



Halsring of Swift
Transferred to Roller



Parents and reduced Starling yg
Marbled male, chocolate hen.



reduced blue check, het e
Gimpel bronze (rosyneck)

PIGEON GENETICS NEWSLETTER

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EDITOR: LESTER PAUL GIBSON

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HANS SCHIPPER EMAILS:9feb'05 excerpts

You probably do not remember me.

I am preparing a presentation for Dutch pigeon judges about genetics, specially on their request about bronze. I have a little experience in breeding pigeons in which colors bronze factors are playing. I breed copper-black Gimpel, Archangels, and copper Saxon Whitetails, for about 30 years. I did make some crossing with other breeds, not many however.

For preparation I studied your book, Genetics of Pigeons. 1994 and Sell's once more and experienced that some types of bronzes still are more or less mysterious. As a breeder of Toy pigeons, for years, specially toy stencil pattern muffed Spot Swallows, white barred and spangled in different colors, I believe to understand something about Toy Stenciling, Modena bronze, etc. But, when reading your book on page 63, you speak about two genes for Toy Stencil; Ts1 and Ts2, Ts1 producing bronze while Ts2 produce a peculiar light grayish or oystershell color in the C areas when homozygous and Ts1, Ts2 produces a rootbeer color. What is rootbeer, which color does it have? What does it look like?

Somewhat further, you say "Ts2,Ts2 produces white in both juvenile and the adult". In the email Newsletter of Jan.'05, which I got from Mr. Luethgen, on page 176 you talk about a 'whitening factor which we have to call ts3'. What is this ts3? Does that whiten the pattern in cooperation with Ts2? Is it a Ts-allele. In your book you do not mention ts3 at all. Does that mean any progress in analyzing the bronze mysteries?

Mr. Gibson, is there anything special about bronze? A special of the Pigeon Genetics Newsletter, or any article? How can I get a subscription on the Pigeon Genetics Newsletter, or any article?

MY REPLY:

Yes, I do remember you. As I reread your letter, I realized why I did not answer it sooner. I was too busy to do the answer justice.

The bronzes are almost as difficult as the whites to work with. Yes, the bronzes are mostly still mysterious and need a lot of work to unravel the genetic basis of most of them. There has not been a special about bronze phenotypes. There have been some articles about certain ones.

There has been some progress on sorting out the bronzes phenotypes. Even though the Gimpel bronze has been worked with intensively for a number of years, we do not understand it completely.

The Toy Stencil bronze has been pretty well documented. To answer your questions on Ts1, Ts2, and ts3. They are not alleles and probably are not even linked on the same chromosome. I say this because of the ratios of phenotypes of the young. Heterozygous Ts1; Ts1//Ts1, het. Ts1,Ts2; and het Ts1,Ts2, ts3 are all bronze as seen in the Modena (though most bronze Modenas do not have ts3). Ts2//Ts2 produces the oystershell coloration. The Ts1//Ts1; Ts2//Ts2 configuratin produces the “rootbeer” color. This is the Flour-de-peche coloration in the Cauchois. The ts3 gene is a recessive that exhibits as white in the homozygous Ts1//Ts1; Ts2//Ts2; ts3//ts3 combination. Each combination of Ts1,Ts2,ts3 produces a slightly different shade of bronze.

You asked if there is anything special about bronze. Yes, there is! All bronzes have one thing in common. All are produced by genes that produce a mixture of red and black pigments. The intensity of the bronzes is further enhanced by the action of heterozygous recessive red. We continue to unravel new things on the bronze but not nearly as fast as I would like.

[I forgot to mention that Kite bronze is a separate bronze from the others above.]

Here are a few examples of some of the bronzes. First the gimpel (gp) bronze.



Copper- black Archangel dilute ‘dunwing’ Archangel Rosyneck Roller (Dal Stones)



Black Danish Suabian

Dark Check Charcoal Lark

These are all gp//gp.

Gimpel bronze as seen on the Archangel and Gimpels, the rosyneck Roller, the Danish Suabian, and the Charcoal Lark.

The Toy Stencil bronzes.



“Modena bronze Ts1”



Ts2//Ts2 ‘oystershell’



Ts1//Ts1,Ts2//ts2 ‘rootbeer’

Cauchos showing Ts combinations. These same combos are found in other breeds of Toy Stencil birds including Dewlaps and Lebanons.

I stated on page 63 that another non allelic gene produces the white coloration in combination with the Ts1 and Ts2. We are now calling that gene ts3.

Other genes can and do influence the depth of bronze color and the final Toy white phenotype.

