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PIGEON GENETICS NEWSLETTER

EMAIL OCTOBER 2009

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789

A drunken man reeking of beer sat down on a subway seat next to a priest. The man's tie was stained; his face was plastered with garish lipstick, and a half empty bottle of gin was sticking out of his pocket. He picked up a newspaper and started reading it. After a few minutes, the man turned to the priest and asked, "Say, Father, what causes arthritis?"

"My son, arthritis is caused by loose living, being with cheap, wicked women, too much alcohol, and contempt for your fellow man." "Well, I'll be damned," the drunk muttered, returning to the paper.

The priest, thinking about what he had said, nudged the man and apologized, "I'm sorry. I didn't mean to come on so strong. How long have you had arthritis?"

"I don't have it, Father. I was just reading here that the Pope does."

Sent in by Ron Huntley.

DINA MERGEANI WRITES:2may'08

Paul, a friend of mine sent me the first two photos (he took them at a local show). I know that the breeder has Dominant opal and Indigo in his birds. I took the last photo the previous year. I suppose that the color of the first bird might be brown and Dom. opal. What do you think?



Dark check khaki



Light laced Andalusian



Dom. opal checker

EDITOR:

I cannot be positive from the picture whether the first bird (brown t-pat – actually a khaki dark check) is also dom. opal or not but it does not appear to be. Nor do I think the andalusian is dom. opal. The third picture distinctly shows a dom. opal checker. This is the expression commonly seen in Racing Homers and Show Homers.

TOM BARNHART WRITES:

I believe I have a young ash red recessive opal in the nest, but I don't have enough experience with that combination to know for certain. I have attached three photos of the same bird. Sire is a blue recessive opal, moderate expression of red phase, and dam is an ash red that I know carries recessive opal. Sire's father is a blue recessive opal, extreme expression of red phase, so much so that he looks like an ash red. If you have bred recessive opal in ash red (as opposed to blue recessive opals that are red phase) and can speak from experience, I invite your comments on the photos.



These were with my emails but do not match the second sentence, so I believe they should more likely refer to the letter of Tom's on the next page. Editor

RICHARD KURSCHNER WRITES:

Tom and all, replying more to ask a question than answer yours. What I wanted to ask you or anyone who has bred recessive opals is how (you have found blue phase opals and red phase opals, both in genetically blue birds), work when mated together? Which is dominant or do you get grades of in-between types? From different pairs in the past I have got different results but on the whole, I have found red phase to be more difficult to breed. Certain pairs that should have bred red phase just didn't. Although they did breed some that I didn't consider typical blue phase either. Just wondering how it has worked out for you.

Regarding your baby and just venturing an opinion, to me it doesn't look like a straight ash red, so if a cock, I think it is opal as well. I haven't bred ash red recessive opals but have seen what I believe were some in a friend's racing homers. Parentage apart from appearance suggested that is what they could have been, just as in your case, but my friend wasn't interested in proving it. They were light chequers and I didn't see them as babies so I can't draw comparisons with your baby. A further question comes to

mind though and that is does anyone know what a red phase recessive opal looks like in either ash red or brown?

TOM BARNHART WRITES:

Richard, I fully concur with your first paragraph. My best (extreme) red phase recessive opals have come from a pair I no longer have. Cock was a light “white lace” spread blue recessive opal from Ron Huntley and the hen was a normal blue bar that was hetero for rec. opal. I have attached a photo of one of the sons, the only extreme red phase I have right now that I absolutely know is a “blue” pigeon. When mated to any hen, hetero or homo, that is rec. opal, I get a lot of variation but have yet to get one that is as extreme as he is. If I can come across and extreme red phase hen; I will try him on her and see what happens.

TOM WRITES:

Forgot the attachment. Here it is along with two of his daughters while they were still in juvenile plumage. They are red phase but not as extreme as he is. They also got somewhat darker in their adult plumage. [I think the pictures above belong here.]

