© The Conservation Volunteers 2012

Citizen Science

Public participation in scientific research

© The Conservation Volunteers 2012

Data collected by volunteers is essential

© The Conservation Volunteers 2012

Citizen Science

Reclaiming green places since 1959

Citizen Science provides opportunities for everyone

© The Conservation Volunteers 2012

Connecting people with nature

© The Conservation Volunteers 2012

Developing knowledge and skills

© The Conservation Volunteers 2012

Communities working together to understand and improve the local environment

© The Conservation Volunteers 2012

Scotland Counts: increasing participation in Citizen Science at a local community level

© The Conservation Volunteers 2012

Mapping Invasive Non Native Species on Corstorphine Hill

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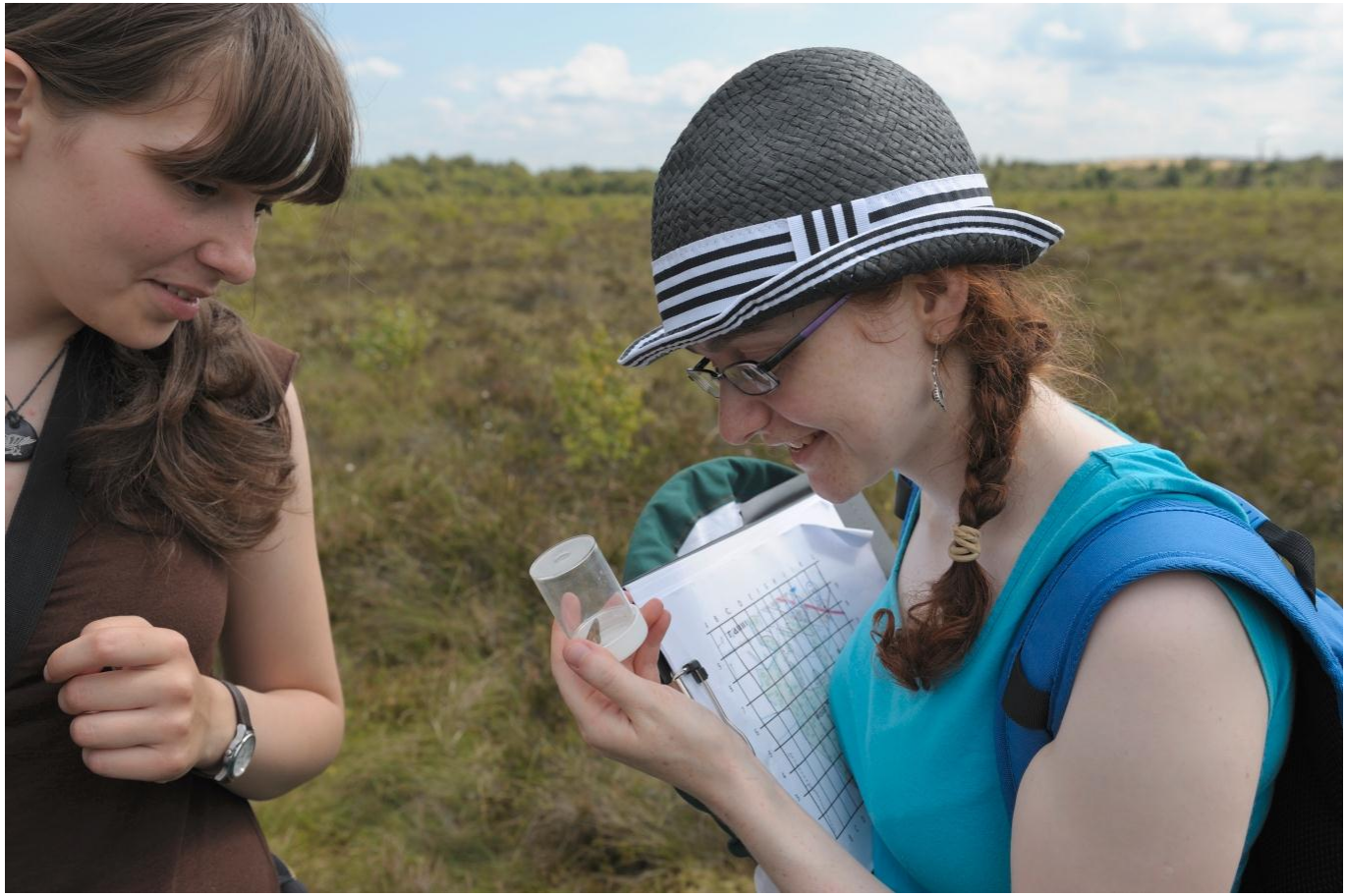
Citizen science – an SNH perspective



