

## Rattlechain Tip – Home to Britain's smallest butterfly

After discovering that the former Rattlechain Tip site had recently been stripped of vegetation and reprofiled, a visit by myself as a representative of the Birmingham and Black Country Botanical Society was carried out 12<sup>th</sup> February 2025. The scene that greeted me grim, especially on a cold and dull winter's morning in early February. The site was totally devoid of vegetation and resembled a lunar landscape. My thoughts went out to the residents living along the side of the roads whose rear windows overlooked the carnage, as they must have found the view stark and depressing.

Rattlechain Tip as far as I am aware is in private ownership but since dumping of industrial waste ceased here, access has been unrestricted and over the years the site has become a valued open space for informal recreation providing opportunities to contact with nature within an otherwise heavily built-up area.

From the botanical aspect Rattlechain Tip is a most unusual site. There is no subsoil or topsoil here. This is down to its past use. In its place is black foundry sand and industrial waste, some of which is almost certainly toxic. My personal interest in Rattlechain Tip goes back to the early part of this century when I visited the site to record the plant life for a 'Flora of Birmingham and the Black Country', published in 2013. What I discovered was that the entire site, although devoid of soil as we know it, was home to a community of annuals, perennials, and woody plants, many of which are scarce elsewhere in B&BC, yet here they were thriving under these unusual conditions. Unusual plant communities can sometimes support unusual animals, and the abundance of Kidney Vetch was quite apparent. Kidney Vetch is a short-lived herbaceous perennial with a preference for open, free draining alkaline substrates. Five subspecies of Kidney Vetch are recognised in the UK, three native and two introductions. In Birmingham and the Black Country this plant has a widespread but disjunct distribution, and nowhere else in the Black Country other than on Rattlechain Tip does it grow in abundance. This is down to the substrate making Rattlechain Tip different to any other site in the Black Country.

As a member of Butterfly Conservation, I have a particular interest in urban butterflies and how scarce some of them are becoming. I was aware that Rattlechain Tip was the only known site in Sandwell where Britain's smallest and one of its rarest butterflies lives. Kidney Vetch is the sole foodplant of this butterfly's caterpillar. The female Small Blue seeks out Kidney Vetch growing in a sunny sheltered spot on which to lay her eggs, positioning them carefully within the flower buds, and it is these and the seed rather than the leaves that are eaten by the emerging caterpillars. I later found out that Butterfly Conservation have almost no records of this species in B&BC and describe it as 'declining throughout UK'.

The only good news from my visit was that the hollow (a sunken part of the site), the bank overlooking Gladstone Drive, and the bank overlooking Rattlechain Lagoon are still vegetated. I noted however that small patches of Japanese Knotweed were present on both banks.

My conclusion was that as bleak as most of the land now appears, completely devoid of vegetation, the cutting down of all woody growth here should be looked on as a positive move for the long-term survival of the Small Blue butterfly population. Prior to the stripping and uprooting of trees and shrubs, woody growth was colonising more and more of the site. This is natural succession on abandoned post-industrial land and the same can be seen elsewhere across the conurbation wherever industrial sites have been abandoned and left for any length of time. After a few years scrub develops, and if left longer semi-mature and

finally climax woodland forms. The open areas on Rattlechain Tip were becoming smaller as scrub increased, and in time Kidney Vetch along with other annuals and perennial herbs would be shaded out and disappear.

This recent ground disturbance will trigger a rapid germination of annual and perennial seeds brought to the surface, and with spring almost upon us new life will begin to appear and re-colonisation of the site by annuals and perennials will be underway. So rapidly will this happen that within a very short time the whole site will have greened over. Effectively what has happened here is that Rattlechain Tip has been turned back to the way it would have appeared when first abandoned. The difference however is that now there is an enormous seedbank built up over many years. Annuals and perennials, including Kidney Vetch, which were previously in decline, now have the entire site to exploit and the surviving Small Blue butterfly larva that escaped the recent upheaval i.e. those overwintering in the hollow and along the two banks, will metamorphosise and multiply, and left undisturbed will thrive here.

The downside is what will happen to this colony of Small Blue butterfly that is **Protected in the UK under the Wildlife and Countryside Act, 1981 and GB Red List (2022): Near Threatened** should the site become a housing complex? **Extinction is a certainty.**

With knowledge of the SINC, SLINC and open green spaces in Sandwell and Dudley I can confirm that there are no nearby donor sites that could support a colony of Small Blue butterflies. Attempts have been made in the past and are still ongoing to establish Kidney Vetch on the nearby Rowley Hills, but so far without success. Kidney Vetch is recorded from nearby limestone sites in the Dudley area, but only as individual plants or in very small numbers, none of which could support a population of Small Blue butterfly.

**My personal view is, taking into consideration the sites past industrial waste dumping history, and that one of the UK's protected species of butterfly is found here, Rattlechain Tip should be left to nature and for the benefit of local people who are already living in a densely populated part of Sandwell. Surely, they deserve the right to a green space near to where they live.**

Footnote.

Prior to submitting my findings and suggestions I asked Professor Ian Trueman, Chairman of the Birmingham and Black Country Botanical Society, and co-author of the Flora of Birmingham and the Black Country, to confirm the accuracy of what I have written. My thanks go out to him for his constructive comments.

The photographs below show the abundance of plant life on Rattlechain Tip prior to its clearance, along with Small Blue butterfly photographed here in 2021.

M Poulton



















