

**Merry Christmas to one and all !**

The Pigeon Genetics Newsletter, News, Views & Comments.  
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( Founded by Dr. Willard .F. Hollander)

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(Where beginners and Pros work together for the good of colour genetics)



Last Issue I missed seeing that somehow my opening paragraph had copied partly at the top and partly at the bottom of the page . It apparently happened when I did a last minute adjustment to our Cover page, thus escaping the Proof Readings . Here is the way it should have appeared :

"When I became the new Editor it was not because I am a genetics Expert or professed to have all of the answers . It was because I had to part with my beloved birds and this , I thought , may allow me to continue in the Hobby ! There are few rewards other than the enjoyment of sharing YOUR ideas and experiences. "

**TOPIC** : Isolating a Pure white, pearl eyed phenotype ...

Hi Bob,

Thank you again for this interesting newsletter. I will read it with a lot of interest.

What breeds do I have?

I have English shortfaced tumblers in white, red(agate), baldhead and beard. I also have some Dutch Highfliers in the color Chimney Sweeper ( bronze like a Showtippler) . As pumpers for the Shorties, I use NY flying Flights and Birmingham rollers.

I do not speak English very much but will try to formulate my question about breeding "white " shorties to you with text and photos. You will receive it one day.

It is about that my shorties are born white but each year they get more red flecks in neck as you can see on the photos. I want to have them completely white. Normally dominant white pigeons are born with red flecks and after the moult they become completely white. But my birds, they get more red spots. They are made by red-agues.

Here is my question in text and photos.

Have a nice day

Greetings from Ko van Vliet (witschild), Holland

I am trying to breed completely white English shortfaced tumblers. You can achieve this by using redagates. { **Stipper bred recessive reds** } They have a blue/black base.

I think the factor is the White Grizzle factor  $G^w$ . In heterozygous state they look like :



Photo 4



In homozygous state I want them to look like : Photo 2

Now something that I cannot explain.

It's normal that dominant white Pigeons are born with red spots in the neck that disappear



after the moult. For example: Photo 1 { **this appears to be a storked marking** }

With my ESFT it is the reverse procedure. The first year after the moult they are complete white. But after that, each year they become more red spots (splash) { **grizzle** }.

I asked a breeder of Reinaugen and he told me he has the same problem. As his Reinaugen get older red spots also appear in a way he cannot exhibit them anymore. See: Photo 3



(=Reinaugen)

{ a splash has larger patches of coloured feathers not just flecks}.

Now I started to cross with a white ELFT (ash-red base) and hope that the young ones stay white and do not get red spots.



(1)



(2)



(3)



(4)

Below is my experience with this or a similar trait in ELFCL Tumblers. ~ Bob R.

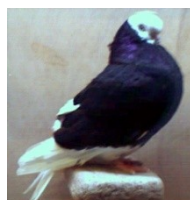


Ash - Red male(A) and white daughter (B) that molted to photo (C) . Photo (D) is a full sister , their dam was a Dun Tiger that looked exactly like the black daughter.



These are a form of **Tiger grizzle**. This red male mated to a Dun Tiger hen produced the Yellow and the Black hens shown here . The yellow appeared pure white but later developed those few yellow feathers on her neck and back of head. I raised several much like her , some with more and some with less colour. I think that by selection , the colour could be eliminated. I crossed these Tigers with Baldhead Show Rollers and got perfectly marked Baldhead Designs in the nest that molted to what we normally would consider homozygous Tiger but with white flights and tails . Then I mated the Tiger Tumbler male to a saddle Old German Owl ., and those were lightly tigered whites right from the nest that did not change . From the original pair of Tumblers I did raise one heterozygous Tiger Black mottle male , obviously this old Tumbler male carries dilution and blue/black. The difference between these apparent "TIGERS" and the traditional "TIGERS" is that these have the bulk of colour at the head then lessening toward white flights and tail.

I had a Mosaic (ash-red / ash-cream ) Tiger that I mated to the Black Baldhead Tumbler below ., but lost the only young from them at one day of age . There is a possibility that a pearl eyed Baldhead introduced into the Ash-red tiger genome , may allow you to extract a pearl eyed white in time.