STEVE SOUZA WRITES:

To add to Tom’s comments (and picture); what you have seen, and are asking is correct. And Tom’s reply is spot on. I am in the middle of publishing a paper on my results from the past 6 years of breeding and testing for the effect known alternately as “red-phase opal” or “extreme opal”. As soon as my paper is in print, you can read all about it... but the basic question to answer is – this effect seems to be the result of a factor that is recessive to both wild-type and [recessive] opal as we know it. No one until now has done any research through extensive breeding so hopefully my results will add to the group of knowledge out there.

EDITOR:

Steve’s paper will add greatly to our knowledge of the blue phase/red phase phenomenon exhibited by recessive opal. Just a few comments on the phenotypic aspects of the spread recessive opal red phase. First, the crescent on the breast shown on the first photo of Tom’s above is not part of the recessive opal complex. It is a separate phenomenon. The presence or absence of which is genetically controlled independent of rec.opal. Second, Richard’s question and comments about the variability of “red phase” is right on. Intermediate shades are seen. My experience is that I bred more red phase males than red phase females and the blue phase/red phase phenomenon is independent of pattern. Third, that Richard’s comment of ‘if it is a cock I think it is opal as well’ is based on the fact that its mother is an ash red. Fourth, rec. opal does not show as well at all on either brown or ash red. It has been my experience that recessive opal only shows in ash reds when they are in juvenile feather. Browns, especially in check patterns, do sometimes show rec. opal effects as adults. And fifth, in my 1993 book, I have a plate that shows a brown rec. opal T-check as well as blue phase and red phase rec. opals. In my 2005 book, I again show some pictures of rec. opal in different patterns and phases.

Here is another picture of a reciprocal red phase included with the above discussion.



Note the near absence of the neck crescent.

CHRISTINE NYLAND WRITES (to Ron Huntley):2may'08 excerpts

Dear Mr. Huntley, First, I love your [web] site.

Sometimes I get an Archangel with dark tail that shows some blue but the wings are still black. Is it possible that one gene for sooty darkens but it takes two to get the black tail with chestnut webbing? What is weird is the birds with blue in the tail will have the chestnut webbing on the wing feathers but the tail feathers do not. Do you know what is going on?

I crossed an Archangel to an Old German Owl and got a bronze bird with black skin, black check bronze wings and dirty blue on her back and tail. I assume the gene for smoky wasn't showing, but her tail still lacks the white marks [albescent stripe]. I thought only smoky could remove this color?

In gold and black Archangels, why doesn't the gene for pale lighten the black parts of the bird? In your picture it looks like it has lightened the black, but this isn't the case in show quality black and golds. I would really appreciate any information you have on the genes for copper and black Archangels.

RON HUNTLEY RESPONDS: excerpts

Thanks for the kind words on my web site. I am pleased you enjoy it. [We all do, Ron. It is a great asset to the pigeon hobby].

There is a big difference between my gimpel pattern Homers and the typical black found in Archangels. This is primarily because my Homers do not carry the gene for grease quill, which greatly enhances the Archangels color.

Anything that adds pigment to the feather could have an effect on the albescent stripe. Smoky is the primary reason but I am sure is not the only one.

I think your best bet would be to contact someone like Dr. Paul Gibson, who is far more knowledgeable on this subject than I am.

EDITOR: excerpts

Christine, the gimpel gene (gp) is intricately connected to the Archangel bronze coloration. It's action seems to be to keep the bronze (or at least most of it) off the wings and tail. It does not include the grease quills and/or iridescence.

Sooty (So) has been confused in literature. The reason is that usually the squab does not show the trait but it molts in with the first molt and in future molts it continues

to show on more feathers. Thus it is a dominant that, like some other traits, expresses better with age.

Dirty (V) was named verdunkle thus the V symbol. It is dominant but homozygous dirty is darker than hetero dirty. The black skin is definitive of dirty in the squab. However, there are instances that a black skinned squab will produce a clear blue ground adult. We do not know why yet.

