

## Kernow Ecology Long-horned Bee Conservation guidance

The Long-horned Bee is threatened by the shortage of Legume rich habitats within 700m of nest sites. The bee is likely to need large quantities of Legumes. Large Legume specialist bee *Megachile parietina* was estimated to need 28,475 flowers or 107 plants to produce 10 brood cells (Muller 2006).

A super food of mass flowering vetches to mainly include Meadow vetchling *Lathyrus pratensis* and Common vetch *Vicia sativa* should be the main priority. If possible, also include Everlasting pea *Lathyrus sylvestris* and Bush vetch *Vicia sepium* to extend flowering period. Standard meadow mixes with a low density of mixed legumes will probably not be as effective as Super food mixes but will provide foraging resources for the bee.

Vetches *Vicia* and *Lathyrus* usually occur in tall grassland, hedgerows or ruderal habitats, with infrequent cutting or grazing regimes. The author has observed *Lathyrus* and *Vicia* is preferentially grazed and in these circumstances produces few flowers. Extensive summer grazing is unlikely to create suitable mass flowering vetch.

Easy and cheap pollen and nectar WM2 mixes (Nowakowski 2016) or even White clover leys are likely to be effective. Although the bee is likely to need additional early and late Legume rich habitat.

Agricultural crops such as Broad beans *Vicia faba* could also be effective. Agricultural forage vetch mixes with Spring Triticale could also be recommended as cover crops with value for this bee. Further agri-environment options are listed in Buglife (2017).

Protect existing Kidney vetch *Anthyllis vulneraria*. This plant is also very vulnerable to summer grazing.

Everlasting pea *Lathyrus sylvestris* is suitable for low input coastal bracken rich scrubby sites with only annual or biannual cutting regimes, where grazing is difficult.

**Table 4. Habitat features to conserve ; Aim for a mix of Early, Mid & Late flowers**

Type of resource		Comment
Nest sites		Difficult to create or conserve. Although inland nest site creation could be attempted on some sites
Vetch-rich ruderal habitats	Mid & Late	Graze or cut between 25/7 at earliest to 15/5 at latest. One annual cut may be enough.
Clover leys or Pollen and nectar margins	Mid only	Graze or cut between 25/7 at earliest to 15/5 at latest
Legume rich meadows	Mid & Late	Graze or cut between 25/7 at earliest to 15/5 at latest
Kidney vetch rich Maritime grassland or under-cliff	Early only	Scrub cut. If possible Graze or cut between 25/7 at earliest to 15/5 at latest
Agricultural crops Broad beans and Forage vetch	Mid ?	Should be promoted as good compromise between farming and conservation



**Above picture.** "Super bean border" This area is flailed in autumn and has little other management. The Meadow vetchling and Common vetch copes well with this regime and tolerates competition well with other tall ruderal plants.

**Below picture.** Cliff-top arable margin dominated with White clover, very simple to replicate, good boost although will need other earlier and later resources to be effective

