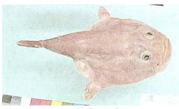
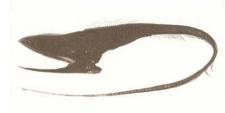
Creatures from the deep ocean found in debris washed up by the tsunami in SE Asia.







Ha, I have a bigger head. Not, I'm all head.

Maybe but look at my mouth & tail.

PIGEON GENETICS NEWSLETTER EMAIL SEPTEMBER 2011

EDITOR: LESTER PAUL GIBSON 417 S. Chillicothe St, Plain City, Ohio 43064

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Hope this story leaves a bright spot in your day. Whoever said the Creator doesn't have a sense of humor?

The Pastor's Cat. (A true story.)

A pastor had a kitten that climbed a small tree in his back yard. He tried to coax it down with milk and food. The kitty would not come down. Since the tree was not sturdy enough to climb, he decided to tie a rope to the tree and bend it down. He tied the rope to his car and started pulling the tree top down. He figured if he just went a little further he could reach the kitten. But as he moved the car, the rope broke. The tree snapped upright and the kitten sailed through the air out of sight.

He felt bad and walked all over the neighborhood asking people if they'd seen the little kitten. Nobody had seen it. So he prayed, "Lord, I just commit this kitten to your keeping" and went about his business.

A few days later he was at the grocery and met one of his church members. He happened to notice cat food in her shopping cart. He knew this woman was not a cat lover and everyone knew it, so he asked her, "Why are you buying cat food when you hate cats so much?"

She replied, "You won't believe this" and then told him how her little girl had been begging her for a cat, but she kept refusing. Then a few days ago, the child begged again, so I finally told her "Well, if God gives you a cat, I'll let you keep it." She said I watched my child go down on her knees and ask God for a cat. And really, Pastor, you won't believe this, but I saw it with my own eyes. A kitten suddenly came flying out of the sky, with its paws outspread, and landed right next to her."

BILL PETERSON EMAILS: 14sept'09

Did you work with agate types either with or without ts? I remember a discussion about these a while back and wonder I you have worked with these that moult in to whiteside without a ws gene?

You mention grizzle type. I get black grizzles that I'm sure with a little work could be bred to whiteside. I've been told that these birds are tiger grizzles and it

seems thy would be this type. In these, there is no ws gene that I'm aware of but it does act like a ws gene.

I don't know what all this means but these must be different types than what is seen in the whiteside breeds like Viennas.

EDITOR:

Bill, there is no Ts in the agates. I am not positive about all agates but matings of agate and ws showed my agates were ws (rec. red whiteside). The ws gene is a partial dominant on the recessive red base. The hetero was rose wing and selection had to be done to get a completely white whiteside. (The ws gene has variable penetrance and thus hetero and homo ws varied in the amount of white expressed.) Ws never showed on any other base than ee//ee. The agates were hetero ws.

The spread whitesides (usually referred to as black whitesides) did not act like tiger grizzle. In tiger grizzle, the white feathers molt in but in spread whitesides the feathers are present at the feathering of the juvenile. Few, if any, white feathers molted in later. Quite the contrary, grizzled or white feathers present on the head and/or neck usually molted to spread.

BILL PETERSON REPLIES:

In the case of the agates, (t-pattern recessive reds), they can go to whiteside without a whiteside gene. There are rosewings, intermediates, and whitesides in this group. They are red in the nest and begin moulting in white very shortly after they fledge. There seems to be no other factor required and is just the tendency of the recessive red t-pattern to do this. Spread factor will keep them red.

In the case of the spread whitesides, it seems to me that they were white in the nest and perhaps both recessive red and black could be bred this way with a whiteside gene. I don't really know as any whitesides that I have seem to come from a combination of factors like the agates or in combination with grizzle.

I was wondering how ts affected these types of whitesides and I think RT has some experience with this.

EDITOR:

As I said above, we has variable penetrance and expression. All "agates" and indeed all non spread recessive reds only expressed when the we gene was present. We does not express on non recessive reds.

I also have stated that the spread (black) whiteside is a different genetic factor involving spread and a type of grizzle. Spread whitesides can be bred in other colors than black but it is the most striking. Also spread whitesides can be bred in recessive red but they tend to have quite of bit of white in other places than the wing shield, especially the head and upper neck area.

Did you know? Chocolate affects a dog's heart and nervous system; a few ounces will kill a small size dog? Most lipstick contains fish scales? Ketchup was sold in the 1830's as medicine? Donald Duck comics were banned in Finland?

