ThoughtCo.

Why Are Flamingos Pink? The Science of Why Flamingos are Pink or Orange

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Have you ever wondered why flamingos are pink or orange? You've probably heard it has something to do with what flamingos eat, but do you know what exactly it is that produces the color?

Key Takeaways: Why Flamingos Are Pink

Flamingos and certain other birds get their color from the foods they eat.

In the case of flamingos, color comes from eating algae and crustaceans.

Algae isn't pink, but after the bird eats it, the pigment molecules get broken down into pink and orange carotenoids that get deposited in the feathers, legs, and bill.

Flamingos are pink or orange or white depending on what they eat. Flamingos eat algae and crustaceans that contain pigments called carotenoids. For the most part, these pigments are found in the brine shrimp and blue-green algae that the birds eat. Enzymes in the liver break down the carotenoids into the pink and orange pigment molecules that are absorbed by fats deposited in the feathers, bill, and legs of the flamingos. Flamingos that eat mostly algae are more deeply colored than birds that eat the small animals that feed off of algae. So, you typically find deeply-colored pink and orange flamingos in the Caribbean, yet pale pink flamingos in drier habitats, like Lake Nakuru in Kenya.

Captive flamingos are feed a special diet that includes prawns (a pigmented <u>crustacean</u>) or additives such as beta-carotene or canthaxanthin, otherwise they would be white or pale pink.

Young flamingos have gray plumage that changes color according to their diet.

People eat foods containing carotenoids, too. The molecules act as antioxidants and are used to produce vitamin A. Examples of carotenoids humans eat include beta-carotene in carrots and <u>lycopene</u> in watermelon, but most people do not eat enough of these compounds to affect their skin color. People who take canthaxanthin pills for <u>sunless tanning</u> (artificial tans) experience skin color change. Unfortunately for them, the color is more of a bizarre orange than the natural tan from melanin!

Source

Hill, G. E.; Montgomerie, R.; Inouye, C. Y.; Dale, J. (June 1994). "Influence of Dietary Carotenoids on Plasma and Plumage Colour in the House Finch: Intra- and Intersexual Variation". *Functional Ecology. British Ecological Society*. 8 (3): 343–350. doi:10.2307/2389827