



Aibreán/Bealtaine – Fócas ar reptílí

Paddy Madden continues his series of SESE tips

April/May

Zoom in on reptiles

Background information

Reptiles are invertebrates which are:

- ✦ cold-blooded,
- ✦ possess lungs,
- ✦ have dry scaly skin or horny plates,
- ✦ lay eggs on land.

They evolved from amphibians and are found in every continent except Antarctica.

Studying vertebrates

All vertebrates have these common characteristics:

- ✦ Movement.
- ✦ Respiration.
- ✦ Sensitivity.
- ✦ Growth.
- ✦ Reproduction.
- ✦ Excretion.
- ✦ Nutrition.

Classification

There are five groups of vertebrates: Birds, Reptiles, Mammals, Fish, and Amphibians.



Animated T. Rex. and model of hatching dinosaur eggs in a nest. British Natural History Museum



The Ginkgo tree



Active learning indoors and outdoors

Indoors

- ✦ Give the children in groups laminated cards with pictures of three mammals (include a whale), three fish, three amphibians, three reptiles and three birds. Also give each group the five titles written on cards: Mammals, Birds, Reptiles, Amphibians and Fish. They have to arrange them into the five families or groups.
- ✦ Make a dinosaur lunch. You will need: shoe-box, oasis to fit box, tops of ferns, horsetail stems, piece of plastic, water, toy dinosaurs. Soak the oasis in water and arrange the plants to look like a miniature forest. Place in the plastic-lined box which is coloured green. Arrange the dinosaurs to peep through the foliage.
- ✦ Make a big dinosaur egg using papier mache. Make the paste by half filling a mug with flour. Mix a heaped dessert spoonful of salt into the dry flour. Add water and stir until the mixture is the consistency of yoghurt. For the centre of the egg scrunch newspaper into

a tight ball c. 30cm long and 25cm wide. Hold this together with masking tape. Paste on strips of newspaper c. 2.5cm wide until the newspaper is completely covered with two or three layers. Leave to dry and paint white.

- ✦ Make dinosaur masks and create dinosaur art. See www.tes.co.uk

Outdoors

- ✦ Mark out the length of the biggest dinosaur, Argentinosaurus, (40m from head to tail) on the school yard with chalk. Also mark out the length of the biggest T. Rex found – 12.3m long and 4m tall.
- ✦ Plant a 'dinosaur tree' (*Ginkgo biloba*) in the school grounds. This is the oldest species of tree on earth and comes from the time of the dinosaurs. It is a living fossil believed to be c. 200 million years on the planet.
- ✦ Grow other 'dinosaur plants' (ferns) in a shady part of the school grounds. When planting add generous amounts of leafmould to the soil. Always water with rainwater.

Plants and dinosaur models make a miniature Jurassic Park



The author teaching children in Boolavogue NS using dinosaur egg puppet

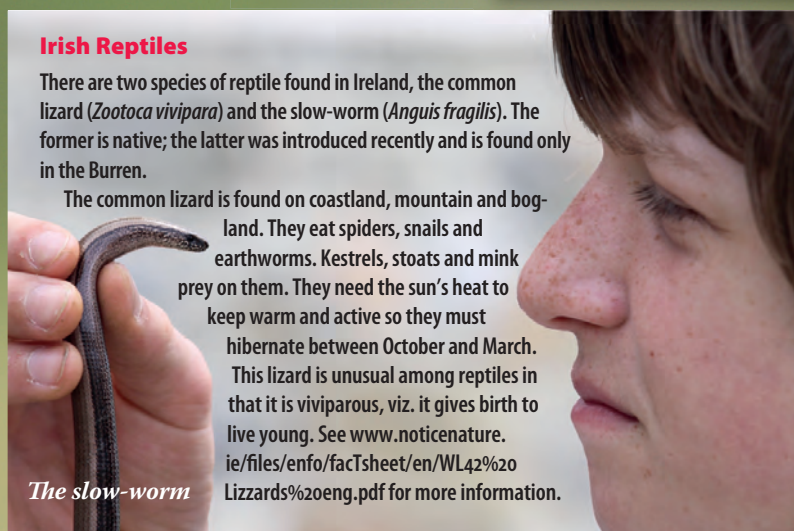
Irish Reptiles

There are two species of reptile found in Ireland, the common lizard (*Zootoca vivipara*) and the slow-worm (*Anguis fragilis*). The former is native; the latter was introduced recently and is found only in the Burren.

The common lizard is found on coastland, mountain and bog-land. They eat spiders, snails and earthworms. Kestrels, stoats and mink prey on them. They need the sun's heat to keep warm and active so they must hibernate between October and March.

