

Control of Sea Buckthorn by volunteers at Birkdale Sandhills Local Nature Reserve, north Merseyside: annual report, 2024/25

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Introduction

The Sefton Coast sand-dune system is the largest expanse of this rare habitat in England and one of the richest for flora and fauna in Northwest Europe. Much of this diversity is threatened by Sea Buckthorn (*Hippophae rhamnoides*), an invasive spiny shrub that was introduced here in the 1890s. For decades, it was kept under control by enormous populations of Rabbits but, since their decline, due to disease, from the 1950s onwards, Sea Buckthorn has greatly increased. It spreads by means of berries dispersed by birds and, vegetatively, via root-suckers, replacing species-rich dune habitats by dense, impenetrable thickets. It also fixes atmospheric nitrogen in root nodules, enriching the soil and making it less suitable for sand-dune flora that is adapted to low nutrient conditions. The problem was recognised as early as the late 1960s, many coastwide control programmes being undertaken subsequently, with varying degrees of success. In the last decade or so, budget cuts and staff shortages have meant an increased role for volunteers in scrub control, one of these groups being the ‘Buckthorn Bashers’.



Figure 1. Sea Buckthorn invading Ainsdale duneland

The control programme

Established in 1980, Birkdale Sandhills Local Nature Reserve (LNR) (210 ha) is owned and managed by Sefton Metropolitan Borough Council and lies within the Sefton Coast Site of Special Scientific Interest (SSSI) and European Special Area of Conservation (SAC). It includes a strip of frontal dunes up to 200 m wide west of the coast road that is known to be rich in key duneland plants and animals. Unfortunately, over many years its dune-slacks and ridges have been increasingly invaded by Sea Buckthorn. Working with a few friends, I found that the shrub could be controlled in slacks by annual cutting in winter for at least five years. This discovery led to a team of volunteers, the ‘Buckthorn Bashers’ being recruited in the autumn/winter 2012/13, so that scrub growth could be tackled over a larger area, working north from Shore Road, Ainsdale, and including ridges as well as slacks. They used hand-tools, such as loppers and bush-saws, either their own or borrowed from *Sefton Coast and Countryside* service (latterly *Green Sefton*) or the former *Gems in the dunes* project (Fig. 2, 3). Because of the energetic nature of the work, events were limited to a maximum of two hours. *Green Sefton* kindly organised parking permits for the Sands Lake carpark, adjacent to the working area, and in some years, provided transport along the shore to more remote sites. By 2018/19, the working area extended north for over 1.3 km, covering an area of about 15 ha. Repeated cutting almost eliminated Sea Buckthorn from the slacks but was less successful on the drier dune ridges, though its height and abundance were progressively reduced. Observations further north in the frontal dunes and in other parts of the duneland where bashing did not take place show that, without the control programme, this area of biodiverse dunes would likely have been covered by 3m-high dense stands of Sea Buckthorn (Fig. 4). Herbicides would probably have given more rapid control. But, apart from some spot treatment from 2021/22 onwards, these were not used, partly because special training and supervision is required but also because the approved chemical, Glyphosate, is known to be harmful to amphibians, such as Natterjack Toads, which occur in the control area. From 2015 onwards, ‘buckthorn burns’ were organised in February/March, during which piles of cut material were burned by Council staff assisted by volunteers. Due to Corona virus restrictions, buckthorn burns did not take place in spring 2020 and there was no activity in 2020/21, weekly events starting again in the autumn of 2021. The numbers of Buckthorn Bash events and volunteers since 2014 are summarised in Table 1. Hours worked each year (Fig. 5) and the mean

number of participants per event (Fig. 6) mostly increased, though levelling off in the last couple of years.



Figure 2. A few of the Buckthorn Bashers at work



Figure 3. Some of the regulars in the 2024/25 season.



Figure 4. Dense Sea Buckthorn in Birkdale frontal dunes where ‘bashing’ did not take place

Table 1. Number of Buckthorn Bash events, participants and hours worked, 2014/15-2024/25.
No work was carried out in 2020/21 due to the Covid pandemic.

Year	No. of events	No. of volunteers	Mean no. per event	Total hours
2014/15	5	26	9	96
2015/16	14	20	9	184.5
2016/17	12	23	9	210
2017/18	12	27	11	226.5

2018/19	17	30	11.5	440
2019/20	20	24	12.5	475
2020/21	Covid			
2021/22	18	27	12.9	466
2022/23	20	37	13.6	530.5
2023/24	19	37	12.5	471
2024/25	18	30	12.8	460
Total	155			3559.5

