

**Dysgu yn yr  
Awyr Agored  
Cymru**

**Outdoor  
Learning  
Wales**



## Outdoor Learning Wales September 2016 Bulletin

**Outdoor Learning Wales (OLW) is a national network, facilitated by Natural Resources Wales. OLW aims to increase the understanding, appreciation and sustainable management of natural resources in relation to Wales by drawing expertise, knowledge and inspiration from a range of partners, leaders and educators.**

The aim of this bulletin is to update our members in Wales on news, projects and initiatives related to sustainable management of natural resources (SMNR).

### NRW Update:



The change to the new NRW education and skills model has now taken place. Most of the previous Education Team staff are seeking or have been successful at finding new roles within NRW, with some finding work outside of the organisation.

The new look team is managed by Rosalind Owen, who leads the NRW Recreation, Wellbeing and Health Team. The people in post are: Sue Williams as *Senior Education and Skills Advisor*, Karen Clarke as *Education and Skills Advisor*, Ffion Hughes and Aled Hopkin as *Education and Cyfle Coordinators*, with Amy Smith and Kate Jones as *Cyfle Development Officers*. (Cyfle is NRW's national scheme for the recruitment, co-ordination, support and management of work experience placements, volunteers, graduate and sandwich student placements, and apprenticeships).

There is a lot of work to do to develop the scope and scale of the team's remit so please continue to bear with us as we work out what can be achieved with reduced capacity and explore new and different ways of working. Please do get in touch if you have any ideas or comments.

On a positive note OLW network groups will continued to be supported at a local level by the available staff.

Don't forget OLW has a group and Twitter presence with lots of practical activities and interesting Facebook discussions.

[www.outdoorlearningwales.org](http://www.outdoorlearningwales.org)

### Roles in Sustainable Natural Resource Management (SMNR)

Apiarist is a fancy word for a beekeeper. An apiarist enjoys working with an unusual kind of pet, the honeybee. Because bees and other pollinators are so important to a healthy environment scientists encourage "bee-spotting" to improve fruits and vegetables.

### Recipe of the month

#### Stuffed Bell Pepper



Slit open the bell pepper along one side and carefully scrape out the seeds. Season with salt and pepper and insert a cube of Haloumi or Feta cheese.

Thread the pepper onto a long skewer and cook over a campfire until the skin of the pepper begins to blister. Allow the pepper and melted cheese to cool down before consumption.

[www.foodnetwork.com](http://www.foodnetwork.com)



## Quote of the month

"There is still time to change the road you are on"

*Led Zeppelin*

## Activity of the Month

### *Leaf Maze*

Really simple idea to celebrate the beginning of autumn. Once leaves start to fall you can get collecting! Use rakes and buckets or just hands. This is a great activity in itself and can be completed over an extended time. Once you have enough leaves create your maze. This activity will support development of problem-solving and critical-thinking skills as they encounter road-blocks, dead-ends and thinking ahead as the learners plan their steps to navigate the maze from

start to finish. Staying between the lines helps development of spacial sense.

Older children can design their maze on paper first and then set it out working in small groups.

And you can keep creating different mazes for as long as the leaves last!

[www.happyhooligans.ca](http://www.happyhooligans.ca)



## Fact of the Month

Did you know a crocodile can't stick out its tongue?

## Plant of the Month

### *Moss*

Scientists have identified the natural resource that gave the Earth its first breath of fresh, clean air and made life possible for everything. It was a moss.

The drama unfolded more than 400 million years ago when a primitive, low-growing moss drew down carbon from the air, creating topsoil for the first vascular plants, and in 40 million years or so increased oxygen in the atmosphere to levels that endure today.

Around 445 million years ago most the planet's terrestrial landscape was being assembled by plate tectonics into a southern hemisphere supercontinent called Pangaea. The northern hemisphere was almost entirely ocean and almost all life was concentrated in the sea.

Life clung to the exposed rocks in what geologists call the Ordovician period would have been little more than a fine mat of microbes. Rock-hugging green mosses evolved, and spread over dry land, using photosynthesis to take atmospheric oxygen from perhaps only a quarter of today's level to the present life-giving lungful. These were the first true plants – mosses, liverworts, bryophytes creating thicker, more luscious carpets.

