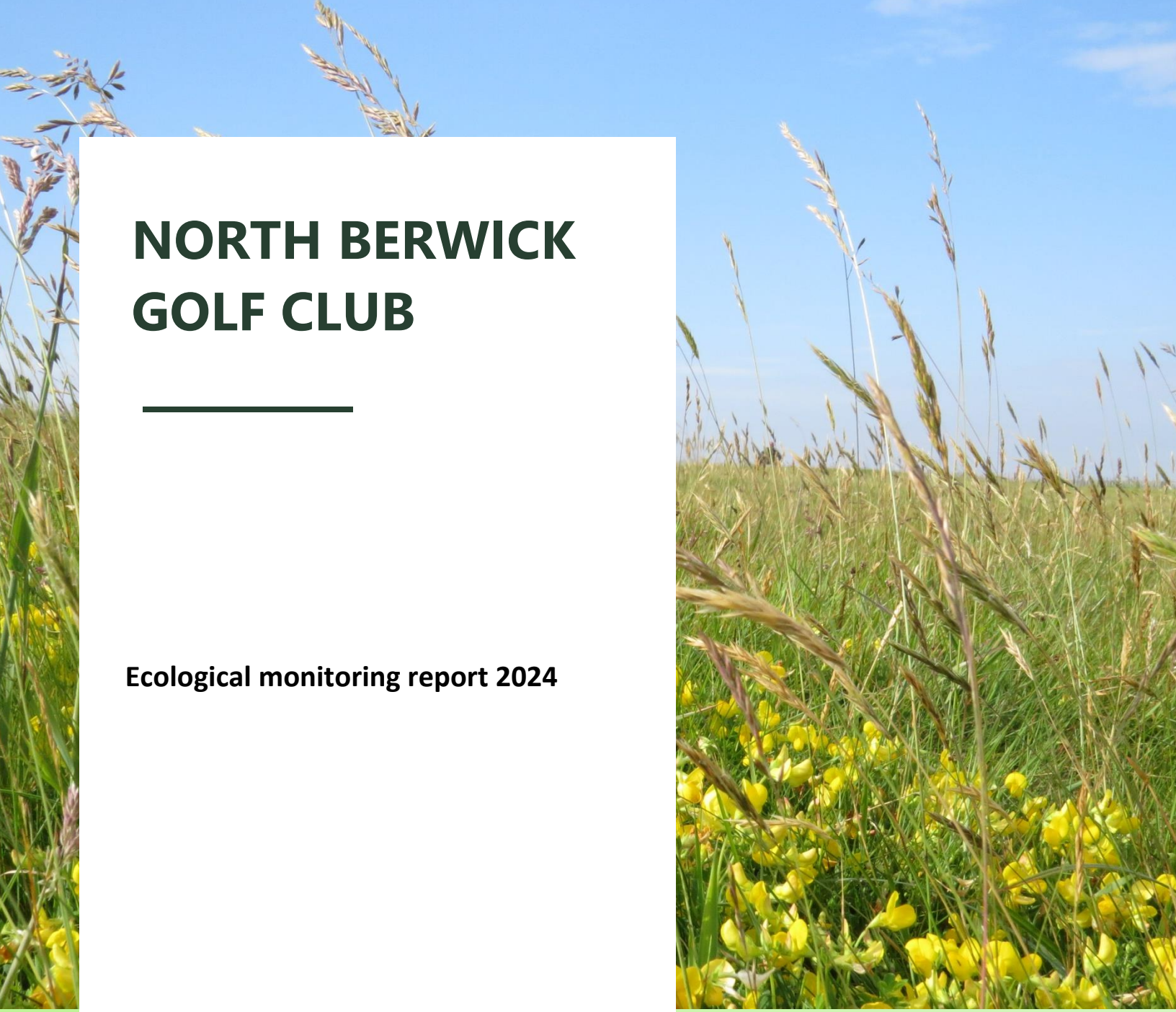

NORTH BERWICK GOLF CLUB

Ecological monitoring report 2024

7 MARCH 2024

BOB TAYLOR
Consulting Ecologist

BOB TAYLOR ecology

VISIT DETAILS:

Date of visit:	21 February 2024
Present:	Mr Kyle Cruickshank Mr Bob Taylor – Consulting Ecologist, Bob Taylor Ecology Discussions were also held with Mr Stuart Baird – General Manager
Visit objective:	To assess and comment upon the extent and quality of the ecological work carried out since the production of the 2022 Ecological Management Plan.
Weather conditions:	Light rain first thing, quickly turning dry, becoming sunnier through the period of the visit. Ideal conditions for survey.

