The following article regarding the Puli coat colours has been originally published in the Hungarian Kennel Club's magazine "Kutyा" (April 1991). The article discusses the present situation in Hungary.

A DECISION REGARDING THE PULI COLOUR VARIATIONS: In recent years several articles have been published on the Puli coat colour. Even if the coat colour is a much written about subject it is not generally known that the Puli has had a multi-coloured coat.

Pulis of different colours are bred even today and although the black colour is the most popular one, it will certainly not be the only one used in breeding.

The Breed Standard from 1942 does not describe the colours very accurately. It only mentions black, grey and white. Because of this we receive numerous letters from Breed Clubs abroad. Both abroad and in Hungary we have two more colours existing in addition to the above three. At the beginning of the 1960's, these two colours were jointly called "fako."

Later, fako was divided into two colour variations: single coloured apricot-fako and maskafako. Mas-kadfako has as base, a single-colored fako with darker patches in various parts of the body such as on the muzzle, the ears, the back and the tail. Fako and maskadfako compete in the same class at the moment, in other words, apricots and maskadfakos compete together for the titles.

We have had problems in classifying certain colours at our shows, because in the '60's, fako was just an experimental colour. Even if the fako colour was not mentioned in the breed standard, the winner title was awarded to whites, blacks, greys and fakos each in their own class.

This was accepted at just a few shows abroad. It has been quite a task trying to sort out the complaints from abroad. We have now sought to change the breed standard.

So that we could revalue the colours, we relied on theoretical practical experiences. The most important aspect here was Dr. Imre Ocsag's research in 1976 aimed at clarifying the genetics of the Puli colour and which still today gives important data on recorded litters. Dr. Laszlo Safaf wrote an article about the research under Dr. Ocsag's guidance. The article heading was, "The Puli Colour Genetics With Special Attention On The Shades Of The Fako Colour."

The author covered the colour variance in almost 100 litters. He has even been able to follow up the results of such mating which were made to serve this special purpose. He checked the litters himself which eliminated the risk of recording an incorrect colour. He supported these results with statistical data. The Puli colour question was also a topic at the judges' conference last autumn. This problem should be solved urgently.

It is important that certain colours can be genetically divided in their respective classes. Also, the breed standard must serve as a guide for Puli coat colours in the future.

On February 20, 1991, a conference was held with the President of the Hungarian Kennel Club, Chairman of the Breeding Council, Chairman of the Breed Club and well known breeders [were] present. The conference confirmed the following points regarding the Puli colours:

The Puli colour genetics have now been clarified both scientifically and through practical experience. The Puli coat colour is inherited in a certain genetic order of precedence which has certain recessive and dominant factors.

The black colour stands highest in this order and it can carry all other Puli colours. The black colour of the Puli can dominate all other colours. The black colour can produce any colour even if two black Pulis were mated. The adult coat colour is not necessarily coal black. The cord ends can be rusty, reddish brown or sometimes greyish in colour. This is explained by the special formation of the Puli coat, which is the breed's natural protective mechanism. This is genetically hereditary and shows up generation after generation. It should never be considered a fault.

The following colour in this ranking order is the grey one which will show up with age. These puppies are normally born black but can turn grey at greatly differing ages. Some puppies show signs of greying at already 7 to 8 weeks of age. These puppies resemble poodle puppies in colour. The head, feet and tail show such shades which indicate that the colour will turn grey. Individuals exist who turn grey at an age of 2 to 3 years or even at 5 to 6 years.

It has even happened at shows that a previously black Puli has been entered as a grey specimen, but then the coat has again turned black. The grey colour is judged separately from the black. The grey Pulis win a title of their own and this is naturally easier to achieve amongst the numerically few grey Pulis. During the last three years,
only four grey Pulis have been entered at International shows.

