

Re: Why are blue cones rare in humans?

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- *From:* "John Roth" <JohnRoth1@xxxxxxxxxxxxx>
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Marc Verhaegen wrote:

<http://www.newscientist.com/article.ns?id=dn664>

Uh, Marc – blue cones aren't rare in humans. The most prevalent form of color blindness is due to a loss of one of the red cones, and that's because the gene is on the X chromosome.

http://en.wikipedia.org/wiki/Color_vision

Color vision is interesting. It turns out that mammals in general only have two types of cone while reptiles, insects and birds have four. Somehow, early mammals lost two of them. Why? No idea.

Old world monkeys picked up a third type, while new world monkeys didn't.

Lots of animals have cones that are sensitive to different parts of the spectrum. Pictures of how the world actually looks to various species of bird can be fascinating: there's a fairly famous picture of a black-eyed Susan (a kind of flower) that shows a band around the outside that's only visible in the ultra-violet. Trying to figure out what various birds and other animals actually see is a current (if somewhat minor) research topic.

There are a few people with four varieties of cone. What I find amazing is that their brains get properly wired to handle four color vision.

John Roth

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