I gave the birds to a friend , but unfortunately a predator took them. They were puffed up in these photos as I woke them in the middle of the night to take these photos and it was about minus 30 degrees outside the loft.

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**TOPIC** : Introducing a new trait ... by Bob R.

Transferring a colour trait from one Breed to another : This sounds easy , and it can be relatively simple to extremely complex. There are a great many things to consider. Some Breeders have worked from 10 to 25 years on a single trait transfer without arriving at a good show specimen.

Why so long , why should it be so difficult? Usually you are looking at about (5) steps to see the trait you want expressed on a bird with most of the Breed characteristics that you want.

The Colour would come from the "donor Breed", then you would be placing it on the "recipient Breed". You must first consider :

- (1) Do you have the Space and the Time to devote to the task.
- (2) How close are the two Breeds in characteristics ? The closer they are the better ! Conversely the farther they are apart in type and ornaments , the more difficult your task will be .
- (3) Do you have several pair that you can work at the same time so that when you reach step (5) , you will have similar young to combine that are not related .

Now that you have decided to go ahead , be prepared to raise quite a few pair of young from each pair as you will have to see what may lie hidden in any one pair , and you may have to eliminate that pair and replace them.

Once you have raised quite a number of young from each pair , you may be able to then select at least one pair from each original pair to do your back - crosses. Haste leads to waste. Select carefully! The more lenient you are with small discrepancies such as stray pied markings , shell versus peak crests ., too much or too little foot feather , split tails, drooping wings ., etc. , then the longer it will take to eradicate those unwanted traits .

Try some simple colour traits within a single Breed first such as placing Barless into your Bars and checkers of one Breed. Unless you have a great deal of surplus cash , do not try creating new Breeds !!

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**Melanistic Senegal Dove.** Last Issue we used two photos from the net labelled as Melanistic and Almond-like . Hein Van Grouw wrote to tell us that the Black Dove is not likely a genetic melanistic , but rather due to a Vitamin "D" deficiency which he has seen in other Dove species. He also felt that the Morning Dove was a "grizzle" factor as opposed to an Almond - like trait. We thank Hein for his input .

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**TOPIC:** From our Strictly Colour Genetics Group on Facebook , Post by **Mark Longbottom** ...

Can anyone tell me the colour of this light baby - it's mums an indigo bar, father light checker???



**Bob Rodgers** Does not appear to be a dilute due to the heavy down , so other than an Indigo ., it would depend upon anything else that the cock may carry hidden. It looks ash , any chance of a rogue intruder ?

**Mark Longbottom** It's getting a few like brown bars , No chance of an intruder Bob.

**Bob Rodgers** I enlarged the second photo ., the bar looks like it is exactly the same as the hen .

**Mark Longbottom** Do u think a recessive opal ?

**Bob Rodgers** No I do not think it is recessive opal ., but the Cock may carry brown , in which case it would have to be a hen.

**Mark Longbottom** Thanks Bob it's a bit like Christmas. And I take it after the molt it will be different again . The nest mate is indigo chequer Bob.





Bob Rodgers This one looks homozygous Dirty factor , what colour are the feet of the light one ?



Mark Longbottom Looking more like a red bar Bob.

**Bob Rodgers** Here is a typical Indigo blue checker from Ryan Harvey. As you can see , it almost resembles a Red checker. Your Blue checker youngster does not appear to be an Indigo ., but the light one does look like an Indigo ., and both young are Dirty factor, which I suspect is heterozygous coming from the hen as the Cock does not appear to be Dirty factor. The reason for such a light base colouring is a bit of a mystery without knowing more about the ancestry. There is no way it can be an ash when both parents are blue base.



Ryan Harvey's Indigo Blue Check.