In the future, the grey Pulis will be classified together with the black ones! This is due to the fact that one cannot decide at birth whether the puppies are grey or black and genetically the grey colour stands closest to black. The grey Puli will no longer be awarded the special title as they will compete in the same classes with the black ones. The grey Puli must not be penalized because of his colour amongst the black ones. A grey Puli can beat the blacks and stand first in his class should the judge so decide.

Specimens which are grey at birth do also exist. Genetically this is a blue colour, but these specimens are not fit to survive and they fade away at an early age. This colour variation is thus absent because of practical reasons. Puppies of this colour have not been born recently.

The next colour in this ranking order is the maskafako. In the future we will call this colour fako. In other words, fako will apply to all Pulis which are not white, black or grey, but who have black hairs intermingled in their coat.

The coat of fako Pulis can show signs of black pigmentation. One can see and define at birth, in addition to the greyish or creme base colour, black patches on the head, ears and tail. The colour of such puppies will fade with age. Should one mate two fake coloured Pulis, the combination will only produce fako coloured specimens. Fako is recessive to black colour which can be clearly shown at 3:1 of the population.

In the future we would also want the fakos to have their own CACIB, because the fako, previously known as maskafako, is a truly typical, ancient, valuable colour variation of the breed.

In order to achieve this, we must increase the numbers of fakos and improve the standard. We should strive to achieve pure colour breeding and no longer interbreed black and fako Pulis.

Fakos already compete for their own CC's, Hungarian Derby Winner and Hungarian Prima Junior titles, but they still compete for the CACIB and BOB together with the blacks and the greys.

It is essential that fako breeders will cooperate together, so that we could guarantee pure fako specimens even in the future. This is necessary because fako is often the most popular colour in Europe. If we continue to interbreed blacks and fakos, the number of blacks carrying the fako colour will increase and fako will stay recessive.

The best way to breed quality fakos (I am only writing about maskafakos) is to stick to pure lines.

The most amazing colour in this ranking order is the white and even the apricot color. White is judged separately from the other colours or at least we thought we had a separate colour. The white Pulis are awarded their own CACIB and BOB. Very often the litter recordings for white and even black litters include cream or apricot puppies. Earlier on these were called fakos! Cream and apricot coloured Pulis can be even seen at shows. They lack rose-colored amongst the whites.

"A white Puli is born white." I have emphasized this several times. In 1936, Csaba Anghi considered the white Puli changing into a cream coloured one a grave fault. Despite this observation the greatest danger to the white Puli is the occurrence of the cream and apricot colour. How can this happen? It can simply be explained by the fact that the last colour in the ranking order is not the white colour we have expected it to be, but a colour of cream and apricot which we earlier on called fako.

The two extremes in the colour inheritance are black and apricot. Black dominates all other colours. The cream colour can occur and regrettably does occur in all colour combinations. The cream colour will more often occur with the other colours (black, grey and maskafako) rather than with the pure white.

It often happens that these specimens are recorded white and they are thus added to the white stock and they continue to "mess it up." It even interferes with the black stock, because cream specimens appear 3:1 after blacks, greys and maskafakos. Generally speaking, it should appear in the same extent after white specimens, but it is most difficult to estimate how many pure white Pulis and how many specimens carrying the apricot gene exist in Hungary at the moment. About 25% of the population should be pure white specimens, in other words, such specimens who do not carry the apricot gene. Unfortunately, many practical points make evaluation very difficult. One of the first is the litter colour recording. The puppies are often given an incorrect colour.

I would like to repeat: "A white Puli is born white." Even the white colour has shades from chalk to ivory.

Apricot coloured puppies have a rose-coloured nose at birth. The nose of a white Puli will be greyish at birth or will turn grey at an age of 2-3 days at the latest. The nose colour of an apricot Puli does not change into grey, not even with age. The nose will stay pink and there is no pigment in the mouth or on the lips. This colour is called apricot, creme, rose-colour or ever pink ("pig pink"). For a long time these puppies were culled at birth.

We have previously called this colour fako as well, but in the future, in order to separate it from that colour, we should call it apricot. Apricot colour, however, is not a typical Puli colour. It is not related to the fako colour, so it should not
be classified with the fakos.

