# Scotland's environment Gateway to everything you need to know about Scotland's environment

















Home Get Informed \*

Get Interactive \* Get Involved \*

Get Communicating \* Get Learning \*

About us \*

About us

#### About Us







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

Scotland's Environment Web aims to be a trusted gateway to everything you want to know about Scotland's environment, bringing together information and data from a range of organisations involved in protecting and improving Scotland's environment.

The website presents environmental information and data in an easily accessible form and adopts an innovative and dynamic approach to the provision of information.

The website is managed by Scotland's Environment Web partnership, chaired by the Scotlish Government.

#### Scotland's Environment Web provides access to information at a range of levels:

Search facilities that allow users to find data and reports on Scotland's environment

> More detailed information and data for those with a technical interest

Straight-forward descriptions of the condition of Scotland's environment, its value, the threats it faces, and what is being done about these

The ability to look at information and data on maps

Information on how you can get involved in protecting and improving Scotland's environment

#### Scotland's Environment partners

More information about Scotland's Environment Web partners













View our partners

#### Scotland's Environment family

Our related websites provide more detail on specific topics featured on Scotland's Environment Web. There are two related websites currently available, focusing on aquaculture and soils.





Aquaculture

Soils





Home Get Informed \* Get Interactive \* Get Involved \* Get Communicating \* Get Learning \* About us \*

# What are you interested in?

#### **News about Scotland's environment**

- SEWeb has been chosen as one of 24 Best LIFE Environment projects in 2015. Find out more of what we've done...
- March Newsletter: It's all about YOU...and Science
- New map layers have been added to our Maps including:- Predator control for Black Grouse (FCS), Suitability for pollinators (bees) (JHI) and Potential for crop production (JHI)
- · February Newsletter: Love is in the air quality
- · January Newsletter: It's all about the waste...
- · Report an invasive non-native species using Scotland's Environment's new INNS section
- Check out our new What's in my area app and find out more about the environment where you are.
- · Sea bed development opportunities British Geological Survey 23 Mar 2016
- Met Office involved in research to revolutionise pollen forecasting Met Office 23 Mar 2016
- Marine tourism success Scottish Government 23 Mar 2016
- Free access to marine treasure trove from the British Geological Survey British Geological Survey - 23 Mar 2016
- · Scottish beaver update Scottish Government 23 Mar 2016
- SNH: plan now to preserve ancient rainforest species Scottish Natural Heritage 22 Mar 2016
- Lewis and Harris goose management pilot project extension Scottish Natural Heritage 21 Mar 2016
- Celebrate Earth Hour 2016 by turning Lights-Off for one hour on Saturday 19 March 2016 at 20:30hrs - Earth Hour - 19 Mar 2016
- · UK pledges 'zero carbon' climate laws BBC News 15 Mar 2016
- Building for the future Scottish Environment Protection Agency 15 Mar 2016
- · Eat Drink Hebrides Trail launched Scottish Natural Heritage 11 Mar 2016
- . £2m pledged to safeguard Britain's trees The James Hutton Institute 10 Mar 2016

Read more news





Sign up for our e-newsletter





# Scotland's environment

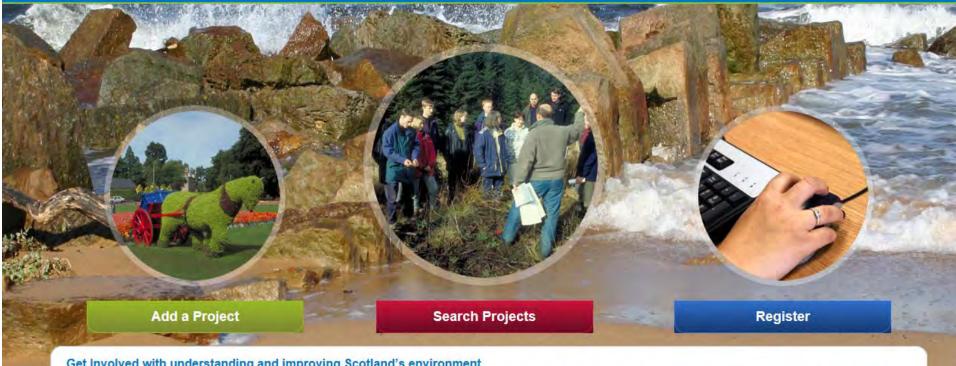




Back to Scotland's Environment

Search Projects

Sign In | Register



#### Get Involved with understanding and improving Scotland's environment

You can help to collect the data and information that will improve our understanding of Scotland's environment by taking part in one of the many 'citizen science' projects that are running in Scotland. For example you could record sightings of animals and plants, observe local weather patterns, or help to monitor the quality of the air, land and water in your local area.

