

Ambush Predators

Ambush predators are often masters at using camouflage. One of the keys to their success is the ability to remain still until their prey comes close and they can attack. Animals such as the giant water bug, the orchid mantis and the bobbit worm use the strategy of ambush to catch their food.

The giant water bug dives under the water where it lays motionless waiting for prey to come close. The prey is injected with powerful digestive saliva, which turns the insides of the victim into liquid. Then the giant water bug sucks out all the juices.

The orchid mantis is a master of disguise. By keeping very still, it tricks its prey into thinking that it is an orchid, so its victim will come very close. Then, as quick as a flash, the orchid mantis grasps its prey with its spiked forelegs.



Orchid mantis waiting for its prey





Giant water bug catching a frog



The bobbit worm lives on the ocean floor. To ambush its prey, it relies on its five antennae to signal that something is approaching. The bobbit worm then lunges at its victim, catching its prey in less than a second.

Bobbit worm catching a fish with its scissor-like jaws

Suffocating to Death

Some predators suffocate their victims.

The green anaconda does not produce any venom, but it is still a deadly predator. It kills its victim by coiling around and squeezing its prey in a powerful grasp until the victim is suffocated to death. The prey is then swallowed whole, without any chewing. To do this, the green anaconda has a double-hinged jaw and very flexible ligaments connected to its jawbone.

The tiny teeth in a bullfrog's mouth are not for ripping the flesh of its prey. The teeth let the bullfrog hold its prey in its mouth for so long that the victim will eventually suffocate and die.



Green anaconda
suffocating a bird



Bullfrog suffocating a worm

Deadly Venom

Predators that produce venom or poison can be very dangerous. Some predators produce venom to immobilise and stun their prey while others produce venom to help them digest their prey more easily.

Although the Gila monster is a slow mover, it has an acute sense of smell and can climb trees and cacti to find its prey. These skills help the Gila monster locate bird and reptile eggs. It can also hunt small birds, mammals, frogs, lizards and insects. The Gila monster stores venom in saliva glands in its lower jaw. The venom is released once it begins to chew. It will crush large prey and eat small prey whole and head first.

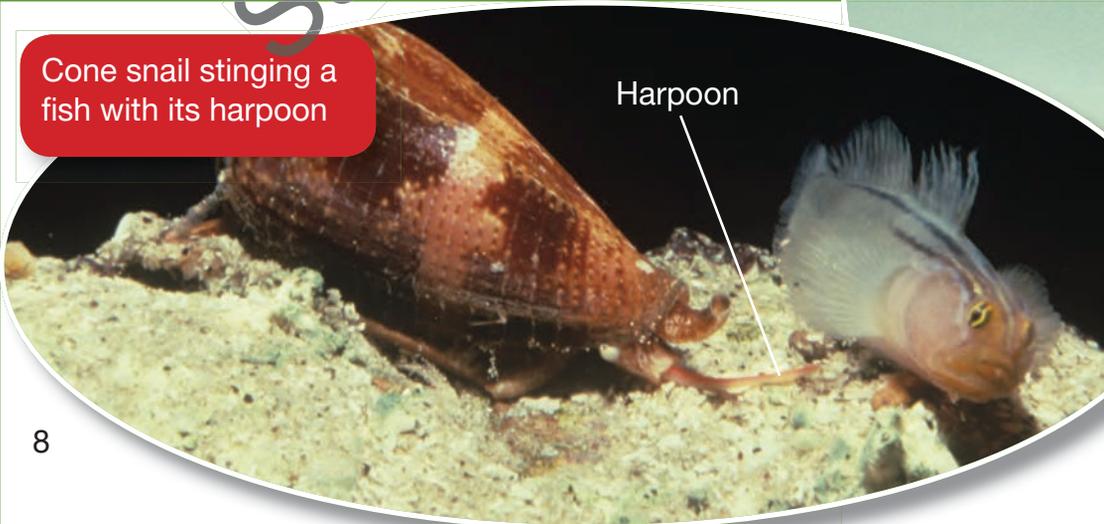
The yellow-bellied sea snake is highly venomous. Eating a yellow-bellied sea snake is fatal to many animals. It uses its venom to subdue its prey rather than kill it.

The cone snail hunts fish by firing its harpoon, which is toxic. The harpoon can be fired in any direction and paralyses the prey so it can be swallowed.



