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POLYMORPHIC COLOUR VISION COMPARED AMONG LEMURS AND NEW WORLD MONKEYS

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Variation in colour vision among primates presents a unique window on sensory adaptations. Of particular interest is the occurrence of polymorphic species, in which all males are dichromats but a proportion of females are trichromats. Our recent work has shown that colour vision polymorphism is far more widespread in lemurs than previously realized, occurring in at least five genera. This creates an interesting opportunity to compare the distribution of colour vision variation and its ecological correlates among two independent primate radiations - lemurs and platyrrhines. Polymorphism is more common and in many ways more uniform in platyrrhines, whereas lemurs show more differences in opsin allele frequencies and more intraspecific variation. Overall, colour vision may be a more labile trait in lemurs than in platyrrhines, and while the reason for this is far from certain, a stronger association of colour vision to particular environmental conditions in lemurs may be involved.

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