



Isabelle



Ribbon tailed Ash red



Light Andalusian Swift

# PIGEON GENETICS NEWSLETTER

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EDITOR: LESTER PAUL GIBSON

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I took a picture of a group of pigeons on a shelter roof in La Jolla, California a couple years ago and just yesterday while looking at some photos, I noticed the bird in the left peak of the roof.



Do you see it? I enlarged it below. It is a mosaic and the bars are mostly very light.



Here it is enlarged. It has two mosaic spots; the black mark on the wing and then a partial black bar. The bars look Faded?

BILLY McGWIER, 1feb'04

Is Ash Red dominate over Indigo?

### EDITOR

Both Ash red and Indigo are dominant over blue. Not each other. Ash red modifies Indigo about the same as it does blue. However, on Ash the Indigo moves the color but slightly, so that the face and sometimes the undertail are the only evidence of the Indigo. A homozygous Indigo Ash red and a homo Indigo Blue are very hard to tell

apart; both being Ash red mimics. Dark Ash reds do not normally make Black dull, rather the opposite, they brighten the Black. The Dirty and other darkening factors will produce good blacks with or without Spread, except if they are homo smoky the beaks are near white. Ash red Spreads however are another story. You will end up with smutty Ash or laced shields (strawberry) if they are Sooty. If an Indigo is T-pattern Blue Spread, usually the shield is bronzy.

### STEVE SOUZA

My understanding that dilute and pale work consistently when applied to similar genes across breeds. But, there are a number of traits (modifier genes) that can alter how the resulting bird appears (like the blackwing posted earlier). Although I have seen a variation in the Ash-red birds in our loft, all of our dilute have been very consistent in color over the years. All having been the same tan/yellow dull buff appearance.

It is not always easy to predict which genes will have a variable appearance (penetrance??) like recessive opal, and which will be more stable like smoky.

### BOB TAUSCHER

Thanks Steve for posting the pic. The color differences are obvious. Strange part, though, is that the pale/dilute identification is opposite what I would have expected. You need to know that the only pale I have seen have been pale recessive red Modenas and those were darker than dilute recessive red Modenas in the same loft. I wonder whether pale and dilute act differently on Ash-red than on recessive red. This has me thinking.

### EDITOR

The pale Ash-reds are lightened Ash-reds somewhat similar to het. Ash-red Faded and, of course, dilute Ash-reds are buff that we call Ash-yellow.

### LYNN KRAL: 1feb'04 (4 letters)

Paul, I will send these pictures in three different mailings because I have them on different CDs. The pictures in this one are of the Dominant opal that Tim has (1 & 3) and a black young hen(5). The Dom. opal is a side and back view.

Paul, this hen is an old hen from my mom's loft in CA. I gave my mom several birds a few years ago and it was hatched out of some of them. I saw it in her loft when I was visiting last year and brought it home to my loft. She has two other birds showing flash grizzle in the loft, they are both Blue T-patterns. This bird flashes all the way up to where the tail bar is washed out by the Dom. opal. (2)

Paul, this is the little flash grizzle that was from 2003. The first picture is when it was about a month old and the other two pictures of it were taken about three months later. It turned out to be a hen and I gave it a mate a couple months ago and am patiently awaiting the first eggs. (6 & 7)

Paul, this Blue flash grizzle I had at the Des Moines show in 1995. This bird had about 2/3<sup>rd</sup> of the feathers with flash grizzle in them. I have them fixed the best I could

so they wouldn't show for this picture. Tim Kvidera, saw this bird and started asking me about it and about the grizzle in the tail. At home this bird had a sibling that had all the feathers marked in this flash in the same Blue T-pattern coloring. At the time I was working to produce birds with Dominant opal, Indigo, and Spread on a Blue bird. Using my related birds, mating them back and forth, I soon had Dominant opal showing up with flash grizzle and an andalusian with this flash grizzle. Back then, I had no digital camera to take pictures and gave away these birds because they were messing up my breeding with this flash grizzle showing up in the tails. (4)



1)flash grizzle with Dom. opal (Tim's)



2)flash grizzle with Dom opal (Lynn's)



3) flash grizzle with Dom. opal rear view of Tim's above



4) tailmark with flash grizzle



5) black flash grizzle



6) young flash grizzle



7)same bird 3 months later

EDITOR'S REPLY

Thanks, for the additional info. I have studied the differences among hetero pencil, Undergrizzle, frill stencil, and flash grizzle(a little).

