

### 3.5 Past Management

Management of the grassland within the reserve by cutting and cessation of grazing for a long period has caused much of the degradation of the grassland quality at the reserve. Managing grassland just by cutting is probably the main cause of the bramble encroachment within a large part of the central MG5 grassland block D (see figure 7 below).

The site is currently in ESA but the only area currently grazed is the species poor grassland block A which is managed under a HLS agreement (see figure 5 below).

Managing scrub by cutting scallops along the main ride has been very successful in the past and this management should be continued and extended.

Current on site interpretation consists of welcome ladder boards and lectern stands, providing general information about the reserve, which are excellent and well maintained and provide a welcoming entrance to the reserve from the car park.

Online presence for the reserve is provided mainly via the Seaford Head Local Nature Reserve website <http://www.seaford-sussex.co.uk/sfh>. There is great potential for creating an enhanced and regularly updated online presence for the reserve in partnership with the surrounding areas within the South Downs National Park. This type of community wildlife website has proved very successful elsewhere in Sussex enhancing awareness and improving community engagement most notably the RX area of East Sussex and Kent through the RXwildlife.info website.



Figure 7. Grassland Blocks A-F (outlined in red), management boundary (outlined in dark green), potter flower bee nest site areas (marked by green arrows).

## 4. Management Objectives, Targets & Actions

### Objective 1.

*Allow free functioning of coastal cliff erosion so that species assemblages associated with cliff, undercliff and cliff-top habitats are maintained.*

### Targets

- 1.1 Monitor *Anthophora retusa* nest site distribution at least once every five years.
- 1.2 Conduct an invertebrate survey, identifying species assemblages associated with coastal cliff habitats and habitat resources, within the next five years.
- 1.3 Monitor cliff nesting bird population and distribution at least once every five years.
- 1.4 Ensure the results of these surveys and monitoring schemes inform any proposed engineering or coastal protection projects that would impact on toe erosion and precipitation erosion of the cliff-top, cliff and undercliff. (Ongoing target.)
- 1.5 Raise awareness of the importance of maritime cliff habitats for the species assemblages they support and how natural erosion is essential for maintaining its ecological interest by installing at least one interpretation board within the next five years.

### Actions

No.	Action	Date of completion	Time of year	Undertaken by	Costs
1.i	<i>Anthophora retusa</i> survey  Option 1. Employ consultant to undertake surveys.  Option 2. Conduct training day to train volunteers to identify <i>Anthophora</i> spp. in the field. The survey could then be undertaken yearly.	At least once before 2017	May/June	Consultant/ volunteers	Option 1 - £500  Option 2 - £250
1.ii	Invertebrate assemblage survey	2017	March-October	Consultant team	£5000-£10,000 (part of a reserve wide survey). This needs to be undertaken by a team of invertebrate specialists and should be funded by external funding.
1.iii	Cliff nesting bird population monitoring.	At least once before 2017	March-May	Volunteers	(Part of a reserve wide Common Bird Census, CBC.)

No.	Action	Date of completion	Time of year	Undertaken by	Costs
1.iv	<p>Install at least one interpretation board raising awareness of the importance of maritime cliff wildlife especially <i>Anthophora retusa</i>.</p> <p>Option 1. Install self standing lectern interpretation board.</p> <p>Option 2. Install A3 lockable poster frame on fence post. Place laminated interpretation posters within the frame, and replace when necessary.</p>	2017	Anytime	Ranger/volunteers	<p>Option 1. £2000</p> <p>Option 2. c.£100</p>

The exposed loess on the cliff-top is the main nesting habitat for the endangered **potter flower bee** *Anthophora retusa*. A survey conducted by South Downs National Park Authority to identify other nests sites for the species within the Cuckmere Valley area was unsuccessful, although the species has been recorded nesting in the White Horse area recently. So Seaford Head still remains the most important site in Sussex for this species. The combination of the friable exposed loess on the cliff-top in close association with forage dominated by ground ivy, kidney vetch and hound's-tongue seems essential for the conservation of this species.

*Anthophora retusa* is an endangered species which in recent decades has undergone a dramatic decline in south-east England and now occurs at only a handful of sites in Britain. The species nests in sandy soil and is polylectic (collects pollen from a number of plant species) on Brassicaceae and Lamiaceae (2008, Edwards, M. & Jenner, M.).



