

# Science Reporter

## AMAZING ORGANISM

In the September 2012 issue of *SR*, the article Unique Organisms by A. Murthy and V. Pranitha threw light on unknown sides of some well-known organisms.

In this context, I would like to introduce readers with a strange class of creatures, the *Loricifera*. In April 2010, a deep-sea expedition under the leadership of Dr. Roberto Danvaro of The Polytechnic



University (Marche at Ancona) of Italy found tiny organisms, looking half like crab and half like jellyfish, encased in a cell measuring about one millimeter in length in the L'Atlante basin of the Mediterranean Sea. Some were found on ocean floor sediments about 3.5 km under water. The place lacked oxygen, was choked with salt and swamped with hydrogen sulphide gas.

Scientists first assumed that the animals had fallen on the sea floor dead as it was impossible for any creature on earth to survive there. But tests conducted on two subsequent expeditions showed that the specimen were alive. Also a specimen was obtained with an unfertilised egg, which

was later hatched *in vitro*. Bacteria, viruses and ancient archaea that survive with oxygen are well known but they are simple single celled organisms. Amazingly, *Loricifera* is a multicellular organism with millions of cells and they are totally oxygen independent! Oxygen using organisms have in their cells mitochondria, the 'power stations' that generate energy using oxygen. Interestingly *Loricifera* have no mitochondria in their cells; instead they rely on structures called 'hydrogenosomes', which generate energy from molecules other than oxygen including hydrogen sulphide. Hydrogenosomes are well known in protozoa that live in oxygen-free environments but the new creatures are the first animals that depend completely on them.

The discovery of the tiny miracle, *Loricifera*, has opened up a completely new horizon of possibilities. It is possible that planets or satellites other than earth with anoxic atmosphere may harbour life.  
Sudhamoy Banerjee  
Burdwan (West Bengal)

## TREAT FOR PHYSICS LOVERS

The *SR* edition on the LHC was really promising. It was very special for physics-loving students to learn how

particles can be accelerated and collided to produce something new. I knew about this experiment earlier but its connection with India was really informative. *Science Reporter* has exposed me to an ocean of knowledge and I extend my heartiest gratitude to you for this favour.

Devanshu Shekhar  
Madhubani, Bihar

## GALILEO'S TRIAL AND TURMOIL

The article Science The Spoilsport by Pradeep Kumar Basu published in the December issue of *SR* mentions that Galileo defended the theory of Copernicus. Actually, Galileo, with the help of his telescope that he himself invented, could muster clinching evidence to debunk the geocentric theory.



His discovery of Jupiter's four satellites dispelled the doubt that the moon would be left behind if the earth really revolved around the sun. His discovery that Venus shows phases like the moon contradicted the specification of the firmly entrenched Ptolemaic system, according to which Venus could not show the crescent phase. His explanation that the movements of spots across the sun's disc are caused by the sun's rotation provided an argument by analogy for the earth's rotation as well.

In spite of several proofs that Galileo patiently acquired and presented to leading authorities, they were reluctant to accept it. "What do you say of the leading philosophers here," the embittered man wrote to Kepler, "to whom I have offered a thousand times of my own accord to show my studies but who, with the lazy obstinacy of a serpent who has eaten his fill, have never consented to look at the planets, or moon, or telescope..." Expressing his anguish he wrote, "The number of thick skulls is infinite."

S.K. Gurtu  
Mansarovar, Jaipur

## UNIQUE CREATURES

The article Unique Organisms by A. Krishna Murthy and V. Pranitha in the September 2012 issue was well written and informative. Really, our planet has so many wonders.

According to me there is another unique species in nature that is at the top of the list of most ungrateful creatures in the world – *Homo sapiens!* It is known to all that we cannot live without trees, but we do not take care of them. They give us life (oxygen), yet we cut them down so callously. Rivers give us the essential water for many purposes, yet we pollute them. We pollute our air and soil also. What a pity!  
Saumya Roy  
West Bengal



## HAVE YOUR SAY

If you feel strongly about any article or write-up published in *Science Reporter* or have some information to share with the readers, please write to us at the postal address given in the magazine or send an Email at [sr@niscair.res.in](mailto:sr@niscair.res.in).

## Corrigendum

- In the results of the Science Fiction competition published in the January 2013 issue, the name of the author of the fiction *Is This Taxonomy?* has wrongly been given as Amrita Bandopadhyay. The author of the story is **Jayaditya Purkayastha**.
- The author of the **Crossword** of the January 2013 issue has been wrongly mentioned as Santosh Kumar Mishra. Instead it should be **Dr S.K. Gurtu**.

The errors are regretted.