RIP:19sept'09

Members of this list (<u>geneticsforpigeons@yahoogroups.com</u>) should pay more attention to their usage of terms, as they apply in genetics, when they are discussing genetics.

EDITOR:

We must remember that when discussing dominance and reccessiveness, it is a slippery slope. Some 'dominants' are completely dominant, but these genes seem to be very few. Some recessive are completely recessive, but these also seem to be very few. Most are on the slope. If you consider an extension ladder, only one rung is at the top and only one is at the bottom. The rest are somewhere in between. Normally most of these are near the top or near the bottom. A few are at or near the middle. If we think of these as dominant (top) and recessive (bottom), then the rest are partially dominant, being neither dominant or recessive. However, custom has dictated that if they are near the bottom, then usually it is hard to discern any phenotypic difference that will make us call them partial dominants. Some insist that the term co-dominant should be used but to me if they were co-dominant they would be of equal statis like co-chairmen. To me this would only be those near or at the halfway mark.

As we have seen in recent years, a trait can be dominant to its allele but recessive to wild type OR be recessive to wild type but only express as a dominant or partial dominant on certain base colorations or genomes. The most notable that I have worked with in recent years is ecru. Now ecru is a sex-linked recessive to wild type but is epistatic to all base colorations either in the hemizygous state in hens and homozygous state in males remindful of recessive red. But it is even epistatic to recessive red.

Another trait that I have spent a few years studying is recessive red whiteside. It is recessive to wild type and all colorations except recessive red (e//e). On the homozygous recessive red which is epistatic to all other colors (white not being a color is unaffected by e//e) and patterns, (ws) is a partial dominant. When present as a hetero, it produces a rosewing and when present as a homo, it produces a whiteside. This trait, like so many others, must be subjected to selection to get the best expression.

Ever since I was a child, I've had a fear of someone under my bed at night. I went to a shrink and told him, "I've got problems, every time I go to bed, I think there is someone under it. I'm scared. I think I am going crazy."

He said, "Just put yourself in my care for a year." "Come talk to me 3 times per week and we should be able to get rid of those fears." "How much do you charge?" He said, "\$80 per visit." I said, "I'll sleep on it."

Six months later he met me on the street and said, "Why didn't you come see me?" I said, "Well \$80 three times per week for a year is a lot of money! A bartender cured me for \$10. I was so happy to save all that money, I went out and bought me a pickup truck." "Is that so?" he said, "How did the bartender cure you??

"He told me to cut the legs off the bed! Ain't nobody under there now!!!"

ARPAD REPLIES:

Pardon! Whiteside is invisible in all base colorations.....(Anything is "recessive", it suppose to popping up, when it become homozygous!)

EDITOR:

Never happen GI. Whiteside (Ws) only exhibits when bird is homo recessive red or yellow. Recessives do not pop up when homozygous. There are a number of phenotypes of recessive genes that do not show when homozygous except under the right conditions. This is even true of some partial dominants. Try grizzle (G) or undergrizzle (Ug), both of these can be present and not show up when the right combinations are present to prevent it.

ARPAD WRITES:

I need help, to understand this statement "Recessives do not pop up, when homozygous."

EDITOR:

You used the term, so I did also. What I meant was – that just because a recessive becomes homozygous or in case of a sex-linked hemizgyous, it will not express in all conditions. There has to be a set of genetic conditions to allow it to appear (pop up). People use the term (pop up) to mean appear out of nowhere. Of course, in our studies we do see recessive traits that appear when they become homozygous but as I say the genetic conditions must be such that they allow the trait to show (be seen).

There are quite a number of mixtures that either do not allow a trait to show because of the genetic traits they are mixed with. This can be just not the right background or just not the right mixture. A good example of background is found in the gene (ir) [iridescence]. If the background is blue bar it shows very little or not at all. If the background is black or rec. red or bronze it flares into a very iridescent [shiny] bird. There are many examples in our birds like this. If there is not the right mixture, such genes as gimpel (gp) will not produce a two colored bird because the bronze will not show or will be very restricted.

Sometime I may write all these things down for the fanciers to chew on.

ARPAD WRITES:

I can't feel (yet) the small differences of the English language, so I used the "poppin' up" as a synonym of "become visible". But, this is not the real point. Meantime, I understand and not deny the phenomenons you describe, there is an important difference between our talk. I think, there is a quality difference between [epistasis] and dominance and our talk should express the difference.