Cone snail stinging a fish with its harpoon

Harpoon





Gila monster eating a kangaroo rat



Yellow-bellied sea snake

Hunting in Packs

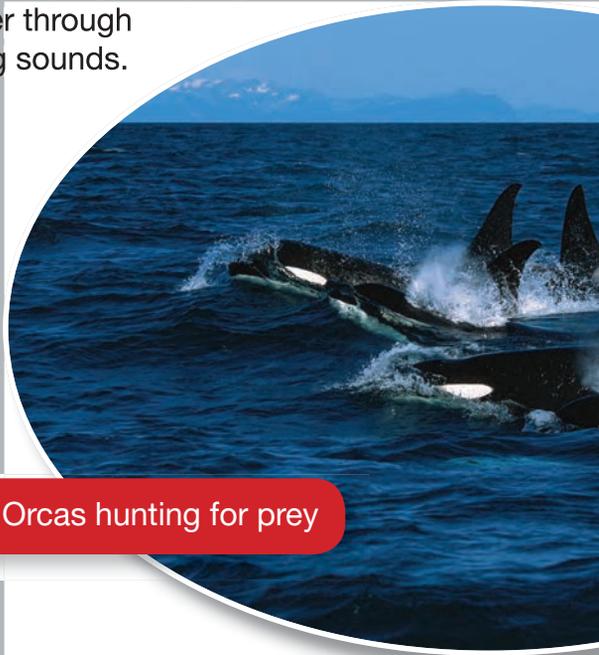
Pack hunters work together to hunt and bring down their prey. For some smaller predators, hunting in packs can make up for their lack of strength. Pack hunters have ways of communicating with one another to ensure that the hunt is successful.

Hunting in large numbers is a useful technique for driver ants. Groups of up to 500,000 can march together, killing small animals in their path. Although driver ants are blind, they communicate with one another through chemicals called pheromones. Army ants have very strong jaws and their bite is very painful, even to humans.

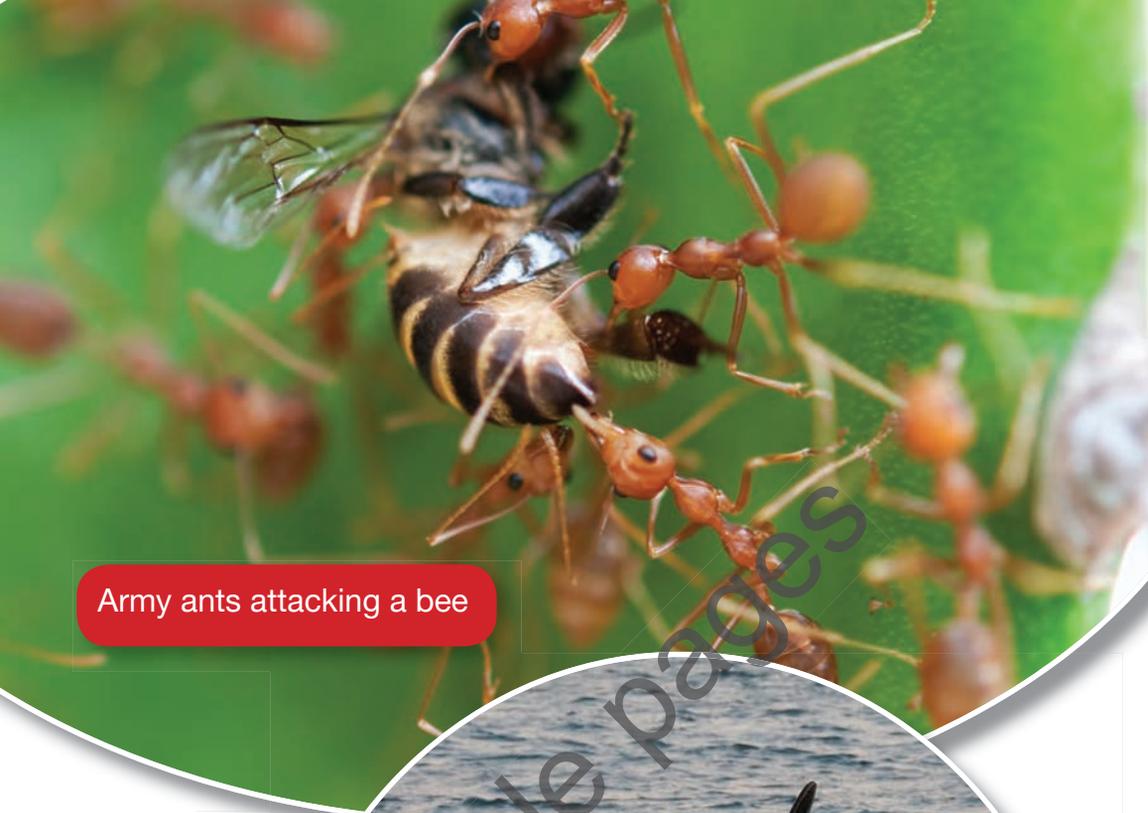
Orcas or killer whales are one of the most well-known predators of the sea, but they have some interesting techniques for catching their prey. By hunting in groups, called pods, orcas can herd their prey and encircle them. The orcas in the pod take up different positions to block any chance of the prey escaping. They communicate to one another through a series of clicking and squeaking sounds.

Pods of orcas can also:

1. Slap herrings with their tails to stun them.
2. Push seals or penguins off floating ice packs.
3. Snatch seals or sea lions off the beach.



Pod of Orcas hunting for prey



Army ants attacking a bee



Orca trying to snatch a seal off a beach



Speedsters, Stalkers and Dangerous Legs

Some predators outrun or stalk up on their prey.

