

October 2018

Volume 1, Issue 9

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Items for Observing

Insects:

- Camera
- Magnifying Glass
- Insect Field Guide
- Field Journal



Nature Science for Aussie Families

Insect Watch

Spring is well underway and we're still marveling over the glorious beauty of wildflower blossoms while the orchid season begins to fade. Nesting birds created complex nests, laid eggs and now they're occupied with feeding their offspring as insects begin to hatch and thrive. Blue wrens join the nesting parade.

Lizards and snakes have emerged from their state of torpor and are basking in the sun among rocks and roadways, warming stiff bodies and anticipating mating season. They'll begin to search for and impress females who will accept them. They'll fill their bellies with swarming insects and chorusing frogs to satisfy their voracious appetite. Turtles begin mating.

Bees swarm while the skeletonizer caterpillars create havoc on gum leaves. Wasps search for nesting sites and begin to build their mud castles before pursuing huntsman to feed their larvae.

Butterflies fill the skies with their fluttering, round and round in swirls, chasing and playing with one another, celebrating the emergence of new life.

On the ground beetles begin to emerge and termites prepare escape tunnels. Flies annoy us while mosquitoes breed and prepare to taunt us through the scorching summer months.

Would you like to embrace the coming season and celebrate the emergence of all things complex like the life cycles and processes of caterpillars and butterflies, dragonflies and cicadas? How about knowing the dangerous spiders and snakes in your locality? [Come with us](#) as we venture into Aussie wildlife as summer approaches with its dangers.



The Study of Insects Links:

[Why Study Insects? | CSIRO](#)

[Insects | Australian Museum](#)

[The Little Things that Run in the City | Melbourne City](#)

[Insect Identification Poster | All Posters](#)

[How to Draw Insects | John Muir Laws](#)

Pictures of the Month



Kangaroo Paw by Ann



Southern Boobook Owl by Jacob



Blue Tongue Lizard by Renae



Sturt Desert Pea by Renae



Caladenia macrostylis by Renae
(Leaping Spider Orchid)



Caladenia vulgaris by Renae
(Common Spider Orchid)



Grevillea by Clare

[Nature Science for Aussie Families](#) is a F.B. Group where outdoor mamas share their adventures, explorations and activities to motivate, encourage and support one another. We'd love to have you [come along side us](#) and share in our joy or #naturestudyaustralia on Instagram.

Show & Tell



Jamieson is investigating the catapult arm of the Trigger Plant. By Renae



Ann and family explore the wildflowers of WA.

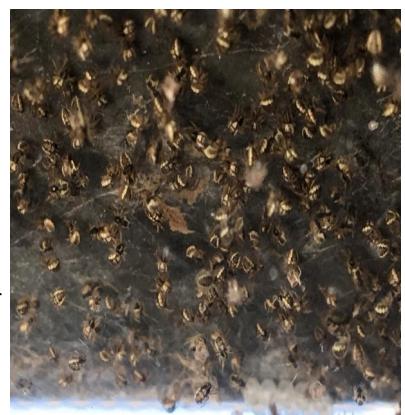


Sally and family investigate nesting birds and discover an octopus on a special family outing at the beach.



Huny is my garden buddy, apart from my chooks. She waits for me to leave the garden so she can scratch around, and chirps at me if I take too long to leave. She also chirps at me if I have surprised her by working quietly and then suddenly moving. They raised a chick last year but we didn't see the nest until after the chick had fledged. Mr Huny is not interested in us at all. He sits on the roof of the house and waits for us to go. They both sit quietly, without moving, on the nest, which is good because the neighbours cats would have found them. Here's hoping we get to see some cute feathers and see them fledge.

~ Carolyn's Observations



Hatched Spiderlings by Christina

*"You can observe a lot by watching."
~ Yogi Berra*

Show & Tell



Jamieson captures tadpoles, investigates their habitat and creates an observation tank to watch them grow into handsome frogs. Thank you for sharing your explorations with us, Renae.



An oddity found by Christina. What do you think it is and what evidence has been left behind?



Clodia and family discovered nesting swallows near their home.



