

## **Nature facts (unique about jellyfish)**

### **1. How do jellyfish produce light?**

Jellyfish are sea creatures that have the capability to produce light. This is used as a defense strategy by jellyfish to protect themselves from predators. They also use it for hunting and communicating with each other. They have a chemical substance called luciferin in their body, which is a light-producing substrate. The luciferin undergoes a chemical interaction with oxygen in the presence of an enzyme, luciferase. This reaction leads to the production of light energy, such as blue or green. Some kinds of species have a green fluorescent protein that produces green light. This phenomenon of producing light is called bioluminescence. Crystal jelly, Venus's girdle, Atolla jellyfish, and moon jelly are some examples of jellyfish species that produce light.

### **2. Do you know that some species of jellyfish are immortal?**

Yes, some species of jellyfish, like *Turritopsis dohrnii*, are capable of reverting their life cycle from the adult stage to a baby stage through a process called transdifferentiation. They undergo this process in response to injury, starvation, or old age. This happens because adult cells can revert into different cell types due to specific genes.

### **3. Which is the most poisonous jellyfish in the world?**

Among all the species, the box jellyfish, like *Chironex fleckeri*, is the one that is the most poisonous and is able to kill humans in seconds through its sting.

### **4. Do you know that a few jellyfish are practically invisible?**

Yes, there are a few jellyfish that are practically invisible, as they are very small, measuring about 0.5 millimeters in diameter. The jellyfish belonging to the genera *Staurocladia* and *Eleutheria* are the smallest.

### **5. Is there a definite number of tentacles in the jellyfish?**

No, there is no definite number of tentacles in jellyfish. The number, size, color, and function of tentacles differ from species to species. For example, box jellyfish possess about 15 tentacles, which are large, while common moon jellyfish possess about 100 tentacles that are small-sized.

## **References**

- [https://en.wikipedia.org/wiki/Turritopsis\\_dohrnii](https://en.wikipedia.org/wiki/Turritopsis_dohrnii)
- <https://animals.howstuffworks.com/marine-life/bioluminescent-jellyfish.htm>
- <https://animals.howstuffworks.com/marine-life/most-dangerous-jellyfish.htm>
- <https://www.britannica.com/science/How-Many-Tentacles-Does-a-Jellyfish-Have>
- <https://www.britannica.com/animal/What-Is-the-Most-Venomous-Jellyfish>