**teacher guide**

**Feeding relationships 1:**

**Animal interactions**

# Components

NAME DESCRIPTION AUDIENCE

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|  | *Animal interactions*teacher guide | This guide shows how a video and book extract may be used to engage student interest in feeding relationships and introduced species. | teachers |
|  | *Cane toads*background sheet | This background sheet summarises information about cane toads and problems they pose for native wildlife. Cane toads are used as an example of introduced species throughout this collection of resources. | teachers |
|  | *The food files*video | This news-style video discusses feeding relationships and introduced species. | students |
|  | *Toad rage*worksheet | An extract from *Toad Rage*, by Morris Gleitzman, followed by student questions, makes links between feeding relationships and introduced species. | students |

Purpose

To **Engage** student interest in feeding relationships and introduced species.

# Activity summary

Outcomes

Students:

* realise that living things are linked by what they eat;
* understand that introducing new species into an environment has impacts on plants, animals and feeding relationships;
* use prior knowledge and new ideas to engage with problems presented by introduced species; and
* assimilate ideas from a different perspective.

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| ACTIVITY POSSIBLE STRATEGY |
| Students watch the video, *The food files*. | whole class |
| Class discussion of the video. See **Teacher notes** below for key questions. | whole class |
| Students use the worksheet, *Toad rage*, read a book extract, and answer questions. Discuss answers as a class. | individually then whole class |

# Technical requirements

The teacher guide, background sheet and worksheet require Adobe Reader (version 5 or later), which is a free download from [www.adobe.com.](http://www.adobe.com/) The worksheet is also available in Microsoft Word format.

A modern browser (eg Internet Explorer 9 or later, Google Chrome, Safari 5.0+, Opera or Firefox) is required to view the video. A high quality MP4 version of the video is available by download from the SPICE website.

# Teacher notes

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| QUESTION SUGGESTED ANSWER |
| small marsupials | shark fishants cockroachrakali fishwoylie nutsbilby nutsrufous hare wallaby nutsburrowing bettong nutsfox small marsupialscat small marsupialssea turtle jellyfishblack cockatoos seedsbees pollen and honeycane toad insectscaterpillar leafdingo small marsupials wedge-tailed eagle small marsupials snake cane toad |
| Why do animals eat? | Animals eat food to gain energy needed to perform all their daily activities. |
| Name three introduced species seen in this video. | cats, foxes, bees, cane toads … |
| Why did people introduce each of these animals into an environment? | cats – as pets, for biological control (to catch mice) foxes – for sportbees – to pollinate introduced plantscane toads – biological control (cane beetles) |
| What negative impacts could each of these introduced animals have on the native environment? | cats – prey on native animals foxes – prey on native animals bees – compete for sheltercane toads – poison native animals, may compete for food and shelter |

Cane toads move into Western Australia: bands show approximate position of front line between 2009 and 2015.

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# Acknowledgements

Thanks to Professor Rick Shine (School of Biological Sciences, The University of Sydney), Kimberley Toad Busters, Corrin Everitt (Department of Environment and Conservation, Kununurra Office), Cassandra Rowles, Kaarakin Black Cockatoo Rehabilitation Centre and Roger Harris (Herdsman Lake Wildlife Centre).

Video presenters: Toby Travers and Yvette Leong.

Designed and developed by the Centre for Learning Technology, The University of Western Australia.

Production team: Anton Ball, Pauline Charman, Alwyn Evans, Sally Harban, Dan Hutton, Emma Pointon, Jodie Ween and Michael Wheatley, with thanks to Bob Fitzpatrick, Jenny Gull and Wendy Sanderson.

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# Associated SPICE resources

*Feeding relationships 1: Animal interactions* may be used in conjunction with related SPICE resources to address the broader topic of food chains and webs.

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| DESCRIPTION LEARNING PURPOSE |
| *Feeding relationships (overview)*This learning pathway shows how a number of SPICE resources can be combined to teach the topic of food chains and webs. |  |
| *Feeding relationships 1: Animal interactions*Students watch a video designed to engage students and provoke questions about animal feeding relationships and introduced species. Students then read a book extract, raising further discussion about cane toads and their impacts. | **Engage** |
| *Feeding relationships 2: Predators and prey*Students explore concepts of feeding relationships and food chains by competing against each other in three activities: a quiz about what animals eat; a card game; and an outdoor role-play game. | **Explore** |
| *Feeding relationships 3: Food webs*Food webs are explained in a student fact sheet. Students use an iPad app or a cut-and- paste activity to create a food web that shows feeding relationships between animals in the Kimberley. Students introduce cane toads into their web to examine effects on other species in the ecosystem. They answer questions on an accompanying worksheet to check understanding. | **Explain** |
| *Feeding relationships 4: Impact of cane toads*This resource elaborates the topic of introduced species. Students watch video clips of people living in the Kimberley describing impacts of cane toads. An accompanying worksheet probes students’ understanding. | **Elaborate** |
| *Feeding relationships 5: Managing cane toads*This resource extends and applies students’ understanding of cane toads as an example of impacts caused by introduced species. Students suggest ways to solve the cane toad problem; read fact sheets that include up-to-date science research; and participate in a class debate to determine the best solution. They need to develop a persuasive argument that considers ethics, cost and viability of their option. | **Elaborate** |
| *Feeding relationships 6: Kimberley creations*This resource encourages students to employ techniques used in Aboriginal art to make their own symbolic representation of feeding relationships in an environment of their choice. | **Elaborate** |