

Words of wisdom: "The early bird may get the worm but the 2nd mouse gets the cheese."
Correction – the two Arc pics on page 1051 attributed to Potter, are from Gary Young.

PIGEON GENETICS NEWSLETTER

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You all read the comments about Ts (Toy Stencil) by Rinehart and the reference to the paper "Modena Bronze" by Richard Cryberg at the end of the last issue. I will deal with that in this issue.

First, I would like to tell you a little about myself and research. John Quinn, evidently no kin of Joe Quinn, asked "Who is Paul Gibson." Well John, I grew up the eighth son of nine boys and 1 girl on a farm in central Ohio. I did all the normal things farm kids had to do. I also fished, hunted and trapped. Helped gather berries and nuts from an area about five miles around our farm. Being a large family we had 2 gardens. One about ½ acre and one 3 acres. Mom would can enough for the winter. Reared and butchered our own meat etc. I worked on farms until I was 21 at which time I took two years out to be in the army.

I was stationed on Hokkaido, Japan as part of the occupation forces of the 7th Calvary in 1951, then sent to Korea. Was wounded, hospitalized in Japan, healed and sent back to Korea in time to rotate back to Japan, transferred to the 5th Calvary, then back to Korea for the rest of my tour. I attended O.S.U. starting in 1953 and earned my Bachelors degree in Ornithology in 1957. I took a job with the U. S. Forest Service as an Aerial Survey Entomologist. Married and had 4 children, 2 girls and then 2 boys (the second boy died at childbirth while I was working in the Smithsonian Museum in Wash., D.C.)

After 2 years flying over Ohio, Kentucky, Southern Indiana and Illinois, Missouri, Georgia, Alabama, and Mississippi; I transferred to a position as research entomologist and worked for the U.S. Forest Service for 30 years. During those 30 years, I continued my education and received my Masters in Science in 1962. I continued working full time during this time and continued to get my PhD in Entomology in 1974. All at the Ohio State University.

I worked with weevils that infested nut crops in the U.S., Canada, Mexico, and Central America and became the world's expert on nut crop insects and their parasites. When trying to identify the weevils and their parasites, I found no one could do it. So, I looked up all the available written information on the weevils and tried to find a way to identify each species. What a mess! I found that I had to start from scratch and ignore all published information and make my own criteria. I borrowed weevil specimens from quite a number of museums and studied them. Eureka, after much study and observations, a few years later the species started to fall into place, I found a way to separate species. All previous writers had compared them by saying species A could be separated from species B because its size was a little bigger or its color was a little browner or its rostrum was longer. Well as you can imagine, that was not any help unless you had the two side by side to compare,

which usually you don't.

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I wrote and published taxonomic and ecological papers complete with pictures and drawings plus keys to species in the Miscellaneous Publications of the Entomological Society of America: In 1969: Monograph of the Genus *Curculio* in the New World (Coleoptera: Curculionidae) Part I United States and Canada. Vol. 6:5 pages 239-285. In 1972: Revision of the Genus *Urosigalphus* of the United States and Canada (Hymenoptera: Braconidae) and *Urosigalphus* of Mexico and Central America (Hymenoptera: Braconidae. Vol. 8:3&4 pages 83-157. In 1974: South American *Urosigalphus* (Hymenoptera: Braconidae) Vol. 9:4 pages 201-226. In 1977: Monograph of the genus *Curculio* of the New World (Coleoptera: Curculionidae) Part II Mexico and Central America. Vol. 10:4 pages 1-56.

In 1964, I published a paper: Biology and Life History of Acorn-infesting Weevils of the Genus *Conotrachelus* (Coleoptera: Curculionidae) in the Annals of the Entomological Society of America, Vol. 57:5 pages 521-526. In 1967: Stridulatory Mechanisms and Sound Production in *Conotrachelus* (Coleoptera: Curculionidae) in the Annals of the Entomological Society of America. Vol. 60:1 pages 43-54.

In 1977, I published a paper: A New Genus of Blacinae (Hymenoptera: Braconidae) in Pacific Insects 17(2-3) pages 241-245.

