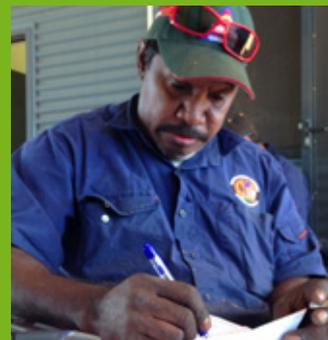


RECOGNISE FAUNA



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PUBLICATION NOTES

BHP Billiton Iron Ore is proud to support Greening Australia to provide valuable conservation and land management training to communities throughout the Pilbara through the Indigenous Training Program.

This Learning Guide series has been developed as part of our partnership of the program.

Gavin Price, Head of Environment, BHP Billiton Iron Ore

Greening Australia is proud to produce and provide the comprehensive suite of new ALEP Learning Guides. The guides are compatible with the new horticulture and conservation industries training package and suited to developing skills in Indigenous communities within remote areas of the country where employment opportunities are limited. We would like to thank BHPBIO for their generous support in the development of the guides.

Brendan Foran, National CEO Greening Australia

The second series of ALEP Guides is aligned with a number of units of competence from the *Training Package AHC10 – Agriculture, Horticulture and Conservation and Land Management* (Release 8.0). The units selected are frequently used within Certificates I to III in Horticulture and Conservation and Land Management. As such they cover, where possible, the elements, performance criteria and required skills and knowledge of each unit.

The principal goal of these resources is to support the learning process; the learning activities may complement a trainer's assessment plan. The intent is that they will be used in an interactive manner with learners rather than as self-paced study guides. The structure and sequence have been designed to follow the logical steps of the practical tasks wherever possible. Concepts are introduced and then consolidated with discussion and/or practical activities.

The writers consider that these guides can provide a sound technical foundation but also strongly encourage trainers to complement the guides with additional, authentic resources from relevant industry texts and websites. The guides can be used in part or in their entirety but should always be linked to practical activities to strengthen the teaching and learning.

Genuine consideration was given to the level of language used in the guides. The goal has been to find a balance between simplifying the language to an accessible level and ensuring that the vocational concepts are addressed. The writers contend that with appropriate support these texts can provide an opportunity for students to strengthen their language, literacy and numeracy skills, which may be required for pathway progression.

A number of Aboriginal people have been involved in developing this ALEP Guide, which is considered suitable for use within a program based on Aboriginal pedagogies.

INTRODUCTION

Welcome to *Recognise fauna*. In this unit you will learn how to name and describe animals. This information might be useful for compiling reports, participating in surveys or helping visitors learn about your region.

This guide provides some foundational information about identifying fauna, but learning will also need to be undertaken practically in the field by observing fauna and accessing available references. The best way to learn this kind of information is with repeated practice and the support of a trainer and/or workplace supervisor.

EQUIPMENT REQUIRED

To complete this training you will need the following:

1. Appropriate Personal Protective Equipment (PPE)
2. A range of reference sources, including texts and experts
3. Access to the internet for research (preferred but not essential)
4. Equipment suitable for chosen survey method
5. Permits and ethics applications as required

LEARNING ACTIVITIES

There are four kinds of activities to complete. These activities may go toward your final assessment.

SECTION	ACTIVITY	SATISFACTORY (Y/N)	DATE
RESEARCH ACTIVITIES			
1.5	Research an arthropod		
1.6	Scientific names for fauna in your region		
4.2	Extinct, vulnerable and endangered species and notifiable pest fauna in your region		
DISCUSSION ACTIVITIES			
2.1	Identify locations of target species		
2.2	Identify the survey type		
2.3	Your workplace procedures		
3.3	Accessing expert support		
4.1	Your workplace documentation requirements		
4.3	Sharing information		
WORKBOOK ACTIVITIES			
1.3	Classification		
1.5	Find an arthropod and use a dichotomous key		
PROJECT			
2.4	Plan your survey		
3.3	Record field notes		
4.3	Sharing information		





1.1 WHAT IS FAUNA?

Fauna is another word meaning animals. The word was first used in English about 250 years ago and came from the name of Fauna, a Roman fertility goddess.

Around the same time, the word flora was first used to talk about plants. Flora was a Roman goddess of flowers.

It is mainly in science that we talk about the flora and fauna of a region. In horticulture and conservation and land management (CLM) it is important to learn a bit about the science behind the work we do.

