



Stuart Cagle. Beautiful bunker shadows beside the sea at the Royal Aberdeen Golf Club



Colin Jones. Using a tree to great sunlight-blocking effect at Mold Golf Club



Peter Robinson. "The ball collector" at Slieve Russell Golf Club



James Hutchinson. Snow stops play at Fairhaven GC, but it makes for a fine winter shot

"Third, Gareth Anwell. The trees, the sky and the delicate shadows in and around the old Palacio, together with the quality of the greenkeeping make this picture stand out. This photograph belongs in some of the glossy magazines, as well as ours.

I would enjoy these and many others in my personal library. Thank you to all Greenkeepers," said Alan.

Thank you to everyone who took part in the 2011 BIGGA Golf Photographic Competition.

You can enter next year's competition now if you wish (although you have until July 31, 2012).

Please mark your emails, "BIGGA PHOTO COMP 2012," in the subject header (using uppercase lettering please) and send to tom@bigga.co.uk
Good luck!

2011 BIGGA Photographic Competition winners are:

1st. Paul Hope, High Post GC; 2nd. Adam Grieve, Royal Eastbourne GC; 3rd. Gareth Anwell, Son Gual Golf SL



ABOVE: Glenn Kirby, awesome colour in place at the 16th International, London Golf Club

BELOW: George Little, the beautifully patterned fairway neatly contrasts the tone of the forest skyline, on the 11th hole, at Woburn Golf Club



Golfer loses an eye... *was this avoidable?*

Health and Safety expert, Jon Allbutt, examines the evidence in the recent Scottish court case where **a man lost the sight of one eye while playing golf**, and offers advice on how to avoid it happening again

The conclusion of a recent court case in Scotland has been widely reported. The judgement, by Lord Brailsford, contains some important information for golf clubs and golfers.

The case concerns an accident where a golfer lost the sight in one eye as a result of being hit by a golf ball. Player A played his tee shot and saw that it was going left towards another part of the golf course where a group of golfers were walking from a green to their next tee. Golfer A said that he shouted "Fore" and three out of the fourball group took avoiding action but it was unclear if, in fact, the fourth, Golfer B, did take sufficient avoiding action.

The Judge stated that Golfer A was 70% negligent as he was over confident and failed to exercise good judgement before playing his shot; the golf club was 30% negligent because they did not carry out a risk assessment and they failed to provide signs and guidance, but that Golfer B was not negligent as he was an inexperienced golfer and may not have known what to do on hearing the shout of "Fore". And, in any case, he only had a matter

of a few seconds to decide what to do.

The experts agreed that there was no guidance by way of signs to guide the fourball from the green to the next tee and that if signs had been provided it may well have guided them along a safer route to the next tee. The experts' evidence also indicated that a deviation in the region of just 15° from the centre line of the fairway, from where Golfer A played his shot would put other golfers at risk. The teeing ground where Golfer A played his shot had no signs to give any guidance on priority.

Although not directly relevant to this case, there were, in fact, two other golf holes within range of a mis-hit tee shot from where Golfer A played his shot. It appears that it was foreseeable that a golfer on any of the three holes might be at risk of being hit by a miss-hit ball played from the teeing ground where Golfer A played his shot.

The golf club did not offer any evidence by way of risk assessments, or monitoring of play, to show that they had considered the risks to greenkeepers or golfers at this complex of golf holes.

If a risk assessment indicates significant risks to greenkeepers when they are working on the golf course it is very likely that golfers may also be at risk when they are in the same place.

It seems very likely that had the golf club prepared a golf course risk assessment, and provided some guidance on safe routes and perhaps also a local rule for priority, it may have avoided the judgement of 30% negligence in this case.

I find that golf clubs seem to be uncertain and confused about what they need to do and are unwilling to accept that sound judgement and good common sense by their professional team (the greenkeepers), and golfers, is often sufficient when preparing a risk assessment. There is also hesitation when it comes to deciding on what 'reasonable actions' are needed to eliminate, or reduce, the risks of injury.