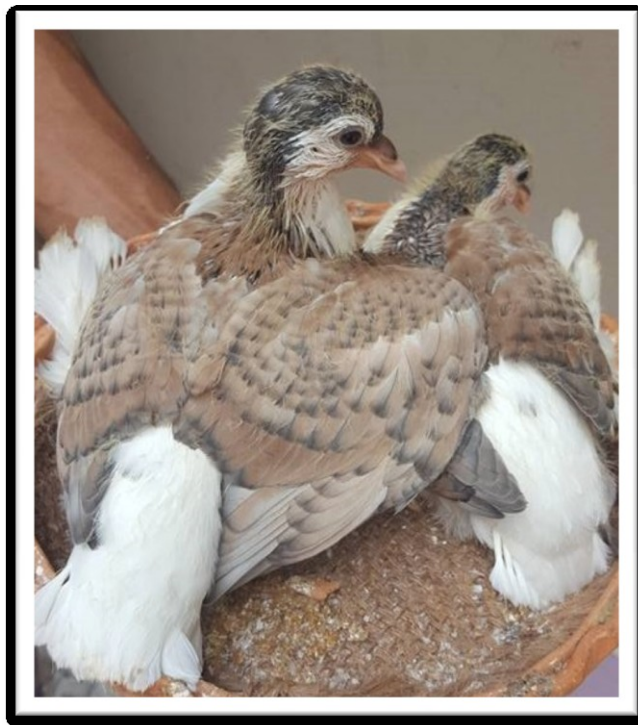
**Mark Longbottom** I'll keep u up to date buddy.

{ other possibilities such as homo Indigo , and the mutation Cherry allele of recessive opal seem unlikely }

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**TOPIC** : Naming a Phenotype in Lahore youngsters .

**Mohd G. Kibria** asked on Strictly Genetics Group : I want to know the name of the exact color of this pair.



**Bob Rodgers** They appear to be Dominant Opal Blue t-Pattern or Checkers. The bronze residue will probably fade some after the moult , and maybe still more after several moults, There is a possibility that they are also milky factor given that they are Lahores . Again I must repeat , it is always helpful that the parents are shown ., and that everyone keep in mind that they can change a great deal from this stage to adulthood. Based on the amount of feather "down" , we can eliminate the dilution gene . These are intense., so not "silvers".



**TOPIC:** Another look at STIPPER BREAK... By **Bob Rodgers**.

There are many Facebook Groups that have been created by individuals for specific Breeds. I recently joined one to read peculiar comments regarding the term "BREAK". In the pigeon genetics world it is used to refer to the phenotype created by the application of the STIPPER gene in making the Almond in particular. Without The "Stipper" Gene, there is no Break.

The problem began about 300 years ago when a fellow by the name of Robert Fulton first referred to the black flecks as Break. (This I believe was in error). Later Moore wrote that while he did not agree with Fulton, he would not argue the point with him, and thus everyone over the years has fallen in line like sheep not questioning what they were actually saying.

The "Break" is the white areas left by the Breaking up action of the Stipper gene on the Base pigment. In the process, the black pigment may become more condensed and thus appears as solid black. In the case of spread factor, ideally the only colour we actually see is the residual Black pigment flecks. The remainder of the bird expresses the scattered white BREAKS. Reversion over time allows the black to take over to the point where the bird may appear almost normal black or mottled like a hetero Tiger grizzle.

The same happens with a blue barless, barred or checkered bird. The white break leaves behind a considerable amount of residual blue, and black near where the bars, checks and tail band would have been. Reversion with age replaces the white break sometimes to the point of being once again a nearly normal coloured bird or mottled like a Tiger grizzle.

The so called Classical Almond is preferred to maintain an overall Amber/ Almond tone and this is achieved by applying a gene or combination of genes that resist the Stipper gene almost completely. Kite bronze and recessive red are the genes of choice. Due to the structure of feathers and the manner in which colour pigment is distributed, the flights and tail feathers tend to show much more white break, and therefore very little residual colour in either black or bronze. The ideal is to have the two colours Black and bronze PLUS the stipper white BREAK, in those areas. The rest of the bird is basically a bi-colour, of Bronze tones with residual black base pigment flecks evenly distributed all over. The deep dark colours are enhanced additionally by adding other darkening traits such as Dirty factor, smoky factor, and even Sooty factor. The general idea is to do whatever possible to resist the Breaking action of the Stipper gene! The variability of the Stipper break and the fact that Breeders are not consistent with the formulae that they apply, tends to create many variations in phenotypes. In Europe they allow for this to some extent by offering Show Classifications for (1) Multi-coloured specimens, and (2) classical Almonds.

Here in North America, there is a great deal of confusion as classifications in some Breeds simply do not exist. Those that do, have been changed regularly, so that there has been no stability.

