

Budapester Kiebitz Reduced blue Starling Homo Indigo Saxon Whitetail

PIGEON GENETICS NEWSLETTER EMAIL JANUARY 2007

EDITOR: LESTER PAUL GIBSON PAGE 411

At Sunday School, they were teaching how God created everything, including human beings. Johnny seemed especially intent when they told him how Eve was created out of one of Adam's ribs. Later in the week, his mother noticed him lying down as though he were ill, and said, "Johnny, what is the matter?"

Johnny responded, "I have a pain in my side, I think I am going to have a wife."

EDITOR:

I am having a little trouble getting this issue started so I am going to just jump all over the place as long as there is a picture involved. Also do to concerns by a couple viewers, I have enlarged the pictures in the text. This will result in a slightly longer text.

The Rakovnik Roller and the Felegyhazaer Tumbler (pictures furnished by Christo Britz, if I read it right), the Rzhev Startailed Tumbler, and several of the Magpied Pouters are genetically very similar as far as color patterns are concerned. They are Magpied with colored caps. The head coloration can be produced by adding Helmet pattern to Baldhead.

Rakovnik Roller Felegyhazaer Tumbler

Press bloopers?
The ball struck Berra on the right temple and knocked him out cold. He was taken to Ford Hospital. X-ray pictures of Berra's head showed nothing.

Mrs. Bertha Bardley entertained the Ladies' Social Club. She asked the ladies to come dressed as tramps and that was easy for most of them.

Several fanciers have inquired about Isabel (Isabelle) lately. These Pouters show some of the variation in color called Isabel. The second picture a Dom. opal bar rec. yellow Saxon is Tally Mezzanetto's bird shown at the Lancaster National. This is the expression desired by most fanciers. The one the left is the very light Od expression sometimes expressed. The one on the right is a slightly darker expression. When they are darker than this they tend to resemble poorly colored Toy Stencil rec. reds.



MOSAICISM IN PIGEONS

Mosaic pigeons have been explained several ways over the years. Doc. Hollander proposed the theory of bipaternity in which more than one cock bred the hen. This was changed slightly to include multiple sperm from the same cock bird. The diversity of mosaics we see in the pigeon is quite striking. The color portion of mosaics is that which is the most noticeable, of course, and varies all the way from one feather to half the bird. It is seen in feather structure, length, modifications, and color.

FRANK MOSCA WROTE (excerpts)

The ONLY way I can see that there MIGHT be for breeding mosaics is IF the idea I promoted to Hollander years ago is in fact true. I postulated that since mosaics in many cases seemed to be the result of two sperm in one egg as he'd said, then perhaps what was really happening is that we had hens that had less of a biochemical barrier to double fertilization. If it is true then it might be possible to create families in which the hens biochemical barriers were defective. Sheer S.W.A.G. at this point.

DICK CRYBERG WROTE : 13apr.'05 (excerpts) &(paraphrased)

One thought is that mosaics are caused by a polar body getting too much cytoplasm and thus acts like an embryo. The normal egg and the bipolar egg are both

fertilized and essentially two embryos grow together to form one bird. There are a few examples of mosaics that have been identified that support such a mechanism.

This might suggest why male mosaics are uncommon. I guess all mosaics formed this way would be part male and part female genetically. Because of the time of fertilization the egg cell and the polar body would lead to two embryos of the same sex. If the female hormone kicks in early then the resulting offspring nearly always will be a female. If the male part winds up forming the ovary then all the young would be cocks. [Dick's treatise is nearly a page long is anyone wants it in its entirety contact him.]

MY REPLY:

Dick, that was a very good treatise on mosaic generation. I have raised a number of mosaics over the years. One hen produced a number of mosaics, they were from an Almond hen mated to a Kite male. One of these was one side female and the other side male. Yes, half dun and half Almond. The top of the head was Almond and the area over the gonads was mixed. The bird acted and performed like a male. He was about 50% fertile and the young showed that his one testicle was producing sperm of four types. No mosaics were produced. All of the other mosaics from this female were males but did not have as much female (dun) areas.

The male/female listed above.

One of several siblings of bird at left.

