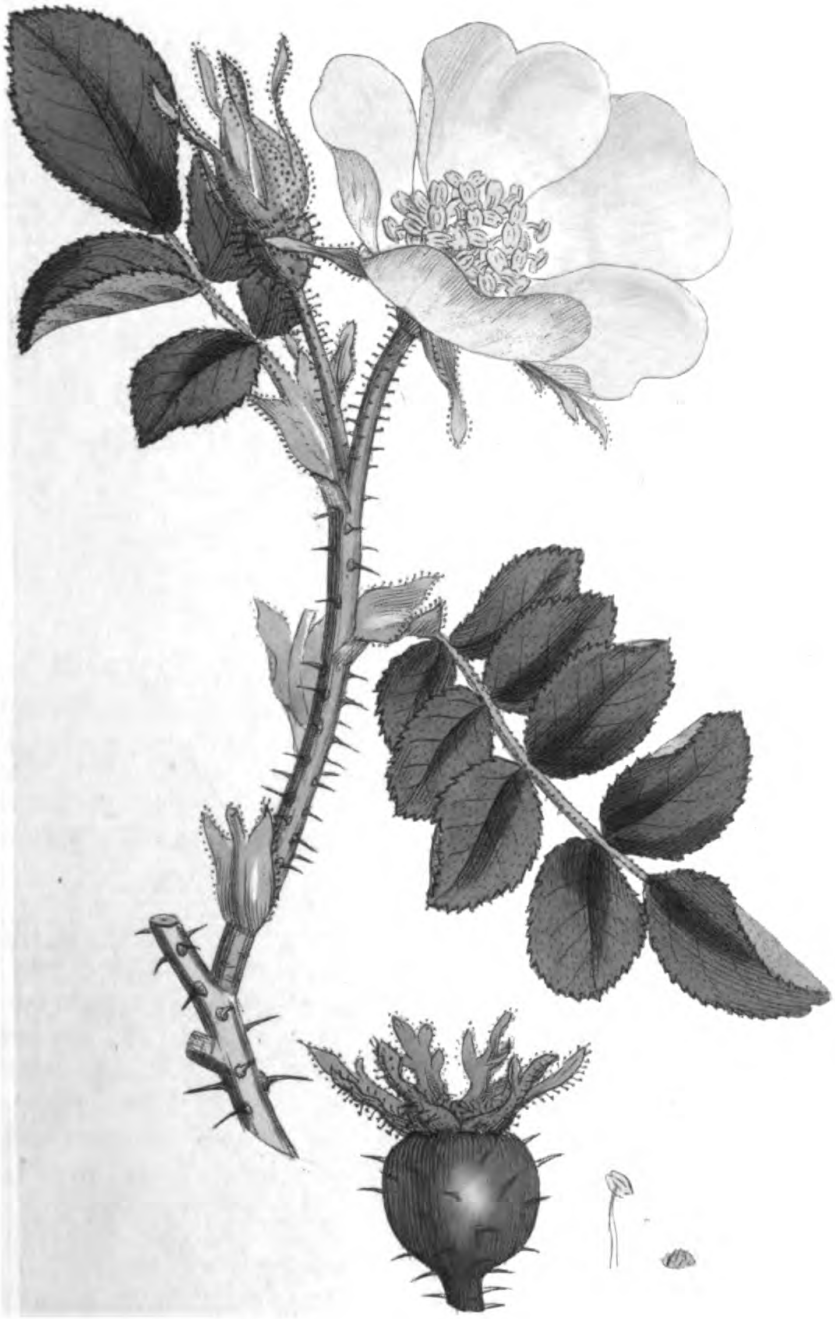
SYN. Rosa villosa. *Linn. Sp. Pl.* 704. *Hudf.* 219. *With.* 466. *Lightf.* 261.

R. sylvestris pomifera major nostras. *Raii Syn.* 455.

THE Apple Rose, well known in gardens and shrubberies, both in a single and double state, grows copiously in Westmoreland, Cumberland and the north of Yorkshire, as well as in some parts of Scotland. Our wild specimen was communicated by Mr. Robson. It flowers in June, and the large deep-red fruit remains till eaten by birds or destroyed by frosts or wet.

This shrub grows upright to the height of 4 feet or more; the branches are upright and short. Spines on the stem and branches scattered, small, awl-shaped, nearly straight. Leaflets 7, elliptical, bluntish, clothed on both sides with short velvet-like downiness, fragrant when rubbed, their serratures fringed with glands. Leaf-stalk downy, prickly, glandular. Flower-stalks terminal, mostly solitary or in pairs, single-flowered, rough with rigid glandular bristles. Germen globose, bristly. Segments of the calyx long, downy, prickly. Petals of a full rose-colour, not very odoriferous. Fruit globular, larger than in any other species, for the most part bristly, polished, of a dark red. Seeds large.

Dillenius mentions a downy-leaved rose in Ray's *Synopsis* p. 478, found by Sherard near Kingston upon Thames, which by his description seems a variety of this, but I have not had an opportunity of ascertaining it. There is another species with downy leaves, found in various parts of England, which will one day be published in this work.



44.

ROSA mollis.

Soft-leaved Round-fruited Rose.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* urn shaped, fleshy, contracted at the orifice, terminating in 5 segments. *Petals* 5. *Seeds* numerous, bristly, fixed to the inside of the calyx.

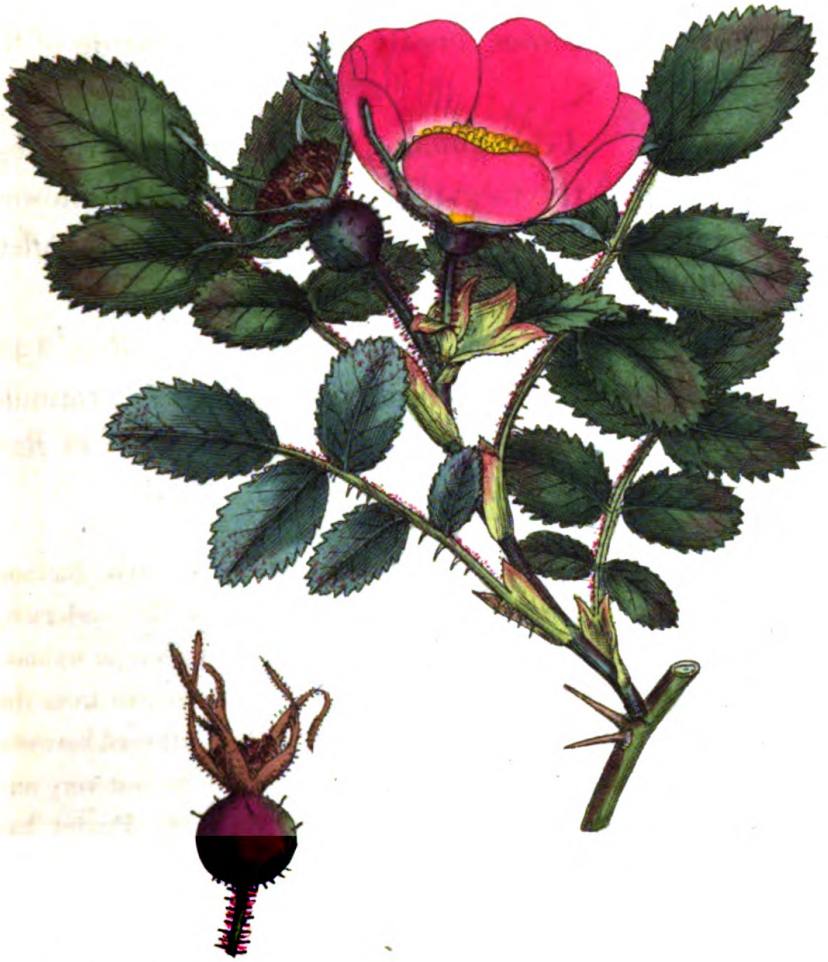
SPEC. CHAR. Fruit globose, half as long as the segments of the calyx, bristly as well as the flower-stalks. Prickles of the stem straight. Leaflets elliptic-ovate, downy on both sides.

SYN. Rosa villosa β. *Sm. Fl. Brit.* 538. *Relh.* 193. R. sylvestris, folio mollitèr hirsuto, fructu rotundo glabro, calyce et pediculo hispidis. *Dill. in Raii Syn.* 478.

PLANTS of this Rose, brought by the late Mr. Geo. Jackson from Scotland, have blossomed, under the care of Mr. Anderson, in the garden of Jas. Vere, Esq.; and they confirm an opinion we have long entertained, of its being a distinct species from the true *R. villosa*, *t.* 583. It is however what was gathered between Edinburgh and Ravelston wood, and appears to be not very uncommon in England and Wales. The Rev. H. Davies has observed the fruit to vary in Anglesea, from perfect smoothness to every degree of roughness; which removes all doubt as to the synonym of Dillenius.

The stem is of much humbler growth than that of the *villosa*; the leaflets less elongated, and more inclining to ovate; the petals of a deeper red; the ripe fruit much smaller. One segment of the calyx, and no more, is often very distinctly pinnated.

The leaflets in our *t.* 583 are not sufficiently elongated, nor so correctly elliptical as they ought to be.



Sepia. Published by Jas. Sowerby, London.

ROSA cinnamomea.

Cinnamon Rose.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* urn-shaped, fleshy, contracted at the orifice, terminating in 5 segments. *Petals* 5. *Seeds* numerous, bristly, fixed to the inside of the calyx.

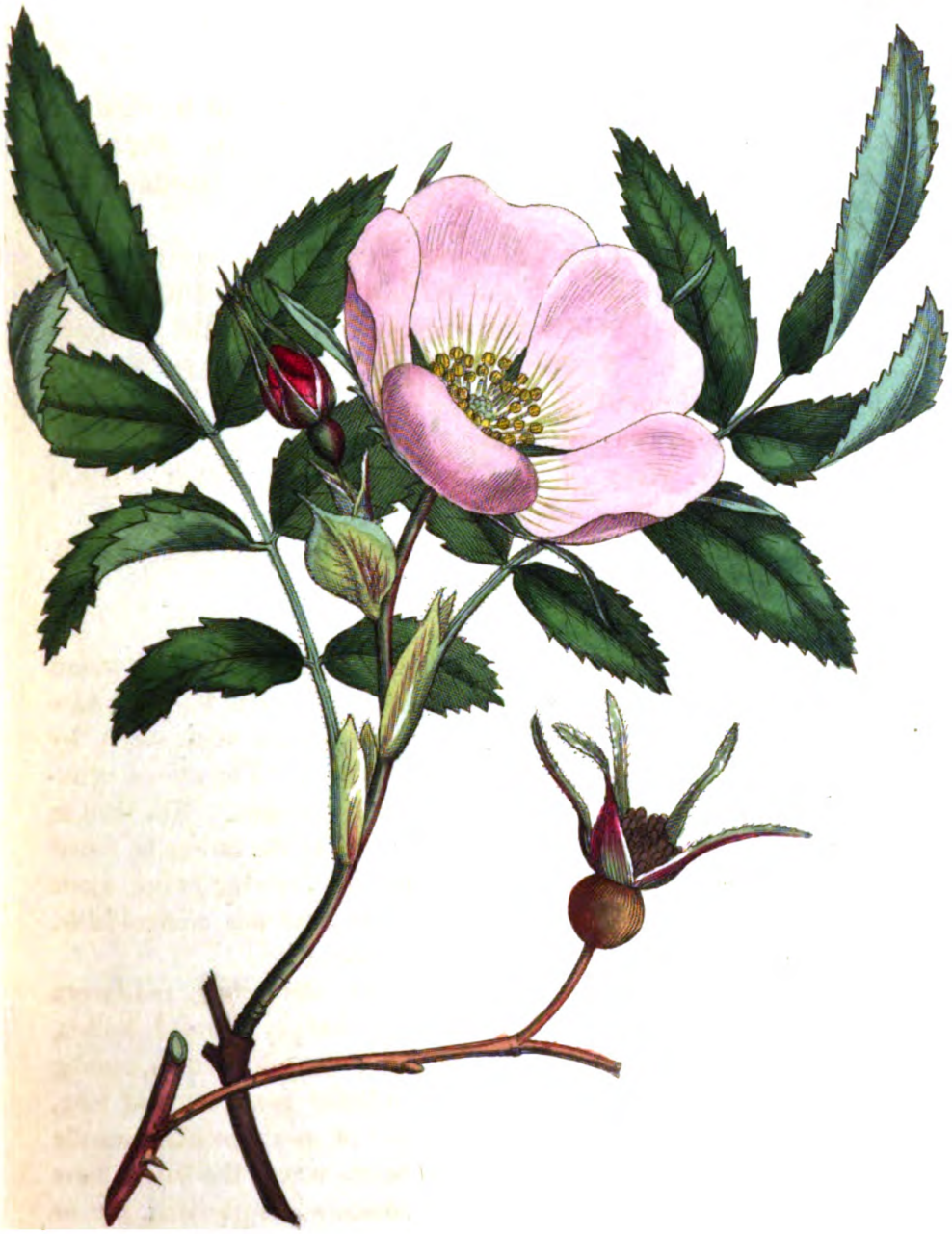
SPEC. CHAR. Fruit globose, smooth as well as the flower-stalks. Stem with occasional, small, twin prickles, below the stipulas. Footstalks scarcely prickly. Leaflets oblong, finely downy; glaucous beneath.

SYN. Rosa cinnamomea. *Linn. Sp. Pl.* 703. *Ait. Hort. Kew. ed.* 2. *v.* 3. 259. *Retz. Prodr. Scand. ed.* 2. 120. *Ger. em.* 1268.

R. majalis. *Retz. Obs. fasc.* 3. 33. *Herm. Diss.* 8.

WE add this Rose to the catalogue of native English plants on the authority of a specimen, gathered in the wood in Aketon pasture near Pontefract, Yorkshire, some years since, by R. A. Salisbury, Esq. It flowers in May. The above synonyms are determined by authentic specimens. The fruit in our plate is taken from a Swedish one. If the flower be found defective, it must be attributed to the drawing being made from a dried specimen, which in this case was unavoidable. For the accuracy of the rest we can vouch.

This species is known by its slender, straggling, red-brown stems and branches; elliptic-oblong, sharply serrated leaflets, rather glaucous and downy beneath; downy footstalks, bearing here and there a small prickle; globular germen; and long, downy, rather leafy, calyx. A pair of small prickles usually grow on the older branches, just below where the leaves have been. A very double variety is common in gardens, but we have never met with the single kind. The reason of the name is not apparent. Gerarde says the leaves smell of cinnamon. The flowers surely do not.



ROSA tomentosa.

Downy-leaved Dog-rose.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* urn-shaped, fleshy, contracted at the orifice, terminating in 5 segments. *Petals* 5. *Seeds* numerous, bristly, fixed to the inside of the calyx.

SPEC. CHAR. Fruit ovate, bristly as well as the flower-stalks. Prickles of the stem hooked. Leaflets ovate, downy on both sides.

SYN. Rosa tomentosa. *Sm. Fl. Brit.* 539.

R. villosa β. *Hudf.* 219. *With.* 466. *Hull.* 111.

R. villosa. *Relh.* 194. *Sibth.* 159?

R. sylvestris fructu majore hispido. *Raii Syn.* 454.

R. sylvestris alba, cum aliquo rubore, folio hirsuto. *Bauh. Hist.* v. 2. 44.

THIS Rose, when detected at Norwich about 20 years ago, was considered by the London botanists as a new discovery; yet there can be little doubt of its being the plant of Ray which Hudson referred as a variety to *R. villosa*; still less doubt is there of its being a totally distinct species. It grows in many places near Norwich, most copiously in the sequestered Arminghall wood; also about London. In Shropshire and Wales it abounds. Mr. Relhan and Mr. Holme have sent it from Cambridge, along with the true *villosa*, but the former assures us this is the plant he intended by that name in his *Flora*. Lately, the much lamented lady of Lord John Russell found it in Broomham lane near Bedford.

In size, general habit, and form of the leaflets, it agrees with *R. canina*, but essentially differs in the leaves being downy all over, of a greyish green, and slightly fragrant, as in *R. villosa*. The petals are almost white in their lower part; in the upper they vary in every shade of rose-colour, and are a little odorous. The fruit is ovate, scarlet, bristly, quite unlike that of *R. villosa*. This Rose blossoms in June and July; and the fruit, conspicuous among common hips by its roughness, remains through the autumn. We do not find the calyx generally permanent.

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[illegible]

[illegible]

[illegible]

[illegible]

[illegible] deliv. contracted at [illegible] segments. *Petals* 5. [illegible] in the midde of the [illegible]

[illegible] [illegible] as well as the [illegible] of the item booked. [illegible] beneath with rufty-[illegible]

[illegible] *Mant.* 2. 564. *Sm. Fl.* [illegible] *V.* [illegible] *Eng.* [illegible] *Relb.* 193. [illegible]

[illegible]

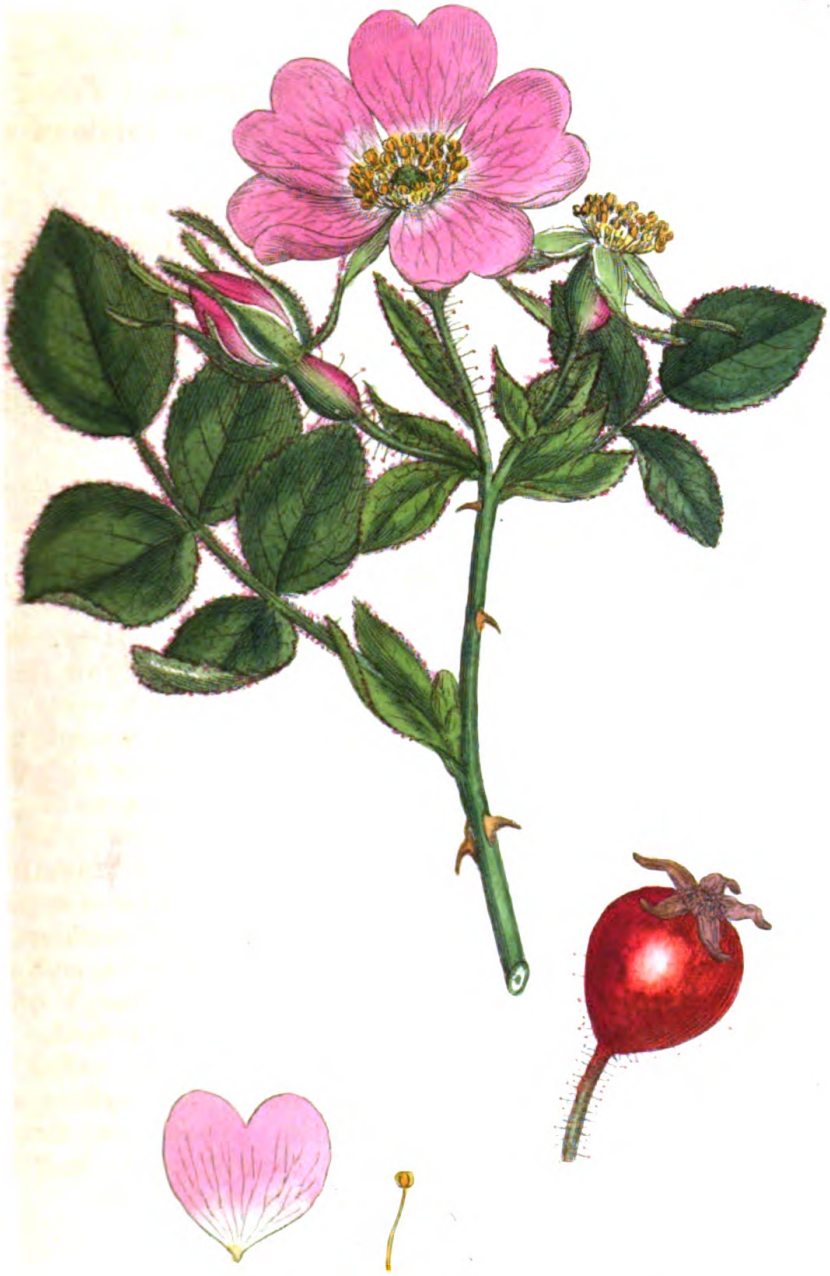
[illegible]

[illegible] Mr. Sowerby at Battersea. It grows in [illegible] in a gravelly or sandy [illegible] is familiar to every one [illegible] and fragrant, though not [illegible] Its size and habit agree with that [illegible] the leaflets are generally more ellipti- [illegible] above, clothed [illegible] and eminently distinguished [illegible] compared to that of apples, [illegible] agreeable. The flowers are of [illegible] than other wild roses, and also [illegible] The fruit is large, bristly, though often [illegible] hairy, farinaceous and insipid.

[illegible] roses, "for poets they are called by [illegible] their admirers," confound the woodbine and [illegible] with Moore. Shakspeare, though [illegible] with this fault, is clear of it; at least the [illegible] is most probably to be read thus—

> [illegible] woodbine, the sweet honeysuckle,
> [illegible] the musk-rose.

[illegible] Steevens's Shakspeare, vol. v. 121.



48.

ROSA micrantha.

Small-flowered Sweet Briar.

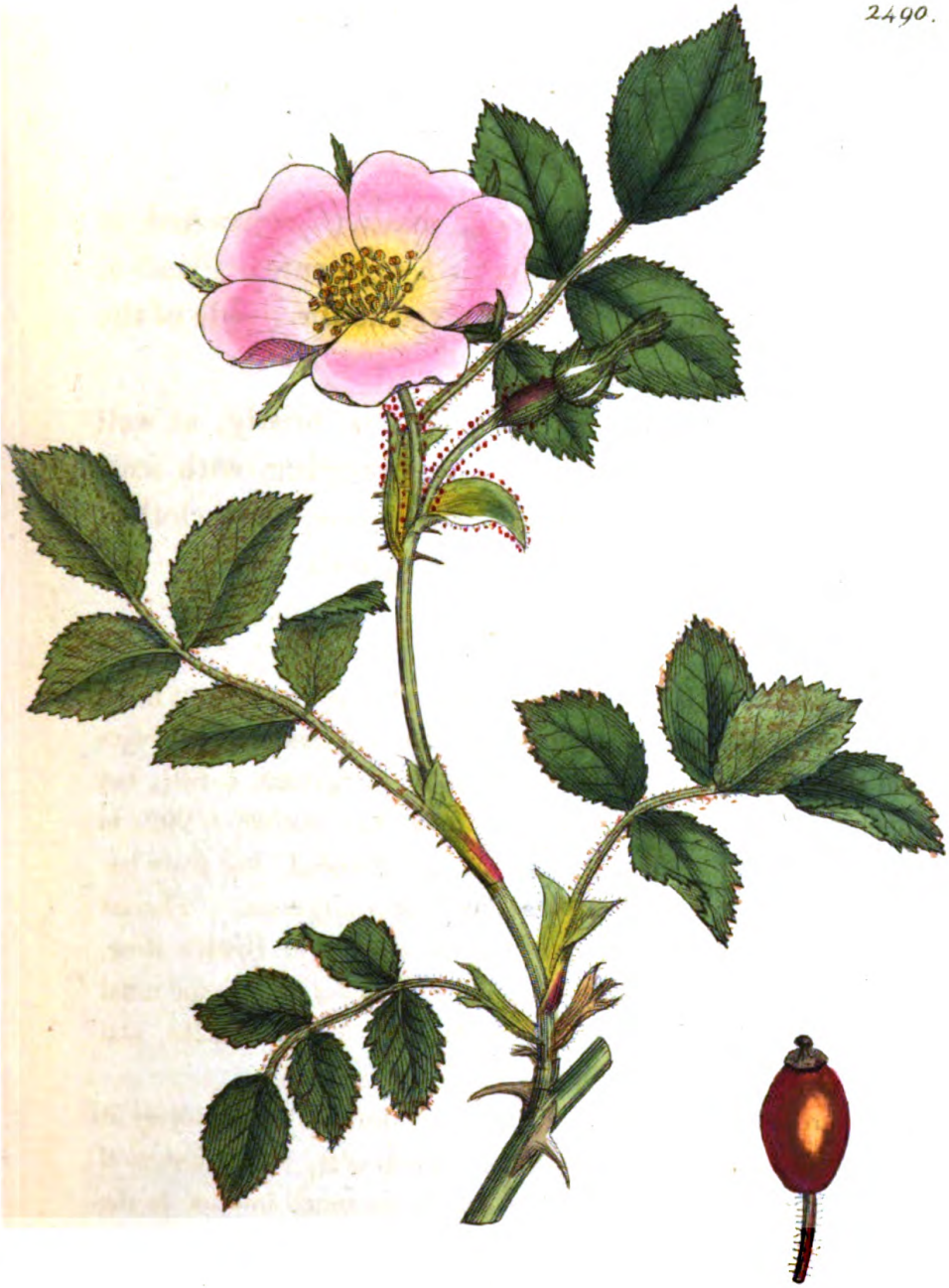
ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* urnshaped, fleshy, contracted at the orifice, terminating in 5 segments. *Petals* 5. *Seeds* numerous, bristly, fixed to the inside of the calyx.

SPEC. CHAR. Fruit ovate, somewhat bristly, as well as the flower-stalks. Stem straggling, with scattered hooked prickles. Leaflets ovate, acute, clothed beneath with rusty-coloured glands.

MR. W. BORRER has communicated to us the present Rose, under the above name. He observes that it is common in hedges and thickets, and is nearly related to *R. rubiginosa*, *t.* 991, but much less prickly, less bushy, and more like *canina*, *t.* 992, in mode of growth. The leaflets are less rounded, less rusty beneath, and not so fragrant as those of *rubiginosa*. Flowers smaller and paler, being less than in any other British Rose. Fruit with a more gradual neck, not of the pear-like shape usual in that species. It varies in roughness. The footstalks, and backs of the leaves, are downy as well as glandular.

We are well aware of this species, or variety, whichsoever it may be judged, and we recommend gardeners, and planters of hedges, to be on their guard against it, as much inferior to the true Sweet Briar in scent and compactness, as well as in the beauty of its blossoms. It is much the most common of the two; but those who force Sweet Briar about London, have generally taken care to procure the right sort. In the character of our *t.* 991, the fruit should be defined *obovate*.



Drawn & published by Jas. Sowerby London.

ROSA scabriuscula.

Rough-bristled Dog-rose.

ROSACEÆ Pentagynia.

GEN. CHAR. *Calyx* urn-shaped, fleshy, contracted at the orifice, terminating in 5 segments. *Petals* 5. *Seeds* numerous, bristly, fixed to the inside of the calyx.

SPEC. CHAR. Fruit roundish-ovate, bristly as well as the flower-stalks. Prickles awl-shaped, nearly straight. Leaflets elliptical, roughish with minute hairs.

SYN. Rosa n. 459. *Winch Guide*, v. 1. 48. v. 2. *praef.* 5.

WE can find no certain mention of this Rose except in the work of Mr. Winch, to whom we are obliged for specimens, and who found it in several hedges in Durham and Northumberland, in June 1804. In the very same month Mr. Crowe and myself noticed it flowering in hedges to the north of Bury, Suffolk, and judged it to be a new species. I was at first disposed to believe it a variety of *R. tomentosa*, *t.* 990, nor can any botanist be certain that it is not so, because we really do not know in this genus what constitutes a variety and what a species. As the acute botanists of Sweden are attending to the subject, we trust it will become less obscure. In the mean while it is our duty as practical observers to collect facts.

The prickles of the stem in this *Rosa* are more straight and slender than in the *tomentosa*. The leaves are certainly very different to the touch, nor have they the same scent. There is a harshness about them, even when most hairy or downy, very unlike the *tomentosa*, neither have they any greyish hoary hue. Their mid-rib is hairy. The flowers according to Mr. Winch are always white, tinged or blotched with red, and the fruit large "in shape rather resembling that of *R. villosa* than of *tomentosa*." I did not remark any thing peculiar in the colour of the flowers at Bury, nor have I seen the fruit, but I observe the germen varies in shape, and in the quantity of its bristles.

June 1.1808. Published by Ja.s Sowerby London.

ROSA cæsia.

Glaucous-leaved Rose.

ICOSANDRIA Polygynia.

