Pied-sided Bloodred (aka: p/s bloodreds)
High-White Expression
Note: Expect DIFFUSED and BLOODRED to be incorrectly but synonymously used in the hobby
Most Commonly used Name: Pied-sided Bloodred
Mode of Genetic Inheritance:Selective Variation + Recessive
Morph Type:Single recessive mutation & selective variation
Eye Color: Black pupil & *body ground colored* iris
Go to History for more details about the DIFFUSED / BLOODRED base mutation of this compound morph.

In 1997, we acquired a Bloodred female from an unknown corn snake breeder that had a few lateral patches ofwhite. We bred her to one or two males over the next six years, but never reproduced the white patches, nor did we hold back any of her sons to breed back to her. In 2003, she was bred to a male Bloodred that has considerably more white on his sides, but no white was demonstrated in any of the F^1 progeny. Upon breeding two pairs of the F^1 babies together, approximately 50% of the F^2s demonstrated various degrees of white on their sides. Also, when breeding one of the F^1males back to the SMR original female, 50% of those progeny also had various degrees of lateral white patches. This demonstrated that the SMR P/S Bloodreds were not alleles of the original male Bloodred gene that had similar random lateral white patches.

At this time – in my opinion – insufficient data has been gathered to determine that P/S Bloodreds owe their atypical white lateral and facial markings to a gene mutation. It is remotely possible that polygenetic traits are responsible for the atypical patches of white on the face and sides, based on confusing phenotypes. While evaluation of Mendelian Phenotype Proportions points to the likelihood of a gene mutation, that cannot be definitely proclaimed at this time.

It is sometimes difficult to determine the inheritance of a trait or mutation when expression of the atypical feature is highly variable – as is the case with SMR P/S Bloodreds. In other words, are the Bloodred siblings of P/S Bloodreds that lack lateral patches of white not P/S Bloodreds OR are they P/S Bloodred mutants that are at the lowest end of the 0-to-10 scale for white expression? When proving the mode of inheritance via evaluation of Mendelian Phenotype Proportions in a single brood of snakes, visual expression is crucial. Hence, if the expression of white in this morph can be so extremely variable, when citing the ratio of visual mutants compared to visual non mutants, the very description of inheritance can be in question. I therefore honestly don't know if P/S Bloodreds owe their distinctive pied-sided white appearance to a recessive mutation OR polygenic trait modifications. Breeding trials are constantly being evaluated. The snag in this determination is the fact that there are many siblings of the P/S Bloodreds that lack white, but have the remarkably red sides that are devoid of markings (a virtually distinct collateral trait of SMR P/S Bloodreds). This particular trait is not foreign to the base mutation, Bloodred, but in P/S Bloodred phenotypes, expression of this shocking red trait is definitely exaggerated, compared to non P/S Bloodreds in the hobby. Hence, the question again, "are these non

P/S Bloodred siblings of those with white, P/S bloods that are exhibiting no white OR is there an associative phenotype that exaggerates the red sides, even if they don't exhibit lateral white?". Some have suggested that the lack of color in places (i.e. white patches) is an extreme expression of the genetic elimination of melanin/markings. That perhaps the genetic erradication of markings – when expressed in its' extreme – may eliminate not only the melanin, but the other chromatophore as well?

Aside from the random lateral white feature that is obvious in most members of this morph – compared to standard Bloodreds – is the extreme diffusion – even if they don't demonstrate any of the randomly distributed white patches on the sides. On most – even in the absence of lateral white patches – there is an obvious line of demarcation between the dorsal and lateral pattern fields – just above the half-way point on the sides (dorso–laterally). This stark *break line* between dorsal and lateral markings also begs questions about the lateral white being a mutation OR variable expression of polygenetics.

What to expect:
As neonates, P/S Bloodred corns are often heavily patterned (sides are generally faded or lacking typical lateral markings). Some exhibit black (or partially black) scales bordering some of the pattern blotches, and most of them have head patterns that are notably unlike those of typical corns. Like most SMR Bloodreds, P/S Bloodreds diffuse dramatically through maturity, thereby rendering adults that are nearly devoid of head markings, side markings, (any visible dorsal markings will be very faint). There will be NO belly checkering, but ventral coloration can be all red, all white, or red and white (no black). Many of the early Bloodred corns in the early 1990s were overly inbred and therefore suffered poor fertility (not to mention – the progeny of many of the first generations were stubbornly lizard lovers, refusing to eat pinky mice). Thankfully, through out-crossing in our projects to improve or change colors and patterns, like virtually all Bloodreds, P/S Bloodreds do not rank high in the realms of sterility or reluctance to eat rodents. In fact, there are some seasons in which Bloodreds are among the best feeders of our corn snake neonates.

The amount and random distribution of white that will be on High White Expression members of this morph are difficult to quantify. As more are produced, the percentage of white on the three classes of this morph (Low white, Medium white, and High white) will be possible to grade. Virtually all P/S Bloodreds randomly demonstrate the shocking white blotches only on the lower sides of their bodies – predominantly in the first half of their bodies. Some will have one (or a few) white scales (or partially white scales) on their faces. It is still rare for a SMR P/S Bloodred to have white on the sides that is disjunct to the belly white (not touching the belly

color field).

SURPLUS section of this web site). We do not provide pictures of individual hatchling snakes for sale, nor do we recommend that you ever choose a new pet based on an image of its neonatal form. Corns change so dramatically from hatchling to adult, they will NEVER have the same colors or contrasts throughout maturity.While most of the snakes we produce will mature to resemble the featured adult image(s) on our web site, unlike manufactured products that are respectively clones of each other, the nature of polygenic variation results in each animal being similar but not identical to others of its morph. The snake we select for you may not mature to be identical to the pictured examples, but will be chosen based on our experience of observing which neonates will mature to properly represent their respective morph. We take this responsibility very seriously, and therefore publish the guarantee that we will exchange your SMR snake if it does not mature to be like our advertised examples.