

The Kimberley region in north-west Western Australia is home to a unique range of wildlife. Its ecosystem contains native plants and animals that interact with each other in many different ways. The area is sparsely populated by humans, so many species, wiped out or endangered in other parts of Australia, still live here.

A number of Aboriginal communities throughout the area live in their traditional way, showing great respect for landscape and animals. Their practices reflect their role as caretakers of the environment, and ensure the ecosystem is sustained.

However, this balanced environment is showing signs of a cane toad invasion. No one is sure what their total impact may be, but locals are keeping track of wildlife so they can see effects as cane toads arrive.

Food webs

A food web shows how plants and animals interact through eating. Your job is to make a food web of plants and animals, from the Kimberley. All are found at an Aboriginal community, near Kununurra.

Follow these instructions:

1. Cut out plant and animal cards provided.
2. Collect large piece of blank paper.
3. Arrange plant cards (producers) at bottom of paper.
4. Find animals (first order consumers) that eat plants and spread above plants, leaving room to draw arrows.
5. Place animals (second order consumers) that eat first order consumers, above first order consumers.
6. Place remaining animals (third order consumers) above second order consumers, at top of paper.
7. Glue cards onto paper.
8. Draw arrows to show what each animal eats - they may eat several things.
Remember, arrows must point from the species being eaten to the one that's eating it.
9. As cane toads arrive in the Kimberley they will upset the balanced food web. Add the cane toad card to your food web, and use different coloured arrows to show its feeding relationships.

The table on the next page shows what the animals eat.

Alternatives

Cards and information are available for two other Western Australian locations: Herdsman Lake in the Perth metropolitan area, and Cottesloe reef. Use the same instructions to make food webs for these locations. Add the cane toad to the Herdsman lake food web.

Kimberley food web

ORGANISM	DIET
cane toad	invertebrates (eg insects), small rodents, birds' eggs, birds, amphibians, small reptiles
cicada	plant sap
eucalyptus	producer
freshwater crocodile	fish, frogs, toads, lizards, turtles, crayfish, birds, small mammals, bats
frilled-neck lizard	insects, spiders, toads
green tree frog	insects, spiders, smaller frogs, very small mammals
meat ant	plants, insect secretions, toads, dead insects, dead spiders, dead mammals, dead reptiles, dead amphibians, dead birds
native stingless bee	pollen, nectar
northern quoll	small mammals, small reptiles, insects, spiders, frogs, toads
rainbow bee-eater	bees, flying insects
straw-necked ibis	molluscs, fish, grasshoppers, crickets, locusts, frogs, toads, small mammals, crabs, lizards, small snakes, marine plants, worms
tussock grass	producer
yellow-spotted monitor	insects, spiders, snakes, small mammals, lizards, turtle eggs, frogs, toads

Kimberley food web organisms



Herdsmen Lake food web

ORGANISM	DIET
black duck	grass, algae, water weed, bulrush, seeds, roots, macro-invertebrates
bulrush	producer
cane toad	invertebrates (eg insects), small rodents, birds' eggs, birds, amphibians, small reptiles
coot	grass, algae, water weed, bulrush, detritus
dragonfly nymph	tadpoles, fish, mosquito larvae, other aquatic macro-invertebrates
gambusia	mosquito larvae, midge larvae, water flea and other aquatic macro-invertebrates
grass	producer
motorbike frog	smaller frogs, fish, lizards, aquatic macro-invertebrates, insects, spiders
purple swamphen	grass, bulrush, water weed, detritus, frogs
spoonbill	tadpoles, fish, lizards, aquatic macro-invertebrates
swamp harrier	coots and other water birds, small mammals, reptiles, frogs, fish, carrion
tiger snake	frogs, small birds, lizards, small, mammals, eggs
water flea	algae, water weed, bulrush, detritus
water weed	producer

Herdsmen Lake food web organisms

TIGER SNAKE



GRASS



GAMBUSIA



COOT



WATER FLEA



SWAMP HARRIER



WATER WEED



DRAGONFLY NYMPH



BLACK DUCK



BULRUSH



PURPLE SWAMPHEN



MOTORBIKE FROG



SPOONBILL



CANE TOAD



Cottesloe Reef food web

ORGANISM	DIET
11-armed sea star	abalone, bivalves
Australian pelican	fish, crustaceans, small birds
Australian sea lion	fish, lobsters, sea birds, cephalopods
blue swimmer crab	small fish, invertebrates, algae, seagrass
bottlenose dolphin	fish, squid, crustaceans
brown-lipped abalone	kelp
gloomy octopus	crustaceans, shellfish, small fish
grey nurse shark	fish, crustaceans, squid, small sharks
kelp	producer
mysid shrimp	algae, detritus, plankton
phytoplankton	producer
scallop	phytoplankton, detritus
seagrass	producer
striped stingaree	bivalves, crustaceans, worms
weedy seadragon	shrimp, other small crustaceans
western scalyfin	algae, small invertebrates

Cottesloe Reef food web organisms