In 1982, I published a paper: New Species of *Urosigalphus* (Hymenoptera: Braconidae) from South America. In Proc. Entomol. Soc. Wash, 84(1) pages 167-176. The genus *Urosigalphus* are parasites of weevils.

In these papers I set up keys to species, described the species and identified the means to separate one species from another. I named a number of new species, new subgenera and a new genus. After writing the weevil papers, I was invited to various museums including the Smithsonian to set up their collections of *Curculio*.

I have raised pigeons since I was 7 or 8 and mainly reared them for squabs. And as barter items to others in the neighborhood who reared barn pigeons. When I was 17, I started rearing Canaries to sell and for the Pet Market. I worked with the crosses of the Black Hooded Red Siskin from South America (also known as the Venezualan Hooded Siskin) crossed with the "Canary", a green finch originally from the Canary Islands (about 150 years ago). How this came to be is too long a story to recite here. Suffice it to say I was producing some of the prettiest pastel and orange canaries I had ever seen. By the time I was married 10 years later, my mother and I had a couple rooms full. Over 400 at one point. Yellows, buffs, citrons, whites (both recessive and dominant), piers(variegated), diamorphics, several shades of orange from butter to deep red orange, cinnamons (brown) and many pastels in lemon and orange.

I have been a member of the Plain City Presbyterian Church for 58 years, serving as Sunday School teacher, Deacon and Elder. I was a Boy Scout and later Scoutmaster of the local troop. I served the city on various committees for over 20 years and a few years on city council. I was President of the local senior citizens for 14 years and then Activities Director for 10 years retiring in March 2011. I am currently serving the city as a board member of the Uptown Committee to oversee the beautification and resurrection of the historic Plain City area.

I was very active with the Pigeon Fanciers Council started by Hollman, continued by Joe Quinn, and chaired by Dave Rinehart in its last two years.

I used the same techniques learned with researching weevils and breeding canaries to identify the genetics of Pigeons. For the past two weeks, I have been reading all the issues of the Pigeon Genetics News Letters put out by Doc. Hollander and Joe Quinn. 1957 -1974. There were a lot of notes on the subject of the colors we call Modena bronze, bronze stencil, Argent, "Bronze and White C areas". Glad I didn't read them prior to doing my research on Toy Stencil. If I had I would have had a harder time classifying them. If interested in what has been written in the past, let me know and I will send that information to you.

Dr. Willard Hollander started the Pigeon Genetics News Letter in 1957 and continued it until 1966, then Joseph Quinn edited it until 1974, David Rinehart then restarted it in 1976 under the name Pigeon Science & Genetics Newsletter and dropped it after the Dec. 1978 issue. After 4 years(1982), I restarted it under the name Pigeon Genetics, News, Views, & Comments. In 2003, I changed the format from a mailed quarterly (because of the heavy printing and postage cost) to a ten page monthly email newsletter which is what it remains today.

The evolution of the newsletter moved from a few typed pages each issue under Willard to up to 92 typed page tombs by Joe, to about 47 to 80 pages bound issues containing some black and white pictures by Dave. When I started I made it 26 pages quarterly with black and white pictures which evolved to some color pictures front and back pieces and finally 10 pages monthly with all color pictures.

I tried to get Doc Hollander or someone to compile the scattered information on the genetics of pigeons into one book. No one did, so I started doing it myself and in 1993 published a ring bound book "Genetics of Pigeons Columba livia (Gmelin)" which contained a lot of colored pictures and all the genetics known up to 1993. In 2005, I wrote my second book "Genetics of Pigeons" which contained the known genetics known up to then and all the pictures in color.

I started my Toy Stencil research with an Oriental Frill Schietti that I bought at the NYBS in Louisville. I mated it to a Blue Roller and obtained nice bronze check blues. I mated these together and produced many F2s (several hundred over the next few years). Some of them I gave to John Potter and we worked with them and separated the traits into frill stencil and Toy Stencil. John also bought some birds to use. Frill stencil affects mainly the tail and the flight ends and in the absence of Ts produces also pink bars especially in the distal bar.

