Eyeshine

The tapetum lucidum – "bright carpet" – acts like a mirror bouncing light through the eye. This allows some animals with these eye structures to make the best use of available light.

Among many nocturnal vertebrates, the white compound guanine is found in the epithelium or retina of the eye (yes, the same stuff that's one of the building blocks for DNA and RNA). This provides a mirrorlike surface, the tapetum lucidum, which reflects light outward to the retina and thereby allows a second chance for its absorption by visual pigments at very low light intensities.

Physiologically, the tapetum lucidum has evolved as a means of controlling photon capture by the retina. Tapeta may be of two kinds: fixed and modifiable. In the latter, light reflection from the tapetum is modulated by the movement of screening pigment. Evidence indicates that control is located within the eye itself and is most probably a function of the retina.

Here's how it works. Light enters through the pupil and the lens onto the retina at the back of the eye. The tapetum lucidum, located behind the retina, bounces light back where more of it can be used by the retina. The light that is not used exits through the pupil causing the "glow" of animal eyes often seen in car headlights or flashlights. So the tapetum lucida produces the familiar eyeshine of nocturnal animals.

Color variations of the eyeshine in nocturnal animals is most likely caused by the screening pigment present in the eyes of each species and to a more minor degree the amount of "unused" light that exits the pupil.

Note: "Redeye" in photographs of people is not the same thing. People do not have a tapetum lucidum. The flash of the camera is so fast that the pupil doesn't have time to react (close), and the redeye is actually a photograph the blood vessels in the retina of the eye.

Braingroan

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Two vultures were gaining in years and they decided that flying long distances was becoming more trouble than they could easily manage. But they still wanted to travel, so they decided to take a plane instead. Planning carefully for their first long trip, each selected a dead raccoon for the flight. As they approached the ticket counter, the clerk leaned over and asked, "Would you like to check those through?"

The vulture in front looked up and replied, "No, thank you. They're carrion."

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A hungry panther was roaming through the swamp looking for something to eat when it came across two interns resting. One was sitting under a tree and reading a book; the other was sitting nearby typing away on his laptop. The panther quickly pounced on the intern reading the book and devoured her. Even the king of the swamp knows that readers digest and writers cramp.

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A male green anole was trying to impress a nearby female. He flashed his dewlap and did a few pushups, but she wasn't moved. He changed to his brightest green, but still no response. Finally, he looked about and noticed a little blue heron. He rushed out onto the boardwalk rail, flashed his dewlap, pumped up and down, and waited for the heron to strike. Just as it did, he rushed back into the undergrowth, laughing at the errant heron.

Looking at the female, he said, "Try to find another male that can do that! I am THE green anole." She was a little more interested, but not enough.

So he dashed out onto an exposed limb, looked up at a screech owl, flashed the bird a couple of times with his dewlap, pumped up and down, and turned a brilliant flourescent green. The female was duly impressed. As he ran back to her, the owl swooped down, caught him, and ate him.

Which just goes to show that it's never a good idea… To Mock a Killing Bird.

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A graduate student in anthropology was in South Florida cataloging native American folk remedies with the assistance of a tribal elder who indicated that the leaves of a particular fern were a sure cure for any case of constipation.

When the anthropologist expressed his doubts, the elder looked him in the eye and said, "Let me tell you, with fronds like these, who needs enemas?"

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