In my experience, if there is some doubt as to what actions are needed to reduce a risk, a period of monitoring of the work, or golf, or both, will soon provide the evidence needed. Monitoring is a valid process providing it is not open ended and the results are duly considered. However, it is also acceptable that monitoring can be extended for an additional period in order to gather additional data. Where it seems likely that seasonal conditions on the ground are a factor then monitoring could be extended for several years, but there would need to be justification for this and it is not used as an excuse for not making a decision!

Actions to reduce risk can be

as basic as providing signs and/or written guidance or local rules. However, it could be that there may need to be physical alterations to the golf course and these could range from subtle changes to the shape of a fairway, to moving greens and tees, re-grading steep slopes, moving trees or other costly actions. It is very important to remember that such actions must be proportionate to the degree of risk identified.

In addition to the risks of civil actions being brought against the golf club there are also risks of criminal action in the form of enforcement notices, or prosecutions, being taken under health and safety legislation.

Most golf clubs have some understanding of their duties under health and safety legislation, not only for their employees, but also to golfers and the public. However, it is also important to note that in this case the judgement against the golf club was made under Section 2 (1) the Occupiers Liability (Scotland) Act 1960 which states:

"2.-(1) The care which an occupier of premises is required, by reason of his occupation or control of the premises, to show towards a person entering thereon in respect of dangers which are due to the state of the premises or to anything done

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or omitted to be done on them and for which the occupier is in law responsible shall, except in so far as he is entitled to and does extend, restrict, modify or exclude by agreement his obligations towards that person, be such care as in all the circumstances of the case is reasonable to see that that person will not suffer injury or damage by reason of any such danger".

There is a similar Occupiers Liability Act applying to England and Wales.

A golf club has duties to prepare a risk assessment for the golf course and to take reasonable actions to reduce the risks identified. The BIGGA/GCMA Safety Management System is available to assist with this important process and there are experienced expert independent health and safety professionals available to advise golf clubs to achieve the appropriate safety standards.

Jon Allbutt
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Volunteers wanted



to work at The Open

The Open Championship, Lytham and St Anne's, July 19-22, 2012

This is your opportunity to work at The Open Championship and assist the Lytham and St Anne's team with the preparation of the course and be a part of the on-course team which accompanies each match ensuring bunkers are raked in a correct and professional manner.

It will be your responsibility to make your way to the team's base for the week – a hotel in the centre of Blackpool, - but after that transport to and from the golf course, accommodation and meals will be provided for the duration of the Championship. Accommodation will be on a shared twin-room basis.

You will be expected to report for duty by 5pm on Wednesday, July

18, and be available until the close of play on Sunday – a meal and bed and breakfast will be supplied for the Sunday evening and Monday morning if required.

This opportunity is open to full BIGGA members only.

Younger members, relatively new to the Association, will also be actively considered, as will a number of first-time applicants.

To apply please complete this application form and send to: Scott MacCallum, BIGGA HOUSE, Aldwark, Alne, York, YO61 1UF.

For further information contact Scott on: 01347 833800 or email: scott@bigga.co.uk

Closing Date for applications for The Open Support Team is February 1, 2011, and you will be notified later in the month.