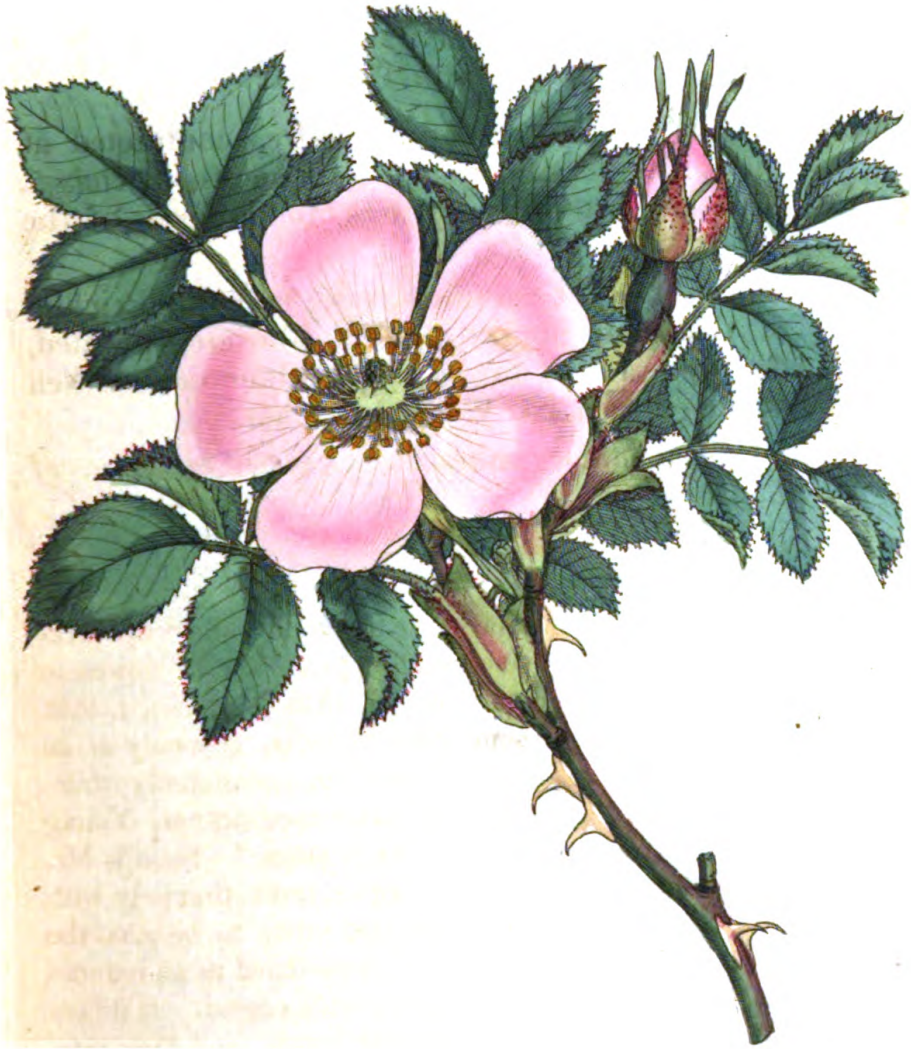
GEN. CHAR. *Cal.* urn-shaped, fleshy, contracted at the orifice, terminating in 5 segments. *Petals* 5. *Seeds* numerous, bristly, fixed to the inside of the calyx.

SPEC. CHAR. Fruit roundish-ovate, smooth. Prickles of the stem hooked. Leaflets ovate, pointed, doubly serrated, downy; very glaucous, as well as the germen and young branches.

SYN. Rosa canina, pubescens. *Afzel. in Ann. of Bot. v.* 2. 211.

FOUND by Mr. W. Borrer in the highland valleys of Perthshire and Argyleshire, covered with a profusion of flowers in July. "The bush is compact, not so tall as *R. canina, t.* 992. Flowers usually solitary, sometimes in pairs, generally of an uniform, but very beautiful, carnation hue, occasionally white. Calyx sometimes sprinkled with glands, sometimes not. Young twigs, leaves and germen remarkably cæsious." Such is Mr. Borrer's account. His specimens agree most precisely with Swedish ones, sent by Dr. Afzelius, and prove to be what the latter has, in the place above quoted, mentioned as an indubitably new *Rosa*, hitherto confounded with *canina*. It differs from that common species in its downy leaves, and their very glaucous hue. Dr. Swartz, from whom also we have Swedish specimens, observes that the figure of the fruit varies from oblong to nearly globose, or to obovate. Our generally very accurate friend Afzelius seems to have made one mistake in his account; for in all the specimens we have seen, the flowers are most clustered in *canina*, being in the present species almost always solitary, rarely even in pairs, so that in this point he seems to have accidentally spoken of the one for the other.

2367.



Jas. Sowerby, published by Jos. Sowerby, London.

ROSA canina.

Common Dog-rose.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* urn-shaped, fleshy, contracted at the orifice, terminating in 5 segments. *Petals* 5. *Seeds* numerous, bristly, fixed to the inside of the calyx.

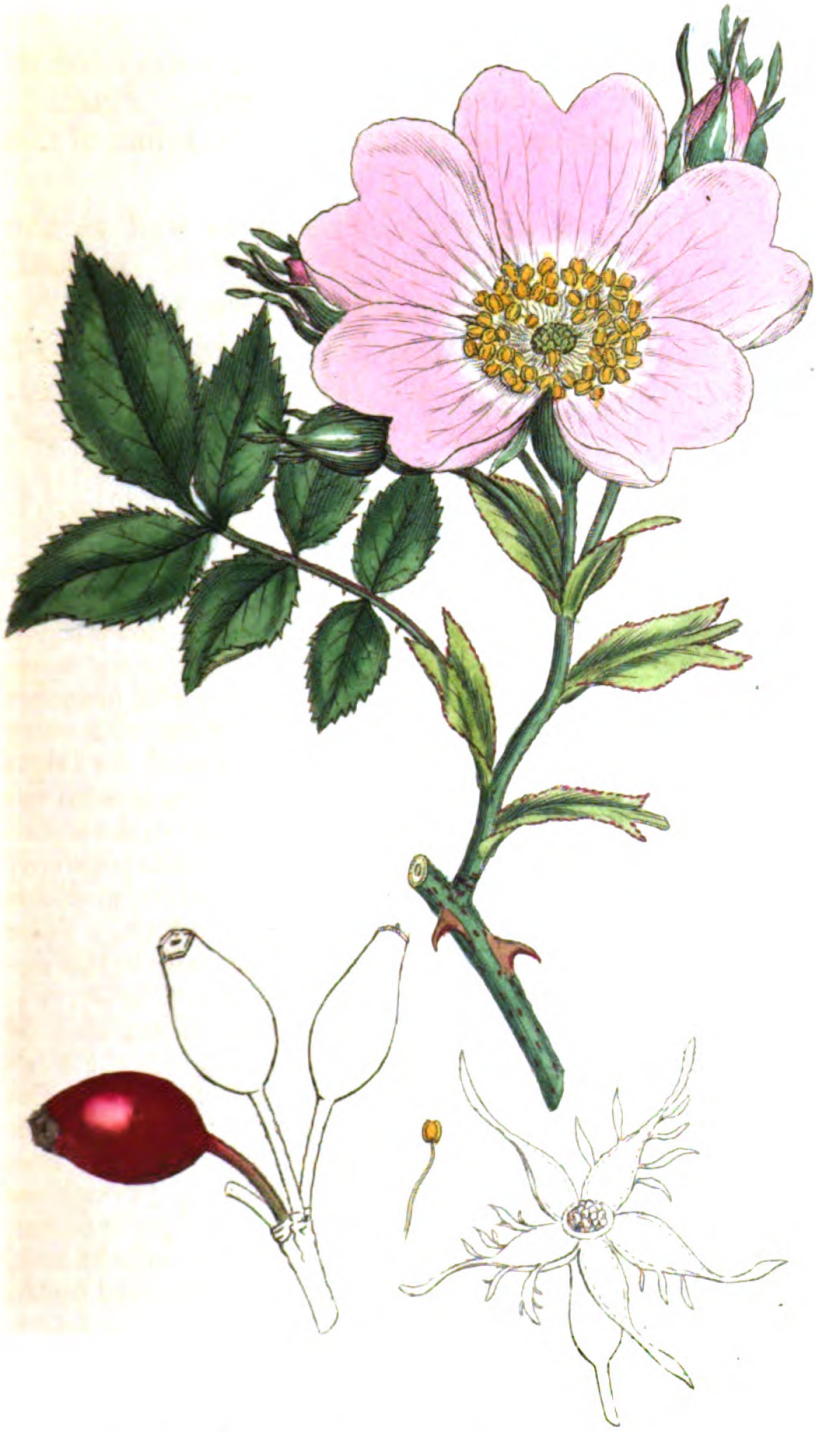
SPEC. CHAR. Fruit ovate, smooth as well as the flower-stalks. Prickles of the stem hooked. Leaflets ovate, pointed, very smooth.

SYN. Rosa canina. *Linn. Sp. Pl.* 704. *Sm. Fl. Brit.* 540. *Hudſ.* 219. *With.* 467. *Hull.* 111. *Relh.* 194. *Sibth.* 158. *Abbot.* 111. *Curt. Lond. fasc.* 5. *t.* 34.

R. sylvestris inodora, seu canina. *Raii Syn.* 454.

TO be seen every where in hedges and thickets, flowering in June; nor have we any plant that conduces more to the ornament of the country, whether we consider its graceful branches and leaves, its elegant buds, its blossoms blushing with every tint of carnation, or its rich coral fruit. Nor must we forget the sweet and delicate scent of its flowers; which, though less powerful, is perhaps as grateful as that of any rose in the world. The flavour of the fruit, when ripened by frost, is also peculiarly agreeable. A conserve prepared from it is used in medicine as a vehicle for powders, or other drugs, of small bulk. Were it not for the unpleasant association of ideas which this occasions, few sweetmeats would be more welcome at table.

The smooth shining leaves of the Dog-rose distinguish it at once from our two other species with oval fruit, see the 2 last plates; the *spinosissima* and *arvensis* have globular fruit. The latter has its flowers more in cymes; petals white with a yellow tinge at their base; stems and fruit of a mahogany hue. In *R. canina* the flower-stalks are more commonly (though not always) solitary; they are peculiarly smooth and polished, not glandular.—As the fruit of *R. rubiginosa* is occasionally smooth, so that of *canina* is very rarely a little hispid, as observed by the Rev. Mr. Sutton.



Feb. 1802 Published by

ROSA collina.

Rough-stalked Dog-rose.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* urn-shaped, fleshy, contracted at the orifice, terminating in 5 segments. *Petals* 5. *Seeds* numerous, bristly, fixed to the inside of the calyx.

SPEC. CHAR. Fruit ovate, smooth. Flower-stalks bristly, clustered. Prickles of the stem hooked. Leaflets ovate, downy beneath.

SYN. Rosa collina. *Jacq. Austr. v.* 2. 58. *t.* 197. *Willd. Sp. Pl. v.* 2. 1078.

MR. WILLIAM BORRER, to whom the scientific botanists of this country are so much indebted for his various cryptogamic discoveries, has first distinguished this Rose in England, as different from the *canina*, *t.* 992. On his communicating it to us, we find it by Jacquin's own specimens, as well as his excellent description and figure, to be his *collina*. It might seem by the dissertation of Professor Afzelius, translated in the *Annals of Botany*, *v.* 2. 211, to be what he mentions as confounded under *canina*, but a specimen sent by himself proves certainly different.

R. collina is common in Sussex, flowering in July, and ripening fruit in October. Perhaps it will be found in other counties, but I have not observed it near Norwich, though I have not been inattentive to this genus. Its habit varies in being more or less dense and bushy, but in general agrees with the *canina*. The leaflets vary in length and roundness, but are always downy (or rather finely hairy) beneath, particularly the rib; sometimes they are slightly so above. They have no scent. The flowers are blush-coloured and fragrant, growing commonly 2 or 3 together, on stalks covered with glandular bristles. Germen ovate, smooth, except now and then a straggling bristle or two. Fruit exactly like *R. canina*. The prickles of the stem and footstalks are hooked, as in that species, but the leaves are remarked by Jacquin to be thicker and less shining.

June 1808. Published by Jas. Sowerby London.

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53.

[2579]

Borrer. Rosa.

ROSA dumetorum.

Downy-stalked Dog-rose.

ICOSANDRIA Polygynia.

Gen. Char. *Cal.* urn-shaped, fleshy, contracted at the orifice, terminating in 5 segments. *Petals* 5. *Seeds* numerous, bristly, fixed to the inside of the calyx.

Spec. Char. Fruit ovate, smooth. Flower-stalks villous, somewhat bristly, clustered. Prickles of the stem hooked. Leaflets ovate, doubly serrated, slightly hairy beneath. Footstalks very downy.

Syn. Rosa dumetorum. *Pers. Syn. pars* 2. *sect.* 1. 50? Borrer.

GATHERED in bushy places in Sussex, flowering in July, and ripening fruit in October, by Mr. W. Borrer, who has paid great attention to our native Roses, hitherto much neglected, and who thinks the present may belong to the above synonym. We have a specimen of the same from Switzerland, if we mistake not, which the late Mr. Davall supposed to be new.

This plant differs from *R. canina*, *t.* 992, in having very downy footstalks, leaflets rounder and flatter, doubly serrated, with hairy ribs and veins beneath, and flowerstalks either villous and bristly, or only villous, with soft spreading permanent hairs, rarely smooth. These hairs, and the double serratures, distinguish it from *collina*, *t.* 1895, with which its downy footstalks agree. The flower is smaller and paler than in either of these two species. There is no other British Rose with which this can be confounded. The bush is more robust than *canina*, with very strong hooked prickles. The styles accord with that species; not with those of *arvensis* or *collina*.

Jun. 1. 1813 published by Jno. Sowerby London

54.

RUBUS idæus.
Rasp-berry.

ICOSANDRIA Polygynia.

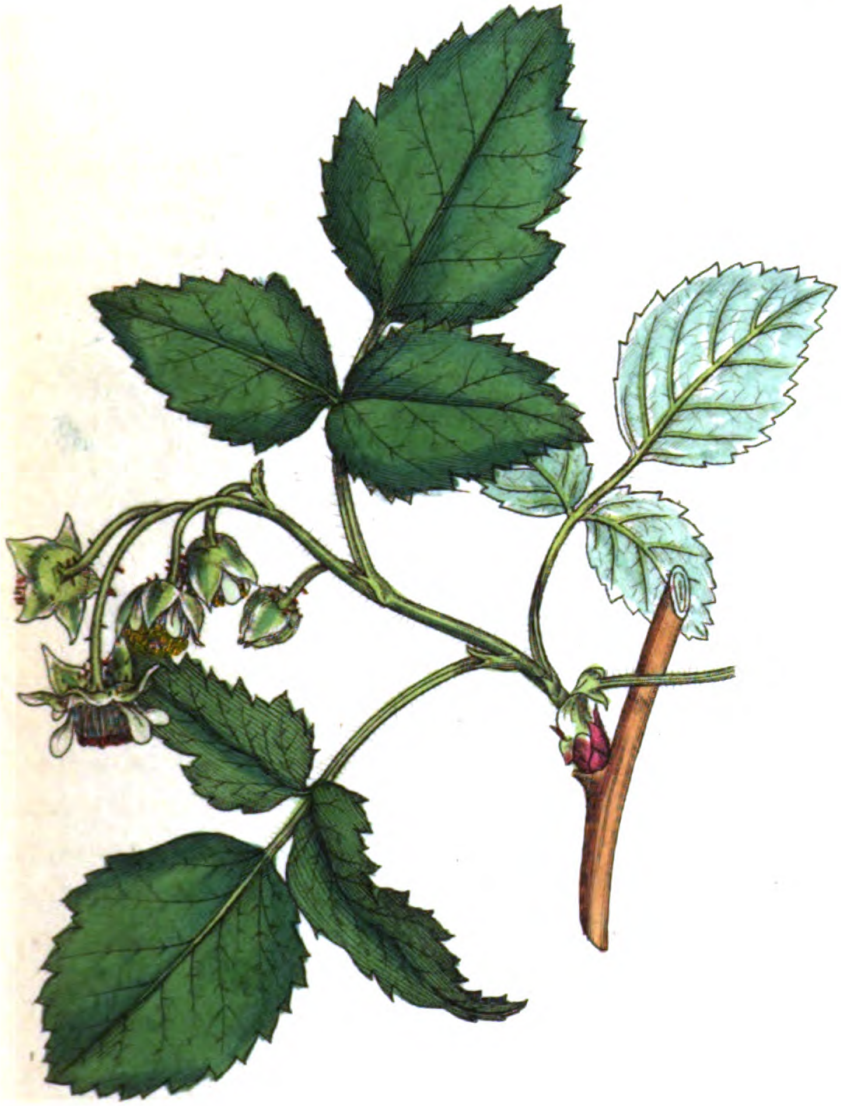
GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Berry* superior, composed of several single-seeded grains.

SPEC. CHAR. Leaves pinnate, with five or three leaflets, downy beneath. Footstalks channelled. Stem prickly.

SYN. Rubus idæus. *Linn. Sp. Pl.* 706. *Sm. Fl. Brit.* 541. *Huds.* 220. *With.* 468. *Hull ed.* 2. 149. *Sibth.* 159. *Abbot.* 111. *Fl. Dan. t.* 788. *Woodv. Med. Bot. t.* 138. *Ger. em.* 1272.
R. idæus spinosus, fructu rubro. *Raii Syn.* 467.

PLENTIFUL in mountainous woods and thickets in Wales, Scotland, and the north of England. Our specimens, truly wild, grew in a wood at the back of Thorpe, near Norwich, flowering in June. In gardens the Raspberry is sufficiently known, and duly esteemed. The rich perfume of its fruit renders it highly acceptable as a preserve, even in India.

The roots are perennial and creeping. Stems shrubby, though only biennial, erect, four feet high, branched, round, leafy, rough with small prickles. Lower leaves pinnate with two pair of leaflets and an odd one; upper ternate only. Leaflets ovate or rhomboid, unequally and sharply serrated or cut, strongly veined; green and slightly downy above; snow-white and densely cottony beneath. Footstalks channelled above, downy and prickly like the flowerstalks, which grow in clusters. Flowers pendulous. Petals small, greenish white. Fruit crimson, of numerous pulpy grains, beset with permanent styles. The wild raspberries, though small, are preferred for their flavour to those of the garden, where they grow in sufficient plenty to supply the table.



Maynard delineavit by Jos. Lowe of London.

55.

RUBUS suberectus.

Red-fruited Bramble.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Berry* superior, composed of several single-seeded grains.

SPEC. CHAR. Leaves pinnate, with five or seven ovate leaflets, hairy beneath; upper ones ternate. Stems ascending. Prickles minute, nearly straight.

SYN. Rubus suberectus. *Anderson in a paper to the Linn. Soc.*

R. nessensis. *Hall in Tr. of R. Soc. of Edinb. v.* 3. 20.

THIS new *Rubus*, first found near Loch Ness, has since been observed in other parts of Scotland. Mr. G. Anderson, to whom we are obliged for clearly ascertaining its specific characters, has gathered it not only in the highlands of Aberdeen and Perthshire, but also in Wales, and near Ripley, Yorkshire. Mr. G. Don noticed it on the hills of Forfarshire. Where this species abounds, it is often intermixed with *corylifolius*, *t.* 827, which it most nearly resembles in habit, though perhaps more allied in reality to the Rasp-berry, *t.* 2442.

The stems are biennial, growing tolerably upright without support, brittle, reddish, with spreading branches; their prickles scattered, nearly straight, and peculiarly small. Leaves pinnate, with five or seven leaflets; the upper ones with but three; all roundish ovate, sharply serrated, light green on both sides; smooth and almost even above; hairy beneath. Panicle racemose, rather lax. Petals white, narrow-obovate. Calyx finally reflexed. Fruit deep red, not purple, usually of but few perfect grains, of a very agreeable flavour, resembling, in some degree, the *R. Idæus*, and being later than that fruit, Mr. Anderson suggests that the *R. suberectus* might prove not unworthy of cultivation.

Nov. 1813 published by Jos. Lowry, London

RUBUS cæsius.

Dew-berry.

ICOSANDRIA Polygynia.

Gen. Char. *Cal.* 5-cleft. *Petals* 5. *Berry* superior, composed of several single-seeded grains.

Spec. Char. Leaflets three, hairy beneath; the lateral ones lobed externally. Stem prickly, prostrate, glaucous. Calyx embracing the fruit.

Syn. Rubus cæsius. *Linn. Sp. Pl.* 706. *Sm. Fl. Brit* 542. *Hudf.* 220. *With.* 468. *Hull.* 111. *Relh.* 194. *Sibth.* 160. *Abbot.* 111.

R. minor, fructu cæruleo. *Raii Syn.* 467.

THE Dew-berry bush is to be found in dry shady ditches, woods, and the borders of fields, not very unfrequently, though it must be reckoned a far less common plant than the *Rubus fruticosus* or any other. It flowers in June or July, and the fruit lasts throughout August and September; often later.

The stems are weak and trailing, round, prickly, pale-green with a mild glaucous tinge. Though woody, they are only annual, or at most biennial. Leaves three on a stalk, sharply and doubly serrated, downy (not hoary) beneath; the lateral leaflets little, generally lobed on the outside. Stipulæ lanceolate. Footstalks prickly and downy. All the prickles are flattened, a little curved. Flowers few together in terminal or axillary prickly panicles. Calyx spreading in the flower, closed about the fruit; its leaves tipped with long points. Petals white, rarely reddish. Fruit of few and very large grains, black with a bright blue tinge or bloom like that of a plum. Its flavour is agreeably acid, without the [illegible] of the common black-berry, and, if it were sufficiently plentiful, might be brought to table with advantage.

Jan.y 1. 1801 Published by Ja.s Sowerby London

RUBUS corylifolius.

Hazel-leaved Bramble.

ICOSANDRIA Polygynia.

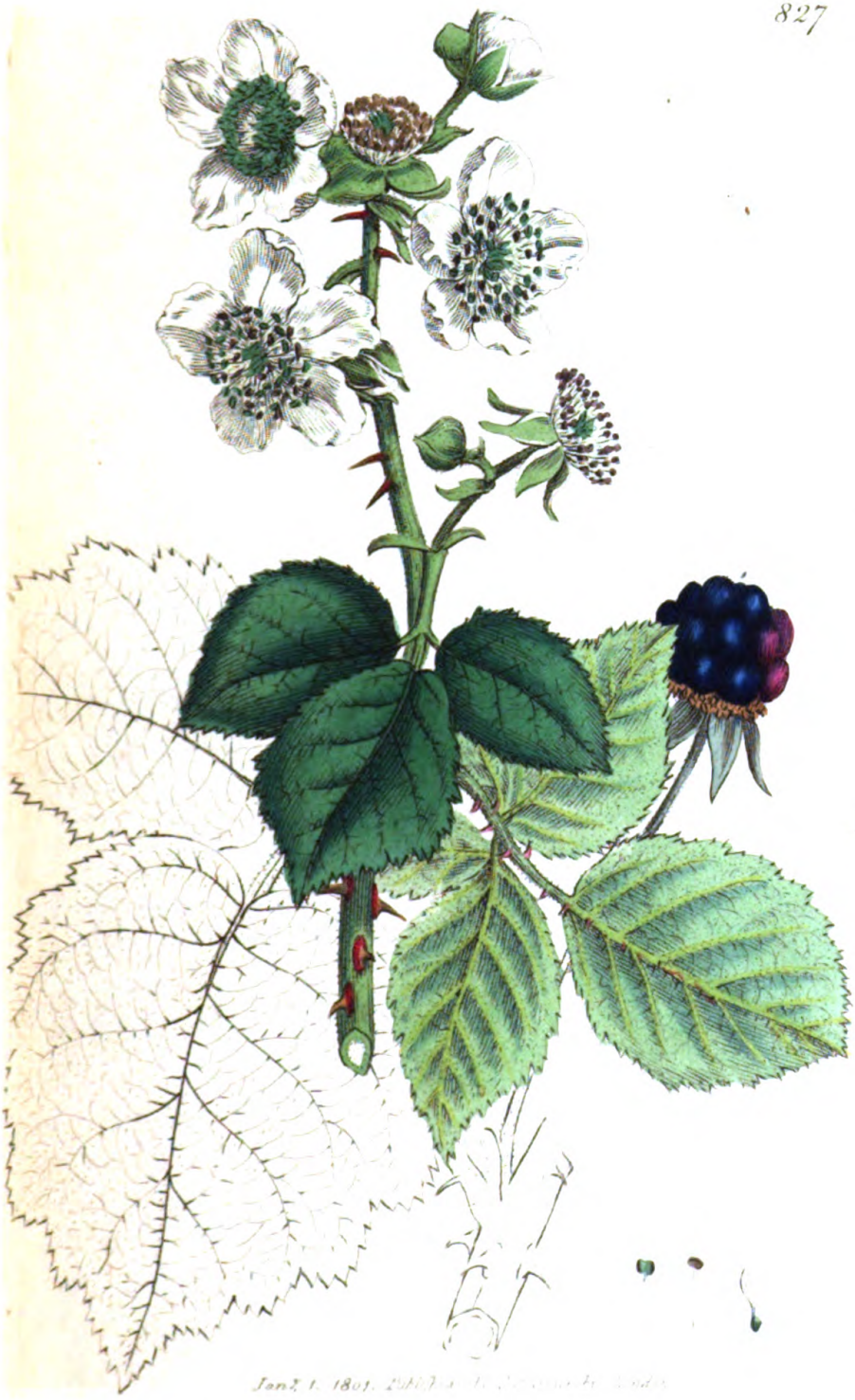
Gen. Char. *Cal.* 5-cleft. *Petals* 5. *Berry* superior, compoſed of ſeveral ſingle-ſeeded grains.

Spec. Char. Leaflets generally five, hairy beneath; the lateral ones ſeſſile. Prickles ſtraightiſh. Calyx reflexed.

Syn. Rubus corylifolius. *Sm. Fl. Brit.* 542.
R. fruticosus major. *With.* 469. *Hull.* 111.
R. major, fructu nigro. *Schmidel Ic. t.* 2.

WE have alluded to this *Rubus* in deſcribing the *fruticoſus*, t. 715. Although equally common with that, it has been altogether neglected, or at moſt allowed to be a variety, till Mr. Crowe examined, and, in our opinion, fully aſcertained it as a ſpecies. Dillenius, in Ray's Synopſis p. 467, ſeems to [illegible] it as differing from the common bramble in having "[illegible], larger, and [illegible] blooms;" which is true. Its [illegible] however conſiſt in the ſtem being [illegible] and perennial; much [illegible] is rejected by thatchers, who uſe [illegible] ſtrength: all the prickles nearly [illegible] large, always green on both [illegible] ſometimes very exactly reſembling [illegible] the lateral ones ſeſſile. Add to this [illegible] of a browner [illegible], more gratefully acid [illegible] of rather fewer grains. The [illegible] an obſervation to the contrary [illegible] from Mr. Wigg, rather belongs [illegible] verified.

[illegible] this bramble is the *fruticoſus* of his [illegible] *tomentoſus*; [illegible] by Dr. Schrader proves the [illegible] both ſorts.



Jan.y 1. 1801. Published by Longman & Rees

RUBUS fruticosus.

Common Bramble or Black-berry.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Berry* superior, composed of several single-seeded grains.

SPEC. CHAR. Leaves generally of 5 leaflets, each on a partial footstalk, and downy beneath. Thorns all hooked. Stem angular. Calyx reflexed.

SYN. Rubus fruticosus. *Linn. Sp. Pl.* 707. *Sm. Fl. Brit.* 543. *Hudf.* 220. *With.* 469. *Hull.* 111. *Relh.* 195. *Sibth.* 160. *Abbot.* 112.
R. major, fructu nigro. *Raii Syn.* 467.

THE Common Bramble grows in almost every hedge and thicket, and the most inexperienced botanist is supposed to know it. Yet there is a species almost equally common, which has been overlooked, and which Dr. Withering only mentions as a variety. We hope one day to illustrate it by the name of *R. corylifolius*. Schmidel represents it in his *Icones, t.* 2.