Genetically, the apricots stand nearest to the whites and therefore, they should be judged together in the future. Our purpose is to be quite hard with the apricot specimens. In the future, apricot or apricot shaded Pulis can only be awarded a second or third grading and they must not be bred from. During the winter, the apricot Pulis look really curious because their noses turn completely pink and the coat colour varies depending on length and what stage of development it is in. On the back they have a broad red stripe. Normally they have no pigmentation in the mouth and their eyes are light brown. It would be wrong to mix this colour with the others!

It is really painful to take the first step when we have to consider the colour factor in breeding. Fashionable colours have always existed and will remain to do so and there will always be a colour more popular than the others, but the Puli must remain a Puli. Dark skin pigment, dark nose and brown eyes are all breed characteristics.

How shall we put this into practice? We will start classification with the litter recordings. This is already well organized in the Budapest region and we will try and cover the other parts in Hungary as soon as possible.

In the future we will call maskadfakos simply fako. Those previously called fakos will be called zsemles (= cream coloured little (toy?) poodle meaning apricot, creme or cream colour). Also zsemle coloured puppies can be registered in case their origin can be certified. We will try and discard this colour from the show ring. We do not wish to export puppies of this colour and they will not be given an export pedigree. It is up to the individual to experiment at his own expense.

We would like to stop using zsemles for breeding as soon as possible. Breeding from zsemle stock will only increase the population. Some breeders do not understand the problem in zsemle Pulis. It is often said how sweet the rose coloured Pulis look - few will think ahead and realize what they will look like when adults. Zsemle puppies from two black Pulis can cause unpleasant surprises to their new owners who think they have bought a white puppy as is recorded in the registration certificate and the colour turns out to be quite different from white.

The zsemles with their pink noses will be particularly noticeable in a litter of whites and amongst white Pulis in the show ring. The dog becomes fertile at an early age and has a short period of gestation. If we want to cooperate we can influence the outcome very quickly indeed. Let us consider the zsemle Pulis as breeding "by-products." They are remarkable guards and excellent companions, but we must not breed from them.

Translated in March, 1992

REGIONAL SPECIALTY WINS

CH. KISALFOLD CIFRA took Best of Winners and Best of Opposite Sex at the Puli Club of Southern California Specialty on July 7, 1992. This win finished her championship with her second 5 pt. major. She is shown here with J. R. Guevera and her handler, Barry Becker.

PEBBLETREE'S KIS KAVICS won Winners Bitch for a 5 pt. major at the Puli Club of Connecticut Specialty under J. Jean Fournier on June 7, 1992. She was handled to her win by Barbe Pessina and she is bred and owned by Dee Rummel.
I Can Tell The Difference, and You Could Too!
A discussion of coat color in Pulis
by Cheryl Prokopowich

Clearly, no other characteristic of the dog exists where the mode of inheritance is better documented, yet so misunderstood by breeders, than coat color. Research has been thorough, because color is easily observed, even by novices. Genotypes are easily identified by their Phenotypes. True color is usually obvious at birth, except for dogs that gray or lighten with age, and breeds with ticking like English Setters and Dalmations, which are born white and fill in with colour as they grow.

GENETICS - A Mystery to Breeders

Recognizing that there are genes that combine to produce individuals with faults, it is a serious breeder's business to study their mode of inheritance, so their expression may be avoided if possible, whether they are associated with dentition, size, angulation, head shape or color. The general response concerning color has been “I don't have a problem, so why should I worry about it?” But there is no shortage of examples of so-and-so's litter that had one of "those" in it. In reviewing past Puli standards, and considering the frequency of Hungarian imports, it should come as no surprise when a color fault shows up in a litter. And there should be no shame attached.

Myth-information regarding Puli color abounds, has no scientific basis, and is perpetuated by Hungarian and North American breeders alike. Examples which are passed by word of mouth, and occasionally in print, become further distorted along the way. These are a few I've heard:

- **Myth**: Breeding white to black gives you a) gray or b) parti-colors. False. Breeding white to black gives you either white or black, depending on whether the black parent was a homozygous black or not.

