

Ecological Management on a "Shoestring"

The issue of Ecology has become a major factor in golfing circles, so Conservation Manager Will Bowden has taken a look at how this can be managed at little cost.

The objective of this article is to highlight the common misconception that any worthwhile ecological management programme requires large expenditure and an unrealistic strain on human resources and materials. In truth environmental enhancements rely on four basic principles:

- Understanding the nature of your golf course.
- Imagination/visualising the potential to improve an area of natural value.
- Organising and planning.
- Commitment and seeing the work through to its completion.

As with any form of project management the primary concerns are of limiting factors such as staff shortages, time and money constraints therefore you must ensure your objectives are realistic, 'SMART' - Specific, Measurable, Achievable, Realistic and Timed. We can soon lose control of the situation if targets are not sustainable.

The best advice is to prioritise areas on your site that would most benefit from improvements. List these areas and research how best they can be enhanced with regard to their ecological value. It is imperative to involve the whole team, as these are the people who will be at the sharp end of what you are trying to achieve and in order to make it a success you must enlist their support and all agree upon what is both realistic and worthwhile.

In this article I shall refer to examples from previous experience to illustrate how, with a clear goal and relatively small investments in time and money, significant improvements to your golf course can be made.

Planning and Communication

As golf course managers we are accustomed to planning. We plan at the start of every year. These plans involve revising fertilizer regimes, pesticide treatments, cultural operations through to in-house construction projects. If you are serious about embarking upon a long-term commitment of ecological management, then planning for such work must also become an integral part of this annual thought process.

Communication on all levels is critical, especially when dealing with the potentially emotive subject of the environment. As well as the involvement of the greenkeeping team, make every effort to inform members and clubhouse staff. This can often be a thankless and unappreciated task, however it will help to reduce the likely hood of future conflict if all parties are kept informed.

As well as relatively cheap ways of improving the appeal of your golf course, environmental work can be used as a method of breaching the widespread void of communication that exists within many golf clubs between the clubhouse and the maintenance staff. If adopted as a more 'global' theme throughout the club such work can be the focus of raising our professional profiles and increasing the respect and appreciation we are



Before clearance work.

afforded. This is where planning and communication play a pivotal role in establishing a viable and legitimate environmental work programme.

Focus on habitat restoration

You must adopt a long-term perspective when considering any ecological work. The key to a successful and worthwhile environmental management plan (EMP) is habitat restoration as opposed to quick fix gimmicks or PR exercises. Your time is far better invested in fieldwork, be it; scrub clearance, tree transplanting, grassland management etc. Rather than constructing bird and bat boxes, or putting up feeders!

Although these measures may benefit from short term success and spark initial enthusiasm and appreciation from the membership, it is the time you invest in broader scale, long-term improvements that will have a further reaching impact on both the enhancement of the course and its appeal to wildlife. The key to this is understanding your 'target species'.

What are the specific species of flora or fauna that you are aiming to encourage? How can this best be achieved? This initial work may involve studying historical records to form an understanding of how the site has been managed historically and perhaps reestablishment of some of these methods.

One such project I've been involved in was the restoration of bluebell woodlands. It was established that the original nature of the site was coppiced/managed woodland allowing light and air to reach the under storey and encouraging the spring bloom of bluebells once commonplace. What had happened through decades of neglect was the development of a degenerate woodland scrub.

Invasive bramble and bracken had over run the previously open woodland floor, effectively suffocating local flora and in so doing reducing both the areas aesthetical appeal and ecological value.

The initial step was to divide the general area in to manageable sections (i.e. zone A, B, C etc.) and deal with each zone over the next five years. This division was based upon a list of priorities and we decided to tackle the worst effected areas first.

Step 1. Assessment

The woodland had become infested with thick under storey, bramble, bracken and ivy, all effectively starved the environment of light and air. Many young trees had been inhibited and numerous saplings died.

Swathes of golden grass can add character and definition to an otherwise monotone open area of a golf course.





During clearance.



An orchid in the rough – its establishment was encouraged by the development of natural roughs.



A cleared woodland floor in spring – the bluebell 'carpet' is reinstated.

Step 2. Clearance

This is where dividing an area up into a manageable zone is essential. The work involved, brush cutting, burning and root digging, in order to open up the woodland floor. It was also necessary to remove many young dead trees - these would later be replaced with appropriate local transplants.

Step 3. Regular management

On going - the area must be observed and appraised each year. In this instance the onus was on constant bracken and bramble removal for years one - two and the gradual replanting of indigenous deciduous and evergreen tree and shrub species. The end result - 18 months on - pays tribute to the work carried out and the time invested in to such a project. In all, approximately 32 man-hours were spent on this area, with no external costs incurred.

Another low cost management project I've been involved with is the reestablishment of grassland areas in the meadowland habitats of a golf course. As with many modern pay and play establishments the commercial objectives centre around volume of play and specifically throughput of golf. The general impression within the club hierarchy was that this could only be achieved through the wall-to-wall mowing of the course with the rough never exceeding four inches in height.

The expansive nature of the site meant that certain areas of the course were being unnecessarily maintained at a high frequency of mowing and as a net result elements of character and definition were suffering. The objective was therefore to establish swathes of native grassland habitat in between appropriate holes, these had to be carefully considered so as not to intrude along the lines of play or create an unfair challenge.

As the photo illustrates (see opposite, bottom left) these areas of native grass added definition and colour to these previously open parts of the site. That year I undertook a small-scale butterfly survey of these enhanced areas.

The results indicated an increase of over 55% in species diversity from the previous year, an impressive "bio indicator" as to the success of this project.

This was coupled with a significant increase in species variety with regard to local flora, species as diverse as ragged robin, wild pansy and orchid (pictured above, right) were flourishing within the sanctuary of these grassland habitats.

All this had been achieved with no extra costs and in fact a reduction in man-hours required to mow the roughs! Throughput of golf had not suffered and we constantly reviewed specific areas to ensure these were not causing a slowing up of play.

Proving the fact that through a clear vision, open communication and understanding of what needs to be achieved, significant ecological improvements can be made to your course on a shoestring budget.

We spend a considerable amount of our time planning improvements to the golf course. Understandably the majority of these plans are focussed on playing areas, however if you can discipline yourself and your team to consider the wider picture and incorporate these natural areas in to an overall management objective for the course then great achievements can be made. Not to mention other issues such as staff morale and job satisfaction.

Our profession should be so much more than just grass maintenance, our feeling of self worth and the respect of others can be fulfilled if we look beyond the cutting of grass.

I hope this article has shown how, with a little imagination and enthusiasm, we can all improve our golf courses, both for the good of the golfer and above all the environment and all of this at little financial cost!