

Newsletter December 2019.

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

(Founded by Dr. Willard .F. Hollander)

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TOPIC #1 :

This Month we reopen another "Can of Worms" with the Topic of the term Baldhead .

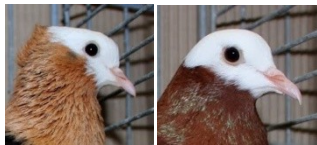


painting & photo Bob R.



This TRAIT has a variety of phenotypical expressions. It is interesting that they all produce the same or very similar expressions in the heterozygous state despite being quite different in the pure state.. Let's examine that in more detail.

Firstly the expression we call "white head" This trait is seen in the Mooker, the Saxon Monk , the Archangels and some Pouter/cropper Breeds.... Here the line of demarcation runs through or slightly just under the eye from the gape of the mouth to the backskull. The heterozygous form usually produces a white band at the back of the skull to approximately half of the back skull region.



Photos : first two Mick Bassett ... & last Steve Scott.

When I mated a Saxon Monk to a Lahore , the resulting offspring had full baldhead Designs with a range of markings from what is generally deemed typical to very deeply extended white down the neck . The offspring , when mated to wild type again produced the typical white band across the back skull region as heterozygous baldheads.



this hen mated to a self feral produced this hetero bald -



Photos : Bob R...

Tests by Paul Gibson lead to his statements that a Baldhead Design required the dominant gene "Pied" (Pi) that only expressed in combination with other factors that in turn produce the phenotypes we recognize as Pied traits. Pi//Bh, Pi//Bh would be a pure Baldhead Design with Pi//Bh, +/+ being the hetero state. Pi//tr would be a recessive turbit (saddle) Design , and so on .

One project that a number of Breeders took on , was to place the white head Design of the Mookee on the Solid black Indian Fantail. They quickly became disenchanted when they got a number of oddly pied marked heads in the hetero and homo stages. This is almost certainly because there was at least one other pied factor involved in the ancestry of their black Indian Fantails. Stringent selection MUST be carried out in such breeding endeavors !

TOPIC # 2 : Where are we headed ?

We have touched on this subject before at various times , but we think it is worth repeating the question again! The thought comes from the idea that so many people are now breeding for UNUSUAL colours , and in so doing , they are using many of the new recessive mutations in their colour breeding programs . The concern is that we may eventually lose some of the original Intense colour traits. Birds that CARRY recessive traits quite often are affected by those traits so that we can see them in the phenotype as well. This degrades the Intense phase. We are all familiar with the effects of dominant modifiers such as the 'bronze' factors. We have seen the effects of heterozygous recessive red. Now we may be faced with multiple recessive traits and no return to the top quality Intense phase in some of our popular show Breeds that we once knew.

These new multi- modified specimens , while interesting , and pretty, are often a challenge to tell one from another. Not only that , but we are often hard pressed to decide just what genes are involved as the phenotypes are virtually depigmented to the point where there is not much to go by ! When someone says that a bird is a reduced ash-red barless frill stencil stipper hetero for dilution , who is to say they are correct or not ? Try comparing that with a rubella ash red dominant Opal barless classical Grizzle . It already is not uncommon to see very similar phenotypes that have completely different genotypes!

Some Breeds such as the ORIGINAL Lahore Pigeons were well known for their superb true colours in both Intense and dilute phases. Then the Breed got moved to many Countries and not only the Size , type and ornamentation changed , but the colours became "mudded" . Grizzle factors , Bronze factors , as well as just simply uncontrolled mixing brought about a great many poor coloured birds and loss of the purity the Breed was so well admired for in the past. Once that happens , it is almost impossible to recover unless there are some 'purist' breeders still hanging on out there to help recover what has been lost! Think about what you are doing , and always try to keep a few pure colours in your Breeding flock unblemished by carried modifiers.

TOPIC # 3 : The next topic deals with another trait we have covered many times in the past. **Octavian Sarafolean** offers the following photos and comment on the second mutation at the Sox10 gene locus where we have recessive red. This is the allele Ember.

Octavian wrote : A few het ember het rec. red birds from my loft. 2 adult males, and rest of them are 2019 youngsters in different stages of moulting

{Editors' : The Ember mutation is an allele of recessive red at the Sox10 gene locus on the chromosome. It is slightly dominant over recessive red , thus the symbol (e^Em) . Embers are born with recessive red feathers in the nest but usually appear as poor quality recessive reds or unimproved recessive reds, then moult to show a reversion to the base colour and pattern. If no change occurs they are pure for recessive red, and if they revert to base pigment and pattern with red flights and bars , they are pure Embers. Embers can be hetero for recessive red because they are slightly dominant over recessive red thus two Embers can produce recessive red offspring.. Embers that are hetero for recessive red usually express more red as adults than pure Embers. A recessive red cannot be hetero for Ember , therefore two recessive reds cannot produce an Ember (unless another mutation occurs), even if they are both from an Ember pair. . That would be like saying a Blue bar can be hetero for Ash - Red.