Within 20 to 40 million years, the supercontinent-sized carpet of mosses had begun to fashion the modern world. As carbon dioxide levels fell, global temperatures dropped and the first glaciations began. The rocks weathered to become soils. The first vascular plants of the Silurian period began to take root, to be followed by the ferns and horsetails of the Devonian, still more than 400 million years ago. Creatures began, tentatively, to leave the sea and seek food in the first foliage.



Today, mosses are a very diverse group of organisms, with about 10,000 species worldwide. They thrive in moist conditions, which is why Britain has nearly 800 different species, about two-thirds of all European mosses.

Mosses are mainly green, flowerless plants which reproduce using spores or asexually. They play an important role in ecosystems by preventing soil erosion and capturing water and nutrients. They also provide shelter for micro fauna and a place for plant seedlings to germinate in successional and regeneration processes.

[www.treesforlife.org.uk](http://www.treesforlife.org.uk)  
[www.theguardian.com](http://www.theguardian.com)

## Species of the Month

### *Grasshopper*



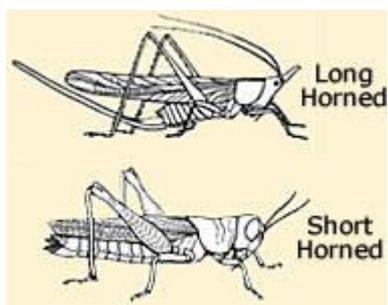
Grasshoppers are herbivorous insects. There are about 18,000 different species of grasshoppers and can be found almost everywhere in the world, except for the colder regions near the North and South poles.

Grasshoppers can both jump and fly and they can reach a speed of 8 miles per hour when flying. A Grasshopper can leap 20 times the length of its own body. A Grasshopper does not actually 'jump'. What they do is use their legs as a catapult.

Grasshoppers are medium to large insects. Adult length is 1 to 7 centimetres, depending on the species. Like their relatives the 'katydids' and 'crickets', they have chewing mouthparts, two pairs of wings, one narrow and tough, the other wide and flexible, and long hind legs for jumping. They are different from these groups in having short antennae that do not reach very far back on their bodies.

Grasshoppers usually have large eyes, and are coloured to blend into their environment, usually a combination of brown, grey or green. In some species the males have bright colours on their wings that they use to attract females. A few species eat toxic plants, and keep the toxins in their bodies for protection. They are brightly coloured to warn predators that they taste bad.

Female grasshoppers are larger than the males and have sharp points at the end of their abdomen that are there to help them lay eggs underground. Male grasshoppers sometimes have special structures on their wings that they rub their hind legs on or rub together to make sounds.



There are two main groups of grasshoppers: long-horned grasshoppers and short-horned grasshoppers. Grasshoppers are divided according to the length of their antennae (feelers), which are also called horns. Short-horned grasshoppers are usually called 'locusts'.

Grasshoppers live in fields, meadows and just about anywhere they can find generous amounts of food to eat. An average grasshopper can eat 16 times its own weight. The grasshoppers' favourite foods are grasses, leaves and cereal crops. One particular grasshopper – the Shorthorn grasshopper only

eats plants, but it can go berserk and eat every plant in sight.

Grasshoppers are most active during the day, but also feed at night. They do not have nests or territories and some species go on long migrations to find new supplies of food. Most species are solitary and only come together to mate, but the migratory species sometimes gather in huge groups of millions or even billions of individuals.



When a grasshopper is picked up, they 'spit' a brown liquid which is known as 'tobacco juice'. Some scientists believe that this liquid may protect grasshoppers from attacks by insects such as ants and other predators – they 'spit' the liquid at them then catapult up and fly off quickly.

Grasshoppers also try to escape from their enemies hiding in the grass or among leaves. If you have ever tried to catch grasshoppers in a field, you know how quickly they can disappear by dropping down into the tall grass.