Figure 8. *Anthophora retusa* nest site at Hope Gap.

The cliff-top and undercliff habitats at the site are also important for a great many other rare and scarce invertebrates. An invertebrate species assemblage survey is a high priority using a timed methodology and analysed according to habitat resources present so that a comprehensive understanding of the maritime cliff habitats at the site can be assessed.

The cliff is also important for a number of scarce cliff nesting species such as **kittiwake** *Rissa tridactyla*, **peregrine** *Falco peregrinus* and **raven** *Corvus corax*. A series of CBC (Common Bird Census) surveys would be very beneficial to monitor the breeding populations within the reserve including cliff nesting species. A CBC population analysis is one of the most accurate

ways to determine the population size and distribution of breeding birds at a site, which is especially important if a site supports scarce breeding birds.

It is only in recent years that the importance of maritime cliff biodiversity has gained recognition especially soft rock cliff components such as loess deposits.



Figure 9. **Potter flower bee** *Anthophora retusa*.

Raising awareness of the biodiversity of a site through interpretation is one of the key ways local nature reserves can be used for informal education and community engagement in the management of a site. An interpretation board focussing on maritime cliff wildlife especially the **potter flower-bee** *Anthophora retusa* should be a priority for interpretation within the reserve.

lectern style interpretation boards is through the use of fence or post mounted lockable A3 poster frames. Laminated interpretation posters can be then be placed within the frames, which are easy to replace if damaged or information becomes out of date. This also allows seasonal interpretation to be used.

An alternative to expensive self standing

## Objective 2.

*Ensure the botanical and invertebrate diversity of semi-natural grassland is maintained and enhanced via monitoring, grazing and mechanical management and maintain and monitor populations of moon carrot.*

### Targets

- 2.1 Undertake botanical & habitat resource monitoring at least twice within the next five years.
- 2.2 Repeat NVC survey once within the next 5-10 years.
- 2.3 Undertake fixed point photography every year within each grassland block.
- 2.4 Undertake an invertebrate assemblage survey within the next five years.
- 2.5 Identify areas to be grazed and install fence posts to enable easy deployment of temporary stock-proof fencing by 2014.
- 2.6 Graze grassland areas identified for grazing according to a grazing plan.
- 2.7 Grassland areas dominated by prostrate bramble to be cut, arisings removed and followed by aftermath grazing.
- 2.8 Remove large scrub patches and push back edges of scrub that is encroaching into grassland within block E at least twice by 2017.
- 2.9 Moon carrot to be mapped at least twice within the next five years.
- 2.10 Reduce grazing pressure in grassland block A and avoid summer grazing in block D.

### Actions

No.	Action	Date of completion	Time of year	Undertaken by	Costs
2.i	Undertake botanical/habitat resource monitoring.  Option 1. Employ consultant to undertake surveys.  Option 2. Conduct training day to train volunteers so this can be undertaken yearly by volunteers.	At least twice before 2017	June-September	Consultant/ volunteers	Option 1. £1000  Option 2. £250
2.ii	Invertebrate assemblage survey.	2017	March-October	Consultant team	See Action 1.ii
2.iii	Identify new areas to be grazed and install fence posts to enable easy deployment of temporary stock-proof fencing.	2014	Any time	Contractor/ ranger	-
2.iv	Graze grassland blocks A, D & F according to a grazing plan. (Once a grazier has been identified to graze blocks D & F a grazing plan should be produced and agreed with the grazier.)	Every year	November-April	Grazier	-
2.v	Cut grassland block D, remove arisings and follow with aftermath grazing. (Only cut half of grassland block each year.)	Every year	September- November	Contractor/ Grazier	-

No.	Action	Date of completion	Time of year	Undertaken by	Costs
2.vi	Cut encroaching scrub patches within grassland block E. Edges of large scrub blocks can be pushed back by cutting. Patches of scrub within the grassland areas can also be cut but some small scrub patches should always be left.	2017	Nov-Feb	Ranger/ volunteers	-
2.vii	Repeat NVC survey.	2023	May-August	Consultant	£2000
2.viii	Moon carrot mapping.	At least twice before 2017	August	Ranger/ volunteers	-
2.ix	Fixed point photography.	Every year	August	Ranger/ volunteers	-

There are five key grassland blocks where grazing would be possible, A-F. (See Figure 7 p19.)

