



Insect Lore

Living Twigs!



**Indian Stick Insect
Instruction Guide**

Living Twigs, Walking Sticks... Stick Insects!

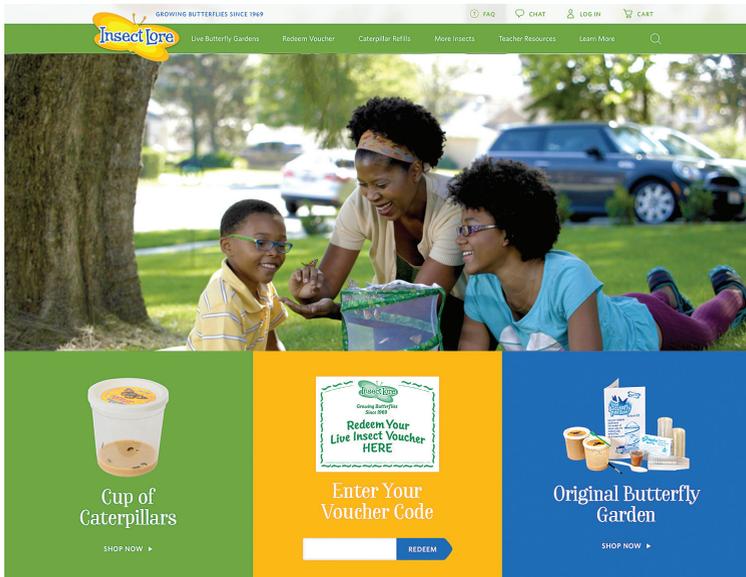
These remarkable insects are so camouflaged that even when you know they're there, they're difficult to find. Imagine how easy they are to miss when not looking for them.

In addition to their camouflaged bodies, they even sway, mimicking a leaf blowing in the breeze.

Your Living Twig kit includes:

- Reusable, washable Living Twig habitat with super clear mesh for easy viewing
- This wonderful instruction guide
- Stick Insect Eggs Voucher to redeem for real live Indian Stick Insect Eggs
- Paintbrush to make the transfer of little sticks to fresh leaves easier

1. Getting Started



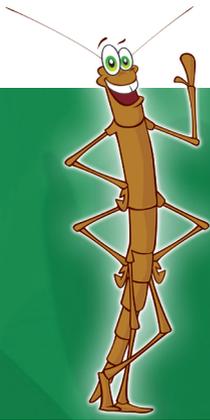
The image shows a screenshot of the InsectLore website. At the top, there is a navigation bar with the InsectLore logo and the tagline "GROWING BUTTERFLIES SINCE 1969". To the right of the logo are links for "Live Butterfly Gardens", "Redeem Voucher", "Caterpillar Biffls", "More Insects", "Teacher Resources", and "Learn More". On the far right of the navigation bar are icons for "FAQ", "CHAT", "LOG IN", and "CART". Below the navigation bar is a large photograph of a woman, a young boy, and another woman sitting on the grass under a tree, looking at a small container. Below the photograph are three product categories, each with a "SHOP NOW" button:

- Cup of Caterpillars**: A white plastic cup containing a yellowish substance.
- Redeem Your Live Insect Voucher HERE**: A green and white voucher card with the InsectLore logo and a "REDEEM" button.
- Original Butterfly Garden**: A collection of gardening supplies including a white box, a yellow cup, and a paintbrush.

Visit us at [InsectLore.co.uk](https://www.insectlore.co.uk) to redeem your Stick Insect Eggs Voucher.

You will usually receive your stick insect eggs within one or two weeks, unless you specify another date.

We cannot guarantee precise hatch dates - and your eggs could hatch anytime up to two months after you receive them.



There are more than 2500 species of stick insects in the world. The stick insects you will be raising are known by the Latin or scientific name of *Carausius morosus*.

This species comes from the Shambaganur region of Southern India. This explains its more commonly used name of the 'Indian' stick insect.

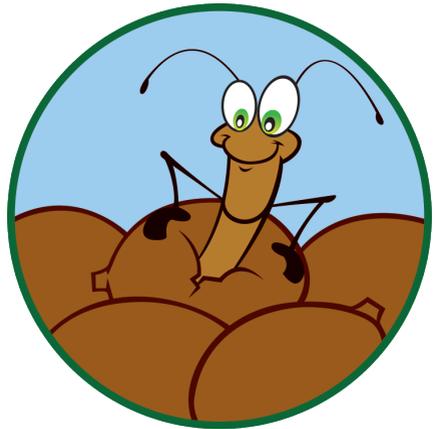
They are believed to have been kept in captivity in Europe since the late 1800s.

2. Hatching Your Eggs

Your eggs will arrive packed in a small tube. Your eggs are from captive stock and have not been collected from the wild.

As camouflage is key with stick insects, it even begins with the eggs. They are round, brown with a yellow nodule and look very much like brown seeds. Although they may look like seeds, they are certainly more fragile! To avoid risk of illness, eggs and stick insects must not be eaten.

