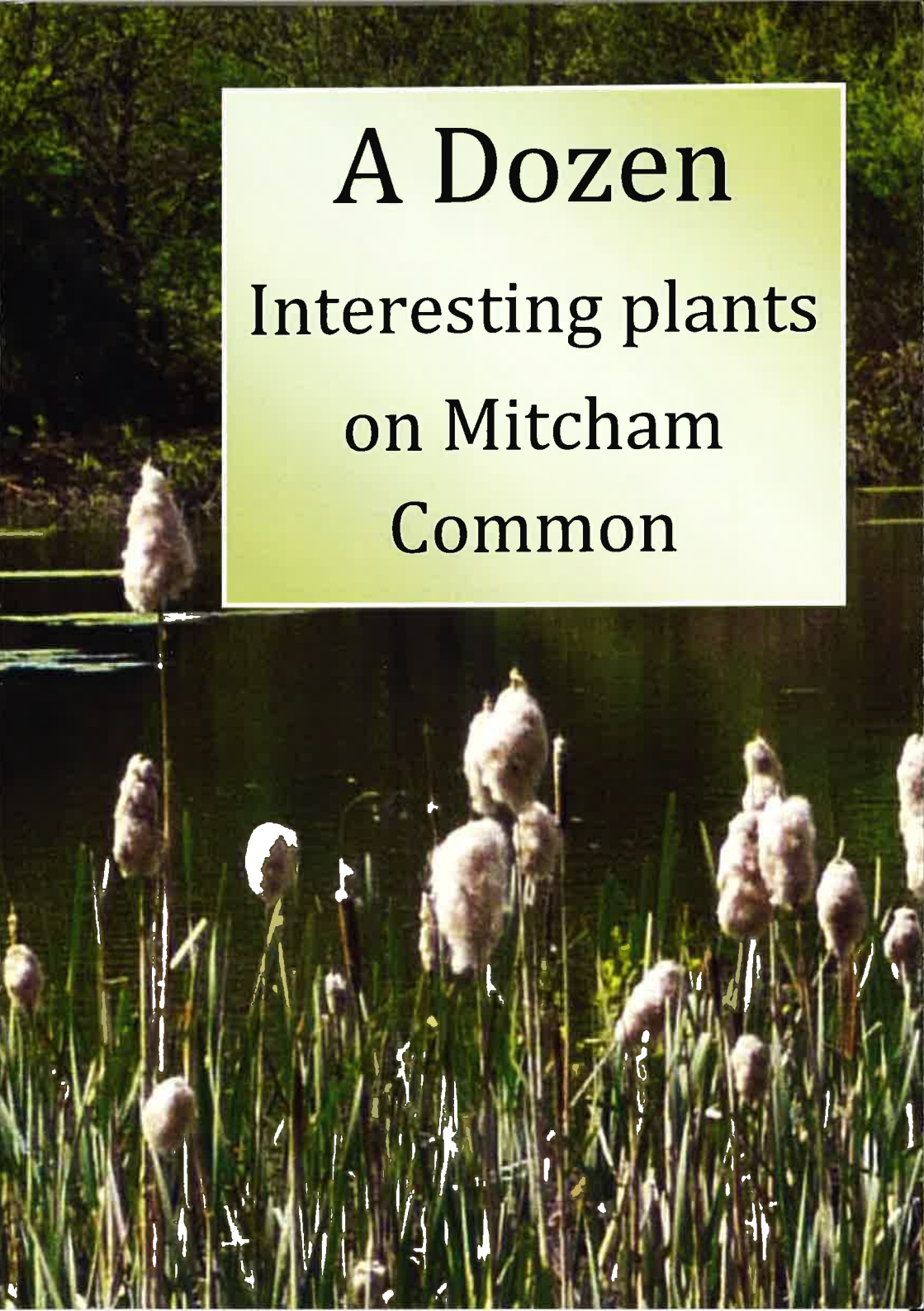

A Dozen

Interesting plants on Mitcham Common

Some Interesting Plants on Mitcham Common

This is a record of plants that have interested me, some because of their use and some for their own particular qualities. The majority are the plants of difficult dry windswept areas, the acid grasslands and wastelands of the common and most are large and obvious plants you may well be able to recognise.

Janet Morris

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Greater Reedmace or Bulrush *Typha latifolia*



Bulrushes are very vigorous plants found throughout the world in reed swamps and on the edges of ponds and streams growing 2- 3 metres high. Their thick rhizomes creep through the mud to make huge patches which may clog streams and often wipe out small ponds altogether.