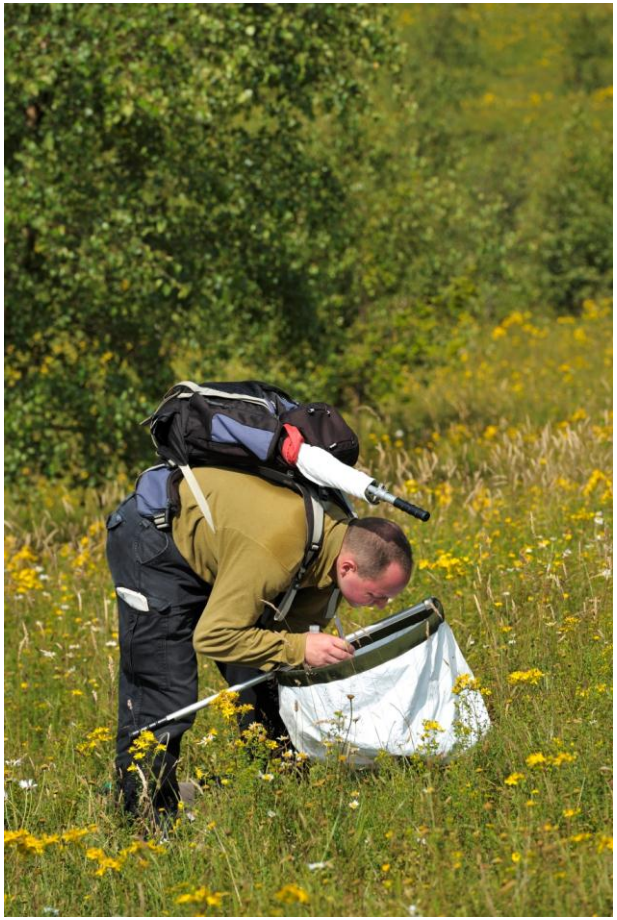
For nature and people

- Better outcomes for nature based on improved evidence and data

- More involvement by more people in enjoying the outdoors and learning about the natural heritage

Voluntary records

- Species distribution
- The status of wild populations
- The condition of protected sites and species



Our partners play a critical role

- Building and nurturing enthusiasm and fun
- Recruiting and training the next generation
- Managing surveys

BTO Looking out for birds

Botanical Society of the British Isles

Plantlife

The Bat Conservation Trust

RSPB

Butterfly Conservation Scotland

buglife The Invertebrate Conservation Trust

Scottish Natural Heritage

>50 Schemes and societies now on iSpot

- Amateur Entomologists' Society
- Bedfordshire Moth Group
- Bees, Wasps and Ants Recording Society
- Berkshire Moth Group
- Biological Recording In Scotland
- Biological Records Centre
- Botanical Society of the British Isles
- Bristol Regional Environmental Records Ce
- British Bryological Society
- British Dragonfly Society
- British Dragonfly Society - Sussex Group
- British Entomological and Natural History
- British Lichen Society
- British Mycological Society
- British Plant Gall Society
- British Pteridological Society
- British Trust for Ornithology
- BTO Garden BirdWatch
- Cornwall Bird-Watching and Preservation !
- Dipterists Forum
- Friends of Childwall Woods and Fields
- Glamorgan Moth Recording
- Hampshire Biodiversity Info
- Highland Biological Recordir
- Holt Hall Field Studies Centi
- Hoverfly Recording Scheme
- Isle of Wight Biodiversity Pa
- Isle of Wight Natural History
- Leaf Beetle Recording Scher
- London Natural History Soci
- The Mammal Society
- The Marine Biological Assoc
- Merseyside BioBank
- National Museum Wales
- Natural History Museum
- Natural Shropshire â€" Shropshire Biodiversity Partnership
- New Flora of the Isle of Man
- Norfolk and Norwich Naturalistsâ€™ Society
- Oxford University Museum of Natural History
- Porcupine Marine Natural History Society
- rECOrd - the Biological Records Centre for the Cheshire region
- Royal Botanic Gardens, Kew
- RSPB - Royal Society for the Protection of Birds
- Scottish Fungi
- Shropshire Wildlife Trust
- Society of Biology
- South East Wales Biodiversity Records Centre
- Southampton Natural History Society
- Tachinid Recording Scheme
- UK Ladybird Survey
- The Vincent Wildlife Trust
- Wild Flower Society
- The Wildlife Trust of South and West Wales
- Wiltshire & Swindon Biological Records Centre
- Yorkshire Naturalists' Union