The F2s varied in coloration but were mostly bronze marked. No white marked and only a couple blue non-bronze. The better ones were dead ringers for the Modena bronze marking. From these F2s we started seeing similarities to the patterns of Modenas and Cauchois. I segregated out the dark red bronzes and the lighter grayish bronzes and mated pairs of each together. I was lucky the lighter bronzes bred true. The dark red bronzes I called Ts1s and the grayish bronzes I called Ts2s. Some of the young from the Ts1s were identical to the parents but most were lighter bronzes to non-bronze.

I mated some of the dark bronzes back to the white marked Oriental Frill

and produced a couple white marked and the rest dark bronzes. Continued matings were made with F1s, F2s, and backcrosses. Tests with Modenas showed that the two bronzes were identical to those in the Toy Stencil complex and that the Argent Modenas were homozygous Ts complex. Since I could not find any indication of the third whitening trait separate from the bronzes the number of non whitened young showed there were at least two non allelic genes involved Ts1 and Ts2 and that there was a non allelic recessive gene which changed the bronze to white; I assigned it the symbol of ts3.

At this point I will enter a number of pictures of what we find in a few breeds of pigeons. After the pictures, I will deal with the comments made by Dave Rinehart and the paper written by Cryberg.



Ts1//Ts1, Ts2//Ts2 check
American Modena



dilute Ts1//Ts1, Ts2//Ts2
American Modena



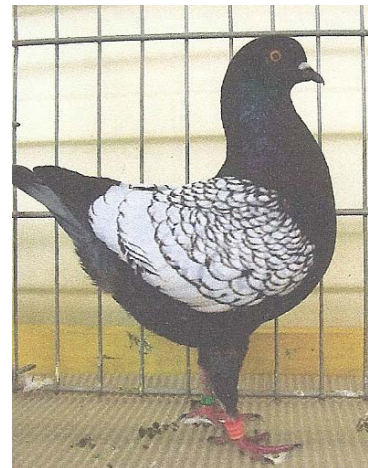
Ts1//Ts1, Ts2//Ts2 T-pat
German Modena



Homo Ts complex check
American Modena



Ts1//Ts1, Ts2//Ts2 ck
German Modena



Homo Ts complex check
German Modena

PARAPROSDOKIANS: 1) Do not argue with an idiot. He will drag you down to his level and beat you with experience. 2) If I agreed with you, we'd both be wrong. 3) War does not determine who is right – only who is left.

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Ts1//Ts1, Ts2//Ts2 barred Black Italian Modena



Ts1 barred Cauchois



Ts1//Ts1, Ts2//Ts2 Check Cauchois



Ts1//Ts1, Ts2//Ts2 Cauchois (color variation is caused by light and background)



Ts1//Ts1, Ts2//Ts2 Cauchois



Dilute Ts1//Ts1, Ts2//Ts2 Cauchois



Ts2//Ts2 check Cauchois



Ts2//Ts2 check Cauchois



Homo.Ts complex Cauchois

Examples of hetero Toy Stencil phenotypes

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Het. Ts1, Ts2 ex Cauchois (Jeremy Tolliver) '90 CauchoisXRoller. Ts1//Ts1 (Mangile '91)

1060



Het Ts check ('94)



Het Ts check



Het Ts check



Het Ice, het. Ts complex



Ts2//Ts2 Roller



Ts//Ts, fs//+ ('95)



Brown Ts//Ts 1991



Toy Stencil check and bar Gimpels



Homo Ts complex

SIGNS SEEN ON CHCH BILL BOARDS:

What is missing in the above line? UR

Adam blamed Eve, Eve blamed the snake, and the snake didn't have a leg to stand on.

Keep using my name in vane, I'll make rush hour longer. –God



Ts//?, fs//fs (Potter '91) prob. Ts2//Ts2



Ts//Ts, fs//fs, So//So, V//V juvenile (1/2 tail was pulled early) '91



Ts//Ts, fs//fs bar homo sooty, dirty (Potter) '91



Ts2//Ts2, fs//fs



Danish Suabian (homo Ts complex, plus Undiagnosed suabian trait & Archangel Bronze.)