In the photos below , note that the tail band is red also , this may or may not change in the moult. The flights however should always remain red giving rise to the name Ember implying the resemblance to the red burning embers in a fire pit.





We will cover this mutation in complete detail in an Issue in the coming New Year !

TOPIC # 4: This comes in from **Bobby Corrales**. {Edited} Is this Fade ?



Bob Rodgers - I assume you mean the allele 'Faded' at the Stipper mutation locus. The bird appears to be a dilute blue series checker . Faded is an auto-sexing gene based upon phenotype. Hetero males and hemi- females appear quite similar. Patterned males pure for faded are white with the dark flecking mainly on the neck area. In the case of spread factor , they (males homo for Faded) will be white with the Tiger-like flecking all over.

Mike Bordelon - I have Chalky dilute that look like this. (first photo).

Bob Rodgers - The second photo requires some information about the parents. This could be early stage Dominant Opal in which case the striations in the tail feathers will not be there after the moult, IF this is a youngster. Similar effects have been known to take place in birds that have been exposed to a virus while in the nest. This also could be a mutation such as Rubella , or Rusty.

Bobby Corrales - This is not a young bird. There is no Dominant Opal. Mother is Indigo bar, and Father is blue Faded.



These photos drew quite a few comments and various ideas.

MD MeDez thought it most likely would be a Faded young bird as the Father was the Dominant trait Faded. Bobby .C. stated it was an old bird.

Ryan Ward agreed with my comment that it was fret marks causing the tail striations and Brian agreed.

Brian Parchmont - Are you saying Ryan , that the fret marks were because the bird was stressed as it was growing? I ask because I've had birds that are just like this. It's always been on young that are having a hard time or have been sickly from the time they hatched. I've always figured it was from the lack of something or being stressed.

Ryan Ward - Yes Brian , that is correct !!

Ryan Harvey - Yes, young bird coming into its adult feather. You are right , you can see the colour change in the shield as well. Will moult into a different coloured bird, Indigo. Mother is Andalusian.

There was some discussion regarding the tail striations :

Cliff Hastings - Hawk tail marking.

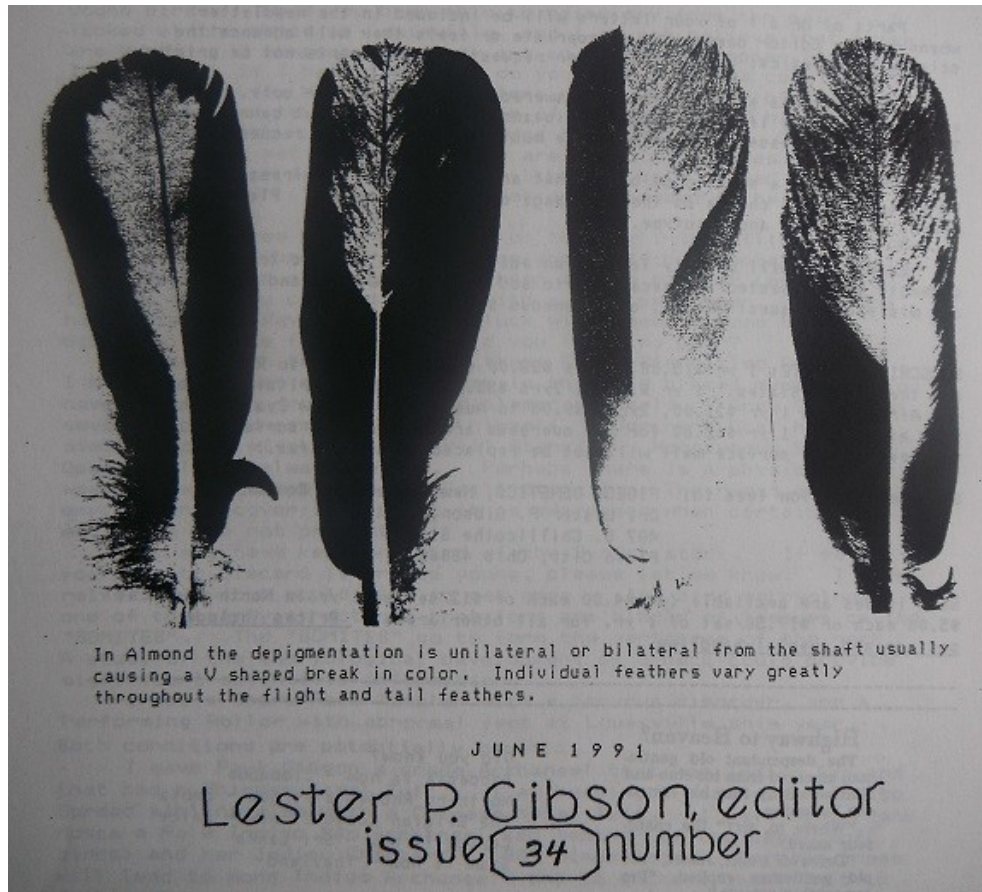
Adrian Stanciu - The striations on the tail are specific to recessive opal.