Introduction

Bob Taylor of Bob Taylor Ecology Ltd (formerly STRI Ltd) produced an Ecological Management Plan in 2022, outlining a number of different elements relating to the condition of the course and the need, as appropriate, for management. The aim of the plan was to provide a practical, workable document that would help the club maintain and enhance the ecological and conservation value of the golf course. Recognition through the plan was given to the different habitats and the way in which these could be improved for wildlife conservation.

The plan highlighted how, without management, the grasslands will gradually thicken, increasing the level of frustration for golf and a gradual overall reduction in their conservation value (botanical and faunal). North Berwick is indeed fortunate that the majority of areas are in very good condition, requiring minimal intervention. The club, unlike many, is able to target specific areas whilst improving upon the grassland management that will benefit the playing of the game and ecological interests. Scrub is also of concern in places. The Japanese rose is an invasive non-native species which will need to be removed over time. The sea buckthorn and blackthorn are spreading and expanding in places at the expense of the underlying important coastal grasslands. Management as directed by way of the ecological management plan will address these issues without any perceived loss of bird or ecology interests.

Bob Taylor Ecology Ltd

I, Bob Taylor, have worked within the golf industry for over 35 years. In 1989 I recognised the need for a much greater awareness within golf as to the benefits that golf can bring to the wider landscape. At the time, this was set against a backdrop of extreme negativity towards golf. I set up a service specifically to address the negative issues and, importantly, to encourage golf clubs to take on their ecological responsibilities. Ecological management has, for a long while, been seen as a luxury element of golf course management but over the last five to ten years or so this has become, for most golf clubs, an integral part of their overall management responsibilities. To some extent, this has been helped by the recognition that golf does play a vital role in physical and mental health and wellbeing. It is also driven by a much greater awareness and understanding of climate and biodiversity concerns. North Berwick, like all golf clubs, is a nature reserve for the wildlife that rely upon it. The quality of the nature reserve will depend upon the type of management provided. This is primarily the focus of the Management Plan and of this first ecological monitoring assessment.

Ecological interests at North Berwick

The golf course sits within a prime location along the coastal edge, dominated by the rocky outcrops and the coastal grassland margin. Marram is a significant component of the coastline, reducing gradually across the course as other, more competitive grass species come to dominate. The majority of the grasslands over the course are fescue dominated but in places they are thickening as a result of nutrient enrichment and natural succession, requiring a slightly more intensive management approach. The Management Plan outlines the need for a fringing rough along the margins of a number of holes, extending to a nominal 4m or wider depending on position which, with cutting and light periodic scarification, will enable players to find a slightly

errant struck ball as it rolls or bounces towards the rough. Achieving optimal conditions for ball retrieval and play will allow for the more central sections of the grasslands to be managed less frequently. This will further encourage ground-nesting birds such as meadow pipit and skylark, as well as smaller rodents which will also attract birds of prey and owls. Periodic management of the grasslands will aim to retain a degree of tidiness and, importantly, will prevent scrub encroachment.

Over the last ten years or so, scrub has become an increasingly problematic issue on the course. Sea buckthorn, blackthorn and Japanese rose are all well represented in places and are spreading out and towards the playing line. Management is now being carried out to create denser groupings of desirable scrub for bird and invertebrate interest whilst removing the more outward spreading, newly regenerating scrub.

Along the coastline, a number of sycamores have been removed and this has been entirely appropriate given the need to retain the important coastal grassland interests that make up the coastal fringe.

During the visit the following points were made.

General observations, comments and specific recommendations

1st hole

Seawater inundation is problematic at the point of the footpath crossing the 1st hole to the rocky shore. On several occasions, I have outlined an option of creating very low protective mounds both north and south of the pathway to counter this issue. It would also give resilience to ongoing coastal pressures. I would be very pleased to draw up a plan or work with you to mark out and help visualise the mounds should this be deemed appropriate by the club.

Debris and damage following recent seawater inundation – 1st hole

Mounds to run between the fairway depression and the fenceline

New low mounds situated on the golf course side would significantly increase resilience against short-term coastal pressures

Burn running across 3rd and 16th holes

Burn with sleepered sides – note very shallow nature of the burn even though the water levels are relatively high

This small burn is relatively shallow and prone to silting. We agreed on this occasion that over the next few weeks as water levels remain high, the greenstaff will impart appropriate restorative management by way of desilting using a light excavator with narrow bucket. We also agreed that a number of the sleepers running along the ditch sides, which have become dislodged, are in need of replacement. My preference would be for the club to consider a series of half-round tanalised posts installed vertically along the length of the ditch, this to be undertaken in three separate phases so as to reduce the cost burden and any ecological impacts. Once installed, the posts would be cut to the desired height. Prior to any works commencing, an ecological assessment should be undertaken to identify botanical and faunal interests and rule out the possibility of water voles, which do receive international protection. I would be pleased to undertake a suitable survey upon request. Note: ecological survey will need to be carried out during the optimal period for survey, ie May to July, which would allow sufficient time for mobilisation by the optimum period for management, ie end-August to end-October.