- **Myth**: Large white chest spots or mismarks are evidence of white somewhere in the pedigree. False. White spots on the chest or toes are evidence of minus modifiers, or the presence of a spotting gene.

- **Myth**: Creams can never produce pure white puppies and whites will never produce creams. False. There is no genetic difference between Pulis that appear pure white and those that appear cream, so neither type of white is exclusive of the other. Both can and do come from the same parents.

- **Myth**: White dogs are defective, somehow different. False. There are several breeds of white dogs that are vigorous and thriving in the sport today. Komondor, Samoyed, West Highland White Terrier, Sealyham Terrier, etc. These entire breeds are based on the white color, and are obviously not defective. There are breeds of dogs in which a predominantly white individual is predisposed to congenital problems, but these breeds are generally ones in which merle is an acceptable color, and its the homozygous form of “M” that precipitates deformities, or handicaps, including deafness, blindness and sterility. An “MM” dog is usually white. Pulis are not one of the breeds in which the merle gene is found, consequently, white Pulis are not “MM” individuals, and therefore, not of the “defective white” variety!

- **Myth**: White Pulis are just big white spots. False. White Pulis are really red dogs, but due to the presence of modifiers, the red pigment has been reduced to cream/white.

Cold, Hard Facts About Coat Color

Coat color is polygenic, the result of several different genes acting in combination with each other, some dominant, some recessive, some with incomplete penetrance, producing colors that are familiar to us, labelled by names that bear no relation to each other, yet that represent the same genetic combination in different breeds.

“Steel gray, dirty white, liver, lemon, orange, brown, red, autumn leaves, deadgrass, lustrous golden, yellow, chocolate, fawn, blue belton, lemon belton, rich chestnut, mahogany red, solid colors of sound shade, golden liver, puce, mouse gray, no-good-hound-is-a-bad-color, brindle.” I needn’t go on, these are some of the colors listed under various breed standards in Groups I and II. And let's not forget fako.

Descriptive, but what do they tell you? Steel gray isn't the same as mouse gray. And mice aren’t actually the color of a Weimaraner. Refer to Clarence C Little’s book, “The Inheritance of Coat Color in Dogs”, and look up some colors in the index. Rather than looking for what you think should be there, look to see what is listed. There are genes for Albinism, Black Mask, Brindle, Chinchilla, Dilution, (Blue or Maltese), Extreme Piebald Spotting, Fawn, Silver, Graying color, Irish Spotting, Merle, Piebald, Blue Roan, Tan points, Tan Sable, Wheaten, Wild Color, what ... no White? Nope, no White...

In order to better understand coat color, we must first abandon our preconceptions, and begin by looking at existing Puli colors.
Color Our Standard

Our current breed standard includes three coat color families - Black, White and Gray and details other desirable Puli characteristics as well. By and large, our breeders and exhibitors are adhering to the standard as it is written, in regards to color, as much as in regards to size, coat, proportions, etc.

What does our standard say about color? It asks for a solid (self) colored dog, in shades of black, gray and white that has black pigment (nose, eye rims, pads, etc.) and pigmented skin. That's our shopping list, now lets flip through Little's "catalogue" of color genes, and see how to obtain them.

Inheritance of Coat Color - 101

Basic Genetics in 500 Words or Less

To fully understand coat color inheritance, its necessary to have a basic understanding of genetic principles.

Nature's Filing System

A dog has 39 pairs of chromosomes, totalling 78 in all. Imagine each chromosome as a drawer in a filing cabinet, where genes are stored. Within each chromosome (drawer) there are roughly 100,000 genes (files), each containing the blueprints for a specific trait, such as rear dewclaws. Different genes are located on different pairs of chromosomes, but are always filed in the same place or "locus," on that chromosome. Like chromosomes, genes are paired, so each one has a partner on the other corresponding chromosome.

