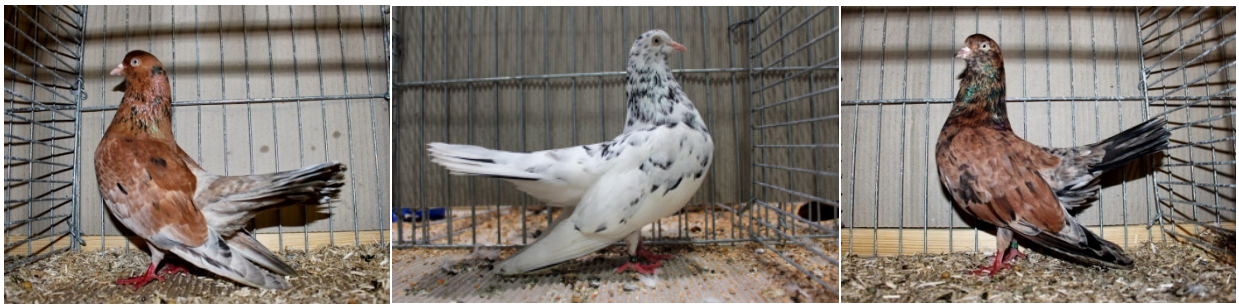


The Pigeon Genetics Newsletter

News, Views, and Comments.

Editor R J Rodgers, Nova Scotia, Canada.

Co-Editor: Jith Peter, Palakkad, India.

September 2015 Volume 7, page 1.

Section # (1) Beginner.

FADED

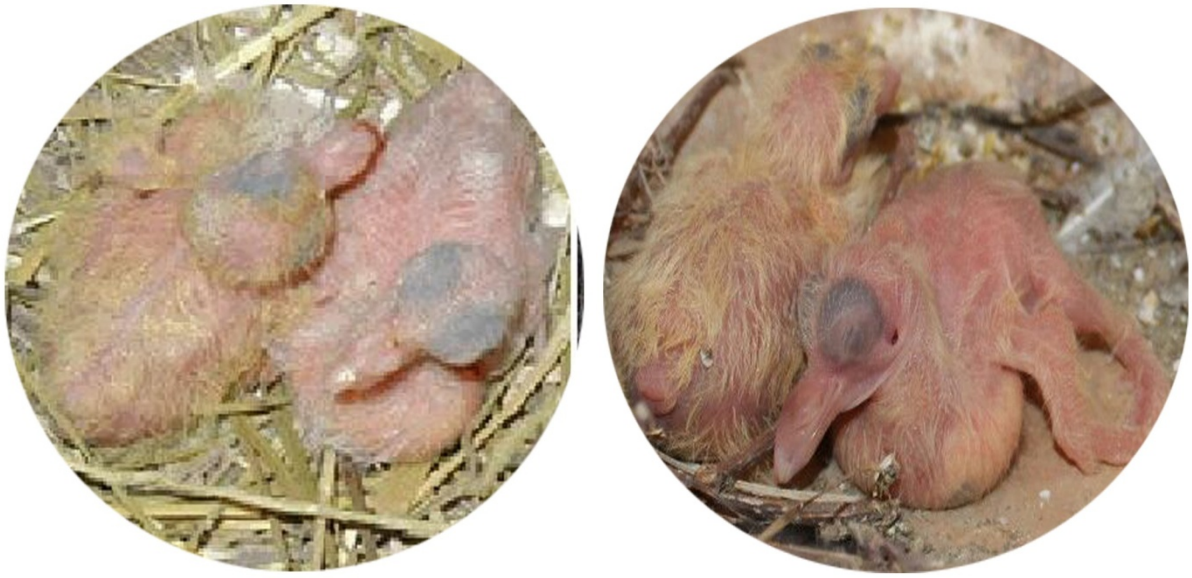
Faded is another allele at the Stipper locus well known as an auto-sexing mutant discovered in the last century. Homozygous males are usually short downed with light skin and beak in the nest, and they feather out much lighter or even white similar to pure Stipper, qualmond etc. However, homozygous faded cocks don't exhibit eye defect / vision problems, co-ordination problems or premature death having been reported.

On the other hand, heterozygous males and hemizygous females are usually normal or near to normal downed in the nest. The name 'faded' is more suitable for heterozygous cocks as on the wild type specimen all or most of them show the overall faded appearance whereas the mutant hemizygous females show a small

range of colour variation from the faded appearance, that is similar to heterozygous cock to almost normally pigmented (for example a faded blue bar hen can be almost like a normal blue bar specimen or a faded brown hen can pass for a normal brown bar).

