The Pigeon Genetics Newsletter, News, Views & Comments.

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(Founded by Dr. Willard .F. Hollander)

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Topic this Month may be fitting for at least half of you who have cold winters , ICE. The gene that changes most of the feathering of Pigeons to a soft silvery whitish tone, we refer to as Ice factor.

Ice is a partial dominant that significantly effects the 'clumped' pigmented feathers but not the condensed smooth spread nor the Coarse spread areas. Therefore the tail band and wing flight feather ends are not affected nor are the 'C' patterned areas of the wing shields. This makes Ice different in phenotype from other mutations such as dilution and milky factor.

Dr. Paul Gibson states that Ice seems not to be as simple as many partial dominants in that the F2s are quite variable in colour with the males darker than the females. When Ice is crossed with 'Blue' , an intermediate is usually produced with the occasional offspring not discernible from Wild type.

Another feature that Paul mentions is that the quality of the ICE expression seems to be governed by another gene that expresses as a dark breast crescent on some wild-type birds and not others. If this crescent is present then the chances of creating very nice white Ice phenotypes is prevented, and a darker blue ice is common.

The crescent rarely shows on Blue/Black wild type but in the dilution phase a bronze crescent is most likely. On ash Reds a brick red crescent will be seen on some specimens.

Ice is not as pronounced on Ash or brown specimens as it is on blue series.

Squeakers - Ice factor, bred by **Raza Pigeon Loft**.

Photos taken by **Mick Bassett** in Germany -Ice Pigeons in Checker, Ts Spangle and Barless.






Reza Pigeon Lofts Checker.

Photos by Octavian Sarafolean - Breeder **Voiajori Colorati** -Romania. -Ice factor Racers.

Intense blue series Barless,

dilute blue series Barless.

There seems to be a number of other similar mutations that can be confused with Ice , as well as smoky(sy)., and dilution (d). A few breeders have been very certain that birds they are breeding are not Ice but look almost if not exactly the same. One example of that are the "Show Type Racers" that are a silvery white with dark tail bands and wing Patterns. Below another Ts spangled Ice Pigeon.

The "Ice Pigeon" is a particular BREED with that name. This one was bred by **Stephen Scott** of NewBrunswick Canada. It is actually a full complex Toy Stencil without the frill stencil gene that would affect the flights and tail band.

Below we have a couple of photos of the Damascene Breed . Here is a dark skinned breed that even has plumb or blackish orbital eye skin / ceres. Note that the tail band and flights are not affected as well as the Coarse spread of the wing bar pattern. The rest of the bird is however a silvery white Ice in good specimens. Photo from a Facebook Group, but I misplaced Owner's name , please let me know.

A number of kind words from YOU !

From **Aris Zikos** - I want to thank you again for your time and effort you invest in the epgnl.

From **Frank Seip** -Thank you fellows for these wonderful literatures and wish you both a great season. Frank

From **Tyller Milan** - Big thanks for First Issue 2024. Let me wish you happy new year 2024.

From **Amal Sadanandan** - Greetings of the Day! Happy New Year! Wish you a happy, healthy, and content 2024. Thank you for the newsletter. Thank you for the service you are doing for the pigeon world. Kind Regards.

From **Joost de Jong** - Thank you Bob, I wish you and you're a very good and healthy 2024.

From **Terry Lapointe** - Thank you so much Bob! Glad you're back helping out, I'm always so happy to receive and read through the email every month! Terry

From **Jens Stinner** - I hope you are fine and that this is still your valid email address. My name is Jens, a breeder of rare coloured homing pigeons since 28 years and situated in Germany. I am currently occupied with the colour transfer of the afghan Patain / Patin pigeons to homing pigeons. They are similar to the Kaabre / Khaal Guldar pigeons of your actual newsletter and so it has been an informative pleasure for me to read. As I do only get your newsletter sometimes, forwarded by other breeders, I wanted to ask if it is possible to get registered with my mail address and get your newsletter automatically every month ? Would be grateful if you could make that work somehow as I am not on Facebook or social media. With best regards, Jens

From **John Kieft** - Bob, I completely understand your frustration. I am your age also and everything on line keeps getting harder. Thanks for all your hard work and the great newsletters. John Kieft West of England Tumblers .

