

# The Pigeon Genetics Newsletter, News, Views & Comments. The Pigeon Genetics Newsletter, News, Views & Comments.

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Topic of this Month , **Another look at the stencils**, and other unique phenotypes.

We have been talking a great deal about the Stipple gene and all of the alleles at that locus , but another phenotype of interest to many Breeders is the de-pigmentation effects of two separate stencil genes that are usually found together despite coming from two separate loci on the autosomal chromosome . Toy Stencil , a complex of three genes., and frill stencil. Both traits whiten the feathers in one way or another creating a variety of beautiful phenotypes perhaps unequalled in the Pigeon Hobby!



Christain Schejka (Ts & fs), plus ?



Tihomir Panamski (fs)



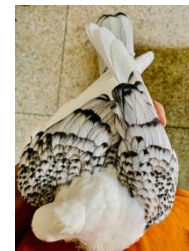
MD MeDz Fsl (Ts & fs)



Mohammad Atiqu ( Ts full complex)



John Gonor Jr. (Ts2)



Afzal's Loft Ts & fs Spread



Two Ecu hens - T-Pattern.

They also have Gimpel bronze and Toy Stencil, bred by **Voiajori Colorati** of Romania and presented by **Octavian Sarafolean**.



**Brian Krog** bred these birds and presented them on my Facebook Group "Strictly Colour Genetics for Pigeons". First is a T-Pattern Blue/Black that is full complex Toy Stencil. The flights are whitened considerably to suggest that Dominant Opal may also be present but we cannot see the tail band, and do not have photos of the parents. There is a possibility that frill stencil is also present. The ventral feathering is also frosted as is the nape of the neck. This clearly shows what a "T-Pattern" is. On a normally Intense saturated blue/Black these black "T" shapes would be very faint light gray/blue. A hen with dark flights is next then a Dominant Opal last for comparison. Residual bronze is common with (Ts) and (Od), but not with (fs).





Here is what appears to be Dominant Opal. There is a considerable amount of residual bronzing most likely due to the type of bronze found in the Lahore breed. This bronze has yet to be officially identified but is not thought to be Ts1 nor Kite. I worked a great deal with Lahore Bronzing up to the time I had to leave birds . Breeder **Kharuri Noufil**. {May 2020}



A Dominant Opal Show Roller T-Pattern for comparison breeder Bob Rodgers., and a homozygous Indigo spread blue/Black **Brian Krog**. { Note how similar their phenotype would be if both were self rather than a self and a pied factor birds.}

The Key effects of the **frill stencil** mutation are seen in the Flights and Tail feathers mainly. The gene is recessive but has a rather strange manner of expressing in that there may be next to no expression in some birds from excellent parents, and there may be excellent offspring from very poorly marked parents. The gene effects spread factor birds differently than it does the Patterned series. Modifiers play a rather significant role in how the mutation expresses.

Toy Stencil as everyone by now knows, is a "complex" of three separate genes. One is a dominant (Ts1), one is a partial dominant (Ts2), while the third is a recessive (ts3). The (Ts1 gene causes coarse spread pattern (C) areas to look dark red instead of black. The (Ts2 gene in the heterozygous causes a lighter tan colour in the Pattern series. The (ts3) gene has not been isolated, but **Gary Young** hypothesized that it was a green sheen on the coarse spread areas.

When the genes are combined altogether the pattern series becomes whitened (depigmented). Sometimes a small amount of bronzing will still be visible.

The (Ts2) gene by itself is rare due to the dominant (Ts1) basically hiding it most of the time. They can and have been separated by **Dr. Lester .P. Gibson**. However (Ts2) does not require (Ts1) in order to make an Oyster shell white pattern, it can appear as a plum colour which turns white when in the homozygous state.

The (ts3) gene seems to be essential in the production of the clear white patterns with dark lacing that are so typical of this Complex.

Some Breeders add Dominant Opal to help whiten the pattern of their Toy Stencils but this not only tends to lighten the entire colour of the bird but also adds the lethal gene for birds that are pure for the (Od) gene.

**Aj Loft** presents these attractive Modenas with Ts1 bronze wing shields on Saturated T-Pattern Blue /Black base.



From **Malik Hamza**: "Let's talk Eye Colour, from my Facebook Group Pigeon Genetics "Pros & Cons".