In order for the number of chromosomes to remain constant, nature has devised a method, during reproduction, for reducing the number by half, and for simultaneously providing as much random diversity as possible within resulting sperm and ovum.

During meiosis, (the production of sperm cells or ovum) chromosomes are first duplicated, so that instead of 78 chromosomes (39 pairs), the cell has 156, or two complete sets of the original 39 pairs. These four (2 x 2 pair) sets of 39 split off randomly and form four individual sperm or ovum, each one different from the rest, but each having a complete set of 39 chromosomes.

During fertilization, each ovum, with her complete set of 39 individual chromosomes unites with a sperm having a complimentary set of 39 individual chromosomes. An embryo results, with the correct number of 39 pairs, or 78 chromosomes.

Each parent randomly contributes only one from each pair of his/her chromosomes to the embryo. And each chromosome in any given pair was originally contributed by either his/her sire or dam. So each embryo actually receives one of either its grandsire's or granddam's chromosomes from each parent.

No matter how many times a characteristic (say white coat color) is found in a pedigree, its impossible to build up a concentration of white genes, because there are only two genes total for any specific inherited trait.

In the 39 pairs or 78 chromosomes, 39 from the sire, and 39 from the dam, an embryo might receive 15 from his paternal grandsire, 24 from his paternal granddam, and 7 from his maternal grandsire and 22 from his maternal granddam. Each litter mate would receive a different proportion from each of his four grandparents. The possible individual combinations are mindboggling. 39 to the 39th power, I think. $39^{39} = (113 \times 10^{60}$, that's 113 with 60 zeros) Geneticists ought to have some mathematical aptitude.

Because preselection of genetic traits has already occurred in the development of a breed, the number of possible variables are already limited. Inbreeding or linebreeding further narrows the gene pool, in effect increasing the possibility of homozygous genes. However, with $39^{39}$ power possible combinations, its easy to see there is a lot of limiting to be done!

"A" Locus - Solid/Patterned Coat Color

The genes that determine whether a dog is self-colored (i.e. solid-colored coat without white spots or pattern), or patterned (black & tan, saddle pattern, etc. but not piebald) are found on the "A" Locus. "A" is the symbol used for the allele (gene) on the "A" locus that denotes overlying dark (coat) pigment, or self-color. Little notes in his book "in some crosses that a peculiar reddish tinge appears through the black, sometimes only in certain lights, sometimes generally." But don't forget, not all homozygous self colored dogs are black.

A^s (self-color) is dominant (epistatic) over the a (sable), a^w (agouti) and a (black and tan) alleles, which are all considered to be "patterns." In the Puli, all four varieties of "A" alleles can be found, however according to the current North American Breed Standards, only the A^sA^s variety is acceptable.

It is likely that the typical "fako" color is actually a (sable), either in its homozygous state (a^s)^s, or in heterozygous combination with a^w (agouti) or a (black and tan). The homozygous sable Puli is the "classic" light reddish color, with black tipped hairs concentrated on the ears, muzzle, tip of tail, and perhaps the feet, with the red color varying in depth from apricot to pale cream, depending on the presence color modifiers discussed a little later. Hetero-
zygous combinations of aw or aw1 will appear less clear over the body, with a greater concentration of darker pigmented hairs throughout the coat, giving it a muddied tawny gray appearance.

Homozygous agoutis (awaw) as adults are gray, but as puppies, their colour can most accurately be compared to a Keeshond, keeping in mind that with the coat all the same length, the markings and shadings are lost that are typically found in a dog with a limited length coat, that is, one that reaches a certain length, matures and falls out, as opposed to the Puli's, which continues to grow. At birth, the puppies can appear almost black, with a hint of reddish silver over the rib cage, and classic tan points of varying degree.

