**Stratford sub Castle Garden Club 26th Sept 2019**

**Why do foxgloves Have No Smell? Alan Edmondson**

Alan’s knowledgeable and calm delivery with that touch of humour took us all on a fascinating trip around the plant world and the answer to his question came in the last two sentences of his talk. Here is a little of what he told us.

As gardeners, we love plants for many reasons. On a practical level, they are our food or they are the bottom of the food chain which leads to our food, for example, fish, meat and dairy products. Equally vital is the fact that they maintain our atmosphere with the removal of carbon dioxide and the addition of oxygen. We also value them artistically, for their colour, texture, shape and stature and place them in our gardens accordingly. Gardening is good physical activity and is calming and therapeutic.

**However, the plants are not bothered about us as they have only one aim in life. That aim is to produce seed so that another generation will follow on. Thank goodness this will all happen if we just let them get on with it.**

The **male** part of a flower is the **pollen**, found on the **stamens.** The **female** part is called the **stigma.** The stigma cannot move but the pollen can, so plants have found ways to get the pollen moved onto stigma of an identical flower, so that fertilisation can occur. After fertilisation, new seeds will form and mature and that is **‘job done’** for the plant, provided, of course, that the new seeds get planted and the plants even have a mechanism for that!

**So, shifting pollen about is a serious job and we don’t come into it!** In fact, it was going on before we existed and there are pollen grains in fossil records going back through time.

Lots of plants use **wind** to do the job. All of our ‘grains’, such as wheat, barley, oats and sweetcorn use wind to blow clouds of pollen about and hay fever sufferers can vouch for that. There has to be masses more pollen than would seem necessary because it is an inefficient system. Conifers and lots of trees use this method too. Even if all insects disappeared at least we would have something to eat – though not a balanced diet!

**Insects, of all kinds though, play a major part in this vital job and plants that need them are adapted to entice them or, at least, help them do the job.**

The **shape or structure** of flowers is important. For example, some flowers have a ‘helicopter landing pad’, a good flat(ish) area covered in tiny flowers with a load of pollen and crucially, some nectar which is insect food. In feeding on nectar they accidentally brush pollen onto their bodies and carry it away to an identical flower where, hopefully, it will brush onto a female stigma so that fertilisation can happen. Achillea, Astrantia and Meadow Sweet are examples of this.

Some plants use **perfume or fragrance** to attract the insects. Roses, sweet peas, Lonicera periclymenum (honeysuckle) and night-scented stock are examples of this. The last two plants give out their perfume at night to attract moths as these are major pollinators. Butterflies are attracted by the fragrance of plants such as Daphne mezereum, Diathus ‘Fire Star’ and Buddleja davidii ‘Pink Delight’

 Some flowers have a **colour** that attracts bees and we do know that insects and humans may see the colours differently. The pattern on a flower may be crucial, a bee can see certain lines as pollen guides so they go in the right direction to collect nectar and brush off pollen as they go. How clever is that? Viola tricolour, Malva sylvestris, Crocus and Borago officinallis (Borage) are examples of this.

Even beetles have their role to play as they pollinate magnolia flowers and water lilies. Flowers that are pollinated by flies sometimes smell of rotting meat and are coloured red to complete the pretence.

Since fragrance is such an important thing for gardeners, Alan recommended some fragrant shrubs, roses, perennials and annuals. The shrubs were Daphne bholua ‘Jacqueline Postill’, Philadelphus ‘Belle Etoile’ and Viburnum carlesii. The roses were Madame Gregoire Staechelin, ‘Eglantyne’ and ‘Buff Beauty’. The perennials were Dianthus ‘Inchmery’, Paeonia ‘Reine Hortense’ and Hemerocallis ‘lilioasphodelus’. The annuals are Nicotiana alata, (tobacco plant) Lathyrus odoratus (sweet peas) and Matthiola longipetala (night-scented stock).

**Why do foxgloves have no smell? The answer is that they have no need for fragrance.** The colour, the pattern and the tubular shape of the flowers all attract bees. Once inside that tube there is no wind and they feel protected enough to get on with the job of searching for nectar and accidently brushing pollen onto their bodies ready to take to the next flower.

Alan Edmondson’s talk was fascinating and he has other interesting talks too. We shall be inviting him again.

Our meeting scheduled for Thursday, 31st October has the title. ‘The Victorian Explorers’. It is about the brave people who, in the Victorian era, explored the world and brought back seeds of plants that were new to the UK. The speaker is Roger Hirons who is making a return visit because we found him so knowledgeable and entertaining. Do come, 7.15 for 7.30pm, to the Reading Room, SP1 3LL, where there is large, free, car park. A warm welcome awaits members, visitors and new members. Catch up on the local news over refreshments at the end.

Dorothy Richards