



## Scientists Find Out How 'Snot Palaces' Made

How did scientists use lasers to find out more about giant larvaceans?

- The lasers lit up particles in the water similar to the way dust looks in a sunbeam.
- Scientists could see how the water flowed in and around the giant larvaceans.

Giant larvaceans are famous for making their homes out of mucus (which you might know as 'snot!'). Now, scientists from Monterey Bay Aquarium Research Institute have used a special laser tool to find out how these the sea creatures do it!

The results of their investigation could be used for other things. The scientists think that, by understanding how larvaceans build their homes, we might be able to design better 3D printers or even how to build homes on the Moon or Mars.

So what do we know about giant larvaceans? Well, they look like **translucent** tadpoles and they're actually quite small - only around 10cm! Nevertheless, they can create 'snot palaces', which not only house but feed them too.

Giant larvaceans construct small mucus homes around themselves. However, they then inflate the snotty homes to almost a metre, which is a massive **structure** compared to their size.

Were the little larvaceans the size of a person, these balloons of mucus would be the size of a five-story home!

These 'snot palaces' are so delicate they can't be studied on land. Instead, the team used lasers mounted on an underwater robot to help them look more closely at the larvaceans.

"It could be the most kind of complex



Illustration: A giant larvacean.

structure that an animal makes," said the lead author of the study Kakani Katija. Adding, "It's pretty astonishing that a single animal is able to do it."

As these mucus mansions bob along under water, they protect the larvaceans from **predators** and filter food for them from the surrounding water.

When the 'snot palace' gets clogged up, the larvacean **discards** it and builds a new one. This happens every day or two.

You might be wondering, if they change homes every day or so, what becomes of their big snotty homes? Well, they get eaten by other marine animals... yuck!

### Glossary

<b>translucent</b>	Almost transparent.
<b>structure</b>	Something built from several parts.
<b>predators</b>	An animal that hunts and eats other animals
<b>discard</b>	Get rid of or throw away.

# Questions

1. Why did the scientists have to use lasers mounted on an underwater robot to study the 'snot palaces'?

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2. Find and copy a verb from the fourth paragraph that means 'to build or make'.

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3. Using evidence in the text, give two examples of how your home differs from that of a giant larvacean.

1. \_\_\_\_\_

2. \_\_\_\_\_

4. Tick to show whether each statement is a fact or opinion.

	Fact	Opinion
Giant larvaceans throw away their mucus mansions when they get clogged up.		
Giant larvaceans are the most fascinating creatures in the sea.		
The snot palaces could be the most beautiful structure that an animal makes.		
The scientists used an underwater robot to help them.		

5. Read this quotation: "It's pretty astonishing that a single animal is able to do it." Why do you think the scientist describes the giant larvaceans this way? **Tick two.**

- Because she is amazed at the complexity of their snot palaces.
- Because she finds their homes unimpressive.
- Because she is impressed by the size of the structures they create.
- Because she is fascinated by giant larvaceans.

6. Summarise the key information in this article using 15 words or fewer.

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# Answers

1. Why did the scientists have to use lasers mounted on an underwater robot to study the 'snot palaces'?

**They are too delicate to study on land.**

2. Find and copy a verb from the fourth paragraph that means 'to build or make'.

**construct**

3. Using evidence in the text, give two examples of how your home differs from that of a giant larvacean.

**Accept any two answers which compare the child's home to one of the facts about giant larvaceans homes: inflatable, made of mucus, found under water, enormous compared to their size, they discard it every day or two, very delicate, e.g. My home is different because it isn't under water and I don't throw it away every day or two.**

4. Tick to show whether each statement is a fact or opinion.

	Fact	Opinion
Giant larvaceans throw away their mucus mansions when they get clogged up.	✓	
Giant larvaceans are the most fascinating creatures in the sea.		✓
The snot palaces could be the most beautiful structure that an animal makes.		✓
The scientists used an underwater robot to help them.	✓	

5. Read this quotation: "It's pretty astonishing that a single animal is able to do it." Why do you think the scientist describes the giant larvaceans this way? **Tick two.**

- Because she is amazed at the complexity of their snot palaces.**
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6. Summarise the key information in this article using 15 words or fewer.

**Accept any reasonable answer which includes the story's key information in 15 words or fewer, e.g. Scientists have found out more about how larvaceans make their homes.**