


An interesting white necklace mutation.

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I have wrapped up my 17 years long study of the pied phenomenon known variously as baldhead, Monk-marked, white-headed, and white cap.

As a result of this study, four genetic types have emerged. Previously described are the genes Bh (for baldhead) symbolized by Dr. Hollander in 1983. In 1976 he described the trait thusly – "The baldhead pattern seems to be a probable unit that shows incomplete dominance to self. Even hybrids of baldhead with ringneck dove show fair piebaldness. My guess is that baldhead and gazzi are not allelic, and that by combining the two it should be possible to produce another bull-eyed white."

The "classic" baldhead is pictured as a bird with white head, white primaries (usually 7), white tail and white belly. Hollander states: "Pigment absence effects are involved, mainly involving the head, flights, feet, and tail." However, my research has repeatedly shown that Bh only affects the head. The Bh gene is a partial dominant that normally produces a white mark across the top of the head from ear to ear in the heterozygous state.

The white flights are produced by a dominant white for which I proposed the symbol Wf in 2005. The white tail is a recessive which has not been assigned a symbol. One or more white feathers in the tail may be from several pied genes. However, the recessive white tail considered here expresses as a unit. It is either white or all colored. For this trait I propose (wtl) recessive white tail.

In my studies, I produced a line of Bh birds with dark tails. I theorized that the white belly was produced by a synergistic effect of the white flight and white tail genes. This proved to not be correct. Birds with dark tails still had the white belly trait. This white belly trait may produce an all white belly and leg feathers or a white belly with a colored area just behind the legs. Birds with white flights invariably have white leg muffs. Birds can be bred with white head and white flights without the white belly. There does seem to be a connection between the white belly and the other white areas of the birds but it was not determined.



Heterozygous Bh showing white mark on head from ear to ear. 1) Indigo with white flights, 2) spread ash red, 3) young starling.



Homozygous Bh . 1)brown almond with white tail & flights, 2) ash red bar with white flights, 3) brown bar atlas without Bh; the head is actually yellow but the yellow is in the same location that would be occupied by Bh..



Homozygous Bh plus white flights. 1)Dominant opal ash red bar WOE. 2) ash red bar Roller, 3) Indigo bar with white flights and tail.



Homozygous Bh with white flights and white bib.
1) silver bar with white tail, 2) brown bar with white tail, 3) black with partial black tail.

Dirty, sooty Toy Stencil bar Bh with Wf & wtl Wf & wtl.

Bronze Suabian T-pat Toy Stencil with

Dominant opal ash bar Bh with Wf & wtl

Sooty, smoky bar Bh with Wf & wtl

West of England Tumblers. Spread Bh with bib, Wf & muffs & wtl. Both appear to be andalusian .

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In 2002 Michael Spadoni proposed the symbol TB (for Tumbler Baldhead). This trait became apparent because they could get recessive red baldheads. We could not do this with Bh. Bh birds do not come in well marked recessive red. Joe Quinn believed recessive red and Bh were linked and further research has shown this to be true. Recessive red Bh young can be produced by crossover but even though the young are well patterned Bh in the nest; they become gayly pied ruining the effect of the 'classic baldhead'.

Michael described the trait on Tumblers as producing a 'classic baldhead' pattern in the heterozygous state and a pure white bird in the homozygous state.






Trumpeter baldheads (TB). 1) recessive red, 2) recessive yellow, 3) ash red t-pattern squab, 4) ash red t-pattern male, 5) recessive yellow, 6) ash red t-pattern.

Added to the above two traits are two white capped traits. One is found on breeds like the Silesian White-headed Pouter. It is a dominant and heterozygous birds looks like homozygous birds. Repeated crossings produced similar white capped young and F1 produced ratios near 3:1 white capped to non white capped.


Silesian White Headed PouterX Narrow distinction between Bh and cap in some individual but the cap did not carry under the beak.

The other is on the Mookee and is a partial dominant. Studies have shown that this is not an allele of Bh but is a separate gene. The Mookee normally has 2 or three white flights along with the restricted cap.

The Mookee was bred to Rollers that had no pied factors. Homozygous Mookee cap produces a modified white head or cap which has the white area delineated from the upper mandible back under the eye to the rear of the head in a fairly straight line. The color may come slightly upwards in front of the line between the eye and the beak. F1s from these produced a normal ratio of 1-2-1 head markings and from none to three white flights.