**Block A** - This area consists of mesotrophic (moderately nutrient enriched soil) species poor MG6/MG7 grassland. It is currently overgrazed and grazing needs to be reduced in this field. This grassland block is in HLS agreement and one of the prescriptions is to reduce grazing pressure during spring and summer to prevent overgrazing and enable flowers a chance to bloom and set seed, increasing floristic diversity and providing a valuable nectar source for bumblebees and other invertebrates.



Figure 10. Grassland Block A, MG6/MG7 grassland.

**Block B** - This small block consists of rabbit grazed MG5 and grazing would do more harm than good in this area. Also due to its size and location grazing may not be a practical option here.

**Block C** - This block also contains heavily rabbit grazed grassland and grazing would not be beneficial here currently.

**Block D** - This block of MG5 is the highest priority area for grazing within the reserve. There is heavy scrub and bramble encroachment here and a rotation of late summer cutting followed by aftermath grazing with cattle and winter and/or early spring sheep grazing would be very beneficial in slowly restoring the grassland here. Sheep grazing should only be undertaken in two out of every three winters to allow the occasional rest period over winter as overwintering seedheads are a very important habitat resource. And heavy grazing should especially be avoided during summer when this grassland provides an important pollen and nectar resource. The block could be further cut into two compartments when the scrub encroachment has been controlled so that the cattle grazing can be rotated once every other year in each side of the grassland block. It would also be preferable to use different species over the lifetime of the management plan and keep a detailed record of grazing within this grassland block.

**Block E** - This area is also heavily rabbit grazed and grazing should not be undertaken here unless the situation changes. The cliff-top bank is currently dominated by tor grass but as long as it does not spread this should not be a problem as it seems to be providing protection for moon carrot from rabbit grazing and it also seems to be the best area within the reserve for great green bush-cricket. Moon carrot mapping and fixed point photography should enable a constant review of the possibility of grazing this block.

There are a number of patches of scrub encroaching into this grassland block. Once scrub patches become moderately large and dense rabbits will have little to no effect on their growth. Without grazing these scrub patches will grow and begin to dominate the grassland over time. Small scrub patches within grassland can be beneficial as they provide foodplant species for a number of moth species and bramble stems and other woody material provides nesting sites for a number of scarce solitary bees and wasps. A balanced approach of removing a proportion of encroaching scrub patches and pushing back the edges of adjacent scrub blocks by cutting can be undertaken.

See objective 3 (p27) on scrub edge and ride management as scrub control within grassland should be undertaken in association with scrub edge improvements. Ride creation and scallop management should be undertaken in the first couple of winter seasons of this plan's schedule, this should be followed by control of scrub patches within block E for a couple of winter seasons and then scrub management effort should be put back into ride scallop creation and management.



Figure 11. Grassland Block E (Background left CG2 & CG4, centre foreground MG5, background right CG2)

**Block F** - This area also has some rabbit grazing, as well as serious scrub encroachment. Scrub removal, cutting and aftermath grazing could be beneficial here and is second in priority to block D in terms of introducing grazing through the installation of temporary stock proof fencing.

#### **Breeds and stocking levels.**

Sussex cattle, British white cattle and Herdwick or Shetland sheep would be beneficial breeds to use on both block D and block F. Herdwick and Shetland sheep can be very useful as they will browse on bramble and young scrub as well as graze, but as with all sheep breeds they will favour grazing flowers and herbaceous vegetation over browsing scrub so are not always the answer to bramble encroachment if there is plenty of available succulent herbaceous vegetation and is the key reason sheep grazing should be restricted to the winter season.

As these areas are heavily used by visitors and dog walkers Highland cattle may even be a possible breed to try as this is a docile breed and tolerate dogs very well. This breed also browses effectively so would be best to use only during the first few years when control of scrub and bramble encroachment is a priority. In the long term Sussex cattle and British whites would be the best breeds to use.

But the availability of these breeds should not be a barrier to grazing and more readily available commercial breeds can be effective as long as stocking levels are kept to more conservation rather than commercial levels. A commercial grazier will want to graze with the maximum amount of stock a field can take, whereas for conservation grazing the minimum amount of stock a field can take without allowing scrub invasion will be the most beneficial.