Additionally, faded hens usually show a black or brownish ring around the beak near to its tip, that is seen in the auto sexing breed 'Texan Pioneer'; however in other breeds where faded is not common or newly introduced, the ring may not always show because other mutations can affect the beak color.

The above photos from left to right are a juvenille classic almond oriental roller male, a spread stipper adult hen and a classic almond adult cock. Photos from Mick Bassett.



At left a couple of Texan pioneer babies in the nest; the one with long down and brownish beak ring is a hemizygous faded and the other one with light skin and beak is a homozygous faded, showing typical sexual dimorphism in the nest.

At right a couple of babies bred by Axel Sell, the one with long down is a faded and the other one is a dilute.

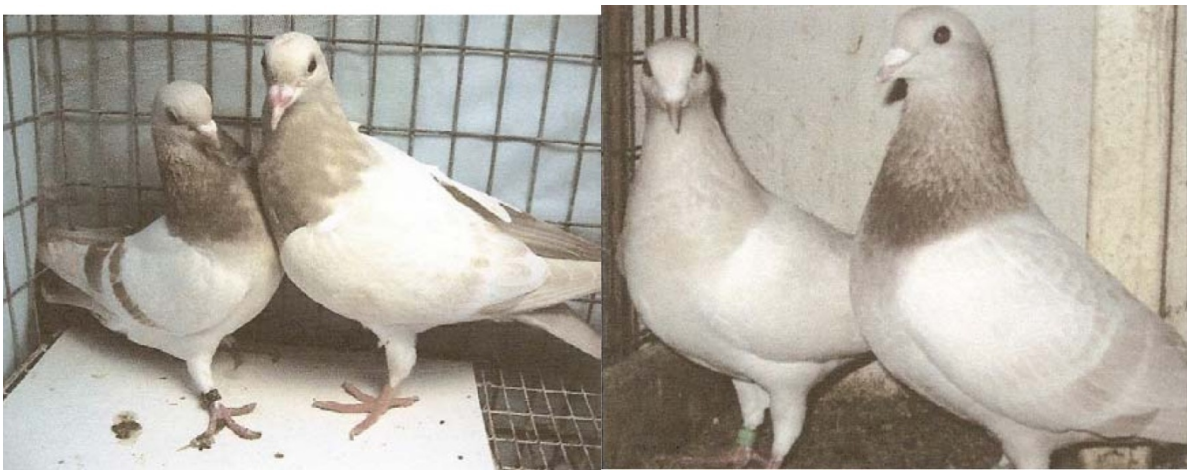
A couple of Texan Pioneer from net, Left a homozygous faded blue cock and right a hemizygous faded blue bar hen.

A couple of heterozygous faded blue cocks, left is a checker belongs to Brian Cullen, and right is a barred belonging to Jijo Thomas.

First one is a heterozygous faded ash-red cock bred by Gary Boomershine and second one is a heterozygous faded brown cock from Facebook.

A Faded brown T-pattern from Facebook

Tail shot of a blue and a brown heterozygous faded cocks.



A couple of photos from an old newsletter; photo in the left showing a faded brown hen(left) and a heterozygous faded brown cock(right), photo at the right showing an ecru faded brown(left) and a heterozygous faded brown cock.

The faded brown hen is an example for faded hens which can be mistaken as non faded.

Sex-linked mating and Auto-sexing

Breeders are often confused with the terminologies like Sex-linked mating and Auto-sexing, some think both are basically the same, but they are not. A Sex-linked mating is a mating in which the dam possesses the dominant allele in a sex-linked locus. The sire possesses its recessive allele and it results in all sons with dominant allele expressed that they inherited from their dam and all daughters with the recessive allele expressed that is passed on from the sire (this is what the word means, at least within the hobby). Thus, sex-linked mating refers to some particular pairing and it is not possible to make a true breeding family that way. Blue v/s Ash-red, Brown v/s Ash-red, Brown v/s Blue, reduced v/s non-reduced, dilute v/s non- dilute, etc. , are examples for Sex-linked matings.

Auto-sexing on the other hand, male and female show different phenotypes at 'birth or hatching' due to the presence of a particular mutant allele, which allows us to separate males from females. Faded is an example of an auto-sexing mutant. Of course some sex-linked matings allow us to auto-sex babies at the time of hatch(dilute v/s intense), but auto-sexing mutants allow us to make a true breeding auto-sexing family. Faded birds are sexually dimorphic, other than

that spread recssive opal, spread platinum, frosty ,etc are also sexually dimorphic because of colour difference in the plumage of their males and females, however they do not show any sexual difference at the time of hatching.

Of course, taste differ from individual to individual, but in my view 'most' of the phenotypes produced by faded are not very attractive, and many of those phenotypes can also produced without faded being involved; however, the auto-sexing character makes it the second leading allele at the Stipper locus.