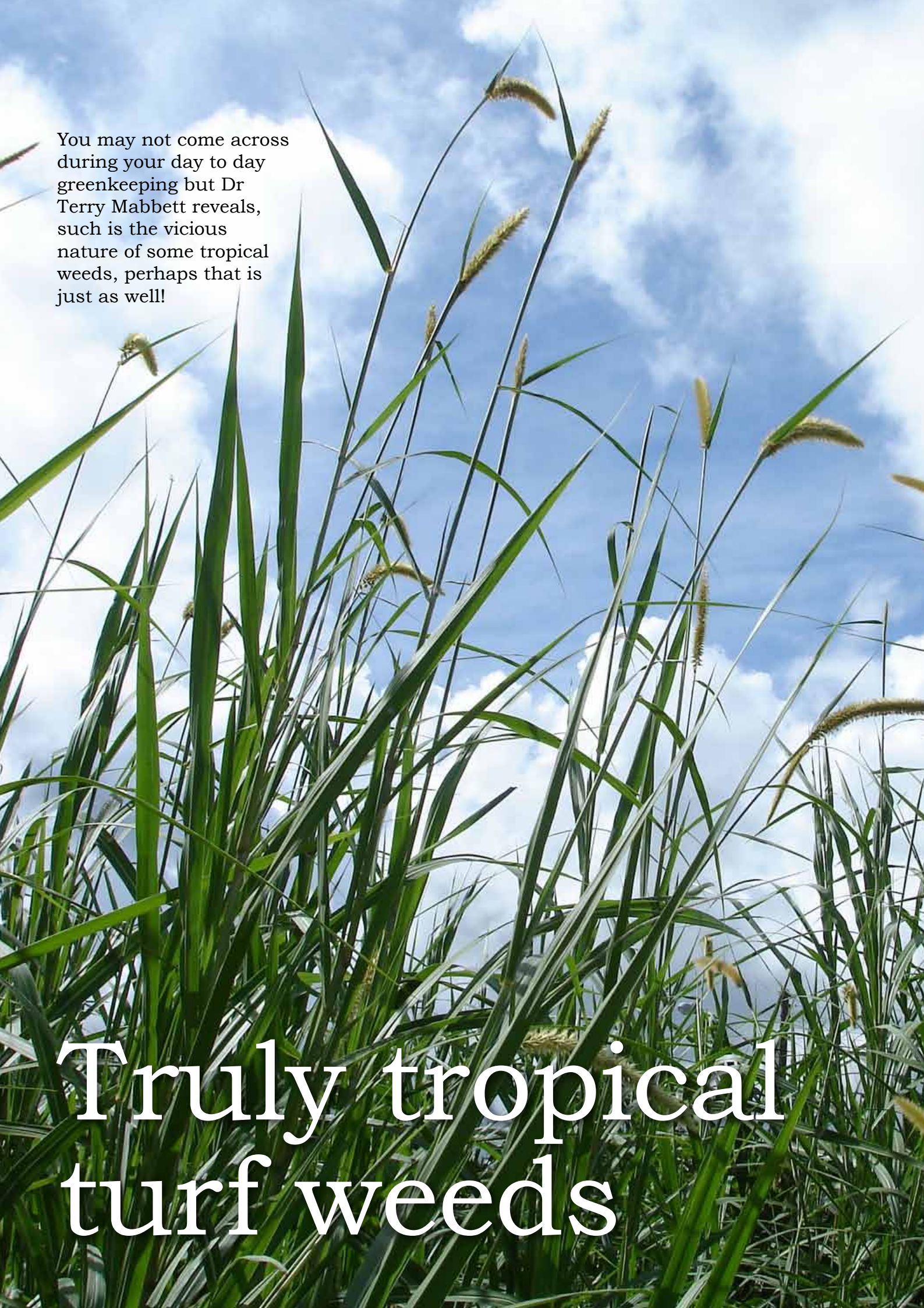




Name		Yes	No
Golf Club			
Position	Age	I have been a BIGGA member for more than three years <input type="checkbox"/> <input type="checkbox"/>	
BIGGA Mem Number		I serve, or have served in the last three years, on a Section/Region Committee..... <input type="checkbox"/> <input type="checkbox"/>	
Email Address		I am enrolled on BIGGA's CPD Scheme <input type="checkbox"/> <input type="checkbox"/>	
Mobile Number		I have attended three of the last five Harrogate Weeks..... <input type="checkbox"/> <input type="checkbox"/>	
I have applied for/appeared on the team at:		I am/have been a member of the PGA Championship Support Team <input type="checkbox"/> <input type="checkbox"/>	
	Applied Successful		
Royal St George's, 2011	<input type="checkbox"/>	I am willing to be a mini bus driver (You must have held a full driving license for three years and be over 25 years of age.)..... <input type="checkbox"/> <input type="checkbox"/>	
St Andrews, 2010	<input type="checkbox"/>		
Turnberry, 2009	<input type="checkbox"/>		
Royal Birkdale 2008	<input type="checkbox"/>	I am an overseas Member <input type="checkbox"/> <input type="checkbox"/>	
Carnoustie 2007.....	<input type="checkbox"/>		

Note: A place on the team is open to all full BIGGA members but priority will be given to the more active members. Subject to the availability of sufficient numbers of experienced team members no regular team member will be selected for more than three teams in succession. A limited number of places will be made available to younger members and overseas members. Please ensure that you have spoken to your golf club or Course Manager prior to applying and have arranged the time off.

Should you be chosen you must send a passport picture of yourself to BIGGA HQ.



You may not come across during your day to day greenkeeping but Dr Terry Mabbett reveals, such is the vicious nature of some tropical weeds, perhaps that is just as well!

Truly tropical turf weeds

Golfers could get lost in the 'rough'

Trawl the net for tropical weeds and you will find most consideration given to agriculture. It's as though turf in the tropics does not suffer from weeds, but I can assure you it does and with a vengeance. Weeds in the hot wet tropics smother turf and take over amenity grassland spreading from these sites to cover hard surfaces at phenomenal rates.