Stocking levels should always be discussed and agreed with the grazier each season and should be based on the current weather and grass growth patterns rather than setting strict stocking levels, as one season a stocking level may be ideal but during drought conditions can cause overgrazing if adhered to.



### Objective 3.

*Improve scrub and scrub edge to create foraging habitat for Anthophora retusa, Bombus ruderarius and Bombus humilis and to benefit breeding birds and migrants.*

#### Targets

- 3.1 Cut new scallops into scrub edge along paths cut through scrub at least once every two years.
- 3.2 Allow existing scallops to close over with scrub and tall vegetation via natural succession as long as new scallops are being created. (Ongoing)
- 3.3 Cut at least one new path through scrub and initiate scallop creation rotation by 2015.
- 3.4 Remove encroaching scrub within ungrazed grassland blocks B, C and E.
- 3.4 Monitor *Anthophora retusa* foraging distribution at least once every five years.
- 3.5 Conduct an invertebrate survey, identifying species assemblages associated with coastal scrub and habitat resources, within the next five years.
- 3.6 Raise awareness of the importance of *Anthophora* and *Bombus* habitat by installing at least one interpretation board within the next five years, preferably before or immediately after work creating new paths through scrub is carried out.
- 3.7 Carry out CBC survey to analyse breeding bird population once every five years.
- 3.8 Carry out timed transects to record migrants.

#### Actions

No.	Action	Date of completion	Time of year	Undertaken by	Costs
3.i	Identify and cut new scallops into scrub edge along rides A and C during 2013 and 2018.	2018	Nov-Feb	Ranger/ volunteers	-
3.ii	Limit mowing of grass to the centre of path through ride C and other paths present within the scrub block in the western golf course side of the reserve.	Every year.		Seaford Town Council	-
3.iii	Cut new path (ride B) through scrub during 2014/2015.	2015	Nov-Feb	Ranger/ volunteers.	-
3.iv	Monitor <i>Anthophora retusa</i> , <i>Bombus ruderarius</i> and <i>Bombus humilis</i> foraging distribution during 2014 and 2018.  Option 1. Employ consultant to undertake surveys.  Option 2. Conduct training day to train volunteers to identify <i>Anthophora</i> & <i>Bombus</i> spp. in the field. The survey could then be undertaken yearly.	2018	May/June	Consultant/ volunteers	Option 1. £1000 Option 2. £250
3.v	Invertebrate assemblage survey	2017	March-October	Consultant team	See Action 1.ii

No.	Action	Date of completion	Time of year	Undertaken by	Costs
3.vi	<p>Install interpretation board highlighting the importance of managing and creating foraging habitat for <i>Anthophora</i> and <i>Bombus</i>.</p> <p>Option 1. Install self standing lectern interpretation board.</p> <p>Option 2. Install A3 lockable poster frame on fence post. Place laminated interpretation posters within the frame, and replace when necessary.</p>	2014	Anytime of year.	Ranger/volunteers.	<p>Option 1. £2000</p> <p>Option 2. c.£100</p>
3.vii	Carry out CBC of the reserve.	2018	March-June	Volunteers	-
3.viii	Identify transect route and carry out transect monitoring for migrants.	Every spring and autumn.	March-May and August-October	Volunteers	-

There are three key areas where scrub edge improvement should be prioritised. (See Figure 12.)