The fact that the term "BREAK" is still considered to be the Black flecks by many is the root to most of the difficulty in not only applying a correct show Standard, but also in actually applying a successful Formula to reach that goal when it is established. There is a huge difference between a bird that has white Break compared to a bird that has a great amount of residual colour pigment scattered throughout the feathers.

Think about it folks, and don't allow an ancient mistake to impede the Breeding and showing of IDEALLY beautiful Almonds.

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**TOPIC:** Brown flecks and patches in Ash-Red hens. by **Hein Van Grouw**.

Is it Bronze or is it....?

An increase of red phaeomelanin and the occurrence of brown eumelanin flecking

First a few facts and observations.

- 1) Romanian Naked-neck Tumblers only come in colours based on Ash-red as the gene for naked neck (dropping feathers) expresses itself only in combination with phaeomelanin pigment. Blue/black or Brown pigeons (eumelanin based) who are homozygous for the naked-neck gene do not express a naked neck. The absence of pigment producing cells (leucism, like self-white) also prevents the naked neck gene from expressing itself.
- 2) As mentioned above, the pigment responsible for the colour in Ash-red pigeons is (mainly) phaeomelanin. In general only Ash-red cocks heterozygous for Blue/black (or Brown) may show some black (or brown) eumelanin flecking in their plumage.
- 3) Since a few years I've noticed remarkable brown flecking in my Ash-red Romanian naked-neck Tumblers, mainly in the tail feathers (see photo 1), but rarely also in the flights and even elsewhere on the body. The flecking is present in both sexes, although I have the impression that it expresses more in the hens. The brown flecking is eumelanin, proven by the fact that heavily affected feathers in the neck area do not drop out. The brown flecking occurs only in the individuals who also have an (unknown) form of Bronze, but not all individuals with this form of bronze have brown flecking.
- 4) The red colour in the Romanian Naked-neck Tumbler is a combination of Ash-red, T-pattern chequer and some sort of 'colour filler' (probably sooty) to fill in the pale ash-coloured T-pattern to colour the wings solid red. Their rumps and tails are pale ash-coloured and so are the larger parts of the primaries (apart from the red inner vanes and finch-markings). Under their wings (underwing coverts and flanks) they are white (see photo 2). Many of my birds, however, have an extra (bronze?)factor which increases the amount of red (phaeomelanin) in the rump, tail, primaries and under the wings (see photo 3). Often, but not always, the two outer tail feathers are more heavily phaeomelanised than the rest of the tail (see photo 4). This extra factor appears to be dominant in inheritance and, so far, I have not noticed a difference between heterozygous and homozygous birds
- 5) I am not sure where this unknown phaeomelanin increasing factor came from. I have used Vienna Longface Tumblers in experimental crossings with my Naked-necks, so first I thought it was the dirty-factor. However, this turned out not to be the case and now I think it came from a self-white, silky fantail from Russia of unknown ancestry, which I used to introduce the silky-gene into my Naked-neck stock.

And now the questions I have.

- 1) **What is this 'phaeomelanin increasing factor'? Is it known to be present in other breeds?**
- 2) **Is the brown eumelanin flecking likely to be related to the phaeomelanin increasing factor?**



(1)

1. Brown eumelanin flecking in the tail feathers of an ash-red Naked-neck Tumbler hen



(2)

2. Random selection of tail feathers of different individuals with brown eumelanin flecking. The feather on the right shows even the brown tail bar in the melanised part of the feather.





(3)

(4)

3. A 'normal' red Naked-neck Tumbler; the underwings and flanks are white. 4. Red Naked-neck Tumbler with 'increasing phaeomelanin factor'; the underwings and flanks are coloured.



(5)

5. In most, but not all, pigeons with the 'increasing phaeomelanin factor' the outer tail feathers are strongly coloured with phaeomelanin.

**{ This is extremely interesting, perhaps one of the same genes as in Stephen Scott's article last Issue }**

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That is it from the Pigeon Loft for December, and the YEAR 2017! Hope you had a good one and that all of the Best comes to You and Yours in the NEW YEAR!! We will be back again January first. Thanks again to all those who are helping to make this the most read and enjoyed Pigeon Genetics Circulation in the World Today!