Once the above works have been completed, periodic brushing through the base of the burn would help reduce the rate of silt accumulation. This could be undertaken annually during the above early autumn period.

4th hole

Whilst walking to the 4th hole, I noted that four sycamores have been removed. These trees would have become tall if left and would compromise the underlying coastal grassland interests. Their removal here is entirely appropriate from a conservation standpoint.

The sea buckthorn scrub to the left of the 4th carry, just north of the maintenance complex, has been removed almost in its entirety. Large piles of brash are awaiting removal. Whilst the work has been entirely appropriate to enable the gradual restoration of the coastal grassland interests, the uprooted scrub does need to be removed with immediate effect as birds are likely to start nesting, possibly within the dead scrub, from mid-March onwards. Recognising the need, the greenstaff are working to mobilise the contractor to chip and remove the waste.

Cleared sea buckthorn, remove all brash with immediate effect

We agreed that with immediate effect a test dig should be carried out to determine the under-surface substrate which, if sand, could enable the wood chip to be buried to depth and capped with sand. The surplus sand could then be used following further preparatory works to cover the upper sections of the banking, ie beyond the initial rock face. Prior to sanding, as much of the heavier humus built up as a result of scrub regeneration over time will need to be removed. Remove all smaller rocks and create similar stone featuring to those as existing. When all sand has been overlain, sow out a wildflower grassland seed mix consisting of 30% Chewings fescue and 25% slender creeping red fescue (poorer cultivars only), together with no more than 5% common bent include 15% early hair grass and 10% quaking grass. Include a wildflower seed mix (15%) consisting of lady's bedstraw, thyme, birdsfoot trefoil, kidney vetch, yarrow, mouse-ear hawkweed vipers bugloss, yarrow, ribwort plantain and Hairy hawkbit.

Implement a test hole to determine underlying substrate with immediate effect

Remove rocks in a selective manner and as discussed

Utilise and retain rocks to further enhance this type of rocky outcrop back of existing for gradual wildflower colonisation. Similar areas exist through 1st hole. Ensure no impact on existing outcrops

Sow at a rate of 10g/m^2, bulking the seed with sand and spreading by hand. Hydroseeding could be carried out if a suitable mix can be developed.

If all works are completed with immediate effect, a spring sowing could be carried out at half rate, ie 5 g/m^2, leaving the second 5 g to be sown out during appropriate ground and climatic conditions this coming autumn.

This kind of work will generate sand, much of it here will be used for reinstating the coastal wildflower interests within the current position but where surpluses can be achieved then heavy repeated sand topdressing through areas such as the banking left of the 5th tee and the coastal banking right of the 2nd tee would be of benefit. This has been highlighted within the Management Plan.

5th hole

Whilst sea buckthorn is well recognised as poor in terms of its conservation value (it is poor in terms of breeding bird numbers but does have some value for overwintering birds), blackthorn does provide good breeding habitat for birds and supplies a valuable autumn berry resource for overwintering birds and small mammals. That situated left of the 5th fairway has been coppiced back to ground level which will, rather than kill it, encourage a much stronger dense regeneration which, once recovered, will promote better bird breeding habitat and habitat for smaller rodents and invertebrates. Working through the back section only , as undertaken by the greenstaff, not only minimises visual impact but will allow regeneration to take place over the next few years. Once achieved, the aim will be to remove the outer section in its entirety which will effectively push back the scrub line to a more appropriate limit, it will also allow for the restoration of the underlying grassland.

Blackthorn coppiced along boundary

The hedge running along the course boundary is becoming open due to a lack of management by the club and possibly the local authority.

Hedge along boundary 6th hole

Work to cut the hedge on a two year rotation. Top one side only in any given year, this will ensure a winter food source is retained. Cutting will help the hedge tiller and become denser, creating better conditions for bird nesting.

6th/7th holes

Japanese rose is strongly evident along the full length of the 6th and 7th holes. It is also prevalent elsewhere, including the central grassland through the 8th hole. This is a non-native invasive weed species that should be gradually reduced in terms of its overall extent and spread. It has been discussed in the Management Plan and I trust over the next five years or so steps will be taken by the greenstaff and indeed the club to reduce the invasive nature of this plant considerably.

Whilst walking the course, I discussed with Kyle the opportunities for further hedgerow planting, particularly along the length of the 4th left of service road, along Carlekemp boundary, ie from the maintenance facility through to the left of the carry. This could be accommodated using hawthorn planted in a double row at close 450mm spacings along and between rows. This would help compensate for the loss of the non-native and more invasive species. Other areas will be advised with ongoing monitoring.