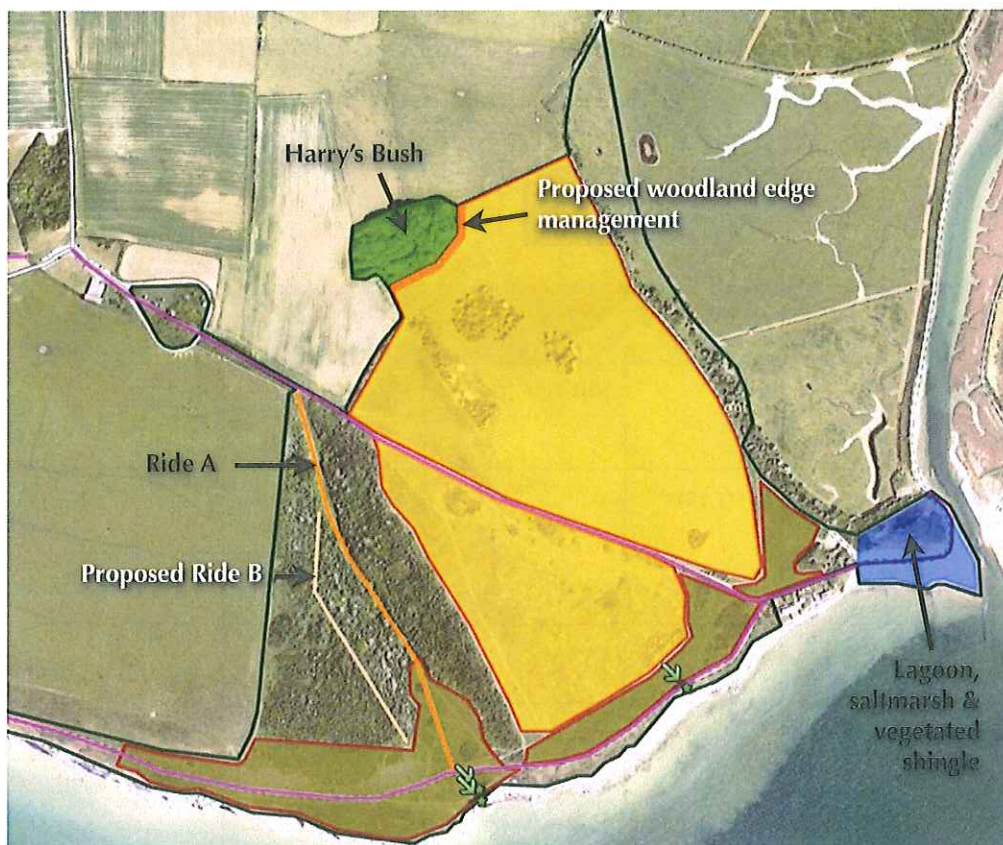


Figure 12. Eastern side of management area (outlined in dark green), with ride management and woodland edge management (orange). (Public footpaths marked in pink.)

**Ride A** - This is a very important ride for foraging *Anthophora retusa*, *Bombus humilis* and *Bombus ruderarius* as well as other aculeates. Past management to create scallops along the scrub edge has been very successful in creating sheltered disturbed areas where carpets of **ground ivy** *Glechoma hederacea* and patches of **hound's-tongue** *Cynoglossum officinale* have developed. Rather than keeping these scallops open by cutting it would be best to allow

them to scrub over and create new scallops. A rotation of scallop creation and natural succession can then be initiated.



Figure 13. Ride A showing scallops and diverse ecotone from bare ground to mature scrub.

**Ride B** - A new ride should be created in the same area of scrub near Ride A. The ride should preferably follow the same NW-SE orientation as Ride A as this seems to form the best shelter against SW winds. Once the new ride is created a similar rotation of scallop creation should be initiated.