Group of T-pat Ts1//Ts1 bronze shields



Nice bronze barred blacks



Bronze shield black



Dilute bronze shield

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Blue Ts//Ts sooty, dirty German Field pigeon '93



Gazzi German Modena
Ts1//Ts1, Ts2/? ('03)

Lately, after some derogatory statements by Dave Rinehart, I thought maybe I missed something so I ran the tests again on some German Modenas. As you can see below the segregation of F2s was quite on track.



F2 gazzi German Modenas in bar and dark check pattern.



F2 schietti German Modenas in check pattern and some more gazzi marked. It is interesting to me that the gazzi hens came clear in the white areas and all the gazzi males had lots of scattered dark feathers in the white areas like the one on the right.

PARAPRODOKIANS: 1) Light travels faster than sound. This is why some people appear bright until you hear them speak. 2) Knowledge is knowing a tomato is a fruit. Wisdom is not putting it in a fruit salad. 3) To steal ideas from one person is plagerism. To steal from many is research. 4) I didn't say it was your fault, I said I was blaming you. 5) A clear conscience is a sign of a fuzzy memory.



In the first picture: A couple nice shietti pattern F2s, the one on the left is a $Ts2//Ts2$ and the one on the right is a $Ts1//Ts1$ with probably $Ts2//+$. The second picture is of the homozygous Toy Stencil complex in blue(rear) and dilute(front). The one to the right is a brown.

I had spent years working on the Toy Stencil complex. After publishing the $Ts1, Ts2, ts3$ conclusions and after many people that used that 'theory' and found it to work, some questions arose (most unbased) about the validity of the Toy Stencil complex and how widely it was distributed among pigeon varieties.

There are some phenotypes that can not be tied down. The following three are examples of the type phenotypes that do not appear to fall into categories. One of the problems is that even though the squabs are homozygous for all the Toy Stencil complex, some feather out white and others feather out bronze. Sometimes it takes 3 molts for the true colors of the C areas to show.



The first bird is a homozygous frill stencil ($fs//fs$) but it shows an off color which covers the tail bar and the shield. The tail bar of $fs//fs$, when it shows, is always white even in the nest. The wing markings may be $Ts2//Ts2$ but who really knows. This bird may be also Dominant opal or a hetero rec. red which might account for the discoloration but we cannot tell. Also the fs normally only affects the tail and wing bar.

The second bird is a juvenile Swallow and since it is a homozygous Toy Stencil complex, its markings should also be white and not bronze. It definitely is not also dominant opal because Od shows in the foot feathers of the squab and washes out the overall color. It probably will molt to white?

The third bird, a juvenile, is a dirty, homo Sooty, homo Toy Stencil complex and as you can see the bars are bronzed. Usually this color tint indicates the bronze areas will molt to white (and this one did) but we have had very dark bronzes also molt to white in the second year.

These are but a few of the things that have to be taken into consideration when trying to identify color groupings in Toy Stencil bronze.

The Dalai Lama wrote, “Our prime purpose in this life is to help others. And if you cannot help them, at least don’t hurt them.”

Dave Rinehart says my “TS1,TS2,TS3 (Toy Stencil) theory is BS.” I must admit he got the S right but Dave, it is Ts1,Ts2,ts3. T not B. He says it takes a Modena breeder 4 to 5 generations to get back to nice white Ts patterns after they mate to Modena bronze. I would guess that would be conservative, Dave. He also states that no one has been able to put Modena bronze into Rollers, Homers, or anything else. That is true unless you realize that Ma=Ts. Perhaps a perusal of a good book like Levi is in order and just look at the bronze and white C markings. Dave further states that he knows Modena bronze is not part of Toy Stencil. Well, Dave, try a little research and if you have an open mind, you will find many breeds (and there are many) that are Toy Stencil white marked and then cross them with black barred blues. One mating will show you they will produce bronze just like the Modena.

When Richard Cryberg wrote his paper “Modena Bronze” in Feb. ’09; I slammed him very critically. I guess that was because I think he is a very smart person. I was disillusioned and expected much more from him.

