

# Allelism of Various Pied Markings

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This is a report on crosses I have done to check if various pied markings in pigeons are alleles. I usually used two or three pairs to breed together to evaluate if the different peds are alleles or not. I don't feel the low numbers I used to evaluate the allelism gives statistically scientifically confident results. With the results I got and over 40 years breeding experience I personally feel confident my results are worth writing down.

About twenty years ago I had a pair of white fantails that had thirteen young that were all clean marked saddles. This is what started my interest in investigating the alleles of saddle. I had heard that recessive white was an allele to saddle yet how did I get thirteen saddles out of a pair of whites. From about five years of further testing with the parents of those thirteen saddle young I found out that one parent was homozygous recessive white and the other parent was homozygous saddle and homozygous for lack of any better term I call pied white. It is a trait that in heterozygous state you get a none descript random pied marked bird. In homozygous the pied white is white without any coloration what so ever. That presented that recessive white and saddle are indeed alleles and saddle was dominate over recessive white.

I then made crosses of gazzi marking and saddle. Out of three breeding pairs I got a pretty constant presentation of pied markings in the young birds they produced.

The bird on the right (figure 1) is a typical result of a saddle and gazzi cross. They always had a good deal of white in the normal gazzi colored head and other wise a gazzi marking. I further bred from the young from these crosses and got the expected numbers of saddles, gazzi and heterozygous express young. The next crosses I did was with the satinette marking of classic old frills and gazzi. Again I got consistant young out of the crosses out of two breeding pairs producing young. The difference is now the young had white flights. 9Figure 2)



Figure 1



Figure 2

Again when I bred the young from these birds I got the expected young that two simple recessive traits would produce. From the consistent results of the initial crosses between saddle and gazzi and satinette and gazzi I felt confident these traits were alleles. I did cross then between sattinette and saddle and got the same resulting phenotype as I did with satinette and gazzi. I then had an accidental crossing of a white head bird from south german monk and satinette. I got a bald head kind of expression with white flights and colored tail. So I tried crosses between saddle and gazzi and got similar results with gazzi as I did satinette and white head and the saddle gave birds that were mostly saddle marked.

I had an accidental crossing of a white tail bird and a saddle. I have a white tail project in fantails putting white tail on them. A F1 white tail to a wild type colored fantail crossed with a saddle fantail in the open loft. I got half the young that were pretty well marked saddles. Figure 3



Figure 3



Figure 4

I decided to try some other pied marked breeds. I got a few helmets and a couple nun cock birds. I made up two pairs of crosses between them and I got birds like in figure 4. Most were consistent like the bird on the left with nun markings and quite a number of mis-marking in the white areas. I had a bad outbreak of the circovirus shortly after I started this project and I wasn't ever able to continue it since all the birds I had in the project died. I didn't raise enough to draw any conclusions.

Conclusions;

I was quite surprised that so many of these pied markings acted as alleles. It would be nice if some day they could be DNA tested to prove if any of my preliminary results are accurate at all. Even further classical testing might be helpful. I am quite sure these markings are alleles from the classical testing I have done. It also makes me wonder if any connection between other pied markings like nun marking and helmet among others.