Plant Lives



Plant Lives is a series of curiosity cabinets exploring the social, cultural and ecological significance of some of our most common wild plants. Plants are the lynchpins of our environment. All animal life is dependent on them - including ours. This knowledge was once reflected in their central place in folk culture, forming the basis of everything from cures to curses, food to fashion. As we become increasingly estranged from the natural world, plants that we once prized are forgotten or denigrated as weeds – to our lasting peril. Plant Lives aims to restore plants to their rightful place in our imaginations, and to highlight both the cultural loss and existential threat represented by their decline.

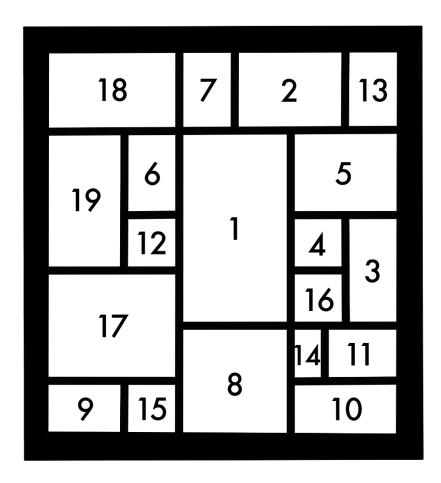
For the curious, this guide contains a text accompanying each of the Plant Cabinets, explaining the significance of the objects. Each compartment of each cabinet is numbered, however the numbering system moves around wildly, so they are recorded in a diagram for each cabinet. Think of it as a natural history advent calendar, except you don't need to wait to open all the doors, and instead of chocolate, it contains interesting facts about plants.

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Rowan Cabinet

Sorbus aucuparia



The Rowan (1), also known as the Mountain Ash, Quickbeam, or Quicken Tree, has held mystical and religious associations since at least ancient times. Greek mythology explains the origins of the rowan tree with the story of the goddess Hebe, cupbearer to the gods. She dropped her sacred cup, and the gods sent an eagle to retrieve it (2). Unfortunately, by that point it had been claimed by demons, and the eagle had to fight to get it

back. Wherever a drop of its blood fell, a rowan tree sprung up.

In pre-Christian Scandinavia, it was thought to be the tree from which the first woman was made, and it was also associated with the god Thor (3) - the Prose Edda, a 13th century Icelandic textbook, describes the rowan as the "salvation of Thor", because he was saved from drowning in a river in the Underworld by grabbing hold of its branches.

The rowan tree also holds significant cultural and spiritual value in Celtic mythology, often connected with beauty, protection and insight. The rowan tree is closely associated with the Irish letter "Luis," which is part of the Ogham alphabet, an early medieval script used primarily to represent the Irish language. In the 14th century Book of Ballymote, this letter is glossed as "lustre of the eye" (*li sula*), due to the beauty of the rowan's berries (4). In some versions of the Salmon of Knowledge story¹, the magical salmon gains the world's wisdom from eating rowan

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¹ For those unfamiliar with The Salmon of Knowledge, it is an Irish folk tale, associated with the legendary figure Fionn mac Cumhaill. According to the story, there was a magical salmon that possessed all the world's knowledge. This salmon had gained its wisdom by eating, in one version, the nuts from the sacred hazel tree or, in another version, the berries from the sacred rowan tree, that grew beside the Well of Wisdom. Whomever ate the salmon would gain this knowledge. A wise old druid named Finegas spent years trying to catch the fish, and when he finally did, he entrusted the task of cooking it to young Fionn. However, Fionn accidentally burnt his thumb on the salmon while it was cooking and instinctively put his thumb in his mouth to soothe the pain, thereby ingesting some of the salmon's flesh – thus gaining the salmon's wisdom. From then on, whenever Fionn needed knowledge, he would bite his thumb, and the wisdom would come to him.