11th hole

I noted the removal of the sycamore to the left side of the championship tees. However, the stump has been retained and I recommended here that you treat the cut stump with immediate effect using glyphosate plugs. These would be inserted into the cut stem (rootstock) to reduce the extent of regeneration.

We discussed opportunities here for reinstating the surface, this to include the removal of all woody material and the surface soil horizon, burying the debris to depth and capping with clean sand, all to create a smooth but contoured surface through to the dune edge. Capping the sycamore stem will further help reduce its ability to regenerate.

Sycamore will regenerate if untreated

9th hole

A significant stand of regenerating and establishing sea buckthorn was noted back of the 9th green. In a very short period of time, the scrub will significantly compromise the coastal grassland interests. My recommendation is to work towards its phased removal throughout the term of the Management Plan.

Sea buckthorn back of 9th green

Removing the scrub will allow for a significant open sand area and, importantly, a sand resource for conservation use. The club should recognise that open sand is an internationally important habitat type in its own right. As it recovers, with no more than periodic monitoring for scrub regrowth the area will support solitary mining bees, important beetle assemblages and lower and higher plants which will gradually return.

10th hole

I was very pleased to see the works being carried out to the back of the 10th green to right of the 11th tees. We agreed here to introduce additional marram into the existing grassland (both sides) of the accessway at relatively close 400mm spacings to provide additional interest through the walkway. The marram would link with the existing coarser grassland to the back of the 10th green. The widening of the pathway will help in managing wear which should maintain surface condition through the main golfing periods.

Continue the planting of marram and sand sedge

Plant marram into the grassland at close spacings and link with rough grassland

Opportunity to create a smooth surface free of invading tree and scrub growth

Coastal erosion

I have spent a number of years at North Berwick mapping the ebb and flow of the coastline and this work has been recently superseded using drones to accurately plot the toe of the golf course margin. The storms through 2023 to 2024 have been unprecedented and have led to a marked loss of the coastal front. Indeed, this has exceeded more than 2m in places. It has also resulted in the loss of the sand that has accreted over a number of years. I urge you to continue the annual to biennial monitoring using the drone equipment as this will provide good evidence of the degree of coastal erosion over time. Continue also working with Envirocentre to shore up sections of the coastline using the sand gabion mattressing. Undertaking this work on a phased and ongoing basis will allow for more appropriate budgeting that will help secure and stabilise the more vulnerable sections of the coastline.


Continued erosion along the coastline and release of town inorganic wastes

The greenstaff are well aware of the need to continue working to straighten the burn at the 11th to reduce any cutting in or scouring that this may otherwise cause. Again, this work will need to be carried out as and when required as the route of the burn changes.

Work to straighten the burn is important – undertake annually as need dictates

Other opportunities identified during this visit

We discussed the possibility of planting a native hedgerow along the boundary of the course starting along the left side of the 4th hole. It would be first necessary to discuss the opportunity with the residents alongside the course but a hedge need not restrict any outward views. Hedgerow reintroductions are extremely important as we have lost so much within the wider countryside. The removal on such a scale has had a major impact on our songbird fauna. A hedge could be planted as a double row with small forestry transplants introduced at close 350 to 400mm spacings along and between the rows (5 trees per metre length). The trees would be root dipped into a mycorrhizal suspension prior to planting and the entire length would be protected with either tree guards or with post and chicken wire fencing. Hawthorn would make up the body of the hedge, possibly with 15% hazel and guelder rose and with 10% holly. The hedge would need to be managed to no more than the height of the existing fence by annual topping by the greenstaff. This would ensure it forms into a dense functional hedgerow.

Look to establish a native low hedge along boundary

Summary and conclusions

North Berwick is without doubt a superb golfing venue, it is also of considerable ecological value. Indeed, it is a functioning nature reserve for all of the diversity of wildlife that rely upon it. Management is key if wildlife interests are to be fully supported and the Management Plan lays out a way forward to protect the important ecological interests that here are so diverse and varied. The work carried out to date is wholly suitable and in line with the Ecological Management Plan. Certain areas of working will need to be continued with immediate effect simply to "clean up" before the upcoming nesting season, but overall works are entirely appropriate and will need to be continued as detailed over the term of the plan. Indeed, at the end of the plan emphasis should be placed on its renewal and revision so that works can continue as and where required. This is a normal process at all those golf clubs participating and who are progressive in recognising that ecology interests need to be managed to be conserved. One of the key benefits at North Berwick is that the site is overall in very good condition, the grasslands are generally excellent and works therefore can be local and targeted rather than wholescale.

Signed

Bob Taylor
BSc (Hons), MCIEEM, MBPR
Consulting Ecologist