

CER - Variation and Sexual Dichromatism

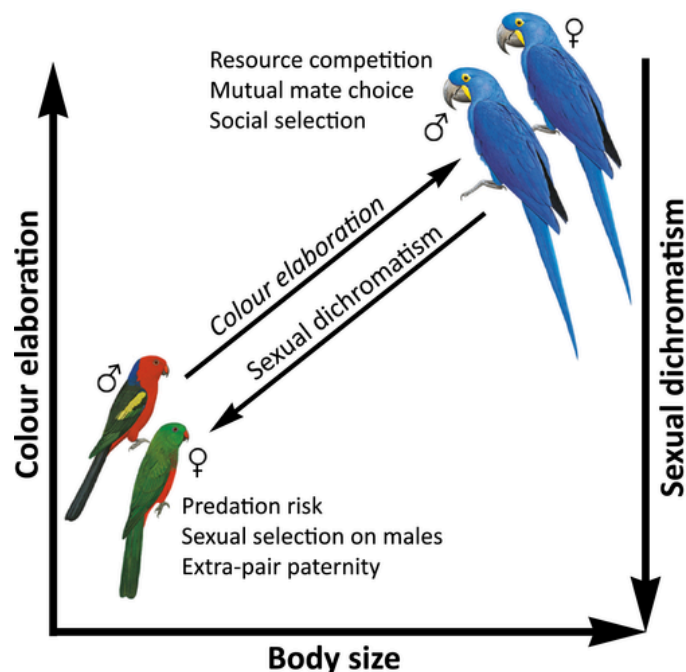
Sexual dimorphism is the condition where sexes of the same species exhibit different. These may include differences in size,

weight, color, markings, or behavioral traits. Lions, for instance, exhibit dimorphism in that the males are larger and have manes.

Sexual dichromatism is a form of sexual dimorphism that refers to a difference in coloration between sexes within a species.

Parrots comprise one of the most colorful groups of birds. Their unique pigments and nesting habits are two potential explanations for their colorful character. However, plumage (feather) color varies substantially between parrot species and sometimes also between males and females of the same species

The graph below shows variation in color and sexual dichromatism in parrots.



The study examines how size and color may correlate to other factors in the environment, such as resource competition and predation.

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1. Provide another example (not one listed) of animals that exhibit sexual dimorphism:

2. What is dichromatism?

3. The graph shows two variables studied, color elaboration (brightness) and sexual dichromatism as they relate to body size. Which group (small vs large) tend to exhibit more elaborate colors?

4. Examine the description of those parrots, which outlines some of the interspecific effects within that group. Explain why resource competition would influence the size of those birds.

5. Smaller birds tend to exhibit less elaboration. Suggest a reason for this observation.

6. Sexual selection on males describes the female behavior where females choose their mates based on color. Why might the smaller birds exhibit more dimorphism than the larger birds?

7. Would you expect a medium sized parrot with few predators and abundant resources to exhibit greater or lesser sexual dichromatism? Explain your choice.

8. Summarize the graph, explaining how external factors influence color in birds.