berries that fell into the water from a sacred tree (5). In Scotland it is sometimes called the traveller's tree (6), due to the belief that a stick made from rowan prevents travellers getting lost, but its primary association is with protection from witches² (7) and the "uncannie e'e", or evil eye, hence the traditional rhyme "rowan tree and red thread, mak the witches tyne their speed". People made small equal-armed crosses from rowan twigs and red thread and carried them as an amulet against witchcraft (8). Horses and cattle could be protected from being cursed by tying springs of rowan into their manes or around their necks (9), and in the Highlands, sheep could be protected by being made to walk through a hoop of rowan wood (10). Using a rowan wood stick to churn butter prevents it being enchanted (11). And to this day it is traditional to plant a rowan tree next to a new house (12). There is also a strong taboo against taking an axe to a rowan tree - only the leaves, berries, and windfall wood should be used, to avoid damaging the tree (13). With its protective qualities and vibrant red berries symbolizing life, the rowan was also integrated into the Christian Candlemas celebration (14), a festival of light and purification. Rowan branches, sometimes made into crosses, were placed over doorways and in homes around Candlemas to ward off evil, marking a protective transition from winter's darkness to spring's light.

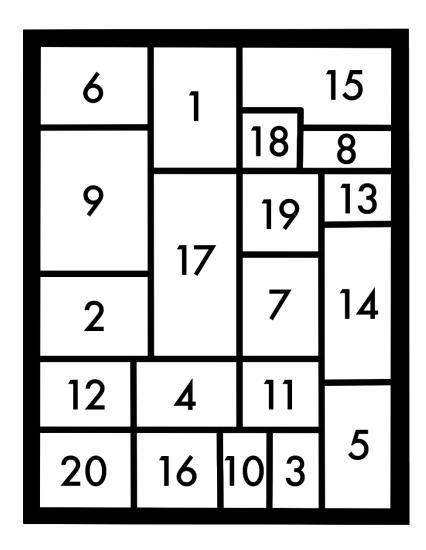
² In Scotland, witches ride sieves, not brooms. And why not?

Humans should avoid eating raw rowan berries due to the high levels of parascorbic acid, but domestic chickens can eat them raw, and are in fact rather partial to the practice (15). For humans, the berries are edible (and delicious) when cooked into jellies or fermented into wine (16). Possibly due to their high levels of vitamin C, they have also been used in folk medicine across to treat sore throats and respiratory infections (17).

Rowans have an interesting method of pollination – they are cantharophilous, meaning they are primarily pollinated by beetles, including sap suckers, click beetles, and shield bugs (18). Beetle pollination is haphazard and messy – they simply rampage through the florets, eating and defecating as they go, spilling more pollen than they eat, and carrying excess pollen on their bodies. The berries this produces are one of the most important food sources for fructivorous birds in Northern Europe, sustaining species including waxwings, fieldfares, and redwings (19).

Clover Cabinet

Trifolium repens (white) and Trifolium pratense (red)



There are over 300 varieties of clover but the ones we are most familiar with in the UK are white clover (1) and red clover (2). Both are legumes, capable of fixing atmospheric nitrogen into the soil through a symbiotic relationship with rhizobacteria in their root nodules (3).

This natural process enriches the soil with nitrogen, a crucial nutrient for plant growth, making it a valuable fodder crop for cattle (4). This ability to fix nitrogen is also why they are such an important food source for bumblebees (5) – it gives clover pollen a very high protein content, which bee larvae need to develop. Bee broods raised on it produce large numbers of healthy workers; broods raised on poorer-quality pollens often fail or produce weaker workers, more prone to disease. The precipitous decline of many bee species is thus linked to the decline of clover, which is in turn linked to the industrialisation of agriculture. In the past, clover was an essential part of crop rotation cycles which have now been replaced by use of synthetic fertilisers. It also formed an important part of the wildflower meadows grown to produce fodder for work horses (6). As farmers switched over to machinery, these became obsolete. Wildflower meadows have declined a staggering 97% in the last 100 years, spelling disaster for many bee species. Many other species are affected by the loss of clover meadows – butterflies including the Clouded Yellow (7), Common Blue, and Marbled White all depend on clover. It is also the host plant for other, less beloved, but no less important invertebrates, including the Clover Seed Weevil (8). These in turn provide food for insectivorous amphibians, mammals and birds such as tits (9), who in turn are predated by larger carnivores like kestrels (9) and hawks.

