The Bearcoat Shar Pei - A " bogeyman" for all Breeders?

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Can or must we anticipate based on the lines (pedigree) for our puppies whether we have selected two parents (individuals) for a mating, who are carriers of the long-haired trait (bearcoat) or can this be genetically proven?

What are carrier?

Carriers are individuals who are phenotypically short-haired but genotypically have a long-hair allele (genotype L/l) and pass this on to their offspring with a probability of 50%. If this allele is passed on from both parents to an offspring, this offspring will phenotypically show the expression of the long-haired trait.

The questions I asked at the beginning got a new meaning for me with my last litter. Mating two brushcoat Shar-Pei produced phenotypically bearcoat Shar-Pei.

With the help of Laboklin, we were able to use the DNA of one of these bearcoat puppies to prove that the genetic variant of this long coat can be detected using the hair length test II. Analysis of hair length II confirmed homozygosity for one of the recorded causative long hair variants (genotype L/L). The test of hair length I, which is available for all breeds and has been carried out on Shar-Pei to date, did not detect the variant for long hair tested there (genotype L/L).

Up to this point in time (considering the hair length II test) I was aware that one or the other breeder in the past had only used the hair length I test as a basis before mating with a parent whose lines bearcoat individuals were known to have. Breeders who have tried using this test to use the lines in which bearcoat individuals are known to occur for their gene pool. Despite the negative result of the hair length test I, these breeders were surprised with puppies with the phenotypic expression bearcoat.

Over the years I have repeatedly observed matings that have resulted in bearcoat puppies. From these observations it can be concluded that we must have some carriers (genotype L/l) in our population.

For some breeders, this thought presented a "bogeyman" that caused them to avoid these lines. In this context, the following questions arise.

Is avoiding the "bearcoat lines" necessary? Must healthy siblings of bearcoat dogs that could be carriers of a long-haired variant be taken out of breeding? Would excluding such dogs from breeding adversely affect our already small gene pool?

By testing all long-haired variants using the tests of hair length I AND II by Laboklin, it is possible that we do not have to do without these individuals. A carrier of a long-hair variant (genotype L/l in at least one variant) can be genetically determined in advance and thus consciously mated with a partner who does not carry a long-hair variant (genotype L/L in all tests). L/L x L/l --> 50% L/L + 50% L/l --> all offspring are short-haired, 50% have long hair like one of the parents. Thus, genetic diversity could be maintained without the "undesirable" occurrence of puppies with the long-haired trait.

Even without these preliminary considerations, I am sure from my own experience that that even a bearcoat Shar Pei will find his lovers.

Labogen - The Genetics of Laboklin: https://shop.labogen.com/
Information on the genetic tests for hair length I*: https://shop.labogen.com/gentest-bestellung/hund/all/1839/haarlaenge-i-kurzhaar/langhaar?c=5*
Information of t he genetic tests for hair length II: https://shop.labogen.com/gentest-bestellung/hund/afghanischer-windhund/1927/haarlaenge-ii-kurzhaar/langhaar?c=5

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