Hetero pencil and hetero Undergrizzle look somewhat similar. Het. pencil combined with Undergrizzle produces a pseudo white bar on a dark bird. This is because of the synergism enhancement that whitens the feather out far enough so that on the flights it includes the bar area. Homo. Undergrizzle whitens the basal part of the feather on its own to near the bar area but the umph of the het. pencil pushes it farther.

Frill stencil, of course, whitens the tail bar and on Spread birds also the basal part of the tail bar to a different degree according to the C expression under the Spread. It may also affect the tip of the flights and the bar expression to some degree especially in the non spreads.

What has all this to do with flash grizzle? Flash grizzle evidently whitens the vane and not the quill or the feather edge as do the Undergrizzle and the pencil. I notice also that there is some effect on the center of some of the covert feathers of the wing. This is not true for het. pencil, Undergrizzle, or frill stencil.

To sum up: pencil affects the body and the tail to some degree in the het. condition and completely obliterates the pattern in the homo condition. (normally).

Undergrizzle affects the belly and the basal parts of the feathers in the het. condition and more so in the homo condition.

Frill stencil affects the tail only in the homo condition and mainly affects the tail bar, with some effect on the flight tips.

Flash grizzle, like frill stencil, is most evident on and mainly affects the tail, but unlike frill stencil, flash grizzle mainly affects the central vanes of the tail feathers and not the quill or outer edges of the feathers. Unlike pencil or Undergrizzle, flash leaves the quill dark.

BILL TIETZE (to Ralph Smith)

A blackwing in Archangels is not spread, it's either T-pattern or Checker with all the darkening modifiers that can be found, Sooty, Dirty, and smoky. These may be the reasons the wing shield stays black, but I also think that the bronze plays a role in it too. On our birds the flights and tail lighten somewhat, but the attached pic is one of Klaus Gebharts birds and the flights and tail are black, something we need to work on here.

RALPH SMITH

Thanks for the info. It's really interesting how the bird can be pale and yet not appear to show it on the tail and wings. And I think you are right, it is many of these other factors that affect it. Sooty, smoky and Dirty. But what about the ones that are gold with blue barless wings? What makes these appear blue in the wing? And I know I'm asking all the hard questions, but if you have any idea I would like to hear it.

BILL TIETZE

The blue in gold bluewings is actually a shade lighter than in the copper bluewings but the flights and tail bar are almost black. In bluewings we don't want any Sooty, it just messes up the shield.

BILLY McGWIER 3 feb'04

Now I know this is going to sound stupid to a lot of you but it will help me a lot. When I am looking at a Black pigeon – when I see bars is it just black carrying Dirty, Sooty, smoky? When I see one that is real shiny black, is it just black carrying Dirty, Sooty, smoky? When I see one that is just black not real dull, no bars and not shiny – is the bird Black carrying Sooty, Dirty, and smoky? Now I know that black is just spread but I really would like to know why the differences in color in blacks.

EDITOR

Billy, if you know the answer, then it is a stupid question (or you are a teacher). If you don't know the answer and want to know; how can it be a stupid question?

I will try to at least partially answer some of the questions on black pigeons.

A black pigeon showing bars may be 1) not Spread but just a Dirty and Sooty Blue. If it has a light beak then it would also be smoky. 2) be a Spread hetero rec. opal. 3) be a Spread that has a gene that blocks the full expression of Spread (usually these are hetero for Spread.