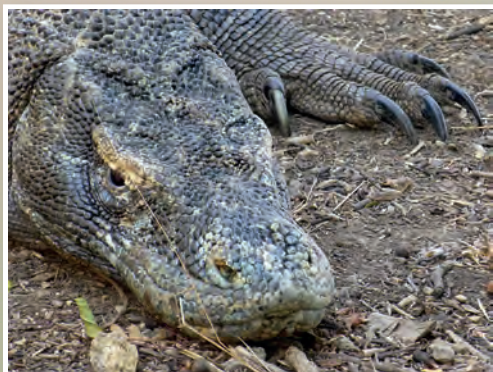
This lizard is unusual among reptiles in that it is viviparous, viz. it gives birth to live young. See www.noticenature.ie/files/enfo/facTsheets/en/WL42%20Lizzards%20eng.pdf for more information.

The slow-worm



Did you know?

- ✦ A lizard can shed the lower portion of its tail if it is caught there by a predator. It can re-grow this later!
- ✦ In Irish folklore if a person licked an *earc luachra* (common lizard) he would have a cure for burns.
- ✦ The biggest reptile is the salt-water crocodile.
- ✦ The largest turtle is the leatherback.
- ✦ The fastest reptile is the spiny tailed iguana. It can run at a speed of 20 miles an hour.
- ✦ Birds are believed to be descended from dinosaurs.
- ✦ Alligator mothers look after their young for about a year.



The Komodo Dragon, the world's largest lizard. Photograph kindly provided by Rory McDaid and Catherine Blanchard

SUBGROUPS	CHARACTERISTICS
Turtles, terrapins, tortoises	c. 300 species. All have shells. They are threatened with extinction in many places due to loss of habitat and being killed for food
Tuatara	Only found in New Zealand, two species
Lizards, snakes, worm lizards	Largest group of reptiles. c. 7,000 species. Cannot survive in cold climates. Most lizards have legs; snakes don't. Lizards have ears; snakes don't
Crocodiles, alligators	c. 25 species. Crocodiles have pointed snouts; alligators have rounded snouts and are less aggressive. Both have eyes and ears on top of head so that they can use these senses above the water's surface while remaining submerged

Alligator

Literacy/Litearthact

- ❖ **Cold-blooded/Fuarfhuil-teach:** A cold-blooded creature controls its body temperature externally instead of internally. *Rialaíonn créatúr fuarfhuil-teach a theocht choirp go seachtach seachas go himmheánach.*
- ❖ **Scales/Gainní:** Thin overlapping plates which cover the bodies of reptiles and fish. *Plátaí tanaí ina luí thar chiumhais a chéile a chlúdaíonn coirp reptílí agus iasc.*
- ❖ **Predator/Creachadóir:** An animal that kills and eats other animals in order to survive. *Ainmhí a mharaíonn agus a itheann*

ainmhithe eile chun é féin a choinneáil beo.

- ❖ **Viviparous/Beobhreitheach:** Giving birth to live offspring that developed in the mother's body. *Sliocht beo a thabhairt ar an saol, sliocht a forbraíodh ar dtús i gcorp na máthar.*
- ❖ **Adaptation/Oiriúnú:** The process in which an animal becomes better able to survive in its environment. *An próiseas trína n-éiríonn le hainmhí maireachtáil níos fearr ina thimpeallacht.*

Buíochas do Marie Whelton (MIE) don aistriúchán

The common lizard



Resources

- ❖ **Video on lizards and snakes:** www.tes.co.uk/teaching-resource/reptiles6287025/
- ❖ **Dinosaur videos:** www.scienceforkids.co.nz/videos.htm/
- ❖ **Facts on reptiles:** www.ducksters.com/animals/reptiles.php
- ❖ **Videos of reptiles:** video. nationalgeographic.com/video/kids/animals-pets-kids/reptiles-kids
- ❖ **Facts on dinosaurs:** www.zoomdinosaurs.com
- ❖ **Life in Cold Blood:** DVD narrated by David Attenborough (BBC Natural History Unit, Animal Planet, 2008)

Key areas to study

- ❖ Classification
- ❖ Habitat
- ❖ Life cycle
- ❖ Food
- ❖ Place in food chain/web
- ❖ Adaptation
- ❖ Threats



Monitor lizard (photograph provided by Conall Ó Breacháin)

Strands covered this month

Environmental awareness and care, Materials, Living things, Natural environments.



PADDY MADDEN lectures on SESE in the Marino Institute of Education. He also gives short courses to whole staffs on school gardening. His book, **Go Wild at School**, has recently been reprinted. Available for €15 plus €3 p&p from paddy.madden@mie.ie His podcast on teaching about summer: Programme 141, <http://www.insideed.com>, click Archives June 2012