The rhizomes are rich in starch and have been a valuable food for many people in earlier times. Their starch grains have even been identified on Palaeolithic grinding stones.

The flower heads are well known. There is a dense cylinder of female flowers and above this a loose cluster of tiny male flowers. So much pollen is made by the male flowers that at times it has been collected for use as flour or as a thickener.



When the seeds start to grow the seed heads can be eaten like corn on the cob. Later the heads become dry and brown and they burst. Innumerable hairy seeds emerge as a very useful fluff that the wind blows away. The fluff was often used to soften or insulate clothing or for bedding.

Bulrushes are established in the One-Island Pond, in ditches on the golf course and beside Cedars Avenue but they are not encouraged in the other ponds. They so easily get out of control.

Lady's bedstraw Galium verum



Lady's bedstraw is a perennial creeping plant that grows in many dry grasslands. On our poor acid soil it is low growing but on more fertile soils it can grow up to a metre high.

Most flowering plants produce only one or two leaves at each node but the bedstraws have many more. This plant has 8-12.

Dried plants were used to stuff straw mattresses which were used until very recently. Lady's bedstraw produces a very fine straw, which has the added advantage that it gives off coumarin which acts as a flea killer.

The chief claim to fame is that it will curdle milk in the first stage of cheese making. In modern times, milk is treated with rennet, an extract from a calf's stomach containing enzymes that curdle milk. In earlier days lady's bedstraw and other plants were used for this purpose. A common name for lady's bedstraw is 'Cheese Rennet' and traditionally it was used in Cheshire and Gloucestershire to produce their distinctive cheeses. Double Gloucester also owed its deep colour to this vegetable rennet but nowadays it comes from another natural colour, annatto.

Lady's bedstraw is closely related to madder which was one of the three major dye plants of antiquity. Madder gives a good red dye and a similar colour can be obtained from the roots of lady's bedstraw. It was once used in the Hebrides to dye wool but the plant is too small to be profitable.

In Ireland, however, a yellow dye produced from the stems and leaves has been used extensively, even for dying hair.



Great Mullein *Viburnum thapsus*



Mullein is a spectacular biennial that can grow more than two metres tall with a long spike of scattered yellow flowers arising from a mound of huge pale and hairy leaves.

The individual flowers are open for less than one day, closing at noon. The tiny seeds, which are produced in simply prodigious numbers, can survive for a hundred years or more. One might expect Mullein to be an invasive weed but it needs open ground for germination, in dry and sunny uncultivated places or waste ground. It is intolerant of shade and is often found only as isolated plants.



The huge thick hairy leaves of Mullein had many practical uses in a world without paper or cardboard. The dried leaves were also smoked or used as candle wicks. The solid dead flower stalks, dipped in fat or wax made excellent torches and the leaves yielded yellow or green dyes.



Mullein has been used for 2,000 years to treat skin, throat and lung ailments. Even today, herbal remedies are well known and readily available. Like many ancient medicinal plants with miraculous powers, Mullein is often linked to witchcraft and the torches figured in their rituals If you need help to ward off evil spells or curses, this is the plant for you.

Goat's Rue *Galega officinalis*

Goats Rue is an attractive perennial plant with white or lilac flowers belonging to the Pea **family. A**ll the members have bacterial nodules on their roots that absorb nitrogen from the air to make proteins. It is nutritious and was once widely grown to increase the milk yield of goats and cattle. Herbal remedies claiming to improve the milk yield of nursing mothers are still sold today. In Europe Goat's Rue is nowadays only found in damp waste places. Introduced into America, however, it spread so alarmingly that it was placed on the Federal Noxious Weed list.



The English name, *Goat's Rue,* is a mystery as there seems no logic for the word 'Rue'. It might be a corruption of '*Goat strew*' as the plant would be strewn in the goat compounds.

The German name '*Pestilenzcrout* is more explicit, indicating a much valued medicinal plant used in the middle ages to bring down fevers, which were commonplace and often fatal. It also relieved the symptoms of diabetes by reducing blood sugar levels. Work on the active compounds has produced Metformin which helps in disease control today.





A crushed plant sedates fish. They float to the surface, still safe to eat!

St. John's Wort *Hypericum perforatum*



St. John's Wort is a low perennial plant that was once grown commercially for dyes or medicine. On the common it can be abundant near the entrance from the Cedars Avenue roundabout.

The leaves are interesting because, if held up to the light, oil globules in the leaf appear as clear shiny dots. This oil was the basis of wound dressings that were in use from the crusades until modern times.