Soldier Crabs
by Rachael



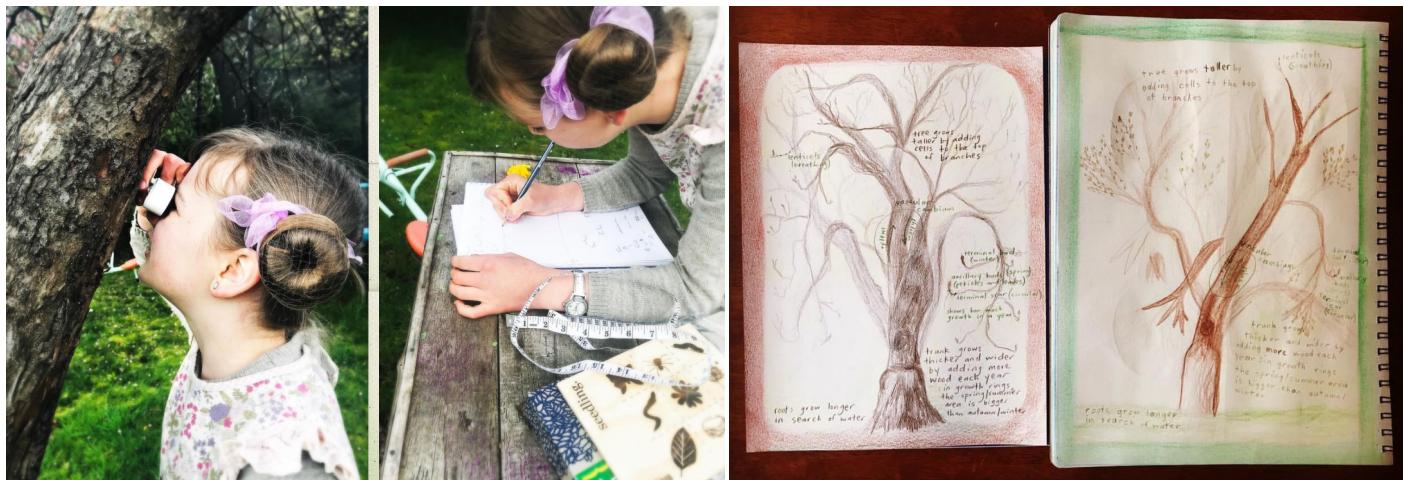
Jacob discovered a deceased Crested Pigeon while out on his morning walk. He decided to document information and investigate the bird's anatomy as he had read in Sibley's Birding Basics. Great job Jacob. You're an inspiration.

Do you have an activity, story or adventure to share with us? You could ignite a spark of inspiration for someone else! Together, we can encourage and support one another as we explore nature. Send your article and photographs to : marie@naturestudyaustralia.com.au.

Inspired to Journal

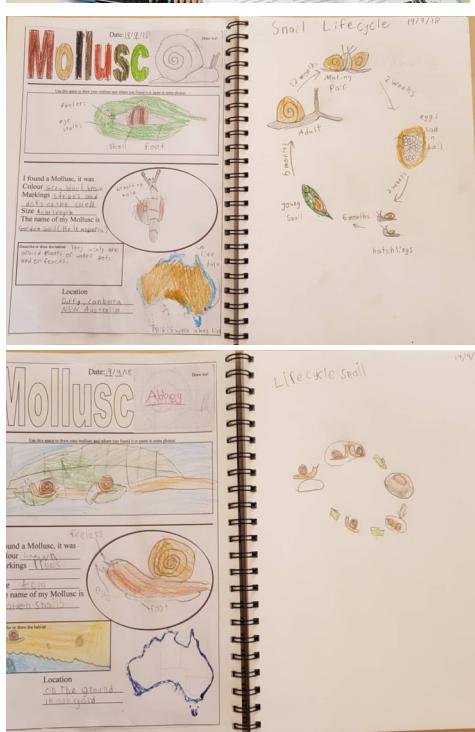
"As soon as he is able to keep it himself, a nature-diary is a source of delight to a child. Every day's walk gives him something to enter: three squirrels in a larch tree, a jay flying across such a field, a caterpillar climbing up a nettle, a snail eating a cabbage leaf, a spider dropping suddenly to the ground, where he found ground ivy, how it was growing and what plants were growing with it, how bindweed or ivy manages to climb. Innumerable matters to record occur to the intelligent child."

