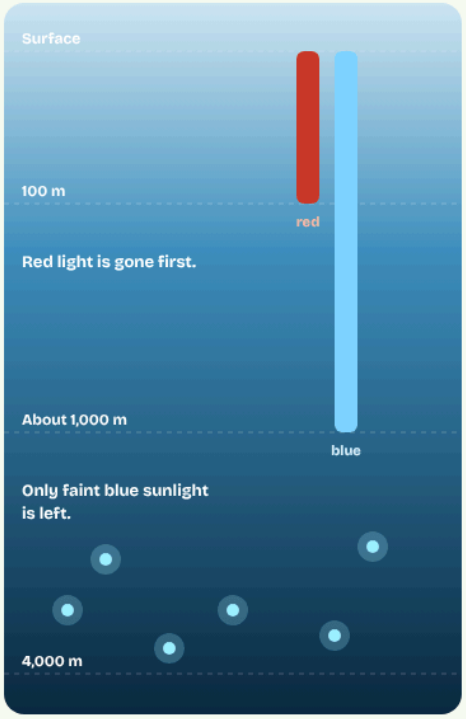
That is why

How do deep-sea creatures become invisible?

Hunters grow big, blue-tuned eyes. Prey hide by turning see-through, or red, which looks black in the deep.

A What light is down there?



About 3 in 4

animals filmed from the surface to 4,000 m in Monterey Bay can make their own light.

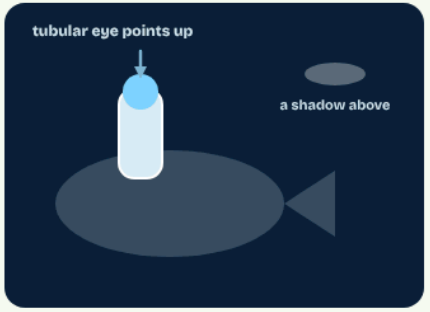
Most of that light is blue or green.

350,000+ animals, 240 dives

So the deep is not truly dark.

Faint blue light from above, plus flashes and glows from animals, is all there is to see by, or to hide from.

B The hunters: big blue eyes



1 A bigger bucket

Big eyes catch as much light as they can.

2 Tuned to blue

They see blue, not red. Rods do the dim-light work; one fish has 38 rod pigments.

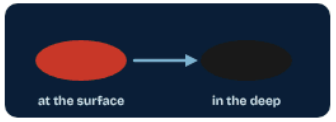
C The hiders: two tricks

1. Be see-through



Bend light like seawater does (refractive index about 1.33). Complex organs scatter light and are hard to hide.

2. Be red



No red light reaches the deep, so a red animal has nothing to reflect and looks black.

In a place without sunlight, the game is still all about light.

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