We cannot compare thinks [ideas], they have nothing to do with each other. As it is not right to say "Spread is dominant to rec. red", we can't [under]stand that "any coloration is dominant to white side" [is] backward: Ws is not recessive to any coloration. Ws has only one (not counting here that seldom [seen?] tschinys) allele, and it is the non-whiteside (wild type). And as you said, it is partial dominant to it.

Ws is not partial dominant to rec red either!

[The] only role rec red (e//e) plays is providing a proper genetic background to Ws to show itself. (All my statements are based on A Leiss's report.)

Yes, Ws [does] not become visible in homozygous state on blue bar, since Ws is not recessive to it. The blue bar coloration is epistatic to the Ws//?. This is what all my earlier responses were about.

Relationships between non allele traits is not question of dominance (recessivity). I'm quite hardnecked (stubborn) [we normally say hard headed] about it.

EDITOR:

Arpad, your understanding of the difference between dominance and epistasis is far beyond that of over 90% of those working with genetics of pigeons. If I talked to others the way you do in this email, I would not be able to get them to understand. Many use the word dominance as if it were a cure all. Epistasis is not in their vocabulary. It is a pleasure to write to someone that truly understands the difference.

JIM DEMRO WRITES:

I think it helps if we look at accepted definitions. Of course, who claims what definition is the right one.

Epistasis is the *interaction* between genes. Epistasis takes place when the effects of one *gene* are modified by one or several other genes, which are sometimes called modifier genes. The gene whose *phenotype* is expressed is said to be epistatic, while the phenotype altered or suppressed is said to be hypostatic. Epistasis should be distinguished from *dominance* which is an *interaction* between alleles at the same *gene locus*.

EDITOR:

That is what most genetic texts say and for most that is as clear as mud. Briefly said: Epistasis is the action of modifying non allelic genes whereas dominance is the action of modifying allelic genes.

JERRY SINDELAR SUBMITS:

US RECESSION (Examples how bad the recession is.)

My neighbor got a pre-declined credit card in the mail.

Exxon-Mobil laid off 25 congressmen.

I saw a Mormon with only one wife.

If the bank returns your check marked insufficient funds, you call them to ask if the meant you or them.

When Bill and Hillary travel together, they now have to share a room.

A picture is now only worth 200 words.

McDonald's is selling a ¼ ouncer.

Angelina Jolie adopted a child from America.

A truckload of Americans was caught sneaking into Mexico.

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EDITOR:

The Indian Fantail breeders have been breeding "almond"(stipper) birds for years. Many of them in recent years are devoid of break. Some may develop some break as they age. The enclosed picture is of a bird bred by Dan Stiles and displays this lack of break. Also, notice that the pattern is quite evident as it is in the almond series near sandy.



RYAN HARVEY EMAILS:27sept'09

Hey there, Just wondering if anyone can tell me what colors are involved with this bird and some possible outcomes from mating to a blue bar homer hen. What ever you could tell me, just going by the pictures would be great.





EDITOR:

The bird looks like a dilute or pale archangel bronze non-gimpel. Mating with a blue bar Homer hen will give you blue bar young males and silver or pale bar young hens. However, it is probably a hen, so if it is, that is moot.

Did you know? Leonardo da Vinci could write with one hand and draw with the other at the same time? (Had a professor like that wrote with the right hand and erased immediately with the left hand! Had to read each side of his head.

GREG ZILBERG WRITES:

Paul, I made better pictures of the eye of this bronze hen and it does not look to me like a bull eye. Am I wrong?





EDITOR:

Excellent pictures. I agree it does not look like a bull eye. As suggested in my last email, I think it is just a juvenile eye that did not change to the adult color.

Yesterday I gave all but three of the young from the birds you sent me to an Iranian gentleman that lives about 15 miles from me. He said he will train and fly them and I will visit him and watch them fly. The old birds have died.

My research showed that there are at least two factors that they have that allow them to soar on thermals. One is the double jointed wrist which is inherited variably as a recessive and expresses as either a partial or complete double joint. The other is a recessive trait that they push or flex their wings forward and fan their tails to take advantage of the updrafts. There is a variability in how well they do this. I suspect it is a combination of genetics and learning.

[These birds are not good fliers. Greg informed me that he feeds the birds to make them thin and thus lighter which allows them to "float" in the wind.]

LETTER TO AXEL SELL: excerpts

I have a couple questions about the gene symbols in your web page. You list pb (plumbum, plomb), ba (atlas bronze), Sm (Schmale Schanzbinde), and Pst Pseudotiger). Do you have pictures of these that you could share and citations where I might read about them?