~ Charlotte Mason

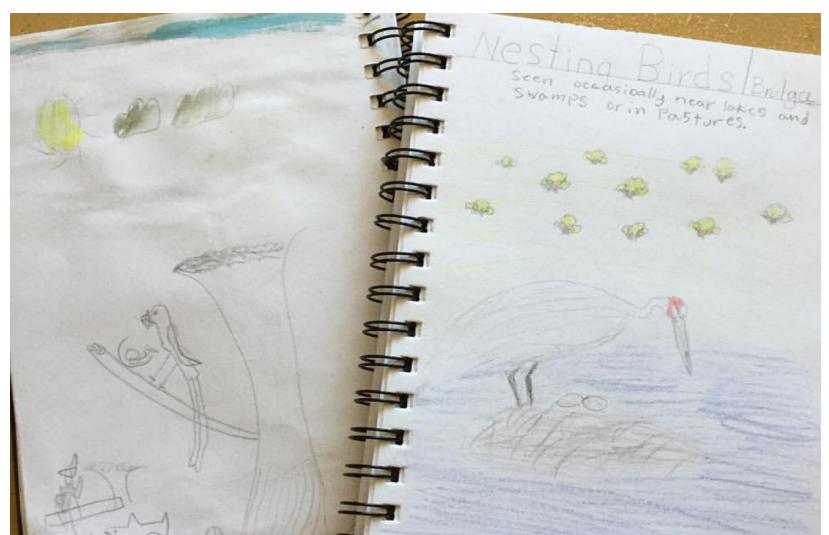


Chilli and Marlin investigate winter trees and create beautiful journal entries.

The Brough Family study molluscs and journal life cycles.



William journals sharks.



Jo's family uncover nesting birds and journal their discoveries.



Resources for Insect Enquiry

[Key to Invertebrate Identification](#)

[Lucid Keys to Insect Orders For:](#)

[Android Devices](#)

[iOS Versions](#)

[Online Version](#)

[Insect Fact Sheets and Activities](#)

[Wild Backyards](#)

[Bug Catcher Game](#)

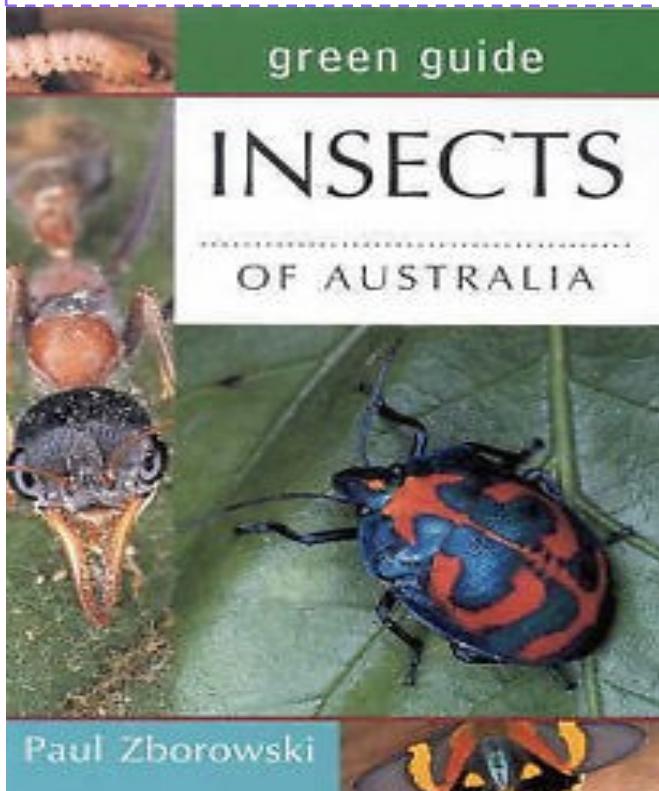
[Organise a Minibeast Workshop with Minibeast](#)

[Wildlife for Groups](#)

[Australian Entomological Supplies](#)

[Methods of Collecting, Storing and Preserving](#)

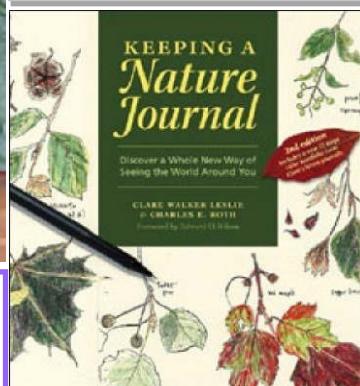
[Insects](#)



Entertaining and informative text accompanied by action photography. The cast of Insects includes bees, wattle grubs, butterflies, moths, roaches, grasshoppers and many more.



