Dynamic Dunescapes Dune Management Case Study Template

Sand dune system	Gibraltar Point NNR
Case Study Subject	Saltings Meadow management
The Management Intervention	

Site background information

Gibraltar Point NNR exhibits a full range of dune and saltmarsh habitats from pioneer through to mature vegetation. The strip saltings exhibit one of the most unique vegetation types from a UK perspective. The Mediterranean saltmarsh community (SM 21) found here includes such species as Rock Sea Lavender *Limonium binervosum*, Sea Heath *Frankenia laevis*, Danish Scurvy Grass *Cochlearia danica* with Shrubby Sea Blite *Suaeda vera* along its margins. Previously this community was only identified from Norfolk on the East Coast - Natural England specialists were invited to confirm its presence at Gibraltar Point and it was suggested that some of the flora involved is at its northernmost limit in the UK – possibly in the world.

At the upper limits of tidal inundation, these saltings differ from the Atlantic salt meadows elsewhere on the NNR partly due to their coarser, often sandier substrate where they grade into dunes. The infrequency of tidal inundation is just sufficient to perpetuate these halophytes whilst allowing some more typical dune species to colonise. Thus, it is possible to see Common Centaury *Centaurium erythraea*, Yellow Rattle *Rhinanthus minor* and Birds-foot Trefoil *Lotus corniculatus* growing amongst Rock Sea Lavender and Sea Heath, with a carpet of Dog Lichen *Peltigera canina* in this transitional zone.

Rabbit grazing has been important in maintaining this habitat by suppressing coarse grasses from dominating. However, a series of myxomatosis episodes caused significant mortality.

What was the issue/change you hoped to make?

With the rabbit population and associated grazing reduced, inevitably, Sea Couch Grass *Elymus athericus* and Creeping Bent *Agrostis stolonifera* took hold and started to dominate the saltings at the expense of the more delicate specialist flora. Furthermore, examples of this habitat were being lost elsewhere along the frontage due to coastal erosion.

What was the suggested intervention?

With large tracts of the richest saltings having succumbed to smothering by rank grasses, we decided that we should start managing them as a meadow. Consent was obtained from Natural England to allow mowing and grazing operations to be carried out

What did you do? How did you do it?

In the first autumn of management, part of the target area was cut with our site-based MF 390 Tractor and 9’ topper. The resulting raking task for the site team proved quite onerous and was followed by various composting and burning tasks.

The following year, a local farmer was invited to cut and bale the area for haylage for his cattle. This was carried out successfully during a very dry period to reduce the potential impact of machinery on the habitat. The mowing regime was carried out in several years and occasionally, we were able to

aftermath graze with sheep in electric fencing. Sheep grazing, although part of the optimum management regime was very labour-intensive to implement. This was due to the need to set up an extensive electric fence enclosure and the need for daily checking in a fairly remote area of the Reserve. Furthermore, the operation needed to be carried out before the largest predicted autumn tides.

How was the site / intervention monitored?

After the previous autumn's management, visual inspections of the site were carried out over the course of the summer. The combination of management techniques was working well, the dominance of rank grasses being reduced and the frequency of saltings flora increasing. Photographic records were kept and incorporated in our annual Countryside Stewardship reports.

What modifications, if any, did you make to your initial plan and why?

With the advent of the Dynamic Dunescapes Project, an opportunity for the Trust to purchase a Softrak machine arose. This would have the capability to extend management regimes to reach desired outcomes in difficult to manage sites whilst significantly reducing time and labour input compared to previous regimes. The saltings meadow project was an ideal focus for this machine.

Highlight any issues/obstacles & how you overcame them?

In some years, the ground conditions were too damp for risking the use of heavy machinery which might cause damage to the habitat. However, the Softrak performs extremely well, with load-bearing and rubber tracks that barely leave an imprint on the ground even in wet conditions.

The quick cut and collect capability of the Softrak has enabled a wider area of habitat to be managed in significantly reduced time.

How much did the intervention cost?

Most works in the early days were carried out by the site team of staff and volunteers and site-based machinery and/or livestock. Electric fencing was purchased with a Natural England grant and that fencing has enabled other remote areas of the dunes to be sheep-grazed in addition to using it as predator proof fencing to protect breeding shorebirds. The haylage operation was tied in with other contractor work and with the sale of the bales was cost-neutral.

What size was the area of the intervention?

The original management area was around 0.68 ha but this has now been increased with the capability of the Softrak to around 2.3 ha.

What else went well?

The management and disposal of cuttings is a perennial challenge for Reserve managers but the Softrak is able to collect and compact large quantities of cuttings that can be left in discrete piles in areas of deep scrub or stored for later disposal at a local composting facility.

Another benefit of the work is that the area appears to be attracting nesting Skylarks and Meadow Pipits which may have been displaced from other habitats that have been lost to erosion.

Engagement Measures

How were the public and others engaged?

Signs have been erected to explain the management of the site. Staff and volunteers always take the time to engage with visitors and explain habitat works.

How were communities/volunteers involved?

Residential Nature Reserve trainees and day-visiting local volunteers have been involved in this project since its inception as part of a program of habitat and livestock management.

How were local schools or other organisations involved?

The saltings site is adjacent to a fieldwork zone used by school-groups and the project is explained to the groups during their survey sessions.

Is the intervention working?

Please describe how. What has changed?

The intervention is working, the habitat is being restored and important flora is replacing the previous rank sward.

If the intervention has not worked, detail why not, and what could be done differently next time?

Kev Wilson

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