A real shiny Black usually has a trait known as iridescence that makes it shiny. Iridescence affects the reflective edges of the barbules producing the shine. Such birds also usually have lots of grease quills.

The dull black may be a spread without the iridescence gene or be a non spread Dirty, Sooty Blue T-pattern. Usually the former. Hope this helps.

BUSH COST ME MY JOB, MY KIDS, AND MY HOUSES. (3feb'04) [This letter touched my heart so much I just had to pass it on.]

Thank you for giving me the opportunity to speak my mind. I lost my job this past year. When Clinton was president, I was secure and prosperous, but in the last year, we had to close our operations. We simply could not compete with foreign labor. This foreign labor worked for low pay under very bad conditions.

They worked very long shifts and many even died on the job. This competition could hardly be called "fair". I was forced out of the place where I had worked for 34 years. Not a single government program was there to help me.

How can Bush call himself "compassionate"? Far worse, I lost two of my sons in Bush's evil war in Iraq. They gave their lives for their country, and for what? So that Bush's oil buddies can get rich. My pain of losing my sons is indescribable.

While it is trivial next to the loss of my sons, I regret to say I also lost my home. I simply have nothing left. How can Bush call himself a Christian when he neglects people like me? I am a senior citizen with various medical problems. I'm not in a position where I can begin a new career. I was reduced to the point where I had to live in a hole in the ground, all because of President Bush.

And when the authorities found me there, did they have any compassion for my misfortune and ailments? NO, I was arrested. Mr. Bush, I dare you to look me in the face and tell me you are a compassionate man! I dare you to look me in the face and tell me you are a Christian. If I had any money left, I would donate it to the Democratic Party.

If Al Gore has been elected in 2000, I would still have a job, a home, and most importantly, my dear sons. Regards, Saddam Hussein.

#### EDITOR

At the 2000 German Pigeon show at Nuremburg; Tom Voss presented me with a male rubella. The first season 2001 was lost because of the long time in quarantine. The 2002 season, the hen he was mated to was barren. Then the next mating did not produce young because they would not set long enough for the eggs to hatch. I remated him to a good producing Indigo Check hen and finally got a young hen out of the pair late last season. The male is Spread and his first young was a Spread rubella. This year 2005 I am getting young from the same pair and the first two are one spread rubella (a hen of course) and one Indigo Check so the rubella male is hetero for check and spread..

#### TOM BARNHART 6feb'04

Just a clarification of something you had in a recent newsletter: Homer breeders tend to call smoky "slate" and sooty "penciled".

#### TIM KVIDERA 6feb'04 excerpts

Lynn shared copies of the flash [grizzle] photos she sent you with me. I am thinking that what Doc was referring to as flash is different than what Lynn has. I have not been fortunate enough to have produced much, if anything, out of the flash I got from Lynn. Mostly as I have not had an extra hen to pair him to. Our postulation is that Lynn's flash was the result of breaking the stork tail causative agent away from the tailmark gene. As most of Lynn's birds are also smoky, and I have seen some similar type effects on at least the secondaries of extreme expressions of smoky, I am not sure what effect smoky has on Lynn's flash. My hope is to try making flash on non-smoky to confirm they are independent. But Lynn's bird is such a decent Indian, I hate to downgrade the offspring by making a cross to Homer or something else.

The initial flash bird that Lynn showed in Des Moines many years ago was not [Dom.] opal. Many of the flash since then have been on [Dom.] opal which may help confuse the identity of what is going on.

#### EDITOR

Tim, yes, as you say the Dom. opal changes the expression of flash grizzle but we know what the non Dom. opal look like. The two together make a beautiful phenotype. Looking at the pictures above, you see the Sooty flash grizzles with their whitened bills and you also seen the ones that are not Sooty with their dark bills.

