

The Pigeon Genetics Newsletter, News, Views & Comments.

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(Founded by Dr. Willard .F. Hollander)

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"The latest updates from around the World brought to You Monthly"

TOPIC #1 : The **QUALITY** and **QUANTITY** of Colour Pigment in our Pigeons :

Normally when we look at an "Intense phase" expression , we are seeing a bird that has full colour intensity yet it embodies a **Quantitative reduction** of smooth spread pigment. It has not been degraded , or diminished as to colour "phase". There is however, always a **Quantitative** reduction, (Quantity of pigment cells) , or a combination of both Quantitative and Quality/**Qualitative** reduction, that affects how we see the overall colour. Pattern is Quantitative reduction of smooth spread . Our "pale phase" and "dilution Phase" are examples of **Qualitative** reduction of pigment expression. These mutations, pale & dilution , are known to be Alleles , or alternate choices at the dilution locus. Thus far proven as the only two mutations at that locus , but possibly there will be a third officially added in the form of what is being called an extreme of dilution - "Ecu".

Hein Van Grouw has postulated that pigeon dilution actually should be what we call milky factor . He therefore considers our dilution to belong to another group not formally recognized in Columba , which he calls "ino", a form of Albinism. He stated in the Oct. issue : "**Dilution in the Pigeon, or the mammal Tiger, due to a mutation of the Slc45a2 gene, is a tyrosinase-related mutation and NOT a melanosome-transport related mutation.** So, in other words, calling a mutation Diluted or Dilution which is covered under the umbrella Albinism and NOT under the umbrella Dilution does not make sense to (him) and is confusing."

Paul Gibson is already on record as having said that he believed that Ecu was at a locus near to if not overlapping our dilution locus. Our Pigeon dilution locus is what geneticists call the Slc45a2 gene , The alleles to wild type at that locus are pale factor and dilution. The confusion comes when we compare these with those in other species of birds including Doves that seem to have many mutation gradations from dark gray , through yellows to near white, all with pink eyes, they clearly appear to be forms of albinism and likely (ino)., what do you think ?



Milky (powdered) blue bars (1) **Jerry Sindelar** , (2) **Lumir A Anna Justovi** , Australian Fancy Pigeon Facebook Group, and (3) **Shoibal Sabbir**. Non-allelic autosomal recessive gene.

Quantity or **Quantitative reduction** affects the overall bird but in various ways such that only the smooth spread pigment cells appear to be clustered or clumped together which reduces the quantity of that pigment in such a way that we can see using a microscope that there are areas without pigment cells while they appear grouped closely together in other areas. This causes us to see a lighter tone of the black colour giving rise to what we see as grays and refer to as "blue".

The quality or **Qualitative reduction** , reduces the expression of all available pigment distribution , such that the condensed smooth spread , the clumped smooth spread , and even the coarse spread pigment granules are diminished in their colour intensity. This may take place in at least two degrees , one we call "Pale Phase" , and the other "dilution phase". Pale phase birds are about 1/4 of the way between Intense phase and dilution. Neither have pink eyes as adults , but have so little evident pigment in the newly hatched chicks that they may appear as a pinkish tone as the blood vessels can still be seen in the iris for a short while.



(1) dilute phase blue bar pattern Bob R. (2) dilute brown ,Khaki Wayne Murphy. (3)cream bars dilution phase ash reds Clint Robertson. All dilution birds may also be bred to be milky factor.

The trait "Pink eyed dilution" is a separate mutation that results in a diminished pigment phase but which has only pink eyes including as an adult . This is not located at the Slc45a2 gene.

TOPIC #2: pink eyed dilute blue base pigeon . Octavian Sarafolean Nov. 21st. 2018.

A recessive autosomal gene .



{This bird appears to be smoky factor as well , wide terminal , narrow sub-terminal & no albescence.}

TOPIC #3 : Mosaic . by **Charles Kendrix**. I don't think I have put this bird on here before, but if I have it was a long while back. So as another fellow I have seen post one similar online says, "have I shown you my mosaic lately"? 😊

I don't know if the people that let this bird go didn't know what they had or maybe he didn't perform as a racer and they just didn't care about color. I picked him up at a feed store for \$15. I almost passed him up too, until I saw him fly up to the perch and caught a glimpse of the multi-colored tail.



[Bob Rodgers](#) Nice find !!

TOPIC #4 : Identification of Colour ~ by [Abdullah Al Qafi](#)

What's the colors of this pairs?
Reduce or Opal?



[Bob Rodgers](#) Perhaps a good example of what happens if we apply the various traits that basically all do the same thing. You may reach a point whereby you simply can no longer even guess what genes are responsible for the phenotype. The neck area of these Trumpeters suggests a reduced bird and the rest suggests spread factor blue/black, but beyond that it is anyone's guess. I would expect a darker head area , particularly the face on a straight reduced black masking Checker or T-pattern. We cannot see the tails , so no hints there. Indigo /Andalusian in the homozygous state for Indigo may also be involved as well as Opal for an Opalusian, but I do not think so . I am certain there will be other opinions , so I hope we will see some !