Charles Darwin noted the close relationship between clover and bumblebees, and also the propensity of mice to raid bumblebee nests to eat the combs and larvae. He wrote that:

"The number of humble-bees in any district depends in a great measure upon the number of field-mice, which destroy their combs and nests; and Colonel Newman, who has long attended to the habits of humble-bees, believes that "more than two-thirds of them are thus destroyed all over England." Now the number of mice is largely dependent, as every one knows, on the number of cats; and Colonel Newman says, "Near villages and small towns I have found the nests of humble-bees more numerous than elsewhere, which I attribute to the number of cats that destroy the mice." Hence it is quite credible that the presence of a feline animal in large numbers in a district might determine, through the intervention first of mice and then of bees, the frequency of certain flowers in that district!

This idea clearly tickled Henry Huxley, another Victorian naturalist, as he developed it, claiming that the success of the British Empire was dependent on the spinsters of England: the old maids (10) kept the cats (11), who killed the mice, who would otherwise destroy the nests of

bumblebees, who pollinate the clover, which is fed to beef cattle, who became salt beef, which fed the Royal Navy (12), who maintained the Empire.

Clover is also beloved by honey bees (13), but produces a honey with a glucose to fructose ratio, making it more prone to crystallisation – hence why it is usually sold as "set" honey.

One in every 5000 clovers has 4 leaves. The idea that four-leaf clovers are special is an old one, though they were not necessarily associated with luck. During the Early Modern period, it was thought that holding a four-leaf clover allowed people to detect witches (14).

It was also associated with healing – Pliny the Elder listed it as a remedy for snake bite (15), and clover was grown in medieval physic gardens partly because of the belief that four-leaf clovers could cure purpura, as well as being used generally as an expectorant (to clear the lungs of mucus) (16).

In England, clover is also heavily associated with love divination. Traditions include: if a spinster puts a four-leaf clover above her door, she will marry the first single man who walks through it (17). If she puts it in her shoe, she will marry the next single man she meets (18). The marriage association is found elsewhere in Europe – the four-leaf clover medal on the lower left of compartment (19) is French, and contains the inscription "to find a husband".

The four-leaf clover has also been adopted for other purposes, notably as the logo of the American youth association, 4-H (Head, Heart, Hands, and Health) (19, lower right). But since the 19th century it has been most closely associated with luck (20), to the extent that the association is sometimes even extended to three-leaved clovers (19, top).

Nettle Cabinet

Urtica dioica

7	23 24 29	30	13
5 14	9	1	1610
20	8	26	4
17		25	32
28	18	23	27
6		31	15
12	2 21 22	32	3

The origin of the word "nettle" (1) is obscure, but some believe it comes from *noedl*, the Anglo-Saxon word for needle, due to the plant's sting (2).

Because so few animals can graze on them, nettles are a vital food plant for the larvae of several insect species, including the Peacock butterfly (3) and the Garden Tiger moth (4). They are also the host plant of the Nettle Weevil (5), sustaining it throughout its lifecycle. Nettles are also the foundation of many food chains. The insect life they shelter in turn sustains a wide variety of insectivorous mammals (6) and birds (7), who in turn provide food for larger predators (8). This is why it is so important to leave nettle patches in parks and gardens uncut, if you possibly can.