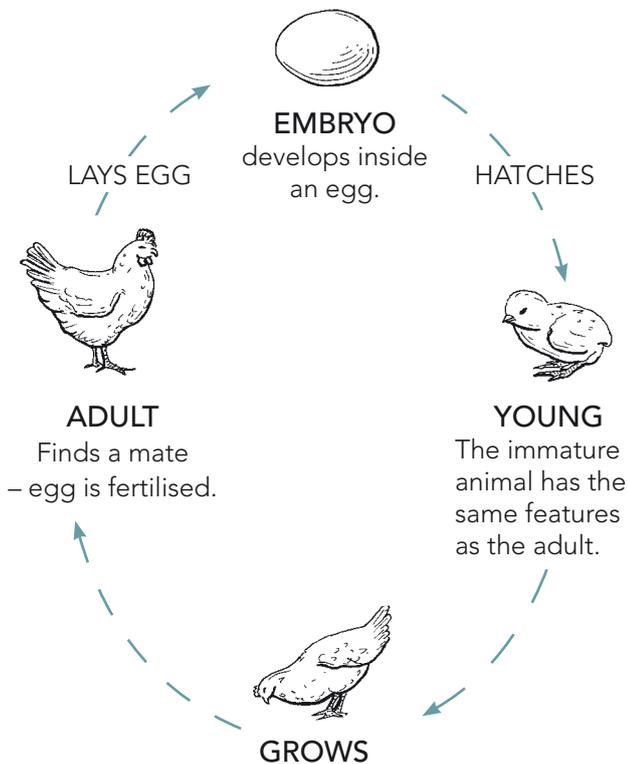
1.2 ANIMAL LIFE CYCLES

A life cycle is a way of thinking about the different developmental stages animals go through from conception to death. We use a circle to help think about this because it goes around and around from one generation to the next.

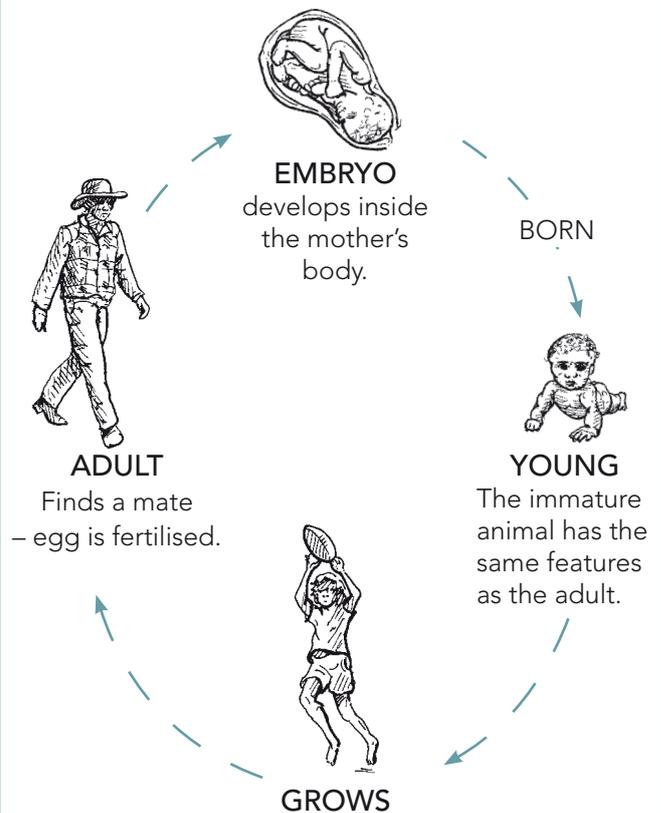
Most people know about this process, but there might be some new words to learn for the various stages.

Many animals such as mammals, reptiles and birds have a simple life cycle.