Charlotte Mason encouraged her students to journal nature every day for a month and this task would count towards a tassel the students would receive after completing a scouting exercise. I'm sure we'll accomplish five entries into our journals, and who knows, perhaps we'll make it a weekly habit if not a daily one. Simple field journaling is encouraged whether its presented in pencil sketches or watercolours. Post journal entries in Nature Science for Aussie Families or #naturestudyaustralia on Insta.



Win
Keeping a Nature
Journal
by
Clare Walker
Leslie

"As soon as he is able to keep it himself, a nature-diary is a source of delight to a child. Every day's walk gives him something to enter." ~ Charlotte Mason



Indigo's Nature Expeditions



Indy begins a Platypus Discovery

"Indy is taking her nature exploration very seriously. She's documenting her discoveries in her note book, and pretending to send findings to her team via computer. We've been watching willy wag tails and red wattle birds." Excerpt from Sarah's postings via Nature Science of Aussie Families. Thank you for sharing Indigo's Explorations with us, Sarah.



It's been a while due to sickness and other things since being able to do a proper set up to share. We're a bit behind on the 'platypus week' events in our local area but we will thoroughly enjoy this study as long as it runs.

Indigo is 4 and enjoys story telling immensely. So we incorporate as much of this as possible through our 4-6 week studies .

I have sourced plenty of varied literature from op shops and the library that explores this unique creature from many levels; verse, child written fiction, young junior novels, and non fiction explorations . We also find articles in the: Australian geographic, zoo news, and even in double helix science magazine!

We will start off with slow browsing while discussing the literature with many hours of role play and story telling by Indy .

Songs, videos, an outing to visit our local platypus at the zoo, and maybe even a creek wander to check out the habitat of this elusive being.

The nature study guide always provides us with ideas , resources and information that we might otherwise miss ourselves!

Art experiences usually nearer the end of the study once her little being has been steeped in the subject . Thus allowing her being to absorb everything before expressing in art form. Though sometimes she gets inspired, such as when she observes me doing the chalk drawings or recording in my own Journal.

We never get through all of the wonderfully arranged studies offered to us by Marie because we dive so deeply, so wholly into one at a time. Though we remain ever observant and spontaneous with what nature offers us a turn... Sometimes stopping briefly to admire a given subject and a little follow up discussions as they arise .

I find this a wonderful balance. And to have at hand a concise reference to find resources, make suggestions, and deliver succinctly relevant information pertaining to Australian local wildlife is such a blessing.

Thank you ❤️ by Sarah R.

Nature Study Australia

Investigating Insects



There are more insects in the world than any one type of animal. If you pay attention and observe the space around you, you'd notice many different kinds. Bugs hum, buzz and whiz about us in the suburbs, parks, farmlands, bushland, waterways and *everywhere*. These creepy crawlies work hard [pollinating](#) blossoms, vegetables, fruits and grains.

Some of us hate them and others love them, but regardless of how we feel, insects perform an essential task in the network of life as they're an important source of nourishment to birds, bats, amphibians, spiders and reptiles. Imagine a world without insects. What would it look like? Our world wouldn't be filled with such diversity and beauty. Every creepy crawlly serves a purpose, even those pesky flies and mosquitoes.

We learn [what an insect is](#), it's [metamorphosis](#) process and study their anatomy realising spiders are not insects and there's a difference between them and true bugs. We gain knowledge from insect resource books without investigating the world of arthropods ourselves. We're missing out on all the fun and the opportunity to contribute to the advancement of scientific knowledge.

Once we have a basic knowledge of these creatures we can dive deeper into the [various insect families](#). The world of arthropods is enormous and it's impossible to study all of them. So you may [choose a group](#) that appeals to you like butterflies, dragonflies or cockroaches. These insects are easily identified with the help of specific field guides.