The common Anglo-Saxons names for nettle were *netel* or wergula, and they considered it to have healing and amuletic powers. It was one of the plants used in the famous "Nine Herbs Charm" (Nigon Wyrta Galdor) (9), recorded in the 10th century medical text *Lacnunga*. It is described there as "the undoing of venom". The whole charm was a remedy against "flying venom" - which seems to mean a contagious illness that came on quickly without any obvious cause, especially if it caused a visible rash. It was also effective against "elf shot" - sudden pains in people and livestock, believed to be caused by being shot by elves with invisible arrows. Neolithic flint arrowheads were thought to be from these elf-arrows (this belief persisted into the 20th century in parts of the UK) (10). Nettles have been used more widely in European folk medicine since at least the Middle Ages (11), especially to

treat infections, rheumatism and arthritis (12) (by rubbing them on the affected area - a process known as urtication), kidney disease (13) (eaten or drunk as a tea). The fifteenth-century herbal, *Herbarius Latinus*, recommends treating dog bites with the ashes of nettles, mixed with salt (14).

Nettles were also thought to increase the quality and quality of mothers' milk, and nettle root (15) necklaces were used for teething babies (16). In Romania, nettles are associated with easy labour, and after the first meal of nettles in the year (usually March, when the new shoots appear), women would say the incantation "may my womb hurt when the woman will birth foals, and the mare will birth children" (17). In Ireland, tea made from nettles picked from a churchyard at night will cure dropsy (18).

Though they mix magic and medicine, a few of these folk remedies may have some scientific basis - nettle is a diuretic, so has an effect on the kidneys, and it contains anti-inflammatory and anti-microbial properties that have made it of interest to microbiologists (19).

Nettles thrive in the phosphate-rich soil surrounding human dwelling places, and their presence can indicate long-abandoned settlements (20). Clumps of nettles continue mark the location of crofts burnt and abandoned during the Highland Clearances. As well as growing accidentally in human ash-heaps and middens, there is

some evidence people encouraged the growth of nettles nearby, so they could harvest them for food and fibre. Young nettles are eaten around the world (21), treated in similar ways to spinach, and are surprisingly high in protein for a green vegetable. Here in Scotland, a nettle soup called kail (22) was a traditional Shrove Tuesday dish until fairly recently, and the tradition is now undergoing a revival as part of the foraging and slow food movements. At other times nettle has been used as a type of vegetable rennet to curdle milk into cheese (23). It was also thought to fatten chickens and to make their egg yolks more yellow (24).

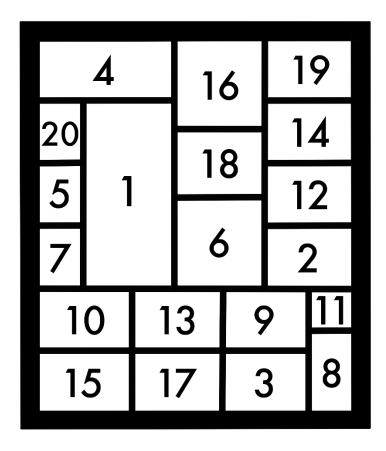
Nettle fibre can be spun and made into rope or textiles (25, 26, 27). It is stronger than flax or cotton, but rougher and with a lower fibre yield per plant, so was largely pushed out by industrialisation. However in rural Scotland, it was still being used into the nineteenth century. The poet Thomas Campbell, wrote that 'In Scotland I have eaten nettles, I have slept in nettle-sheets, and I have dined off a nettle-tablecloth. The young and tender nettle is an excellent potherb. The stalks of the old nettle are as good as flax for making cloth. I have heard my mother say, that she thought nettle-cloth more durable than any other species of linen'. In the Austrian Tyrol nettle cloth was made and used as late as 1917, and towards the end of WWI, nettle fibre was being added into some German army uniforms to make the valuable cotton go

further (28). Nettles can also be used to dye cloth - the roots make a yellow dye, and the leaves a green one.