The grasshoppers' greatest enemies include various kinds of flies that lay their eggs in or near grasshopper eggs. After the fly eggs hatch, the new-born flies eat the grasshopper eggs. Some flies will even lay their eggs on the grasshopper's body, even while the grasshopper is flying. The new-born flies then eat the grasshopper. Other enemies of grasshoppers include beetles, birds, mice, snakes and spiders.

[www.animalcorner.co.uk](http://www.animalcorner.co.uk)

### Collective noun of the month

A cloud of grasshoppers

### Courses/Events:

#### **Rooted Forest School**

Assist At Forest School - Level 2

Dates: 10th, 11th, 17th October and 7th November 2016

Cost: £400

Venue: Hereford

Forest School Leader - Level 3

Dates: 10th, 11th, 17th, 18th and 21st October and 7th & 8th November 2016

Cost: £800

Venue: Hereford

Outdoor Learning Practitioner - Level 2

Dates: 3rd and 4th November 2016 plus twilight session 21st November 2016

Venue: Hereford

Contact: <http://www.rootedforestschool.co.uk/>

### Evaluating the Outdoor Learning Experience

Date: 2/09/16

Venue: Cardiff

Cost: Free

Contact: [dunkleyra@cardiff.ac](mailto:dunkleyra@cardiff.ac)



### Wildlife Trust's Unknown Wales Conference

Offers an insight into the lesser known side of Wales' natural world

Date: 08/10/16

Venue: Cardiff

Contact: [info@welshwildlife.org](mailto:info@welshwildlife.org)

**30 Days Wild** campaign took place throughout June to encourage people to get in touch with their wild side by taking part in a 'random act of wildness' every day for 30 days.

Report: <http://www.welshwildlife.org/news/report-30-days-wild-campaign/>

### Healthy Hillides Project

The Wildlife Trust of South and West Wales has partnered up with local organisations to support local wildlife and reduce wild fires.

Information: <http://www.welshwildlife.org/news/healthy-hillides-project/>

### Aberystwyth University

Seeking to recruit a 3-year PhD student to work on a project entitled:  
Multi Scale Remote Sensing to Support Continuous Cover Forest Management

Contact: <http://www.aber.ac.uk/en/postgrad/howtoapply/>



### Wales Biodiversity Partnership Conference 2016 'Delivering Nature Recovery in Wales'

7th - 8th September, Bangor University

Contact: <https://www.eventbrite.co.uk/e/wales-biodiversity-partnership-conference-2016-tickets-26583517015>

### Llais y Goedwig

Funding from Nationwide Building Society to support the planting of small new woodlands (e.g. 5 acres)

### APF 2016

APF 2016 is the UK's largest and most exciting forestry, woodland, arboricultural, trees and timber event.

This will be the biggest and best event they have ever staged in their 42 year history.

Over 300 exhibitors have now booked sites, which is more than the record set at APF 2014 and the numbers are still climbing.

Dates: 15th – 17th September

Venue: Ragley Estate, Alcester

Contact: <http://www.apfexhibition.co.uk/>



**National Assembly for Wales' Children, Young People and Education Committee** is undertaking an inquiry into Youth Work and want to know what young people think about Youth Services in Wales.

The survey takes less than 5 minutes to complete: <http://learning.gov.wales/resources/browse-all/DCF-questionnaire/?lang=en>

If you would like a member of the National Assembly Education and Youth Engagement Team to come to your school or youth organisation to give you the opportunity to take part in this Youth Work Inquiry, contact 0300 200 6565 or email: [contact@assembly.wales](mailto:contact@assembly.wales).

### **Skills Show**

Dates: 17-19 November 2016

Opportunity for student groups to get involved in the #SkillsShow16 volunteer programme

Part of @WorldSkillsUK, The Skills Show is the nation's largest skills and careers event and helps to shape the future of a new generation.

Contact: [volunteering@worldskillsuk.org](mailto:volunteering@worldskillsuk.org)

### **Contact Us:**

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### **Contributions:**

Please submit suggestions for content or items of interest for upcoming bulletins by the 20<sup>th</sup> of the month. All submissions are subject to Coordinator approval.

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