Recessive Black

Homozygous black and tan Pulis (aa) can be the color of (long coated) Dobermans. However, tan points fade and become grayish as the Puli matures, possibly blending in with body color, particularly if the body tends to be grayish to begin with. And tan points may vary in size from almost invisible (a few tan hairs under the tail and inside the ear flaps), to very obvious tan markings. The "almost invisible" variety of black and tan can lurk among shaggy dogs undetected, and in some breeds results in the idea of a "recessive" black.

The danger with black and tan is that in a mature and completely natural Puli, it can pass as a black, or gray, and we could mistake one for the other unless we knew the dog in question as a baby.

Do we assume innocence until proven guilty, or not?

"B" Locus - Black VS. Chocolate

The B locus is home for the genes that determine whether the dog has liver brown pigment or black pigment. Dogs with liver pigment never have any black hairs, (chocolate lab, Irish Water Spaniel, etc) and a liver nose is not the same as a faded black nose. Our specifications call for black. The ideal Puli is BB.

"C" Locus - Fading Away

Genes that modify red/tan/yellow coat pigment are located on the "C" Locus. The first of four "C" alleles is CC, representing the full (coat) pigmentation found in deep-red or tan breeds like Min Pins, Irish Setters, and I've even seen pictures of deep red Pulis.

Just as a "pattern" gene can be masked in a white dog, (because it lacks the black coat pigment necessary for their expression) the genes on the C locus are masked in black and gray dogs because they lack red coat pigment. Their effect is only important in so called "whites", where we require a gene to modify red/yellows, making them cream/whites.

Where does the idea that "White" Pulis are modified red/yellow dogs come from? The process of elimination. All the more popular breeds of dogs have been researched and documented in Little's book.

Samoyeds are white dogs with black noses, are Pulis the same type of white as the Samoyed? According to Little, the white of the Samoyed is an expression of the s8 or Extreme-white Piebald. That word "Piebald" automatically labels this color variety as undesirable in the Puli. "White" Pulis can be safely bred to blacks without concern of producing mismarks. (Great Pyrenees, Sealyhams and Bull Terriers are also examples of Extreme White Piebald.) Researching desirable phenotypes indicates that its likely the "White" Puli is closest in color to the black-nosed white poodle, grouped by Little with light red and cream of the Bc/Deg variety. The "e" labels this dog as "red." Picture the standard poodle "Peter," Westminster's 1991 B.I.S. Creamy white coat, black nose, eyes, well pigmented skin.

The allele ce represents complete albinism and although it promises pure white coat, it brings pink skin and red eyes along with it, and the Puli Standard says ... black nose, gray skin, dark eyes, etc.

"White" Pulis, as puppies and less noticeably as adults, have varying degrees of tan/yellow color in their coat. The chinchilla (cch) gene is known to reduce yellow/tan color to a light cream, almost white, and has no visible affect on solid colored black dogs. It seems a likely allele in the Puli, and in fact, Little states that its quite possible that a number of black breeds may really be cch rather than CC.

There is also the possibility that another gene, (ce) exists on the C locus, and could be responsible for reducing tan/yellow coat pigment even further, producing pups that would be white at birth and which apparently would remain so nearly white during increased maturity that traces of very light-yellow pigment would be hard to find. My assumption is that all Pulis are either homozygous cch or ce or a combination of the two.

"D" Locus - Color Intensity

These alleles, D and its recessive dilute form "d", affect coat and skin pigment in black and brown/red dogs. The dilute form dd results in blue or fawn, like blue Chows or isabella Dobermans. The dominant D is desirable in Pulis.

"E" Locus - Ol' Yeller

Without "e", we would not have the red/yellow pigment necessary to combine with the chinchilla (cch) gene, to
create “White” Pulis. The allele EE represents black coat pigment, and is epistatic to ee individuals, which are red/tan/yellow in color.

Interestingly, this locus is also where we find the dominant E\textsuperscript{m} allele, useful for creating those lovely black masks that we don’t want.

