Microhabitats, Bird and Bat Boxes

Microhabitats such as boxes are important for birds, bats and insects like bees and hornets, because modern buildings are often very short of the holes and cavities they need to nest and roost safely. Other microhabitats such as hibernacula and cover objects are vital for reptiles like the common lizard and slow worm and amphibians such as frogs, toads and newts. Dead wood, log and brush piles are also vital to sustain a healthy insect diversity and population within any ecosystem.

Barn Owl Box positioned by Ranald Strachan of Fife Coast & Countryside Trust at The Duke's Golf Club

Bird nest boxes

Bird nest boxes can be easily purchased or made by your club and will add valuable additional habitats to your golf course. There are various designs of box depending upon which birds you have in your area and which ones you would like to attract. The RSPB, local ranger service and British Trust for Ornithology (http://www.bto.org/nnbw) provide guidance on such a topic.
Your club could also provide a bird feeding area near the clubhouse at little expense. Trees such as crap apple, rowan, hazel, holly and bird cherry provide an important, and attractive, focal point. They provide nectar-rich blossom or catkins for insects and berries or nuts for birds and mammals. You could consider growing an old Scottish variety of pear, plum or apple tree.

Swifts are of great importance and are often seen near buildings on many golf courses in Scotland. They are a good indicator species for the sustainability of the urban environment. Four well-known Swift colonies were rendered homeless by demolition in 2003-4 in Glasgow and North Lanarkshire alone. It is, therefore, whenever possible to save existing swift nest sites.
For more information see http://www.concernforswifts.com/Opportunities.asp

To purchase bird boxes:

To buy bird or bat boxes you are looking in the region of £20 - £40 each. You can also buy ready-made boxes from: https://www.bto.org/about-birds/nnbw/buy-a-box

To build your own bird boxes:

Making boxes is easy and an excellent team activity, especially in bad weather! The design and materials of a nest box are important since it needs to be well insulated and of the correct dimensions for the birds to be successful.
Details of how to construct, install and maintain nest boxes are on the BTO and Barn Owl Trust Scotland websites:
http://www.bto.org/nnbw/make.htm
http://www.barnowltrust.org.uk/barn-owl-nestbox/

Each year the British Trust for Ornithology (BTO) runs **National Nest Box Week** in February. St Valentine's Day marks the start since this is the traditional date when birds pair up for the new breeding season. The aim is to urge everyone with nest boxes to clean them out and check that they are in tip-top condition for the coming breeding season. This is also the very best time to put up new boxes.

For further information, please refer to The R&A publication: 'Birds and golf courses: a guide to habitat management.'
http://golfcoursemanagement.randa.org/en/Downloads-and-publications/2012/01/Birds-and-Golf-Courses.aspx

Bat Boxes

Bat boxes could also be installed; again these come in various styles. Bats can be further encouraged by planting flowers that attract insects; night-scented stock, evening primrose and lavender would look beautiful in pots near the clubhouse. In return, bats will lessen any midge problems you may have as they can eat up to 3000 every night!

Details of how to install and maintain bat boxes are on the Bat Conservation Trust (BCT) website:
http://www.bats.org.uk/pages/encouraging_bats.html

We encourage anyone wanting to put up bat boxes to contact Anne Youngman, Scottish Bat Officer, **ayoungman@bats.org.uk** in the first instance to ensure you get sound advice from your local bat group on positioning of boxes, and for ongoing maintenance and monitoring.

Insect boxes

Buy encouraging a healthy insect population you are providing a good food source for all bats, bird and many small mammals.

http://www.rspb.org.uk/advice/gardening/insects/building_homes.aspx

http://www.buglife.org.uk/conservation/Scotland/getinvolved

Sand Martin Walls

Sand martins are a UK Species of Conservation Concern and are one of the group of migratory species that are known to be affected by droughts in the Sahel regions of Africa and population levels may fluctuate from year to year. They visit Scotland between March and September. They often select man-made sites to nest, such as piles of bunker sand! To prevent sand martins utilising your expensive bunker sand to nest, why not build then an artificial nest wall? By bedding 1m lengths of 10cm-polythene pipe into a bank constructed of sand and gravel (cheaper than good bunker sand) can create safe and long lasting artificial sites. A sheer front face can be created with a weak or dry mix concrete to build up against shuttering, which should then be removed. The face should drop into fairly deep water both to prevent colonisation by tall, emergent vegetation that would obstruct the bird's flight paths and also to restrict access by predators and humans.

The lowest row of pipes should be 1m above summer water level, sloping slightly down towards the entrance, with rows 0.3m apart and pipes at 0.2m spacings. Each pipe should be filled with sand and the entrance half blocked with cement filler. The birds will then excavate their typical oval tunnel along the top half of each pipe. (Andrews and Kinsman, 1990).

Sand Martins would also benefit from wildflower meadow planting on the course. For more detailed information on how to do this please refer to Scottish Golf's 'Grassland Management' download.

Provision of dead wood

Deadwood includes twigs to whole roots and leaf litter to whole trunks. The ecological importance of dead timber both fallen (or felled) and standing, within woodlands, cannot be over emphasised.

All dead timber provides invertebrate and fungi habitat. In addition standing dead timber provides cavities for nesting birds, and bat roosts. Where such timber is not a hazard to golfers it should be left in situ. Fallen timber can be hidden in the woodland blocks and in the shrubby edges if necessary. Collected wood, where possible, should be cut into the largest possible manageable lengths and stock piled or scattered within the centre of the more substantial woodland areas.

Any thinning work that is undertaken will also provide useful, twiggy material that can be used to create 'habitat piles'. These are quite literally piles of brushwood stacked up to provide nest sites for birds and small mammals. As the piles decay they provide habitat for many invertebrates and fungi and as a consequence provide food for larger animals such as amphibians and raptors.

Rock Piles and Hibernacula

Rock piles create a similar habitat. Simply pile rocks up to 30cm high and then angle logs over the rock pile. Stoats and weasels can play a role in the biological control of rabbits and love microhabitats like rock piles and dry stone dykes. Hibernacula are permanent below ground structures that provide shelter for hibernating reptiles and amphibians. Constructed hibernacula

should face south, preferably along a sheltered wooded edge. To build one simply dig a hole 2 metres long, 1.5 metres wide and 0.5 metres deep (roughly); fill the hole with logs, rocks and debris in a pile 1 metre higher than ground level; place rock on the south facing side of the hibernacula; cover all but the south facing side of rock with 75cm of soil and seed with native short grasses and forbs or turf taken from areas where heather regeneration is being encouraged.

Initial stages of hibernacula build.

The end result

Cover objects can be logs, rocks, boards, etc. placed out in the open, along forested edges or partially in or underwater. It is very important that cover objects be scattered along the length of corridors to protect migrating amphibians from desiccation. Large objects such as slabs of concrete, limestone and logs are suitable cover objects that are inexpensive and easy to provide. Cover objects have a dual purpose in providing above ground basking platforms and below ground shelter from the midday sun. Invertebrate numbers are often high in areas with cover objects and so they become important feeding grounds for insectivorous herpetofauna (reptiles and amphibians). The development of suitable conditions (temperature, humidity, etc.) under cover objects may take some time so they should not be disturbed.

For simple stack building instructions:
http://www.rspb.org.uk/advice/gardening/insects/wildlifestack.aspx

For further ideas and useful tips please refer to:
http://homes.rspb.org.uk/