No part of the tropical sports and leisure facility escapes. Weeds will infest greens, tees and fairways, turn any 'rough' into a veritable jungle and completely clog up streams, drainage ditches, ponds and lakes.

Weed frequency, intensity and growth rate are exceptionally, high boosted by high temperature, humidity and soil moisture level. In regions lacking a dry season weeds grow and reproduce throughout the calendar year.

Facilities in regions with a distinct dry season are given some respite but instantaneous bursts of weed growth with onset of the rains has to be seen to be believed, and requires prompt sustained control. Turf Managers in temperate countries face a seasonal resurgence of weeds, but this will pale into insignificance in the humid tropics where weeds move so fast you can almost see them grow.

Many of the worst tropical weeds started life as 'ordinary' wild plants within restricted habitats and geographical distributions. Redistribution of plants by agriculture and horticulture during colonial times (18th and 19th centuries) spread lots of wild plants that subsequently acquired turf and amenity weed status throughout the tropics.

Nowhere is this more true and apparent than in the Caribbean, historically most visited part of the world by man and plant alike.

The following observations on weeds of turf and amenity grass were made in the twin island nation of Trinidad and Tobago southernmost of the Caribbean island countries and just a few miles off the coast of South America.

These islands provide an ideal location to gauge the breadth of tropical turf and amenity weeds. Not only do they support weeds native to South America, to which Trinidad was once joined, but others from across the world introduced deliberately or accidentally, especially by The Imperial College of Tropical Agriculture (now the St Augustine Campus of The University of The West Indies) with its roots way back in the 19th century.



Surface spreading tropical turf weeds

Surface spreading weeds create big problems for turf and amenity managers with a wide range of creeping and matt-forming broad-leaf herbaceous plants responding rapidly to high temperature, rainfall and humidity. The most effective and successful are those with running and creeping stems, above or below ground, especially if they root at the nodes.

Many which spread by nodal rooting, as their creeping stems elongate, can spread a metre or more across impenetrable hard

surface, still supported by root anchorages on adjacent turf.

