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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"

"April Showers spring forth May Flowers"



This is a correction to an error in last Issue : The reason to breed to ash-red is to try to obtain a cross-over right away which he hopes will speed up his attempt to introduce Lemon/Ecru into his naked neck Breed.

Of course not to prove allelism of Ecru as I typed in Hein Van Grouw's report .

TOPIC : **Mosaic Almonds? Is it possible?**

That was a question posed by Walter Wojcieszki on the Oriental Roller Color site, Facebook.

Walter Wojcieszki Bob if this area is not affected by the white stipper break ... Would you say the stipper gene is weaker in the particular bird and the factors that resist against the white break are stronger in areas on this particular bird.... Just trying to see if this bird would be good for breeding ?.....
Would I select a mate like a red agate since the kite is overpowering the white break?

Bob Rodgers I do not believe that anyone actually knows what genetic activity leads to larger patches of colour as opposed to more scattered residual colours.

I do not expect that there is a weaker expression of the Stipper gene , just more likely a case of the variability in expression.

Likewise I do not think there would be stronger resistance by the base pigment and residual bronze(s), in those areas .

The breaking action not only causes the white breaks , it in doing so, tends to Condense the resisting base pigment whether it is in a portion of a feather , the whole feather , or an entire patch of feathers . This takes place genetically with the mutation and involves the skin from which the feathers emerge. The bronze always resists the breaking action in varying degrees, with its resilience depending upon whether it is hetero or homo for that trait , if it has sufficient darkeners in areas of clumped pigment, and if it is supported by recessive red or not. The very light areas of bronze merely indicate that the stipper break is present , but still resisted somewhat by the bronze involved. The Agate should intensify the bronze effect as you would simply be supporting the bronze resistance with the addition of recessive red and more bronze, and the variability of the stipper gene will determine just how much base pigment flecking will appear with reversion and where , as the stipper gene itself weakens ..

Here we have an unique situation where we may have the genetic trait of a MOSAIC LOOK-ALIKE that causes a large patch of base pigment as opposed to just a portion of various feathers, or individual whole feathers. Jith demonstrated this trait in an earlier Issue with a photo by Jijo Thomas . We usually can tell it is a look-alike trait as the patch will express the same base colour as the flecked base pigment.

However a true Mosaic Almond is also possible , indeed a combination Almond / Qualmond is possible . Moreover it is also possible to have both an Almond Look-alike , and a true Chimera Almond combined on the same bird. While some of these may be very rare, they of course are possible. In such cases one would look for things such as a completely different base colour in some of the patches, there may be two different patches of a specific modifier , pattern , or colour phase such as pale , or dilution.

TOPIC : ANOTHER LOOK AT NEW TRAITS IN RACERS, OR IS IT ?.

The past two issues we showed you three mystery traits that originated out of the Lofts of Gene Hochlin , Mike Bordelon, and Charles Kendrix. There is yet another that perhaps may be described as a version of one of the earlier traits. Charles gave one of the sons of his mystery hen back to Mike , and from there we go into more detail in this article.

First a reminder of the two original hens : (1) "Whiteout" tested by Tim Kvidera for Gene Hochlan as an (St) allele. and then (2) Charles' Foundation hen whose son returned to Mike for the following offspring.



This dun-like hen is Dam of Charles' Hen , photo (2) above.



A son of #2 photo above, produced the birds below, similar to Chalky , an allele of Stipper.





Charles thinks that the birds that appear to be dilution , may not be . The young raised by Charles and subsequently from a son at Mike's Loft ranged from near black to a dun-like colour to faded - like blue bars. Many birds had undergrizzle-like flights. No hens to date have been bred that look like Charles' original hen #2 above. However a number of the cocks that Mike raised do appear quite similar but lacking spread factor. Mike has had some pure white males that have died indicating homozygosity for a stipper allele causing a lethal condition. Charles has not yet made a mating that will bring about the possibility of any sons homozygous for the trait in question.

The Chalky trait is a Dominant sex-linked trait. Hetero males and Hemizygous (pure) hens look quite similar, distinguished by slighter lighter flight feathers.. Intense blues appear smoky. Pure males are near white. This trait is very similar to Faded. Dilutes appear more brownish in overall tone. Homo blacks can look like both hetero and homo black Qualmonds. Chalky is a Dominant.