♂ \ ♀	A	.
a	a//A	a//.
a	a//A	a//.

A - dominant allele.
a- recessive allele.
a//A - sons with dam's phenotype.
a//. - daughters with sire's phenotype.

Punnett square demonstrating sex-linked mating.

A//. - daughters with dominant allele-expressed

a//a - sons with recessive allele-expressed

♂ \ ♀	a	.
A	A//a	A//.
a	a//a	a//.

Punnett square showing outcomes in the second generation followed by the sex-linked mating.

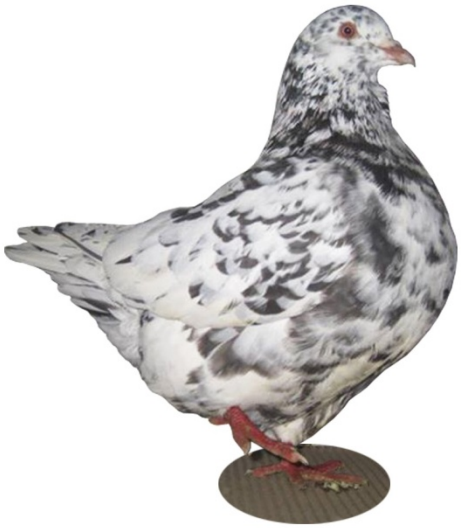
In the first generation(out of sex-linked mating) all sons will show the dam's colour and all daughters will show the sire's colour. This criss-cross pattern of inheritance no longer exists, in the second generation, and we can get both sons and daughters in both colours with equal possibility.

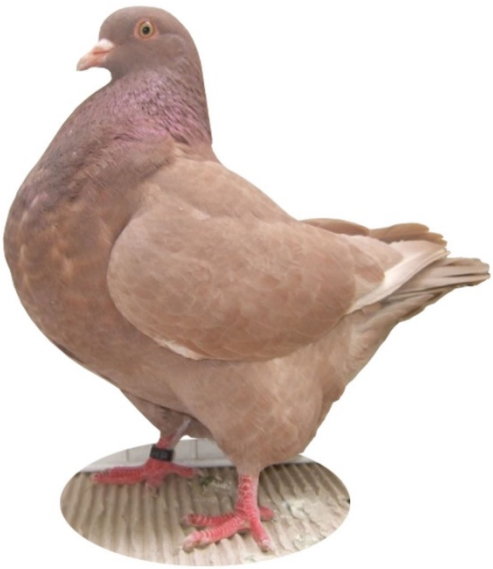
Punnett square demonstration of inheritance of the auto-sexing mutant faded.

♂ \ ♀	St(F)	•
St(F)	St(F)//St(F)	St(F)//•
St(F)	St(F)//St(F)	St(F)//•

In this mating all sons resemble sire and all daughters resemble their dam. Not all matings involving faded allow us to auto-sex the babies, only the homozygous faded cock mated to hemizyous faded hen does.

Texan pioneer is a utility as well as a show breed developed in the US, it is an auto-sexing breed due to the presence of the mutant allele faded. They come on blue base with and without spread, and ash-red and recessive red are also present in the breed, and ocourse all of them are pure for faded. Irish breed Limerik tumbler is another breed in which faded is very common. It is also present in Indian fantails, Rare coloured racers, Modena breeds, kings etc.





From top to bottom faded spread blues, faded ash-reds and faded recessive reds; all birds on left are homozygous cocks and all birds on right are hemizygous hens.

As photos exemplified above, homozygous faded spread blue cocks are usually similar to spread Stipper, they can be lightly to heavily flecked(depending on age or underlying pattern or whatever). Hemizygous faded spread blues on the other hand are usually dull or greyish black.

A lightly flecked homozygous faded spread blue Texan pioneer.

All Texans Pioneers are supposed to be faded but here are two Texan pioneer cocks that look similar to typical het/hemi qualmond spread blue, either just because of variable expression or they have been mutated to qualmond , never the less interesting.