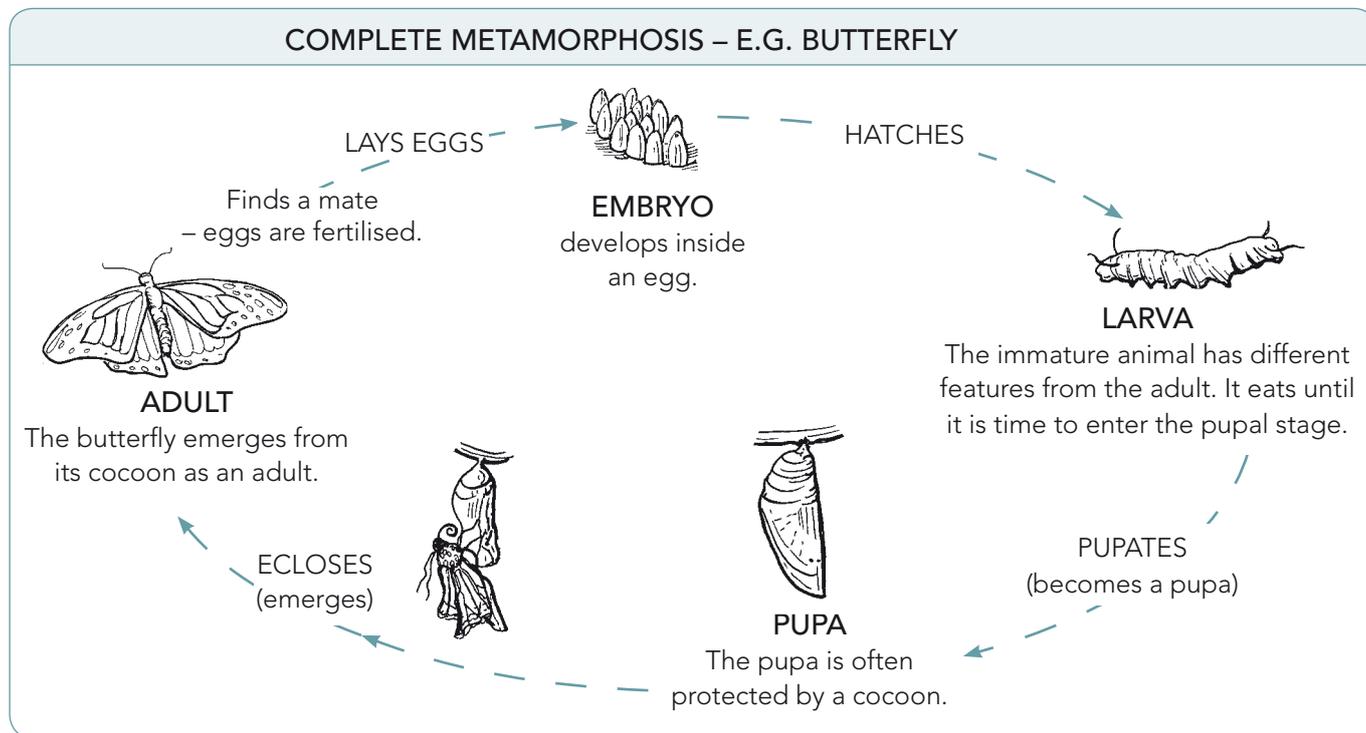
SIMPLE LIFE CYCLE – E.G. CHICKEN



SIMPLE LIFE CYCLE – E.G. HUMAN



Some other animals change completely between being immature and mature. This change is called **metamorphosis**. Many insects go through a complete metamorphosis during their life cycle, for example, moths and butterflies.

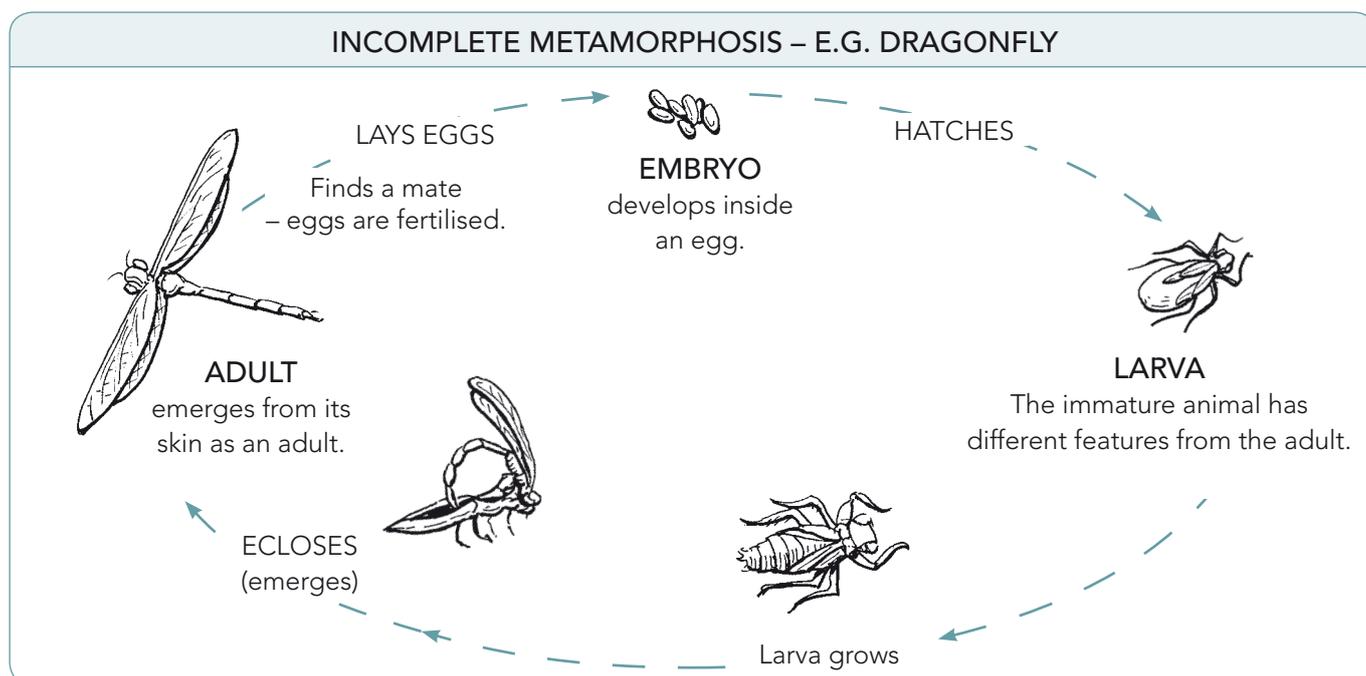


Some animals go through an **incomplete metamorphosis**. This means they change but they don't go through the pupal stage, for example, dragonflies, grasshoppers, cicadas, jellyfish and amphibians.