The camel (wind) spider is a speedy predator that can run over 16 kph. It uses its front legs to sense when prey is near. Once the chase is on, the camel spider catches and holds its prey with its large appendages and then crushes it.

Roadrunner birds are very swift runners. They can chase and catch a rattlesnake by running up to 27 kph. Once they have caught the snake in their bill, they whack it against the ground repeatedly until it dies.

The assassin or wheel bug is not great at flying, but it is a very good stalker. Prey are injected with toxic saliva, which contains a paralysing substance. The victim is immobilised within about 30 seconds of capture. Then the assassin bug sucks out all the victim's insides.

The secretary bird stands up to 1.3 metres tall. Its long legs help when it hunts for poisonous snakes. It can dodge a snake's bite and then quickly get into a position to attack the snake. Those long legs stamp and trample the snake until it is stunned or unconscious.



The secretary bird uses its long legs to stamp on prey.



Roadrunner catching a snake



Camel spider eating a cricket



Assassin bug catching a fly

Special Tricks and Techniques

Predators will sometimes use special ‘tricks’ or techniques to capture their prey.

Warm-blooded prey, such as mice and birds, can’t stay hidden from a pit viper at night. The pit viper has a pit organ that can detect the heat that warm-blooded prey give off.

The females of one species of firefly copy the light signals of other kinds of fireflies. The light attracts male fireflies, which the female can then capture and eat.

A spitting spider sneaks up on its victim before spitting on it. The spit glues the victim to the ground so that the spider can paralyse the victim with its venom.

Small insects come to a sticky end when they fly into the threads that hang down from glow-worm larvae. Insects, such as mayflies, are attracted to the light that the glow-worm larvae produce, but they don’t see the sticky threads until it is too late. The larvae then pull up the threads with the insect still attached and eat their prey.



Snake eating a rat



Fireflies attract other fireflies with a bright light in their tails



Spitting spider capturing a mosquito



Glow-worm larvae thread capturing a fly

Hunting Techniques

Ambush

giant water bug
orchid mantis
bobbit worm

Suffocation

green anaconda
bullfrog

Venom

Gila monster
yellow-bellied sea snake
cone snail

Pack hunters

army ants
orcas

Speed

camel spider
roadrunner

Other tricks and techniques

secretary bird
assassin bug
pit viper
fireflies
spitting spider
glow-worm larvae

Index

ambush predators	4-5
assassin bugs	12
bobbit worms	4-5
bullfrogs	6
camel spiders	12
cone snails	8
driver ants	10
fireflies	14
giant water bugs	4
Gila monsters	8
glow-worm larvae	14
green anacondas	6
orcas	10
orchid mantises	4
pack hunters	10
pit vipers	14
pythons	6
roadrunners	12
secretary birds	13
speedy predators	12
spitting spider	14
suffocation	2, 6
venom	6, 8, 14
yellow-bellied sea snake	8



Informational Reports

Informational Reports record factual information about a specific topic.

How to Write an Informational Report

Step One

- Select a topic.
- Write down the things you know about the topic.
- Write down the things you need to find out.

Step Two

- Locate the information you need.
- Use different kinds of resources for your investigation:

Internet

Library

Television documentaries

Experts

Take notes or make copies of what you find.

Amazing Predators - Research Brief

What are some of the ways that predators catch prey?

Which predators ambush their prey? What do they do?

Which predators suffocate their prey? What do they do?

Which predators poison their prey? How do they do this?

Which animals hunt in packs? What do they do?

Which animals stalk their prey or outrun them?

Guide Notes

Title: Amazing Predators

Stage: Advanced Fluency

Text form: Informational Report

Approach: Guided Reading

Processes: Thinking Critically, Exploring Language, Processing Information

Written and Visual Focus: Labels, Captions, Index, Photographs, Contents Page, Comparison Chart

THINKING CRITICALLY

(sample questions)

Before Reading – Establishing Prior Knowledge

- What do you know about some of the special ways predators catch prey?

Visualising the Text Content

- What might you expect to see in this book?
- What form of writing do you think will be used by the author?
- Look at the Contents page and Index. Encourage the students to think about the information and make predictions about the text content.

After Reading – Interpreting the Text

- What do you think is the purpose of this book?
- How does the introduction text on pages 2–3 explain the idea behind the topic?
- What do you think is meant by the term ‘arrange a sticky end’?
- Look at pages 4–5. What do you think is meant by the term ‘masters at using camouflage’?
- In your opinion, do the photographs on pages 4–5 help the reader understand the concept of camouflage and capture? Why or why not?
- What inferences can you make about the digestive system of an animal that swallows its prey whole and live?
- Why do you think the Gila monster eats its prey head first?
- How would you find out more about pheromones? How would you draw up a research brief for this?
- What inferences can you make about the intelligence of orcas? What reasons can you give to support your opinion?
- What inferences can you make about how predators acquire their knowledge of special tricks to capture their prey?
- What questions do you have after reading the text?
- Do you think the author effectively conveyed the information in this book? Why or why not?