



***Biodiversity Training Day***  
**“What Lies Beneath? The Regeneration of Portmoak Moss”**

**Woodland and Raised Bog Restoration - the ‘Biodiversity Process’**

*Introduction to Biodiversity*

*‘biological diversity’ - the total variety of all living things*

- it is a measure of the variety of life on earth - from trees and flowering plants to birds and animals
- it provides us with food, clothing, construction materials, resources for medical research
- it is a key indicator for sustainable development. The Scottish economy depends on it.

*Worrying Losses*

- We’ve lost 99% of the Caledonian Pine Forest
- Lowland raised bogs - down 90% in extent
- 33% of Scotland’s 300 bird species need special conservation
- 25% of Scotland’s wild flowers are in decline
- 35% of Tayside’s heather moorland has been lost

*International, National and Local Focus*

- Rio Earth Summit 1992 (the Convention on Biological Diversity) - 153 Governments signed this, including the UK Government
- UK Biodiversity Action Plans - 1994 (national Action Plans for 391 species and 45 habitats)
- Scottish Biodiversity Forum - set up in 1996 to focus on Scottish biodiversity
- Tayside Biodiversity Partnership - set up in 1998, although no funding available to take on a Biodiversity Co-ordinator until 2000. Catherine Lloyd has been in post all this time - funded for the first 3.5 years by landfill tax credits and since then by funding from SNH and Angus, Dundee and Perth & Kinross Councils
- Scotland’s Biodiversity Strategy - a 25 year vision was launched in 2004 and this is now embedded into the
- Nature Conservation (Scotland) Act 2004 which puts a duty to consider biodiversity on all public bodies (i.e. the statutory bodies: SEPA, SNH, Forestry Commission), local authorities and Scottish Water.

*The Tayside Biodiversity Partnership includes:*

- The statutory bodies - Scottish Natural Heritage, SEPA, Forestry Commission
- The local authorities - Angus, Dundee City, Perth and Kinross

- Organisations such as the Farming & Wildlife Advisory Group, Scottish Agricultural College, Scottish Field Studies Council, SEERAD, National Farmers' Union, Royal Society for the Protection of Birds, Scottish Wildlife Trust, The Scottish Rural Property & Business Association, National Trust for Scotland.

Many other organisations are acting as "Lead Partners" in the Action Plan and taking forward actions:

- Community Woodlands Association / Scottish Native Woodlands
- National Health Service / Ministry of Defence
- Perthshire Tourist Board
- Eco Schools / John Muir Award
- Dundee Naturalists' Society
- Broughty Ferry Environmental Project / Concern for Swifts Scotland
- Deer Management Groups
- Scottish Golf Environment Group
- District Salmon Fishery Boards

#### *The Tayside Biodiversity Action Plan:*

The 1st Tranche was published in 2002. It consists of 18 Habitat Action Plans -

- National habitats such as Coastal Sand Dunes; Calcareous Grassland; Upland Heath; Native Pinewoods
- Local habitats such as Golf Courses; Businesses with Land; Farm Buildings; Stone Dykes.

Tayside has signed up to achieving various UK targets -

- \* By 2015 restore 1,454 hectares of land to native pinewood cover
- \* Set up public awareness programme by 2007 - establish communication with community councils, residents' groups and local environment groups
- \* Achieve the UKHAP target of 'favourable condition' for 75% of calcareous grassland

We can be more project based for locally-set targets, such as:

- \* Undertake a Barn Owl Survey and pilot projects throughout Tayside
- \* Set up a Tayside Green Graveyard Initiative
- \* Develop policies to control alien species (such as Japanese knotweed and Giant hogweed)
- \* Engage the tourism industry (service providers, visitors and staff) in woodland biodiversity projects

We are planning a 2<sup>nd</sup> Tranche which will include:

- 26 more Habitat Action Plans for Tayside, including Urban Watercourses, School Grounds, Upland Birch Woodland, Wet Woodland, Lowland Raised Bog
- 50 Species Action Plans, including Red squirrel, Water vole, Barn owl, Swift, Newt, Atlantic salmon, Mason Bee, Juniper, Bluebell

*So - we have seen how huge the "biodiversity process" is globally, nationally and locally. Everyone can get involved - it is not something that just the statutory bodies are dealing with. There are many habitats to consider, and many species*

*to consider. There is one habitat though that is very rare - it is a very complicated and largely misunderstood eco-system:*

### *Lowland Raised Bog*

- Intact lowland raised bog is one of Europe's rarest and most threatened habitats - it represents most of the remaining Atlantic coastal peat bogs in Europe
  - It is a UKBAP Priority Habitat; Tayside has an unfinished Draft Habitat Action Plan - more help needed!
  - Only 9% (2,500 hectares) of Scotland's lowland raised bog remain undamaged and in a near-natural state
  - Tayside has 22 raised bog sites - 2.6% of the Scottish total; Portmoak is on the list as a "Key Site" - it would be good to feature it in the forthcoming Habitat Action Plan as a "case study" to show community involvement
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- In Tayside 9 of the 22 listed sites are being lost to drying out and invasion by woodland
  - Surveys are urgently needed and management plans prepared taking into consideration the wider locality and the habitat's national importance
  - Physical work: damming ditches, removing encroaching trees, reducing or removing livestock (where appropriate), cutting of excessive heather

Scottish Wildlife Trust awarded £1.32m to restore 11 raised bogs

### *Species associated with the Lowland Raised Bog habitat*

Species-poor by definition:

- Water vole, Roe deer, Foxes
- Curlew, Snipe, Meadow pipits, Short-eared owls
- Invertebrates, especially butterflies, dragonflies and spiders
- Heather, Cotton grass, Sundews, Cranberry, Sphagnum, Wavy hair grass

### *But what can one person do?*

- Help with the restoration work
- Carry out surveys, or help prepare the Management Plan. Learn more about specific species - such as mammals (especially Red Squirrels and bats), woodland and wetland birds, mosses, lichens, fungi. Learn more about the different habitat needs and the balances required between them
- Help with access issues and assist in Open Days to publicise the fragility of the habitat. Raise awareness in any way necessary - think wider than just the habitat, so include the cultural aspects, art, poetry, etc.
- Visit other raised bog sites accessible to the public to see what challenges they are experiencing, what works for them, what sort of interpretation they are using.
- Consider setting up individual projects that a sub-group can take on - bat or bird box making, Grey Squirrel control, booklet preparation - get the whole community involved
- Use peat-free composts and peat alternatives and encourage local businesses and schools to do the same Compost your own organic waste for the garden

### *Portmoak's Special Mosaic Habitat*

- Red squirrels, Pipistrelle bats, 22 species of breeding bird including Greater spotted woodpecker, Long-eared owl, Goldcrest; wonderful lichen and moss flora
- Birch and Scots Pine with associated ground flora

*BUT - balance is essential between the different habitats, the wider locality, and the national importance of the habitats concerned.*

*Further details:*

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Further information on the Scottish Biodiversity Strategy and the Nature Conservation Act (Scotland) 2004: [www.scotland.gov.uk/biodiversity](http://www.scotland.gov.uk/biodiversity)

