

THE LABRADOR RETRIEVER & THE DILUTE GENE

The sad tale of how the world's most famous and popular breed became contaminated with the dilute gene from the Weimaraner and what can be done about it.

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A brief history of the Labrador Retriever

The Labrador is descended from the St. John's dog, not a breed but a landrace from Newfoundland, Canada. There was considerable trade between that area and Poole in Dorset in the 1830s and the great retrieving and physical attributes of the 'short coated St Johns' breed' along with its strong will to please were greatly admired by the Englishmen who saw them.

We have to thank Lord Malmsbury, Colonel Hawker, Lord Holme, the Duke of Buccleuch, The Hon Arthur Holland-Hibbert and others for establishing kennels of Labradors, being very proud of them and doing their utmost to keep the breed pure.

"They went to infinite trouble to keep their strains pure and the pedigrees of their dogs intact ..." writes Lorna, Countess Howe.

Early history of the Labrador colours- Black, Chocolate & Yellow.



Nell born in 1856



Ben of Hyde
born 1899



Buccleuch Avon b1885
sired chocolates

Black Labradors

Throughout Breed history black has been the predominant colour of Labradors, only yellows and chocolates are also documented.

- * In 1814 Colonel Hawker states " by far the best for every kind of shooting"..." he is oftener **black**...
- * Other mentions in printed word of the time and into the 1800s frequently refer to 'a **black** water dog'
- * "The small **black** dog, to which the name Labrador came eventually to be applied, possesses in a marked degree a power of transmitting hereditary characteristics, which shows that he is of ancient lineage" Sir John Middleton.
- * Stonehenge (J. H. Walsh) writes: "The St. John's, or smaller Labrador, or Newfoundland, the three names being used indiscriminately.... The body is clothed with short hair without any woolly texture, colour almost always jet **black**, rarely liver coloured."

Liver/Chocolate Labradors

- * In 1892, two “liver coloured” puppies were produced by the Earl of Buccleuch’s dogs, at one of the earliest British Labrador kennels. These puppies are thought to have been sired by Buccleuch Avon, a prolific sire behind many Labradors that are chocolate or that carry chocolate gene.
- * In the 1930s, the Banchory kennel also produced the chocolate gene through their stud, Champion Banchory Night Light, a black dog descended from Avon. Two additional British kennels, Tibshelf and Cookridge were both producing chocolate Labradors as far back as the 1930s. The dogs from these kennels connect through two prominent sires: Buccleuch Avon and Banchory Bolo.

Yellow Labradors

- * Early mentions of rust and red coloured Labradors
- * In 1899 Ben of Hyde (or Hyde Ben – M. R-W) a yellow dog was whelped in a litter of blacks from black parents.
- * In 1908 a yellow - Mrs Straker's Sandy won FT awards
- * Mary Roslin-Williams states that yellows continued to turn up in black litters.
- * In 1925 the Yellow Labrador Retriever Club was formed with staunch supporters in high places and it had been proved by breed stalwarts that the yellows came from the original black lineage - states Countess Howe.

Labradors in Art

There are numerous old paintings of Labradors, all of them depicting blacks, yellows or chocolates. Including in the Kennel Club's own collection. You won't find any 'silvers'!



Present Day

The Labrador Retriever was first recognised as a breed by the Kennel Club in 1903.

From the Kennel Club's own breed standard for the **Retriever (Labrador)**

"The only correct colours are wholly black, yellow or liver/chocolate. Yellows range from light cream to red fox. Small white spot on chest and the rear of front pasterns permissible."

No Labrador Breed Clubs anywhere in the world or other national Kennel Clubs state in their standards that any colour other than Black, Yellow or Chocolate is acceptable.

The introduction of the Dilute gene

*Dilute affected Labradors can be traced back to two US kennels - Culo & Beaver creek and back to the Kellogg kennel. They were also involved in breeding the Weimaraner. The first 'silver Labradors' were registered as chocolates from chocolate parents by the AKC in 1985 on instruction of AKC officials.

*The Labrador has NEVER been identified as previously carrying the dilute gene dd. The Weimaraner is the only known breed in which the universality of dd is a characteristic.

* 2006 The first dilute bitch is imported in whelp to the UK from the USA via the IKC & produces the first silver litter. One of the offspring goes on to become the foundation bitch for the largest dilute breeder in the UK and produces 34 silver puppies. Fast forward just 15 years and.....

* 2021 - there are now dozens of active dilute studs, thousands of dilute 'Labradors', new dilute bloodlines being imported regularly and increasing numbers of dilute puppies and carriers being bred every year.

The Genetics

The MLPH gene 'D' codes for a protein called melanophilin, which is responsible for transporting and fixing melanin-containing cells.

A mutation in this gene leads to improper distribution of these cells, causing a dilute coat colour. This mutation is recessive so two copies of the mutated gene 'd' are needed to produce the dilute coat colour.