R. fruticosus has very long, trailing, or rather arching, woody, tough stems, of a purplish hue, with strongly marked angles, and beset with hooked prickles, as are also the general and partial leaf-stalks, nerves of the leaf, and the flower-stalks. Leaflets for the most part 5, all stalked, somewhat elliptical, pointed, doubly serrated; green and shining above; very white and downy beneath; rarely, on the same root, some leaves are merely hairy and of a paler green on the under side. Stipulæ bristle-shaped. Panicles terminal, downy, of many beautiful blush-coloured or pink (seldom white) flowers. Calyx downy, always reflexed both in flower and fruit. Berry of very numerous grains, of a violet black, with a mawkish sweet taste. The flowers begin to expand in July, and the fruit ripens early in September. The season of 1799 indeed was so unfavourable, that scarcely any Black-berries were to be seen ripe in October.

59.

RUBUS saxatilis.

Stone Bramble.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Berry* superior, composed of several single-seeded grains.

SPEC. CHAR. Leaflets three, slightly downy. Runners creeping, herbaceous. Panicle of few flowers.

SYN. Rubus saxatilis. *Linn. Sp. Pl.* 708. *Sm. Fl. Brit.* 544. *Huds.* 221. *With.* 470. *Hull. ed.* 2. 150. *Fl. Dan. t.* 134. *Ger. em.* 1273.
Chamærubus saxatilis. *Raii Syn.* 261.

AMONG the most elegant of its genus is the *Rubus saxatilis*, a northern species, very abundant in Lapland, less so in this island, a native of lofty mountains, as well as of dry stony woods about their neighbourhood. Mr. Borrer gathered our specimen in the classic shades of Roslin, near

> ----------" that chapel proud,
> Where Roslin's chiefs uncoffined lie;
> Each baron, for a sable shroud,
> Sheathed in his iron panoply."

The whole herb is of a slender delicate habit, of a light green hue, slightly downy, not hoary. The root is fibrous and perennial, throwing out very long trailing runners, either naked or leafy, by which the plant spreads widely, but which do not blossom till their extremities have taken root. Stems solitary, erect, unbranched, a span high, slightly angular, leafy, bearing a few weak spreading prickles, such as are also observable on the footstalks, though both parts are sometimes without them. The leaflets are three, rarely five, acute, doubly and unequally crenate. Panicle terminal, of a few small greenish-white flowers, with a pointed calyx and narrow upright petals. Fruit of a very few large distinct crimson grains, seldom more than three, often solitary, gratefully acid. The old Swedish writers called this plant a *Labrusca*, or Wild Vine, in allusion to its clustered berries and trailing habit.

Jun. 1.1811. published by Jas. Sowerby, London.

RUBUS arcticus.

Dwarf Crimson Bramble.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Berry* superior, composed of several single-seeded grains.

SPEC. CHAR. Leaders three, smooth, bluntly serrated. Stem bearing one or two flowers, without prickles. Petals roundish, notched.

SYN. Rubus arcticus. *Linn. Sp. Pl.* 708. *Fl. Lapp.* [illegible] *Sm. Fl. Brit.* 544. *Fl. Dan.* [illegible]

[illegible] the Rev. Dr. Walker, Professor of Natural History at [illegible] in the year 1782 of his having ga[illegible] mountainous parts of the [illegible] has been favoured by Richard [illegible] specimen from the high re[illegible] in Scotland, which agrees with [illegible] the choice garden of the [illegible] ast.

[illegible] Stems unarmed, [illegible] simple and single-[illegible] bearing 2 flowers. [illegible] somewhat rhomboidal, [illegible] almost perfectly smooth. [illegible] crimson, on a terminal [illegible] segments. Petals [illegible] notch. Fruit [illegible] of a few large grains, [illegible] of the Raspberry and [illegible] have tasted it at the [illegible] a rich wine is [illegible] of the great. [illegible] among his many fine [illegible] from Lapland whose petals [illegible]

April 1 1[illegible] Pub'd by [illegible]

61.

RUBUS Chamæmorus.

Mountain Bramble, or Cloud-berry.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Berry* ſuperior, compoſed of ſeveral ſingle-ſeeded grains.

SPEC. CHAR. Leaves ſimple, lobed. Stem without prickles, bearing a ſingle flower. Segments of the calyx ovate.

SYN. Rubus Chamæmorus. *Linn. Sp. Pl.* 708. *Sm. Fl. Brit.* 545. *Hudſ.* 221. *With.* 471. *Hull.* 111. *Lightf.* 266. *t.* 13. *f.* 2. *Fl. Dan. t.* 1. *Dickſ. H. Sicc. faſc.* 2. 8.

Chamæmorus. *Raii Syn.* 260. *Ger. em.* 1273.

WE have received this from the Rev. Mr. Harriman and other friends in the north of England, where it grows, as well as in Wales and Scotland, on the cloud-capped ſummits of the higheſt mountains, "whereupon," ſays Gerarde, who has figured the plant twice (1273 and 1420), "the people of the countrey have called them Cloud-berries." The flowers appear in June ſoon after the ſnow has diſſolved, and the berries are ſcarcely well ripened in Auguſt before the plant is again overwhelmed with its wintry covering. The ſnow preſerves the fruit, and is even uſed by the Laplanders to keep it artificially through the winter; for thoſe people as well as the Scottiſh highlanders eſteem the Cloud-berry one of their moſt grateful and uſeful fruits, eſpecially on account of its long duration. Its taſte is moderately acid and mucilaginous, with ſomething of the flavour of tamarinds.

The plant is of an elegant appearance, with a creeping root, a ſimple ſtem, and plaited, mallow-like, but ſmooth and hardiſh leaves. Flowers ſolitary, terminal, white; the male having ſhort abortive piſtilla, and the female abortive ſtamina. We have not had an opportunity of verifying Dr. Solander's remark, ſo often copied, that the two ſexes ſpring from one common root. The berries are of a tawny or dull orange-colour. Calyx inflexed; its ſegments oval or elliptical.

FRAGARIA vesca.

Wood Strawberry.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* inferior, in 10 segments. *Petals* 5. *Receptacle* of the seeds ovate, pulpy, deciduous. *Seeds* smooth.

SPEC. CHAR. Root with creeping scyons.

SYN. Fragaria vesca. *Linn. Sp. Pl.* 708. *Sm. Fl. Brit.* 546. *Huds.* 221. *With.* 471. *Hull.* 112. *Ram.* 246. *Stoth.* 160. *Abbot.* 112.
Fragaria. *Ruii Syn.* 254.

THE delicious Strawberry, of which numerous varieties (or perhaps species) in our gardens well compensate the want of many a tropical luxury, is altogether the fruit of a cool climate. In Sweden the Wood Strawberries, such as that in our plate gathered at Matlock, are so abundant, that the tables are chiefly supplied with wild fruit. Linnæus gave a general order to his servants to buy all that were brought to his door throughout the season, thinking this fruit peculiarly wholesome for persons of a gouty habit. In Gloucestershire we have seen Strawberries for the dessert gathered out of the woods every day. Indeed most woods and thickets in Britain produce them. The first blossoms appear in May, and are succeeded by others till August.

The root is perennial, throwing out long creeping runners or scyons. Stems short, erect, and nearly simple. Leaves mostly radical, on long stalks, ternate, downy, obtuse, strongly and regularly serrated, marked with parallel veins. Flowers erect, on hairy, cymose, bracteated stalks. Petals white, notched, varying in size. Fruit drooping, ovate, fleshy, red, fragrant, studded all over with naked smooth seeds, each accompanied by a permanent withered style.

Nov.r 1. 1808 Published by Jas. Sowerby, London.

FRAGARIA elatior.

Hautboy Strawberry.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* inferior, in 10 segments. *Petals* 5. *Receptacle* of the seeds ovate, pulpy, deciduous. *Seeds* smooth.

SPEC. CHAR. Calyx of the fruit reflexed. Hairs of the foot-stalks, and of all the flower-stalks, widely spreading, somewhat deflexed.

SYN. Fragaria elatior. *Ehrh. Beitr. fasc.* 7. 23. *Willd. Sp. Pl. v.* 2. 1091. *Sm. in Rees's Cyclop. v.* 15. *n.* 4.
F. et fraga. *Lob. Ic. v.* 1. 697. *Ger. em.* 997. *f.* 2.
F. major et minor. *Fuchs. Hist.* 853.

GATHERED, certainly wild, in a wood on the west side of Tring, Hertfordshire, by Mr. Dickson, Mr. Jackson and Mr. Anderson; also in Charlton forest, Sussex, by Mr. W. Borrer. Ours was an autumnal specimen, flowering in September. We have in vain tried to get wild fruit, which it seems is rarely produced. Even in a garden indeed it is never plentiful, owing to the plants being in effect dioecious, or having imperfect stamens from one root, and abortive pistils from another.—This *Fragaria* appears to have been confounded by modern European botanists in general with the *vesca*, or Common Wood Strawberry, *t.* 1524, but Ehrhart, paying attention to the pubescence, distinguished them. It is a larger plant, and essentially differs in having the hairs of the partial flower-stalks widely spreading, or even deflexed; whereas in *vesca* they are erect, or generally close-pressed, giving such stalks a silky or silvery aspect, while those of the main stalks spread in both species. This difference the wooden cuts of the old authors plainly indicate. See the books above cited, and Brunfelsius's exquisite figure of *F. vesca*, *v.* 2. 35. Our *t.* 1524 unhappily is faulty in this respect, from our not having then attended to the subject.

The fruit of *F. elatior* is the real Hautboy, of a dark livid red, very round, and with a musky perfume, not the Carolina or Chili Strawberry, vulgarly called Hautboy in London.

Ranunculus hybridus by Jos. Lowerby London.

FRAGARIA sterilis.

Barren Strawberry.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* inferior, in 10 segments. *Petals* 5. *Receptacle* of the seeds ovate, pulpy, deciduous. *Seeds* smooth.

SPEC. CHAR. Stem decumbent. Flowering branches weak, each bearing one or two flowers.

SYN. Fragaria sterilis. *Linn. Sp. Pl.* 709. *Sm. Fl. Brit.* 546. *Huds.* 222. *With.* 472. *Hull.* 112. *Relh.* 196. *Sibth.* 160. *Abbot.* 112. *Curt. Lond. fasc.* 3. *t.* 30. *Raii Syn.* 254.

FREQUENT in dry gravelly pastures, where its blossoms appear in March and April, but are followed by no eatable fruit: hence it has acquired the above name.

Root perennial and somewhat woody, externally black, bearing many spreading, decumbent, leafy stems, but no creeping runners. Leaves on long hairy stalks; their leaflets broad and roundish, coarsely serrated, hairy and silky, especially beneath. Flowering branches loosely spreading, bearing one or two leaves, and as many flowers, which are more delicate than those of *F. vesca*, *t.* 1524. Calyx hairy, as long as the petals. Receptacle of the seeds small and dry when ripe, scarcely deciduous as the generic character requires, yet it is present, and the seeds moreover, when perfect, are smooth, or very slightly wrinkled.

The habit and seeds of this plant so perfectly agree with *Fragaria*, that botanists have overlooked the want of a pulpy fruit, in which last respect it rather accords with *Potentilla*.

Sept.r 1.1807 Published by Ja.s Sowerby, London.

65.

POTENTILLA fruticosa.

Shrubby Cinquefoil.

ICOSANDRIA Polygynia.

GEN. CHAR. *Calyx* in ten segments. *Petals* five. *Seeds* roundish, naked, affixed to a small dry receptacle.

SPEC. CHAR. Leaves pinnated. Stem shrubby.

SYN. Potentilla fruticosa. *Linn. Sp. Pl.* 709. *Hudf. Fl. An.* 222. *With. Bot. Arr.* 531.

Pentaphylloides fruticosa. *Raii Syn.* 256.

SINGULAR in its genus for having a shrubby stem, three or four feet high, much branched, clothed with a brown bark, which cracks longitudinally, and falls off in scaly portions. The leaves cover the branches, and are alternate, pinnated, consisting of five, rarely seven, oblong entire leaflets, the uppermost pair of which are decurrent, but they never run upwards into the terminal one. Silvery hairs appear on several parts of the plant, especially along the edge and nerve of the back of the leaves, more lightly over their upper surface, and on the footstalks and flower-stalks. The flowers are bright yellow, solitary at the end of each branch, very ornamental; the five external leaves of the calyx small, and remarkably large.

This [illegible] recommends it almost every shrubbery for its beauty, being covered with flowers throughout the summer, grows wild about [illegible] in the romantic neighbourhood of the river Tees in the north of Yorkshire, where it was found in Ray's time, and from whence the specimen was sent by Mr. Robson of Durham on the [illegible] of June [illegible]

V

66.

POTENTILLA anſerina.

Silver-weed, or Wild Tanſey.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* in 10 ſegments. *Petals* 5. *Seeds* roundiſh, naked, generally wrinkled, affixed to a ſmall dry receptacle.

SPEC. CHAR. Leaves interruptedly pinnated, ſerrated, ſilky beneath. Stem creeping. Flower-ſtalks ſingle-flowered.

SYN. Potentilla anſerina. *Linn. Sp. Pl.* 710. *Sm. Fl. Brit.* 548. *Hudſ.* 222. *With.* 473. *Hull.* 112. *Relh.* 196. *Sibth.* 161. *Abbot.* 113. *Curt. Lond. faſc.* 3. *t.* 31.

Pentaphylloides Argentina dicta. *Raii Syn.* 256.

AN elegant though common plant, generally met with in oſier-holts and meadows, in a light black ſpongy ſoil, flowering principally in June and July.

Root perennial, throwing out many long trailing ſmooth reddiſh ſtems, which take root at their joints, where the leaves and flowers alſo come forth. Leaves of a lyrate form, interruptedly pinnate, deeply and ſharply ſerrate, moſt ſilky or ſilvery beneath; the radical ones largeſt and moſt numerous. Stipulæ acute, entire. Flower-ſtalks ſimple, ſolitary, moſtly upright, but ſometimes depreſſed, each bearing a large handſome bright-yellow flower. Calyx hairy, its ſmaller intermediate ſegments generally notched. Petals roundiſh, or but ſlightly emarginate. Germens very hairy. Seeds ſeldom perfected.—Sometimes the leaves are ſmooth, and deſtitute of that ſilky down which gives them their chief beauty.

This cannot be confounded with any other Britiſh *Potentilla*.

198

67.

POTENTILLA rupestris.

Strawberry-flowered Cinquefoil.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* in 10 segments. *Petals* 5. *Seeds* roundish, naked, generally wrinkled, affixed to a small dry receptacle.

SPEC. CHAR. Leaves pinnate, somewhat lyrate, of seven, five, or three ovate, serrated, hairy leaflets. Stem erect.

SYN. Potentilla rupestris. *Linn. Sp. Pl.* 711. *Sm. Fl. Brit.* 548. *Huds.* 223. *With.* 473. *Hull.* 112. *ed.* 2. 151. *Jacq. Austr. t.* 114.
Pentaphylloides erectum. *Raii Syn.* 255.

MR. LHWYD is said by Ray to have gathered this plant on the sides of Craig Wreidhin, a mountain of Montgomeryshire. We have never heard of its being found since, nor did we ever see a British specimen; that in the annexed plate being therefore necessarily a garden one. We do not however doubt of its growing in Wales, for it is even in Switzerland a very local plant, and found very sparingly (see *Tour on the Continent, ed.* 2. *v.* 3. 169), so as probably to be often overlooked.

The root is fibrous and perennial. Whole herb somewhat hairy. Stem about a foot high, herbaceous, erect, branched, corymbose, leafy, reddish. Leaves pinnate in a lyrate manner, the leaflets ovate, obtuse, deeply serrated, veiny, green on both sides; the lowermost leaves composed of 5 or 7, the uppermost of 3. Stipulas of the radical ones linear, acute; of the rest roundish. Flowers white, much like those of a garden strawberry. Calyx very hairy at its base. Seeds smooth, not wrinkled, so that it perhaps belongs as properly to *Fragaria* as the *F. sterilis, t.* 1785, whose fruit is likewise destitute of pulp. It flowers in June, sometimes again late in autumn, and is easily kept in a garden without any particular care.

Sowerby published by J. Sowerby London.

POTENTILLA argentea.

Hoary Cinquefoil.

ICOSANDRIA Polygynia.

GEN. CHAR. *Calyx* in ten segments. *Petals* five. *Seeds* roundish, naked, affixed to a small dry receptacle.

SPEC. CHAR. Leaflets five, wedge-shaped, jagged, downy beneath. Stem nearly erect.

SYN. Potentilla argentea. *Linn. Sp. Pl.* 712. *Hudf. Fl. Ang.* 223. *With. Bot. Arr.* 532. *Relh. Cant.* 197.

Pentaphyllum erectum, foliis profunde fectis, fubtus argenteis, flore luteo. *Raii Syn.* 255.

THIS fpecies, though reckoned by Ray among our rarer plants, is found in many parts of England on a gravelly foil, and is faid to indicate clay under the furface (Rofe's Botany, 382.

Its perennial root throws out many woody, round, half erect ftems, a foot or more in height, and producing alternate leaves, whofe upper fides are green, the lower covered with fnow-white cottony down, as are the calyx and upper part of the ftem, which laft is dichotomous, and affumes the form of a corymbus. The fmall bright-yellow flowers appear in fucceffive from June to autumn. No other Britifh Potentilla can be confounded with this. Its ftem and habit much refemble the Tormentilla, except in being far more woody. The pure white-nefs of its leaves, like that of the white poplar, renders this plant confpicuous whenever it is difturbed by wind or any other accident, and diftinguishes it fufficiently from all of the fame tribe.

69.

POTENTILLA aurea.

Golden Cinquefoil.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* in 10 ſegments. *Petals* 5. *Seeds* roundiſh, naked, generally wrinkled, affixed to a ſmall dry receptacle.

SPEC. CHAR. Radical leaves in fives, obovate, deeply ſerrated, hairy, ſomewhat membranaceous: ſtem-leaves ternate. Stem nearly erect.

SYN. Potentilla aurea. *Linn. Sp. Pl.* 712. *With.* 475. *Fl. Dan. t.* 114.

Quinquefolium minus, flore aureo. *Ger. em.* 990.

POTENTILLA aurea is firſt introduced upon the liſt of Britiſh plants in Dr. Withering's new edition, on the ſuppoſition of its being the *Pentaphyllum parvum hirſutum* of Ray's Synopſis, referred by Hudſon to P. *opaca* of Linnæus. But Mr. Curtis is moſt probably right in referring Ray's plant to the *verna*, of which we were not aware when that ſpecies was deſcribed in our 1ſt volume. We therefore now introduce the real *aurea* as a new acquiſition to the Flora, having been gathered in 1793 on Ben Lawers and other mountains in Breadalbane by Mr. John Mackay, from whom we received it. The root is perennial, and it flowers in the middle of ſummer.

The ſtems are from 3 to 6 inches high, nearly erect, branched, leafy, hairy. Leaves thin and almoſt membranous, of a lighter green than in P. *verna*, with footſtalks more than twice as long as in that plant; the leaflets are 5, a little ſhining, ſomewhat hairy, paler beneath, and deeply ſerrated towards the top. The ſtem-leaves conſiſt of but 3 leaflets, with ſhorter ſtalks, the upper ones generally oppoſite. Stipulæ lanceolate, entire. Flower-ſtalks axillary and terminal, ſolitary, long, ſingle-flowered, hairy, erect. Calyx hairy, its ſegments all nearly equal in length, but alternately narrower. Petals heartſhaped, of a full yellow and almoſt orange colour. Seeds longitudinally wrinkled, which Gærtner conſiders as a diſtinguiſhing character of this genus.

Mr. Mackay thinks he has diſcovered another new *Potentilla* in the highlands, with which we hope in due time to make the public acquainted.

70.

POTENTILLA verna.

Spring Cinquefoil.

ICOSANDRIA Polygynia.

GEN. CHAR. *Calyx* in ten ſegments. *Petals* five. *Seeds* roundiſh, naked, affixed to a ſmall dry receptacle.

SPEC. CHAR. Radical leaves quinate, ſharply ſerrated, blunted at the tips; ſtem-leaves ternate. Stem reclining.

SYN. Potentilla verna. *Linn. Sp. Pl.* 712. *Hudſ. Fl. An.* 224. *With. Bot. Arr.* 533. *Relh. Cant.* 197.

COMMUNICATED from the neighbourhood of Bury, in April laſt, by Sir Thomas Cullum, Bart. It is a native of dry elevated paſtures in many parts of Britain, as Gogmagog hills; but eſcaped the notice of Ray.

The ſtems are almoſt proſtrate, and ſpread very far in a circular direction among graſs and other plants. As the ſeaſon advances they turn red, as well as the leaves; which colour, intermixed with the bright yellow of the flowers, makes a ſtriking contraſt; ſo that it ſeems wonderful the plant ſhould have been overlooked. Haller obſerves, that it is a very variable ſpecies, and approaches ſo nearly to many others, that its characters and ſynonyms are ſcarcely to be made out.

A. Salisbury del. Nov. 1791

71.

POTENTILLA opaca.

Saw-leaved Hairy Cinquefoil.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* in 10 segments. *Petals* 5. *Seeds* roundish, naked, generally wrinkled, affixed to a small dry receptacle.

SPEC. CHAR. Radical leaves of seven hairy, linear-wedgeshaped, deeply serrated leaflets; stem-leaves mostly opposite, of three. Stems slender, decumbent.

SYN. Potentilla opaca. *Linn. Sp. Pl.* 713. *Amœn. Acad. v.* 4. 274. *Donn. Cant. ed.* 5. 129.

Quinquefolium quartum, flavo flore, secunda species. *Clus. Hist. v.* 2. 106. *f.* 3.

Pentaphyllum incanum, minus, repens. *Ger. em.* 989.

WHAT Hudson took for the *Potentilla opaca*, appeared from the inquiries of the late Rev. Mr. Wood, about Kippax in Yorkshire, to be only *verna*, and scarcely a variety. Mr. Donn of Cambridge however has received from Scotland the true *opaca*, such as we have also from Switzerland, sent by Mr. Davall. We have cultivated Mr. Donn's plant for several years, and find it invariable, though perhaps our garden specimens may be more luxuriant than those of the mountains. It flowers in June, and is perennial.

Numerous stems spring from the firm woody root, spreading in every direction, decumbent, forming a lax tuft. Each is round, hairy, branched or forked above. Radical leaves on long stalks; stem-leaves nearly sessile, mostly opposite; leaflets three in the latter, seven, rarely five or nine, in the former, all of a narrow wedge-shape, very strongly and distantly serrated or toothed, hairy, not hoary. Flowers handsome, of a rich orange yellow, on long, solitary, axillary or lateral stalks.

May 1, 1812 published by Jas. Sowerby London.

POTENTILLA alba.

White Cinquefoil.

POLYDELPHIA Polygynia.

Ess. Char. Cal. 8 or 10 segments. *Petals* 5. *Seeds* numerous, naked, generally wrinkled, affixed to a small or receptacle.

Spec. Char. Leaves 3 lobed; silky underneath; tipped with unequal serratures. Stems thread-shaped, procumbent. Receptacle very hairy.

Syn. Potentilla alba. *Lin. Sp. Pl.* 715. *Sm. Fl. Brit.* 1171. *Eng. Bot.* 1184. *With.* 474. *Hull.* 112.

Chamædrys silvaticum majus flore albo. *Ger. em.* 1048.

HUDSON states that this elegant alpine plant has been found in Wales by a Mr. Davidson. On this authority alone a place in the Flora *Brunnica* depends, nor could we ever obtain any other than a garden specimen. It flowers early in the summer, continuing for some time.

The root is long, fibrous, and perennial. Stems procumbent, slender, branched, hairy. The radical leaves stand on long hairy footstalks, and each consists of three large and 2 small lobes, entire except at their points, where a few fine serratures are discernible. The upper surface is green and smooth, the under white and silky. The stem-leaves are similar, with a short stalk. A pair of oblong leaves is attached to the base of each footstalk. The flowering stems are two, long, slender, and single-flowered. Segments of the calyx are pointed and silky. Petals pure white, notched. Seeds numerous, with long dense bristles.

This plant is easily cultivated, and deserves a place on rockwork, or in borders.

Nov.1 1804 Publ.d by J. & J. Sowerby

POTENTILLA reptans.

Common creeping Cinquefoil.

ICOSANDRIA Polygynia.

Gen. Char. *Cal.* in 10 segments. *Petals* 5. *Seeds* roundish, naked, generally wrinkled, affixed to a small dry receptacle.

Spec. Char. Leaves in fives, obovate, serrated. Stem creeping. Flower-stalks single-flowered.

Syn. Potentilla reptans. *Linn. Sp. Pl.* 714. *Sm. Fl. Brit.* 551. *Hudf.* 224. *With.* 474. *Hull.* 113. *Relh.* 198. *Sibth.* 161. *Abbot.* 113. *Curt. Lond. Fasc.* 1. *t.* 37. *Woodv. Med. Bot. t.* 59.

Pentaphyllum vulgatissimum. *Raii Syn.* 255.

THIS is of far more frequent occurrence than the last in meadows, pastures, by way-sides, and similar places, flowering in June, July and August.

Root fibrous, perennial. Stems long, filiform, trailing, and taking root from the joints, as in *P. anserina*. Leaves in pairs from each joint, on long erect stalks; composed of 5 (often more) obovate serrated leaflets, of a dark green, a little hairy. Stalks hairy, erect, rising above the leaves, and each bearing a large yellow flower. Calyx of 10 entire segments, of which the intermediate ones are of a deeper green than the rest. Petals obcordate, broad and short.

We presume the plant in Ray's *Synopsis*, inserted by Dillenius p. 255. n. 4. must be a variety of this, as Mr. Hudson supposes; but we cannot help totally dissenting from that gentleman in referring *Tormentilla reptans* to the same species, as the slightest inspection will prove it totally distinct, though occasionally bearing some five-cleft flowers.


b

POTENTILLA tridentata.

Trifid-leaved Cinquefoil.

ROSACEÆ Polygynia.

Gen. Char. Cal. [illegible] segments. *Petals* 5. *Seeds* [illegible], naked, generally wrinkled, affixed to a small [illegible].

Spec. Char. Leaves ternate, wedge-shaped; smooth above, hairy beneath: three-toothed at the summit.

Syn. Potentilla tridentata. *Solander in Ait. Hort. Kew.* [illegible] *Sm. Fl. Brit.* [illegible]

[illegible] specimen was gathered on a mountain called *Wer-*[illegible] by Mr. Jos. Dun, the only person who, to our knowledge, has observed the present species in Britain: it having been only found in Newfoundland only: for the [illegible] in P. Dun. [illegible] having hairy [illegible] must be specifically distinct.

[illegible] Mr. Don among the [illegible] genus [illegible] perennial, and flowers in the [illegible] The [illegible] and rather woody, throwing [illegible] three or four inches high. The leaves [illegible] on footstalks, [illegible] wedge-shaped, somewhat elliptical, entire, [illegible] where they have three teeth; their [illegible] whitish and rather hairy. Stipules [illegible] Flowers [illegible] at the end of the stem and [illegible] with purplish stamens, and hairy germens, [illegible]

Mr. Curtis published by Jas. Sowerby London

TORMENTILLA officinalis.

Common Tormentil.

ICOSANDRIA Polygynia.

GEN. CHAR. *Calyx* 8 segments. *Petals* 4. *Seeds* numerous, naked, wrinkled, affixed to a small dry receptacle.

SPEC. CHAR. Stem ascending, branched. Leaves [illegible]

SYN. Tormentilla officinalis. *Sw. Fl. Brit.* 552. [illegible] *Curt. Lond. fasc.* 5. *t.* 35.
Tormentilla. *Linn. Sp. Pl.* 716. *Hudson* 225. *Hull.* 112. [illegible] *Bot. t.* 9.
Tormentilla. *Fl. Suec.* 257.
Potentilla Tormentilla. *Smith.* 162. *Abbot.* 114.

COMMON in barren pastures, especially on heaths among long and other small shrubs, which are bespangled with its [illegible] flowers in June and July.