AXEL SELL:

For sure you may have some photos. I suppose you will have photos from lead because I gave some reports on this trait in the past and probably also a photo. In lead and also rubella we realized the phenomenon that the Spread became darker over the generations. In the beginning Spread Rubella cocks were all light and the hens dark, now the light silver cocks seem to be the exception. And also my Spread leads are more of less near to black with lightened flights and tail. I just put some photos from the reduced meeting last weekend on my homepage, inclusive of a very dark Spread Rubella Homer from my loft and a checkered lead cock. The first

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report about lead and a discussion of the recessive character and the relationship to platinum and other traits was given in the Geflugel-Borse no. 10/2000, and in the book "Vererbung bei Tauben" the trait is discussed and there are also photos from the first and second generation of a cross leadXblue checker homer hen. About Atlas, I gave also some info in no. 52 and no. 54 of the Pigeon Genetics news...The tail bar and differences between Smoky and non-smoky were discussed in the book "Vererbung", I probably did give some small info also for the Pigeon Genetics, but I do not have a complete list of my articles and notes. Pseudotiger was discussed by Andreas Leiss and according to him it is a trait that only works if grizzle is present. He had a great discussion in an article in the Geflugel-Borse no. 13/2006 with the title "WeiBschildigkeit bei Tauben. Teil 2: Schwarze WeiBschilder". But I suppose that he also made reports for the Pigeon Genetics.

MY REPLY:

Thanks for the reply. I should have recognized the symbol Pb since that is the symbol on the periodic table of elements. Just missed that! Oh, by the way, you don't have a symbol listed for ember in you listing. Hollander selected E, but of course, that was not usable since the wild type of e would be E. Therefore Larry Long selected e^E as the allele of e.

AXEL SELL REPLIES: 3nov'09 exerpts

Thank you for the reminder on Ember. Yesterday I made two corrections in the list. I more or less finished the project on beak length with the result that there are two dominant traits Ku1 and Ku2 instead of Ku only.

BERTUS PRETORIUS EMAILS:

Paul, the two squabs are now on the ground. The wing color is still pure white and the bars are very dark/black. My belief is that it is a very clean bluewing. Notice the difference in the bars of the two squabs. Clearly smoky on the dilute check.



EDITOR:

Bertus, yes, both young are dilutes. The dilute blue (silver) is a hetero barless. In cases like this where the bar seems to be black and the flights light, one

must go by the flights to classify the bird. Most likely both are smoky since their beaks are so light. Neither show good body bronze but it may molt in.

BOB RODGERS:7oct'09 excerpts & some editing

I think I understood from one of your writings that you stated that recessive bull eyed white and gazzi design may be alleles/alternates. As I understand an allele, it is an either/or deal, thus a recessive white cannot "hide" gazzi. Therefore if mated to a Baldhead design, for example, it cannot produce a gazzi. Am I on the same page or totally wrong on that?

I mated a hetero Tiger Grizzle Capuchine (Baldhead)/ homo ash red T-pat to a rec. white Modena that was the progeny of a white and a "grizzle"? gazzi ash red. The offspring is a near gazzi design and appears to be homo tiger grizzle.

I will send photos soon.

EDITOR:

The work on allelism of recessive white and gazzi was done mainly by Robert Mangile and published in a 1982 article by Mangile, Chrisler, & Hollander. Since rec. white is recessive to gazzi, you are right rec. white cannot hide gazzi. However not all whites are "the recessive white" that is the allele of gazzi.

Mating a Tiger Grizzle Baldhead ash red T-pat Capuchine to a white Modena which was out of a white and a grizzle gazzi ash red does not preclude offspring with a near gazzi design. Nor would it produce a homo tiger grizzle.

The white out of a white and a grizzle gazzi ash red could not have been a white allele to gazzi. It most likely was a grizzle ash red white/ het rec. white.

You state a near gazzi design. Since I did not receive pictures, I really have no way to see how "near" it is to gazzi design. It could be a gazzi/rec white but should have shown a hetero Bh head design.

JIM THACKER WRITES:9oct'09

I have attached pics of an 18 month old cock bird that I originally thought was ash red but I now believe is an indigo ash red mimic. He is out of a blue (spread) slightly grizzled qualmond hen and a cock that appears to be a darker version of the YC.





ROBERT McKEE WRITES: excert

Looks like qualmond indigo.