Now I will do a critical unemotional review of his paper. He found three bronzes. One of the feather vane and two that bronze the C pattern area. The latter two are what we found years ago so that is consistent with known information. He says they are codominants (these we found in the period from ‘70s and 80s but called them dominants since the hetero and the homo bronze from white, look alike). In tests though, matings produced several hetero shades of bronzes which degraded continually. The depth of bronze is also influenced by the presence or absence of recessive red. And the amount of bronze exhibited is dependent upon the C markings, and not necessarily on whether the trait is homo or hetero. However, when the bird has the whole Ts complex, the white markings also print out on Sooty markings. Sooty markings increase year by year and the amount of white marking follows.

Cryberg used a dilute T-pat gazzi mated to a dark check Homer in his test. Produced 3 young and then did backcrosses to produce 26 ‘classifiable’ young. The pied factors made some of them unclassifiable. He found his original blue Homer also carried opal so this messed up some of his classifications. He states he did not classify any of the opals. But he had no way of knowing if opal messed up colors when hetero. He states that “of the 26 classifiable young – 2 were wild type, 4 were like the F1s, the rest were intermediate between wild type and F1s”.

His table 2 shows: that 2 were wild type, 4 were like the F1s, 13 showed pattern bronze and 7 were “Modena flight bronze” which is not a pattern bronze so were non pattern bronzes. Therefore for the test, Ma (Ts) bronze the count should be 9 wild type or non Ma bronze, 4 F1 type bronzed, and 13 pattern bronzes. A 9:4:13 (4:9:13) ratio from backcrosses.

Also any dilutes would show lark marking on the crop area which is not due to the bronzes in question but is part of the dilute phenotype. He evidently did not record any as dilute.

My conclusion of the above tests is: the sample was way too small, he should have used a non-gazzi and not a dilute. The research was too hurried and not in depth, and he did not even try to test with the white part of Ts. His results were mainly based on only 6 birds (plus the sea of 20 bronzed) and statistical analysis. He did not make any F1 matings to produce F2s. He does say this is a work in progress. Maybe he will still do that??

He has one paragraph naming the short feather trait of Modenas and proposed the symbol (stf) for this trait. Although he published this *without showing any data* (which Dave and Dick continually throw up, claiming lack of data for my published symbols); it is a valid trait and his symbol is a good one. I have worked with this trait a lot in the past and have found it to be a recessive trait. I transferred it to Rollers and produced Rollers that had flight and tail feathers no larger than that on a sparrow or starling. They could not fly well. LOL.

Cryberg took time to insert into his References about the symbols Ts1, Ts2, etc, being clearly not allowed because the rules of nomenclature reserves numbers for paralog genes in DNA sequencing. That may be true, since the rules are changed every year. BUT it was not true when those symbols were selected and thus the Ts1, Ts2, ts3 symbols were and are protected, as far as I can determine, by the rules of nomenclature. The International Committee of Genetic Symbols and Nomenclature (Tanaka, Y 1957) states: "Use subscript numbers on the same base letter for phenotypically indistinguishable non allelic mutants (mimics)."

He correctly states that Doc. Hollander symbolized the bronze of Modenas as Ma but failed to add that prior to that Doc. had named the white markings as Ts. When research showed that Ma was just an intermediate coloration of the Ts complex (which was accepted by Hollander); the symbol Ts takes precedence. Thus if the symbols must be changed they would be: Tsa & Tsb for the two bronze genes and tsc for the whitening gene which must have the other two to color white.

The third bronze which affects the webbing can be found in most breeds. He even cites a paper by Haase, Sell, and Wakamatsu (1992) from the J. of Heredity that says that most blue birds have a bronzing component. He named this bronze Modena flight bronze (Maf) which gives it the wrong connotation. This bronze can, and most likely is, caused by a multitude of factors and is not just part of the Modena colorations.

More church signs:

***THERE ARE SOME QUESTIONS THAT CAN'T BE ANSWERED BY GOOGLE.
HONK IF YOU LOVE JESUS, TEXT WHILE DRIVING IF YOU WANT TO MEET HIM.***

THOU SHALL NOT STEAL THE COPPER FROM THE AC UNIT.

CHURCH PARKING, TRESPASSERS WILL BE BAPTISED.

HOW DO WE MAKE HOLY WATER? WE BOIL THE HELL OUT OF IT.

EVERY DAY ABOVE GROUND IS A GOOD ONE.