- Carefully open the tube.
- Place the habitat on a level surface where it can be kept at normal room temperature.
- Place a piece of kitchen roll in the bottom of the habitat and carefully place the eggs on to it. This allows the easy removal and cleaning of the insects' waste.
- Never keep your eggs, or insects, in direct sunlight, as the heat from the concentrated sun could kill them.



You must monitor the eggs very carefully. Check them daily, looking closely for the first insect to emerge.

The first 'hatchling' or 'nymph' should appear within a few weeks of the hatch date that came with the eggs. When they hatch, the nymphs will be tiny, no more than 10mm long. Although, these baby stick insects are tiny, it's mind boggling to imagine they hatched out of an egg so very much smaller!

You will need to examine the inside of your habitat with great care to be sure that you spot them. On the day that the first one emerges you will need to start feeding them.

3. Feeding Your Stick Insects

There are a couple of ways you can feed your stick insects - using either a potted plant, or fresh leaves.

Potted Plant:

- To make the feeding of your stick insects relatively easy, place a potted ivy plant into their habitat, keeping it routinely watered. If you are unsure whether the plant has been treated with insecticide, wash off the leaves before placing it in your habitat.
- Replace the plant when your stick insects have eaten the majority of the plant.

Fresh Leaves:



- Find some clean fresh leaves of Ivy, Privet or Bramble and cut three or four stems about 200 mm long. Be sure to collect them from a location where they will not have been sprayed with insecticides and avoid roadside plants.
- Other food plants you may wish to use are Raspberry, Pyracantha, Rose and Hawthorn, or even the green part of Romaine lettuce if the other food sources are scarce.
- Choose your food type carefully and bear in mind that the stick insects do not like change. Once they begin eating a type of plant, it is unlikely they will accept a change.
- To keep the leaves fresh, wrap the base of the stems in damp cotton wool or tissue paper and place them in a container such as an old yoghurt pot or wrap the stems and tissue in a small plastic bag and secure with a rubber band.
- Do not use an open container with water in it as your insects could fall in and drown. To keep the stems fresh, you may prefer to use the oasis material that florists use. You can find this stiff spongy material at any florist supply or craft/hobby store or garden centre.
- Once the food is introduced to the habitat, your insects will soon start to feed on the leaves.
- Once or twice a week replace the old food with fresh stems, if not using a potted plant. Be very careful to transfer all the insects to the new food plants before you throw away the old ones.



While they are little, you may find it easier to transfer them with the paintbrush provided. Your insects will gain much of their moisture from the leaves they eat, but they like to drink too. To give them the opportunity to drink you should very slightly dampen the food plant leaves once a week.

This is best done with a very fine mist from a small plant sprayer, being careful not to get the plants or insects too wet. A few tiny droplets of water on the leaves is all that is required.

Never use a sprayer that has previously contained garden chemicals, as this may kill your insects.

To ensure there is enough water for them to drink, you may want to place a wet sponge in the habitat. Do not let the water pool around the sponge, as you do not want to risk drowning your stick insect.

Insect Growth

Your stick insects should grow quickly from 10mm when they first hatch to around 100mm at six months.

To accommodate this rapid growth they will shed their skins several times as they grow. Like all insects, stick insects have no internal skeleton, their strength being in their hard outer body parts.

Each time they shed their skin, they will hang from a plant stem or the habitat to harden off their new exoskeleton. At this stage they will be weaker than normal and you should avoid disturbing them for 24 hours.

Your nymphs will moult six times and may take four to seven months to mature.



What Are Those Brown Balls?

Your stick insects will drop their waste, which inconveniently looks like their eggs. Place a piece of kitchen roll on the bottom of your habitat. This will make cleaning easier.

When you can see brown balls on the paper, it's time to exchange the soiled kitchen roll for a clean sheet. Remove the soiled paper carefully, being mindful of not spilling out the contents into the habitat. You may find it easier to fold it in quarters before removing it from the habitat. Place a clean sheet into the habitat.

Before disposing the soiled kitchen roll from your habitat, examine the contents. If your stick insects have grown to be adults, some of the waste may be mixed in with stick insect eggs. The eggs are smooth, roundish brown balls with a yellow nodule on one end. The waste is darker, more rough and square balls, no nodule on the end.

Please do not throw the eggs into the bin yet. If you wish to have additional stick insects, separate the eggs from the waste in the method described below. If you do not wish to have additional stick insects, place the eggs and waste in the freezer. This will prevent the eggs from developing. Keep this in the freezer for at least a day, to ensure the eggs are completely frozen and not able to hatch.

If you would like to have additional stick insects, you should separate the eggs from the waste. Here's an easy way: tip the contents into a disposable cup and add water. The waste should float and the eggs should sink. Dispose of the floating waste and lay out the eggs onto a paper towel to dry. Wash your hands afterwards!