Mike Bordelon - I have Rusty , but it only breaks the tail band into stripes.

Ed: {I went back to old Issues of the Newsletter to extract some photos and comments on Rusty and feather striations in general.}



TOPIC # 5 : This is from an early issue of this Newsletter demonstrating Stipper break!



Here you will note that Dr. Gibson refers to the stipper white regions as the 'break' in colour , June 1991, so again showing that I am not the only one to use that terminology.

Some people have stated in the past that traits such as the stencils , the grizzle family , and even ash that is hetero for blue or brown are in fact expressing BREAK. This is of course nonsense , in an attempt to somehow justify their incorrect use of the term break when attempting to describe the variation of colours remaining expressed on pigeons as a result of the 'Stipper' gene being present.

I have spoken with Breeders who have exclaimed that now that they realize that the 'white' is the actual "BREAK" , they have been able to make much more sense of their breeding results in a very positive manner.

TOPIC # 6 : Question from **David Warren** regarding the effects of both Dominant Opal (Od) and recessive opal (o). He asked : Does res.opal and dominate opal both have a light tail bar?

Bob Rodgers replied ~ The short answer is yes .. Both tend to wash out the sub-terminal tail band smooth spread. There is quite a range of expression of this in both, but in Dominant Opal in particular. Both may have what looks like 'fret' marks especially in the tail as youngsters that will correct themselves after the moult.

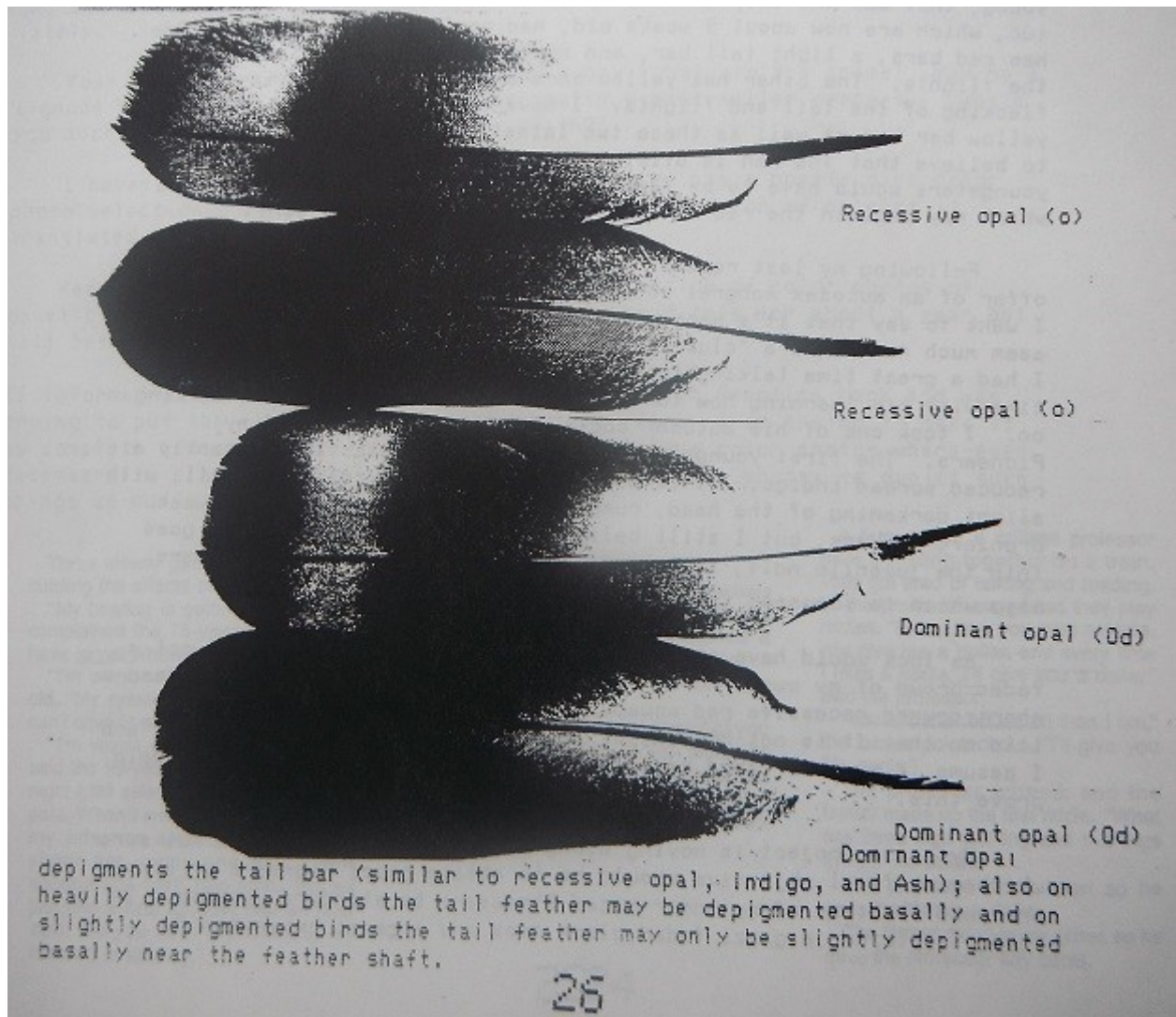


Diagram from an older Issue by Dr. Gibson to show the feathers of both traits side by side.

TOPIC #7 : This topic comes to us from **Quido Valent** of the Netherlands. He writes: I have got myself my first bi-side (chimera or mosaic, can't tell)! In pic. one you see her right side, pic 2 is her left side. She is a smoky blue, most likely hetero Dirty, but on her left the Dirty seems absent. Now in pic 3 you see another oddity: her tail tilts towards the 'Dirty' (right) side. None of my other pigeons show this, so I was wondering if such physical effects are more often seen in combination with effects on colour.

I am asking, as she is a nice bird and the chimera/mosaic effect has a good chance not to inherit. Should I risk breeding from her?



My response : Personally I would avoid hanging on to the slightly arched tail as it is a difficult fault to get rid of in supernumerary tail feather Breeds. I cannot see the other difference well in the photos. .. She certainly seems smoky and I would guess homo dirty despite the light beak, but cannot see where it appears non-dirty on the left side.

Quido Valent : The bars on the shield are much more vague (Almost not there).

TOPIC # 8 : The Topic of the grizzle family frequently arises , and the reason is that there never seems to be a definitive solution to the many apparent contradictions between the written descriptions and the Pictorial images.

Our plan in the New Year , as we told you recently , is to feature one Topic only in each Issue throughout the year. This hopefully will bring together every know fact about each featured trait.

The grizzle family is probably one of the most complex. Hollander concluded from his tests that Tiger grizzle (G^T) was the initial mutation , and that all other forms mutated from there making them autosomal alleles of Tiger. If we consider that any of those mutations may be either dominant or recessive to Tiger , then we also must consider that the recessive forms can be carried hidden (or partially so), by the more dominant forms. The question then that must be asked is : will we be able to see the influences of the carried allele in the phenotype of the more dominant forms.

An example might be ; if a Black(spread factor blue series) bird carries a classical Grizzle (G) on the opposite chromosome , is there a chance that we may see its (salt & pepper) influence on the normally typical (whole colour & pure white feather) phenotype of a true Tiger?

Here is a photo submitted by **Robin Hooper** on my Strictly Colour Genetics Group (facebook) , which while still being a young bird does express some shield feather that appears to be (salt & pepper) as opposed to the remaining whole colour solid black feathers and pure white feathers.



This bird may moult to typical (G^T), but I think it may be Print Grizzle. It is not typical (G).

This Month marks the end of another Year , and the beginning of a long cold winter for many of us. We hope that we can make those long cold days a bit warmer as we help you dream of those new youngsters arriving in the nest boxes come spring!

We leave you with some pictures that represent phenotypes that while appearing quite similar , all have different genotypes as reported by their Breeders :



Post by Liviu Constantin



Post by. Shoibal Sabbir



Post by Mike Bordelon



Post by Charles Kendrix same two birds different lighting.



That is it from Your Pigeon Lofts for the Month of December and the Year 2019. We wish all of you a Very Happy and safe Holiday season and a Prosperous New Year!