1042 EDITOR:

The bird definitely is not an ash red nor would I classify it as an indigo ash red mimic. The tail and flight tips are blue/black. The bird is undergrizzle producing the whitened basal flights and tail. It is a qualmond and probably is indigo. It also may be carrying rec. red to produce the reddishness over the head and wingshield. This same coloration can be produced by T-pattern indigo. The "slightly grizzled" appearance is part of the qualmond genome.

RIP WRITES:23oct'09

For all those poor folks who have laid awake nights trying to picture what a Vienna-English Magpie Tumbler would look like, your wait is over at last.<gri>

This goes back to the "angel wing" posts. The hen has normal wing carriage as long as she is in a single story pen. The squab has normal wings under flight conditions. I was a bit surprised to not get white flights in the first offspring but in the second round, another single, the squab has 3 X 3 [white flights], so the hen is apparently hetero for white flights or white flights is not a 'complete' dominant. I know next to nothing about pieds, the sum total of my white experience to date has been with "z" alleles. It could very well be that "white flights" is redundant in the magpie pattern? I'm inclined to doubt it since I also have a German Beard Tumbler X English Magpie Tumbler cock (single pen) that is self except for all white flights, i.e. Modern Show Flight pattern. Crossed on Modern Show Flight hen, single pen, he produced nothing more but more "MSF" marked offspring.

Apparently the Magpie hen must be at least hetero for "barless" and the squab too?

To date it appears that "the man from Oz" had it right, all along, it is a feather shape problem rather than a skeletal problem. Since this fact has become apparent, quantifying it is what has had me spending sleepless nights. As someone whose "day job" was entomology, I can't help but think in terms of "wing venation" in insects and that is a science unto itself. Just figuring out what ratio(s) is/are critical could take a while.

Anybody have any thoughts on how to go about it? What to measure and where? Access to some kind of morpho-metric software would be nice.



[Believe this is Rip's Angel wing. It also has feather problems with the flight and tail feathers besides Angel-wing.]

RUDOLPH WRITES: 1043

Rip, I have no white flighted birds in my loft, but currently have a squab from an ash red bar grizzle to a blue check grizzle hen (she also might be a bit pied, but she has no white flights) and the squab is an ash red bar with a perfect set of white primaries on both sides (as well as some pied head markings). Other than the flights and the head, there is not white anywhere else on the bird.

The dad is split for blue, and has black flecks on all his flights, so I know he is not white flighted. Maybe there is more than one white flight gene? The one expressed in my flock definitely is not completely dominant in the formal sense.

EDITOR:

There are pied genes that produce recessive white flights but they normally do not produce evenly marked white flighted birds but usually produce just scattered or 1 to three white flights which may be only on one side.

Hey Rip, I didn't realize that you were a "bug" man. What insects do you work with. I have been an entomologist since I was about 4 yrs old. After getting my Bachelors degree, majoring in Ornithology and minoring in genetics, I took a job as an aerial survey entomologist for the U.S. Forest Service. I flew aerial surveys over Ohio, Kentucky, Missouri, Georgia, Alabama, and Mississippi. After a couple summers of that, I transferred into research. I worked for the Forest Service for 30 years. I worked with a multitude of forest insects and then concentrated on nut crop insects and their parasites. I revised the genera *Curculio* and *Urosigalphus*. I wrote papers on *Conotrachelus* and several insect parasites that affect nut crops. I collected and reared weevils from Canada, the United States, Mexico, and Honduras. I named quite a few new species. I still maintain a collection of over a million insects (nah, several thousand). I visited a number of Museums and identified and set up their collections of *Curculio*.

CHRIS WRITES:

I have crossed a blue bronze showing toy stencil to a satinette brown laced and produced 2 black young. Should I not have produced a white bar or laced young for this mating? Are frill stencil more difficult than toy stencil to transfer?

EDITOR:

Chris, for some reason, which we have not solved, [the bronze markings of] toy stencil do not always print out on a black bird. Sometimes the bars will be bronzed and molt white on a bird that has the full toy stencil complex and sometimes they come out of the nest white.

If you were just after frill stencil (fs) gene expression, you would not get this until you either mate 2 F1s together or backcross to the satinette. Frill stencil expression by itself is normally white and is confined to the tail bar and flight tips. It (fs) is quite variable and my not express in the tail, or it may express slightly, or fully in the tail, flight tips, and even cause the bar to be a pinkish bronze. [With toy stencil and sooty, the white marked feathers (Ts complex and fs)can express clear up to the head.]