Many medicinal compounds can be extracted from St. John's Wort and early claims of their value are taken seriously. St. John's Wort is an accepted modern treatment for depression and standardised extracts are freely available.

As a dye plant, St. John's Wort gives either yellow or fine bright crimson depending on the type of mordant used to fix it. Treated differently a good red varnish can be obtained.

It is a poisonous weed in pastures and can cause milk failure or abortions in grazing animals. Sometimes animals may run round and round in a circle and die of exhaustion.



Mitcham common 2011

The Great Lettuce *Lactuca virosa*

The great lettuce is a plant of disturbed ground and is found on the old rubbish tips on either side of Cedars Avenue. It is a biennial plant that sometimes appears in large numbers, as in 2008 following an exceptionally favourable autumn and winter. In other years it may be scarce.



It does not look like a lettuce except when young. Garden lettuces are usually eaten long before they flower. The great lettuce is usually tinged maroon with a flowering shoot two metres or more in height. The individual flowers are remarkably small and never make much of a show. They look like little dandelions and are followed by hairy seeds heads

The Opium Lettuce



Extracts of this plant have been used since prehistoric times to relieve pain and to induce sleep. By the nineteenth century opium had become the preferred remedy, but lettuce opium was prescribed if opium was not available even though it does not actually contain opium. It is quick acting but short lived, and has none of the unpleasant side effects of opium. It is not addictive.

The drug is harvested by collecting and drying the bitter milky sap that bleeds out of damaged stems. It can also be obtained from the leaves before flowering starts by soaking them in alcohol. Curiously, the sap also contains latex and, in WWII attempts were made to use it to make rubber, but these came to nothing as the plants are too small for commercial use.

Gorse Ulex europea



Gorse flourishes on dry acid heathlands like our common. Like all other members of the **pea family** it is protein rich, using bacterial nodules on its roots to absorb nitrogen from the air to supplement the poor supply of nitrates in the soil. Gorse is well protected against grazing animals. The green stems, armed with protective spines, have taken over the work of photosynthesis and the leaves are no more than small prickles.

Gorse flowers from May to June and sometimes through a mild winter. It may grow 2-3 metres tall before toppling over but it is highly flammable and it is often burnt. Gorse burns fast and furiously and was the preferred fuel for bread ovens.



Gorse is tough and inedible except when very young. By crushing or bruising, it was often used in the north as useful winter fodder for cattle.

The whole life style is adapted to fire. The seed pods ripen hard and dry and in a fire, or in hot weather they explode shooting out the seeds for a long distance. Each seed carries an oil body that ants love. The seeds are dragged into their underground nests where the oil body is eaten, leaving the seeds to germinate. Many of these are hard seeds that can lie dormant in the soil for forty years, waiting for a fire to stimulate them into growth.

After a fire many new seedlings spring up and the roots may well sprout again. Gorse is so difficult to eradicate that it has become an extremely serious problem in New Zealand and many other parts of the world where it has been introduced.

Stinging Nettles *Urtica dioica*



The growth of stinging nettles indicates a rich soil, especially one high in phosphates where few other plants thrive. They mark out the accumulated human and animal wastes around dwellings and persist long after the people have gone.

In the 1970s and 1980s, large quantities of sludge from the sewage works was dumped on the common, some of it to clothe the banks of the Mill Hill rubbish tip and some just discarded on the old tips on either side of Cedar Avenue. These areas are now a sea of stinging nettles. So also is the ground below bird roosts where large quantities of bird droppings accumulate and in dog-fouled areas.

Nettle leaves have stinging hairs which inject irritant substances, including histamine, causing itchy swellings. For centuries, rheumatism and arthritis were treated by the application of nettles. They may reduce pain by stimulating the body to produce anti-inflammatory chemicals in the blood. The leaves themselves are edible, and rich in iron and vitamins. They can be cooked like spinach or used to make drinks like tea and wine or nettle beer which was once a very popular drink. Rather surprisingly, nettle juice can be used instead of rennet to make cheese.

The stems provide excellent fibres which have been used to make good ropes, cordage, fishing nets, paper and cloth. The fairy tale Princess who had to weave shirts of nettles to cure her bewitched brothers was not really set an impossible task after all. The strong yellow underground rhizomes yield a yellow-green dye.

Nettle extracts have many traditional medical uses and even today extracts of the roots are used to shrink the prostate.



Above. A sea of stinging nettles on the bank of Mill Hill. The small oak trees were planted by the Preservation Society in 1990.