**Malik Hamza** - Two of the most rare Eye mutations here. Needle eye and Liusha eye in one pigeon.



**Malik Hamza** This eye has needle-like appearances inside the cornea thus the name, Needle Eye. These eyes are the variation of Bloody Red and Blue Eyes. and pupil is there it's just covered by blood vessels. This eye, bloody red and blue eyes and jet black eyes all three from China are related to each other.



A dark Copper coloured Iris





The above Chinese Breed of nasal tuft has a chocolate brown Iris interspersed with golden tan and a greyish wring around the pupil.



Normally the eye of a Highflyer or a Tippler is Pearl or false pearl but some strains have very unusual colourations with this one sporting a blue wring around the pupil.



These Heterozygous 'PRINT GRIZZLES' Have several wrings of eye colour that almost appear to be grizzled as well. Very unique !

Below the dark eye of a youngster and what appears to be either a false pearl or Yellow eye adults.



Eye colours vary greatly and in the case of all non-albino birds will have a black pupil with the Iris color having a wide range from white to Black with shades of blue , green, yellow , orange, Red, and brown. The genes that govern these colours are different than the genes that control feather and skin colour.

Blood vessels often cause the strange variations in colour tones and can vary in the same bird depending upon health , time of year , and state of exhaustion after flying or other stresses.

Albinism causes all pigment to be stopped from expressing so that the eyes including the pupils will appear pink due to no pigment hiding the underlying blood vessels.

Performance birds like Racers and High Flyers are often evaluated by specific 'eye signs' based upon the various wrings or bands of colour therein.

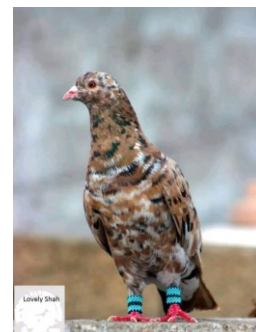




Originally Posted by Jith Peter in my Facebook Group "Unnamed Unique genetic Pigeon Traits" and bred by **Naseerruddin Shoaib** . The bird appears to be a Lal-band Ghagra with a much lighter Wing Bar pattern Saffron colour. The other unique trait is, what appears to be a "Pepper Head" Classical Grizzle gene, but is not. This may be a pied gene but again it is unique in that they tend to breed true as opposed to producing clear white heads in the homozygous state. More observation and study is needed to sort out the facts of this genome.



**Malik Hamza** - { Sept. 2021} This is a Gulldar Bronze which also is not masked by Spread factor. Editor - Yes , actually I believe that this is Brander bronze but expressing variably with spread factor and I think two pied genes and saturated T-Pattern. No one has successfully worked out this genome . {These genes have been combined with the Stipple gene to produce some beautiful phenotypes! }





Some words from you with thanks !

Bob my name is **Lolly**. I live in Logan, Utah. U.S.A.

My husband and I came together because of performance rollers in the 80s! We were married 26 years. He died 5 years ago. I'm 59 years old. Wow. I'm a pigeon woman and will keep our birds until I cannot feed anymore. We have incredible birds that go clear back to the 50s. I found your letter years ago for my husband when he started hitting genetics hard. Your newsletters were a joy especially for the pictures. I thank you for the joy you gave him and the joy you currently give me. I fwd them to a young man that is like my son. He enjoys them too. Thank you so much for many years of incredible work. You're totally awesome. -- Lolly.

Thanks Bob { for adding me to the Newsletter mailing list} ...and thanks for all the work you do !! -- **Highland Lofts.**, New York U.S.A.

Note from **Dr. Lester .P. Gibson** , your former Editor for a quarter century plus. ---  
Thanks Bob I got it! Another excellent issue. { Feb. 2023}

**Octavian Sarafolean** Posted these recessive reds in my Group "Strictly Colour Genetics for Pigeons : The first two - recessive red masking Ash/Red.



The next four : recessive red masking brown/Chocolate.



Below the second photo is recessive red masking blue/Black.



Below a recessive red Oriental Roller bred by **Walter Wojeinski** , Hawaii. from his Almond Family.



Croppers by **Jose Luis Oliveira** -Agate marked Grizzle gene.

ESFT **Rob Grogan**- Agate.

The recessive red is just that , a mutation at the Sox-10 locus that causes a type of phaeomelanin (Red



Pigment that is 'epistatic, (masks) both base pigment and Pattern. It also is epistatic to Spread factor.