The “D” gene present in Labradors would be a pairing of two “DD” allele, which in its dominant form ensures that the colour expression is solid and not diluted.

Genetics continued

The dominant 'D' gene is responsible for solid coat colours-black, yellow & chocolate. The recessive 'd' gene is responsible for diluted colours-charcoal, champagne & silver.

The black, yellow & chocolate Labradors were always 'DD'.

The dilute so called 'Labradors' are always 'dd'.

Those Labradors who appear to be correctly coloured black, yellow or chocolate but carry the hidden 'd' gene are always 'Dd'. These carriers are very concerning.

		Parent 2 Genotype		
		Clear	Carrier	Affected
Parent 1 Genotype	Clear	100% Clear	50% Clear 50% Carrier	100% Carrier
	Carrier	50% Clear 50% Carrier	25% Clear 50% Carrier 25% Affected	50% Carrier 50% Affected
	Affected	100% Carrier	50% Carrier 50% Affected	100% Affected

Health issues with the dilute gene

Colour Dilution Alopecia (CDA)

- a painful, chronic, genetic condition associated with the dilute gene 'dd' that causes hair loss and skin lesions.

Puppies are born completely normal in appearance and don't show signs of the disease until approximate 6 months of age. Owners and vets often think the pets have dry skin or allergies, however usually by age two permanent hairloss is significant. There is no cure.

As the Labrador Retriever has always been black, yellow or chocolate the breed has never suffered from CDA until the dilute gene was introduced from the Weimaraner. CDA affects the affected dog's quality of life to a great extent. If they don't have the dd gene they can't get CDA.

Dogs affected with CDA



Charcoal male with CDA



Silver female with CDA



This CDA affected dog is standing at stud in the US. He has lines that are behind some UK imports.

Further Health concerns

*When breeding purely for colour many breeders are more concerned about money than they are about dog welfare and breed health issues.

*As a consequence the conditions that do affect the Labrador are often ignored – such as Hips, Elbows, BVA annual eye testing, DNA testing for prcd-PRA, EIC, CNM, SD2, HNPK etc.

*This is undoing all the work that true Labrador breeders have put in over many years and dogs will suffer as a result.

Temperament – Breed Standards

*From Kennel Club Labrador Retriever Breed Standard

Characteristics:

Good tempered, very agile (which precludes excessive body weight or excessive substance). Excellent nose, soft mouth; keen love of water. Adaptable, devoted companion.

Temperament :

Intelligent, keen and biddable, with a strong will to please. Kindly nature, with no trace of aggression or undue shyness.

*From Kennel Club Weimaraner Breed Standard

Characteristics :

Hunting ability of paramount concern.

Temperament :

Fearless, friendly, protective, obedient and alert.

Temperament & Character

*The Labrador is renowned the world over as a family dog with a fabulous kindly nature. When the general public choose a Labrador to share their family home this is what they expect.

*The Weimaraner temperament is completely different and because the two breeds have been combined to create the dilute Labrador, the public are being misled by the Kennel Club registering dilutes as genuine Labradors.

There is a solution

There is a proven DNA test for the dilute gene which clearly identifies the affected, carriers and clears. Only clears are Pure bred Labradors.

*The KC to start registering the results of the DNA- dilute gene test on their database.

*Any silver, charcoal, champagne or NBS must have a DNA – dilute gene test and must be registered in a separate category - **not** Labrador Retriever.

*Any dog with Dilute gene DNA result -carrier or affected must be registered also in this category.

Breed Action

*** Test & Protect - The Non Dilute Registry:-**

A registry of Labradors tested clear of the dilute gene with the backing of the Labrador Breed Council.

Please go to the website <http://www.purebredlabradors.co.uk/> to add your details and dogs to the register. You can pay the one off £5 payment for as many dogs as you wish by PayPal.

*** Track & Trace - The dilute database:-**

All dilutes in the UK are being monitored and monthly updated records kept in order to enable awareness and avoidance of the UK dilute Labrador population, helping to keep the dilute gene from mainstream Labrador lines.

[Please message the author on Facebook for access.](#)

The Labrador – a breed worth fighting for

This wonderful breed that does so much for us all - from treasured family member, shooting companion, Assistance dogs in many fields, Guide dogs for the Blind, sniffer dogs... the list is endless – is at risk of being irretrievably changed forever unless action is taken now.

As the guardians of the Labrador Retriever in its ancestral homeland the Kennel Club have the opportunity to set an example to other Kennel Clubs around the world by doing all it can to ensure that the dilute gene is completely removed from the Labrador gene pool.

"They went to infinite trouble to keep their strains pure and the pedigrees of their dogs intact ..."
writes Lorna, Countess Howe.

Let's hope the same can be written about our generation.

Purebred Labrador Retrievers



are black, yellow or chocolate only

The Labrador Retriever

Only comes in three colours

Black

Yellow

Chocolate