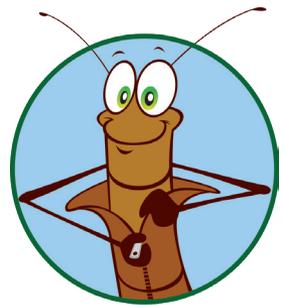
Handling the Insects and Moulting

Indian stick insects are harmless and can be safely handled; but, they are delicate and need to be handled carefully to avoid harming them. Young insects are most vulnerable and should only be moved whilst on their food plants. Older insects can be encouraged to walk on to your hand by gently touching their 'tail.'

Be careful when handling them, as they are delicate. If you grasp them by their legs, the legs can fall off, and that can't feel great. Ouch! If this does happen, sometimes a young stick insect may grow a smaller version of the limb (a process called regeneration).

This smaller limb is usually less useful than the original, so please be very careful when handling your stick insects.

Before moulting, the stick insect will stop eating. It will also hang suspended from a branch or the top of the habitat. **They are very vulnerable at this time and should not be handled.**



Life Expectancy

Your insects should be mature at about six months old and should live for around a year.

Once mature they will start to lay eggs of their own that, kept at room temperature, should hatch 3-5 months after they were laid. These will give you the chance to raise a new generation if you wish! Each female can fertilise her own eggs - no males required. This is called parthenogenesis.

Please be aware: one female lay one or two eggs each day and can produce several hundred fertile eggs in her lifetime of several months.

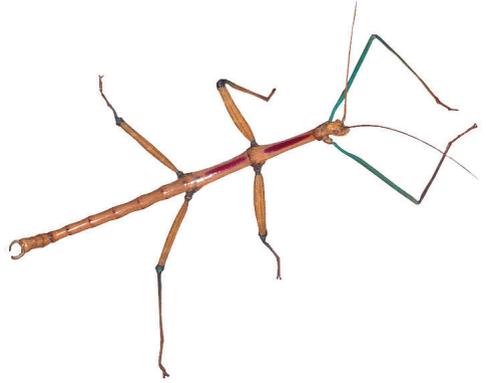
If you do not wish to raise a multitude of stick insects and have run out of friends who want

one, we suggest putting the eggs in the freezer for a week to prevent them from hatching.

Never release your Indian Stick Insects into the wild. Although they have lived in Europe for over 200 years, they are still considered a non-native species and thus could be harmful to our ecosystem.

Anatomy

Like all insects, these living walking sticks have a three-part body (head, thorax and abdomen), 6 jointed legs, 2 pairs of wings, and 2 antennae. Their body is covered with a hard exoskeleton. They breathe through a series of holes called spiracles, which are located along the sides of the body. Their body is long (up to 8cm for females, 6cm for males) and thin (with a diameter of about 5mm).



Some Stick Insects Facts

Only around one in one thousand Indian stick insects is a male (and many of the few males are sterile). This species is parthenogenetic, which means the females are able to lay fertile eggs without mating.

Indian Stick insects have the ability to slightly change their colour. At night time they can become slightly darker than by day, helping them to blend in even better with their surroundings.

Occasionally you may see your insects swaying from side to side. This is another camouflage trick. They are trying to mimic branches swaying in the wind.

Stick Insects have a combination of suckers and claws on their feet, allowing them to walk up vertical surfaces and even upside down.

Indian Stick Insects shed their skins six times.

Like all insects, they have six legs. These legs consist of four segments: coxa (connected to the body), trochantero-femur, tibia and tarsus (equipped with suckers and hooks). In adult females the inside base of the forelegs are bright red.

When this species is held it will often fold all of its legs into itself making it truly resemble a stick!

When disturbed, the nymphs and adults may emit a fluid from the mouth-parts. Instead, they may simply drop to the ground, mimicking a twig, and remaining motionless for hours.

Frequently Asked Questions

How long will my stick insects take to hatch?

Your Stick Insect Eggs will usually hatch within eight weeks of receipt. Your eggs will arrive with a Stick Insect care sheet which will include dates of when you can expect your stick insect eggs to hatch.

The egg is stuck to the foot of a stick insect. What should I do?

Nothing. This will hopefully fall off on its own accord. Pulling off the egg may cause harm to the leg. It is possible the egg will remain on there until the stick insect goes through another moult.

Do stick insects bite?

No. They do not have the mouth parts to bite. Their mouth-parts are only able to grab the leaves and chew them.

My stick insect has moulted, but its old skin is still attached. Should I pull it off?

No. Usually by the time you notice, the skin has already dried and it's too late. If you watched it moult and the shed skin is still wet (less than half an hour after moulting), then yes, pull it off - but it is uncommon to be able to watch the moulting as it happens. It's best to let it happen naturally in the next moulting. This was caused by the area being too dry. Spray your habitat more frequently with the water mister to prevent this.

How long will my stick insects live?

Your stick insects should be mature at six months and should live for around a year.

How do I know if my stick insect is about to moult?

Before moulting, the stick insect will stop eating. It will also hang suspended from a branch or the top of the habitat. They are very vulnerable at this time and should not be handled.

Will the leg from an adult stick insect grow back?

No. Once a stick insect has reached adulthood, it will not be able to grow back any limbs.

Visit InsectLore.co.uk for more info & insect fun!



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