The root is remarkably large and woody, endued with an astringent degree of astringency, whence it has been long ago [illegible] the class of official plants. Stems weak, [illegible] generally intwining themselves upon the surrounding [illegible] branched, round, leafy, [illegible] Leaves sessile or nearly so, [illegible] a pair of deeply divided [illegible] Flowers [illegible] solitary stalks, placed [illegible] or rather in the forks of the branches. [illegible] alternately smaller, hairy. Petals [illegible] yellow. Germens hairy. Seeds few, [illegible]

[illegible] plant at Halifax in which all the [illegible] We never heard of another instance of [illegible] genus of Potentilla.

[illegible] with 5 petals and 10 segments [illegible] rarely, and the two [illegible] habit, that we are not [illegible] of considering them as *Potentillæ*.

TORMENTILLA reptans.

Trailing Tormentil.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* in 8 ſegments. *Petals* 4. *Seeds* roundiſh, naked, wrinkled, affixed to a ſmall dry receptacle.

SPEC. CHAR. Stem proſtrate. Leaves on footſtalks.

SYN. Tormentilla reptans. *Linn. Sp. Pl.* 716. *Sm. Fl. Brit.* 553. *With.* 476. *Hull.* 112. *Raii Syn.* 257. Potentilla procumbens. *Sibth.* 162.

THIS ſpecies of Tormentil now and then occurs about hedges and the borders of fields in dry places, but is by no means common. We even doubt whether Mr. Hudſon ever saw it, elſe he ſurely would never have made it a variety of the P. reptans, though it ſometimes bears a five-cleft bodiam at the beginning of its flowering. The habit and appearance are as little like that ſpecies of *Potentilla* as can well be [illegible] examined.

The root is [illegible] ſmall and ſlender. Stems one or two; [illegible] proſtrate, but not taking root, [illegible] would have been better [illegible]. Whole herb [illegible], and of a light green. [illegible] on the ſtem in [illegible] ſmall ſtalks: all [illegible] and deeply ſerrated; [illegible] narrow and almoſt entire. Stipulæ more [illegible]. The flowers, which appear in June and July, [illegible] Tormentil, bright yellow, [illegible] opposite to the leaves. [illegible] ſometimes divided as [illegible]

V

[illegible] urbanum.

Common Avens.

[illegible] Pentagynia.

[illegible] [illegible] segments. *Pet.* 5. *Seeds* with [illegible] Receptacle minutiae.

[illegible] [illegible] Leaves ternate. Stipulæ rounded and [illegible] Flowers erect. Awns of the seeds hooked, [illegible]

[illegible] [illegible] *Linn. Sp. Pl.* 716. *Sm. Fl.* [illegible] *Huds.* [illegible] 477. *Huds.* 118. [illegible] *Hudson* 114. *Curt. Lond.* [illegible] *Willd.* [illegible] 259.

[illegible] *Raii Syn.* 253.

[illegible] in woods and mount shady dry hedges, flower- [illegible] May to August.

[illegible] perennial. Fibrous, blackish, astringent and [illegible] Its qualities would be well worth attention, [illegible] medicines of a similar kind. [illegible] round, panicled, leafy, clothed [illegible] hairs. Leaves ternate, hairy, lobed and [illegible] unequal, for in the radical leaves, [illegible] the lateral leaflets are so minute as to [illegible] in the upper ones, which have no [illegible] properly stipulæ. Flowers terminal, [illegible] varying occasionally in size (see *Raii* [illegible] are generally shorter than the calyx. [illegible] but the awns are naked, of a brown or [illegible] covered with a hook which hangs to the [illegible]

Jan.y 1. 1805. Published by Jas. Sowerby London.

GEUM rivale.

Water Avens.

[illegible] *Polygynia.*

[illegible] *Petals* five. *Seeds* [illegible] awn.

[illegible] *Fruit* oblong; awns [illegible].

[illegible] *Hudj. Fl. An.* 226.

[illegible] *Lam.* 139.

[illegible] *purpureum.* *Ray Syn.* 253.

[illegible] the fortune to be reckoned [illegible] Most botanists mention it as [illegible] in low hands not un- [illegible] between Norwich and Thorpe, [illegible] and Lynn, and other parts of [illegible] Tournefort found it in [illegible] June and July.

[illegible] astringent and very aromatic, [illegible] been found useful in in- [illegible] bearing two or three small [illegible] drooping at the top, with two or [illegible] becomes erect. The [illegible] terminal leaflet, and two [illegible] among the others. The [illegible] The rich combination of [illegible] with the glowing red-brown [illegible] delicate colour of the [illegible] position of the flowers, render this [illegible] in our native plants.

[illegible] grows well, but the flowers [illegible] Mr. Ruinin, to whom we are [illegible] mentions a variety with yellow flowers [illegible] Dr. Smith also ob- [illegible] guesses it might be a hybrid between [illegible] Its awns are hairy as in the former, [illegible] more resembling the latter.

DRYAS octopetala.

Mountain Avens.

ICOSANDRIA Polygynia.

GEN. CHAR. *Calyx* 5 to 8 equal segments. *Petals* 5 to 8. *Seeds* with long feathery awns.

SPEC. CHAR. Petals eight. Leaves simple, serrated.

SYN. Dryas octopetala. *Linn. Sp. Pl.* 717. *Hudſ.* 226. *With.* 478. *Lightf.* 274. *Fl. Dan. t.* 31. *Tour in the Orkn. p.* 137.

Caryophyllata Alpina, Chamædryos folio. *Raii Syn.* 253.

THIS moſt elegant inhabitant of the Alps is found about the tops of ſeveral of the higheſt hills in Britain, and even in the north-weſt part of Yorkſhire (a country rich in wild ſcenery and botanical rarities), from whence the Rev. Mr. Wood, F. L. S. favoured us with this ſpecimen. We have cultivated the *Dryas* with ſucceſs under a north wall on a gravelly ſoil mixed with loam.

It is perennial and ſhrubby, though of a very humble ſize, flowering from the middle of June till the latter part of Auguſt, and the beautiful leaves are ever-green. The woody proſtrate ſtems, tangled together, form a thick matted tuft to the extent of ſeveral feet, they are ſmooth, clothed with the remains of withered leaf-ſtalks. Leaves crowded, on longiſh woolly footſtalks, to whoſe lower part is attached a pair of narrow ſharp ſtipulæ, like thoſe in the neighbouring genera of *Roſa* and *Rubus*. The leaf itſelf is ſimple, from half an inch to an inch long, ovate, blunt, with deep, ſomewhat revolute, ſerratures; dark ſhining green above; very white and cottony, with brownish projecting veins beneath. Stalks ſolitary, ſimple, riſing more than twice as high as the leaves, round, ſingle-flowered, downy, and in the upper part the down is intermixed with reddiſh hooked glandular briſtles, as is alſo the caſe with the outſide of the calyx. Flower large, erect, bearing ſome reſemblance at firſt ſight to the bloſſom of a Carolina ſtrawberry, but more handſome on account of its eight uniform petals, and the ſilvery tuft of ſtyles ſurrounded by numerous yellow antheræ. The ſtyles, after flowering, are lengthened out into feathery awns, each crowning an obovate dry downy ſeed, ſtanding on the diſk of the calyx.

Jan.y 1798 Published by J. Stoney by Law

COMARUM paluſtre.

Marſh Cinquefoil.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* in 10 ſegments. *Petals* 5, leſs than the calyx. *Receptacle* of the ſeeds ovate, ſpongy, permanent.

SPEC. CHAR. . . . . .

SYN. Comarum paluſtre. *Linn. Sp. Pl.* 718. *Hudſ. Fl. An.* 227. *With. Bot. Arr.* 540. *Relh. Cant.* 200.

Pentaphylloides paluſtre rubrum. *Raii Syn.* 256.

NOT unfrequent in muddy bogs and ditches, eſpecially in the north, and in Norfolk, flowering in June and July. It is among our more handſome native plants, and may be introduced with advantage among American ſhrubs, in a border of bog earth.

The roots are perennial, long and creeping, and, like the ſtem, round, and of a reddiſh brown. The leaves are generally, but not always, ſmooth: leaflets moſtly five, rarely ſeven, in the top leaf three, more or leſs obtuſe, ſtrongly ſerrated, glaucous beneath, with a pair of ſtipulæ (moſtly entire) running up the common leaf-ſtalk. Flowers on partial footſtalks, produced in an irregular, ſomewhat dichotomous manner. Their colour and ſtructure our figure expreſſes. The calyx leaves are lobed or entire. Every part of the flower is permanent, enfolding the fruit, which conſiſts of numerous oval compreſſed ſeeds, covering a conical ſpongy receptacle, which does not fall off when the ſeeds are ripe. In this laſt circumſtance only the genus differs from Fragaria. Haller thought the difference too light, and therefore joins theſe two genera, along with Potentilla, into one. But Linnæus well obſerves, in Flora Lapponica (p. 200), that the genera of this natural order are all very nearly allied (the order being a natural), and that we muſt either keep them as he has defined them, or unite the above with Rubus, Rosa, Geum, Dryas, &c. into one, which would be very paradoxical.

J.° Sowerby del.° Apl. 1 1794

81.

ACTÆA ſpicata.

Herb Chriſtopher; or Bane Berries.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* of 4 leaves. *Pet.* 4. *Berry* ſuperior, of 1 cell. *Seeds* numerous, flat.

SPEC. CHAR. Cluſter of flowers ovate.

SYN. Actæa ſpicata. *Linn. Sp. Pl.* 722. *Sm. Fl. Brit.* 562. *Hudſ.* 228. *With.* 483. *Hull.* 115. Chriſtophoriana. *Raii Syn.* 262.

THIS very rare plant is ſcarcely to be met with in Britain, except among the wild mountainous woods and thickets of the north-weſt part of Yorkſhire. Our ſpecimen, gathered at King Arthur's force, near Aſkrigg, in that county, was communicated by Mr. W. Brunton, flowering in May.

The root is creeping and perennial. Whole plant ſmooth, or very ſlightly pubeſcent, about a foot and half high, upright. Stem triangular, leafy, but little branched. Leaves on ſtalks, twice or thrice ternate, the leaflets ovate, unequally and ſharply ſerrated and lobed. Flowers white, in a terminal, ſolitary, ovate, ſimple cluſter or ſpike, upon the form of which, oppoſed to the very long many-flowered cylindrical cluſters of the other ſpecies of *Actæa*, Linnæus founds his ſpecific character. The partial flower-ſtalks are undivided, downy, each furniſhed at the baſe with a ſmall ovate bractea. Calyx of 4 concave leaves, which fall off very ſoon after they expand. Petals ſpatulate. Stamina tapering, round. Antheræ approaching to the ſtructure of thoſe of the *Epimedium*, ſee our 7th vol. *t.* 438, to which we cannot help thinking this plant allied. Germen oval, with a round ſeſſile ſtigma. Berries purpliſh-black, juicy, containing ſeveral ſeeds.

The berries, and indeed the whole herb, which is fœtid and naufeous, are univerſally allowed to be poiſonous.

Aug.1.1810 Published by J.E.Sowerby Londonn

82.

CHELIDONIUM majus.

Celandine.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* of 2 leaves. *Petals* 4. *Pod* superior, linear, of 2 valves and 1 cell. *Seeds* numerous, crested.

SPEC. CHAR. . . . . .

SYN. Chelidonium majus. *Linn. Sp. Pl.* 723. *Sm. Fl. Brit.* 563. *Huds.* 228. *With.* 483. *Hull.* 116. *Relh.* 204. *Sibth.* 164. *Abbot.* 115. *Woodv. Suppl. t.* 263.

Papaver corniculatum luteum, Chelidonia dictum. *Raii Syn.* 309.

ON rubbish in waste places the Celandine often occurs, but its natural station is on chalky rather shady banks, which its bright flowers, gaily contrasted with the glaucous leaves, greatly enliven in the months of May and June.

Root spindle-shaped, perennial. Herb brittle and tender, about 2 feet high, smooth or hairy. Leaves pinnated, smooth, rounded, lobed and notched. Flowers in umbels, on long axillary stalks. Calyx mostly a little hairy, soon falling off. Petals roundish, of a golden hue as well as the stamina. Pod rugged. Seeds black and shining with a white crest.

The other Linnæan species of *Chelidonium* being established as a genus (*Glaucium*), the present is the only one that remains. It is remarkable for the orange hue of its secreted fluids, which in the fig and spurge are white. According to an old Greek story, the swallows are supposed to restore the sight of their young, when blinded, with the juice of this herb. One would guess it more likely to have a contrary effect. Others have accounted for the name (from χελιδὼν a swallow) because it appeared and disappeared with those birds.

Mr 1 1805 Published by Jas Sowerby London.

CHELIDONIUM Glaucium.

Yellow Horned-Poppy.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* two-leaved. *Cor.* of four petals. *Pod* linear, one-celled.

SPEC. CHAR. Flower-ſtalks ſingle-flowered. Leaves embracing the ſtem, ſinuated. Stem ſmooth.

SYN. Chelidonium Glaucium. *Linn. Sp. Pl.* 724. *Hudſ. Fl. An.* 229. *With. Bot. Arr.* 548.
Papaver corniculatum luteum. *Raii Syn.* 309.

FROM one annual root ariſe ſeveral branched and wide-ſpreading ſtems, each about two or three feet long, ſo that a ſingle plant occupies a conſiderable ſpace. The ſeed veſſels are alſo much longer than could be expreſſed in our figure, meaſuring frequently ten or twelve inches. The large and numerous flowers, which, although of ſhort duration, ſucceed one another in great abundance during moſt part of the ſummer, make a fine contraſt with the ſea-green " dew-beſpangled" leaves, and are a great ornament to the ſandy ſhores where this plant grows. It is not uncommon on the Engliſh coaſt, and grows frequently even within reach of the ſpray of the ſea. The ſhores of Norfolk and Suffolk produce it in abundance.

The whole plant is fœtid, and of a poiſonous quality. It is ſaid to occaſion madneſs.

Whether this be the true Glaucium of Dioſcorides is much to be doubted. Among the unpubliſhed plates, engraved from the celebrated manuſcript of that author, in the Imperial library, an impreſſion of which is in the Linnæan collection, is a figure of his plant; but not ſufficiently perfect to aſcertain what it is; although certainly more like our Chelidonium Glaucium than Argemone mexicana, which Caſpar Bauhin took for the Glaucium of Dioſcorides.

S. Lowry del. Feb.y 1. 1791

GLAUCIUM phoenicium.

Red Horned-Poppy.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* of 2 leaves. *Petals* 4. *Pod* superior, linear, of 2 cells, and 2 or 3 valves. *Seeds* numerous, dotted.

SPEC. CHAR. Stem hispid. Stem-leaves pinnatifid, jagged. Pod bristly.

SYN. Glaucium phoenicium. *Sm. Fl. Brit.* 564. *Gærtn. v.* 2. 165. *t.* 115.
G. corniculatum. *Curt. Lond. fasc.* 6. *t.* 32.
Chelidonium corniculatum. *Linn. Sp. Pl.* 724. *Huds.* 229. *With.* 484. *Hull.* 116.

A NATIVE of sandy cornfields, which Mr. Hudson says was sent him from Norfolk by Mr. Stillingfleet with the Violet Horned-Poppy. The latter certainly is wild in those parts of the county, where Mr. Stillingfleet used to pass most of his time, but no other person has ever seen the present species in that or any other part of Britain! In Chelsea garden it has from time immemorial come up every year as a weed, and we have, as well as Mr. Curtis (though he has not acknowledged it) drawn a garden specimen. We are the more inclined to publish this beautiful plant just now, that it may appear how it differs from *G. fulvum*, given in *Exotic Botany tab.* 7, which has been taken for it.

G. phoenicium is, like that, truly annual, flowering in June and July, and the flowers are very short-lived though produced in long succession. The stem is 2 feet high, branched, clothed with horizontal hairs. Leaves all deeply pinnatifid, glaucous, roughish, jagged and toothed. Flowers on stalks, scarlet, half the size of *G. fulvum*. Pod rough with longish rigid close bristles. The very different stem-leaves are sufficient to prove it distinct from that species.

March 1 1806. Published by J. J. Cox & Sons London.

CHELIDONIUM hybridum.

Violet Horned-Poppy.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* two-leaved. *Petals* four. *Pod* linear, of one cell.

SPEC. CHAR. Flower-stalks single-flowered. Leaves pinnatifid, with linear segments. Stem smooth. Pods with three valves.

SYN. Chelidonium hybridum. *Linn. Sp. Pl.* 724. *Hudſ. Fl. An.* [illegible]. *With. Bot. Arr.* 549. *Relh. Cant.* [illegible].

Papaver corniculatum violaceum. *Raii Syn.* 309.

THE corn-fields of Cambridgeſhire afford this rare plant, from whence we have juſt received it by favour of the Rev. Mr. [illegible], flowering in the middle of May, a much earlier [illegible] than that aſſigned to the ſpecies by Mr. Hudſon. It was [illegible] miles from Ayſham, in the road from [illegible] Downham, but is, we believe, unknown in other [illegible].

[illegible] are upright, round, much-[illegible] with alternate leaves of a dark ſhining [illegible] with linear ſegments. The calyx [illegible] expanded, and the delicate [illegible] few hours. The ſtamina [illegible] numerous. Germen linear, trian-[illegible] towards the ſum-[illegible]. Pod long, of three [illegible]. A few hairs are ſometimes [illegible].

[illegible] may have originated [illegible] ſome ſpecies of Che-[illegible] for ſuch a ſuppoſition, [illegible] Chelidonium he had in view.

PAPAVER hybridum.

Mongrel Poppy.

POLYANDRIA Monogynia.

GEN. CHAR. *Calyx* two-leaved. *Corolla* of four petals. *Capsule* one celled; discharging its seeds by pores under the stigma.

SPEC. CHAR. Capsules nearly globular, with a very unequal surface, bristly. Stem leafy, many-flowered.

SYN. Papaver hybridum. *Linn. Sp. Pl.* 725. *Hudf. Fl. Ang.* 250. *With. Bot. Arr.* 550. *Relb. Cant.* 202.

Papaver hirsutum folio, capitulo hispido rotundiore. *Ray Syn.* 308.

GATHERED in the neighbourhood of Dartford by Mr. Lewin, and near Norwich by Mr. Fitchfred. It is occasionally met with here and there in cultivated ground, but never in any great quantity. It has a small annual root, and flowers in the middle of summer. The stem is weak, much branched, and spreading; the divisions of the leaves linear, and very narrow; flowers small, deep crimson, or purplish; pollen bright blue. The bristles of the germen are erect, and nearly as high and long as in the type capsule, but on the latter they bend out in every direction, being only a little curved towards

PAPAVER Argemone.

Long-rough-headed Poppy.

POLYANDRIA Monogynia.

Gen. Char. Cal. two-leaved. *Petals* four. *Stigma* radiated. *Capsule* superior, discharging its seeds by pores under the stigma.

Spec. Char. Capsules club-shaped, bristly. Stem leafy, many-flowered.

Syn. Common Argemone. *Linn. Sp. Pl.* 725. *Hudf. Flor. With. Sol. Eng. Bot.* 202. *Sibth.* 165. *Mill. Icon.* t. 1. *Curt. Lond. fasc.* 5. t. 38.

P. rotundum folio, capitulis hirsutis longioribus. Raii Syn. 308.

A NATIVE of corn-fields and waste ground, more especially on a gravelly or sandy soil, flowering in June. This, though not a very general weed, is much more so than *P. hybridum* with us, as our first volume.

The root is small and annual. Herb slender and delicate, varying in size. Stem alternately branched, round, leafy, covered with bristles which are less closely pressed to the bark than those of *P. hybridum*. Leaves pinnatifid and cut. Flowers on the terminating short branch, small, generally of a pale or dark orange colour, and extremely fugacious. I have once found them double, in which case they lasted several days. In [illegible] half a day. Calyx bristly, deciduous. Petals narrow, obovate, nearly upright. Stamina, as Mr. [illegible] observes, of three sizes; in *P. hybridum* they are [illegible] alternate in a little four-rank. Pollen [illegible] yellow, furrowed, most bristly [illegible]. Stigma [illegible] rays, downy.

PAPAVER dubium.

Long-ſmooth-headed Poppy.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* two-leaved. *Petals* four. *Stigma* radiated. *Capſ.* ſuperior, diſcharging its ſeeds by pores under the ſtigma.

SPEC. CHAR. Capſules ſmooth, oblong. Stem many-flowered, hairy. Briſtles on the flower-ſtalks cloſe-preſſed. Leaves bipinnatifid.

SYN. Papaver dubium. *Linn. Sp. Pl.* 726. *Hudſ.* 230. *With.* 487. *Hull.* 116. *Relh.* 203. *Sibth.* 165. *Abbot.* 116. *Curt. Lond. faſc.* 5. *t.* 37.

P. laciniato folio, capitulo longiore glabro. *Raii Syn.* 309.

NOT uncommon on a ſandy ſoil, flowering in June, and the root is annual.

This is a larger plant than the preceding, and at once diſtinguiſhed by its ſmooth pods. Linnæus by the name *dubium* ſeemed to ſuſpect it might not be diſtinct from the common Poppy, *t.* 645, but we believe no ſpecies can be better defined.

The ſtem is about 2 feet high, leafy, clothed with horizontal ſpreading hairs, while the flower-ſtalks are covered with cloſe-preſſed briſtles. The ſegments of the leaves are broader than in *P. Argemone* and *hybridum*. Petals broader than they are long, crenate, of a paliſh ſcarlet. Stamina linear. Pollen yellow. Stigma with 6 or 8 rays. Germen and capſule oblong, thicker upwards, ſlightly furrowed, perfectly ſmooth, and ſomewhat glaucous.

The Linnæan character of the cloſe-preſſed briſtles on the flower-ſtalks admirably diſtinguiſhes this poppy from *P. Rhoeas*, the only ſpecies with which it could otherwiſe be confounded.

Curtis 1806. Sowerby Lond.

PAPAVER Rhoeas.

Common Red Poppy.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* two-leaved. *Petals* four. *Stigma* radiated. *Capſ.* ſuperior, diſcharging its ſeeds by pores under the ſtigma.

SPEC. CHAR. Capſules ſmooth, nearly globoſe. Stem many-flowered, briſtly, with all the briſtles ſpreading. Leaves pinnatifid, cut.

SYN. Papaver Rhoeas. *Linn. Sp. Pl.* 726. *Hudſ.* 230. *With.* 486. *Hull.* 116. *Relh.* 203. *Sibth.* 165. *Abbot.* 116. *Curt. Lond. faſc.* 3. *t.* 32. *Woodv. Med. Bot. t.* 186.

P. laciniato folio, capitulo breviore glabro, annuum, Rhoeas dictum. *Raii Syn.* 308.

THIS is the moſt common of all our Poppies, and one of the moſt troubleſome weeds on arable lands, as its ſeeds remain under ground, retaining their vegetative powers for a long time, and furniſhing a freſh crop of Poppies whenever the earth is turned over. The *P. Rhoeas,* however, is one of our moſt beautiful wild flowers, though an unpleaſant object to the farmer. A ſyrup made of its petals is kept in the ſhops, as a gentle opiate for children.

The root is annual, and the flowers appear in June and July. The flower-ſtalks, as well as the ſtem, in this ſpecies are covered with horizontal taper hairs. Leaves once or twice pinnatifid, ſerrated, generally hairy. Petals large, broad, crumpled, of a deep vivid ſcarlet, and with a rich ſilky gloſs. They have ſometimes a black ſpot near the baſe. See *Withering.* Stamina linear. Pollen yellow. Stigma of many rays. Capſule ſhort, cup-ſhaped, perfectly ſmooth.

Oct. 1799. Published by J. Sowerby

V

90.

PAPAVER somniferum.

White Poppy.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* two-leaved. *Petals* four. *Stigma* radiated. *Caps.* superior, discharging its seeds by pores under the permanent stigma.

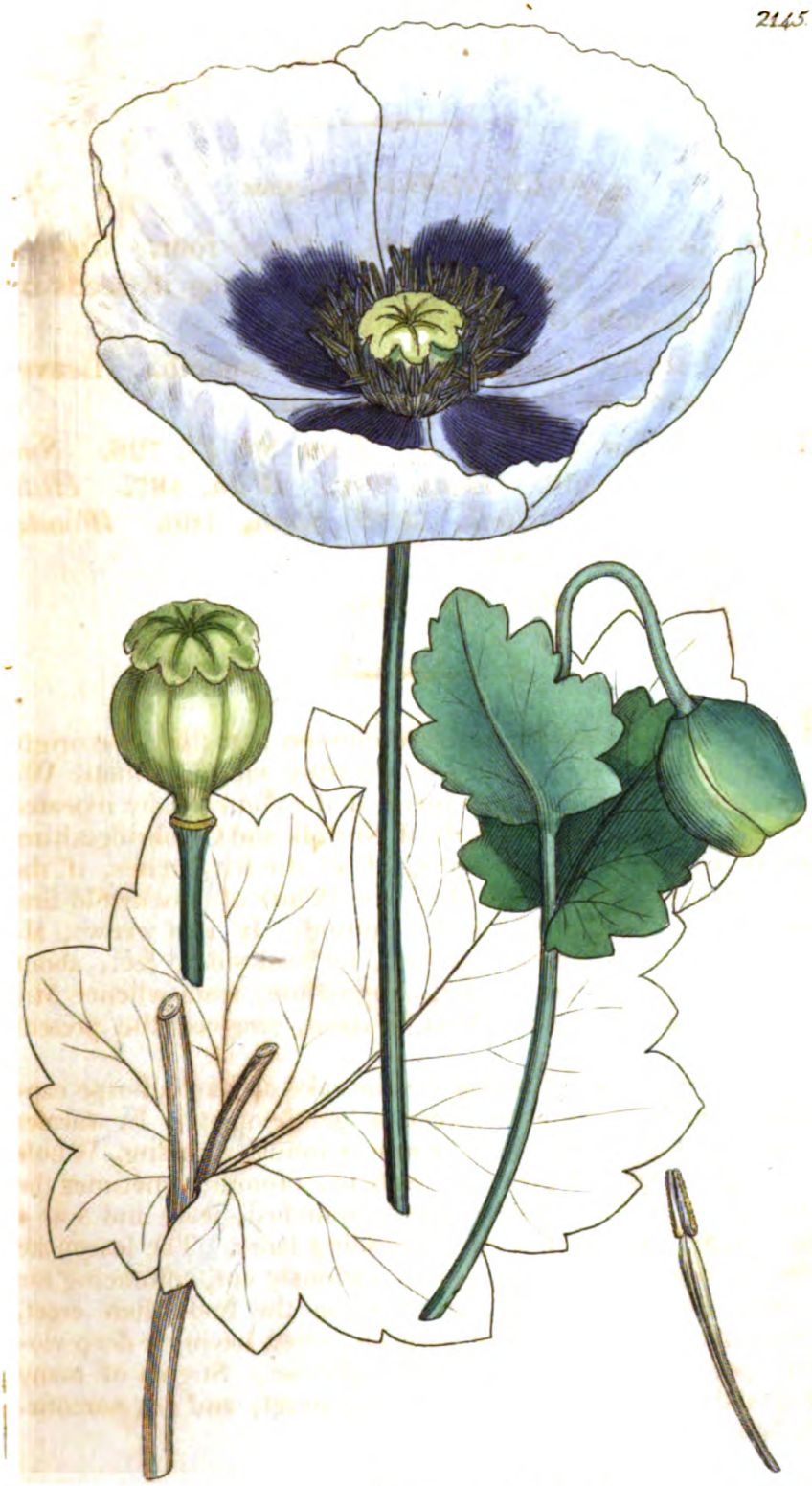
SPEC. CHAR. Calyx and capsules smooth. Leaves clasping the stem, glaucous, cut.

SYN. Papaver somniferum. *Linn. Sp. Pl.* 726. *Sm. Fl. Brit.* 568. *Huds.* 231. *With.* 487. *Hull. ed.* 2. 158. *Relh.* 207. *Sibth.* 166. *Woodv. Med. Bot. t.* 185.

P. sylvestre. *Raii Syn.* 308.

IT has been a generally received opinion that this, the origin of the fine garden poppies, was not truly wild in Britain. We have nevertheless been convinced of the contrary, by repeated information from the low parts of Norfolk and Cambridgeshire, where it is found on the banks of all the fen ditches, if the soil be sandy, (as the late Rev. Mr. White of Hockwold first informed us,) in a truly wild condition. It also grows, always in newly-trenched ground, by road-sides, &c., about Delvine house near Coupar, Angusshire, from whence Mr. Sowerby, by favour of Miss Watson, received the present specimen.