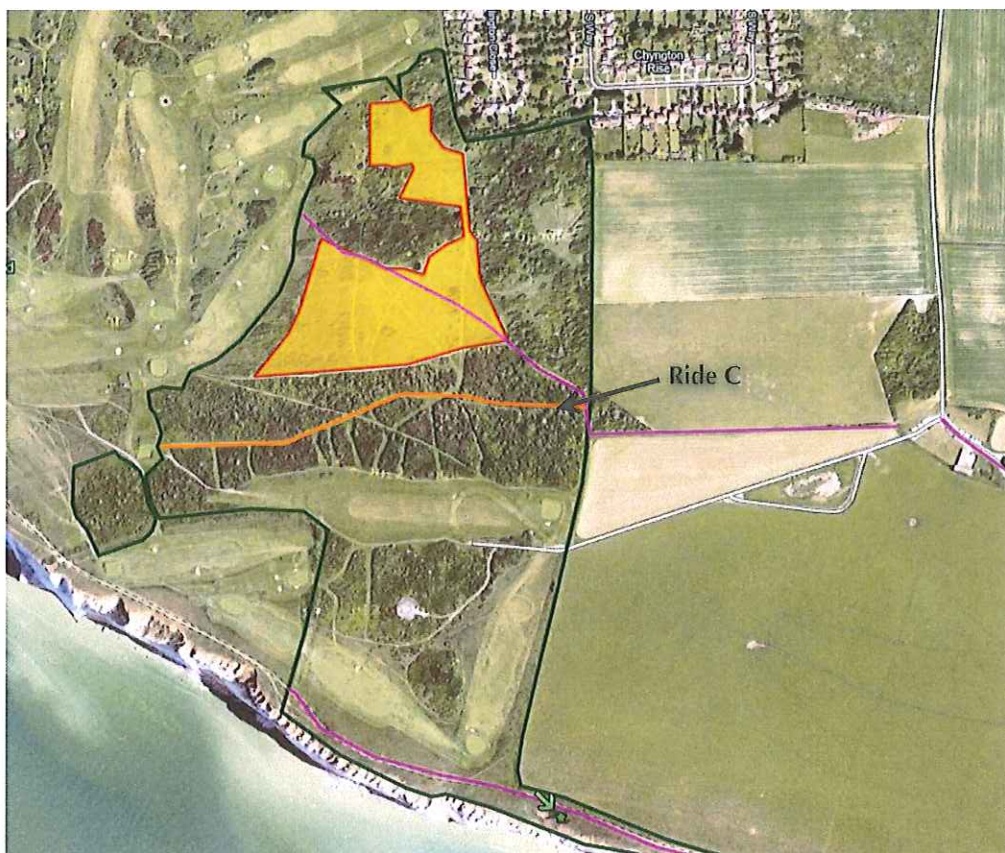


Figure 14. Western side of management area (outlined in dark green), with ride management (orange). (Public footpaths marked in pink.)

**Ride C** - The ride through this scrub lacks any ecotone and considerable improvement can be made here by initiating a similar rotation of scallop creation and succession. Immediate improvements can be made by limiting the mowing of the paths to the centre to allow the path edges to grow long.

The scrub resource throughout the reserve is also important for migrant birds. Thick blocks of even aged leggy scrub are not that rich in food and nest sites. The structure and diversity of food present within scrub edge provides a much better habitat for migrants in spring and autumn as well as scrub breeding summer migrants.

The prescribed management to open up a new ride and improve scrub edge with scallop creation will also benefit scrub breeding species and migrants. This should be monitored by initiating a series of CBC (common bird census) surveys and timed transect counts of migrants.



Figure 15. Ride C showing current lack of ecotone.

Scrub management can be perceived as damaging by the general public so it is important that interpretation is installed when visually intrusive scrub management is carried out. An interpretation board highlighting the importance of scrub management for foraging *Anthophora retusa*, bumblebees and migrant birds should be installed at the top of Ride A.

#### **Objective 4.**

*Improve woodland edge around Harry's Bush by allowing a thin buffer strip of scrub and tall vegetation to extend into field .*

#### **Targets.**

- 4.1 Use temporary fencing to prevent grazing within a buffer strip around Harry's Bush when stock is within the field adjacent to the woodland.
- 4.2 Ensure Harry's Bush is left undisturbed and managed as a non-intervention area of woodland.

#### **Actions**

No.	Action	Date of completion	Time of year	Undertaken by	Costs
4.i	Install temporary fencing to leave an ungrazed strip whenever stock is within the field adjacent to Harry's Bush.	Every year.	Whenever field is grazed.	Grazier	-
4.ii	Include Harry's Bush within CBC survey.	2017	March-May	Volunteers	See action 1.iii
4.iii	Include the woodland within reserve wide invertebrate assemblage survey.	2017	March-October	Consultant team	See action 1.ii

Harry's Bush is the only patch of high canopy semi-natural woodland within the reserve. The most beneficial management would be to improve and enlarge the south-east facing woodland edge as currently there is little structure and ecotone between the woodland and grassland. An invertebrate rich woodland edge could be developed here if allowed to enlarge and move into the field.

A buffer strip should be temporarily fenced when stock are grazing grassland block A to allow tall vegetation and pioneer scrub to develop. Once edge is developed after 4-5 years the woodland edge can be allowed to be disturbed and browsed by cattle to keep the edge open. This would be preferable to moving the existing permanent fencing into the field as this will prevent future disturbance from stock and would reduce ELS payments as the field margin would then not qualify as pasture.

## Objective 5.

Allow free functioning of coastal erosion and deposition within the small area of saltmarsh and vegetated shingle in the south-eastern part of the reserve and ensure the ecological interest of this area is monitored.