There are however some differences in these recessive red birds that has yet to be fully understood and therefore has not been explained. That is the tendency for recessive red birds to express various types of whitened feathers .

Usually the red feathers have about the same amount of colourless structure at the base of each feather near the skin, which is the case with all colours. However some have a considerable amount or may even have pure white feathers in addition to the partially de-pigmented feathers.

There are a number of different mutations that can cause very similar looking effects. The ones we may be most familiar with are: Pied factors., grizzle factors, Undergrizzle, Flash , and one referred to as Whiteside that is thought to be caused by an Enabler gene (En). This same gene is thought to be responsible for the Agate marked shield. Our task is to sort that out and search for definitive answers.

It is believed that a true AGATE expresses ONLY on a recessive red bird , but in the Classical Almond breeding programs the Agate effect not only appears on some of the recessive reds, the DeRoy - {recessive red Almonds} , but also on the various other Components , namely Saturated T-Pattern pseudo Black and its dilute the so-called (Golden Dun) . I feel absolutely certain that there is a 'Print Grizzle' gene involved in such cases, despite cries to the contrary.

The Classical Almond Breeders have never mated their red Agates to each other, nor do they mate their Agates to wild type, thus no idea if a grizzle is involved as it may not express as grizzle on dark T-Pattern.

Another conundrum is that there are both True Agates ( birds that fledge solid red but moult to mottle shields in the first moult),, and what they call a whole color Agate which remains a solid red. These solid reds are said to usually have some basal whitening to tail feathers and sometimes the flights also. The problem is that no one has ever mated two true Agates together to see if they would produce a solid red, nor have they ever mated two solid red (whole feather reds) together to see if they produced True Agates. One fellow exclaimed - "Why would we do that !?" The reason is that it would finally prove that the two are genetically different and the whole feather ones are NOT Agates!

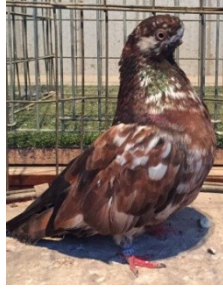
The reds in the Almond breeding Families are said to be specific in that they do not ever mask Spread factor , however the fact that they are never isolated in breeding has caused them to become a weak unimproved form of recessive red. The washed out tail feathers attest to that. This , I am certain., is just one of the reasons why breeders have so much trouble maintaining good rich tones that they seek in their Almonds. A few blame that on not 'enough' Kite or recessive red as if more than one dose per parent was possible when of course it is not!



**Prezemyslaw Areszewicz** - unknown genetic complex, Enabler gene?



Solid Red **Mick Bassett** photo.



Print Grizzle Sat. T-Pattern birds . **Rob Grogan**.



\*

Meuleman Red - **Asas Do Alem**.



**Jean Louis Serraille** - Cl Grizzle.



**Bassett** photo Print grizzle.

**Tom Ah Demnnik** once commented on my Facebook Group Strictly Genetics , that the reds with slight white in the tails were in fact unimproved Recessive Reds . I disagreed at that time as I was considering the effect on a wild type base only. Since looking at these Almond bred reds I agree with **Tom's** analysis. The fact that the Almond Breeders in specific never work with their Reds alone is a clear indicator that they are not tracking the purity of their reds. This not only translates into poorly coloured reds but also will negatively affect the phenotypes of the Almonds they create and also the colour of the base Component. Below are photos of recessive reds one with undergrizzle and one with 'migrational white' plus undergrizzle - bred by Co-Editor Jith Peter.





Very typical expression of an unimproved recessive red , the original mutation at the Sox-10 locus.  
Breeder **Grzegorz Szpryngiel** - this one may have another modifier, or it may be the lighting. It looks like it could be pale factor (Gold).



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\* The **Meuleman** recessive reds were often called Chocolate and some were Ash-Red T-Pattern not recessive reds. They were not Raced , but their offspring that were often Blue checker pids were, and the best race lines were from the non-flown Reds.

If any of you are testing any phase of the Red and white Pied marked birds please let us know what sort of things appear obvious to you. Do not be concerned about all the nonsense being stated out there about ideas being 'theoretical' or unproven hypotheses etc. That is what true Science is all about. We have to consider the facts before us and test to seek out the answers.

That is it for March 2023- Next Month we look at reduced/Rubella plus other genes of interest to You.