This species is cultivated for the sake of its half-ripe capsules, which in infusion prove a gentle opiate. In warmer countries it yields opium. The root is annual, tapering. Whole plant glaucous and generally smooth, though sometimes the upper part of the stem (which is branched, leafy and 3 or 4 feet high,) bears a few rigid spreading hairs. The leaves are simple, oval or roundish, obtuse, variously cut, embracing the stem. Flowers terminal, drooping in the bud, then erect, short-lived, large, white or purplish, often having a deep violet spot on each petal. Capsule globose. Stigma of many deflexed rays. The seeds are oily, sweet, and not narcotic. It flowers about July.



May 1810 published by J.t Sowerby London

91.

PAPAVER cambricum.

Yellow Poppy.

POLYANDRIA Monogynia.

GEN. CHAR. *Calyx* two-leaved. *Corolla* of four petals. *Capſule* one-celled; diſcharging its ſeeds by pores under the ſtigma.

SPEC. CHAR. Capſules ſmooth, oblong. Stem many-flowered, ſmooth. Leaves pinnated, jagged.

SYN. Papaver cambricum. *Linn. Sp. Pl.* 727. *Hudſ. Fl. An.* 231. *With. Bot. Arr.* 553.

P. luteum perenne, laciniato folio, Cambrobritannicum. *Raii Syn.* 309.

SAID to be very common on the Welch mountains, and not unfrequent in Weſtmoreland. Dr. Smith has gathered it about Kendal and Kirkby-Lonſdale, in ſtony, moiſt, and ſhady places. With his wild ſpecimens we have compared that here figured; for which we are obliged to the Rev. Dr. Goodenough, who favoured us with it from his garden. Dillenius, in his excellent hiſtory of this plant (*Hort. Elth.* 301, *t.* 223), aſſerts, that it becomes larger and leſs glaucous by culture: but we are aſſured it is often full as luxuriant in its native ſoil; which indeed is generally the caſe with the vegetable productions of rich or moiſt alpine ſituations.

The root is perennial; the flowers laſt from June to the middle of Auguſt. The whole plant is of a tender, pale, and ſomewhat ſucculent habit, not unlike the Celandine, but more delicate.

√

NYMPHÆA alba.

White Water-Lily.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* of 4 or 5 leaves. *Petals* numerous. *Berry* of many cells, truncated.

SPEC. CHAR. Leaves heart-ſhaped, entire. Calyx four-leaved.

SYN. Nymphæa alba. *Linn. Sp. Pl.* 729. *Hudſ. Fl. An.* 234. *With. Bot. Arr.* 555. *Relh. Cant.* 206. *Raii Syn.* 368.

INDIA may boaſt her Palm-trees, and America her Magnolias, but the latter ſcarcely exceed our Nymphæa in magnificence, and the moſt noble and celebrated of all Indian productions is in fact a Water-lily, Nymphæa Nelumbo. That, however, does not more excell the other vegetables of its country, than this every Britiſh plant beſides. It has altogether the air of a Tropical production.

Though by far leſs common than the lutea, this kind is not rare in ſome parts of England. It flowers at the ſame time with that ſpecies, and agrees with it very much in root and leaves, except in being larger. The flower indeed is widely different. The calyx of four leaves only, which are lanceolate, and more ſpreading, white, often tinged at the baſe with a light bluſh-colour. Petals nearly as large, lanceolate, in ſeveral rows, gradually leſſening and running into the ſtamina, ſo that the line of diſtinction can hardly be drawn between them, the filaments of the outer rows of ſtamina being dilated into a lanceolate form, and having but the rudiments of antheræ. Both petals and ſtamina are inſerted upon the germen in circles even to its ſummit. The ſtigma is very different from that of N. lutea, being deeply cloven, and its ſegments recurved. Theſe flowers have no ſmell, and when gathered they fade very ſoon. They eaſily preſerve their form and colour in drying between paper, though ſo very ſucculent. The ſtalks are full of large tubes, in which are numerous white hairs.

93.

NYMPHÆA lutea.

Yellow Water-Lily.

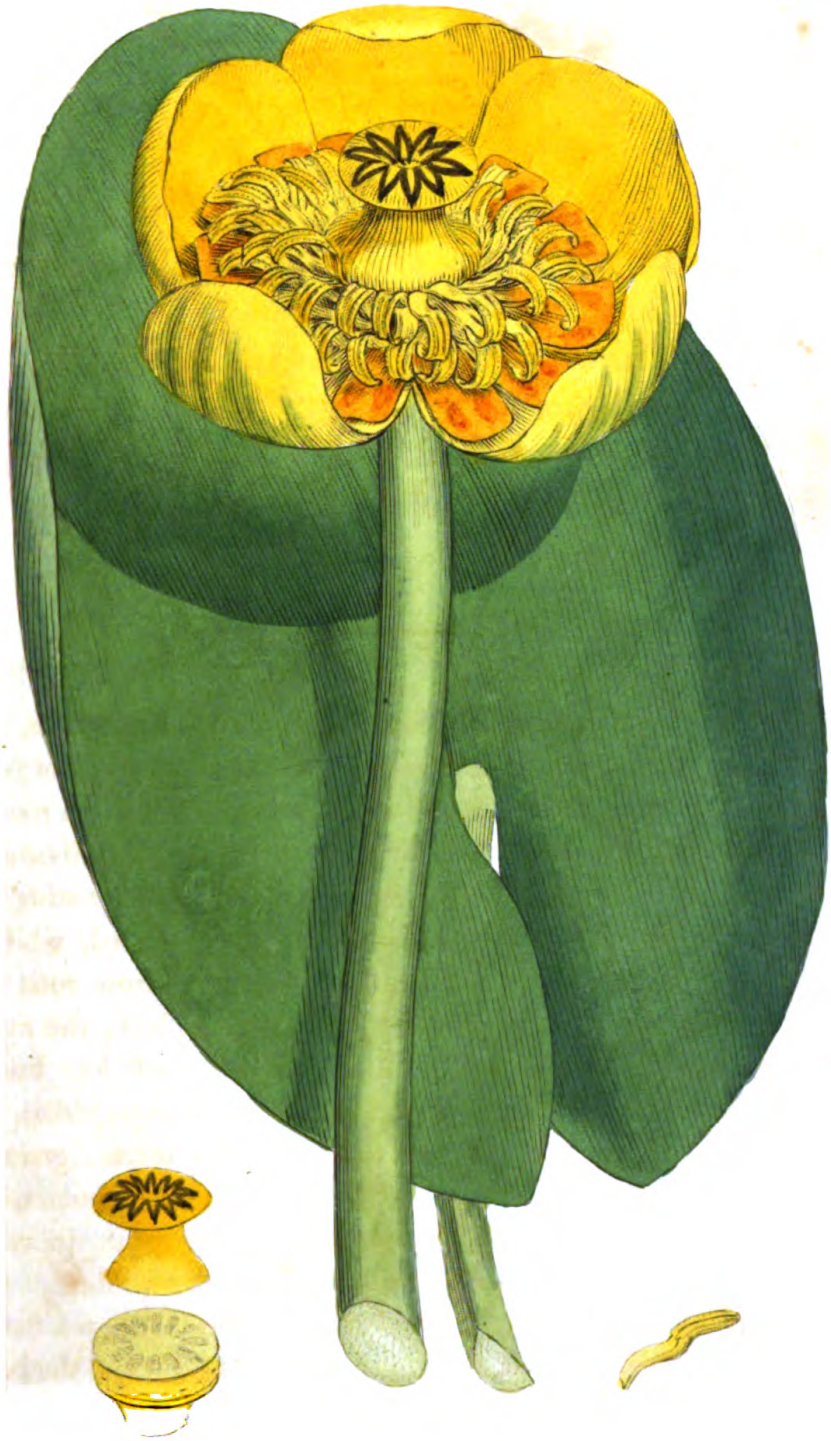
POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* of 4 or 5 leaves. *Petals* numerous. *Berry* of many cells, truncated.

SPEC. CHAR. Leaves heart-ſhaped, entire. Calyx five-leaved, much exceeding the corolla.

SYN. Nymphæa lutea. *Linn. Sp. Pl.* 729. *Hudſ. Fl. An.* 234. *With. Bot. Arr.* 554. *Relh. Cant.* 205. *Raii Syn.* 368.

A VERY general inhabitant of rivers and large pools, flowering about the middle of ſummer very copiouſly. Root perennial, running deep into the mud. Leaves radical, on roundiſh footſtalks flattened on one ſide, which are longer or ſhorter according to the depth of the water, the leaf itſelf floating upon the ſurface, to which its under ſide is cloſely applied, while the upper remains dry. A remarkable line or furrow runs from the inſertion of the footſtalk to the tip of the leaf; the margin is entire. The flowers, as Ray obſerves, ſmell like brandy, whence they are vulgarly called in Norfolk *brandy-bottles*. The calyx is of five large obovate concave yellow leaves, green externally towards the baſe. Petals much ſhorter, numerous, recurved, very obtuſe, thick and fleſhy, yellow with an orange ſpot. Stamina and antheræ recurved, moſtly uniform. Germen round and ſmooth. Style ſcarcely any. Stigma flattiſh, umbilicated, radiated, each ray anſwering to a cell in the berry; which is ſpongy, full of farinaceous ſeeds, not unlike thoſe of Millet, but larger. All the ſtamina, as well as the petals, are inſerted into the receptacle, not into the germen.



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94.

NUPHAR minima.

Least Nuphar.

POLYANDRIA Monogynia.

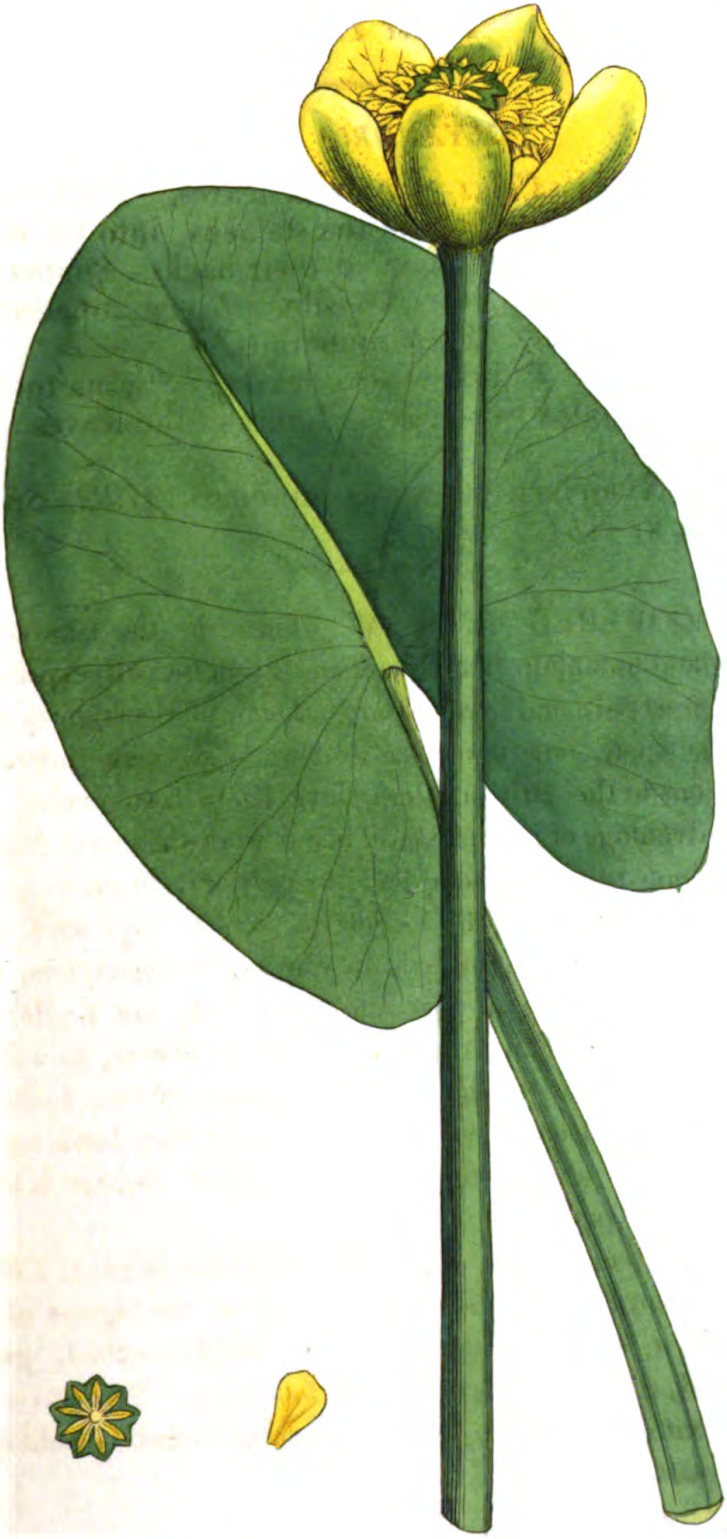
Gen. Char. *Calyx* of 5 or 6 leaves. *Petals* numerous, inserted, with the stamens, into the receptacle, bearing honey at their backs. *Stigma* with radiating furrows, sessile. *Berry* superior, of many cells. *Seeds* numerous.

Spec. Char. Calyx of five leaves. Stigma toothed. Footstalks two-edged. Lobes of the leaves rather distant.

Syn. Nymphæa lutea *β*, minima. *Willd. Sp. Pl. v.* 2. 1151.

DISCOVERED by Mr. W. Borrer in the lake on the Highland mountain Ben Cruachan. From his native specimen, well preserved, and his coloured sketch of the stigma, taken on the spot, our figure is drawn. Few more interesting additions to the British Flora have lately been made. We take advantage of it to establish in our work the genus *Nuphar*, first adopted from Dioscorides, in *Prodr. Fl. Græc. v.* 1. 361, which embraces the yellow kinds of Water-Lily, see *t.* 159; and is clearly distinguished, by the above characters, from the true *Nymphæa* of that ancient author, see *t.* 160; to which the white and rose-coloured kinds belong, as will appear in the new edition of the valuable *Hortus Kewensis.* Mr. Salisbury determined that the nectary of these last is a globe in the centre of the stigma, while that of *Nuphar* is at the backs of the petals.

The present species differs from *Nuphar lutea, t.* 159, in its much smaller size, the flowers being but the bigness of the *Trollius*, *t.* 28, and especially in its deeply-toothed, green-bordered, stigma, and compressed footstalks. The leaves are somewhat silky beneath, and their lobes rather spreading or divaricated.



Jane 1 1811 published by J. Sowerby London

95.

TILIA europæa.

Lime or Linden-tree.

POLYANDRIA Monogynia.

GEN. CHAR. *Calyx* in 5 divisions. *Petals* 5. *Capsule* superior, leathery, obovate, angular, of 5 cells and 5 valves, bursting at the base.

SPEC. CHAR. Flowers without a nectary. Leaves heart-shaped, with the branching of their veins woolly beneath.

SYN. Tilia europæa. *Linn. Sp. Pl.* 733. *Hudſ.* 231. *With.* 490. *Relh.* 204. *Sibth.* 166.

T. vulgaris platyphyllos. *Raii Syn.* 473.

THE Lime-tree grows truly wild, in many parts of Great Britain, in woods and on grassy declivities, and is still more commonly seen cultivated in hedges, walks and alleys about houses. It will in some degree bear the smoke of London. The elegant Fenelon makes it one of the ornaments of Calypso's enchanted island; perhaps in compliment to the taste of Louis XIV. about whose palaces it was planted profusely. On a chalky soil its twigs are very red, and leaves downy.

It is a tall upright tree, with smooth spreading branches, thickly clothed with alternate heart-shaped serrated leaves, whose veins, where they branch off from the nerve, are furnished with a tuft of glandular wool, as in the Laurus-tinus. The flowers, which are delightfully fragrant, especially at night, come forth about July, in umbels or cymes, on long axillary stalks, with a singular linear entire pale bractea affixed to each stalk, and falling off with it. The calyx is green with a downy edge. Petals yellowish. The nectaries found in some species are wanting in this. Capsule obovate, or angular, generally ripening but one seed.

The bark by maceration separates into thin tough layers, and is used for making the mats used by gardeners, and called in the north of Europe *Bast*. They form a considerable part of the exports of Russia. This quality in the bark, and a great degree of viscidity in the whole tree, evince its acknowledged affinity to the Mallow tribe.

Lith. of J. Sillitoe, 37 Gt. Ormond Street.

96.

TILIA parvifolia.

Small-leaved Lime or Linden-tree.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* in 5 divisions. *Petals* 5. *Capsule* superior, leathery, obovate, of 5 cells (seldom all perfected), and 5 valves. *Seeds* 1 or 2 in each cell.

SPEC. CHAR. Flowers without a nectary. Leaves heart-shaped, sharply serrated, somewhat lobed. Capsule roundish, very thin.

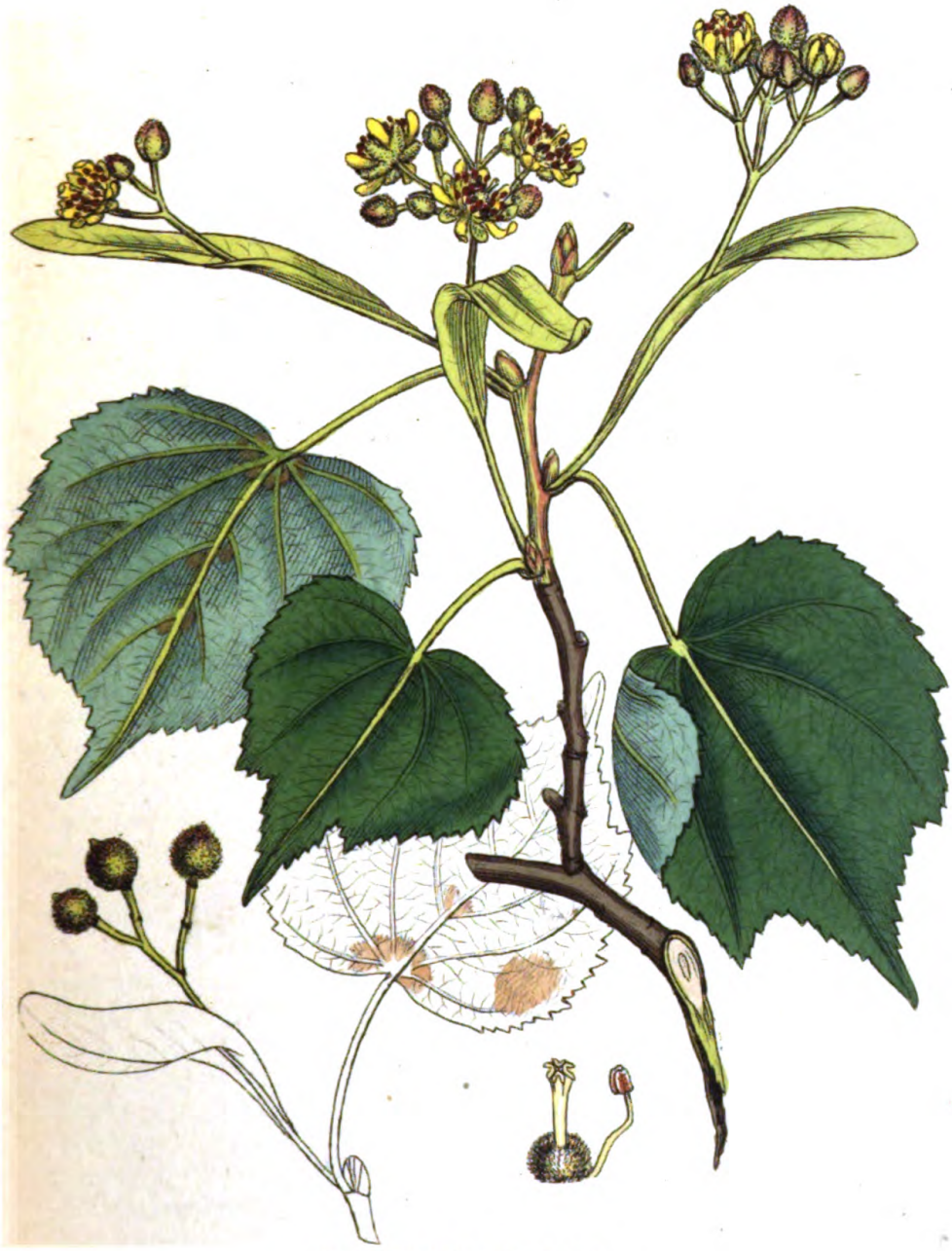
SYN. Tilia parvifolia. *Ehrh. Arb.* 36.

T. microphylla. *Ventenat in Annals of Botany*, *v.* 1. 209.

T. europæa β. *Sm. Fl. Brit.* 571.

T. folio minore. *Raii Syn.* 473.

RAY says this Lime-tree is common in Essex and Sussex, and found also in other places. The only tree we have seen near Norwich has certainly been planted, in an avenue among the common broad-leaved kind, described in *v.* 9. *t.* 610. Its aspect is peculiar. The leaves are much smaller than in that species, more glaucous beneath, rather more sharply serrated, and very frequently lobed towards the point. Their footstalks are also more slender, and of rather a longer proportion. The flowers appear about a month later, being scarcely in full perfection before August, when they are conspicuous, and very fragrant like those of the Honeysuckle. The capsule is small, roundish, scarcely angular, and rarely perfects more than one cell with a single seed. Its coat is remarkably thin and tender, on which circumstance the able M. Ventenat chiefly founds the specific character, for the fruit of the Broad-leaved Lime-tree is hard, thick and woody. The leaves of both are hairy at the branching of the veins beneath, and in this species often abound with hairy blotches as they grow old.



Feb. 1807. Published by Jas. Sowerby, London.

97.

CISTUS marifolius.

Hoary Dwarf Cistus.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* of 5 leaves, 2 of which are smaller than the rest. *Petals* 5. *Caps.* with 3 valves.

SPEC. CHAR. Shrubby, without stipulæ. Leaves opposite, on footstalks, oblong, flat, hoary beneath.

SYN. Cistus marifolius. *Linn. Sp. Pl.* 741. *Berk. Outl. ed.* 1. *v.* 2. 150.

C. hirsutus. *Huds. Fl. An. ed.* 1. 206. *ed.* 2. 232.

C. anglicus. *Linn. Mant.* 245. *With. Bot. Arr.* 557.

C. canus. *Jacq. Fl. Austr. v.* 3. *t.* 277.

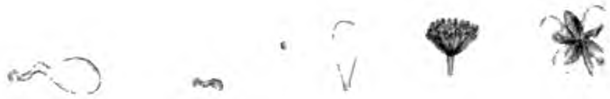
Helianthemum alpinum, folio Pilosellæ minoris Fuchsii. *Raii Syn.* 342.

H. serpilli folio incano, flore minore luteo, inodoro. *Dill. Elth. v.* 1. 177. *t.* 145. *f.* 173.

GROWS on rocks in Westmoreland and Lancashire, but rarely. We received it from Mr. Robson.

The roots are long, woody and perennial. Stems numerous, woody, branched and decumbent at the base, rising to the height of 3 or 4 inches, round, leafy, downy. Leaves opposite, on shortish downy foot-stalks, spreading, flat, entire, more or less elliptical, but very various in length; green above, clothed with depressed bristles; white and very hoary beneath. Stipulæ none. Flowers terminal, each on a long slender flower-stalk, forming a small racemus, drooping at first, erect at the time of expansion. Calyx hairy, with several brown ribs. Petals obovate, entire, slightly waved. Germen ovate, smooth, with 3 or 4 hairy lines. Style curved. The flowers appear in May and June.

From the multiplicity of synonyms above quoted, which we have ascertained from original specimens, it is evident how little this species has been understood. By what chance Dr. Berkenhout discovered it to be the *C. marifolius* of Linnæus, and was thus induced to go counter to the opinion of Hudson, we know not; but he certainly was right, though disregarded by later writers. It is no less surprising that Mr. Hudson should describe this plant as new, when every description and synonym of *C. marifolius* agrees with it. Linnæus in the 2d *Mantissa*, his last and least correct work, admitted Hudson's plant by the name of *anglicus*, and describes the flowers as white, which they very rarely are. Jacquin took the same plant for *C. canus* of Linnæus, a very different species.



98.

CISTUS guttatus.

Spotted-flowered Ciſtus.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* of 5 leaves, 2 of which are ſmaller than the reſt. *Petals* 5. *Capſ.* with 3 valves.

SPEC. CHAR. Herbaceous, without ſtipulæ. Leaves oppoſite, lanceolate, three-nerved. Bracteæ none.

SYN. Ciſtus guttatus. *Linn. Sp. Pl.* 741. *Hudſ.* 232. *With.* 491. *Curt. Lond. faſc.* 6. *t.* 33. *Dickſ. H. Sicc. faſc.* 9. 7.

C. flore pallido, punicante maculâ inſignito. *Raii Syn.* 342.

THIS ſhort-lived beauty has been obſerved in ſandy paſtures of Jerſey and the iſle of Man. Its petals are expanded to the earlieſt ſunbeams of the morning, but ſcarcely ſupport their influence for more than 4 or 5 hours, except under a miſty or autumnal ſky. Long before noon in general they fall off, and the calyx cloſes. Having no hopes of obtaining wild ſpecimens in a ſtate fit for drawing, we have been obliged, like Mr. Curtis, to have recourſe to a garden one, communicated by the Rev. Mr. Watts, F.L.S. of Aſhill, Norfolk, in whoſe choice collection many rare plants the moſt difficult of culture (which this indeed is not) grow and propagate themſelves in all their native luxuriance.

The root is annual. Stem upright, branched, ſquare. Whole herb clothed with ſlender, white, ſpreading, ſoft hairs. Leaves oppoſite, lanceolate, bluntiſh, entire, with one principal nerve, and two or more lateral ones. Cluſters terminal, ſimple, their ſlender partial flower-ſtalks generally without bracteæ, though ſometimes they are accompanied by lanceolate ones, ſmaller than the leaves. Calyx very hairy, and marked with blackiſh glandular dots. Petals wedge-ſhaped, unequally crenate, bright yellow, with an elegant purple ſpot near the baſe. Stamina ſhort. Stigma ſeſſile. Capſule ovate.

This herb flowers naturally about June and July. It is ſomewhat viſcid, and has a fragrant ſmell; but our ſpecimens are inferior in both theſe reſpects to thoſe produced in the warmer climates of Italy, Spain, and the ſouth of France.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99.

CISTUS ledifolius.

Ledum-leaved Cistus.

POLYANDRIA Monogynia.