EDITOR:

The German Pigeon Society has named the year 2009; the year of the Gold Blackwing Gimpel. I will deal with some of the phenotypes of the Gimpel (Archangel) and some of the genetic ramifications in the next few pages.

AXEL SELL WRITES: 4may'08 excerpts & paraphrased

Today some findings in my loft might be of interest. Mating of a dark bronze Archangel to a blue light checker Homer hen has produced 3 blue check offspring from medium to dark checks and 1 blue pale check hen.

All blue check juvenile plumages have a bronze breast and the belly up to the tail is purple. Head and neck are dark. The pale check hen has gold bronze. The mating of a light bronze white-wing to a light black tiger resulted in near white progeny. In tests, 7 young were of interest: 2 ash red bar cocks, 2 spread ash cocks, 2 pale ash bar hens and 1 pale spread ash hen. All cocks have a bronze head, neck, belly, and slightly diluted bronze toward the vent. The hens showed gold instead of bronze. The F2 confirmed the early finding of a dominant Archangel bronze also in the light bronze white-wing.

One of the few young raised up to now was a blue bar with a slight bronze breast and purple underbelly similar to the F1 from the dark bronze Archangel – Homer cross. From the light Archangels (Gold) often self gold young were raised. A cross of a hetero gold Archangel with a recessive yellow Moravian Strasser confirmed by some gold offspring the existence of recessive red in Archangels.

There is no evidence up to now for the existence of a separate gimpel pattern.

MY REPLY excerpts

Most of your research finding parallel those I did years ago. Yes, usually the young from an Archangel mating do produce young with at least the crop area bronze. However, my early research 10-20 years ago showed that if a good clean blue bar (wild type) without modifiers was mated to an Archangel, the bronze was not discernable on the young. [Thus recessive]. Anytime any modifier was evident, the bronze does act like a partial dominant. In common with other bronzes, spread covers the bronze and a nice glossy black can be produced.

In some breeds, when homozygous, the “Archangel bronze” shows as a bronze breast or crop crescent. Such breeds are the Starlings, the Suabians, and similar breeds. The bronze never expands from that crop crescent except when mated back to the Archangel. This same bronze is found in the Charcoal Lark, although here the bronze is restricted from the head and usually the vent areas. I found this same bronze in the other Lark breeds. [Usually the Coburg Larks do not have this bronze.]

I was never completely satisfied with my designation of the gimpel pattern gene

(gp) because I could never really separate the bronze of the pattern from the action of the gp gene. This is how I see it today – The gp gene restricts the bronze to mainly the body of the bird and thus prevents the bronze from completely covering the wings and tail. This allows the wings which are checker pattern in the Archangel race blue based to be black winged and those in brown base to be chocolate winged and in ash red to be white winged. Of course Gimpels are found in many other colors but when the darkening factors dirty, sooty, and smoky are present they aid in the production of the blackwing and chocolatewing phenotypes. These darkening factors do not aid in the production of whitewing ash reds. This coloration is produced by a recessive gene wwg on the ash base. Without the wwg gene the ash red Gimpel would have ash red wings and if the darkening factors are present they sometimes look like spread ashwing.

At this point I will introduce some pictures of some of the phenotypes discussed above and some of the ramifications of each.



Here you see two young birds that have bronze over the shield. This can be produced by two things. One is if the bird is extremely iridescent then the wing will be bronzed similar to the picture on the right. This will usually molt off to produce a very iridescent adult. Not sure what produced the other the bronze on the bird to the left.



This is what is seen in some F1s with birds that are from not quite wild type matings.



This is typical of ice X gimpel matings. The lack of bronze is also typical of crosses with wild type. Thus gp is by definition recessive.



This phenotype is typical of F2s from crosses. And the head color usually stays in the adult. This phenotype sometimes is produced by crosses but may also pop up from a pair of nicely colored adults. It may or may not molt into a better coloration.



The bird on the left is dilute and the one on the right is a pale. Again these may pop up from a pair of nicely colored parents but usually do not molt to a better color.

This phenotype with a slightly darker head and vent area are often reared from a nicely colored pair.



