

## The color of the Podhale Sheperds

.When one's observe the coat of several adult Podhale Sheperds together, the existence of various quality of white is clearly noted as well as the fact that the white is never pure. Enough with putting a Tatra and taking pictures of it on the snow for realizing it !

And when breeding litters, 3 types of coat are noticed on the puppies, sometimes in the same litter :

- puppies who born white
- puppies who born completely sable
- finally, others who show white areas and sable areas.



3,5 week baby showing white and sable areas



Later on, generally, the colour makes uniform and the dog looks like plain white. However, Podhale Sheperds whose coat is completely sable exist, which makes the colour look dull, not very pleasant for the eye, therefore sable colour is not always lightening.

Very seldom, it's also seen « spotted » that is to say yellow round spots generally situated on the nose presenting regular spots, round of yellow colour.

Black hairs scattered in the tatra white hair, even small black spots very limited can also be seen in an exceptional way. Which is not surprising when reading the chapter about polish dogs from L. Bauvald in the english book « book of the dog » where a « Polish Sheep Dog » has a picture taken in his flock, having the Podhale morphology with a great white coat scattered with dark spots ! (see picture 2 courtoisie V .A.Firsoff)

### Genetic explanation :

According to our present-day knowledge, the dog coat color is determined by 13 couples of genes which have a lot of interactions. The locus is the place where a couple of genes is situated on a chromosome. There are thus 13 loci which are each one named by a big letter.

Intentionally, we will let apart the loci that do not have any visible influence on the colour of a Tatra.

First of all, the white colour is due to the intervention of motley colour genes situated on the locus S. According to the combination of these two genes to the locus, the motley colour is more or less intrusive. The genes that can be seen are :

S = coat completely coloured

Si = motley colour limited to tops (limbs, tail, muzzle, forehead, breast, neck)

Sp = irregular motley colour

Sw = intrusive motley colour.

A sw-sw dog will be entirely or almost entirely white.

A si-sw dog will have an irregular motley colour.

A si-si dog will be almost completely sable.

These motley colour genes are also responsible for the apparition of the "ladre" or pink spots of depigmentation, visible on the nose, lips or eyelids(see Argentin Mastiff for example).

A dog whose white is due to the motley colour will generally get white nails.

Some authors even think that an intrusive motley colour could be responsible for the white colour of the eye.

Besides, Jacques Coly, in an article published in a bulletin of the Gathering of the Pyrenean Dogs friends, points out that two white Pyrenean Mountain dogs should never be mated in order to avoid any form of depigmentation (eye and skin).

In order to obtain some sable, you first need to get some fawn and for this, there are two possibilities.

The ay-ay genes give fawn with black overlay, i.e. fawn hairs at the base and dark at their tops.

Fawn dogs with a black nose lose their black overlay that can resurface sometimes under the form of black hairs scattered or gathered in small zones, this is a usual phenomenon for the Golden Retriever.

The e-e genes give pure fawn with a reddish nose which is getting darker under the action of the sun.

The two cases can be observed in Golden Retriever dogs, nose always black or « snow nose » turning red in winter ;

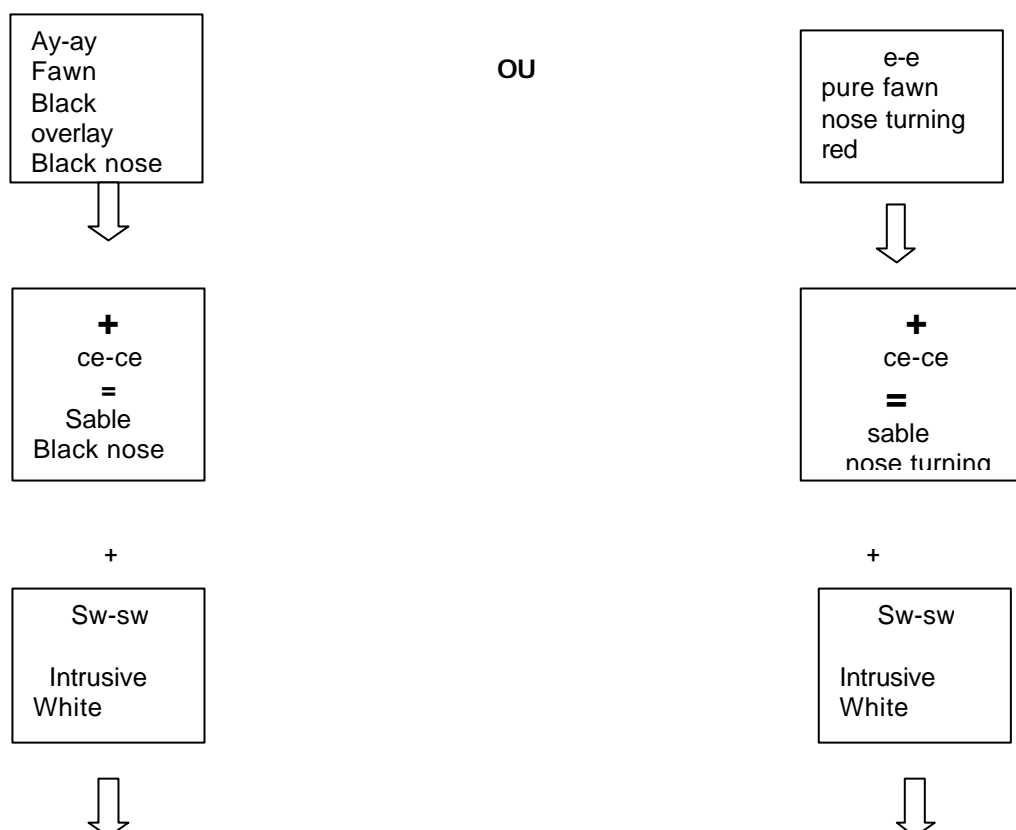
the wirehaired vizsla (pointing dogs) is always e-e as being fawn with depigmented mucous membranes though orange spitz have a black nose due to ay-ay genes.