The Frosty trait (St^{fr}) Gibson, (St^{fy}) Kvidera , It is one of three alleles near to Faded. Frosty does not express on the hens to any significant degree. Pure cocks have a "frosted" appearance . The outer three or four flights usually appear lighter. Pure males are lighter but not white. Frosty seems to be a recessive gene.

We can see by each of the above descriptions , that they do not adequately comply with the various phenotypes that have been produced by the Birds in question. Cocks and hens of each phenotype must be isolated and additional testing to perhaps barless browns needs to be carried out to come to a conclusion for each.

TOPIC : UNIQUE PHENOTYPES.

Here is a somewhat unusual trait not so much due to the trait itself but the Breed it is expressing on.



It appears to be a blue Tiger grizzle Lahore pigeon . We know that heterozygous Classical Grizzles are seen in the U.S.A. , but this is the first Tiger (Mottle) phenotype that we have seen in this Breed. It was advertised for sale in a Group by "Em On" The Symbol of Peace . I shared it on my Group "Unnamed Unique Colour Traits of Pigeons". The white of the shield follows the joint regions of the wing (elbow and wrist) , these are the areas also first to change colour from juvenile to adult colour, often more noticeable on reduced , Dirty factor , Ember , etc.

[Charles Kendrix](#) There is a gene that causes a very heavy flecking in ash red cocks that carry blue or brown. It is called speckled. The hens are not supposed to show the gene, but if I remember the conversation correctly Joe Kincaid told me he had produced a hen that showed the flecking too. I have a blue/brown almond cock bird from Joe that is supposed to have this gene from his mother. On the almond the gene is not very evident. [Axel Sell](#)'s book indicates the gene is a non-sex linked dominant. I think this cock needs to be paired to an ash red hen to segregate out the speckled gene from the almond so that it can be clearly demonstrated. I have not bred anything down from the cock Joe gave me yet.



Charles' Almond /speckled

Ash-Red checker and Spread factor "Speckled" by Paul Gibson.

The "Speckled " gene is truly Unique , it causes flecking that looks more like someone took pepper and sprinkled it all over a white bird in the case of spread factor ash that is hetero blue/black , also in the case of Ash-Red bars and checks that are hetero for blue/black . The last two photos were taken from Dr. Lester .P.Gibsons Book .

TOPIC : RIBBON TAIL .

This is another topic that we have touched on a number of times in previous issues . The Ribbon Tail trait is a direct reference to the whitish sub-terminal tail band of Ash-Red birds. Many people become confused with the Lebanon Ribbon Tail . They are both Ash-Reds , and they both have at least one bronze involved in their genomes , but there are differences , so it is not correct to assume that all ribbon tails are in fact the Lebanon Ribbon Tail trait.

Tests on the Lebanon have revealed that the extremely white Tail band and white effects in the flights are attributable to perhaps several known genes.. Lebanon bronze is also a very richly coloured bronze.

The symbol of this bronze was given as (Kl) Kite lebanon.

Hollander found Ash-Red , Checker , Kite and Sooty in Lebanons he tested.

Gibson Said possibly only one simple recessive trait as it is lost in the first generation of a cross to wild type, and is dependent upon Ash-Red in order to express. He was able to recreate the same effect on Ash-Red Archangels , and Rollers. He was not able to find any specific bronze in Lebanons.

Gary Young suggested a recessive bronze gene dependent upon Ash-red that was lost when combined with Blue or brown series. This bronze seems to be specific to Lahores , Indian Fantails and Lebanons.

The tail band and flights appear to be affected by a trait similar to but not the same as Oriental Frill Stencil (fr) , and no recessive red was found in the Lebanon Breed.

The Ribbon Tail Band on Indian Fantails and other Breeds is less white due to being actually smooth spread ash. The white effect can be enhanced with the addition of bronze tones , HOWEVER ; the addition of recessive red will actually defeat the purpose by darkening both the Tail band and flights to a grayish tone . (Below JR Thompsons post on Genetics Pros & Cons).