Or you can get involved in 'citizen action' projects that help to improve our environment, such as removing litter from your local beach, making your garden more wildlife friendly, or promoting safe routes for walking and cycling to school or work.

Just click on the 'Search Projects' button to explore the wide range of projects on offer and find ones that you want to take part in.

If you are an organisation that runs citizen science or action projects, you can register a profile of your organisation and add details of projects that you want people to volunteer for.

You can also get help with setting up your own citizen science and action projects by using the interactive toolkit which contains good practice guidance, help for teachers and IT tools.



Search Projects Sign In | Register Back to Scotland's Environment Search Projects Help Search Criteria Organisation All Date from m Date to 1 Do At Home Local Community **Key Topics** Added All Any Time Family Schools and Youth Location All Keywords Getting Outdoors CLEAR ALL FILTERS SEARCH Search Results Sort by: Project Title a-z ▼ SORT Type: Organisation Area: All Montane transects Do you spend time above 750m in Scotland's mountains? If you do, you could help us to monitor the specialist bird species which live in these habitats. ...[read more] by BTO Scotland 00 BTO Type: Organisation Area: All WeBS The Wetland Bird Survey (WeBS) monitors non-breeding waterbirds in the UK. WeBS aims to identify population by BTO Scotland sizes, determine trends in numbers and distribution and to identify important sites for waterbirds. ...[read more] BTO Type: Organisation Area: All BirdTrack To participate, simply keep a record of the birds that you see, When you combined with records from thousands of by BTO Scotland other birdwatchers these records area extremely useful. Enter sightings via website of phone app. ...[read more] œ BTO **Breeding Bird** Type: Organisation Area: All



### Survey

by BTO Scotland





The BTO/JNCC/RSPB Breeding Bird Survey is the main scheme for monitoring the population changes of the UK's commoner breeding birds, ...[read more]







# Scotland's environment Gateway to everything you need to know about Scotland's environment





Back to Scotland's Environment | Search Projects | Sign In | Register

arch Prearch Crite							
Organisation	Scottish Environment Protection Agency	≠ Da	ate from	m Date to	<b></b>	☐ Do At Home	☐ Local Community
Key Topics	All	→ Ac	dded	Any Time	*	☐ Family	Schools and Youth
ocation	All	* Ke	eywords			☐ Getting Outdoor	'S
						CLEAR	ALL FILTERS SEARCH
earch Resu	ults						
rt by: Proje	ct Title a-z * SORT						
		Lamprey Water Scotland - 201				1	ype: Organisation Area:
		by Scottish		amprey Watch aims to raise aware			ge anyone with access to
				uitable rivers to look out for lamp	reys during the spawning s	season (typically June - July)	and submit simple records
		Environment Protection Agency	ar	uitable rivers to look out for lamp ny observations[read more]	reys during the spawning s	season (typically June - July)	and submit simple records
	To the last	Environment	ar		reys during the spawning s	season (typically June - July)	SEPA
		Environment Protection Agency	ar		reys during the spawning s		SEPA
		Environment Protection Agency  Volunteer Rainfall Observing	ar A	ny observations[read more]	public have volunteered to 1	1 measure rainfall in their loca	SEPA STORY OF THE PROPERTY OF
		Volunteer Rainfall Observing by Scottish Environment	ar A ra ra	ry observations[read more]	oublic have volunteered to recording rainfall is crucial to	<b>1</b> measure rainfall in their loca o a number of nationwide se	SEPA STORY OF THE PROPERTY OF
		Volunteer Rainfall Observing by Scottish Environment Protection Agency	ar A ra ra	ny observations[read more]  (Cross Scotland members of the painfall monitoring programme. Re	oublic have volunteered to recording rainfall is crucial to	<b>1</b> measure rainfall in their loca o a number of nationwide se	SEPA STORY OF THE PROPERTY OF
		Volunteer Rainfall Observing by Scottish Environment	ar A ra ra	ny observations[read more]  (Cross Scotland members of the painfall monitoring programme. Re	oublic have volunteered to recording rainfall is crucial to	<b>1</b> measure rainfall in their loca o a number of nationwide se	SEPA STORY OF THE PROPERTY OF
		Volunteer Rainfall Observing by Scottish Environment Protection Agency  Anglers Riverfly	ar A ra ra	ny observations[read more]  (Cross Scotland members of the painfall monitoring programme. Re	oublic have volunteered to recording rainfall is crucial to	Teasure rainfall in their loca o a number of nationwide se ation[read more]	SEPA STORY OF THE PROPERTY OF
		Volunteer Rainfall Observing by Scottish Environment Protection Agency  Anglers	A A ra ra	ny observations[read more]  (Cross Scotland members of the painfall monitoring programme. Re	public have volunteered to a ecording rainfall is crucial to le role in capturing informa monitor the health of the r	measure rainfall in their loca o a number of nationwide se ation[read more]	Type: Organisation Area:  SEPA  Type: Organisation Area:  Type: Organisation Area:  Type: Organisation Area:  Type: Organisation Area:



