

Ooceraea Joshii

A new species of ant from the genus *Ooceraea* has been discovered in the Periyar Tiger Reserve of Kerala recently. The ant is named after in honour of Professor Amitabh Joshi a distinguished evolutionary biologist from Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR) which is an autonomous institute under the Department of Science and Technology (DST), Union Government of India.

The topic has a very high chance of being asked as a UPSC Prelims Environment and Ecology Question or as a Current Affairs Question, as it has been in the news recently.

About *Ooceraea Joshii*

The species of the ant genus *Ooceraea* is expanded by the species found in Kerala. The count of antennal segments distinguishes it from other members of the same genus. The genus now comprises 14 species, eight of which have nine - segmented antennae, five have eleven - segmented antennae, and only one has recently been discovered with eight - segmented antennae. The genus was previously represented in India by two different species having nine and eleven segmented antennae, respectively. The recently discovered ant species with ten - segmented antennae establishes an ancient world lineage that includes a species which is emerging as the ant subfamily's sole model organism. New species are usually named after some distinctive feature or place, but they are also frequently named after scientists to honour their contributions to biology study, particularly in the fields of evolutionary and organismal biology, ecology, and systematics.

Facts about Ants

- There are more than 12,000 ant species in the world.
- The sting of the bullet ant is reputed to be the most severe in the world. Its sting has been described to being shot by a bullet since they live in humid rainforest environments like the Amazon.
- Ants are the insects that live the longest. Unlike certain bugs that only live for a few days or weeks, the queen ant from one species, *Pogonomyrmex Owyheei*, could thrive for up to 30 years.
- In comparison to its size, an ant is among the world's most powerful organisms. A single ant could lift 50 times its own weight, and they'll even team up to move larger objects.
- Ants have the record of having the fastest moving speed in the animal kingdom. Trap jaw ants can clamp their jaws at 140 mph, which they utilise to kill their prey or harm predators.
- Except for Antarctica, ants could be found on every single continent.
- Ants are social insects that live in colonies. The colony, also known as a formicary, consists of one or maybe more egg-laying queens as well as a large number of female "worker" ants that look after her, create and maintain the nest, seek for food, and look after the young. The male ants have wings and their sole purpose is to mate with the queen.
- Ants don't possess ears, and many don't even have eyes. Ants "listen" by sensing vibrations out from ground via their feet, and eyeless ants, such as the driving ant species, use their antennae to communicate. They can also transmit chemical signals (known as pheromones) from across their bodies to communicate with other ants. When danger is approaching, they send out

warnings, leave pheromone trails leading to food resources, and even utilise them to lure a mate.

- The world's largest ant's nest was nearly 3,700 miles wide. The massive colony, discovered in Argentina in 2000, had 33 ant groups that had fused into one massive supercolony with millions of nests as well as billions of worker ants.

About Prof. Amitabh Joshi

Amitabh Joshi, an evolutionary biologist and geneticist from India, is a professor at the Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR). He is the director of the JNCASR's Evolutionary Biology Laboratory and is renowned for his genomics and population ecology research. He is a J. C. Bose National Fellow of the Department of Science and Technology and a fellow of the Indian Academy of Sciences, National Academy of Sciences, India, and Indian National Science Academy. In 2009, the Council of Scientific and Industrial Research (CSIR), India's main scientific research agency, gave him the Shanti Swarup Bhatnagar Prize for Science and Technology, which is one of the country's highest science honours, for his contributions to biological sciences.