### Targets.

- 5.1 Undertake an invertebrate assemblage survey within the next five years.
- 5.2 Repeat NVC survey within 5-10 years.
- 5.3 Install interpretation board within this area to highlight the ecological interest of the saltmarsh and shingle and provide site information for visitors accessing the reserve from the Seven Sisters Country Park side by 2017.
- 5.4 Ensure the results of these surveys and monitoring schemes inform any proposed engineering or coastal protection projects that would impact on the hydrology, erosion and deposition of the saltmarsh and shingle area. (Ongoing target.)

### Actions

No.	Action	Date of completion	Time of year	Undertaken by	Costs
5.i	Invertebrate assemblage survey.	2017	March-October	Consultant team	See Action 1.ii
5.ii	Repeat NVC survey.	2017	May-August	Consultant	See Action 2.vi
5.iii	Install interpretation board highlighting saltmarsh and shingle habitats.  Option 1. Install self standing lectern interpretation board.  Option 2. Install A3 lockable poster frame on fence post. Place laminated interpretation posters within the frame, and replace when necessary.	2017	Anytime	Ranger/ volunteers	Option 1. £2000 Option 2. c.£100

This is a very interesting part of the reserve consisting of a saline lagoon, surrounded by saltmarsh and vegetated shingle. The saltmarsh is dominated by glasswort, sea mayweed and a large patch of rock sea-lavender. In the dryer disturbed area to the west of the area is a large patch of ground ivy which is visited by foraging *Anthophora* spp. The RDB3 carabid *Philorhizus vectensis* occurs here as well as the nationally scarce weevil *Gronops lunatus*.

The vegetated shingle banks to the south and east of the lagoon and saltmarsh supports two specialist shingle jumping spiders, the nationally scarce and globally restricted *Sitticus inexpectus* and the RDB3 *Pseudeuophrys obsoleta*.



Figure 16. Lagoon, saltmarsh & vegetated shingle area.

It would be most beneficial to leave this area as a non-intervention zone and allow natural erosion and deposition processes to occur. Monitoring of this area through habitat resource monitoring, a repeat of the NVC survey and include this area within an invertebrate assemblage survey would be a high priority here.

This area is also the main entrance to the reserve from the Seven Sisters Country Park and clear signposting that this is part of the reserve could be further highlighted by installing an interpretation board showcasing the wildlife of this area.

## Objective 6.

*Raise awareness of the ecological and geological importance of the reserve and the surrounding coastal area of the South Downs National Park and promote the reserve for educational use.*

### Targets:

- 6.1 Create an interpretation strategy to outline interpretation improvements for the reserve by 2018.
- 6.2 Maintain an important and central role as a gateway into the South Downs National Park by creating a collaborative wildlife news website in partnership with The Friends of the Cuckmere and other coastal sites within the South Downs National Park such as Seven Sisters Country Park, Friston Forest, Lullington Heath and Beachy Head by 2016.

### Actions:

No.	Action	Date of completion	Time of year	Undertaken by	Costs
6.i	Create an interpretation strategy to outline interpretation improvements for the reserve by 2018.	2018	Anytime	Consultant	c.£1500
6.ii	Form a partnership with surrounding South Downs National Park sites to plan and create a wildlife news website for the area by 2015.	2015	Anytime	Ranger/volunteers	

Interpretation is an integral part of management by informing users of the importance of undertaking management, the special wildlife present at the site and for community engagement in the conservation at the reserve.

This can be achieved on site by installing new interpretation boards focussed on management and the wildlife it benefits, and off site via a new reserve leaflet and improving online presence of the site.

There is great potential for creating an online presence for the reserve in partnership with the surrounding areas within the South Downs National Park. This has proved very successful elsewhere in Sussex enhancing awareness and improving community engagement most notably the RX area of East Sussex and Kent through the RXwildlife.info website. A similar independent community wildlife news website should be considered for the coastal South Downs National Park area in partnership with The Friends of the Cuckmere and the Seaford Natural History Society. A wildlife sightings based website similar to RXwildlife.info can be produced very cheaply using content management web applications such as wordpress.com, tumblr.com or weebly.com.