Years ago there was an attempt to produce the first Blue series Ribbon Tail , but what Breeders did not realize was that the tail band was actually ash , thus as such only possible on Ash-Red base birds . However other traits made similar white tail bands possible on Blue Series birds . Indigo, Dominant Opal , and frill stencil each created a similar phenotype on blue base .



The "Lebanon" , photo by Layne Gardner .

TOPIC : EPISTASISM .

We often hear the term Epistasism or Epistatic being used in Pigeon genetics. The meaning is simply that one trait "MASKS" , or hides , covers , another. Some people will argue that there are three traits that are fully Epistatic , and cite recessive red , Spread factor , and recessive white .

Personally , I will argue until the cows come home against the idea that a white pigeon is expressing an epistatic trait. White does not Mask , hide , nor cover anything. White is the result of TOTAL DEPIGMENTATION. We do not see any colour because there is NO COLOUR present ! Genetically, the bird is still a coloured bird , but none of those pigment cells / granules have been expressed in the feathers , and in the case of a recessive white , also not in the skin , beak, toenails , foot scales , nor eyes. Jith wishes to go on record as saying recessive white IS an epistatic trait.

Recessive red is an EPISTATIC trait , however it is true that it usually would not be "COMPLETELY EPISTATIC" unless man had selected to achieve that effect. Addition of other modifiers also has played a role in intensifying the epistatic effect. An unimproved recessive red is quite unusual and I recall someone having been very excited about a rare find and presenting it to Paul Gibson for this Newsletter about the same time as I had described to him a bird I had seen in my Feral study flock of wild birds. He exclaimed , " I do not know what all the excitement is about , these are simply unimproved recessive reds". They had very little "red" colour as we know it in show specimens . The main shield and body areas were more of a smutty tan . The flights and tail also were tones of smutty tan. The wing tips were either cream, tan or blue . The neck showed the most red. Pattern was clearly visible.

Below : incomplete recessive red masking - Blue bar Bob R., Ryan Harvey , check Walter Wojcieski, complete (e) Spread blue Mick Bassett photo, and , pure (e)Gimpel Blackwing kenneth John Hibbert.



Spread factor birds are also considered Epistatic , but again they are usually "IMCOMPLETE" which allows us to see the patterns clearly. This can be very obvious to almost indiscernible . Selection again is required to get the full epistatic effect, as well as the addition of modifiers that darken.

Below : incomplete Spread factor masking -Blue bar Ryan Harvey , Jith Peter & Gary Keith , then complete spread blue/ black , and spread blue Gimpel Blackwing Mick Basett photo.



I had once stated that I felt that the "ECRU" mutation also is Epistatic , and after making that statement public , I found a comment to the same effect in an old Issue of our Newsletter when Paul was Editor , as he suspected the same . Other people who work with it feel certain it is not. This photo study chart demonstrates what I mean. **If indeed Ecrú is ever bred to be totally epistatic , it will be the first sex-linked trait that is epistatic to pattern. Even now It challenges breeders to tell pattern and colour.**

Below are : Ecrú Bar , Ecrú Checker , Ecrú Spread blue , Ecrú Gimpel Blackwing,



and Ecrú recessive red . (first three by Andreas Boisits, 4 by Tim Kvidera, 5 by Robert Mangle .)



We can see that it may be possible to selectively breed Ecrú to totally mask any pattern or colour .

People may argue that it's a matter of photo lighting , but I can show you the same series in darker , and in brighter light with exactly the same effect overall epistatically speaking.

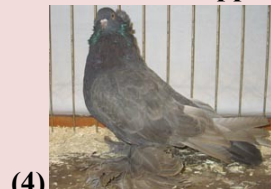
It is impossible however to select Pale phase or dilution phase to do the same thing, pattern will always be clearly visible . Below are : dilute blue Bar Sazid Chy, Check David Wenrich , Incomplete spread (Dun)(3), Spread dun(4) , dilute Gimpel T-Pattern Tim Kvidera, and recessive red/yellow Mick Bassett photo.. (**Note the clearly defined patterns and great variance in colour tones!**)

Silver Bar Sazid Chy , Silver Check David Wenrich , Incomplete spread Dun KC Kennels net. '10



(3)

Dun Gentse Kropper.be net., dilute Gimpel Black wing T. Kvidera, recessive yellow Mick B.



(4)



A Grizzle factor which partially resembles Baldhead (pied factor)?