The e\textsuperscript{br} (brindle) allele is also found on this locus. In the Skye Terrier, a good many grays are born brindle. At birth, some of them are obviously so, while others appear almost black. In puppies, interspersed lighter hairs appear to be tan, but they fade to gray as the coat grows out. The skye, like the Puli, has a coat that continues to grow. All brindle skyes end up some shade of gray. I suspect that this gene could go undetected in a mature specimen of a long coated breed such as the Puli.

The e allele, in combination with either c\textsuperscript{ch} or c\textsuperscript{e} creates “White” Pulis with fully pigmented skin and black noses. Tan/yellow dogs, in disguise, which is why tinges of tan or red/yellow hairs can be found in the coat.

This eec\textsuperscript{ch} (or eec\textsuperscript{ce}) combination is the only possible combination that would result in the type of white desirable in the Puli. It permits the interbreeding of colors without the occurrence of genetically non-standard colors or mismarks. It produces fully pigmented skin, including black nose, eye rims, palate, pads, nails. It produces a light colored hair coat, ranging in shades from pure white to cream.

“G” Locus - Going ... Going ... Gray

The common belief that black is the most dominant color in dogs, is erroneous. Gray is. The recessive form of this gene, gg, results in Pulis that hold their black color without gradually going gray. The dominant form, GG, results in a gray adult Puli, and the heterozygous form, Gg, results in a gray Puli somewhere in between the two homozygous forms. Old English Sheep Dogs and Kerry Blue Terriers are classic GG grays. All GG grays are born black, and the graying process begins afterwards, in some individuals as late as three years.

Experience as a Teacher

Our first experience with “White” Puli puppies was the breeding of a white Hungarian born dog to a black bitch purchased as a puppy because she was sired by a white, out of a good black bitch. She had a considerable amount of salt and peppering through her coat, though she was not a gray.

Three of her six puppies were white. One appeared pure white, one was the color of a (brown) paper bag and the other a blend of the two. I kept the lightest, a bitch, and the darkest, a dog. Both were white by the age of 2, both were bred, and produced white offspring. Interestingly, the dark male was bred to a bitch who at birth was at least as dark as he was. Their puppies were pretty “white.”

Years ago I was told that white puppies were born whiter if they had white parents, white pups born from black to white breedings weren’t quite as white, and whites born to black parents were darker still at birth. Sometimes this has proven to be true, sometimes not.

When gathering data, a good scientist does not simply look at one or two cases, he studies as many as he can possibly find. So, while it may be true that there are some Pulis that are apparently “pure” white, those select individuals do not supply sufficient data to be able to generalize that all white Pulis could or should be pure white, any more than it would be correct to generalize that because some black Pulis are jet black, all black Pulis should be jet black. Just as its impossible to breed a line of uniformly jet black Pulis, so too is it impossible to breed a line of uniformly pure white Pulis (with good pigment).

Second Class Citizens - Get With The ‘90s!

But this is silly! Credible black Puli breeders don’t sit around discussing how to breed blacker puppies. The emphasis is on breeding a Puli that is structurally superior. Whites have had a long row to hoe, and a few breeders have worked hard at it.

Judges rarely discriminate on the basis of color, though many have personal preferences for certain colors, just as they do for other characteristics. (I like to watch group judging, to see which judges have color preferences. Their placements are often within the same color family! I once saw a Working Group placed with a Samoyed, a Komondor, a Pyrenees and a Kuvasz, I kid you not! Judges that like brown toned dogs will often respond to the rusty black Puli colors.)

When a breed standard permits rusting and graying, with variegated hairs intermingled in dark dogs, it stands to reason that natural variations in white individuals would also be acceptable, though the standard isn’t explicit on this point.

If Puli breeders would take the time to check out some of the “naturally” white dogs (try the Komondor ring and look at all the age groups, not just the top specials), they would see Mother Nature is not exact in her reproduction of colors. But Lady Clairol is. And some “honest” non-sporting and toy breeders will be quick to attest to that.

