

Eyes – the natural story teller

What's in an eye? How do you explain the eye? For the majority of us it is the medium through which we visualize our world, express our feelings even shut it up while taking rest. The eye witnesses the changes in our world be it our personal stories or history making incidents. We see many things and keep them in our memory although the eye remains the same always. Now, birds have a different story. Their eye structure tells us about their diet, mating behavior, and habitat. Moreover, the alarming change in global natural life is also reflected in the bird's eye. How so?

The story started with a field study in a Peruvian forest and then with global data (a fascinating number of 2,777 species, about one-third of global bird diversity) to check the relation between multiple behavioral practices and eye size patterns among the birds. The result was astonishing and eye popping. It is telling us that birds with large eyes are mostly distributed across the equatorial regions where rainforest is the predominant biome with dark understory areas. To adjust to this light deficient environment, forest dwelling birds use their big eye to make use of whatever light is available. Moreover, large eyes also ensure increased focal length and resolution essential for spotting insects on the forest floor. On the contrary, the majority of open space area birds (e.g., Agriculture fields, and heterogeneous landscapes) have small eyes mainly to avoid the glare of the strong daylight. Moreover, small eyed birds are often nectar feeders and thus prefer color over the shape of the food items. Interestingly, the study also indicates that increasing deforestation is pushing the big-eyed birds towards the risk of extinction as exposure to the intense light of the increasing open field or edge area triggers behavioral change or adjustment problems in them. Their big eye seems to be a disadvantage for them in terms of vision, food spotting, predator identification, etc. So, eye size is a boon but it is also a bane under circumstances. Let's not ignore the "Bird's eye view".

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