Mookee marked birds (priest marked Archangels) were crossed with Bh Rollers. The Bh Rollers had dark tails and seven white flights. First crosses produced a Bh phenotype. These F1s produced a variety of head markings from Mookee to Bh and combinations thereof. The white flights randomly assorted with the head markings. Thus Mookee white capped birds would have 1 to 7 white flights and Bh marked birds would have from 1 to 7 white flights. Some of both white head phenotypes had no white flights but as might be expected, they were very few. Also some non white headed birds were produced which proved the two genotypes are not allelic. These were usually solid color showing that a linkage may exist with the white flight traits.

In the Mookee crosses none of the young retained the Mookee phenotype structure. Thus the Mookee stance is recessive.

Het. Mookee cap 1)Archangel bronze, 2) black with 3 white flights, 3) dirty blue bar het Roller with 4 white flights.

Normal Mookee phenotype. 1) Andalusian with one white flight, 2) Brown with three white flights, 3) Ash red with one white flight.

Milky color Mookees with no white flights. Dirty blue bar Mookee with no white flights.

The following are examples of varieties that have the Mookee type white cap phenotype.

1) Black Toy Stencil white bar white flight, 2) ash red dom. opal bar with 7 white flights, 3) dom. opal white bar brown without white flights and with finch marks on flights, 4) Blue white bar without white flights, 5) Ash red T-pat, 6) Blackwing Archangel with Wf.

WHITE CAP

Ash red check white cap. Rec. yellow & rec red white caps. The exact placement of these has not been determined. The white cap of the Silesian White Head Pouter and that

of the Mookee are phenotypically very similar but as stated, the Silesian cap is dominant and the Mookee cap is a partial dominant.

The Komorner marking is unique and apparently is a combination of white cap and beard. More work needs to be done on this breed to ascertain the true statis.

Another trait that could use some work is the badge pattern head. These like the baldhead are bred with white flights but usually have colored tails. The more striking badge patterned heads almost always are a variably pied head combined with a white beard marking. The American Rollers are rife with the badge pattern. Some of the least marked show a white spot across the top of the head behind the ears than can be mistaken for a hetero Bh with beard marking. What their status is in relation to the baldheads and caps has not been investigated to my knowledge. However, since they are bred in recessive red and yellow, I believe this negates any relationship to Bh but aligns them closer to the white cap of the Mookee. In fact, many of the heterozygous Mookee caps resemble the badge pattern closely. A test with the badge pattern X Mookee cap and a test with the beard X Mookee might shed some light on the relationship of the two.

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Resuming newsletters from 2008.
BILL PETERSON WRITES:

This bird is what I've been calling a reduced Indigo check but I'm not dead certain yet. She has a lot of pinky bronze, very pretty. Raised by a friend out of Turner Roberts birdsl

RAY MORINO WRITES:

Here are a couple of pics of reduced indigo

RON HUNTLEY WRITES:

I would have classified her as a blue spread reduced. I don't see any sign of indigo.

EDITOR:

Several others including Chris entered into this discussion. The differences between reduced blues and blacks are sometime marked but usually subtle. Here are some pictures of reduced indigos.

Bar pattern

The bird picture in question Bill sent.

These look similar to some of the reduced indigos I raised.

These are reduced spread indigos.

This one looks like reduced homo indigo spread.

0729-97 reduced cock T-pattern appears to carry recessive red

This one is captioned 'reduced cock T-pattern appears to carry rec. red' But it is reduced T-pat indigo.

This looks like a reduced spread blue but the face makes it appear that it probably is reduced spread indigo.

<u>DINA MERGEANI WRITES:13dec'08</u>

A friend of mine was in a market place last weekend. There was a seller with many American Giant Homers (more then 40), some of them were dominant opal, indigo and andalusian. A few birds (see attachment) had interesting phenotypes that I had never seen before. Can you help me to understand their colors? Thanks in advance.

<u>EDITOR</u>: Many of these birds carry archangel bronze. The bronze only shows on the crop area of some pigeon breeds. Some are homo and some hetero bronze.

1) 

Apparently spread indigo dom. opal.

2) 

Apparently spread homo. indigo dom. opal.

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T-pat. Indigo laced, arch bronze crop

Dom. opal T-pat (blur or indigo, arch bronze.

T-pat indigo

head of second bird? Whiteness prevents identity

Apparently sooty indigo barless

Two hetero T-pat spread indigo, homo spread indigo with arch bronze crop crescent

Grizzle indigo apparently spread.

Beautiful reduced spread indigo check
Also shows what probably is arch bronze crop