The excitement begins when a young naturalist ventures outdoors to hunt and collect specimens which will encourage curiosity and observation while learning the work of an [entomologist](#). But where does the naturalist begin to search for insects? Here are a few Ideas:

- Insects love the nectar and pollen flowers and trees provide in rainforests, forests and bushland.
- They hide under leaves, in flowers, stems and fruit. Search for evidence.
- They shelter under rocks, bark, leaf litter, dung, in soil and sand dunes.
- Insects thrive on the margins of water whether it's along the ocean, rivers, ponds, in puddles and salt pans.
- The most productive collecting areas will be where two or more ecosystems converge or overlap.
- Some insects love 'hilltopping' or congregating on the top of hills and mountain summits.
- Insects gather at the top of shoreline cliffs when there's a steady breeze blowing.

The time and seasons for collecting specimens will depend upon the group you're investigating. As we know, insects are diurnal, nocturnal or crepuscular. Invertebrates actively feed in the early morning before the day begins to warm up. Field naturalists in the east collect insects from September to April with insects being most abundant between December and February. Creepy crawlies thrive just before and during the rains in the north. In the west, insect activity is plentiful in the cooler months while in central Australia, insects are profuse after isolated showers of rain. So now that you know where and when to collect insects, get outside and investigate the intriguing world of arthropods for yourself.

A Skilled Naturalist Will...

- Study a particular group of invertebrates habitat, distribution, life-cycle, food web and host plants.
- Raise larvae through the process of metamorphosis into adulthood.
- Collect a variety of insects within the arthropod group of study to observe the differences and changes within genders and stages.
- Keep accurate and detailed records of each collecting experience.
- Apply for and carry permits for the collection of rare or endangered invertebrates.
- Ask landowners permission before chasing insects on private property.

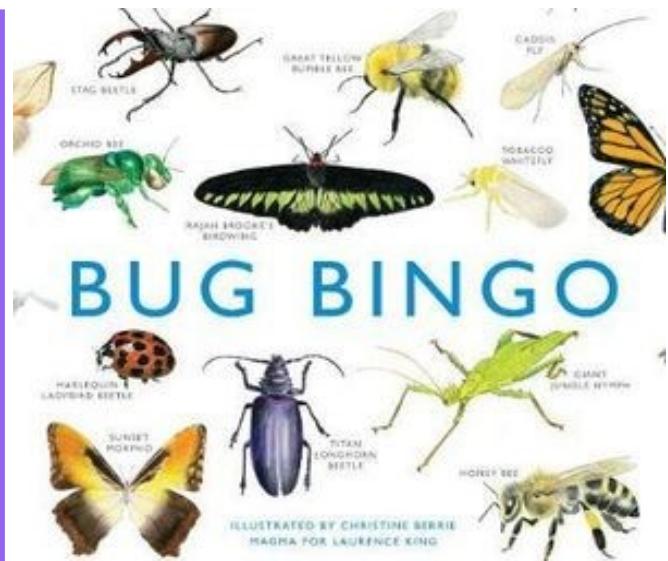
Collecting Methods Include...

- Searching, netting, beating foliage or grasses, aspirating, separating and trapping insects.
- Light sheets for nocturnal insects.

A Collector's Bag has...

- Forceps in various sizes for the most delicate species and the chunkiest.
- A fine camel brush and a fixative to pick up tiny specimens.
- Killing bottles, tubes or vials for insects to be pinned or dry mounted.
- Glass jars or plastic boxes for live specimens.
- Field Notebook and Pencils.
- A trowel for digging in soil and a chisel for removing a portion of bark.
- The correct net for the invertebrate being searched e.g. butterfly nets or aquatic nets.

"The best collectors will always become good field naturalists, finding their experiences in the field more valuable and instructive than any handbook and, as a result, be rewarded for their endeavours." ~ Murray S Upton



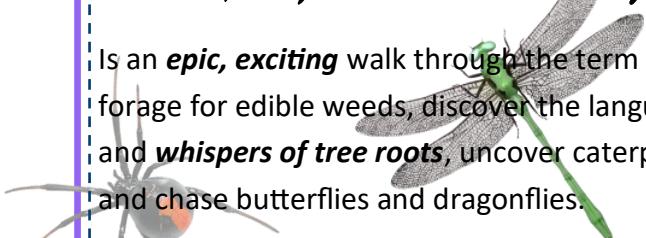
This beautifully illustrated bingo game features 64 species of bugs from around the world. Identify all kinds of insects - from the Giant Hawker Dragonfly to the Kissing Bug and the Orchid Bee to the Sacred Scarab - mark them off on your card and bingo!



