

Patterson's Page

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The 'Blue Ship' pub, in the adjoining parish of Rudgwick, is a shade short of an hours walk from my house, mainly through public footpaths. It is still a genuine country pub selling beer from a barrel on a steddle (I think steddle is a Sussex word for a rack to stand barrels on, so beer can be drawn from the barrel). It is rural with few surrounding houses, so is rarely full. They do good food, so I take the dogs for a walk, have a drink and an evening meal.

Rudgwick has a parish magazine that is distributed to every household, including the Blue Ship. There is a 'Past, Present and Future' feature that I find interesting, as it occasionally mentions people or families I have known, sometimes those I went to school with or played football or cricket against.

In the September 2018 issue there was an article about the First World War food shortages. In September 1918 during school time schoolchildren were sent out to pick blackberries that were sent to factories operating the 'Government jam-making scheme', where blackberry and apple jam was made then sent to serving soldiers. On 12 September 74 lbs were picked, 164 lbs on 16 September. These and pickings on 18, 20, 23, 25 and 26 September totalled 822 lbs. With help from the villagers, 1 ton, 3 cwt 14 lbs (2,590 lbs 1,177kg) of blackberries were picked during September, apparently mostly on Tunnel Hill. Bearing in mind the light weight of the fruit and the probability that the children may have eaten as many as they collected, this is a phenomenal amount. When walking home several things went through my mind.

Tunnel Hill is probably around twenty acres of quite poor soil, now completely covered in regenerated woodland with a covering of *Rhododendron ponticum*. The area is unmanaged and the trees are naturally sown, but the rhododendron was presumably introduced. In 100 years it has gone from being what must have been fairly open, with perhaps grass and wild flowers to dense woodland. This is obviously very different forage for honey bees, with some of it being poisonous. The timing is also different, with trees in general being early sources of pollen and nectar. This is an example of gradually changing situations that we do not always realise.

I remember my grandmother making blackberry and apple jam and there was always a lesser weight of apples than of blackberries, so let us guess at a total weight of fruit of around two tons. Both apples and blackberries are pollinated by honey bees, in my experience blackberries being much more attractive to them than apples are. As well as the weight of fruit, the plants and trees produced nectar. I know it is impossible to calculate, but how much nectar and pollen would have been produced by the blossom that resulted in that two tons of fruit? The amount of nectar secreted would have been determined by many things including temperature and the amount of moisture in the soil.

Beekeepers in general do not know much about the production of nectar and pollen in plants. In warm weather flowers do not last long, presumably because fertilisation takes place quickly, but does

that suggest that when flowers last longer they produce more nectar and pollen or the same amount, but at a slower rate? Do all flowering plants behave the same? Perhaps I have created an opening for someone else to produce an article.

Online research shows that in WW1 schoolchildren were also asked to collect horse chestnuts (conkers), not for making jam, but for use in the production of cordite. Horse chestnuts are a very good source of spring pollen, but how much is produced in relation to the amount of conkers?

I guess that someone has worked out how much nectar and pollen is produced in relation to the amount of fruit or seed produced, but like many things in beekeeping it is subject to a lot of guesswork, as there are many factors involved. For some reason beekeepers love to quote figures, but we are dealing with biology, which has many reasons for the variation we often see. It always amuses, and annoys, me when I see such things as 'twenty amazing facts about bees', or similar wording, that even some beekeepers seem to believe, or I assume they do by the number of times I see them on beekeeping websites, stands at shows, etc. How can you work out how many times a bee has to fly to the moon to collect 1lb of honey when the water content of nectar varies so much?

The picking of blackberries by schoolchildren was presumably very widespread in rural areas. I have found a reference where 1,869 lbs 3oz of blackberries were picked by another school in Sussex. The total weight of fruit must have been huge, and the plants would have provided a lot of forage for bees.

Beekeeping would have been very different in 1918. It was at the end of a horrible war when a lot of beekeepers would not have returned, so presumably there were many abandoned hives. This was when many were converting from skep beekeeping to moveable combs, presumably introducing a different kind of bee management where beekeepers had to know more about what was happening in their colonies. I wonder what state some colonies would have been in, especially as they may have been abandoned without such protection as mouse guards.

There was also the Isle of Wight epidemic that was such a concern to the Government they introduced a restocking scheme. The epidemic was blamed on several things at the time including nosema and acarine, but we are now fairly certain that viruses and neglect were likely to have been major causes. Whatever it was, it is certain that large numbers of colonies perished, so there were fewer bees to pollinate the fruit.

We are told regularly that if bees disappeared humans would follow in four years. That is incorrect, but bees and beekeepers do make a huge contribution to life. Even this short article, inspired after a chance spotting of a little known activity 100 years ago, involves beer, the value of bees as pollinators, jam making, WW1, conkers, the Isle of Wight epidemic and changes in bee management and bee forage.