At present I have two mosaic Rollers that originally looked quite similar. Both are Ash red with some blue/black areas. One is a male and the other is female. The male's Ash area has increased over the years, so has the least blue but also has a couple brown tail feathers. The female's blue/black area has increased also. Sounds crazy but that is what has been happening. More of this type thing later in this newsletter.

Female left side

same female right side


Male left side male right side

male's tail

This year '06, I reared the young mosaic from the above male and an Andalusian female but was not aware that it was a mosaic until it molted.


Young left side Indigo right side rec. opal

underside of bird showing division.

DICK CRYBERG WRITES:

The first bird you talk about really wrecks my idea that female parts might produce hormones first and thus cause a mosaic of mixed sexual types to display as a hen. In fact that bird says exactly the opposite. Great data!! Thanks. Really interesting that his gonad had both types of cells (hen and cock) and both managed to produce functional sperm. Quite an interesting bird in my book!

JOE POWERS WRITES:

I had many self Komorners over the years that showed a rec. red patch (or two or three) on Black birds. Doc Hollander saw a fair number of them, and called them all mosaics. Got these same patches in Almonds, Kites, etc. Ran in Almonds and Almond sub varieties quite heavily. I bred many each year – sometimes multiples from the same matings. Duns and dilute Kites had yellow patches.

EDITOR:

Mosaic areas can occur on varying amounts, sizes, and areas on animals just as they do on plants. Part of these can be somatic but most in animals are apparently genetic in origin. The single feather or scattered small patches of feathers can be either genetic or somatic but by definition they are all mosaics. In plants these are frequently called chimeras.

Mosaics differ in the area affected from a small spot, to scattered spots to sectorial, to half & half. Small to large areas are sometimes seen on Almonds. The following show some of the diversity.

Small shoulder spot

upper neck/head spot

dark flights spot

scattered spots

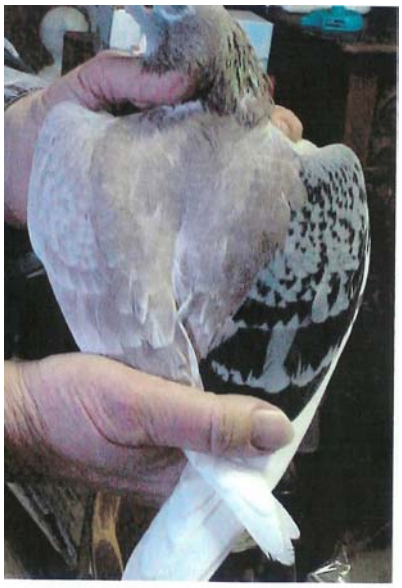

(Scattered spots or area mosaics)

Mosaic neck

sectorial mosaic

Wing &Tail non G /body Grizzle Mosaic

brown and blue check bilateral mosaic



Ash/blue checker (wing mosaics) blue/Ash red bar

Rec opal/blue bar (wing mosaics) blue/grizzle bar

Press Bloopers: *Miss Swanson is in the hospital this morning after having being bit yesterday by a spider in a bathing suit.*
The game starts at 7pm and is to be played with the aid of moonshine and electric lights.

Beautiful tricolor mosaic Chinese Owl/Roller mosaic

Left side het Bh Roller right side black Chinese Owl

The above bird was raised by Marvin Lee of Prairie Grove, AR. Its left side is hetero Bh Roller and the right side black homo Chinese Owl. Measurements of its bill, feet, and bones were consistent with each variety. I acquired and had this bird mounted in a museum mount after it was accidentally killed.

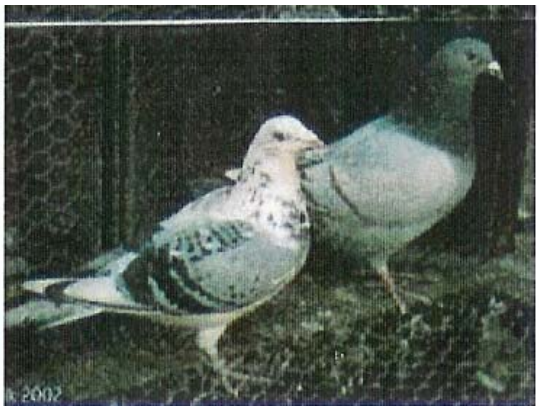
EDITOR:

This next bird is an enigma. It not only is a mosaic but like my Ash/blue birds above, it changed color when it molted. I will compare one side at a time.