# **Learn About Air Quality**













**Urban Air Quality Citizen Science Programme started 2013** 

#### Urban air quality citizen science

#### **Project overview report**

Hilary Cowie<sup>1</sup>, Stefan Reis<sup>2</sup>, Kerry Riddell<sup>3</sup>, Se Semple<sup>4</sup> **Citizen Science Advisory Group** 

**Focus on Schools and Transport** 

**Pilot Projects 2014** 

- Glasgow Bike Station
- Preston Lodge High School

This report is part of a programme of work commissioned by the Scottish Environment Protection Agency (SEPA) on behalf of the Scotland's Environment Web Project, supported by the European LIFE+ programme

<sup>&</sup>lt;sup>1</sup>Institute of Occupational Medicine

<sup>&</sup>lt;sup>2</sup>NERC Centre for Ecology & Hydrology

<sup>&</sup>lt;sup>3</sup>The Conservation Volunteers

<sup>&</sup>lt;sup>4</sup>University of Aberdeen



### **NLC Teaching Website**



### **SEPA Citizen Science**





### **National Teaching Package**





### **Low Cost Air Sensors**













- Low cost sensors
- PM<sub>10</sub> PM<sub>2.5</sub> NO<sub>X</sub> O<sub>3</sub> Temp & Humidity
- Battery powered with GPRS
- Posted to schools
- Real-time results on website





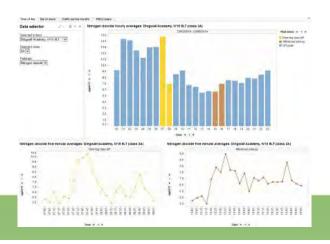
## Structure

- 1. Updated Primary School Package
- 2. Secondary School Package

### **Geography Lessons**

#### **Class and activity based**

- Engage the pupils with class-based challenges
- Collect real-time data



#### **Science Lessons**

#### **Classroom based**

- Teaching the science
- Experiments designed by SSERC















St Ninian's **Primary School** 

**Broad range** of schools used



# **Positive Feedback**

Very positive response

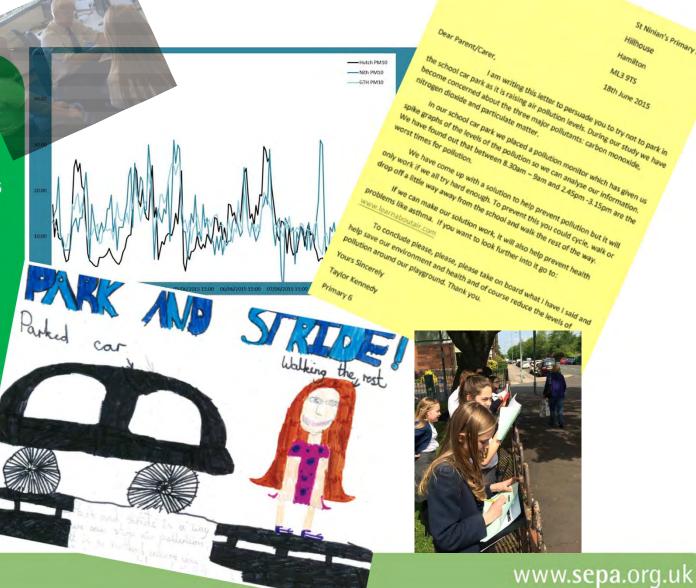
**Letter to parents** 

Investigating the data

**Classroom** discussions

Posters

**Presentations** 





# What's next?



**Partnership working** 

**Sensor development** 

**National Awards** 

**Science Centre** 

**STEM** 

**Venture Jam** 







# **Glasgow Science Centre**