HELMETBREWER WRITES:

Hope this finds you well!! I was wondering why the ma=mahogany when we have prove that Ts1 = ma??

I note also that gazzi is =z.

I look to some idea of what the real basis is for bronze, pied, pattern white, white of agate...directional mutations.....

Maybe if we understood REVERSION.. to blue bar??

EDITOR:

Why ma = mahogany? ‘ma’ no longer is a valid symbol nor is mahogany a valid name unless it is used for Ts1. Toy Stencil (Ts) takes precedence since Doc named Ts first and did not recognize that what he called ma was just hetero Ts.

You note that gazzi is z. That is not a valid designation either, according to the rules it should have been ga. However, there is another unwritten rule (more of a custom) to leave such mistakes stand because of all the information and literature that has referred to the gene gazzi as z.

We are working daily on the bronzes, the whites, and the white of agate. Some of these have been solved but there is much left to do.

You mention if we understood REVERSION...to Blue bar?? I hope you know the answer to that. THERE IS NO SUCH THING! At least as listed. The so called reversion in pigeons is simply the recombination of genes that permits the Blue and wild type to reappear. There is reversion in Almond blue bar in that the Almond gene loses its effect and after a number of years it is possible to get a Blue bar phenotype back but it still will breed Almond not Blue bar.

HE WHO DIES WITH THE MOST TOYS IS NONETHELESS DEAD!

AXEL SELL EMAILS: 8feb'05

Hello, I just got the short message on Atlas. Indeed this small pigeon gets a lot of interest in Germany and I know several fanciers in Germany who are very interested to detect new colours by crossing with white and pied Trumpeters. Yesterday, I placed a short notice at my homepage (Aktuelles) www.taubensell.de on atlas and on ember (in part in English) with some photos. The photos of Ember from Ron Huntley are great, however, I wonder how they ruled out the thesis that Ember could be a modifier. A simple cross with recessive red and Ember progeny will not be a sufficient answer. The same results holds e.g. also for my recessive red X Tschinny crosses, however, also in this case I rather suppose the existence of modifiers.

EDITOR:27feb'05

Hi Alex, finally getting some of my email answered. Sorry I took so long. Doc Hollander wrote up a paper on the ember and asked Larry Long (the original collector of ember) to co-author it with him. Larry did not like some of the paper and it was never published. Doc Hollander in the paper proposed the symbol e*E for ember stating that ember though a recessive trait, tests showed it was dominant to e. Of course, the symbol he used could not stand and I added the m to make the symbol Em. It has been proven in my loft that the ember phenotype only expresses in the presence of recessive red. In this respect, it resembles the expression of the good red phenotype of Brander bronze.

However, it is different from some other phenotypes that depend upon recessive red to express, such as the molt to white phenotype, the Whiteside recessive reds, the Krasnodar red belly, and a couple of others I am working on. I suspect the Tschinny is another in this respect. All of these latter are very likely separate genetic traits.

The ember and Brander bronze probably will prove to be modifiers. I have never produced what I recognize as a pure (homozygous) ember.

Even though Brander Bronzes breed true, they also throw recessive reds.

ROBERT BENNION EMAILS:

Thanks very much for the magazines you sent a while ago. [You are very welcome.]

I have attached some photographs of a faded blue chequer cock I bred last year. He is heterozygous for brown and reduced, being bred from a faded brown cock and a reduced black hen. You can see from the photo's that he has white feathering on his neck with a clear demarcation line at the top of the neck, there are a few feathers on his shoulders which show some washing out of colour. There was no evidence of any white feathering before the bird started his first moult. Could this be a similar combination which produces the Egyptian Swift "collar"? I have bred faded from Egyptian Swift crosses, perhaps there is some interaction between the faded and reduced genes which produces this expression.

Rev. Billy Graham tells of a time early in his career when he arrived in a small town to preach a sermon. Wanting to mail a letter, he asked a young boy where the post office

was. When the boy told him, Rev. Graham thanked him and said, "If you'll come to church this evening, you can hear me telling everyone how to get to Heaven." I don't think I'll be there," the boy said, "you don't even know your way to the post office."



MY REPLY:

Thanks for the photos. They are quite interesting. I have never seen anything like them before. There may be some interaction with faded and reduced but this is not the same as the E. Swift "halsring". I bred a few Swift X Roller crosses and one of the F2s has the halsring of his granddad. I was very lucky that I used a Black white collar E.S to a brown barless Roller and this grandson is a Black white collar.

[Since I wrote this reply to Robert, I have noticed that some of the Swifts sometimes show this type neck "ring" but in bronze so there may be some connection. Also it should be noted here that these are not white feathers but are white-tipped feathers.]