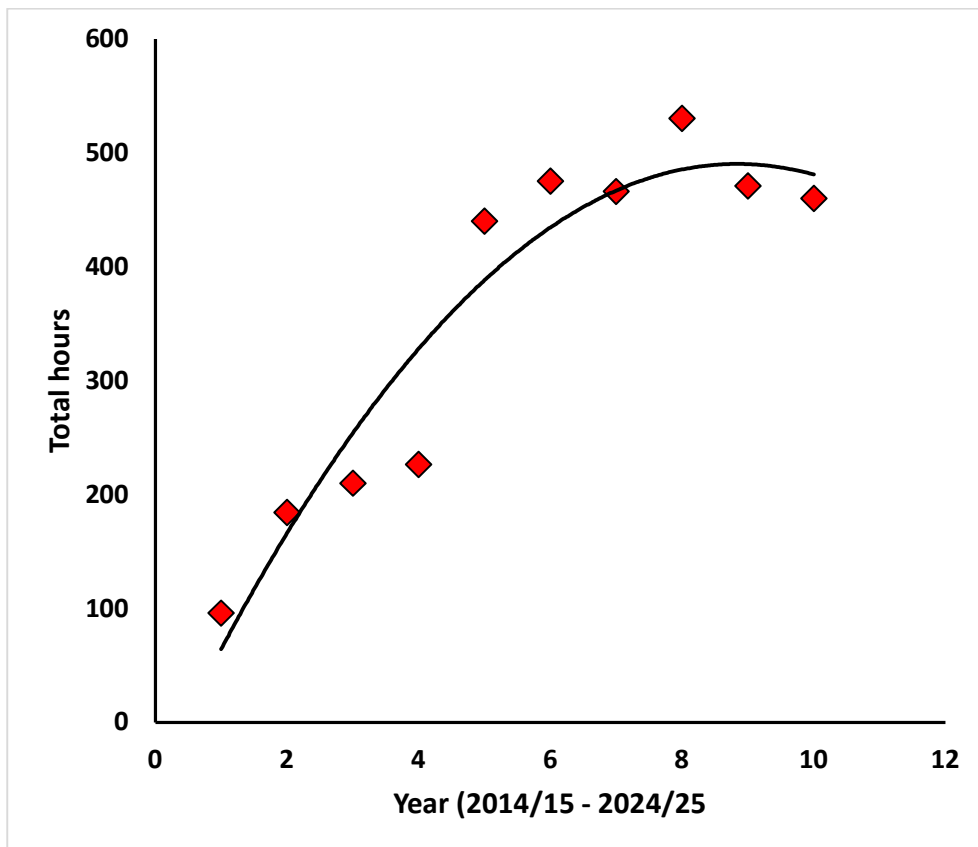


Fig. 5. Total number of hours worked by Buckthorn Bashers in each year, 2014/15-2024/25

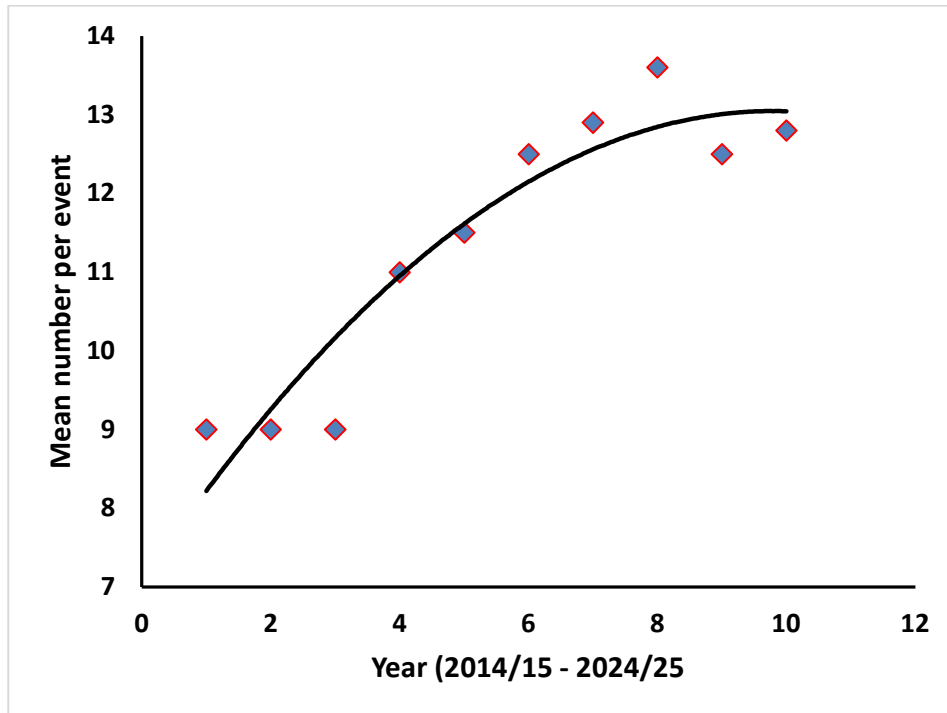


Figure 6. Mean number of Buckthorn Bashers per event each year, 2014/15-2024/25

Acknowledgements:

I am very grateful to the 30 volunteers who gave up their free time to participate in Buckthorn Bashes during the 2024/25 season. I would also like to pay particular tribute to Joyce and David Jarvis for their dedicated support over many years. Sadly, in November, we lost one of our founder members, Patricia Lockwood, following a long illness. She is very much missed by all who knew her. My thanks are also due to Gordon White of Green Sefton for loan of tools and providing carparking permits.