The left wing, neck and head were Ash red. When it molted to Tiger Grizzle (a normal enough procedure), the bar and flights changed from Ash to black. There were some Ash red feathers still scattered over the bird. Especially note the bars.

Juvenile feathers After 1st molt

The right wing was Ash red on the basal ¼ and light check blue centrally with mostly white flights. The basal ¼ changed in the molt to tri barred blue and stayed non-Tiger Grizzle. Thus it is a double mosaic – Ash/Blue; Tiger Grizzle/non-tiger.



Juvenile feathers after the molt

WYNN SMITH WRITES: EXCERPTS

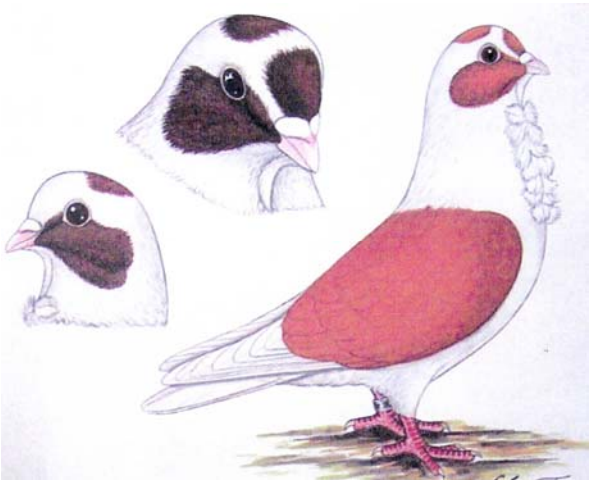
If we want to understand mosaics and pursue a line of pigeons that consistently produces mosaics, we need to select for diversity of phenotypes. Parents should be hetero for as many phenotypes as possible.

My questions, In mosaics, is there ever a combination of color or pattern that didn't come exclusively from just one sire or just one dam? When hens are mosaic, which parent did her two patches come from? When cocks are mosaic, which parent did his two patches come from? Is it consistently the same parent?

A 6TH grade math teacher posed the following problem to his class:
"A wealthy man dies and leaves ten million dollars; one-third to his wife, one-fifth to his son, one-sixth to his butler, one-eighth to his secretary, and the rest to charity. Now, what does each get?"
After a very long silence in the classroom then Johnny blurted out, "A good lawyer!"

MICK BASSETT WRITES:

Barbarisi (Syrian Turbiteen)[pictures and Standard sent.]
"The picture shows the ideal - a three or four spotted head, a very good zipper frill on a shield marked white bird."



DARREL FERGUSON WRITES:

Are Faded youngsters short downed?

DREW LOBENSTEIN ANSWERS:

Mine have all been long downed…less wealthy than most but long downed and lighter in color.

STEVE SOUZA REPLIES:

Mine have been unremarkable, but when there is a normal and a Faded in the same nest, you see a difference. More a 'sparse' down effect than a short down effect at times…others are obvious as they have no down (similar to what Qualmond does).

The inherent downside of a life of pursuing women is the possibility of inadvertently catching one.

JAMES MUCKERMAN WRITES:30may'05

Here are some pic's I took today of the strange bird we talked about earlier. It is definitely different that the plain Blue bar parents. It almost looks like a third bar (or perhaps a few checks? Kind of soon to see Sooty isn't it?) coming in above the top bar?

How would you describe it at this point? Any different thoughts? If you would like, I can show you pic's of the parents and its nest mate but they are plain Blue bars. I expected nothing but plain Blue bars from this pair.

EDITOR:

One of the possibilities I stated earlier was that the parents may carry a recessive traits. This is what you have. I believe the bird is a recessive opal and with low penetration. In the first picture you can see the light molt-line that will show the final color of the shield. And yes, it is showing a third bar. The edge of the flights in the second picture show the rec. opal expression even though the tail in the third picture shows little as a youngster.

GAYLE AMBLER WRITES:

I just won a bid on a pair of "Blue Laced Rollers". I don't even have them yet. But my question is…will this pair be likely to reproduce itself? Or is there anything unusual about the markings? They are called Blue Laced. If I were to separate them, looking for some unusual pattern creation…what color/marking would be good to cross them to? What if I wanted just a lace wing pattern? Instead of full body. Is that a possibility with having this pair?