[Bob Pommer](#) In my Modern Fantails this expression is pretty typical of the reduced blacks..... of course the blacks carry unseen colour genes that enrich the black expression, so these birds will probably carry unseen expression modifiers as well. But I do not think Abdullah cares about minor modifiers..... they are reduced blacks.

[Bob Rodgers](#) When a Breeder is working with the many newer mutations or any of the well known ones for that matter, the additional modifiers are the aspects that one must be very aware of and understand. They can easily make or break a Breeding program in just one generation. Experience is the best teacher, a great deal of time and money can be saved by observation of many traits and keeping good records so that you are able to spot the slight differences that could spell a problem down the road. There are a number of genetic traits that may look very much alike simply due to one additional modifier or another. Occasionally people believe that they are working with a certain trait when in fact they are not , so one can see why they may go many years believing certain genetic facts are so when they are not.

[Abdullah Al Qafi](#) -Thanks both of you .

TOPIC #5 : Identification of Colour Post by **Merissa Brehm** .



Max Healy I have this color in one of my breeds and I think it's dilute indigo check. Incidentally what is the name of dilute indigo and Andalusian

Bob Rodgers Indigo and dilution are mutations that alter how we see any one of the base pigments and Patterns. Andalusian is when Indigo is combined with an Intense blue series bird that is also spread factor. The dilute of that would be in effect a Dun that is also Indigo , which has never been given a specific name . Indigo Intense blue / Ash, or brown series birds also have no specific names , so we tend to simply name the known components such as an Intense or dilute blue barless Indigo, etc. (a silver indigo barless / Bar / Check / T-Pattern, could be used in the case of dilute blue series.) The bird in question needs to be viewed in better photos before we can say exactly what it is , in my opinion.

Max Healy **Bob Rodgers** thanks I now know why I didn't know what the dilute colors are called.



Dilute blue Indigo check ~ Intense blue Indigo T-pattern hetero rec. red by - **Graeme Boyd**.

TOPIC #6 : Introducing Toy Stencil , Post photo and question by **Rashed Pigeon Loft .**

How to produce toy stencil color in Lahore pigeon
expert help Needed



[Charles Kendrix](#) From the looks of your pictures and some of the videos on youtube someone has a very good handle on the project already. If you are talking about starting from scratch, you are looking at a long term project. There are three genes that make a complete toy stencil, two dominants TS1 & TS2, and one recessive ts3. Then you have the Lahore pattern to deal with at the same time. I think that pattern {Design} is a combination of pied genes which would further complicate the process. If I were trying it I would pick a breed similar in size and body type, and that only had the toy stencil complex to deal with. Something like a Saubian or one of the German field pigeons.



Photo by **Mick Bassett.**

[Bob Rodgers](#) I think I would look into buying one of these beautiful specimens above , and introducing it into my breeding program , otherwise yes, I'd follow a similar approach as laid out by Charles. Be prepared for more failures than success though!

TOPIC #7 : Single barred ? by **Brad Stuckey** post in Strictly Colour Genetics for Pigeons Facebook.

Interesting Homer from the loft of [Mike Bordelon](#). As you'll notice, it only has one bar. This bird has been eating on it's own for a few weeks and you can see that the flights and tail feathers are fully in, in case you were thinking that the 2nd bar hasn't finished. I will try to get an update in 6 months when the bird moults. { selected Comments directly about post }



[Keaton Taylor](#) This is common in my Takla. The bars molt out to be normal unless faded is involved. Similar to this bird on the far right which is faded and hetero ice as well. Makes for a stunning combo imo., the darker blue bird is faded .



[Brad Stuckey](#) I concur .

[Mike Bordelon](#) no ice , not faded .

[Keaton Taylor](#) [Mike Bordelon](#) was meaning the bird I responded with.

[Octavian Sarafolean](#) [Keaton Taylor](#), i had a few like this one and mated them together but never had an homozigous faded. From what i've seem i'd say they are Frosty or something similar.

[Brad Stuckey](#) I'm curious to see if the Homer in the post will moult in that second bar also.

[Keaton Taylor](#) I suspect he will. One of my mosulli babies had similar looking bars until the first molt. Do you suspect bleached at all?

[Brad Stuckey](#) The father is a "White out" and the mother is a Brown Qualmond Check. "White out" was found in the loft of Gene Hocklan and apparently acts somewhat similar to the Stipper complex from what's been learned thus far.

[Bob Rodgers](#) I think there is a decided difference between the post bird and Keaton's , in that the post bird has a strong last bar as opposed to the same bar on Keaton's . The last bar is shorter normally as the tips of the secondaries make up the remainder. The Post bird does not have the second bar which is strongly expressed even on the hetero Ice /faded bird. There does appear to be a slight depression in the feathers as if the bar feathers are incomplete in their development .