Tropical (warm season) grasses in sports and amenity turf generally possess much broader leaves and form thicker swards than do cool temperate grasses like *Festuca* and *Agrostis*. Growth rates are much faster too but still no match for dedicated matt forming turf weeds like *Alysicarpus* and *Sida acuta* (sweet broom). And opportunistic turf weeds including *Mimosa pudica* and *Desmodium* which rapidly colonise turf in the wet season forming large unsightly patches of weed growth in a remarkably short space of time

Long reach of the legumes

Mimosa pudica, *Desmodium* species and *Alysicarpus vaginalis* are leguminous weeds of tropical turf. All three are important matt forming weeds of sports turf and savannah (parkland) grass spreading rapidly to colonise large areas in no time at all. All three will then spread out across adjacent hard surface areas for a considerable distance to cover substantial areas all supported by a root base now a good distance away.

Each spreads through creeping and ground hugging stems which freely root at the nodes. *Alysicarpus*

ABOVE LEFT: Rapidly spreading low-profile *Alysicarpus vaginalis*

ABOVE: Diminutive *Desmodium* in the long grass

ABOVE RIGHT: *Tridax procumbens* spreading from turf across a hard surface

ABOVE RIGHT (INSET): Willow leaved primrose (*Ludwigia*) is already in the UK

ABOVE FAR RIGHT: Carpet daisy is a problem on turf near the seashore

BELOW LEFT: Fast spreading *Mimosa pudica* swamps wet turf and amenity grass

BELOW: *Mimosa pudica*, *Sida acuta* and *Desmodium* have overwhelmed this turf

FAR RIGHT: Tropical turf grasses tend to have comparatively broad leaves





vaginalis is a dedicated low growing creeping herb while the others are more versatile, evolving a low profile habit in frequently cut turf and semi-erect woody stems in amenity grass. The delicate reddish purple bean-like flowers of *Desmodium* and *Alysicarpus* borne on erect stalks can be confused but are easily distinguished from the light purple/mauve pompom flowers of *Mimosa pudica*.

The best way to separate them is by the foliage. *Alysicarpus* bears simple rounded to boat-shaped leaves in alternate positions along the stem. *Desmodium* has compound leaves comprising one pair of side leaflets and a terminal leaflet each on a short stalk. Technically, it is a compound pinnate structure but at first glance looks like a three leaflet compound palmate leaf. *Mimosa* has a compound pinnate structure with leaves pinnately arranged into one or two pairs of leaflets further subdivided into 10 to 20 pairs of smaller leaflets. The leaflets are sensitive and close up when touched.

Mimosa pudica is viscosly thorny and not the sort of weed welcomed on sports grounds and other public places like parks and savannahs. On the other hand the soft leaves and stems of *Alysicarpus* (called Alyce clover by farmers in North America) provide highly nutritious animal fodder.

All three contribute to soil fertility

via nitrogen fixation by symbiotic rhizobia bacteria in the root nodules, although this will be of little consequence on fine turf that is regularly fertilized and sprayed with herbicide to maintain weed-free status.

All things to all habitats

Sida acuta (Malvaceae) is called sweet broom but there is nothing sweet about this plant as one of the most versatile amenity weeds of the wet and humid tropics. Plants develop rapidly into low-growing herbs up to one metre high in open waste places, or stay as a prostrate plants in grassland or closely mown turf, still producing the peach coloured flowers on a daily basis.

This bushy plant with woody stems has short hard hairs making it rough to touch and difficult control when fully grown. In the prostrate biotypes infesting turf the whole leaf takes on a reddish hue. Flowers are delicate and peach coloured having a translucent basal area with orange coloured 'veins' (lines or creases) extending up to the apex of the petal.

Despite its weed status sweet broom does have some positive points, apart from the beautiful flowers. The hard wiry stems can be cut and tied in bundles to make brooms for sweeping and the macerated stem and leaf tissue are traditionally used as a poultice

Willow leaved primrose (*Ludwigia*) is already in the UK (inset above) whilst carpet daisy is a problem on turf near the seashore





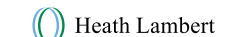
ABOVE RIGHT: Large butterfly populations make herbicide use a tricky business. *Euploia hegesia* (brown biscuit butterfly) shown here on *Bidens pilosa*, and ABOVE SECOND RIGHT on *Tridax procumbens*



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to alleviate the pain and swelling associated with sprains.