## Objective 7.

*Monitor invasive species and injurious weeds and undertake removal of invasive species and apply a balanced approach to the control of injurious weeds.*

### Targets

- 7.1 Map invasive species that occur at the site each year.
- 7.2 Undertake removal of any invasive species according to Natural England, DEFRA and Environment Agency guidelines every year.
- 7.3 Undertake a balanced control of common ragwort and creeping thistle on grazed grassland.

### Actions

No.	Action	Date of completion	Time of year	Undertaken by	Costs
7.i	Undertake invasive species mapping every year.	Ongoing	Anytime	Ranger	-
7.ii	Undertake removal of any invasive species identified according to national guidelines.	Ongoing	As appropriate for species concerned.	Ranger/ contractor	-

## 5. Schedule of Works

This schedule of works lists all the actions outlined in section 4 and cross-references actions that will achieve a number of objectives and targets. It enables a quick easy review of the actions over a six year time frame. The six year schedule is to enable a buffer year during which a new plan or review of this plan can be made.

It is important to note that this is a guide on when these actions should be undertaken. The plan is dependent on acquiring funding and the employment of a ranger and identification of a volunteer resource. It is envisaged that it may not always be possible to achieve certain actions within the time frame outlined and so this schedule of works should be viewed as a working plan and amended if certain actions need to be moved into subsequent years.

Certain actions need to be undertaken at certain times of the year, as indicated in the table. These do need to be adhered to especially scrub management outside of the bird breeding season. Actions highlighted in green with no months indicated mean that they can be undertaken at any time of the year or at an appropriate time of year depending on the action.

Actions	Project	2013	2014	2015	2016	2017	2018
1.i 3.iv	<i>Anthophora retusa</i> & bumblebee foraging and nest site survey		May/June				May/June
1.ii 2.ii 3.v 4.iii 5.i	Invertebrate assemblage survey			March-October			
1.iii 3.vii 4.ii	Seaford Head CBC survey		March-May				March-June
1.iv 3.vi 5.iii 7.i	Interpretation board Installation						
2.vii 5.ii	NVC repeat survey					May-August	
2.i	Botanical/habitat resource monitoring		June-September		June-September		June-September
2.iii	Identify new areas to be grazed and install fence posts to enable easy deployment of temporary stock-proof fencing.						

Actions	Project	2013	2014	2015	2016	2017	2018
2.iv 2.v	Graze grassland blocks A, D & F according to a grazing plan. (Once a grazier has been identified to graze blocks D & F a grazing plan should be produced and agreed with the grazier.)						
2.vi	Cut encroaching scrub patches within grassland block E. Edges of large scrub blocks can be pushed back by cutting. Patches of scrub within the grassland areas can also be cut but some small scrub patches should always be left.			Nov-Dec	Jan-Feb Nov-Dec	Jan-Feb	
2.viii	Moon carrot mapping	August	August	August	August	August	August
2.ix	Fixed point photography	August	August	August	August	August	August
3.i	Identify and cut new scallops into scrub edge along rides A and C during 2013 and 2018.	Nov-Dec	Jan-Feb			Nov-Dec	Jan-Feb
3.iii	Cut new path (ride B) through scrub during 2014/2015.		Nov-Dec	Jan-Feb			
3.viii	Identify transect route and carry out transect monitoring for migrants.	March-May and August-October	March-May and August-October	March-May and August-October	March-May and August-October	March-May and August-October	March-May and August-October
4.i	Install temporary fencing to leave an ungrazed strip whenever stock is within the field adjacent to Harry's Bush.						
6.i	Create an interpretation strategy to outline interpretation improvements for the reserve by 2018.						

Actions	Project	2013	2014	2015	2016	2017	2018
6.ii	Form a partnership with surrounding South Downs National Park sites to plan and create a wildlife news website for the area.						
7.i	Undertake invasive species mapping every year.						
7.ii	Undertake removal of any invasive species identified according to national guidelines.						

## 6. References

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## 7. Acknowledgements

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## 8. Appendices (separate documents)

- 8.1 Proposed area of management map.
- 8.2 NVC Survey of Seaford Head
- 8.3 SxBRC Desktop Biodiversity Report, Land at Seaford Head LNR



Moon Carrot

Phillips, A. 2012, *Seaford Head Local Nature Reserve Management Plan 2013-2017*  
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