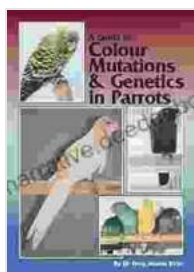


# A Comprehensive Guide to Colour Mutations and Genetics in Parrots

Parrots, with their vibrant and diverse plumage, are a true delight to bird enthusiasts and breeders alike. The captivating colour mutations found in parrots not only enhance their beauty but also provide valuable insights into their genetics.



## A Guide to Colour Mutations and Genetics in Parrots

by Stephon Frazier

★★★★☆ 4.3 out of 5

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This comprehensive guide delves into the fascinating world of colour mutations and genetics in parrots. We will explore the basics of genetics, unravel the mechanisms behind colour inheritance, and showcase the remarkable diversity of colour mutations that grace the parrot world.

## Understanding Parrot Genetics: The Basics

Genetics is the study of inheritance and variation in living organisms. In parrots, as in all living beings, genetic information is passed down from

parents to offspring through genes. These genes reside on chromosomes, which are thread-like structures found within the nucleus of each cell.

Parrots have a diploid genome, meaning that they inherit two copies of each chromosome, one from each parent. Each gene is represented by two alleles, one inherited from each parent. If the two alleles of a gene are identical, the individual is said to be homozygous for that gene. If the two alleles are different, the individual is said to be heterozygous.

## **Colour Inheritance in Parrots**

The colour of a parrot's plumage is determined by the interaction of several genes. Each gene contributes to a specific aspect of colour, such as the production of melanin (responsible for black, brown, and grey hues) or carotenoids (responsible for yellow, orange, and red hues).

The inheritance of colour mutations is often complex, involving multiple genes and alleles. Dominant mutations are expressed even when only one allele is inherited from the parent, while recessive mutations are only expressed when two copies of the mutation allele are inherited.

## **Major Colour Mutations in Parrots**

The parrot world boasts a wide spectrum of colour mutations, each with its distinct characteristics and inheritance patterns.

### **Lutino**

Lutino mutations are characterized by the absence of melanin, resulting in yellow plumage and red eyes. They are caused by a dominant allele on the lutino gene.



## **Albino**

Albino mutations are characterized by the complete absence of both melanin and carotenoids, resulting in white plumage and pink eyes. They are caused by a recessive allele on the albino gene.



Albino mutation characterized by white plumage and pink eyes.

## **Pied**

Pied mutations are characterized by irregular patches of white and coloured plumage. They are caused by a dominant allele on the pied gene.



## **Cinnamon**

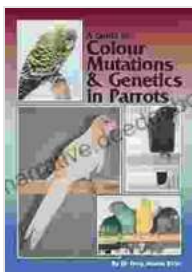
Cinnamon mutations are characterized by a reduction in melanin production, resulting in a cinnamon-brown plumage. They are caused by a recessive allele on the cinnamon gene.



Cinnamon mutation characterized by a cinnamon-brown plumage.

The world of colour mutations and genetics in parrots is vast and fascinating. By understanding the basics of parrot genetics and colour inheritance, we can better appreciate the diversity of these magnificent birds.

Whether you are a parrot enthusiast or a breeder, this guide has provided you with a solid foundation for further exploration of the captivating world of parrot genetics.



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