The flash grizzle that popped up in my loft last year are not smoky and the expression is very much like Lynn's. I have three flash grizzles now. Two are tail mark Homers and one is a heavily pied Blue Check Homer

I mated the heavily pied Blue Check flash grizzle male to a black and their first two lightly pied young are ready to fledge. They show no sign of flash grizzle.

The fact that flash grizzle pops up from non flash parents and it disappears in an outcross shows the trait to be recessive. Whether it works by itself or in conjunction with

some other trait should be evident when I mate young from this pair together or back to the father.

GRAHAM MANNING

The word “Fahl” doesn’t ring a bell with me. Could you tell me where you picked up the term?

SATINETTE

I’m bewildered as to where something called ‘Fahl’ might fit into all this or whether it’s just a synonym for one of the others.

EDITOR

Fahl is German for pale.

GRAHAM MANNING

I’m also in the dark on the differences between reduced and rubella. I seem to remember reading somewhere that they were allelomorphs and that rubella is a lethal gene? I’ve been doing searches to try to find where I read that info, but I’m not finding anything. Hope someone has further info for us on both.

EDITOR

Ron Huntley sent the following on the article on rubella translated by Hans Windgassen.

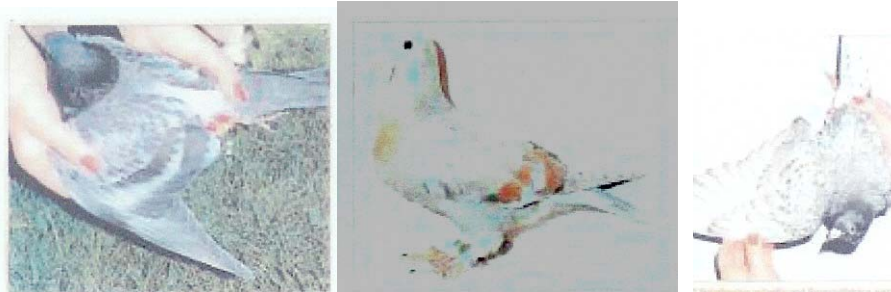
Paraphrased by Gibson

Rubella – a few years ago a bird of unusual color appeared in my stock of Homers. The peep was short downed and has a light colored beak, yellowish red crop area, and reddish brown color tones on the bar and check areas. The base color was a lighter Blue color. The color of the checker and bar areas were reddish-brown with the outer edges blue. The bird was a hen. The bird darkened with the molt. It was assumed the bird was a recessive opal since both parents were black base with well expressed tail bar. A mating of this bird with a recessive opal cock produced only blue progeny. Further testing led to the conclusion that the new coloration was recessive and located on the sex chromosome. The effect on the adult bird is as follows: The blue color is lighter than usual on a black base color. The pattern areas are a reddish-brown, edged in blue. The tail band is lightened in hens and white-gray to almost white in males. The primaries are light gray to silver-gray, the outer edges are marked darker.

On brown base color only a very weak reddish color occurs in the pattern areas; when ignorant of the genetic background, one might refer to it as “rust”.

With Spread the color is distinctly different between males and females. The hens are mouse-gray to dark gray, while the cocks are light silvery-gray. Both sexes show darker edging after the molt. Testing with reduced showed they were alleles, and reduced was dominant over the new color. The name rubella was chosen since rubella is a red-brown mineral without metallic sheen, whose color tones and nuances are similar to the

described checker and bar coloration. According to custom, the genetic symbol  $r^*RU$  was chosen. [I believe this is a misinterpretation since if rubella is recessive to reduced the symbol should be  $r^*ru$ .] Gerhard Knopf, Alter Uentroper Weg 253, 59071 Hamm, Germany.



These are the pictures that were sent with the translation. They did not come through good so I am inserting the pictures below.



Same picture of young as above. rubella Checker.

rubella Spread

#### GARY YOUNG 5feb'04

Paul Gibson wrote: "The final test will be to mate Atlas to rec. red; this should produce all embers [if Atlas is homo. ember]."