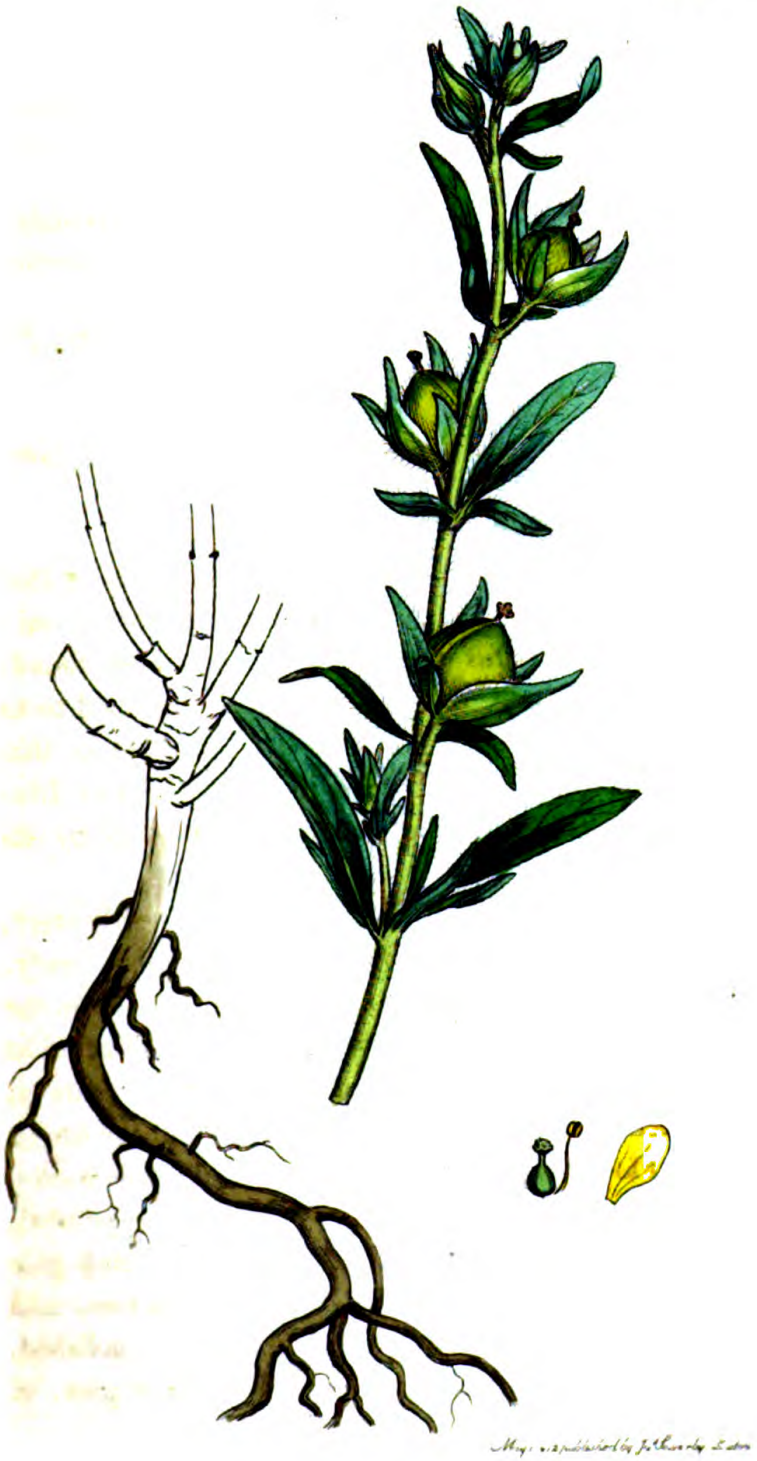
GEN. CHAR. *Cal.* of 5 leaves, 2 of which are smaller than the rest. *Petals* 5. *Caps.* superior, angular, with 3 valves and many *seeds*.

SPEC. CHAR. Herbaceous, downy, with stipulas. Leaves lanceolate. Flowerstalks erect, shorter than the calyx.

SYN. Cistus ledifolius. *Linn. Sp. Pl.* 742. *Sm. Fl. Brit.* 574. *Hull. ed.* 2. 159.
C. salicifolius. *Huds.* 233. *With.* 491.
C. annuus, et C. annuus longifolius Lobelii. *Ger. em.* 1280.

BRENT downs Somersetshire, or the sandy fields in that neighbourhood, commanding the Bristol channel, are the only situation where this *Cistus* is recorded to have been found. Mr. Dickson and the late Mr. Lightfoot communicated to us specimens, raised from seed gathered by themselves at that place, which determined the species to be *ledifolius* of Linnæus; not *salicifolius*, for which latter it was taken by its discoverer Mr. Hudson.

The root is annual, not much branched. Stem nearly erect, simple, or branched at the bottom, round, hairy, leafy. Leaves opposite in the lower part of the stem; alternate in the upper; nearly sessile, lanceolate, obtuse, entire, contracted at the base, clothed with soft short hairs. Stipulas in pairs at the base of each footstalk, lanceolate, acute, not half the length of the leaf. Flowers opposite to each of the alternate leaves, solitary, on short, firm, upright stalks. Calyx-leaves pointed, hairy, somewhat membranous, with strong ribs. Petals pale yellow, obovate, smaller than the calyx, very fugacious, and sometimes wanting. Capsule large, triangular, polished, crowned with the short permanent style and thick stigma, of one cell, with many seeds. The flowering time is June and July.



May 1. 1. 2 published by J. & W. Richardson Edinr.

CISTUS surrejanus.

Dotted-leaved Cistus.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* of 5 leaves, 2 of which are smaller than the rest. *Petals* 5. *Caps.* superior, angular, with 3 valves and many *seeds*.

SPEC. CHAR. Shrubby, procumbent, with pointed stipulæ. Leaves ovate-oblong, hairy and dotted beneath. Petals lanceolate. Stamens not longer than the germen.

SYN. Cistus surrejanus. *Linn. Sp. Pl.* 743. *Sm. Fl. Brit.* 575. *With.* 492. *Hull. ed.* 2. 160. *Hill. Fl. Brit. t.* 27. *f.* 1.

C. Helianthemum δ. *Huds.* 233.

Helianthemum vulgare, petalis florum perangustis. *Dill. in Raii Syn.* 341. *Hort. Elth.* 177. *t.* 145. *f.* 174.

MR. EDWARD DU BOIS discovered this curious species in the neighbourhood of Croydon, Surrey, in the time of Dillenius, who first made it known to the botanical world in his edition of Ray, and then in the *Hortus Elthamensis*. We know not where it is now to be met with wild, nor has it ever been noticed in other countries. Our specimen grew in Mr. Dickson's garden at Croydon, flowering in July.

Though the plant never varies in consequence of culture, some of the above circumstances might induce a suspicion of its being only a variety of *C. Helianthemum*, *t.* 1321; but the leaves are larger, more inclined to a lanceolate than an elliptical figure, paler but not at all hoary beneath. The under surface bears a few stellated hairs, and is besprinkled with little hollows, which on the upper side form prominences that often bear 2 or 3 simple, not stellated, bristles. Flowers numerous, in long, terminal, recurved, downy clusters; each flower erect when in perfection. Calyx with red ribs. Petals narrow, lanceolate, oblique, often toothed, acute, usually rather longer than the calyx. Stamens scarcely longer than the germen, not, as in *C. Helianthemum*, equal to the petals.

Otto Sowerby published by J. Sowerby London.

CISTUS Helianthemum.

Common Dwarf Cistus.

POLYANDRIA *Monogynia.*

Gen. Char. Cal. of 5 leaves, 2 of which are smaller than the rest. *Petals* 5. *Caps.* superior, angular, with 3 valves and many seeds.

Spec. Char. Shrubby, procumbent, with pointed stipules. Leaves elliptic-oblong, white and hairy beneath.

Syn. Cistus Helianthemum. *Linn. Sp. Pl.* 744. *Sm. Fl. Brit.* 773. *Hudson* 233. *With.* 492. *Hull.* 117. *Lin. Suppl.* 287. *Sole.* 167. *Abbot.* 117. *Curt. Lond.* fasc. 3. t. 56.

Helianthemum vulgare. *Ray Syn.* 341.

THIS elegant little shrub is a great ornament to broken banks, and hilly or rocky pastures, on a chalky, limestone, or even a gravelly soil, flowering copiously throughout July and August, and on its delicate transitory blossoms lasting but a day, and shuttering its petals early in the afternoon.

Several procumbent simple stems spring from one woody perennial root, and are leafy, round, and rough with short spreading hairs. Leaves opposite, on short stalks, elliptical, obtuse, entire, a little revolute; green, and clothed with simple hairs above; white, downy, and also hairy, beneath. Stipules lanceolate, acute, green, fringed. Flowers in loose terminal clusters, on hairy stalks, bright yellow, very rarely (as it is said) white. Calyx coloured, its ribs hairy. Petals rounded, obscurely crenate. The stamina exhibit a curious instance of irritability, first pointed out to me by my worthy friend Dr. Thomas Hope, now Chemical Professor at Edinburgh. When touched with a pin or bristle they retire from the style, and lie down in a spreading form upon the petals. This can be seen only in calm warm weather, and when the flowers have not been ruffled by insects.

June 1, 1804. Published by Vol. Curtis, London.

CISTUS TOMENTOSUS.

Downy Cistus.

PENTANDRIA Monogynia.

GEN. CHAR. Cal. of 5 leaves, 2 of which are smaller than the rest. *Petals* 5. *Caps.* superior, angular, with 5 valves and many seeds.

SPEC. CHAR. Shrubby, procumbent, with pointed stipules. Leaves elliptic-oblong, white, and downy with starry pubescence beneath.

SYN. CISTUS TOMENTOSUS. *Scop. Carn. ed.* 2. *v.* 1. 376. t. 18.

THIS Plant has been communicated several times to us and at times by Mr. G. Don from Scotland; and Mr. Dickson, who has likewise gathered it there, favoured us with a specimen from his garden last June. Every body contends that it is very different from *C. Helianthemum*, t. 1921, and indeed it proves to be Scopoli's *tomentosus*, of which we have an authentic specimen from that excellent botanist himself. Without such help no person could have settled this point, his figure being very bad, and his definition not so satisfactory as usual. Accordingly, no writer has taken up this plant of Scopoli, and we cannot but congratulate ourselves on being able to ascertain it.

Notwithstanding all the above, we are still at a loss for a decisive specific character, nor does Scopoli indicate any thing that holds good, even in his own specimen. The leaves, flower-stalks and calyx are usually much more hoary and downy than in *Helianthemum*, but cultivation impairs this. The dense white clothing of the backs of the leaves consists of starry pubescence, which is the case in that, though the rest of its pubescence is simple. The flowers are large and handsome, with crumpled golden petals. The leaves on the young axillary shoots are peculiarly round.

CISTUS polifolius.

White Mountain Cistus.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* of 5 leaves, 2 of which are smaller than the rest. *Petals* 5. *Caps.* superior, angular, with 3 valves and many *seeds.*

SPEC. CHAR. Shrubby, procumbent, with blunt stipulæ. Pubescence starry. Leaves oblong, revolute, white and downy beneath.

SYN. Cistus polifolius. *Linn. Sp. Pl.* 745. *Sm. Fl. Brit.* 576. *Huds.* 234. *With.* 492. *Hull.* 118.

Chamæcistus montanus, polii folio. *Raii Syn.* 342.

Helianthemum montanum, polii folio incano, flore candido. *Dill. Eith.* 175. *t.* 145. *f.* 172.

WILD specimens of this very rare plant have been obligingly sent us by the Rev. Aaron Neck, from Babbicombe near Newton Abbot, Devonshire. Its only British station hitherto recorded is on Brent Downs, Somersetshire. It is said to blossom in June and July.

In general habit this species is closely allied to the preceding, but differs in many essential points. The stems are hoary, with close-pressed hairs. The pubescence, loosely scattered over the upper surface of the leaves, and densely clothing the under, is as curiously radiated like little stars: a very important mark. The ribs of the calyx bear similar starry hairs. Mr Sowerby has observed the stipulæ to be more obtuse than in *C. ledifolium*. The petals moreover are white, with a yellowish claw, and generally more crenate than in that species. We have not examined this plant alive, so as to observe the peculiarity of the stamens, but should expect it to agree in that respect with the foregoing, to which it is so nearly akin.

June 1 1804 Published by Jas Sowerby London.

PÆONIA corallina.

Entire-leaved Pæony.

POLYANDRIA Digynia.

GEN. CHAR. *Cal.* of 5 leaves. *Petals* 5. *Styles* none. *Follicles* superior, with many seeds.

SPEC. CHAR. Leaves twice ternate; leaflets ovate, undivided, smooth. Seed-vessels downy, recurved.

SYN. Pæonia corallina. *Retz. Obs. fasc.* 3. 34. *Willden. Sp. Pl.* v. 2. 1221. *Donn. Cant.* 102.

P. officinalis β. *Linn. Sp. Pl.* 747. *Mill. Illustr. t.* 47.

P. mas. *Ger. em.* 980.

FOR the knowledge of this plant as a native of Britain we are indebted to Francis Bowcher Wright, Esq., who found it growing abundantly in the rocky clefts of the island called Steep Holmes in the Severn, in August 1803. From a root transplanted from thence our specimen was taken. The Pæony has probably grown there from time immemorial, as Mr. Wright met with two fishermen who could recollect having gathered its flowers 60 or 70 years ago.

The root is perennial, consisting of oblong fleshy knobs. Stems about 2 feet high, annual, simple, leafy, round, smooth, more or less red. Leaves twice ternate, smooth; the uppermost often ternate at the extremity only, with a pair of simple leaflets below, as in our specimen. Leaflets ovate, acute, mostly undivided, entire. Flowers terminal, solitary. Calyx of 5 concave irregular leaves. Petals 5, crimson, regular, roundish. Stamina red, with yellow antheræ. Germens mostly 3 or 4, ovate, white, downy, with recurved crimson stigmas. Fruit of 3 or 4 recurved swelling rusty follicles, pink and smooth within, their edges bearing many black shining perfect seeds, intermixed with numerous crimson abortive ones. It flowers in May or June.

The double Pæony of the gardens is the true *P. officinalis* of Linnæus.

Oct.r 1 1808. Pub.d by Jas. Sowerby London.

DELPHINIUM Consolida.

Field Larkspur.

POLYANDRIA Trigynia.

GEN. CHAR. *Cal.* none. *Petals* 5; the upper one spurred. *Nectary* cloven, with a posterior spur.

SPEC. CHAR. Capsule solitary. Nectary of one leaf. Stem subdivided.

SYN. Delphinium Consolida. *Linn. Sp. Pl.* 748. *Sm. F. Brit.* 577. *Huds.* 235. *With.* 494. *Hull.* 118. *Relh.* 209. *Abbot.* 118.

D. segetum, flore cæruleo. *Dill. in Raii Syn.* 273.

RAY, it seems, did not consider this plant, which is the "Branching Larkspur" of the gardens, as a native of Britain; but since the time of Dillenius it has been, without scruple, received as such. Indeed nothing can be more common, nor more undoubtedly wild, than it is in all the open chalky or sandy fields of Cambridgeshire, Suffolk, &c., flowering in July.

Root annual. Herbage finely downy. Stem upright, 2 or 3 feet high, much branched and spreading; the branches alternate, slender, straight, round and leafy. Leaves alternate, sessile, pale greyish green, divided into numerous, alternate, linear, very narrow segments. Flowers in long terminal clusters. Nectary of one leaf, slightly cloven, pale purple, as are also the backs of the petals, though their upper side is of a brilliant blue, varying occasionally to pale blue, pink, or white. Spur ascending, downy, about as long as the petals. Germen, and consequently the capsule, solitary.

Jan.1.1865. Published by Jas. Sowerby London

AQUILEGIA vulgaris.

Common Columbine.

POLYANDRIA Pentagynia.

Fl. Char. Gen. none. *Petals* 5. *Nectaries* 5, horn-shaped, alternate with the petals. *Capsules* 5, [illegible].

Spec. Char. Nectaries equal to the petals; their horns incurved. Leaves and stem smooth.

Syn. Aquilegia vulgaris. *Linn. Sp. Pl.* 752. *Huds. Fl. Ang.* 245. *With. Bot. Arr.* 562. *Relh. Cant.* 207. *Sole. Ic. Icon.* [illegible].

β. flore simplici. *Ray Syn.* 278.

COLUMBINES in a wild state are found in woods, thickets, and pastures in several parts of England. They are not rare in Derbyshire and Westmoreland. Mr. Wagstaffe of Norwich sent us a specimen from that neighbourhood, where, especially about the meadows at St. Faith's Newton, the plant grows [illegible] with flowering in June. From its frequency in gardens it sometimes occurs (of various forms and colours) [illegible] but is seldom permanent in such places.

The root is perennial. Stem not very leafy, branched, each branch bearing a solitary drooping flower. Leaves mostly radical, on very long foot-stalks, twice ternate, obtusely lobed, pale on beneath, smooth: those on the stem nearly sessile, and more simple, the uppermost consisting of 3 entire and acute leaves. Sometimes the stem bears only such. The stem is [illegible] and glaucous. Flowers purple, rarely rose-coloured. Capsules invested with a pointed lacerated membrane.

In mountainous situations what the plant loses in luxuriance it gains in neatness and elegance of foliage, and then the nectaries are sometimes found rather less curved. Hence Mr. Stackhouse thought he had discovered *A. alpina* in Westmoreland; but on seeing Dr. Smith's specimens of the true Alpine Columbine from Mount Cenis, he allowed it to be quite distinct from any thing he had observed of British growth. Our Flora therefore can properly boast but one species of this genus.

Jan.y 1, 1796 Published by J.t Sowerby London.

STRATIOTES aloides.

Water Aloe, or Water Soldier.

POLYANDRIA Hexagynia.

GEN. CHAR. *Spatha* of 2 leaves. *Inner Calyx* superior, in 3 segments. *Petals* 3. *Berry* with 6 cells.

SPEC. CHAR. Leaves sword-shaped, channelled, with a prominent rib, fringed with sharp prickles.

SYN. Stratiotes aloides. *Linn. Sp. Pl.* 754. *Hudf. Fl. An.* 236. *With. Bot. Arr.* 564. *Relh. Cant.* 207.

S. foliis Aloes, femine longo. *Raii Syn.* 290.

THIS elegant aquatic is scarcely found in any other part of England than Lincolnshire, Cambridgeshire and Norfolk, where it grows in the deep ditches of the fens, sometimes so copiously as to occupy the surface entirely, to the exclusion of all other plants. We received fresh specimens from Mr. William Skrimpshire at Wisbeach. It flowers in July.

The *Stratiotes* is a stoloniferous plant, and truly perennial, though each root flowers but once, as in some species of *Saxifraga*, *Sempervivum*, &c. The parent plant, rooted in the mud at the bottom of the ditch after flowering, sends out buds of leaves at the end of long runners, which rise to the surface, form roots, buoyant, and then sink to the bottom, where they take hold of the mud, sometimes ripen their seeds, and always become in their turn the parents of another race of young offsets. The leaves are all radical, forming a star-like tuft, as in the *Aloe* and *Sempervivum*. Their substance is rigid, brittle, vascular and pellucid; their teeth and points very sharp. Flower-stalks several, short, erect, somewhat compressed, smooth, each bearing one erect white flower, arising from a two-leaved sheath. The stamina are three, with awl-shaped antheræ. Germen above the sheath, but much below the calyx. Styles 6, cloven, rising a little above the stamina. Linnæus in his manuscripts quotes Bergen, Linn and Fabricius as having found the flowers dioicous, whereas he always observed them to be hermaphrodite. We have seen the stamina apparently imperfect in some flowers, and the styles in others. The genus is very near akin to *Hydrocharis*, and perhaps ought to be united with it.


374
March 1797 Published by J. Sowerby London.

ANEMONE Pulſatilla.

Paſque Flower.

POLYANDRIA Polygynia.

GEN. CHAR. *Calyx* none. *Petals* ſix or nine. *Seeds* many.

SPEC. CHAR. Flower ſolitary, with an involucrum on its ſtalk. Petals erect. Seeds with tails. Leaves bipinnate, cut.

SYN. Anemone Pulſatilla. *Linn. Sp. Pl.* 759. *Hudſ. Fl. An.* 236. *Relb. Cant.* 208. fig. *With. Bot. Arr.* 565.

Pulſatilla folio craſſiore & majore flore. *Raii Syn.* 260.

PLENTIFUL in high chalky paſtures in ſeveral parts of England, eſpecially about Newmarket heath; from whence our ſpecimen was taken. It is a plant of great beauty, and thrives well in a garden on a dry ſoil. The flowers appear early in May. The ſilvery plumes of the ſeeds which ſucceed them are likewiſe a beautiful object.

The herb is ſo acrid as to blifter the ſkin, like ſome ſpecies of Ranunculus; but ſuch blifters are far more difficult to heal than thoſe raiſed by Spaniſh flies. Goats eat it, as they do many other acrid vegetables.

The foreign ſpecies of Anemone are but ill underſtood, though our four Britiſh ones are ſufficiently diſtinguiſhable.

ANEMONE nemorosa.

Wood Anemone.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* none. *Petals* six or nine. *Seeds* many.

SPEC. CHAR. Seeds pointed, without tails. Leaflets lobed. Stem single-flowered.

SYN. Anemone nemorosa. *Linn. Sp. Pl.* 762. *Huds. Fl. An.* 256. *With. Bot. Arr.* 566. *Relh. Cant.* 209. *Sibth. Ox.* 170. *Curt. Lond. fasc.* 2. *t.* 38.

A. nemorum alba. *Raii Syn.* 259.

GROVES and thickets throughout England are plentifully decorated with this elegant plant in the month of May, and it forms one of the most pleasing ornaments of that favourite season. The blossoms expand only in fine weather, drooping and folding up their petals against rain. Goats and sheep are the only domestic animals that will eat the wood anemone. To the former its acrimony is pleasant and wholesome, as they peculiarly delight in vegetables of this order; to the latter, when not accustomed to such food, it occasions a bloody flux, according to Dr. Withering.

The root is oblong, black externally, a little fleshy. Stem from a terminal bud, solitary, simple and single-flowered. Leaves ternate, slightly hairy, paler beneath, the leaflets variously lobed and cut: radical ones on long foot-stalks: those on the stem 3 together, not far from the flower, on shorter dilated stalks. Flower on a downy flower-stalk, solitary, without calyx or bracteæ, unless the stem-leaves should be deemed so. Petals about 6, elliptical, veiny, often purplish at the back. Stamina much shorter than the corolla; sometimes changed into narrow petals as in the double Hepatica. Germens downy.

The leaves, and even petals, are sometimes sprinkled with a minute fungus, taken by Mr. Curtis for the work of some insect, but described by late authors under the generic name of *Erysiphe*. See Mr. Sowerby's English Fungi, *t.* 53.

Pubd. 1793 by Richard Pratt Covent Garden London

ANEMONE apennina.

Blue Mountain Anemone.

POLYANDRIA *Polygynia.*

Gen. Char. Cal. none. *Petals* 5—9, or more. *Seeds* several.

Spec. Char. Seeds pointed, without tails. Stalk single-flowered, furnished with a three-leaved, finished, leafy involucrum. Petals lanceolate, numerous.

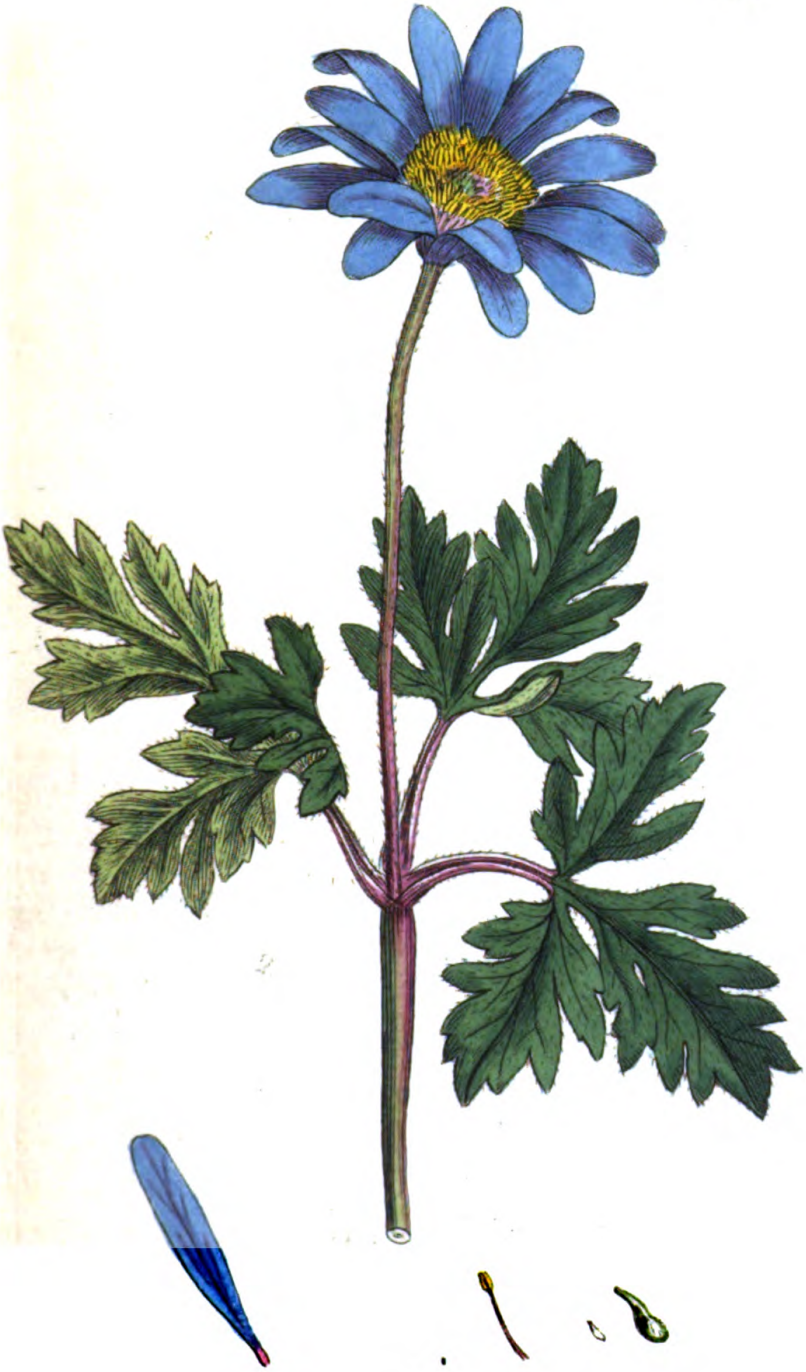
Syn. Anemone apennina. *Linn. Sp. Pl.* 762. *Sm. Fl. Brit.* 581. *Engl.* 237. *Willd.* 500. *Hull.* 120. *Lamar.* 113. *Curt. Lond. fasc.* 6. *t.* 35.

Ranunculus nemorosus, flore purpuro-cæruleo. *Dill. in Raii Syn.* 253.

THE place of our *Anemone nemorosa* is in all the groves of Italy supplied by this elegant species, which is not, as its name should imply, peculiar to the Apennine or any other mountains, but rather to sowland woods. We find therefore no difficulty in believing it really wild in those various spots, within a few miles of London, where botanists for a century past have remarked it. Our specimens grew at Wimbleton. It flowers in April, and is perennial.

The root is rather thicker than that of *A. nemorosa*, and the leaves, though variable in breadth, generally of a broader, more rounded and obtuse figure than in that species. Each leaf of the involucrum is subdivided into 3, not 5, leaflets. The flower is formed of about 12 or 16 narrow, lanceolate, blunt, recurved petals, of a rich sky-blue, hairy on their backs. Stamina pale yellow. We have never observed them to be changed into petals.

This pretty plant may easily be cultivated on a rather dry light and loamy soil, and merits a place among the spring flowers in our gardens.



Aug.1.1802.Published by Jas. Sowerby. London.

ANEMONE ranunculoides.

Yellow Wood Anemone.

POLYANDRIA Polygynia.

Gen. Char. Cal. none. *Petals* 5—9, or more. *Seeds* several.

Spec. Char. Seeds without tails. Stalk with one or two flowers, furnished with a three-leaved, nearly sessile, leafy involucrum. Petals five, elliptical.

Syn. Anemone ranunculoides. *Linn. Sp. Pl.* 762. *Sm. F. Brit.* 592. *Engl. 257.* *With.* 499. *Engl. Bot.* 1287. *Fl. Dan.* t. 740.

A. nemorosa lutea. *Ger. em.* 983.

Ranunculi quarta species lutea. *Fuchs. Hist.* 162.

No wonder that the old botanists scarcely knew whether to refer this plant to the genus of *Ranunculus* or to that of *Anemone*. The artificial distinctions of the science however, founded on the fructification, and generally confirmed by the habit, rightly understood, are in this instance, readily decide such questions.

Mr. Hudson first added this to the list of English plants, having observed it in Herefordshire and Kent, apparently wild. We have no reason to doubt the accuracy of his observation, but we venture to remark that the plant easily becomes naturalized in the undisturbed gardens or plantations. It is perennial, and flowers in the early spring. Ours is a garden specimen.

In habit it is very like to *A. nemorosa*, with which it agrees in the root, but the floral leaves are more sessile. There are often 2 flowers together. The petals are always yellow, and their natural number appears to be 5, rarely 6. The stem is smooth, the flower-stalk hairy.

Aug.st 1. 1808. Published by Sat. Curtis, Fenchurch Street London.

