Creating a butterfly bank

A butterfly bank will create habitat for butterflies of open grassland swards. The aim is to create an area of varied aspects where herbs predominate but where there is also abundant bare ground.

**WHY CREATE A BUTTERFLY BANK?**

In many landscapes remnant semi-natural habitat is fragmented and isolated, so habitat creation schemes such as butterfly banks have an important role in both providing additional breeding sites and improving connectivity. A butterfly bank provides an open, sunny area rich in the early successional herbs that rely on disturbed ground. A variety of aspects are created, thus providing a range of breeding habitats for some of our most threatened butterflies and moths.

**CONSTRUCTING THE BUTTERFLY BANK**

1. **Planning and location**
   - Decide on a suitable location where an unshaded south-facing bank can be created, then carefully survey the existing habitat. This is important as you do not want to destroy an existing flower-rich verge or the location of a rare orchid. Check for any archaeological interest (even if not a listed site) and be aware of possible restrictions on soil disturbance, seeding, planting or importing aggregate on designated sites such as a nature reserve or SSSI.
   - If possible choose a location that already has fairly nutrient-poor soil as this will better support the sparse vegetation habitat that you wish to create and maintain.

2. **Bank formation and soil inversion**
   - Many different designs of bank can be effective, but a "C" shaped structure will ensure that a variety of aspects are created. Within the bank the soil layers are inverted so that the nutrient-rich top-soil is buried. The vegetation will then establish in the nutrient-poor sub-soil and the bank will retain bare ground for longer. The work is best undertaken using earth moving machinery. Seek advice on the best machine for the local soil conditions.
   - Remove a rectangular area of top-soil approximately 50 m long by 10 m wide, 30 cm deep. This should be orientated east/west. Place this top-soil to one side to be used later.
   - Within the scraped rectangular area, dig a "C" shaped narrow trench of 50 to 60 m long by 2 m wide and a further 30 to 100 cm deep. Remove this sub-soil to the side (more than 5 m away from trench) in a separate pile from top-soil.
   - Place the previously removed top-soil into the narrow "C" shaped trench to form the base of the bank. Scrape a strip of soil adjacent to the trench (from both sides) on top of this base, sufficient to raise the height to approximately 60 cm above ground level.
   - Scrape and re-arrange the soil at the ends of the bank to make a sloped fan shape.
   - Place the previously removed sub-soil over the created bank to cap it. Compact the soil.

3. **Covering the bank**
   - Cover the top of bank and fan shaped ends with calcareous aggregate or rubble 5 to 10 cm in depth. Clean builder rubble is suitable, though any rubbish aggregate may need to be removed first. If sourced locally, there is often free delivery.
   - On the flat, scraped area on the south side of the bank leave a 2 m strip of soil right in front of the bank. Then beyond this soil strip, cover another 2 m (or wider) strip of the scraped area with stone chippings to depth of 10 cm. Also cover a similar area at the back (north side) of the bank with stone chippings to depth of 10 cm.
4. Seeding
Use appropriate local provenance wild seed mix - do not use garden varieties. Contact Flora Locale (www.floralocale.org) for lists of suitable suppliers.
- Seed by walking on the top of the bank scattering small pinches of seeds across the top of the bank (20-30 seeds at a time) with a flick of the wrist. By seeding along the top of the bank the growing plants will later drop seeds down the slope and the area will develop a good cover in a highly cost-effective manner.
- The scraped area around the bank, including the strip of chippings can also be seeded.
- A suitable mix for Common Blue, Dingy Skipper, Brown Argus and Small Copper would be approximately 75% Common Bird's-foot-trefoil (*Lotus corniculatus*), 15% Dove's-foot Crane's-bill (*Geranium molle*) and 10% Sheep's Sorrel (*Rumex acetosella*).
- Additional seeds to provide nectar and to encourage some moth species would be: Red Clover (*Trifolium pratense*), Black Knapweed (*Centaurea nigra*), Lady's Bedstraw (*Galium verum*), Wild Marjoram (*Origanum vulgare*), Pignut (*Conopodium majus*) and Yellow-rattle (*Rhinanthus minor*).

5. Plug planting
The bank could be enhanced with plug plants of local provenance, using the appropriate species for the butterflies of your area.
- For example:

6. Long-term maintenance of butterfly bank
- Weed area of any vigorous or invasive weeds or developing scrub to maintain sparse diverse vegetation with bare ground patches. Spot herbicide treatments can be considered using a 15% Glyphosate treatment applied from a knapsack or a hand held sprayer.
- If needed the vegetation can be trimmed using a brush cutter, but do not cut the whole bank in a single year. Consider cutting half every other year.
- In the long-term, it may become necessary to re-create patches of bare ground on the bank by scraping small patches free of vegetation or spot treatment with Glyphosate. This will also help to maintain a diversity of plants.