From **Larry Jolly** - Good Morning Bob! No apology is needed, or in order. We appreciate your dedication, and excellent work, on our behalf. No one will have any complaints, for a delay. THANK YOU! For all you do, Larry Jolly.

From **Jeff Butler** - No need to apologize Bob. Appreciate the work you do. 50 years breeding pigeons 37 with Chinese Owls.

From **Ken McFarlane** - No need to apologize Bob !! Keep doing what you are doing. I just love the reading!! Regards .. Ken McFarlane, New Zealand.

From **Mike Vito** - I do not know how you are able to continue to publish this newsletter each month. Between age, apathy from the hobby and any other number of issues, it must be difficult. I am wondering why you continue to try to maintain this schedule. Would it not help immensely if you published a quarterly newsletter? Information would still be circulated, more

slowly, but it would give you an opportunity to amass information without as much pressure. I know I speak for many people when I say thank you for your effort! Maybe you should try to ease the burden of these quick deadlines somewhat. Best of the season to you and thank you again for your efforts. Mike

From **Jacquine Skippy** - Hi Bob, Could you please add me to the Pigeon Genetics News, Views, and Comments mailing list? I'd appreciate it!

From **Al Haji** - Hi sir, I'm very much interested to know the color genetics. So please provide me the relevant documents and newsletters. Thanks in advance.

From **Quang Hien** - Dear Sir, Thank you very much for all nice documents. I'm very appreciate. Quang Hien.

From **Przemek Araszewicz -** Hello, please add me to the mailing group to receive the great publication The Pigeon Genetics Newsletter.Thank you very much and best regards; Przemysław Araszewicz .

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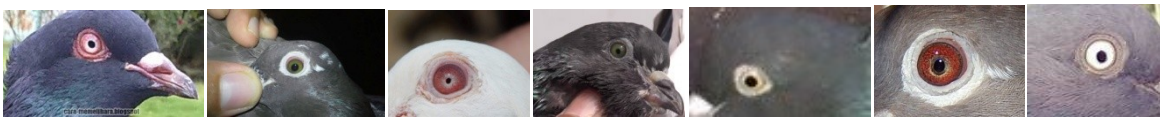

Recently on the Group "Pigeon Color Genetics", a question was posed regarding the eye colour of the self coloured breeds that appear to be bull/ or black, as we see in some piedbalds and in recessive whites. They were interested to know if the "Dark eyes" of the Swiss Pigeons and Nuremburg larks is the same gene as the dark eyes in Arabian Trumpeters.

Firstly I should point out that these "Dark" eyes are NOT the same as the Bull eyes. Bull eyes are said to be the result of Black granular COLOUR PIGMENT , so we see that region of the iris as black. These may appear bluish in natural light because of the way our atmosphere holds sunlight to make what we see as blue sky. Hollander referred to the black as 'black pigment' on the inner side of the iris. I have seen it described as : NO PIGMENT COLOUR being reflected back at us.

Axel Sell writes that the Dark eyes of the Thailand Trumpeters Gary Philmore '92, and related Arabian Trumpeters Sell '98, are recessive to non-dark eyes. The dark eyes of the Arabian Trumpeter were given the symbol (da), and proven to be epistatic to pearl and wild-type orange. In 1992 Gary Philmore had shown that dark eyes of the Ice Pigeons were epistatic. I think that it is safe to say that any of these breeds with "DARK EYES" all have the same genetic activity regarding eye colour pigmentations. However, I bred Indian Fantails that were all Orange eyed Ash-Reds. The Males carried blue/Black. I out-crossed to a bull-eyed Pied grizzle Racer that carried recessive white. Several generations later I got one male youngster that was a very dark blue/Black T-Pattern with what appeared to be "Bull" eyes. I mated him back to an Ash-Red
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Indian Fantail hen with orange eyes and got an Ash-Red Cock with orange eyes that later bred to his dam produced an ash-red hen with the 'Dark' eyes. On the ash they were decidedly chocolate brown as opposed to Bull/Black in colour. I had many projects on the go at the time so sold the birds to a fellow who later moved and simply let all of his birds go free to fend for themselves, so I did not get to do anything more with that particular trait.

