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# Marine Life

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## 1. What is bioluminescence?

Fireflies sparking on a summer's evening; jellyfish glowing in night waters. These are examples of bioluminescence: light produced by living plants and animals from a biochemical reaction to oxygen. The majority of bioluminescent marine creatures are planktonic organisms found in huge groups that will glow in the wake of swimming fish or passing ships. Phosphorescent Bay in Puerto Rico has an extremely heavy concentration of these bioluminescent organisms. Bioluminescence was once confused with phosphorescence because it was believed the light was caused by the element phosphorus.

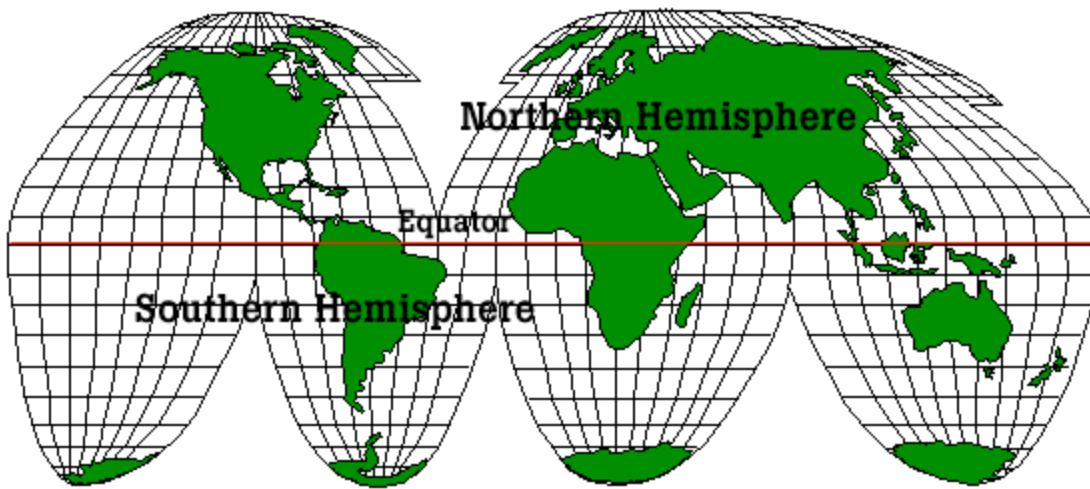


## 2. How many different species of ocean fish exist?

The total number of species of ocean fish ranges from 15,000 to 40,000 with the figure of 25,000 most often cited. There are several reasons for the discrepancy. Some fish species have not yet been named while others are often named more than once because of inadequate descriptions and variations in geographical distribution.

## 3. Where are the majority of fish in the ocean located?

The largest numbers of fish are located in the Southern Hemisphere due to the fact that these waters are not largely exploited by man.



#### **4. What is the largest animal on Earth?**

The blue whale is the largest known animal to live on sea or land. Individuals can reach more than 110 feet in length and weigh nearly 200 tons which is equivalent to 50 adult elephants. The blue whale's blood vessels are so wide that a full-grown trout could swim through them. These vessels serve a heart the size of a small car.

#### **5. What is the longest bony fish?**

The oarfish is the longest bony fish in the world. With its snake-like body sporting a magnificent red fin along its 50-foot length, horse-like face, and blue gills, it accounts for many sea-serpent sightings.



## **6. What is the largest bony fish?**

The bluefin tuna are the largest bony fish. An adult may weigh up to 1,500 pounds. Prized for sushi in Japan, bluefins can bring as much as \$20,000 each at U.S. docks.

## **7. What is the fastest marine fish?**

The bluefin tuna is among the fastest marine fish to live in the oceans. An adult can swim up to 55 miles per hour.

## **8. Can coral be used to replace human bone?**

Since the architecture and chemistry of coral are very close to human bone, coral has been used to replace bone grafts in helping human bone to heal quickly and cleanly.

## **9. Can life exist without sunlight?**

Hydrothermal vents, fractures in the sea floor that spew sulfur compounds, support the only complex ecosystem known to live on chemicals rather than energy from the sun. Gigantic tubeworms and mussels thrive in ocean pressures of up to 65 pounds per square inch around these vents.

## **10. What is the amount of electricity from an electric eel?**

The electric eel (which isn't a "true eel") discharges 350 volts on average and up to 650 volts total. However, brief discharges of 500 volts at 2 amperes have been measured, which produced 100 watts of energy. Voltage continues to increase in eels up to 3 feet in length, after which as their length increases only the amperage increases. Electric eels in South America can reach lengths of up to 10 feet. In addition, there are at least 500 kinds of fish that produce noticeable amounts of electricity.

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