Nettles also feature in European myth and story. Nettles were considered sacred to Thor, the god of thunder, and into the 20th century burning nettles on the fire was supposed to protect Scandinavian homes from thunderstorms (29). Loki also made the first fishing net from nettles, though that didn't end well for him (30). In Scotland, there was a widespread superstition that nettles grow from the bodies of the dead, and that clumps of nettle mark places where innocent blood was shed. Nettles are supposed to prevent cows and milk being bewitched by trolls (31, 32), and in Romany tradition particularly thick patches mark where the elves live. In the Hans Christian Anderson tale, The Wild Swans, the princess Elisa has to free her eleven brothers from a curse that has turned them into swans. This can only be done if she knits them all nettle shirts, with nettles picked from a graveyard, stinging her fingers raw, staying silent until she is finished. Her knitting is interrupted by an accusation of witchcraft, which she cannot speak to counter. As she is being led to the stake, she throws the shirts over her swan brothers, transforming them back into human form - all except the youngest prince, whose shirt she could not finish, who is left with a swan wing instead of one arm (33).

Dandelion Cabinet

Taraxacum spp.



What we think of as a single species, "dandelion" (1), is actually made up of hundreds of micro-species. Around 250 micro-species of dandelion have been recorded in the UK and Ireland - some easily identifiable through their leaves or flowers, others requiring close study and even dissection to tell them apart. The name comes from the French, dents de lion (lion's teeth) (2), referring to the deeply lobed leaves of some dandelion species. But it is also known by dozens of local folk names, including Fairy Clock or Shepherd's Clock (3), both referring to the

tradition of blowing the seed head to "tell the time" and to the fact that the dandelion head opens and closes at dawn and dusk; Piss-a-bed, referring to the diuretic effect of eating dandelion leaves (4); Wishie, referring to the belief that you can make a wish if you blow the seeds off in one go (5), and the Poor Man's Barometer, due to the belief it can predict rainstorms (6).

There is plenty of folklore about dandelions. In England they are connected to love magic, and are supposed to bring luck when woven into a wedding bouquet (7). In Ireland they are called the Flower of St Brigid, as they started to flower around her feast, Imbolc. Brigid was the patroness of milk and dairy workers, and her flower was used in wreaths to protect milk from being stolen by witches (8). In Scotland it was believed that lambs fed on the milky sap of the dandelion (9); they certainly happily eat the leaves, stems and flowers. The milky sap is in fact a kind of natural latex and has been used to make bicycle tyres (10). During the Second World War, when resources were scarce, stems were also dried out and used as bicycle valves (11).

Dandelions are edible – they were eaten extensively in the past, and continue to be eaten in salads in parts of Europe. They are recorded as being brought to America on the Mayflower as a food crop (12). Dandelion roots (13) have been used as a poor man's coffee substitute for hundreds of years (14). The taste is supposed to be earthy

and slightly bitter. It does have a diuretic effect though, so take care how much you drink. But this quality actually made dandelions popular as a medicinal herb across Europe.

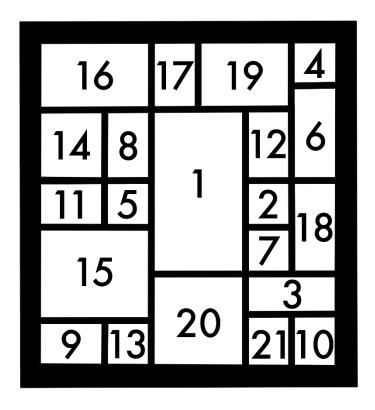
Beyond flushing the kidneys, dandelions have been used traditionally for all kinds of ailments, including colds, boils, ulcers, jaundice and arthritis (15). Seventeenth-century herbalist Nicholas Culpepper considered them particularly good for the eyes, and wrote that if you eat them you may "look a farther, [and] you may see plainly without a pair of spectacles" (16).