For insects metamorphosing in this way, the nymph **moults**, getting rid of the old shell as it grows. It may moult several times. Eventually, the adult emerges in its new form.

Note

Not all animals that moult go through metamorphosis, e.g. snakes, spiders





1.3 CLASSIFICATION

Classification is a way of grouping things that have similar features. In everyday life we classify people into cultural/language backgrounds and families. This classification system is based on who our parents are and where we are born.

In western science there is a classification system for all living things based on similarities. This can be in appearance, behaviour and adaptations made through evolution. Adaptations are features of animals that have helped them survive, for example, the way beaks, wings, flippers and mouthparts have formed to meet the animal's needs in their environment.

This classification system gives living things their scientific names. The science of naming and classifying living things is called taxonomy.

The highest level of classification that we will look at is kingdom. The three kingdoms you will work with regularly in horticulture or CLM are plants, animals and fungi.

In this guide we will focus on members of Kingdom Animalia, otherwise known as **fauna** or animals.

KINGDOMS

Plant (Plantae)



- Many cells
- Cell wall is made of cellulose
- Have a nucleus

Autotrophic – they make their own nutrition through photosynthesis

Animal (Animalia)



- Many cells
- No cell wall
- Have a nucleus

Heterotrophic – they get nutrition from other complex organic compounds

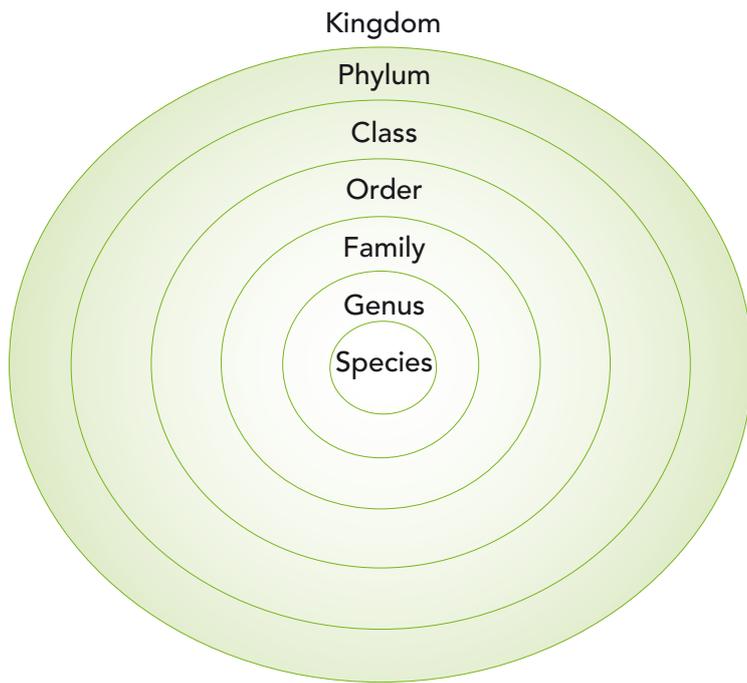
Fungi (Fungi)



- Some are single cell and some have many cells
- Cell wall made of chitin
- Have a nucleus

Heterotrophic – they get nutrition from other complex organic compounds

CLASSIFICATIONS WITHIN KINGDOMS



Kingdom: a group of phyla

Phylum: a group of classes

Class: a group of orders

Order: a group of families

Family: a group of genera

Genus: a group of species

Species: a group of similar individuals

Species is the narrowest classification. Animals of the same species are very similar and can freely breed to produce fertile offspring. Animals of different species can breed, but their offspring generally can't. For example, a horse and donkey can produce a mule but it generally can't have young.

Many of the words we use in science come from ancient Greek and Latin languages. Latin was the language spoken by Romans.

If you learn some of the meanings of these words it will help with classification. See the *Glossary* for a start.

PUTTING IT TOGETHER

Below is the complete classification of the Little Corella.

CLASSIFICATION FOR THE LITTLE CORELLA

Kingdom	Animalia
Phylum	Chordata
Class	Aves
Order	Psittaciformes
Family	Cacatuidae
Genus	<i>Cacatua</i>
Species	<i>sanguinea</i>