DAVID HALL EMAILS

I am getting 2 pair of crested shield marked frillbacks. I am looking for info on improving the curl on these birds as they need improving in this aspect.

EDITOR:

David, the curl on the frillbacks is controlled mainly by two genes (Cu1&Cu2). Both are partial Dominants. The new type curling on the Frillbacks may be a third gene or produced by slightly longer feathers. This has not been tested. Just by selection you can increase the curl.

DREW LOBENSTEIN EMAILS: 28feb'05 excerpts

David, the shield markings are recessive to self marking. Use any self marked bird to cross.....no white of any kind showing....and you will raise birds carrying shield markings. If you then mate brothers and sisters; and wait for the one in four that will come shield marked. So if you take all four shield marked birds you are getting and mate them all to self marked birds, then raise what you can. The young from these mated together should produce one in four shield marked. Select the one with the better curl. Try to keep away from any that produce white on the wing shield. You may mate one or two of the shield marked birds you get to each other and see what you get.

RICHARD K. EMAILS:

What is the difference between bull eyed whites and non-bull eyed whites?

EDITOR:

The difference between bull eyed whites and non-bull eyed whites is genetic. Any white bird that is homozygous Grizzle will have colored eyes. Except if that bird also is Baldhead or has pied markings on the genotype under the Grizzle white then it will have bull eyes. This is because of the lack of available pigment.

RICHARD K:

I will ask if I take a bird that has only a little, very little Badge on it, can I breed it so that it shows a lot more and get bull eyes??? I think I could as a few years ago I had a broken eye bird.

EDITOR:

Yes, you can get young with more white markings and get bull eyes. Any (pied marked) bird that has white marks at or near the eye may have bull eyes.

BREWMEISTER EMAILS:

When we get a “blue bar” from an Oriental Frill breeding.... What happened to the stenciling; this bird is clean and clear, blue...not a trace of cruddy or stencil genome! What happened to the Sooty, the Dirty, and the Ts1...fs. Are they still there?

EDITOR:

Since we were discussing “reversion”, I suspect you are asking this in response to my saying there is no such thing in pigeons. Again, this is produced by a recombination or loss of genes that permits the blue to reappear. What happened to the genes? Are they still there....So, V, Ts1....fs? Maybe, maybe not! If the gene does not produce an effect, how can you tell if it is still carried? The answer is that if it is a dominant gene, it is not there, OR its action is being blocked. If it is a recessive gene, you may never know for sure, ever; unless it pops back up.

In case you want proof that reversion to wild type, per se, does not exist; mate a brown male to any brown female, with or without such traits as Grizzle, Sooty, Dirty, Toy Stencil complex, frill stencil, etc. Allow the young to interbreed for generations indiscriminately. Will they revert to Blue wild type? Never! Will a reverse mutation occur to produce Blue somewhere over the years? Maybe, but that cannot be called reversion either.

THINK ABOUT IT.

Ham and eggs – a days work for a chicken, a lifetime commitment for a pig.

Earth is the insane asylum for the universe.

The gene pool – could use a little chlorine.

BENT SKAARUP PEDERSEN EMAILS:

Concerning albino and possibly developmentally-related pigeons mutants:

First, Pink-eyed dilute: This mutant was first found in a recessive white stock and was mistaken for albino. They have nervous head movements similar to albino. Hollander crossed one with albino and got pigmented non-dilute progeny without head movements. I have had two or three known heterozygotes. Milky and Palmetto Silky are in the stock.

Second, Egyptian Swift Dilute: an autosomal recessive dilute found in Egyptian Swifts. It is very similar to pink-eyed dilute except these birds have no head movements. I have two progeny of an E.S.D. hen, both probably hens.

I have a strain of Swifts with Almond mixed up in the genetic makeup, and at first I was thinking Almond, when I got these DeRoy similar youngsters. But they also had pink eyes, some head movements almost like feedblind, and seemed to have problems seeing things over 1to2 meters away!

I found that sometimes Swifts had this pink-eyed dilute, and kept some to see what happened. When they matured they got more "normal", the eyes were not so shiny red, they kept this beautiful DeRoy like colour, the head movements disappeared and they seemed to have no difficulties seeing things at longer distances.

Andreas Leiss in Austria got a few from me, he wanted to make some test, if it was allelic to "pastel", (it was not). His tests were [reported] in Geflugel-Borse (I have not seen it).