Teasel Dipsacus fullonum



Teasels are imposing and very prickly biennial plants growing up to two metres tall. They are topped with large cylindrical flower heads that turn brown as they age and which persist through the winter. These are incredibly spiny and have been used since biblical times to straighten fibres before spinning.

The wild form has straight spines but in a commercial strain, or Fullers' teasel, the tips are hooked and these are very gentle and efficient at raising the nap of woven cloth. Large quantities were grown in England but inevitably, teasels were ultimately replaced by metal cards. But still, for really fine work, there is no substitute for teasels.

Teasels grow best on heavy clay soils, and they flourish on the clay topping of Mill Hill.

Teasels have a curious system of collecting water in little cups formed by the fusion of pairs of leaves around the stem. Insects often drown in this water and it has been suggested that teasels might be partly insectivorous. They are certainly able to thrive on infertile soils in Somerset that are lacking molybdenum.



Teasels have unusual flower heads with the first flowers opening in a band round the centre. They yield very good honey.





Elderberry or Elder Sambucus nigra

Elders are tough, short lived, weed shrubs that are found almost everywhere. They grow best in shady areas and in the oldest wood on the common they form a substantial shrub layer. They can however thrive in really difficult exposed situations like building sites, tips, and waste-land. They do well on our old, rabbit infested rubbish tips, and on old sewage sludge deposits.



The great white discs of flowers in June are well known, bringing the prospect of fragrant elderflower cordial almost at once and elderberry wine later.

All other parts are poisonous. There are several poisons present in different parts, one of which even breaks down to release cyanide. Tolerance of these poisons varies widely in different animals.



Rabbits will not touch elders which flourish on rabbit infested land. Horses and cattle avoid them if they can but elders are considered good fodder for sheep.

Many chemicals that are poisons in large amounts can be therapeutic in small, strictly controlled doses. Elders were the medicine chest of ordinary people and much valued. Many herbal remedies for catarrhal and chest infections are derived from elder and they were once widely used.

People were afraid of elders. Cutting down, using or burning elder wood was considered an invitation to bad luck. Yet, despite this fear, elder twigs were very popular for making whistles and other musical instruments. The centre is only soft pith which can easily be removed.

Bracken *Pteridium aquilinum*

Bracken is a creeping fern and by far the most successful fern in the world. It is found everywhere except in Antarctica and in nearly all environments.



Bracken has thick rhizomes that creep deep under the ground where it is damp and safe and it just sends up a single tall branched leaf now and then. Once established it spreads relentlessly and is nightmare to eliminate from open land. Trampling or repeated cutting for three years may do the trick but this is not always possible. There is an effective spray but this is being withdrawn because it cannot be proved to be safe.

The deep creeping rhizomes can be eaten safely and indeed they were the staple food of the Maori, but the leaves are poisonous. Rabbits will not eat bracken whilst horses and cattle avoid it if they can. Over time it causes beri beri and other diseases which are usually fatal. The dead leaves, on the other hand, make good bedding for horses and cattle. Bracken dominates any vegetation it enters by releasing inhibitory chemicals into the soil which persist long after the bracken has been removed.

Being a fern, bracken reproduces by spores, found on the undersides of the leaves. These are minute and are scattered into the wind in their countless billions in early autumn. The spores are now known to be carcinogenic but the repercussions of this have yet to be fully worked out. Water suppliers in some areas are now fitting special filters to remove spores from drinking water.

The high incidence of stomach cancer in Japan has also been linked to eating young bracken shoots which, like asparagus, are considered a delicacy.



Curled tips of young shoots called fiddleheads.

Hemlock Conium maculatum
One of the most deadly plants known





Hemlock is biennial, much like cow parsley but very much taller, often 2m high.

Hemlock has the most beautiful large lacy leaves that make lush growth in early spring, a smooth stem spotted or streaked with purple or red, and white flowers clustered in flat groups 10–15 centimetres across. It also has a most unpleasant smell, rather like foxes. Hemlock is a plant of rather damp wastelands and roadside edges. It was the first plant to colonise the large areas of the common covered in sewage sludge in the 1980s and it flourished there for a few years until the stinging nettles became established. Very few plants can tolerate such soils.



All parts of the plant are poisonous both for domestic animals and for human beings. The most important poison is coniine which is similar to nicotine but even more poisonous. It causes an ascending muscular paralysis, starting in the feet and ending when it reaches the respiratory muscles when, of course, breathing stops.

In ancient Greece, hemlock was used to poison condemned prisoners. The philosopher, Socrates, was the most famous victim of hemlock poisoning, an event recorded by Plato.