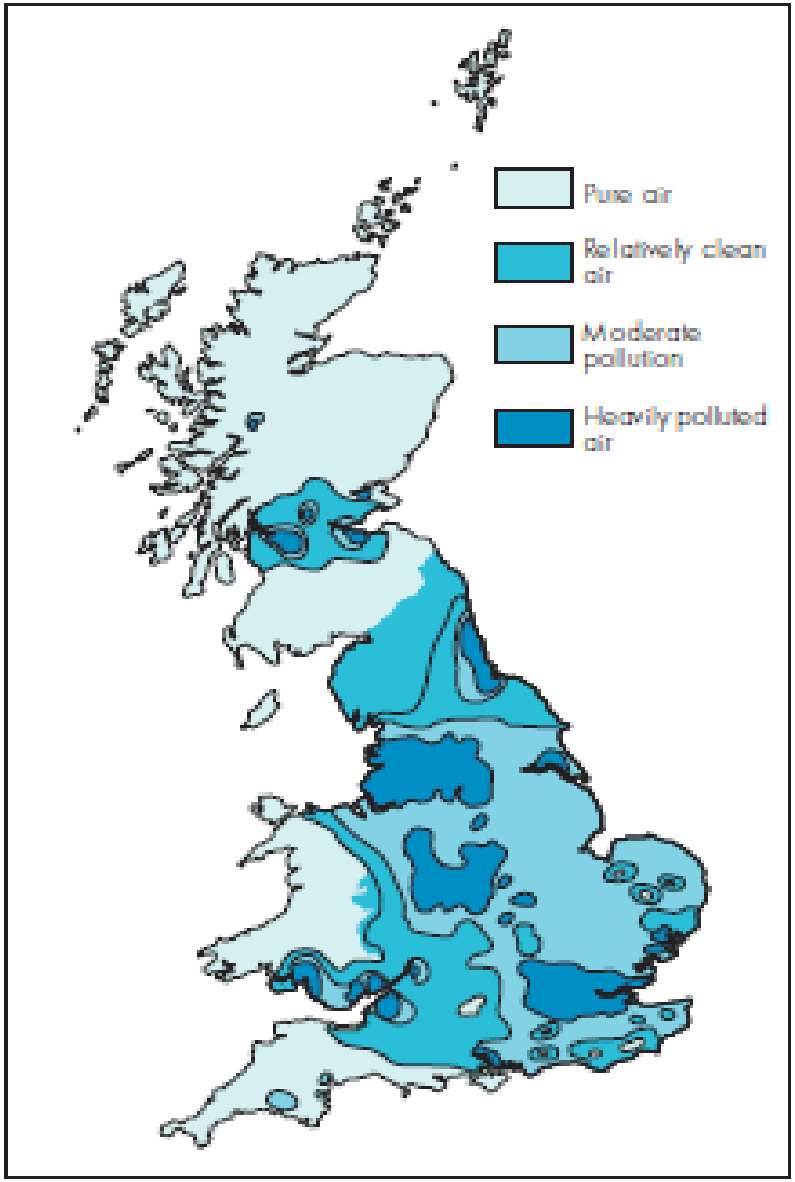
Challenges

- Recruiting, training, skills
- Broadening involvement
- Meeting our data needs
- Managing data

What's new about citizen science?

