

## How Do Animals See? The Most Impressive Eyes In The Animal World

### The Giant Eyes Of The Tarsiers

In relation to their body, these small primates boast the biggest eyes and corneas of all mammals. Each of the tarsier's eyes is equal in size to its brain and weighs even more. They are fixed in the skull and cannot rotate. To compensate for this, tarsiers have evolved to rotate their heads up to 180 degrees to locate the small animals they prey on. They have excellent night vision. It's believed that they can perceive ultraviolet light, however, like other nocturnal animals, their perception of colour is quite poor.



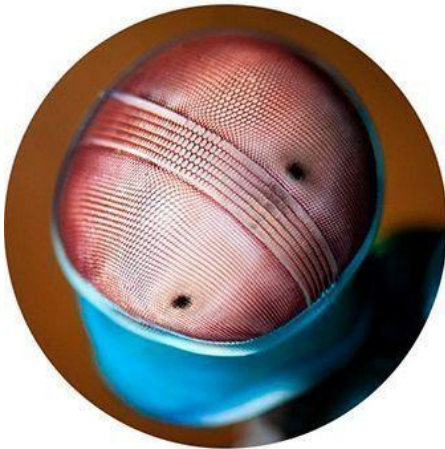
### Barreleye Fish And Their Strange Double Eyes

These animals, which inhabit the deep seas, have perhaps the strangest eyes in the animal kingdom. The heads of these fish are completely transparent and filled with liquid. Inside, there are two ocular structures each consisting of two parts. The first is similar to the eye of any other living creature. The second is an eye, which is separated from the main eye and contains a curved mirror. This mirror captures the light and reflects it back into the main eye, allowing them to see up and down at the same time! They're the only animals in the world with mirrors in their eyes.



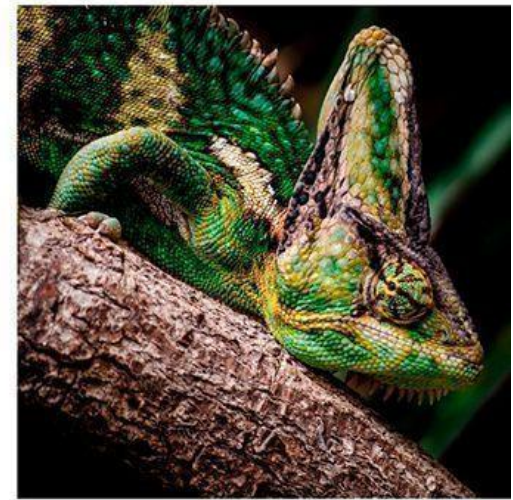
### The Incredible Sight Of The Mantis Shrimp

The eyes of this crustacean are among the most complex in the animal kingdom. Most animals have between two and four colour channels. The mantis shrimp has 12! Nevertheless, this doesn't mean that their colour vision is better than that of other animals. As a crustacean, their brains do not have the capacity to process so much information. Having all these receptors takes away from their ability to distinguish between different colours, but they are much faster at recognising basic colours.



### The Multi-Directional Vision Of Chameleons

Chameleons' sight is not particularly good. They distinguish colours and have pretty good vision during the day, but at night this decreases considerably. What makes them unique is the mechanics of their eyes. Their cone-shaped eyelids are fastened to their pupils, leaving only a small part of the eye exposed. Their eyes can be moved independently, allowing them to monitor 360 degrees around them without moving to remain camouflaged. When they've lock on to their target, they project their long tongue to catch it.





### Diopsidae. Stalk-Eyed Flies

These flies are characterised by their remarkable eyes. They stick out of their heads on the end of stalks. And diopsidae antennae are attached to these stalks, instead of their heads like other fly species. Interestingly, this adaptation doesn't seem to bring any type of advantage in terms of vision. However, their protruding eyes do play a role when it comes to choosing a mate. Females prefer to mate with males with bigger bulges and this has driven the evolution of this feature.



### Cuttlefish And Polarised Light

The pupils of the cuttlefish are W-shaped. To focus on an object, they change the actual shape of their eye, not just the shape of the lens as we do. As is the case with octopus or squid, cuttlefish are colour blind.