Dark eyes are usual with the colours referred to as "Atlas Bronze" (ab), and Lark Bronze (Lb).

Meaning of epistasis - The suppression of the expression of a factor by an unrelated factor / gene.

This meaning in mind, I question how Dark eye can be considered an epistatic trait to any other eye colour since they are related factors. It is not a specific colour separate genetically from any of the others but rather one or more of the standard colours showing through together with some of the black background plus usually some red blood vessels. We see the admixture as dark or brown. If you mix black and Orange or red/Orange together , you get chocolate brown.

Generally speaking the genes that affect skin and feather colour are different than those that affect eye colour. In some cases there are slight relationships between the two.

Dark eye Coburg Lark by **Tally Mezzanatto** - photo **Layne Gardner**

Dark eye with some orange showing through - **Shirazi Pigeons** photo.

Photo - **Robert Michael**

Photo- **Mick Bassett.**

Project by **Shoibal Sabbir** Co-Editor Jan. 2024.

X

Many of you know that **Shoibal** has taken a Breed (the Classic Old Frill) in his Country of Bangladesh where there are limited Breeds and colours within Breeds to choose from, and he has introduced a variety of new colours to them. One example that we have shown previously is the (St) gene plus Almond components added to the genome and thus the phenotype of some of his Classic Old Frills. He has also developed this Breed in colour traits other than frill stencil or the complete Toy Stencil complex, such as solid Spread factor and recessive red/yellow birds. He has been a leader in his Country for innovative developments in various colours . I think this sort of open minded approach is so important in helping all of us to learn new ideas and discover the facts about old ideas.

The f1's of the above cross are the beginning of his efforts to place the Ice factor into his Classic Old Frills using a Damascene. These first young of course are simply Solid spread factor blue/BLACK with the partial dominant Ice gene. The one pictured has more body sheen than its sibling brother. We will follow the project to see what sort of effects he achieves. This is not the first time the stencils have been applied to Ice in the Damascene Breed , so we expect it will have its most attractive effect in the Blue Barred and Checker specimens where the pattern will allow the most expression of the stencil genes.

There are other Breeders presently working with the Toy Stencil trait in particular , but often the frill stencil gene comes along with it as the two were combined to give a wider range of whitening other than just in the coarse spread pattern "C" areas of the shields. The Racing Homer Breed is usually the Breed chosen for such a breeding program. We will be covering some of that work in future Issues. **Porumbei Colorati** of Romania is presently testing a theory that he has regarding Toy Stencil , so I will not say any more on that just now. When he sends me his results , I will post it in a future issue.

Breeders have asked me why they see such a wide array of effects with both of the 'stencil' genes. First of all we have to look at exactly what each one does and to what areas of the feathers do we see their effects. Frill stencil (fs) is a recessive gene that is quite unpredictable in that we can never be cetain what we will get and thus quality of expression can be very discouraging. (Frill stencil affects mainly the tail and flights. The reason for that is that it has its greatest effect on condensed consentrations of smooth spread. We find that in the tail band and also near the ends of the flight feathers in its most abundance., but here we also may find a thin line of Coarse spread around the edges of the band.)

Frill stencil may be seen in the area of the bars and checks as a fine line along the coarse spread pattern which confuses people as they think the "C" areas are only Coarse spread. It is actually finer granules than smooth spread. However I think that we will find also a thin line of condensed smooth spread along the edges of the pattern "C" areas which may allow for the expression of frill stencil there. This is not true of the Tail band where a thin line of Coarse spread encircles the condensed smooth spread which causes the tail band to show as a 'moon spot' as opposed to a full band marking on specimens that are only frill stencil. The thin line here stays black and never bronze or white. The reason is that these fine lines do not have enough pigment cells to allow the white or bronze respectively to express.

This Indian Fantail appears to be similar to Undergrizzle and Flash , but subtle differences help us to tell just what we are looking at. *Undergrizzle does not have pigment extending all the way down the center rib of each feather. *Flash does but does not express as evenly and also does not extend to feathers over the main shield nor the shoulder area. In fact usually not the Tail Cushion either. Frill Stencil combined with spread extends from just a spot tail to these full tail feather markings due to the spread factor masking effect placing smooth spread throughout all feathers. It can be selected in the homozygous state to virtually whiten the entire bird with just a faint lacing on all feathers. The fact that it is masking over one of the checker patterns explains why there is so much black expressing. These juvenile dark eyes will change. - Photo **Ahmed**.