*Nature Study Guide
Spring/
Summer
Now Available
On Sale
1st -4th Oct*

The Spring/Summer Nature Guide

Is an **epic, exciting** walk through the term as we forage for edible weeds, discover the language and **whispers of tree roots**, uncover caterpillars and chase butterflies and dragonflies.

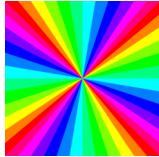
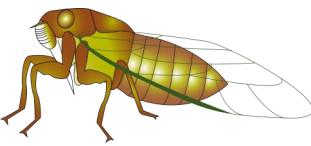


Our walk escalates in summer as we enter the world of Australia's **most dangerous spiders and snakes** and how will can prepare for **scary encounters** with them. We'll **track and search for elusive cicadas and bats** and discover just how brainy parrots actually are.

Join us for an epic journey through Australian wildlife.

October Nature Watch Chart

Use the simple ideas in this chart to encourage outdoor explorations.

Plant butterfly attracting plants in your garden. 	Look out for breeding Fairy Wrens. 	Search eucalyptus trees for caterpillars. 	Find fluttering butterflies. 
Have you spied a lizard yet? 	Don't forget to water your vegie patch. 	What bugs might you find surfacing from the underworld? 	Observe birds feeding their nestlings. 
Have you found spiderlings? 	Visit a pond and search for emerging dragonflies and hatching tadpoles. 	Can you find dandelion weeds? Find spent blooms and blow the seeds to the wind. 	Journal the colours of spring in your field journal. 
Bats are emerging. Will you be able to spot one? 	Observe different types of parrots around you. How are they different from one another?	Listen for the first cicada calls. 	Can you spot a camouflaged bug? 

Keep an eye out for:

- Wildflowers
- Ballooning Spiderlings
- Caterpillars
- Butterflies
- Birds Feeding Young
 - Lizards
 - Snakes
- Nesting Blue Wrens
- Chorusing Frogs

Journal Topics to Explore:

- **Begin an Arthropod Timeline.**
- **Pollination**
- **The processes of metamorphosis.**
- **Insect Groups Lifecycles**
- **Food Webs**

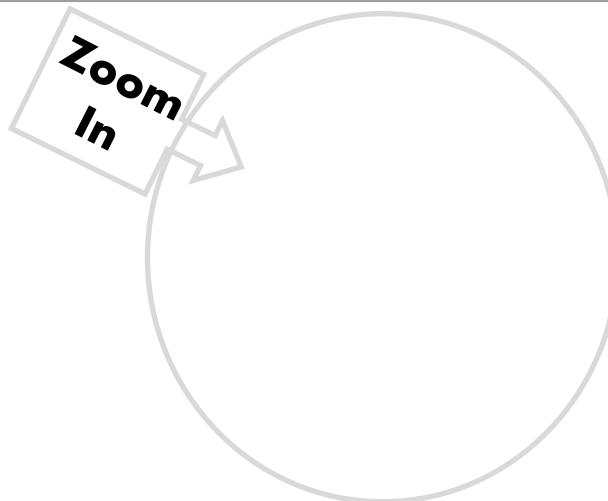
SPRING NATURE TABLE IDEAS:

Cicada Cases | Raise Larvae into Adult Insects within a Vivarium | Insect Field Guide | Insect Storybooks | Nature Journals | Pencils | Paints |

Photography Ideas:

Insects | True Bugs | Camouflage | Patterns | Green | Blossoms | Sunrise | Landscapes | Water | Birds | Lizards

Arthropods Journal



Identification:

Temperature:

Wind Speed and
Direction:

Habitat:

Count:

Plant Food:

Host Plant:

Eggs:

Colour:

No of Wings:

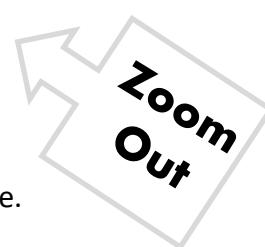
Wing Texture:

Antenna:

Legs: Present/
Absent

No of Legs:

Draw your field sketches and write your observations here.



Date:

Time:

Place:

My Observations:-





Arthropod Journal

Identification:

Weather:

Habitat:

Eating Habits:

Count:

Host Plant:

Plant Food:

Behaviour:

Colours:

Egg Colour:

Date:

Time:

Place:



Arthropod Timeline

Date:	Location:	Species:	Nest Type:	Eggs/Hatchlings: