



Black Whiteside



recessive yellow whiteside



recessive red whiteside

# PIGEON GENETICS NEWSLETTER EMAIL VERSION MARCH 2006

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Sorry about the delay folks. Finally got my computer back from repairs. It is funny, I have all the virus etc controls in place but the repairman said they found 141 viruses on my computer. Wow, talk about a sick puppy.

Lost the info written in the March, April, May and June issues. So I will rewrite and I will print off a copy of the email newsletters now as I get them done.

## The Mommy Test:

A Mom writes, I was out walking with my 4 year daughter. She picked up something off the ground and started to put it in her mouth. I took the item away from her and asked her not to do that. "Why", she asked. "Because it's been laying outside, you don't know where it's been, it's dirty and probably has germs" I replied.

My daughter looked at me with total admiration and said, "Wow, how do you know all this stuff?" "Uh,"...I was thinking quickly, "All moms know this stuff. It's on the Mommy Test. You have to know it, or they won't let you be a mommy."

We walked in silence for 2 or 3 minutes, but she was evidently pondering this new information. "OH...I get it!" she beamed, "So if you don't pass the test you have to be the daddy."

"Exactly" I replied with a big smile on my face and joy in my heart.

## GARY YOUNG WRITES: 12nov'04

Hollander's z locus was intriguing, but I never could quite bring myself to buy into it. Too many things lumped into one category – doubt very much that it is a case of multiple alleles. I think it's just variations of the same pied-marked gene. Some ancient breeder liked the Nun expression, so he mated the best ones together to maintain it – same with tailmark, gazzi, shield, helmet, and etc. Helpful modifiers were gathered over the years – centuries in some cases.

Then there are the mimics. The best Splashes for instance that I have ever seen, were Spread Almond like the one in the attached photo.



[Gary this does not look like Almond. The flights and tail should not be black on an Almond. Wrong picture??]

#### MICHAEL SPADONI WRITES: excerpts

Hi Gary, good to get into some discussions on z. We are saying the same thing, you do agree that they are the same gene, just as alleles are the same gene with a slight variation. [Bang, got yuh. Please! Alleles are mutations that share the same locus, not the same gene.]

I do agree that they are not clearly separated as crossing 2 of the recessive peds results in intermediates, rather than the more dominant of the 2, but this could just mean that in the company of another z allele they are codominant so both express equal amounts?

I have to disagree with you on that one [Spread Almond above]. I don't see Almond as it only has whole white or colored feathers, no feather shows typical Almond break. It looks like a typical hetero Tiger Grizzle.

A little more on recessive splash marking. [Michael sent a series of splash from dark to near white. These showed the result of variable penetrance as well as multiple gene influence. I could not get my scanner to scan in the pictures but if I am able to get this done before I finish this newsletter, I will include them.]

[Michael also had a hypothesis about the possible series of z locus including gazzi, shield, splash, nun, helmet, tailmark, rumpmark, and rec. white. He then states they really can't be put in this order.]

#### RON HUNTLEY WRITES

Gary, I do like it, I just don't believe it's a Spread Homozygous Almond. All the homozygous Almonds I have seen were near white with only a few flecks around the head. Tiger Grizzle would be hard to spot on a normal Almond, so it could have been there in the gene pool without your knowledge. If it were then your pair could have easily produced a spread blue (black) tiger grizzle. It would start out black and molt the white marking in.

#### GARY'S RESPONSE

I had the photo labeled wrong. Its sibling was the homo. Almond and it was nearly white as you say. This one is a Spread Almond. Sorry about the confusion.

EDITOR

Whether the bird is Tiger Grizzle or not depends whether it was colored in the nest and then molted in the white. I am sure it is not Almond. Several years ago, my Almonds produced an Indigo bar that molted to Tiger Grizzle. The odd thing about this was that matings proved it to be homozygous Tiger Grizzle.

RICHARD CRYBERG WRITES

I have these birds I call tiger grizzle. They for sure are not Almond. But they come out of the nest very light and molt in much darker. Yet everything I see on tiger says it works the other way. These are on both blue base and ash red base. The blues show a lot of bronzing. Any comments anyone? [Would love to see before and after pics]

MICHAEL SPADONI RESPONDS

I had some Hungarian Highfliers that were self white in the nest and molted in recessive red, the older they got, the more colour moulted in, 10 year old birds were virtually solid deep red. I think it was penciled with bronze? See picture. [Michael sent a very nice picture of the above bird, but again I cannot scan it. The bird was the pattern shown below but in deep red.]



And this is penciled.]

MICHAEL KRAFT WRITES 7nov'04

Rats! Here I thought I had something. Remember the Holle I showed you at the NYBS? The ones that had what looked like gold flecking on the wings? Well, when I got home and started to look for more of those colors and could not find any, that got me thinking about what I had done before I left for Louisville. Well, before I put the birds in the show cages, I disinfected with Oxine. As a test, I sprayed another bird with oxine, sure enough, two days later the blue bar I used as a test started to turn or I should say the wings turned golden. Well, it was a hopeful thing at best. I thought you would like to know.

EDITOR

Michael showed me a couple birds like the ones in the next pictures. I told him then it was the cause of some chemical but had never seen anything like it before. There was a speckling of golden flecks on both the blue and the Ash bird. I asked him what he had sprayed in his loft.

Thanks Michael for following up on this phenomenon and reporting back.



### FRED BARANY WRITES

In order to achieve improved recessive reds/yellows we need to add a few other genes into the mix. The only one that I am aware of is Spread, in order to achieve a more uniform coloration. What other traits are required to achieve the deepest, richest and most consistent recessive reds and yellow? What impact does the base color have? Does the pattern make a difference? What is the ideal set of traits that when combined, will produce a top-notch recessive red or yellow?

### MICHAEL SPADONI REPLIES: excerpts

Recessive red will be a much richer expression or “improved” if you like, by having Spread, T-pattern, Sooty, Dirty, smoky, any bronzes and Indigo. I would suggest that the more pigment producing factors you can add to the mix the better. Go for the T-patterns with nice dark checkering right down their backs or black. Smoky will lighten up the beak. I breed rec. reds to blacks. Kites often show up from these mating. Do your own crosses and find what is hidden under your recessive reds.

### EDITOR

The quickest and easiest way to get good even colored recessive reds is to add any bronze and black to the mix. Other things change the depth and color tone of rec. reds but these two are essential to good even colored rec. reds.

### BOB TAUSCHER WRITES

Doc Hollander’s z locus theory of multiple alleles has been on my mind all morning, especially regarding the mass of data recently presented in rebuttal. Oh yeah, what data, just statements like “I don’t buy it.”

I have listened to and taken part in private discussions on this topic since February of this year. The 2 most compelling aspect of this discussion for me are the facts that Doc Hollander thought enough of this topic to develop a working theory and that there is no available data to prove or disprove any portion of this working theory.

Rather than wade through an abundance of personal opinions on whether this theory can or cannot be proved, I’d much rather read reports of relevant statistical evidence. Toward this end I will be working with penciled, tailmark, and recessive white

this next breeding season. Hopefully by this time next fall, my data can be added to that of other members of this group and in time we can compile statistically significant data to support or refute this multiple z locus allele theory.

This challenge is before us all – who will give it a shot?

#### EDITOR

I have been working with gazzi, penciled, Undergrizzle, rec. white, and flash grizzle. Pencil and gazzi are linked. It takes quite a few young to finally get a crossover so the linkage sites are not close. Undergrizzle is a partial Dominant and flash grizzle is a recessive. I am starting to understand some of the innuendoes concerning the Pencil, Undergrizzle and flash grizzle.

#### BRIAN HECK WRITES 14 nov '04

For what it is worth, to my eye, these birds look like a gold (pale) and a yellow(dilute). What I think of as the dilute (the lighter one) is I think the bird from the May '04 Geflugel-Borse cover that I mentioned in an earlier message.

Both of these are beautiful expressions of bronze Blackwing Archangels. I just wonder whether they are both 'pale'. If not, we may now have 3 variations of colour in Archangels. (Intense, pale, dilute) rather than the 2 we are used to thinking about. If that is the case, then I suggest that we may need to start separating the pale and dilute birds into separate classes, especially if judges tend to prefer one expression when both are shown together. From what I gather from the American Archangel Club website, the lighter version is seen as a major colour improvement, and so it seems likely that judges will prefer the lighter expression. If so, and the difference is accounted for by one expression being pale while the other is dilute, then it makes no sense to show them in the same class.

#### GARY YOUNG WRITES

That is probably where I got the photo. I agree with your evaluation, but what I have been told, the lighter imports are pale not dilute, and that's what maintains the nice black wingshields. I know when I introduced dilute into AAs it lightened the wings also. Did you ever add reduced to those Spread AAs you got from me during the Salt Lake National show?

#### BRIAN H. writes

The mystery remains. Maybe it's pale with other factors.

#### DAVID WRITES: paraphrased

Maybe the Germans have added something to change the color. I found a site that shows what they call "bleached" and another something like 'Lucherbronze'. Too bad it's all in German. [Lucherbronze is Lark bronze..]

EDITOR

This discussion is about the “new” look of the ‘pale’ Archangels. These are examples of the colors:



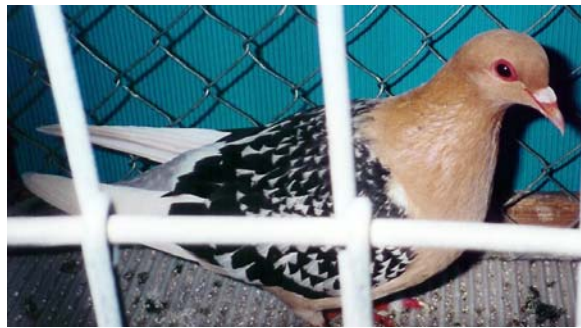
Dark bronze blackwing



pale bronze blackwing



Dilute bronze blackwing



Lark bronze (dilute)



The new “pale”.

[The Lark bronze in test produced the dilute found in my Archs like the one above. The wing color depth is a selection in dun which is found in most duns. You can select for near black c markings but the flights stay dun. The new “pale” is something else.]

## ALMOND GENOTYPE DISCUSSION

### GRAHAM MANNING WROTE:

The sire also looks like Spread Almond over blue going on the blue feathers I can see in the shield area. The spread combined with the Almond has turned the ground colour white. I don't see any Ash red involved here.

### STEVE SOUZA WRITES:

One of the interesting things about all the Almond alleles is that you need to be careful in letting the phenotype fool you into thinking what the genotype is (on a cock). I agree if the cock is homo Blue, then it should be Almond on Blue Spread...but suppose that it were Almond on Ash and that the cock was het. Blue and het Spread...What would you see then??

Likely the same thing you see now. Remember that Almond inhibits the production of color it is associated with (linked to) and allows a little Blue to "show through" on the bird. This is why het. Recessive red is visible on an Almond. So, if Ash (which normally is a bit unstable anyway) allows a little Blue to show through when present (as flecking), what do you think would happen if Almond (or any of the other St alleles was preventing the red from showing??

It would let the blue show through, especially if Spread were present to provide MORE Blue than normal there.

This is a Qualmond cock that is het Spread, het brown, but the Qualmond is lined to the Brown. No brown visible (yes Blue is dominant anyway) yet the St\*Q is working on both the Spread and the Blue here to create what looks like a Spread Blue Qualmond. [Steve included a picture of the bird.]

### GRAHAM MANNING WROTE:

An Ashred Almond het for blue will be just that in phenotype. Completely observable to the eye when mature.

### STEVE SOUZA WROTE: excerpts and paraphrased

The key here is "when mature"...an Ash-red Almond (or Hickory, Qualmond, etc) cock het for Blue when a juvenile or yearling will be very blue with little or no Ash red visible. Yes, it will darken with age. But try the reverse...A Blue Almond cock het. For Ash red will NOT start out or end up looking the same.

**NOTE FOR THE BEGINNER...**remember that Ash red is dominant to Blue, so the Ash will normally cover the Blue except for the occasional flecking. When the Almond gene, St, is linked to Blue, it is "turning off" the Blue color production, so the het Ash red/Blue Almond will be Ash red and little blue will be left to show. Some of the Ash is also affected by the position effect variegation or the Almond so that the bird has the look of an "Almond" but just not a Blue Almond.

EDITOR

The PEV (Position Effect Varigation) was very well explained to all by Kenny Davis. It inactivates (to varying degrees) the mutant at a particular locus with respect to how close it is to the heterochromatic region of the Chromosome. So when St inactivates the base color (black, brown or Ash) that it is linked to, what is left is whatever else might be present and isn't being inactivated.....such as het rec. red, het. opal, reduced, dilute etc. This lets that "whatever else" to show through where the inactivated gene would have colored. Here are a few examples from my files:



This is a classical Almond on an Archangel bronzed Blackwing base



This is an Ash red Baldhead Almond with the Almond on the Blue/black base



This is a classical Almond on an Ash red base



This is a young Classical Almond  
This is on a Kite bronze black base.



This is a brown Almond hen.



This is an Ash red base Almond cock



You will notice that the two Ash red base Almonds show very little Ash red. This is the PEV effect. The St gene is linked to the Ash red gene and stops the pigment Ash red from expressing. As these birds age, more and more Ash red will appear. The Ash red Almond Baldhead shows the effect of the St gene being linked to the Black (Blue) gene.

The young Almond will become darker with age and more and more black will show. The young Classical Almond is genetically similar to the Classical Almond Archangel. The difference is because of age. Almonds darken somewhat each year becoming more and more color spotted because the lightening produced by the St gene decreases with age and the bird reverts back toward what it would look like without the St gene.

Recessive red adds more ground color by enhancing the Kite black base. T-pattern blues with Kite make up the base of most Classical Almonds. I use the term classical Almonds because Almonds can be very lightly marked when the Kite and T-pattern is not part of the genome.

#### DAVID LONGSETH WRITES

In the past few years, I have had a number of pairs together that consist of a barless bird mated to one that is carrying barless. In theory, these matings should produce 50% barless and 50% bar het.barless. Of 91 birds raised from these pairings in the last 4 years, 44 were barless and 47 bar het barless – almost exactly as predicted. However, when looked at month by month, there is a preponderance of barless produced later in the year than earlier.

January: 5 bar – 1 barless  
 March : 6 bar – 1 barless  
 April: 12 bar – 5 barless  
 May: 11 bar – 7 barless  
 June 7 bar – 6 barless  
 July: 2 bar – 11 barless  
 August 4 bar - 5 barless  
 Sept: 0 bar – 5 barless  
 Oct. 0 bar – 3 barless

As you can see, the early months result in mainly bar birds (only 32% barless Jan. to June) while the later months produce primarily barless (76%). Would love to hear from anyone who has supporting or refuting data.

#### ANTONIE FARINHA WRITES:

Don't know if it is a coincidence but I had the same experience with breeding barred birds to T-pattern/bar birds this year, same thing with my brown project, I bred all Blue young earlier in the year and now all the browns start to appear?

#### EDITOR

Very interesting data, David. Several years ago, I presented similar type data to Doc Hollander on recessive reds. I found that the cool months produced many more recessive reds proportionally than warmer months. His first reaction was skepticism and

he pooh, poohed the idea. Later, he told me he went back through his matings and found by golly I was right. He had the same thing for some pairs and they had this late season skewing of rec. red. My hypothesis (unproven) was that the sperm carrying rec. red were more active in cooler weather and thus had the advantage.

In your case, a hypothesis might be that the sperm carrying bar had the advantage during the early part of the season because of more vigor or were more lethargic later.

#### GARY YOUNG WRITES: EXCERPTS

I discovered that I could replicate the so-called “silver phase” Archangel by simply adding reduced to Spread Black. Reduced T-pattern Blackwings won’t completely turn the copper into silver – you must add Spread to the mix. Haven’t told Gibson that yet – thought I’d try it out on the Cats [Catalonians] first.

#### BRIAN HECK WRITES: EXCERPTS:

Gary, what did you mean by silver phase Archangel? Is it the expression shown on the website of Francois Renaud of Quebec? <http://angelfire.com/ar2/Archangel/> My understanding is that this is produced by reduced and opal. The bird on Renaud’s website seems to have bar as well.

#### GARY WRITES

Dal Stone dubbed reduced Gimpel bronze “rosyneck” and it is common in the Catalonians. Renaud has some excellent silver phase Archangels he created himself – documented each generation with photos. Years before that, Paul and I talked about some silver phase that we had seen at shows. Paul said he had been told it was reduced Od. [Actually I said I was told they were homozygous Od.] He got some birds from some guy but they did not reproduce well or something. [I tested them and found they were not homo Od.] Ended up with about two jillion reduced Od gimpels like the one below – having various mixtures of silver and copper on the body – none of them had an entire silver body like Renaud has. When I added Spread to the mix, it worked. The trick is getting reduced, Od, Spread, and Gimpel bronze together with bar pattern underneath.

#### EDITOR

Still cannot get my scanner to work but the color being discussed is in my file. Here is the “silver phase” that Renault reared that Gary is talking about.