- Recognising and valuing the public contribution
- Encouraging mass involvement
- Involving young people
- Developing and employing new technologies including mobile devices
- Monitoring the physical environment

Mucky Air Map



A field guide to estimating nitrogen air quality using lichens

- A method for determining concentrations of gaseous nitrogen pollution
- Uses epiphytic N-sensitive and N-tolerant lichens growing on oak and birch trees
- SNH aims to use in SCM and monitoring the condition of woodland habitats
- Can be used by non-lichenologists

Scotland's environment

Scotland's Environment Web - public engagement and citizen science

- Introduction to Scotland's Environment Web (SEWeb) and public engagement
- How SEWeb could be used to engage the public
- SEWeb, citizen science and air quality monitoring

www.environment.scotland.gov.uk

Scotland's environment

Scotland's Environment Web

'The gateway to everything you want to know about Scotland's environment'

- Provides a single view of Scotland's environment
- Demonstrates shared service approach
- Provides a forum for debate and engagement
- IS infrastructure to present data and information

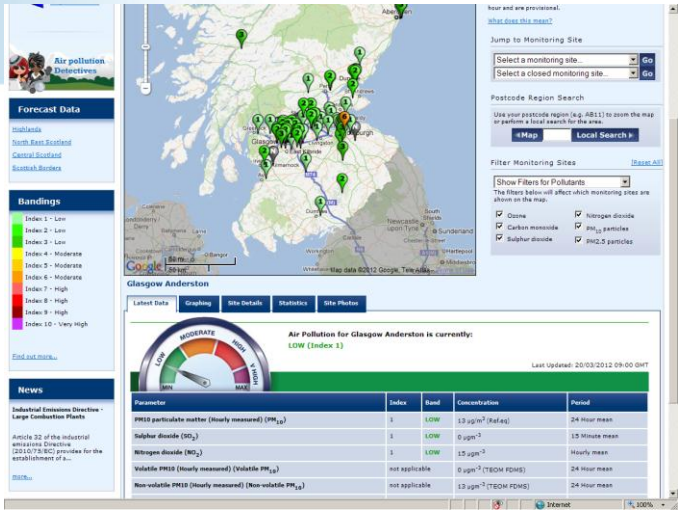
SEWeb Life + project objectives

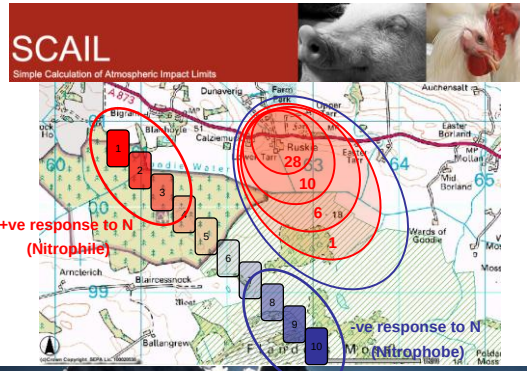
- an inclusive partnership programme bringing together the key data providers and data users
- create an Shared Environmental Information System
- prioritising environmental problems
- **promote the involvement of the public in the protection of the environment**

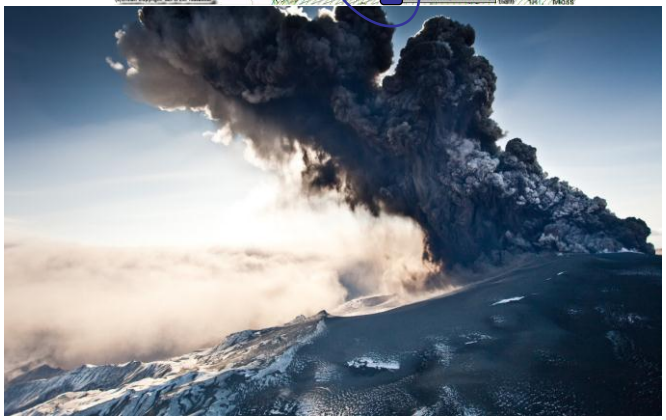
SEWeb - Air 'daughter website' ?

Opportunities to:

- bring together information on single site
- provide gateway to relevant sites
- draw on different data sets - enhanced data utilisation
- expand data currently held
  - LA diffusion tubes
  - Emergency response – Volcanic eruptions
  - Environmental monitoring… etc







Public Engagement

Objective - use SEWeb as a **focal point to engage** the public in the protection of the environment through:

- **access** to information
- **understanding**
- **promoting environmental monitoring, debate and action**

Public Monitoring or 'citizen science'

SEWeb roles

- **gateway**
- **platform** for data input, data display and data use;
- **guidance** provision.
- identify **gaps**

SEWeb and citizen science – gateway and guidance

- Register
- Toolkit
  - Good practice
  - IT tools for existing and new projects
  - Teachers guide
- Sharing project practice and matching up volunteers
- Citizen science and agency data

SEWeb and citizen science – filling gaps

- Invasive Non Native Species (data entry)
- **Local outdoor air quality**
- **….?**