This photo is of a Ts1 Toy Stencil Bronze "C" area Bar Pattern of a Gazzi Modena bred by **Jith Peter** , we can see that the Ts1 expresses on the coarse spread granules of the Bar but there is a black line along the back edge of each feather pattern. This is what I am quite certain is condensed smooth spread that does not allow the expression of any bronze gene. Note that also you will never see Ts1, or Ts2 expressions in the Tail Band area even though there seems to be a thin line of Coarse spread around the outer edge of the Condensed smooth spread area. The explanation for that is difficult to give as theoretically one should see a small amount of bronze in that circle. I can only surmise that there are not sufficient numbers of coarse pigment granules there to allow us to see any bronzing so it still just shows as black..

Shoibal Photo Intense

Shoibal Photo - dilution.


Sooty blue bar Ts complex showing the black soot markings as well as the thin black bar edging , all of which I feel certain will be found to be smooth spread. Even the Sooty marks show as black unless they are larger which will then allow them to express as white with a thin black line around them. Photo **Hunkari Aksaray**.


Here you can also see that the thin black bar edging matches the ends of the secondaries which are also black smooth spread, so the second bar is only half coarse spread.

This photo is from the net , so photographer/breeder unknown but it demonstrates another region of feathers that may sometimes express what I feel certain is coarse spread. NOTE: the black band extends right out to the tips of the tail feathers to make a very wide tail band. Then if you look at the basal area of each tail feather , you will also note that there is a patch of black pigment there that is not seen on all birds. This is the area that if present on Almonds will express bronze so we know that it is not condensed smooth spread. On Toy Stencil birds it is white resembling (Ug) Undergrizzle. I think that if we were to examine Ice pigeons that have a dark breast crescent, they will also have these black tail patches basally. Dirty factor (V) may also be involved.

Ice factor - **Icon Lofts**.

I have read comments that stated that the feather 'bloom' is so extensive on Ice factor birds that they leave a chalky dust on everything they touch. Testing by handling them with dark coloured gloves will result in whitened material from the dust. This suggests that they would be much more likely to cause 'Bird Breeders Lung Disease' , a severe allergy, if loft is not extremely well ventilated.

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Three Swiss Breeds that usually have 'dark eyes' despite their self colouring patterned series.(**Levi**)


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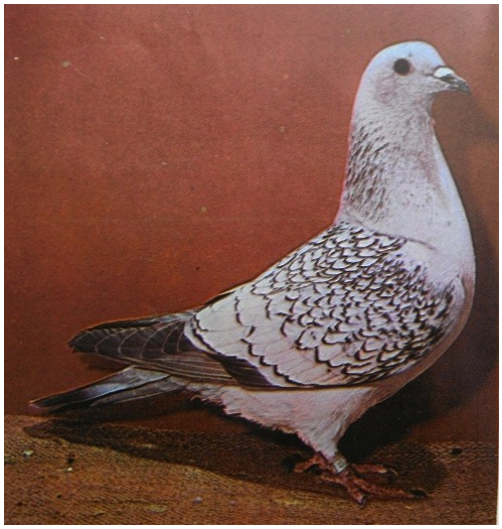
All photos from **Levi** show a few breeds that usually have 'dark' eyes. The South German Moorhead may have orange or dark eyes , the latter seems odd with a Black or coloured head but that is not so unusual. The Arabian Trumpeter is very similar in overall colour to my part bred Indianfantail mentioned earlier, here again a dark eye with self colouring in a saturated T-Pattern.

This Ice Pigeon belongs to the German Toy Group and must have Dark eyes referred to by standard as "Bull" for barless and the stencils. The checkered specimens to have yellow or Orange eyes. The white bar and spangling is due to Toy Stencil.

Below are two Checker Pattern called "spangled" again due to the full complex Toy Stencil genes., and another Barred Ice plus two Damascenes for comparison, all from **Levi's Encyclopedia of Breeds**.



Damascenes are to have deep gravel or bright RED eyes.

That brings us to the end of another Month. This short Month will see us back here in 28 days.