CLEMATIS Vitalba.

Traveller's Joy.

POLYANDRIA *Polygynia.*

Gen. Char. *Cal.* none. *Petals* 4 to 6. *Seeds* caudate. *Receptacle* a little round head.

Spec. Char. Leaves pinnate; leaflets heart-shaped; footstalks twining.

Syn. Clematis Vitalba. *Linn. Sp. Pl.* 766. *Hudf.* 238. *With. ger.* *Rail.* 209. *Sibth.* 170. *Curt. Lond.* *Fasc.* 4. *t.* 3.

C. [illegible] seu Arragene quibusdam. *Raii Syn.* 258.

PLENTIFUL about hedges and bushy places, but only in calcareous countries. It often covers the broken precipices of limestone rocks with a rich mantling tapestry, or hangs in festoons by the roadside, gratifying the traveller with its fragrant white bosoms, which are produced throughout the month of June, or longer, in great profusion. In the autumn and winter the silver plumes of its seeds afford a still more beautiful specimen.

The stems are long, perennial, intricate and branching, covered with opposite pinnated leaves, whose leaflets are heart-shaped, veiny, nearly smooth, entire or unequally serrated. Their long twining footstalks, which are permanent though the leaves all fall off, support the plant upon other shrubs. Panicles axillary, crowded, leafy, downy. Petals 4, leathery, downy on both sides. Seeds several, affixed to a small round knob, and each terminating in a long feathery awn.

THALICTRUM alpinum.

Alpine Meadow-rue.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* none. *Petals* 4 or 5. *Seeds* naked and beardless.

SPEC. CHAR. Stem perfectly simple and almost naked, terminated by a simple racemus.

SYN. Thalictrum alpinum. *Linn. Sp. Pl.* 767. *Hudf. Fl. Ang.* 238. *Wulf. Bot. Arr.* 569. *Lightf. Scot.* 286. t. 13. f. 1.

— minimum montanum atro-rubens, foliis splendentibus. *Ray Syn.* 204.

THIS truly alpine plant grows in wet black mould in the clefts of rocks, or on the spongy margins of little rills about the highest summits of the mountains of Wales and Scotland, but is a rare in such situations. As however we must have little hopes of procuring it fresh from thence, we have delineated it from a perfect garden specimen sent by J. A. Salisbury, Esq. which, being compared with wild ones, shows this species to be very little altered by culture. It is perennial, and flowers early in summer.

The root consists of a few simple fibres, and creeps just below the surface by horizontal runners. Radical leaves on long purplish footstalks, first ternate, then either again ternate or pinnate; the leaflets roundish or wedge-shaped, varying much in breadth, with several blunt notches or lobes, of a strong green above, glaucous beneath, often purplish, smooth, thick, a little revolute. Stem simple, erect, round, about twice as long as the leaves, glaucous or purplish, smooth, with one leaf more or less compound) about the middle. The racemus or spike (though the former term is rather more proper than the latter, as the lowermost flowers remain in perfection till all the rest are expanded) is very simple, at first drooping, then erect, of 8 or 10 alternate flowers, each on a slender footstalk, subtended by a simple bractea, of which some of the lowermost approach to the texture and colour of the leaves, the rest being membranous. Petals 4, acute, white or purple. Stamina about 8 or 10, capillary, often purplish, with oblong versatile anthers. Germens 2 or 4, roundish, green, each with a whitish, lanceolate, divaricated, downy style. From this description it appears we have found a smaller number of stamina and styles, in several specimens that have come under our examination, than Linnæus describes in *Sp. Pl.*

THALICTRUM minus.

Lesser Meadow-rue.

HEXANDRIA Polygynia.

Gen. Char. Cal. none. *Petals* four or five. *Seeds* naked and nearlieis.

Spec. Char. Leaves in six divisions. Flowers nodding.

Syn. Thalictrum minus. *Linn. Sp. Pl.* 769. *Hudf. F. Ang.* 238. *With. Bot. Arr.* 569. *Relh. Cantab.* 222. *Raii Syn.* 203.

A NATIVE of chalky and lime-stone soils in various parts of England, but being only found in such, it is by no means a common plant.

The specific character of this species, as given by Linnæus, is not a clear one; for it appears he meant that the leaves are [illegible] in a double order, which is generally near the truth; but we have understood it that the *folioles* are in a [illegible] which can never be the case, unless by accident, as they have a central one, and consequently an odd number of divisions.

The white tip of the leaves, and a bluish bloom on the stem, are [illegible] by Linnæus as characteristics of this plant; and he also mentions it as flowering rather early. With us it is usually seen in flower before July.

J. Sowerby del. Mar. 1 1791

THALICTRUM majus.

Greater Meadow-rue.

POLYANDRIA *Polygynia.*

Gen. Char. Cal. none. *Petals* 4 or 5. *Seeds* bearded.

Spec. Char. Leaves triply pinnate; leaflets lobed. Branches of the panicle clustered, somewhat umbelled. Flowers drooping.

Syn. Thalictrum majus. *Jacq. Austr. t.* 420. *Linn. Syst. Veg. ed. 14.* 723. *With.* 502.

WE are indebted to Mr. Robson for wild specimens of this new British native, discovered by himself on a bushy hill at Bowness near Darlington, and also on the margin of Ullswater, Cumberland. It is perennial, flowering in June and July. From a comparison with Jacquin's figure and description, there appears to be no doubt of its being the plant he intends. Linnæus seems not to have known it. The figure of Dodoens, p. 38. f. 2. referred to *Ger. em.* 1251. *f.* 1. bears a much greater resemblance to this species than to the T. *flavum* to which it is quoted.

T. *majus* is nearly related to the *minus*, but twice or thrice as large. The leaves are broader and more lobed, of a dark green above, glaucous beneath. Stem purplish, panicled, the flowering branches growing two or three together, the partial flower-stalks generally umbellate. Flowers drooping, with four purplish-green petals. Stamina capillary, with long yellow anthers. Germens furrowed, with sessile, downy, somewhat arrow-shaped stigmas.

[illegible] flavum.

Common Meadow-rue.

Polygamia. Dioecia.

Lect. [illegible]. Leaves [illegible]. Petals 4 or 5. Seeds naked and sessile.

Lect. [illegible]. Stem furrowed, leafy. Panicle much branched, erect.

1. *Thalictrum flavum.* Linn. Sp. Pl. 770. *Huds. Fl. Ang.* 234. *With. Bot. Arr.* [illegible] 378. *Relh. Cant.* [illegible] *Lightf. Scot.* 285.

T. flavum. *Jacq. Fl. Austr.* v. 5. t. 482.

T. vel Thalictrum majus. *Ger. Herb.* 1098. *Ger. em.* [illegible]

T. flavum is wet meadows, and on the banks of rivers [illegible] flowering in June.

It is yellow, perennial. Stem 4 or 5 feet high, upright, [illegible] slightly furrowed as to be almost angular, [illegible]. Leaves alternate, twice compounded in a [illegible] on common footstalk with a short sheathing base, [illegible] numerous stipules; leaflets either un- [illegible] entire, varying much in breadth and [illegible] generally nerved. Panicle terminal, erect, [illegible] composed of many yellowish-white [illegible] with yellow anthers. Petals 4. Germens sessile, [illegible] furrowed. Styles none. Stigmas oblique, heart-shaped, [illegible]

We have examined our specimens with original ones of [illegible] from himself, and find no specific difference.

The narrow-leaved variety mentioned by Lightfoot and [illegible] *Fl. B.* set. 9. t. 90. *f.* 3, is neither rare [illegible] It is still distinct enough from T. *angustifolium* of [illegible], which is Morison's fig. 8 of the same plate.

Meadow-rue is so called from a certain vague resemblance [illegible] to which it has no other affinity. Though [illegible] it is eaten by cattle. A cataplasm made of the [illegible]

Jan. 1. 1799. Published by J. Sowerby London.

ADONIS autumnalis.

Corn Adonis, or Pheasant's-eye.

POLYANDRIA Polygynia.

Gen. Char. *Cal.* 5-leaved. *Petals* 5 or more, without a nectary. *Seeds* naked.

Spec. Char. Petals about eight, obcordate, concave. Fruit ovate.

Syn. Adonis autumnalis. *Linn. Sp. Pl.* 771. *Hudf. Fl. Ang.* 239. *With. Bot. Arr.* 570. *Sibth. Ox.* 171. *Curt. Lond. Fasc.* 3. t. 37.

Flos Adonis. *Ray Syn.* 251.

FOR a wild specimen of this elegant plant we are obliged to Miss Lyons, who gathered it in Gloucestershire in October last. It grows, though rarely, in corn-fields. Mrs. Plestow, of Walsingham, in Norfolk, observed it near Denver sluice in that county.

Root small, annual. Stem much branched, upright, leafy, round, hairy. Leaves alternate, thrice compound, the segments linear, alternate, acute. Flowers solitary, terminating the branches, numerous, of a beautiful polished crimson, each petal marked with deep purple at the base, and the stamina, anthers and styles being of the same dark colour, give a great brightness to the red part. Calyx pale green, somewhat membranous, soon falling off. Petals about 8, rarely more, often fewer, for Linnæus in a manuscript note in his own *Species Plantarum* confesses he took the character there from a luxuriant flower. This species is however distinct enough from the true-flowered *A. æstivalis* of the south of Europe, with which Miller in his description, No. 1158, seems to confound it, as Linnæus formerly did. In that the petals are obovate and narrow, the fruit long and cylindrical; in ours the petals are inversely heart-shaped, concave, the fruit rather ovate, and not half so long. It is certainly an error in Linnæus to call the fruit of *A. æstivalis* ovate, and this subcylindrical. The contrary is rather the case; at least the former is truly cylindrical, and very long and slender compared with ours.

March 1st 1796 Published by J. Sowerby London

RANUNCULUS Flammula.

Lesser Spear-wort.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, with a honey-bearing pore on the inside of the claw of each. *Seeds* naked.

SPEC. CHAR. Leaves ovato-lanceolate, on foot-stalks. Stem declining.

SYN. Ranunculus Flammula. *Linn. Sp. Pl.* 772. *Engl. Fl. Ar.* 239. *Withr. Bot. Arr.* 571. *ed.* 3, 522. *Raii. Cant.* 211. *Sibth. Ox.* 171. *Curt. Lond. fasc.* 6. t.

R. flammeus minor. *Raii. Syn.* 250.

THIS grows very frequently in watery places in a black spungy soil, flowering throughout the summer.

The long fibrous perennial roots run deep into the ground, producing numerous round branched leafy smooth hollow stems spreading in every direction, and sometimes prostrate. Leaves on channelled footstalks, lanceolate, acute, many-ribbed, various in size, smooth, partly entire and partly serrated more or less strongly, in which respect they are very variable. Flowers on long round flower-stalks, terminating the stem and branches, of a bright gold-colour. Calyx reflexed, often slightly hairy. Honey-pore in the claw of the petals very small. Seeds smooth.

At page 100 of this work, *Vol.* 2, we have figured and described the more uncommon R. *Lingua*, which is nearly allied to that now described, differing only in its greater size, erect stem, and more sessile leaves. We believe them however to be truly distinct, though we cannot say the same of R. *reptans*, which appears to be a small creeping variety of R. *Flammula*. Dr. Withering in his 3d edition recommends the distilled water of this plant as preferable to any other medicine for procuring instantaneous vomiting in cases of poison. Every part of the herb is highly acrid, and blisters the skin.

119.

RANUNCULUS Lingua.

Great Spear-wort.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* five-leaved. *Petals* five, with a honey-bearing pore on the inſide of the claw of each. *Seeds* naked.

SPEC. CHAR. Leaves lanceolate. Stem erect.

SYN. Ranunculus Lingua. *Linn. Sp. Pl.* 773. *Hudſ. Fl. An.* 240. *With. Bot. Arr.* 572. *Relh. Cant.* 211.
R. flammeus major. *Raii Syn.* 250.

THIS has always been reckoned a very rare ſpecies of Ranunculus, yet it appears to belong to various parts of England. Mr. Robſon ſent this ſpecimen from near Darlington. Dr. Smith has obſerved it in ſeveral parts of Norfolk. It generally grows in muddy ditches, flowering in July, and the root is perennial.

The ſpecies is very nearly allied to R. Flammula, and like that varies with entire or ſerrated leaves; but all its parts are vaſtly larger, its ſtem erect, its leaves more ſharply pointed, and more ſeſſile. The hairineſs, which is but ſlight, is, as Linnæus obſerves, ſhort and cloſe preſſed to the leaves and ſtem: this laſt mark indeed does not diſtinguiſh it from R. Flammula. The flowers are of a bright golden colour, very conſpicuous.

Linnæus has called this ſpecies *Lingua*, becauſe Dalechampius gueſſed it to be the Lingua of Pliny; but ſuch conjectures are generally too ill founded to be depended upon, and ignorance is preferable to vague and ſuperficial information.

The herb is acrid like moſt of its tribe.

RANUNCULUS gramineus.

Grassy Crowfoot.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, with a honey-bearing pore on the inside of the claw of each. *Seeds* naked.

SPEC. CHAR. Leaves linear-lanceolate, many-ribbed, sessile. Stem erect, very smooth, with few flowers.

SYN. Ranunculus gramineus. *Linn. Sp. Pl.* 773. *Sm. Fl. Brit.* 588. *With.* 505. *Hull. ed.* 2. 164. R. angustifolius bulbosus. *Bauh. Hist. v.* 3. 850.

DR. WITHERING mentions this plant as having been brought from North Wales by a Mr. Pritchard, on which authority it is now admitted into the British *Flora*. We have seen no native specimen, that in our plate being taken from the garden of Messrs. Lee and Kennedy, in May last. Its natural situation is in dry mountain pastures.

The root is bulbous or rather tuberous, perennial, throwing out its fibres in a whorled or radiating form, and crowned with the thready remains of old leaves. Stem upright, a foot high, round, smooth, bearing but a small number of flowers, and very few leaves. The leaves are mostly radical, with sheathing stalks; those on the stem sessile; all lanceolate, entire, glaucous, with many ribs. Flowers terminal, large, of a bright full yellow. Calyx quite smooth, spreading, not deflexed.

2300

Pl 11 published by Jos. Sowerby London

RANUNCULUS Ficaria.
Pile-wort.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5 or 8, with a honey-bearing pore on the inside of the claw of each. *Seeds* naked.

SPEC. CHAR. Leaves heart-shaped, angular, on foot-stalks. Petals numerous.

SYN. Ranunculus Ficaria. *Linn. Sp. Pl.* 774. *With.* 503. *Relh.* 211. *Sibth.* 172. *Abbot.* 121. *Curt. Lond. fasc.* 2. *t.* 39. *Mart. Fl. Rust. t.* 21.
Ficaria verna. *Hudf.* 244.
Chelidonium minus. *Raii Syn.* 246.

IN the spring of the year almost every grove, thicket, and dry hedge-bottom is enamelled with the glossy golden flowers of the Pilewort, the petals of which appear actually varnished. When they have been a few days exposed to a bright sun they become white, and then soon fall off.

The root is perennial, fibrous, accompanied by numerous fleshy pear-shaped knobs, which are renewed every year as in the Orchis tribe. Herb smooth, shining, rather succulent and brittle. Stems several, erect, a few inches high, leafy, single-flowered. Leaves on long stalks, heart-shaped, angular. Flowers erect, on long stalks, inodorous. Calyx more generally of three leaves than of five, but it is not constant to either number. Petals 8 or 10, lanceolate.

The pore in the petals so strikingly marks the very natural genus of Ranunculus, that Mr. Hudson has not been followed in separating this from the rest and calling it *Ficaria verna*. Yet his reasons seem plausible, the 3-leaved calyx and the 8 petals, and might be assented to if the former did not vary to 5, and the latter to 10, which last is merely a doubling of the proper number in other species. It may be said, that *Tormentilla* is separated from *Potentilla* on equally slight grounds. Perhaps it may. No science is brought to perfection at once, nor can art keep pace with the intricacies of nature. Those genera however have no striking peculiar character in common like the pore of the *Ranunculus*.

RANUNCULUS auricomus.

Wood Crowfoot.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* five-leaved. *Petals* 5, with a honey-bearing pore on the inside of the claw of each. *Seeds* naked.

SPEC. CHAR. Radical leaves kidney-shaped, three-cleft, crenate; stem-leaves divided to the base into linear segments. Stem many-flowered. Calyx coloured.

SYN. Ranunculus auricomus. *Linn. Sp. Pl.* 775. *Hudſ.* 242. *With.* 505. *Hull.* 121. *Relh.* 212. *Sibth.* 172. *Abbot.* 121. *Curt. Lond. faſc.* 2. *t.* 41.

R. nemoroſus dulcis, ſecundus Tragi. *Raii Syn.* 248.

A NATIVE of dry woods and ſhady places, but not ſo general as moſt other ſpecies of Crowfoot, flowering in April and May.

Root fibrous, perennial. Stems about a foot high, upright, branched, leafy, round, often ſlightly downy in the upper part. Leaves generally inclined to be downy; the radical ones on long footſtalks, kidney-ſhaped, moſtly three-cleft, deeply notched, ſometimes five-cleft; thoſe on the ſtem ſeſſile, divided to the baſe into many linear lobes, which are ſeldom ſubdivided or cut. Flowers terminal, erect, ſolitary, of a bright golden hue. Calyx pale yellow, hairy, ſcarcely at all reflexed. Nectary a naked pore, not cloſed by any ſcale.

In cold backward ſeaſons the real petals are ſometimes wanting, the calyx being dilated and more coloured than uſual, ſo as to ſupply their place.

This ſpecies has been called Goldilocks, and Sweet Wood Crowfoot; the epithet *ſweet* being intended to expreſs, that it has more of the acrid or cauſtic flavour uſual in the genus *Ranunculus*.

RANUNCULUS ſceleratus,

Celery-leaved Crowfoot.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, with a honey-bearing pore on the inſide of the claw of each. *Seeds* naked.

SPEC. CHAR. Lower leaves palmate; uppermoſt fingered. Fruit oblong.

SYN. Ranunculus ſceleratus. *Linn. Sp. Pl.* 776. *Sm. Fl. Brit.* 590. *Huds.* 241. *With.* 505. *Hull.* 121. *Relh.* 212. *Sibth.* 173. *Abbot.* 121. *Curt. Lond. faſc.* 2. *t.* 42.

R. paluſtris. *Raii Syn.* 249.

COMMON in watery places, where it may be found in flower and ſeed from June to the end of Auguſt, few plants propagating their ſpecies more copiouſly.

Root annual, fibrous. Herb various in ſize and luxuriance, of a pale ſhining green colour, juicy, and very ſmooth, except the flower-ſtalks and upper part of the ſtem, which are occaſionally hairy. Stem round, hollow, thick, branched, leafy. Lower leaves on long foot-ſtalks, lobed and cut, but leſs deeply than the upper ones, which are divided to the very baſe, and ſeſſile, their ſegments linear and entire. Flowers numerous, ſmall, of a paliſh yellow. Calyx deflexed, ſhaggy. Honey-pore ſomewhat tubular. Fruit cylindrical, obtuſe, ſhort, compoſed of a multitude of ſmall ſeeds.

One of the moſt virulent of all our native plants. If bruiſed and applied to the ſkin it ſoon raiſes a bliſter, and makes a ſore by no means eaſy to heal. Strolling beggars have been ſaid to uſe it for that purpoſe in order to excite compaſſion. A more innocent way of raiſing money than many practiſed, on a larger ſcale, by their ſuperiors, inaſmuch as the encouragement of public virtues (however miſapplied) is ſurely better than that of public vices.

RANUNCULUS alpestris.

Alpine White Crowfoot.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, with a honey-bearing pore on the inside of the claw of each. *Seeds* naked.

SPEC. CHAR. Leaves very smooth; radical ones somewhat heartshaped, obtuse, in three deep, lobed segments; stem-leaf lanceolate, entire. Stem mostly single-flowered.

SYN. Ranunculus alpestris. *Linn. Sp. Pl.* 778. *Sm. Tr. of Linn. Soc.* v. 10. 343. *Ait. Hort. Kew.* ed. 2. v. 3. 356. *Jacq. Austr.* v. 2. 7. *t.* 110.

R. montanus, flore minore, et flore majore. *Ger. em.* 964.

GATHERED by Mr. G. Don by the sides of little rills, and in other moist places, about two or three rocks on the mountain of Clova, Angusshire, flowering in the spring. Jacquin mentions it as extremely frequent on the highest summits of the Austrian alps, blooming after the melting of the snow. Mr. Don informs us that it rarely produces flowers where he observed it, and that the plant itself is not plentiful, being, moreover, so like in foliage to many of its kindred, as to be easily overlooked.

The roots are perennial, with long fibres. Whole herb very smooth. Stem from one to four or five inches high, almost always simple, naked, except one or two simple, linear-lanceolate, obtuse leaves. Radical leaves several, on longish channelled stalks, deeply divided into three principal lobes, which are again deeply lobed and cut, elegantly veined. Flower almost always solitary, of a brilliant white. Calyx-leaves oval, smooth, bordered with white.—Haller speaks of this as one of the most acrid of its tribe, raising blisters on the skin; yet he adds that the alpine hunters chew it by way of refreshment.


Mar. 1. 1815 published by Jos. Lowry London.

v

125.

RANUNCULUS bulbosus.

Bulbous Crowfoot. Butter-cups.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, with a honey-bearing pore on the inside of the claw of each. *Seeds* naked.

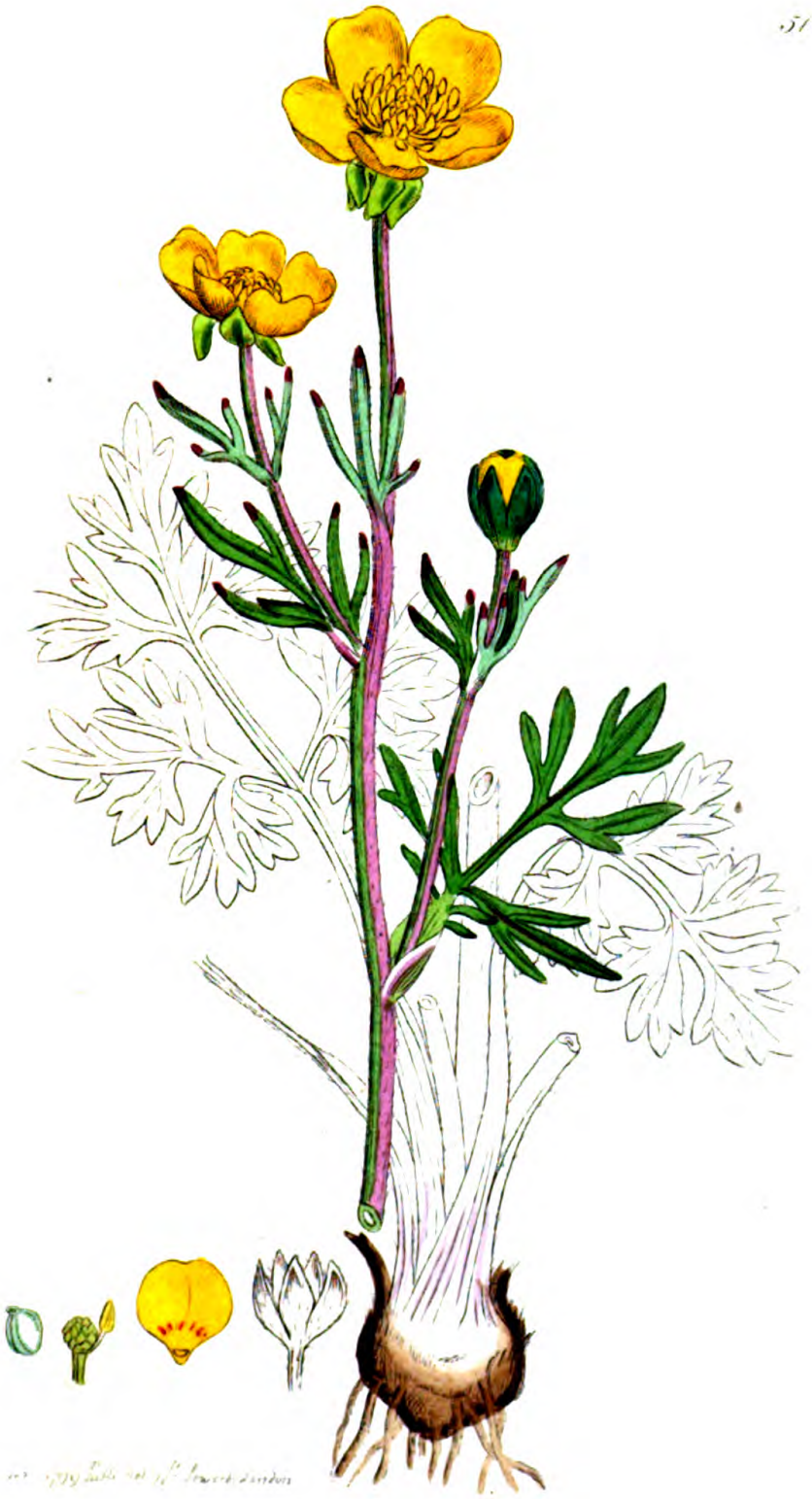
SPEC. CHAR. Calyx reflexed. Flower-stalks furrowed. Stem upright, many-flowered. Leaves compound.

SYN. Ranunculus bulbosus. *Linn. Sp. Pl.* 778. *Hudſ.* 241. *With.* 508. *Relh.* 213. *Sibth.* 173. *Curt. Lond. faſc.* 1. *t.* 38. *Mart. Fl. Ruſt. t.* 28. *Raii Syn.* 247.

COMMON in every paſture and graſs-plat, flowering in May, when the meadows are enamelled with its ſhining yellow bloſſoms in the greateſt profuſion.

Root perennial, a ſolid roundiſh bulb, throwing out ſeveral long fibres from its under ſide, but it ſcarcely appears to produce any offsets; the bulb for the next year is formed on the top of the old one. Stems one or more, erect, a foot high, branched above, but never producing runners below, round, hairy, hollow, leafy. Leaves on dilated hairy foot-ſtalks, hairy, compound, three-cleft and cut. Each branch of the ſtem ends in a ſimple, ſingle-flowered, upright, furrowed flower-ſtalk. The calyx-leaves are ovate, concave, hairy, thin at their baſe, reflexed ſoon after they expand. Petals roundiſh, emarginate, concave, of a full varniſhed yellow; the ſcale which covers the nectary inverſely heart-ſhaped. Germens ſmall, compreſſed. It propagates itſelf copiouſly by ſeed, but is of ſlow growth and long duration. The flowers are rarely double.

The whole plant is acrid; and not a good food, if eaten at all unmixed by cattle; but as Nature does nothing in vain, and has abundant reſources, it is not improbable that ſuch plants, mixed with leſs pungent herbage, may act as a uſeful ſtimulus to theſe animals, as ſalt does to others.



126.

RANUNCULUS hirsutus.

Pale Hairy Crowfoot.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, with a honey-bearing pore on the inside of the claw of each. *Seeds* naked.

SPEC. CHAR. Calyx reflexed, pointed. Stem erect, many-flowered, hairy. Leaves ternate. Root fibrous. Seeds tuberculated.

SYN. Ranunculus hirsutus. *Curt. Lond. fasc.* 2. *t.* 40. *Sm. Fl. Brit.* 592. *With.* 508. *Hull.* 122. *Relh.* 215. *Sibth.* 173. *Abbot.* 122.