STEVE SOUZA REPLIES:

Nice looking pair of birds. Did the seller identify the actual genetics of them for you, or simply tell you they were "blue lace" (which isn't a specific gene). There are a number of factors that can do what I see in your picture, but I'll let Paul or Ron chime in as they have more experience with them.

RON HUNTLEY REPLIES: excerpts:

Your birds look like what many call Opalusian. Short for Blue, Dom. opal and Andalusian. Very nice looking pair. They do not have to be mated to each other to produce this same effect. I would suggest you mate them to blues or blacks to continue this combination. Not all the young will be receive the required gene combinations but will be very attractive in their own way. Some will be blue dominant opals, some just black, others Indigo or a combination, and some opalusians like the birds in the photo.

BRIAN HECK REPLIES: 30may'05 excerpts

Nice looking birds, Gayle. It is not always possible to be certain from pictures, but from what you sent, they look to me like either 1. Spread blue reduced – that is, a bird that would ordinarily look black but with the reduced factor added. 2. Spread blue Dom. opal. Reduced is a sex linked recessive, so cocks will need to inherit from both parents, while hens can be produced from a cock bird carrying the factor. Dominant opal is an autosomal (not sex-linked) dominant factor and can be inherited from either parent.

Often reduced cocks are lighter in expression than the hens. From your picture, these birds are both darker, so if they are reduced, they may both be hens. If one is cock, it may indicate that it is dominant opal rather than reduced. Of course, you can have

spread blue with both reduced and dominant opal but these are usually a light silver laced expression, so I doubt that's what you have. Ron is right, if they are dominant opal they will not need to be mated together to produce the effect.

However, if they are reduced, then the advice will be much different, since they will produce this color expression in both cocks and hens if mated together [this is true of Dom. opal also.] If mated to other birds, then the cock will produce reduced hens and non-reduced cocks carrying reduced.

Now, to some of the other questions – Either reduced and Dom. opal can be bred in a variety of patterns and expressions. (Remember Spread is not a pattern but covers pattern.)

EDITOR:

Steve, Ron, and Brian have covered the possibilities of these combinations very well so there is not much to add. If the birds are Andalusian, they are Spread, hetero for Indigo and at least half of the young should show the Indigo. The left bird looks like it could possibly be Dom. opal but the bird on the right side looks like a good expression of reduced Spread and is a hen.

EDITOR:

I have been told that the jokes and zany sayings in the newsletters were unwanted by a couple people. I use them for fillers. However, now I find that they are very important. Researchers have found that jokes produce activity in the whole brain whereas the letters etc only use part of the brain. So in order for this to be a well rounded publication; I will continue to include them. I will be more careful, however, to include only non-controversial ones.

A man went to his dentist because he feels something is wrong in his mouth. The dentist examines him and says, "That new upper plate I put in for you six months ago is eroding. What have you been eating?"

The man replies, "All I can think of is that about four months ago my wife made some asparagus and put Hollandaise sauce on it. I loved it so much I now put it on everything…meat, toast, fish, vegetables, everything.

"Well," the dentist replies, "That's probably the problem. Hollandaise sauce is made from lemon juice, which is highly corrosive. It's eaten away your upper plate. I'll make you another plate and this time use chrome." "Why chrome?" asked the patient.

To which the dentist replies, "It's simple. Everyone knows that there's no plate like chrome for the Hollandaise."

Sing it my children: 'There's no place like chrome for the Hollandaise.'

<u>A FRIEND OF MINE IS LOOKING FOR SOME BRUNNERS AND MALTESE. IF YOU HAVE SOME FOR SALE PLEASE NOTIFY ME. EDITOR</u>

I HOPE YOUR NEW YEAR IS BRIGHT, HEALTHY, PROSPEROUS, AND JUST DOWN RIGHT PEACHY PIE. OR IS THAT APPLE PIE? OR CHERRY PIE?
OH HECK, HAVE FUN, BE GOOD TO EVERYONE, AND LOVE THOSE AROUND YOU. MAY GOD BLESS YOU AND YOURS.