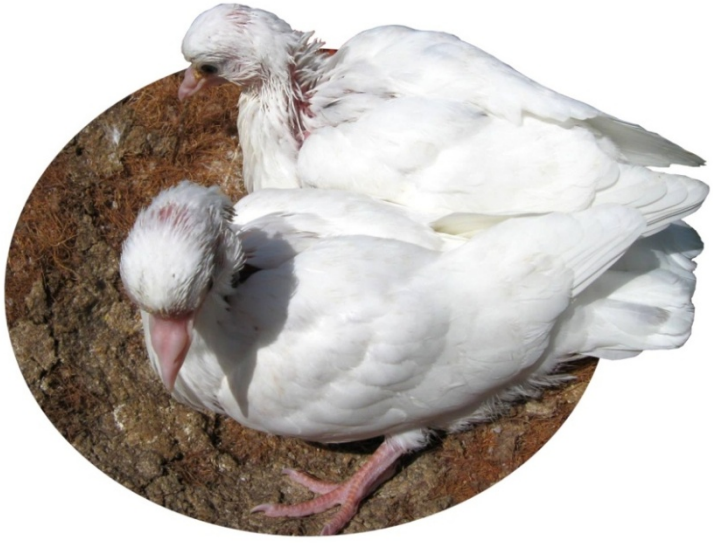
Homozygous faded ash-reds are usually much lighter and show some grizzling on their neck, whereas hemizygous faded ash-reds are somewhat faded all over. Homozygous faded recessive reds are very light reddish all over, some can be a little yellowish with or without very light flights, tail and under body. The hens are usually a little bit lighter than normal reds (somewhat brownish red).

A Texan Pioneer seems to be a hemifaded dilute(or pale) blue bar.

A faded dilute blue check still in the nest from Axel Sell.

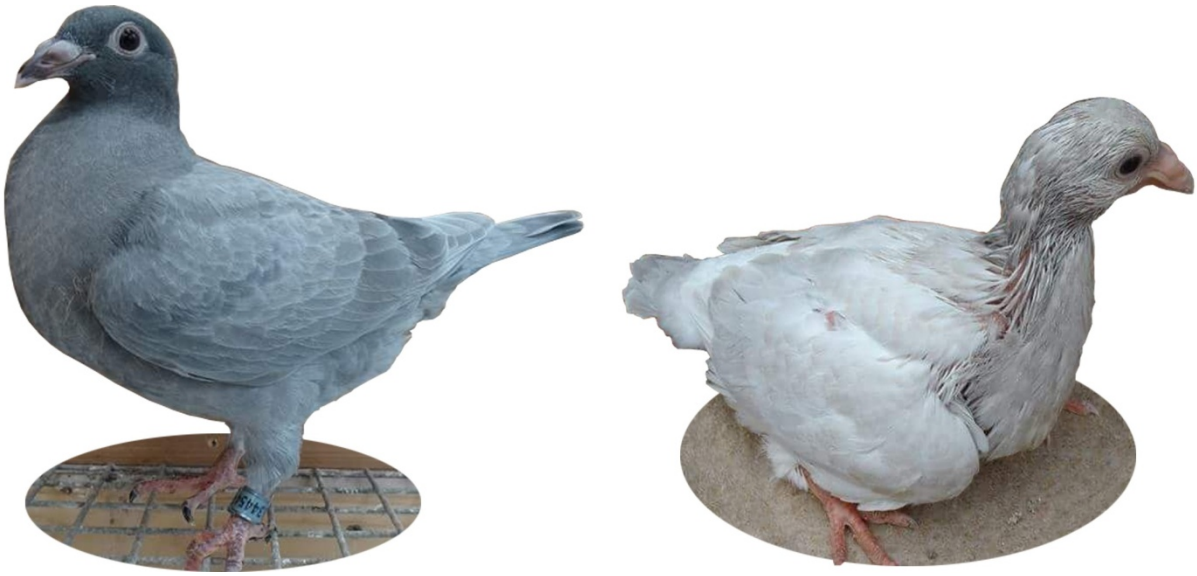
Someone stated that dilute faded show pink eyes as babies, however this one has dark eyes, at least at this age. Browns usually have pink eyes in the nest, so possibly faded browns do as well.

A homozygous faded Texan pioneer almost white , from net and a Heterozygous qualmond heterozygous faded juvenile racer with almost white and few flecks, from Octavian Sarafolian.



A couple of homozygous qualmond squabs from Bruce Coons, these were the two homozygous qualmond babies with short down presented in the August newsletter.

Faded with some rare combination.



A faded andalusian and a dilute faded andalusian bred from a faded blue check carrying dilute cock and a dark andalusian hen by Brian Cullen.

A faded blue bar dominant opal Modena bred by Antony Duncan.

A racer posted by Octavian as faded ash-red carrying blue, faded linked to blue. And a faded or qualmond spread brown (Irish tumbler?)

Below are two photos of a dilute blue bar sooty English trumpeter in the middle of juvenile molt posted by Dennis C. Bondoc. Colour of birds can vary in photos, it depends on the light condition where the photosare taken. Whenever you ask colour of a bird with its photos, it is very important to make sure that the photos show us the exact colour of the bird! I placed these two photos not for criticizing him, instead these are very good examples to demonstrate how colour of birds in photos can vary depending on the light condition.