Daisies everywhere

The most ubiquitous and versatile weeds of temperate amenity habitats are plants from the family Asteraceae (Compositae), including dandelions, daisies, cat's ear and ragwort. The same situation occurs in the tropics where two white 'daisy-like' weeds are among the most widespread and adaptable weeds.

With its rough non-descript daisy-like flowers, *Tridax procumbens* is one of the most frequently occurring and fast spreading weeds throughout the tropics. Biggest weed problems occur in the amenity sector where it spreads quickly and efficiently rooting at the nodes into soft ground and from there across adjacent hard surfaces. Flowers are single heads 15mm wide with short widely spaced cream coloured ray florets surrounding a round central core of densely packed yellow disc florets. Leaves are very hairy and rough to touch and the flowers more resemblance to thistle heads than daisies, hence the common name of rabbit thistle. Two interesting common names have evolved in creole dialects of English speaking Caribbean islands like Trinidad with its strong historical French influence. They are 'mawgwit blan' derived from 'Marguerite Daisy' (white daisy) and 'bouton blan' derived from 'bouton blanc' (white button).

Like its temperate relatives *Bidens pilosa* crops up everywhere through prolonged flowering periods, high seed set and efficient means of fruit and seed dispersal. All opportunities and niches on disturbed ground and cracks in pavements or walls are exploited to the fullest extent.

Each flower is a capitulum consisting of 5 to 6 white petals (ray florets) surrounding a dense cluster of yellow disc florets in the centre. *Bidens pilosa* has a wide range of common names including Spanish Needle, Cobbler's Pegs and Farmer's Friend. 'Rabbit Meat' is the most commonly used name in Trinidad where its soft succulent growth available year round is traditionally used as rabbit feed.

Sand, sea and rough

Sand in bunkers is one thing but encroaching sand from the seashore which many golf courses in the Caribbean are unavoidably near is another. As such greenkeepers

invariably have to cope with weeds that are both xerophytic (adapted to the dry conditions of sandy soils) and halophytic (adapted to high salt concentrations). Classic in the Caribbean is *Wedelia trilobata* (carpet daisy) with creeping stems, leaves shaped like duck's feet and bright yellow daisy like flowers.

The 'rough' as an area of unmanaged grass does not take on the same importance on tropical golf courses and for very good reason. On temperate courses grass may typically reach a metre high during spring and summer and then die right back until the following spring. Not so in the tropics where grass grows throughout most of year with many species like elephant grass reaching three metres with ease. It is not so much the case of losing the ball but of losing the golfer.

Herbicides and environmental integrity

Three factors make herbicide use a difficult and tricky operation. First is high rainfall so timing is critical. Second there is a tradition of grazing animals on public amenity land. Last but not least, is the question of environmental integrity and preserving biodiversity. UK Turf Managers are under increasing pressure to protect and preserve wildlife including insects and especially butterflies. In variety and density the UK butterfly population pales into insignificance compared with that in the Caribbean. The most notorious weeds like *Tridax procumbens* and *Bidens pilosa* are often the most attractive to butterflies.

Wet weeds on the move

Equatorial regions are inherently wet and humid with weeds adapting to suit. Waterways, lakes, ponds, ditches and drains are continually clogged up with weeds and some are not as tropical as you might think. The willow leaved primrose (*Ludwigia* species), so called because the leaves are willow shaped and the yellow flowers resemble primroses, have been found on at least two sites in the United Kingdom – the New Forest in Hampshire and a wetland site in the City of London.

The weed is well established in France. Another nominally tropical weed of damp wet places is not too far away. *Eclipta prostrata* (false daisy) is currently causing big weed problems in southern Europe having already invaded North America reaching as far north as New England.