[Michael Spadoni](#) The 2nd bar is there it's just very narrow lift covert feather and I'm sure it will be there. Either way I think after the moult it will get exposed. Does it carry barless by any chance?

[Brad Stuckey](#) [Michael Spadoni](#) I'm not sure .

[Octavian Sarafolean](#) [Brad Stuckey](#), is it possible to carry barless?

[Brad Stuckey](#) [Octavian Sarafolean](#) I'm not sure. I posted for a friend. I will try to get more details about parentage .

[Octavian Sarafolean](#) [Brad Stuckey](#), this was a hen of a friend of mine...bred by him. { 3 photos }



[Octavian Sarafolean](#) { fourth photo } this is the male she was mated with .. I told him to mate them like that because I suspected that these were het barless . {5 th. photo} this is one of the youngsters from them.

[Jan Lombard](#) I had brown German Modenas with single bars as babies. The second bar came out after the moult.

TOPIC #8 : Tim Stone writes -- Anyone ever seen this ?



[Brad Stuckey](#) They almost resemble the effect of sun bleaching. Are they Browns?

[Charles Kendrix](#) I saw one similar feeding behind a feed store in Houston. I tried to catch it but there was no way. That one was a little more yellow tinted. The more I have thought about it the more I have come to believe it was pale from some the feed store birds that got out.

[Bob Rodgers](#) Note that there is a smudge of the bleaching on the head of the bird on left. I suspect that the two have been subjected to a chemical spray at some point such as a bleach. If this were sun bleaching , all wild specimens would show similar signs. I had a similar effect in my study flock . In the case of mine , I rather think it may have been caused by sun affecting sheen. Difficult to see the effect on the back of the neck.



Topic #9 : Predicting an outcome from a pair involving a pure white.

Thanks for the add .Please i want to know if i mate this tow colors .What can i expect about the color of the squabs. And thanks ~ **Elevage Krikid Riadh** .



Parents of this T-Pattern =



Bob Rodgers I am assuming that one is a saturated T-pattern blue series bird , and the other is a recessive white based upon what I can tell from the photo. Therefore the result of them being mated will depend upon what colour trait and modifiers the white bird is genetically. Let us say the white is a hen and ash-Red. All of her sons will be ash - Red in that case . All daughters will be blue series. The t-pattern is the most dominant of the patterns , but if that bird carries another pattern dominant to that of the white or matching hers then that pattern may come in the young. If the T-pattern carries recessive white , then some white young are possible .So you can see that in such a mating , it would also help to know more about the parents and grand-parents.

Elevage Krikid Riadh Thanks man.Ok the white one is the hen and i m sure it's a pure white hen. And the t chek is a cock and here is his parent .

Michael Spadoni Assuming the only genes are the ones we can see.Every youngster will be the same as the bird on the left. But every youngster will also carry the recessive white gene.

Elevage Krikid Riadh Thanks. I m sure that the white hen is a pure white. And the t - check is the cock And he come from this two colors .

Charles Kendrix It is probably just a fluke of my matings, but every time I have mated a recessive white to a colored bird the young have been pied marked.

Bob Rodgers The T-pattern male got his blue series colour from his blue bar sire , and his T-pattern from his apparent brown dam. He will carry pied . The feathers in the dam that look black seem to be shadows , and there is normal sun bleaching on the brown dam. The white mate to the T-pattern blue male must be pure in order to express white , but she would still be genetically one of the three base colours , and one of the four base patterns . That is why I stated at the beginning that what they produce depends upon what her genetic background is besides pure white . Recessive white is simply a gene that prevents any of her genome from expressing in regards to colour and pattern etc. Pied traits may also be hidden by a pure white bird and thus come out if they combine with like traits carried by a subsequent mate.

Elevage Krikid Riadh I know that Sir.but As you can see the brown dam mother have some white flecks too. So maybe he has the recessive white gene.

Bob Rodgers The recessive white gene does not express as a few white feathers when carried . That is a pied factor separate from the recessive white gene.

Michael Spadoni **Bob Rodgers** recessive white carriers will in near every case have some white feathers on the navel, on an adult they will show up in the vent area.

[Bob Rodgers](#) You say near every case , I am wondering if that indicates that such birds carry a recessive white that in effect was indeed a pied . There are some aspects of the recessive white and pied factor(s) that are still not understood. You may recall that I mated a white head Capuchin with a pure white Schetti Modena and got basically a Gazzi Design offspring. This indicates to me that the white was in fact a Gazzi , but hidden by homozygous recessive white . Hetero white head also expressed along with Dominant white flights .



[Michael Spadoni](#) [Bob Rodgers](#) this is an interesting result !

That is it for the Month of March 2019 .. CU from the Loft on April 1st. Silence is Golden " if you are in a Library" , but we want to hear from you , so please do not hesitate to drop us a note anytime !!