# *Biodiversity study* Digital content

**N.B. Downloading resources from the Queensland Museum website**: When you click on any of the website links you will asked for a username and password. In order to access the PDFs and videos, click ‘Cancel’ and then the PDFs and videos will open.

### Teachers’ guide

Queensland Museum, 2007, ‘Backyard Explorer Leader’s Guide’, Wild Backyards

© The State of Queensland (Queensland Museum) 2010–2012, Queensland Museum website

<http://www.qm.qld.gov.au/microsites/wild/pdf/backyard-explorer-leader-guide.pdf> (1.9 MB)

This guide provides teachers with an outline on how to construct biodiversity assessments of sites in the school area. A case study example is used to help guide the process. There are also detailed guides on constructing pitfall traps as well as handy tips for identification of insects to the taxonomic level of ‘Order’.

### Student workbook

Queensland Museum, 2007, ‘Backyard Explorer User’s Guide’*,* Wild Backyards

© The State of Queensland (Queensland Museum) 2010-2012, Queensland Museum website

<http://www.qm.qld.gov.au/microsites/wild/pdf/backyard-explorer-user-guide.pdf> (2 MB)

In this ecological study, you will find out what native animals and habitats are found in your schoolyard, and make a digital story about them.

### Information sheet

Queensland Museum, 2007, ‘Science Skills: How to name habitats’*,*

© Queensland Museum, Queensland Museum website <http://www.qm.qld.gov.au/microsites/mangrove/pdf/scienceskills/QM_how_to_name_habitats.pdf> (229 KB)

### Videos

‘Biodiversity assessments – Allan Morrison – Queensland Museum’, Queensland Museum website (3:53 mins) <http://www.qm.qld.gov.au/microsites/wild/plan-study.asp>

‘Insect collection – Malaise traps – Dr Chris Lambkin – Queensland Museum’, Queensland Museum website (1:54 min) <http://www.qm.qld.gov.au/microsites/wild/collect-insects.asp#malaise>

‘Insect collection – Pitfall traps – Dr Chris Lambkin – Queensland Museum’, Queensland Museum website (2:50 min) <http://www.qm.qld.gov.au/microsites/wild/collect-insects.asp#pitfall>

‘Insect collection – Beating and netting – Dr Chris Lambkin – Queensland Museum’, Queensland Museum website (2:14 min) http://www.qm.qld.gov.au/microsites/wild/collect-insects.asp#b-n

### Websites

#### Background information

* Find out what bugs are and how their bodies work.

‘What is a bug?’ Museum of Victoria website <http://museumvictoria.com.au/bugs/aboutbugs/index.aspx> (Accessed December 2015)

* Learn about bug habitats, how they build their homes, catch their prey and process their food.

‘Bugs are amazing!’, Museum of Victoria website <http://museumvictoria.com.au/bugs/amazingbugs/index.aspx> (Accessed December 2015)

#### Learning objects/interactives

* Students participate in an interactive activity to assist a field scientist to examine the diversity of living things in the rainforest.

‘Identifying living things – Rainforest diversity’, Curriculum Corporation (2010), Available on Scootle website—requires login and input of code L3079 to access <http://www.scootle.edu.au/ec/viewing/L3079/index.html>

#### Insect identification

* Identify insects using online interactive dichotomous keys

‘Key to the invertebrate’, CSIRO website, <http://www.ento.csiro.au/education/key/couplet_01.html> (Accessed December 2015)

‘Arthropod Identification’, American Museum of Natural History website <http://www.amnh.org/learn/biodiversity_counts/ident_help/arthro_keys/index.htm> (Accessed December 2015)

#### Using dichotomous keys

‘Identification help’, American Museum of Natural History website <http://www.amnh.org/learn/biodiversity_counts/read_select/ht/dichkey.htm> (Accessed December 2015)

### Background information on a variety of insects and small creatures

Museum Victoria, *‘*Bugs, Bugs, Bugs’, Museum of Victoria website <http://museumvictoria.com.au/pages/2085/bugs-bugs-bugs-introduction.pdf> (Accessed December 2015)

### ‘How to’ guides

‘Equipment’, American Museum of Natural History website <http://www.amnh.org/learn/biodiversity_counts/read_select/ht_index.htm> (Accessed December 2015)

* Setting up a yellow pan trap <http://www.amnh.org/learn/biodiversity_counts/read_select/ht/yellowtrap.htm>
* How to make your own net

<http://www.amnh.org/learn/biodiversity_counts/read_select/ht/makenet.htm>

### Units of work

‘Biodiversity – sustaining living things’ Education Services Australia Ltd Scootle website – requires login and input of code R11371 to access <http://www.scootle.edu.au/ec/viewing/R11371/index.html> (Accessed December 2015)

### Online games

* ‘Bug catcher – the game’, Museum of Victoria website <http://museumvictoria.com.au/bugs/catcher/index.aspx> (Accessed December 2015)

Go behind the scenes and explore the museum’s bug collection, sort and label insects then determine what bugs are missing from the collection and head out on a field search to catch some more!