A Good All ‘Rounder Knows

Good judges are pretty knowledgeable, about most
things. And they bring their expertise in other breeds with them when they judge ours. A judge with experience in (judging or breeding) gray dogs will automatically have a greater understanding of the process a gray Puli goes through from 6 months to maturity. Same holds true when they judge a white. They know, more than our own breeders know, that no white dog is pure-as-the-driven-snow white.

But where some of them fall down on the job is in their recognition of the variations in the black corded coat, the rusting, grizzling and fading, that occurs. Because the Puli may be the only breed where this is acceptable, and because our numbers are limited, we may not have had the opportunity to educate judges about breed specific characteristic. And in some cases we are not attempting to educate them, we take the easy, synthetic way out, we show 'em what they think they should be seeing. A pure black dog.

We Are Not Alone

There are other breeds of dogs who are black, white or gray. They exhibit the same characteristics that our Pulis do in their color variations, and each breed deals with it in their standard as do we.

Any gray poodle that hasn’t “cleared” by 18 months is to be penalized, but only when all other points are equal. Same holds true for the Kerry Blue, but after 18 months, they are to be severely penalized. We could write into our standard something to the effect that because of the distinctively unusual coat... color must be uniform at the skin, and should give the appearance of a solid color, with due consideration given to grays who are in the process of clearing, blacks who are naturally weathered, etc.

However, we have the only black dogs in which the grayish and reddish variations are considered typical. Poodles are dyed, Newfs and Belgians are held out of competition until they are back "in coat," the short coated black breeds don’t experience weathering to the same degree. OES and Skye Terriers have that old coat trimmed off. It takes 4 years at least to put a Special’s coat on a Puli, and usually not more than 12 to 15 months to put one on any other breed, the Komondor excepted.

The Message Sent May Not Be The One Received

When the June 1990 Gazette arrived, I rejoiced at the fact the cover had Puliks on it, representing different color varieties within the breed. They were in excellent coat, appeared typey, it was a pretty picture. At face value, our breed was presented in an obviously completely natural state. Only the Puli on the left gives rise to the question of whether "the overall appearance of a solid color is maintained," and the answer of course is "No." In my opinion, taking the discussion any further than that is a mistake.

This debating of the finer points of Puli color, the clarity of the grays, the whiteness of the whites, and the blackness of the blacks is becoming redundant. We don’t want our exhibitors to dye their dogs, we don’t want our judges to discriminate against rusty black, or salt and pepper gray, and yet we pitch a fit when a photo is published that features some of these variations, along with one that is obviously unacceptable. A positive approach, tactfully explaining that one puli was of questionable color and why, might have done the job without endangering the perception of colors other than pure black.

The standard covers the subject quite nicely by making the point that the overall appearance of a solid color is to be maintained. Do we want judges to put up solid black dogs lacking type over young gray dogs not completely clear, but sound and typey? Why are we so insistent that their color be "to the letter" of the man made standard, when we readily accept so many other variations that are equally, if not more important to the total concept of the Puli?

Proper Perspective

What percentage of the Pulik being exhibited with correct and natural color? Movement? Type? Are they square? How are their bites? Fronts? Rears? Don’t we have something more important to do? Shouldn’t we be sending our judges a different sort of message? Ours is not a cosmetic breed, its a vigorous, working breed, practical, natural, and fun!

Dog Breeding is a science as well as an art and coat color inheritance falls under the scientific category. The current debate is not about what colors (genotypes) should be permitted, but what (phenotypes) really, do those colors look like? Unfortunately, we haven’t done our homework when it comes to researching coat color.

We have our Standard, and although we know what it says, we don’t understand what it means. If we are going to speak intelligently on coat color, please, lets first become experts on the subject. Research it. No matter how long we have been breeding, if we haven’t availed ourselves of all pertinent scientific information, we haven’t done our job as a breeder.

What is it they say? The only problem that can’t be solved is the one that doesn’t exist?

Required Reading: The INHERITANCE OF COAT COLOR in DOGS, by Clarence C Little, Sc. D. published by Howell Book House