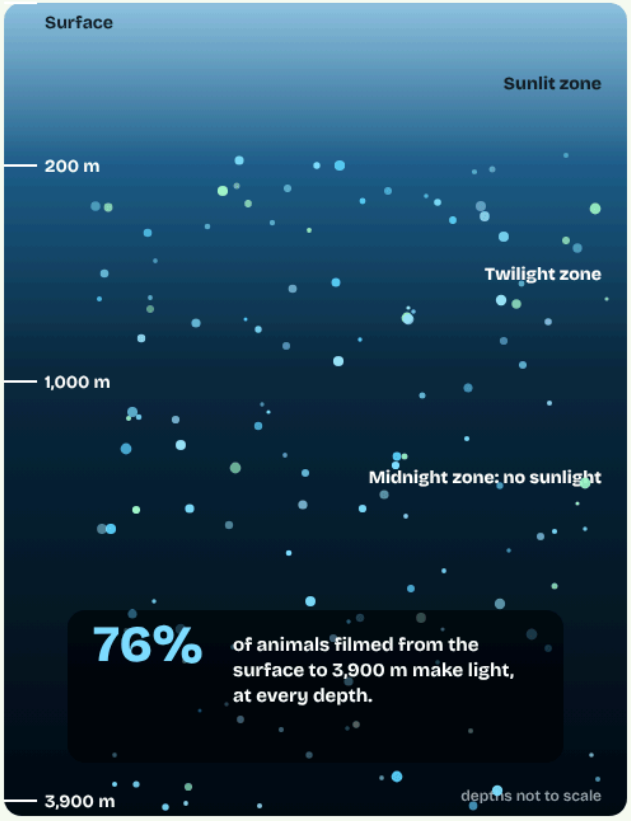
That is why

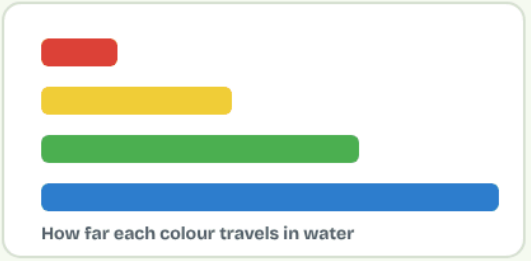
Why does the deep ocean glow blue?

Most animals in the open ocean make their own light, and blue is the colour that travels furthest through seawater.

A Living light at every depth



B Why blue?



Blue light, around 470 nm, travels furthest in seawater, and most deep-sea eyes are tuned to it. A blue flash carries a message far; red would fade almost at once.

How the light is made

luciferin + oxygen
(helped by the enzyme luciferase)
→ **light**

A chemical reaction releases energy as light, with almost no heat: "cold light".

C Who glows, and why

Jellyfish and relatives	97%
Appendicularians	94%
Marine worms	93%
Comb jellies	92%

share that glow, in the same survey

Hide
belly lights erase a shadow

Hunt
lures and searchlights

Defend
flashes and glowing clouds

Talk
signals to find mates

In the deep, light comes from animals, not the sun.

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Diagram: https://thatiswhy.com/diagrams/why-deep-sea-animals-glow/ · Full guide: https://thatiswhy.com/why-deep-ocean-looks-like-blue-star-field/