I ran that test last year and as expected got 16 embers and nothing else. Just to confirm what we are saying then, the Atlas Arabians (at least the ones I have) are Sooty, smoky, Undergrizzle, gimpel bronze, and homo ember.

But this doesn't explain why I got a bunch of rec-red youngsters out of this cock mated to a black hen in an individual coop, unless the ember gene is unstable and switches to e somehow. That is the mystery, and then add intrigue to it, the black strain has not produced a rec. red in ten years of breeding!

The "red" atlas Arabians of mine have highly superior voices, which is a confirmation that they are purebred. However, the "yellow" atlas that I got from another source (unrelated strain) do not trumpet as well, and have Tsl bars. I plan to mate one of them to a rec. red this next year to see what happens. I also have a pair of silver barred



Arabians that are unrelated to the atlas. They have good voices – I kept them separate just to have a few without the atlas complex.

GARY YOUNG 6feb'04

I was looking back over my photos documenting the atlas X black project. The F1s that I thought were rec-red look more like dark check or T-pattern ember to me now. I may have been tricked by the fact that they did not turn blue in successive molts. Maybe I have a set of factors that helped maintain the red. Anyway, I mated two of the reddest ones together and raised a bunch of babies including some definite rec. reds and blue atlas similar to the grandparents (attachment). Don't know why I'm just now picking up on it – duh!! If you like, I can email photos of this entire project for your newsletter and perhaps that will help pay my way. What's nice about this project is that it un.masks both atlas and ember at the same time. [rec-red&atlasbabysibs.jpg](#)



EDITOR

I understand that only atlas marked with the light head as seen above are shown in Germany. I still want to know what makes the lightened head. Also, I have not found Undergrizzle in my Arabians. I have found Undergrizzle in E. Swifts. I also have a E. Swift that is Dom. opal. Mainly this only shows in the tail.

MICHAEL SPADONI 7feb'04

Below is a 4 week old Bokhara I'm about to wean off. While taking a picture of it I noticed its unusual pupil. I have bred many elongated pupils over the years in Bohkaras & 99% of the time are linked to feet defects that are linked to big boots. Often the bird will walk with a limp.

Many of these die in the nest as they throw the leg behind them. I have seen this from hatching up to 3 weeks old generally occurs at around 12 days. I think it's an allele to web lethal, (wl) as there are many similarities. I don't plan to go into a breeding program to work out the specifics of this gene, as too many lost young result.



EDITOR: Alan ([plutarchva@yahoo.com](mailto:plutarchva@yahoo.com)) sent in several pictures of Modenas and asked “What color is this Modena X Lahore cross?”

J.J. responded “It looks like a Milky Mealy or Milky brown check that I have raised in my Lahores. Definitely looks like milky factor no matter what the base is anyways.

Steve Corvus writes, “Here is a milky bronze on blue/black for comparison. She is much more pinkish in real life.

James Gratz writes, “Can you see a tail band in real life? I can’t see one in the pics. I don’t think it is dilute brown Ts1 (ochre in Modenas). They are much lighter. The shield looks like it could be Ts1 on brown but then there should be an obvious tail bar. Maybe the tail is white? It looks ash in the pics.”

Alan replies, “I can’t really see a tail band. The tail isn’t really ashy, but rather a non-discript tan, creamy, beige-y nothingness. There’s a faint hint of a bar on the outer two tail feathers but nothing on the rest. I know the bird can’t be Ash red (out of Bronze father and Russet mother). I thought it might be milky on intense brown with Ts1, but where would the pinkish overtones come from on the breast and the washed out brown on the tail? Also, there’s been no milky showing up over the past three generations in these crosses (not that that means much). The three attached photos might help some. If you can’t view the attachments, please let me know and I can email them privately. Thanks for your willingness to help me out.”

Here are the pictures of the milky Modenas.



milky in question



milky blue Ts1



milky Ts1



milky? or khaki Ts1



brown (russet)