

## Transition Chichester *Buckthorn for Brimstones* Project



Brimstone butterfly © J Dowding

Transition Chichester are organising the *TC Buckthorn for Brimstones project* to try to increase the population of brimstone butterflies in the Chichester area. Brimstones are beautiful butterflies. The yellow males can be spotted from February onwards, the females appearing a little later.

The butterflies are entirely dependent upon buckthorn as a food plant for their caterpillars. We would like individuals and groups who are interested in helping brimstones, to consider planting one or more alder buckthorn bushes. By introducing this small bush into our gardens, parks and other open spaces we will be providing the butterflies with more places to lay their eggs, and food for their caterpillars to develop.

Brimstones have an amazing ability to find these bushes due to their incredible sense of smell, so any bushes planted should soon be found by female Brimstones. If you would like to help us by growing a small bush (or bushes), please contact us and we can provide you with bushes for planting this winter, to be collected from central Chichester, for £1 each. In return, we ask that you look after your bushes and let us know how they're doing and when you first get visited by Brimstone butterflies.

If you would like one or more bushes, please email [TCBuckthornforBrimstones@gmail.com](mailto:TCBuckthornforBrimstones@gmail.com). Information about your plantings, and your brimstone sightings can be sent to the same address.

**Brimstones information and life cycle** Brimstones are the longest lived of all UK butterflies, living for about a year as adults, hibernating through the winter months and waking the following spring. The bright yellow males are usually the first to be seen, sometimes in February. Females emerge slightly later. After hibernating, they seek out flowers for nectar and the males find females to mate with them.

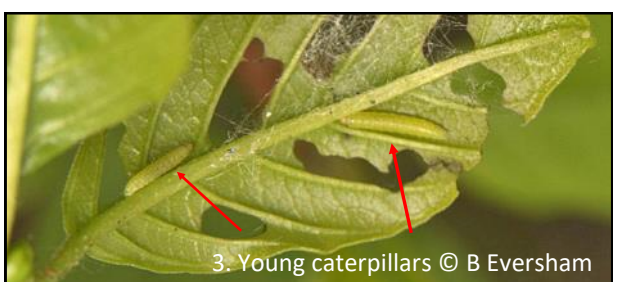
**Eggs and egg-laying** In spring and summer, from late April - May onwards, look out for a large greenish white butterfly fluttering about your alder buckthorn (see photo 1. below right). If it stops on the bush for a few seconds, curling its body around, then it's a female Brimstone laying an egg. She will lay anything from 1-100 eggs, and repeats the procedure for each egg. Eggs are laid on either the upper or under side of the leaf and very occasionally upon a small stem. When freshly laid, eggs are a pale green colour, but after a day or two, they turn yellow. They look a bit like a miniscule version of an old fashioned milk bottle (see photo 2).



1. Egg-laying female Brimstone © J Dowding



2. Brimstone Eggs © D Morley



3. Young caterpillars © B Eversham



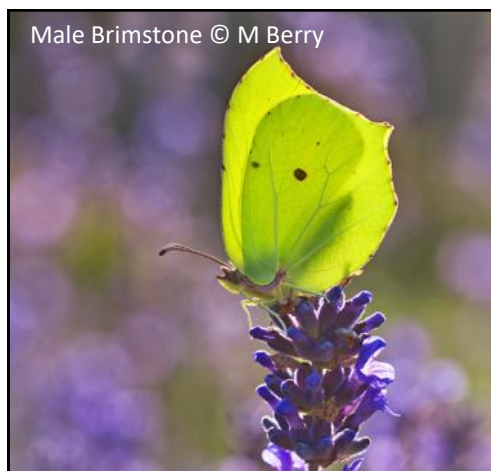
4. Large caterpillar in arched position © M Berry

Silk pad

**Caterpillars** The eggs hatch into caterpillars after about 10 -14 days, depending on the weather and temperature. After hatching, the young caterpillars usually take up a position on the underside of the leaf alongside a leaf vein (see photo 3). After a few days, they spin a white silk pad on the midrib of the upperside of the leaf, venturing out to eat other parts of the leaf, and then return to their silk pads to rest (photo 4).

**Chrysalis** After about 6 weeks, and having shed their skin several times as they grow, the caterpillars wander off to find some suitable twig, stem or another leaf upon which to form a chrysalis. There it spins another silk pad to hold onto and also a silk girdle around its middle, before shedding its skin for the last time and turning into a chrysalis (see photo opposite). It will remain in its chrysalis for roughly 2-3 weeks before hatching into a butterfly.

**Adult butterfly** The adults can be seen throughout summer and autumn but in winter hibernate among leaves, such as ivy or bramble (perfectly camouflaged) until they emerge early the next spring, when warmed by sunshine. Male Brimstones are a sulphur-yellow colour, It is believed that this colouration gives rise to the English word for butterfly, i.e., butter - coloured fly! Females are a very pale yellow - green, almost white and because of this, they can be mistaken for 'Cabbage Whites'. Both males and females like to drink nectar from all sorts of flowers including bluebell, dandelion, lavender, scabious, red deadnettle, aubrietia, primrose, and Jacob's ladder.



**Buckthorn** Two species of buckthorn are foodplants for brimstone caterpillars: alder buckthorn *Frangula alnus* or *Rhamnus frangula* and common or purging buckthorn *Rhamnus cathartica*.

The two species are different in appearance and prefer slightly different soils but in gardens or cultivated areas, both do equally well. Alder buckthorn is probably more suitable for growing in the soils round Chichester.....and unlike common buckthorn, it is thornless. It has small greenish white flowers in the spring which are very attractive to bumble bees, and reddish berries in the autumn ripening to black, which provide food for birds in the winter.

### **Alder Buckthorn planting**

- 1. Choose a warm sunny site** if possible. Brimstones lay more eggs on bushes in full sun but will use them in the shade too.
- 2. Dig a hole!** This should be a little deeper than the length of the roots. You can add some well-rotted compost to the base of the hole to provide nutrients in the early stages of growth, but this isn't essential.
- 3. Offer up the bush** to the hole and ensure that the base of the stem (where the roots join) is level with the top of the hole and centred. Adjust as necessary, then gently backfill the hole and firm down with your foot.
- 4. Prune the top 1/3** of your bush with clean secateurs.

**Aftercare - early years.** Alder buckthorn plants require a little care in their early years so please take note of the following:

**Guard against competition** from other plants, like hawthorn, hazel, nettles and brambles and ensure your buckthorn is given space.

**If possible, apply good thick mulch** as bushes can suffer drying out. In summer, it is important to **water** your young bushes.

**Prune** bushes in autumn/winter if you wish to shape them.

**Aftercare - later years.** Depending on space or personal preferences, bushes can be coppiced (cut back to just above ground) once they reach a height of around 4 - 6ft. They re-grow very quickly once coppiced. Brimstones will lay eggs on bushes of any height, from 6 inches up to 12 feet, so whether to prune or coppice is up to you.

*Many thanks to Butterfly Conservation Suffolk, whose own Buckthorn and Brimstone project inspired ours, and who generously allowed us to adapt their publicity and information material.*