Culpepper described dandelions as "a virtuous herb", and I agree, though for different reasons. I think they are wonderful and would happily see them in every lawn in Britain. When I sing the praises of the humble dandelion, gardeners sometimes curse me. Due to their long taproot and abundant seeds, they are difficult to remove from manicured lawns. But a manicured lawn is an ecological dead zone. A lawn filled with dandelions provides food for a whole web of life. Their long taproots decompact the soil and encourage earthworms. Their leaves are foodplants for innumerable insect larvae, including those of the beautiful Cream Spot Tiger Moth (17). As one of the earliest blooming spring flowers, they provide vital nectar for insects like the Early Bumblebee (18) and Common Blue Butterfly (19). Their seeds are also a food source for small mammals, and for birds like the goldfinch (20). So

please, just enjoy their cheery yellow presence in your garden.

Birds-Foot Trefoil Cabinet

Lotus corniculatus



There can be few plants with as many different names as Birds-Foot Trefoil (1) - it has over 140 common names documented across the British Isles. These include: Dutchman's clogs (2), hen and chickens (3), ladies' slippers (4), cat's claws (5), cat-in-clover, crow's toes (6), Tom Thumb (7), ladies' fingers, ladies' gloves (8), bunny rabbits (9), grandmother's toenails (10), sheepfoot (11), butter and eggs (12), and bacon and eggs (13). Its most widely-used name, bird's foot trefoil, comes from the fact

its seedpods look like the three-toed feet of birds, with a little imagination.

It is a leguminous plant related to clover, with similar nitrogen-fixing rhizobacteria. It is an overlooked but hugely significant plant: its rhizobacteria help to improve the fertility of the soil; its deep roots prevent soil erosion; and it a vital host and food plant for many species of insects. Butterflies and moths that feed on it as adults or larvae include the six-spot burnet moth (14), the small white, the wood white, the silver-studded blue, the common blue, the small skipper, the large skipper, the dingy skipper, and the green hairstreak. Its pollen has a particularly high nutritional content, so it is an important food source for bumblebee larvae, including for the red-tailed and bufftailed bumblebees here (15). It is also widely grazed by deer and rabbits, and makes an excellent forage crop for domestic cattle (16), due to its high protein content. Experiments in New Zealand have shown that cows fed on birds-foot trefoil produce more and better milk (17). The plant does naturally produce small amounts of hydrogen cyanide (18), but fortunately not enough to have an effect on humans or animals.

Humans seem to have spent more time naming bird's foot trefoil than using it magically or medicinally, but there are records of it: in South Uist, it was used to make an eye wash; in France, it was used to treat nervous disorders (19); and in Italy, it was used as a treatment for insomnia,

anxiety, and exhaustion. In Orkney, it was woven into protective wreaths at Midsummer (20). Its flowers are also used in dyeing, producing beautiful shades of yellow and orange (21).

Frequently Asked Questions:

Q: Do I really need to read this?

A: No! As with everything else in the Museum, you don't need to read anything, you can just enjoy looking at interesting art and objects. This booklet is for the people like me, who need to know everything about things that take their interest.

Q: Which objects in the cabinets did you make?

A:

Rowan Cabinet: the objects in compartments 5, 17, 18 (embroidery); 8 (rowan cross); 19 (papercutting, collage).

Clover Cabinet: the objects in compartments 5, 8, and 16 (embroidery).

Nettle Cabinet: the objects in compartments 3, 4, 5, 12, 13 (embroidery); 9, 29, 30 (mixed media), 26 (nettle

cordage), and 32 (papercutting). Plus other small additions in other compartments.

Dandelion Cabinet: the objects in compartments 4 and 6 (mixed media), 15, 17, 18, 19 (embroidery), and the St Brigid's cross in 8.

Birds-Foot Trefoil Cabinet: the objects in compartments 6 (mixed media), 15, 14, and 19 (embroidery) and 20 (papercutting and watercolour).

Q: Where did you get the other objects?

A: I collect any interesting old things I find in second hand shops, flea markets, charity shops, and even the ground. I also collect tiny things. I particularly like these vintage lead figures you see in the cabinets. And I keep everything. My mother is a very patient person, with very large cupboards.

Q: I have a question that isn't answered here. How can I contact you?

You can email me at **tzipporahfeiga@gmail.com**, or find me via my website, **www.tzipporahjohnston.com**