Then the fawn turns into sable under the action of the ce-ce genes situated on the locus C. The ce-ce genes dilute the fawn into sable which looks like then white in the extreme cases (actually, sable ivory).

The most common hypothesis is that, up to the fawn origin, the sable dogs' nose will be black or reddish.

Be careful not to mix up the reddish nose with some "ladre" (depigmentation spot) which gives a clearly pink colour.

Let's shematize the two possibilities :





Ay-ay, ce-ce, SW-SW

White dog with more or less sable glints, black nose, white nails, with very seldom a black mark, risk of black hairs apparition



e-e, ce-ce, SW-SW

White dog with more or less sable glints, nose turning red, white nails most of the time

As it is probably the case of the white Caniche or the Samoyede, the Podhale Sheperd white coat is due to joint action of two genetical mechanisms, motley colours and sable very diluted, then the probability to get some white and not to have some dark colour is more important. This hypothesis also explains the « double colour » of some puppies.

A Podhale adult who seems to be yellow lacks of motley colour and has in its sable colour a dilution defect. Podhale Sheperds are often seen with reddish noses and more seldom as far as we know, black hairs, which attests the prevailing presence of the e-e genes upon the ay-ay ones. However the two combinations probably exist in the race, each one having its interests and its limits ; on the other hand , in the two cases, the apparition of depigmentation spot "ladre" linked to the importance of the motley colour is possible.

## Standard

The Tatra standard indicates that the nose has to be black and the coat has to be plain white, little cream colour spots are not to be encouraged. The iris is dark brown, the lips and the edge of the eyelids are dark-coloured.

Moreover, the nose, the edge of the lips and eyelids not enough pigmented, the clear eye said « bear eye » are defects, the presence of spots, without precision of the colour, is an eliminatory defect. Unfortunately the requirements of the standard do not seem very compatible between them and, to quote the article about coat colouring published by the Société Centrale Canine in the manual « The dog coat colours », « obtain an intrusive or very intrusive motley with a nose perfectly pigmented is difficult and implies a long selection. This is the same for the nails, so long as the tops are white ».

Thus, if one wishes to have a dog the whitest possible, then there is a risk to see depigmentations more or less important.

If one wants a dog with black nose and nails, the danger is then to see dogs with black areas in the litter.

It would be interesting to know what happens for the others « big white », the discussion is open. It seems to us that an excess of severity in beauty judgments regarding the nose pigmentation could encourage the fraud with make-ups and nose tatoos of which some are perhaps harmful to the dogs and anyway, it does not solve the genetical problem.

Shouldn't we apply ourselves to do our best without demanding the impossible ?

And to content ourselves with complying with some simple rules like avoiding to mate two dogs which are showing depigmentation spots, two dogs with reddish nose, two yellow dogs whose sable is not diluted or also two black-haired dogs. Actually, it is about a complementarity by knowing we'll rarely reach the ideal colour of the pure white dog with nose and nails perfectly black.

All the more that the others criteria of selection are numerous! That's what gives the breeding its spice!

### **Bibliography.**

Pr Bernard DENIS en collaboration avec le Pr COSTIOU. Les couleurs de robe chez le chien. Société Centrale Canine. 2<sup>ème</sup> édition, décembre 1989.

Professeur Bernadette Queinnec. Les robes : standards, coutumes et classifications. Séminaire des 10 et 11 novembre 1995 « peau et pelage » de la Société francophone de Cynotechnie.

Jacques COLY. Une blancheur suspecte. RACP N° 38

Antoine MARCHAL. Le caniche blanc. Notes de race. Vos Chiens N°98.

The book of the dog. Polish sheepdog by L. Bauvald.

Véronique Rivoire  
Françoise Martin « Les Arcanes d'Hermès »