The bird on the left is typical of the coloration on the breast to the Charcoal Lark and breeding two birds like this together produce young like themselves and some young with the entire breast, back to legs and sometimes to the vent, bronzed like the bird on the right.



You have seen in print that the Archangel bronze will not show on a black bird, but the one on the left represents a homozygous Arch bronze on a black. The one on the right is a Charcoal Lark.



The bird on the left is a Charcoal Lark and the one on the right is a Suabian. Both are homozygous for the Archangel bronze gene.



Here we see a nice green sheen on a blackwing except the head and body color are purple, a fault.



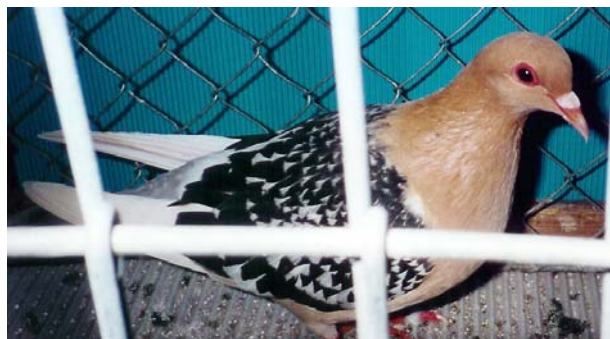
Here we again see purple on the head and neck and a bronzed crescent on the crop. Pretty but not showable as a Gimple.



These are very nicely colored dark bronze blackwing Archangels. The breed is noted for its high sheen as well as its bronze bodied blackwing coloration.



These are nice gold bronze (pale) blackwings. This gold coloration is produced by the gene d^p .



The bird on the left is a nice dark bronze blackwing with one shot of recessive red which lightens and reddens its bronze parts. The bird on the right is a Nuremburg Lark which is dilute Archangel bronze plus a lightener that diluted the wing base coloration to near white.

798



This [left] is a new coloration now shown as gold blackwing but it is not just gp. You will notice that it is lighter color even than the dilute shown here for comparison and the N. Lark above. The bird on the right also is Ts1 barred. Notice the muffs match the wing flight color.



Just a group to show that no matter what the pattern, the bronze coloration stays the same as in blackwing. The bronze as far as I have been able to determine, is only affected by spread and recessive red. Spread restricts the bronze and recessive red brightens the bronze toward red. The top two are dark bronze, the bottom two pale bronze.



These two gold bodied birds show the effect of another bronze on the wingshield.



These are some nice barless. The one on the left is what is normally seen in blue barless.. The ones on the right are apparently a brown wing and a blue wing. The one on the left in the picture might just be the result of the gene for dirty but it looks like a brownwing.



This is either a pale or a dilute ash wing. Apparently this bird is barless but the bars show slightly caused by a darkening factor.



This is a checker ash red. It is hard to tell whether it is also pale gold or not. But it is not whitewing or the flights and tail would be white.



This shows a young gold ash red barless. This is a gold ash red bar. Usually these leave the nest with poor color which molts in more color. They look so light because in the ash reds the base of the feathers is white.



This is a nice barless dark bronze ash red. Here we see a nice monk marked dark bronze and a non-bronze dark blue.

This bronze gimpel pattern has been transferred to some individuals of other breeds.

A seaman meets a pirate in a bar and talk turns to their adventures on the sea. The seaman notes that the pirate has a peg leg, a hook for an arm, and an eye patch. He asks, "So, how did you end up with a peg-leg?"

The pirate replies, "We were in a storm and I was swept overboard into a school or sharks. Just as my men pulled me out, a shark bit my leg off." "Wow", said the seaman. "What about the hook?" The pirate replied, "We were boarding an enemy ship and battling with swords. One of them cut my hand off."

"Incredible," remarked the seaman, "How did you get the eye patch?" "A seagull dropping fell into my eye," he replied. "You lost your eye to a seagull dropping?" the seaman asked incredulously. "Well," replied the pirate, "it was my first day with the hook."