EDITOR:

Both Dr. Hollander and I had pink-eyed dilute Egyptian Swifts. Mine was a male and I never got fertile eggs. It reacted throughout its life in a manner consistent with pink-eyed dilute. I do not recall if Doc had any better luck.

GARRY GLISSMEYER EMAILS: 6mar'05

I am soliciting the help from about 8 fanciers to help by keeping records for this year [on beak ring colors]. I just sent out my invitations this morning... they may all turn up their noses at it, but I think most will support and give it a try. Ron Huntley, Lynn Kral, and several others who breed many colors in Indian Fantails. We will note the beak color/markings and then follow up with what color the bird is, and any modifiers we know of. Any thought or suggestions on the record keeping? If most of them cooperate, we should have over 600 pieces of data by year's end.

Clear beak, no ring; clear beak, faint ring; clear beak, brown ring; clear beak, dark ring; dark beak; medium color beak, dark ring; etc.???

EDITOR:

Have fun Garry. Here is a site that shows the beak rings of 63 day old pigeons:
<http://pg.photos.yahoo.com/ph/ceasar918/album?.dir=/d384&.src=ph&store=&prodid=&.done=http%3a//photos.yahoo.com/bc/ceasar918/1st%3f.dir=/%26.src=ph.done=http%253a//photos.yahoo.com/%26.view=>

JDF SENDS THIS PASTA DIET THAT WORKS!!!!

- 1) You walka pasta da bakery.
- 2) You walka pasta da candy store.
- 3) You walka pasta da Ice Cream shop.
- 4) You walka pasta da table and fridge.

JAMES GRATZ EMAILS:

This was an accident in the young bird coop but the cross was interesting to me so I let it grow up. What might it be? I'll post the answer in a few days.

JAMES GRATZ EMAILS:

Here is a homozygous Indigo, ember T-pattern. An Ash red mimic as one would expect, maybe a little different.



Grizzle bar, smoky?



Ember Indigo T-pattern

Andy Reed guesses – How about tippler and some type of pouter?

Ron Huntley asks – Does the [second] birds genetic makeup include recessive red?

JAMES' RESPONSES:

To Andy - Dad is a Dom. opal Voorburg Shield Cropper. I am amazed at how long legged, tall and narrow it is. It stands up even straighter in real life. A better picture would show little hooks at the end of the shield feathers...Mom is a Black Frillback of top quality. Obviously the Grizzle must come from the dam but she shows no white nor Grizzle.

To Ron – Both parents were In//+,em//e. He started out as a solid red and molted to red check. Why do you ask? I have an ember cross to an Archangel in the nest...just to give you fits.

EDITOR:

I am just sitting here smiling. Love you guys. James, those are interesting pictures. The homo. Indigo ember is quite a nice color and very interesting. The barred Grizzle is also very interesting. I never would have guessed the parents. A Dominant opal Voorburg Shield Cropper father produced the long legs, the stance and the feathered feet. As you say, the mother Black Frillback produced the 'hooks' fluting or curl on the shield which is very hard to see except if you look at the tips of the feathers along the bar, you can see them. The Grizzle evidently came from the mother also as stated. There is a

gene or modifier in many Frillbacks that prevents Grizzle from expressing and that is the reason that storked Frillbacks are seldom seen. The bird also has some darkening factor (probably smoky) that is smearing the bar and darkening the flight and tail tips.

A very good bird to cause us to scratch our heads, Jim. Thanks for stirring us up a little.

RALPH SMITH EMAILS: 13feb'05

We got Toy Stencil and frill stencil from you in '85. Look what we have done with them. These are Dad's Rollers. Look what you started.



Toy Stencil check & bar black, frill stencil tail. Toy Stencil, frill stencil bar black



Toy Stencil, frill stencil hetero barless black pseudo bar tail.



Baldheads in Toy Stencil T-pattern Spot tail and lace tail.



Spread brown Ts,fs



recessive red Ts,Fs, white flight, Ts white checker.



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MICHAEL SPADONI EMAILS: 8mar'06

Just so we have something to look at. Here is an Andalusian Australian Saddleback Tumbler. He was best young at the 2004 Perth ANPA National.



EDITOR:

Here are some interesting pictures that have been sent. Thought you might enjoy them.



A Sooty, smoky bar



One-sider or mosaic?



Think I'm a Turkey?

FRANK MOSCA FORWARDS THIS UNIQUE BIRD PICTURE SENT BY THOMAS HELLMAN.

The bird is called SuboticaerDoppelherz [doubleheart]marked. It is a Yugoslavian breed. A Subotica Double Magpie Tumbler. Thomas.



Bearly made it.

And thus another monthly email newsletter come to a close.