Occasionally we come across genetic traits which at first do seem quite familiar to us, but when scrutinized further, sometimes we stumble upon the anomalous characteristics. I have been after a genetic trait that is present in a breed, which found its niche in the Indian subcontinent and Afghanistan, quite a while now. Some of the information regarding the breed may seem germane to the discussion; however, since probably the breed is new to many it is worth mentioning a bit about it. Whereas the breed is commonly known as Jogi, it is also known as Jogiya in some parts of India, and it is possible that there may be more names to add. The word Jogi with Urdu origin, literally translates to Hermit in English, Sannyasi and Yogi are the Malayalam and Hindi substitutes for the word. It is very probable that the breed was named after its white head, which is similar to the white, long beard and hair of the Hermit (Jogi). Albeit placed under one umbrella, the different strains of the breed do show some variation. Some of the birds, for instance, photographed from Afghanistan seemed as large as a racing homer if not bigger than that, whereas birds from Pakistan and India which I have seen were considerably smaller in size. It comes under Gola pigeon breeds. Fanciers are interested in performance rather than other physical qualities such as size, shape etc and the word “Standard” is still alien to many. Among the commonly seen colours in the breed, red and yellow are very common, followed by black, and blue is the rarest. I remember seeing a few other colours as well, and I think they are even more rare.

As I mentioned earlier their head is white, the colorless area varies, on some up to the belly area, but most have white right below the neck similar to that of a Capuchine. The white on the head of these pigeons is rather unique as it shows the full expression only after the first molt. They usually are colour headed in the nest; even so, after seeing some young birds in the juvenile plumage, I have the impression that some of them might show some white on the head as juvenile; nevertheless, I haven't been able to confirm their age so they could well have started the process of molting.



Jogi pigeons from Afghanistan. Apparently whitetailed varieties are not uncommon in Afghanistan. Photos from Malik Hamsa from Pakistan.



Some birds from Pakistan. The white on the shield of these birds are the result of plucking.



Some squabs with no signs of white head. Photos from Malik Hamza



A young bird in the juvenile plumage and during the moult respectively, bred by Omar Farooq.



Some birds, which appear to be matured, showing pepper head similar to that of the South German tiger head, Tiger headed Lucerne and some other swiss breeds. The phenotype can be achieved by combining heterozygous classic grizzle and spread on blue T pattern; however, as we know birds with the previously mentioned genotype show grizzled head from the juvenile plumage , unlike what we have seen in this breed.

Much as one might possibly have the impression that it could be a pied bald head at first glance despite the stained beak and coloured eyes which is very common in this breed, the remarkable transfiguration from coloured to white head with the moult unarguably rules out the possibility of any bald head trait which was ever known to us.



Some Jogi pigeons with stained beak and coloured eyes. Bald head and coloured eyes are present in some breeds like West of England Tumbler.

I have been told that the breed also comes in blue colour;however, I havent seen one yet. This is what has been known to me for some time until in the recent past, I fortuitously came across some photos of Lalband with grizzled heads from the loft of Naseeruddin shoab, from Hydrabad. Further inquiry with him and Roni from Agra, with whom I also

happened to see birds with grizzling on the head, undoubtedly gave me the first impression that it could have the identical trait which is present in Jogi, and revealed some intriguing facts.



Some birds with the grizzle head. According to Roni, birds with such grizzled head phenotype are called “Khera” in the North.

The white on the head of these birds appears only after the moult, just like Jogi pigeons. And it is possible to produce birds with white head(Jogi) from two grizzle headed birds(khera), similarly Khera can be produced by pairing a jogi with khera or normal headed birds. It sounds like it is a partial dominant autosomal mutation, doesn't it?. According to what I have been told, some Khera get more white on the head with each moult whereas, the Jogi usually moult in white feather all over the head with the first moult.



Three Lalband; the one in the middle being grizzle headed. Photos from Abrar from Hyderabad



Again a few grizzle headed Lalbands. First two photos are from Shoab from Hyderabad.



Some Lalbands with white head similar to that of a Jogi pigeon. Photos on top from Shoab and the one right below is from Roni Agra.

With the information available to us, my conjecture is that it could be something new and be placed in the grizzle category in the future.

CU all in June !