R. bulbosus β. *Huds.* 241.

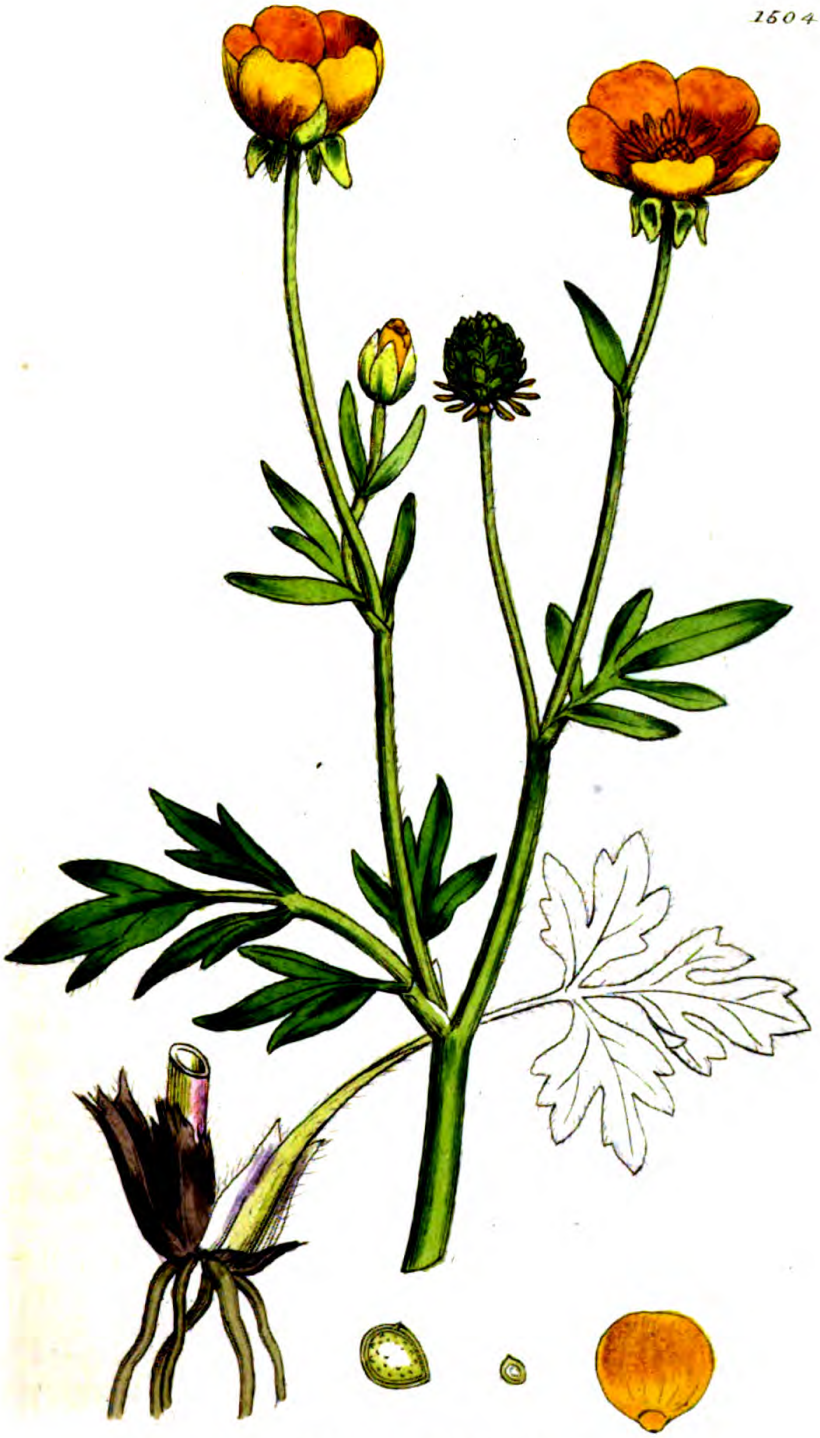
R. Philonotis. *Ehrh. Herb. n.* 116.

R. rectus, foliis pallidioribus hirsutis. *Raii Syn.* 247.

β. R. parvulus. *Linn. Mant.* 79. *Sm. Fl. Brit.* 593.

VERY frequent in waste or cultivated ground that is rather moist, where it may be found in flower from June to October. In the low tracts about London it is often abundant.

Root fibrous, annual. Stems one or more, upright, various in height, more or less branched, leafy, round, hollow, rough with spreading rigid hairs. Leaves ternate, hairy, pale, cut; the segments of the upper ones often linear. Flower-stalks hairy, furrowed. Calyx pointed, at length bent back to the stalk, rough with glandular hairs. Petals of a full shining yellow. Nectary covered with a scale. Seeds compressed, margined, rough on both sides with small irregular prominent sharp tubercles, which Mr. Curtis, with all his care in distinguishing this species, has not noticed, nor did we observe them till Mr. Edward Forster pointed them out. The discovery is the more important, as it proves the *R. parvulus* to be only a starved variety of this plant; which Mr. Forster has also found near London, exactly agreeing with our original specimens from Professor Gouan and Mr. Dyer.



Sept. 1. 1806. Published by Jas Sowerby London.

i

127.

RANUNCULUS repens.

Creeping Crowfoot.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, with a honey-bearing pore on the inside of the claw of each. *Seeds* naked.

SPEC. CHAR. Calyx spreading. Flower-stalks furrowed. Scyons creeping. Leaves compound.

SYN. Ranunculus repens. *Linn. Sp. Pl.* 779. *Hudſ.* 240. *With.* 509. *Relh.* 214. *Sibth.* 173. *Curt. Lond. faſc.* 4. *t.* 38. *Mart. Fl. Ruſt. t.* 29.

R. pratenſis repens. *Raii Syn.* 247.

FREQUENT in meadows, moiſt paſtures, and eſpecially in ſhady waſte places, flowering in June, July and Auguſt. The fibrous root, and long creeping runners, eaſily diſtinguiſh this Crowfoot from the laſt, of which it is wonderful that any botaniſt ſhould have thought it a variety. The flowering-ſtems are erect, branched and leafy. Leaves rather broader, and more diſtinctly twice ternate than thoſe of the *bulboſus*; they are alſo darker, and often marked with a black ſpot. The calyx-leaves are ſpreading, not reflexed. In other reſpects theſe two ſpecies very much agree, and their qualities are ſimilar. Both bliſter the ſkin, and are very acrid in taſte. R. repens, though generally hairy, is ſometimes found ſmooth, particularly on the north ſides of church-yards, and ſuch dank ſhady places.


Jan.y 1799. Published by J.t Sowerby London.

128.

RANUNCULUS acris.

Upright Meadow Crowfoot.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, with a honey-bearing pore on the inſide of the claw of each. *Seeds* naked.

SPEC. CHAR. Calyx ſpreading. Flower-ſtalks round and even. Leaves in three diviſions, with many ſegments; the upper ones linear.

SYN. Ranunculus acris. *Linn. Sp. Pl.* 779. *Hudſ.* 241. *With.* 506. *Hull.* 121. *Relh.* 214. *Sibth.* 174. *Abbot.* 122. *Curt. Lond. faſc.* 1. *t.* 39. *Mart. Fl. Ruſt. t.* 30. *Woodv. Suppl. t.* 246.
R. pratenſis erectus acris. *Raii Syn.* 248.

COMMON in meadows and paſtures. Frequent with double flowers in gardens. It is perennial, and flowers in June or July.

Root tuberous, with many long ſimple fibres. Stem upright, two feet high, round, clothed with cloſe-preſſed briſtles, branched above. Radical leaves on long upright hairy foot-ſtalks, in three or five deep diviſions, which are variouſly lobed and cut: ſtem-leaves nearly ſeſſile, and leſs cut; the uppermoſt in three entire linear lobes. Flower-ſtalks round and even, not furrowed, clothed with cloſe hairs. Calyx hairy, ſpreading, not reflexed. Petals of a ſhining yellow, the nectary covered with a notched ſcale.

This cannot be confounded with any other wild crowfoot. The ſcale of the nectary at once diſtinguiſhes it from *R. auricomus*; the ſpreading calyx from *bulboſus* and *hirſutus*; the round flower-ſtalks from both thoſe and *repens*; while the ſmooth ſeeds prevent our miſtaking it for any ſpecies that has rough or muricated ones.

The name expreſſes its acrid qualities. It is generally ſuppoſed to be an uſeleſs weed. We have already hinted, p. 515, that ſuch plants may not be altogether ſo, when duly combined with more inſipid ones.

RANUNCULUS arvensis.

Corn Crowfoot.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* five-leaved. *Petals* 5, with a honey-bearing pore on the inside of the claw of each. *Seeds* naked.

SPEC. CHAR. Seeds rough on the sides, with prominent points. Leaves once or twice three-cleft, in linear segments.

SYN. Ranunculus arvensis. *Linn. Sp. Pl.* 780. *Hudf. Fl. An.* 242. *With. Bot. Arr.* 576. *Relb. Cant.* 215. *Brugnon Mem. de l'Acad. de Turin, vol.* 4. 109. *tab.* 3.

R. arvorum. *Raii Syn.* 248.

THIS species of crowfoot occurs in corn-fields not unfrequently, flowering in June. The root is annual and fibrous. Stem erect, very much branched, slightly hairy, as are the leaves. Every part has a pale appearance, and the flowers are small. The seeds are remarkably armed on the sides with strong prominent spines, larger towards the margin, and projecting much more than those of R. parviflorus (t. 120), though sometimes like them terminating in a minute hook.

Few plants possess more acrimony than this. M. Brugnon, in the place above quoted, relates its poisonous effects on sheep, who nevertheless eat it greedily, as do cows and horses. It occasions colic, gangrene of the stomach, and death in a few hours. Three ounces of the juice killed a dog in four minutes. M. Brugnon thinks vinegar the best antidote. Happily this plant generally grows with us where it is not accessible to cattle of any kind: but the husbandman would do well to guard against it in fallow fields, and pastures in the neighbourhood of corn-land.

RANUNCULUS parviflorus.

Small-flowered Crow-foot.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* five-leaved. *Petals* five, with a honey-bearing pore on the inside of the claw of each. *Seeds* naked.

SPEC. CHAR. Seeds rough on the sides, with hooked tubercles. Leaves simple, hairy, jagged, their segments acute. Stem prostrate.

SYN: Ranunculus parviflorus. *Linn. Sp. Pl.* 780. *Hudſ. Fl. An.* 242. *With. Bot. Arr.* 577. *Relh. Cant.* 215.

R. hirſutus annuus flore minimo. *Raii Syn.* 248. *t.* 12. *f.* 1.

GATHERED about Lee-Bridge, near Walthamſtow, by Mr. B. M. Forſter, in May laſt. It is an annual of very humble growth, occurring ſometimes in dry gravelly places, but not frequently; nor does it obtrude itſelf on the notice of the paſſenger by any ſhewy bloſſoms, or elegance of form or colour.

The fibrous root throws out many proſtrate ſpreading branched ſtems, which are round, hollow, leafy, and clothed like the leaves with long, ſpreading, ſoft hairs. The footſtalks are rather long, and dilated at their baſe into a pair of membranous ſtipulæ; lower leaves ſlightly lobed, upper ones deeply ſo, and all crenate; but the trailing branches often produce, towards their extremities, ſimple lanceolate entire leaves. The flower-ſtalks ſtand ſolitary, oppoſite to the leaves, each bearing a very ſmall yellow flower, whoſe petals are ſo minute and fugacious, poſſibly ſo imperfect, they can rarely be ſeen in their proper form and number. This ſpecies is characterized very clearly by its compreſſed ſeeds, whoſe ſides are rough with thick-ſet tubercles, each of which ends in a hooked point. Theſe ſeeds ripen in June and July.

RANUNCULUS hederaceus.

Ivy Crowfoot.

POLYANDRIA Polygynia.

Gen. Char. Cal. 5-leaved. *Petals* 5, with a honey-bearing pore on the inside of the claw of each. Seeds naked.

Spec. Char. Leaves roundish-kidneyshaped, with three or five lobes, entire, smooth. Stem creeping.

Syn. Ranunculus hederaceus. *Linn. Sp. Pl.* 781. *Sw. Fl. Brit.* 595. *Huds.* 243. *With.* 507. *Hull. Syn. Relh.* 217. *Smith.* 175. *Abbot.* 123. *Curt. Lond. fasc.* 4. *t.* 39.

R. aquatilis hederaceus albus. *Raii Syn.* 249.

SHALLOW rivulets, and inundated places, often produce this little plant, yet it is not one most generally noticed, either in this country or other parts of Europe. We find it in Hyde park and Tothil fields, flowering from June to September.

The roots are perennial. The floating, branched, spreading stems throw out many fibrous radicles as they go, and bear numerous, opposite or alternate, long-stalked leaves, of a roundish kidney-shape, with 3 or 5 shallow lobes, and an entire edge. The whole herb is juicy, smooth and shining. Disk of the leaves sometimes marked with a brown spot. Flower-stalks simple, solitary, either axillary, or opposite to the leaf-stalks. Petals small, oblong, white, with yellow claws. Stamens from 5 to 10, scarcely more. Seeds numerous, roundish, ragged. This is next akin to *R. aquatilis*, *t. 37.*, but very distinct from all the varieties of that species.

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RANUNCULUS aquatilis.

Water Crow-foot.

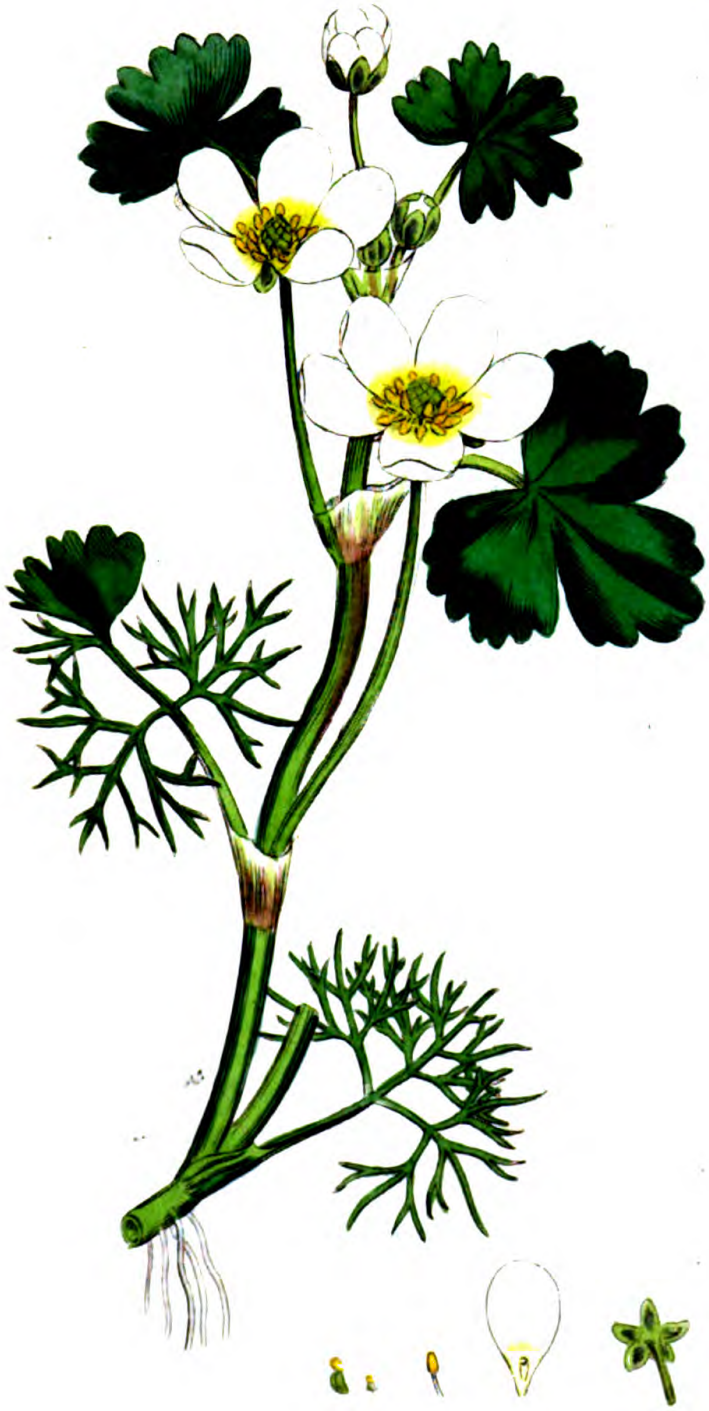
POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* five-leaved. *Petals* five, with a honey-bearing pore on the inside of the claw of each. *Seeds* naked.

SPEC. CHAR. Leaves capillary under water, above somewhat peltate.

SYN. Ranunculus aquatilis. *Linn. Sp. Pl.* 781. *Hudſ. Fl. Ang.* 243. *Wath. Bot. Arr.* 577. *Relh. Cant.* 216. *Lam. Syn.* 249. n. 3, and n. 4, 5 and 6.

A VERY common but beautiful ornament of ponds and ditches, displaying its elegant white flowers above the ſurface of the water copiously in May, and more ſparingly throughout June and July. The root is perennial, and throws up long ſlender ſtems, ſtocked with alternate leaves, with broad membranous ſtipules at the baſe of their footſtalks. Theſe leaves exhibit a very curious phænomenon, ſuch as grow under water being divided into fine capillary ſegments, while thoſe that ſwim at the ſurface are merely five-lobed and groſsly notched. Sometimes all the leaves are capillary, none of them emerging from the water, and in a ſtrong ſtream their outline is found much lengthened out, apparently from the action of the current. Hence the ſeveral varieties mentioned by Ray and others. The footſtalks of the floating leaves are often very long, probably ſtretched by ſupporting the plant. The nectary is tubular. The flowers vary a little in ſize occaſionally.



TROLLIUS europæus.

Globe-flower.

POLYANDRIA *Polygynia.*

Calyx. Corolla. [illegible] none. *Petals* about fourteen. *Capsules* [illegible], many-seeded.

Stigma. Corolla. Corolla [illegible]. Nectaries the length of the [illegible].

Syn. Trollius europæus. *Linn. Sp. Pl.* 782. *Hudf. Fl. Ang.* [illegible] *Lightf. Fl. Scot.* 295. *With. Bot. Arr.* [illegible].

Ranunculus globosus. *Linn. Syst.* 272.

THIS is one of the most splendid ornaments of groves and thickets in the mountainous parts of Yorkshire and Westmoreland. In those parts it is by no means an uncommon plant, but is gathered in abundance, and with great festivity, by the youth of both sexes about the beginning of June; at which time it is usual to see them return from the woods in an evening laden with its bulbous wild wreaths and garlands of which they deck their doors and cottages, and "make haste to crown themselves with its beautiful buds before they be withered." The Scotch and Swedish peasants are no less partial to it. *See Lightfoot.*

In the southern parts of England we meet with this plant in gardens only; our specimen is therefore a cultivated one. It has been confounded with dried wild ones, and does not in any respect differ from them. The root is fibrous and perennial, and grows best in a moist shady situation.

In heat and sensible qualities the Trollius agrees with the Helleborus and Ranunculus, but is less acrid than most of them.

134.

HELLEBORUS viridis.

Green Hellebore.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* none. *Petals* five or more. *Nectaries* tubular, two-lipped. *Capsules* nearly upright, with many seeds.

SPEC. CHAR. Stem many-flowered, leafy. Leaves fingered.

SYN. Helleborus viridis. *Linn. Sp. Pl.* 784. *Syst. Veg. ed.* 14. 519. *Hudf. Fl. An.* 245. *With. Bot. Arr.* 581. *Relh. Cant.* 217. *Sibth. Oxon.* 176.
H. niger hortensis, flore viridi. *Raii Syn.* 271.

NEITHER of our Hellebores can be called common, but this is the more scarce of the two. It is found in thickets and dry pastures, chiefly in chalk countries. Mr. Jacob Rayer brought this specimen from the woods about Great Marlow and High Wycham, Bucks. It is perennial, and flowers in April or May.

The root is fleshy, acrid and purgative like the rest of its genus, and not inferior to any of them in activity. It throws out many long simple fibres, and produces a stem scarcely a foot high, round, once or twice divided, with a fingered serrated leaf at each division, in form like the radical ones, but smaller. Linnæus in his not very accurate manuscript description of this plant, but more confused in *Mant.* 408, seems to have intended calling their stem-leaves *bracteæ*, on account of their analogy with the bracteæ of H. fœtidus, and was thence led into the mistake of denominating the stem of H. viridis a *scapus*, which however he corrected in *Syst. Veg.* We prefer the original specific character to that in the place last mentioned. The flowers are [illegible], on shortish footstalks, and green in all their parts. Petals [illegible], permanent. Styles 3 or 4, scarcely more, short as long as the corolla. The whole herb is smooth, and of a bright shining green.

HELLEBORUS fœtidus.

Stinking Hellebore.

POLYANDRIA *Polygynia.*

Gen. Char. Cal. none. *Petals* 5 or more. *Nectaries* numerous, two-lipped. *Capsules* compressed, nearly single, with many seeds.

Spec. Char. Stem many-flowered, leafy. Leaves pedate. Petals ovate.

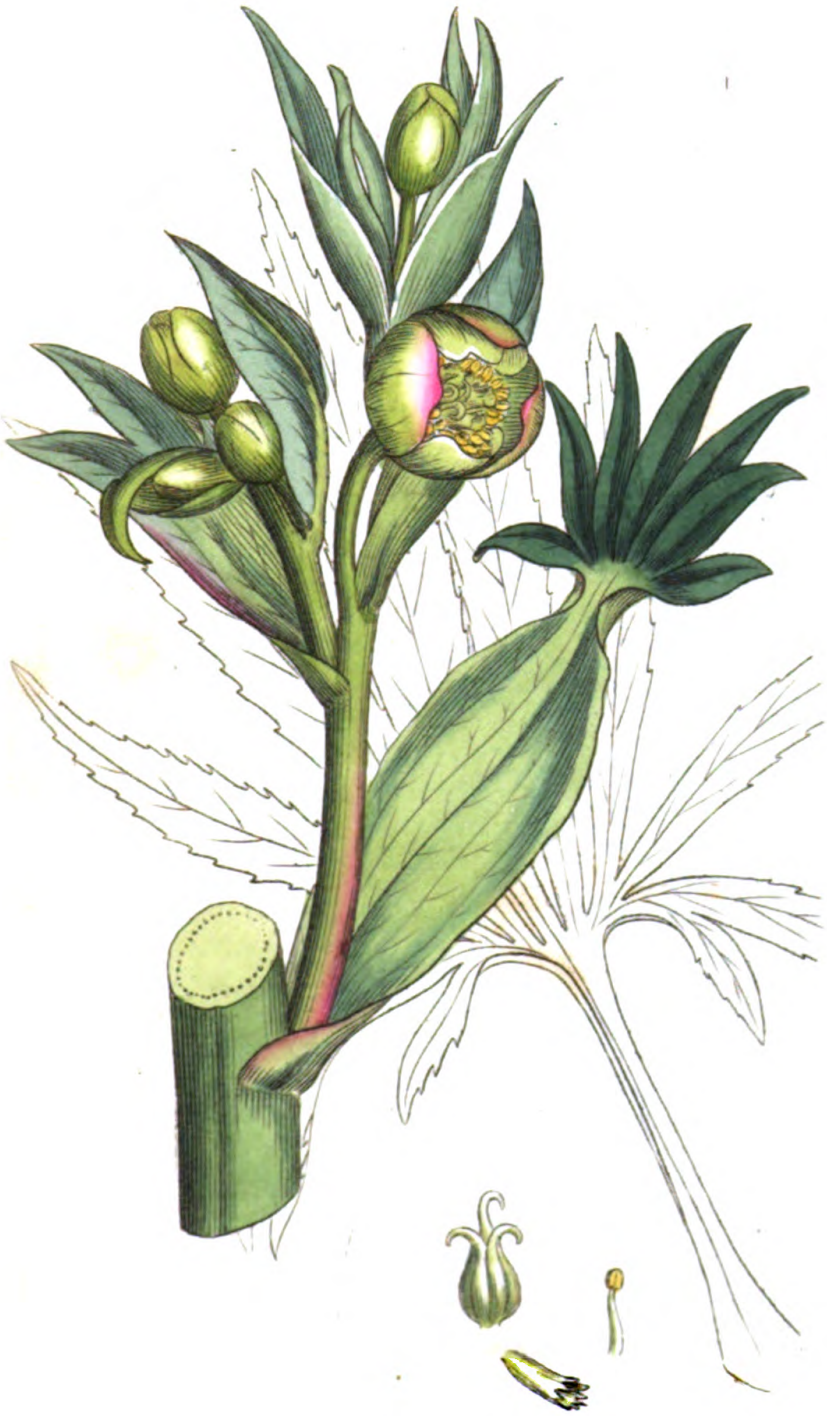
Syn. Helleborus fœtidus. *Linn. Sp. Pl.* 784. *Hudf.* 194. *With. gen.* 2. p. 708. *Sowerb.* 177. *Abbot.* [illegible] *With. Bot. Arr.* 2. 29.

Helleborastter maximus. *Ray Syn.* 271.

This plant flowers and thickens on a chalky soil, but not very numerous. It is plentiful on the Castle-hill at Castle Acre, Norfolk. Our specimen was sent by the Rev. Mr. Abbot from Bedford. It is one of the earliest of our native flowers, being commonly in full perfection in March, and often so early as January or February.

Root perennial. Stem branching, bushy, round, smooth, [illegible] Leaves pedate, of a very dark dull green, [illegible] lanceolate and serrated. Flowers panicled, [illegible] green, as are likewise the numerous lanceolate [illegible] of the inflorescence: but the petals (which are [illegible] are externally tipped with dull purple. Nectaries notched at the margin, full of pellucid honey. Seeds [illegible] The whole herb is fœtid, acrid, and dangerously poisonous.

The number of leaves in our two British Hellebores at least, is so much different as to make the student to look this genus in [illegible] In other species they are more numerous.



CALTHA palustris.

Marsh Marigold.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* none. *Petals* 5. *Nectaries* none. *Capsules* several, with many seeds.

SPEC. CHAR. . . . . .

SYN. Caltha palustris. *Linn. Sp. Pl.* 784. *Huds.* 245. *With.* 511. *Relh.* 217. *Sibth.* 176. *Curt. Lond. fasc.* 1. *t.* 40.

Populago. *Ray Syn.* 272.

CALTHA is one of the ancient names of Marigolds in general, and is retained by Linnæus for this plant with the more propriety, as being derived from *calathus*, a cup, to which the flowers of the marsh marigold have more resemblance than those of any other kind. The genus of *Caltha*, of which this is the only species, is greatly allied to *Trollius*, but has fewer petals, and wants the petal-like nectaries of that genus. The *Trollius* has also fewer seeds in each capsule than the *Caltha*.

This plant is found plentifully in moist meadows, and about rivers and brooks, flowering early in the spring, when its brilliant blossoms make a very ornamental appearance. They are sometimes found double, and in that state are cultivated in gardens; but the flower in its natural single form is larger, and, to the admirer of genuine Nature, much more beautiful. The root is perennial, and consists of many simple fibres. Stem upright, a foot and half high, a little branched, leafy, roundish, furrowed. Leaves heart-shaped, crenate, veiny, smooth, of a deep shining green; the radical ones on long semicylindrical hollow foot-stalks, the others alternate and nearly sessile. Stipula on the inside of the foot-stalk, sheathing, membranous, soon withering. Flowers axillary, solitary, on simple stalks, and consisting of five large equal roundish concave petals of a golden hue, as are also the stamina and pistilla.—The young buds are pickled as a substitute for capers, which they greatly resemble in form, and perhaps equal in merit, for both are acrid, and only rendered eatable by the acid pickle. The true caper buds are easily distinguished by their simple germen.

CALTHA radicans.

Creeping Marsh Marigold.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* none. *Petals* 5. *Nectaries* none. *Capsules* several, with many seeds.

SPEC. CHAR. Stem creeping. Leaves triangular, somewhat heart-shaped, sharply crenate.

SYN. Caltha radicans. *Forster Tr. of Linn. Soc. v.* 8. 325. *t.* 17.

MR. T. F. FORSTER, who first defined this species of *Caltha*, with three other new ones, in the Linnæan Society's Transactions, favoured us with this specimen from his garden, which agrees with wild ones sent by Mr. G. Don from Scotland, except that in the latter the stems are more erect. Mr. Forster's plant was found in Scotland by Mr. Dickson. It is perennial, flowering in June, and is sometimes seen with double flowers in gardens about London, being always readily known, by its smaller size, more triangular and sharply crenate lower leaves, and incumbent or creeping stem, from *C. palustris*, *t.* 806. The petals moreover are smaller and more wedge-shaped, so that the flowers are far less conspicuous and ornamental.

Aug 1 1810 published by Jas Sowerby London.

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S25. t. 17.

MR. T. F. FORS

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