

WRAPPING OUR HEADS AROUND
The Peterbald



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Introduction

The Peterbald is an elusive breed. Over 30 years have passed since the foundation cat, Varya's uniqueness was discovered and over 20 years since the first breeders in St Petersburg started developing the breed. There there is still much to be learnt and much work to be done.

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1. History : A history refresher.
2. Genetics : How the gene works.
3. Coats : The Peterbald coats and variables.
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1. History

The history of the Peterbald dates back to 1986, when Varya was discovered as a feral. Any new breed of cat comes from one of two things: a cross of two existing breeds, or a spontaneous genetic mutation. Any cat with a unique and prominent distinction will have begun from a genetic mutation. Some examples of this would be the American Curl, the Munchkin, the Scottish fold, the distinctly curly coat of the Rex breeds, the Canadian Sphynx, and the Don Sphynx. And so begins the history of the Peterbald, not with a Peterbald, but with a woman and her cats that became known as the Don Sphynx or Donskoy.

While one must be careful to distinguish between the Don and the Peterbald, both breeds deal with the same genetic mutation, (although may have polygenetic differences) and stem from the same foundations.

Varya was a rescue cat that was adopted by Elena Kovaleva in Russia in 1986. The cat began to lose her coat as she grew and it was discovered that she was not ill but was displaying a coat mutation. As Varya continued to grow and undress, she was entered in shows but was not well received, especially with the controversy surrounding the development of the Sphynx breed at the time.

The Peterbald

1. History continued...



Elena worked with her friend Irina Nemykina and her daughter Inna on various matings thereafter. These woman originally thought they had a Sphynx!

After a litter, three cats with the same mutation were put on show and interest started to grow. In the litters were varying degrees of hair losing or hairlessness and in one of the litters, a completely hairless kitten was born. After the first matings, the primary difference was discovered: the gene that is responsible for the hairlessness or hair losing tendency of these cats is dominant, where the Sphynx's gene is recessive. This is to say that, when you breed a Sphynx to a furry cat, the first generation of kittens will be furry but carry the Sphynx's hairless gene. With the Don Sphynx, the kittens will be hair losing in the very first generation and the gene cannot be carried.

As a result, the name was changed to the Don Hairless, and is often referred to today as the Donskoy or Donsky. So, now you know of the origins of the Donsky, but what of the Peterbald?

It was in 1993, in St. Petersburg, Russia, that a brown mackerel tabby Don Hairless male with a rather refined look, Afinguen Myth, was mated to a very classy tortie Oriental female, Radma Vom Jagerhof. Although their offspring were not very well received in Moscow, they were very popular in St. Petersburg, and soon became known as the Peterbald. Another male that played a big role in development of the Peterbald was a black male called Nocturine Iz Murino. He was born in February 1995, resulting from the same sire and dam as Radma. He was used widely for matings with purebred Oriental and Siamese females, and produced many high quality offspring. Many modern Peterbald pedigrees today, even in South Africa, can be traced back to this particular cat.

To increase the gene pool, the Peterbalds were also crossed with light-type Don Hairless cats, and new lines of Oriental Shorthairs and Siamese cats to achieve the "look". This is why most colours and patterns are present in the Peterbald – especially those that pertain to Orientals and Siamese.

2. Genetics

The genetic make-up of the Peterbald is one of the factors that confuse us as they are constantly compared to the Sphynx. It is important to remember that they are completely different.

The Peterbald gene is **DOMINANT**, meaning that one needs a Peterbald to make a Peterbald, simply. The gene cannot be carried like the Sphynx naked gene which is **RECESSIVE**. Any offspring born with normal coats (called Variants in some organisations) will NOT carry the gene for Peterbald and will not produce Peterbald unless mated back to one.



IW SGC Purrsia Voulez Vous "Liam" Seal Tabby Point Chamois

There is little known about the polygenes or genes affecting coat type. With little genetic research since the breed's inception, breeders are learning more with each individual litter; mutations will pop up that are not quite what we expected at the initial outset.

It is said that a Peterbald is born with the coat it will settle into and it goes through various stages of "dressing" and "undressing" throughout its life. While it is easy to say this, when kittens are born there are variables in play that may change this perception. Every kitten is different and will develop at her own pace. One may predict a kitten's coat at birth but sometimes things change due to growth, environment, hormones and climate and possibly even due to genetic factors in play. For this reason it is difficult to register a Peterbald kitten with a specific coat as by the time they grow and settle, things may change. We have seen some kittens display all of the different varieties of coats in a period of under a year!

In most cases a kitten born with a bald head may settle into being a Chamois or a Velour and Brush coats and some Velours will have some degree of texture in the coat when born where the light Brush varieties may or may not have a bald head. The rest of the body has hair in most cases and the kitten will lose this hair as mum grooms her in the early weeks and it begins to fall out.



Newborn kittens before hairloss. Most of these kittens ended up velour - they are now 6 months of age transitioning.

Can you spot the variant?

The Peterbald

2. Genetics continued...

There are rare cases of very naked babies being born with no hair, no whiskers, their eyes open and their birth weights lower than other-coated kittens. These kittens are known as “true naked” and although sought after by some due to organisations preferring a more hairless coat in their standards, breeders struggle to keep these kittens alive with enough warmth, supplementation and care. These kittens generally do not survive past the first few weeks and have varying issues with immunity as they are usually completely handreared.

Breeders “lucky” enough to rear these kittens to adulthood struggle to breed females. There have been many cases of these cats having fertility issues, pregnancy problems, and low milk production. They are extremely delicate much unlike their brothers and sisters, so many breeders worldwide choose not to promote true naked kittens for breeding purposes, and rightly so. They are a rarity and contradict the reputation of the breed being robust, excellent breeding cats.

There are cases where kittens are born with hair and have no bald spot on the head and gradually the texture changes to reveal a heavier, denser brush coat.

Some breeders with a background in breeding Donskoy have a theory that the heavy brush develops due to incomplete dominance

“Incomplete dominance is a form of intermediate inheritance in which one allele for a specific trait is not completely expressed over its paired allele. This results in a third phenotype in which the expressed physical trait is a combination of the phenotypes of both alleles. Unlike complete dominance inheritance, one allele does not dominate or mask the other allele. Incomplete dominance occurs in the polygenic inheritance of traits such as eye color and skin color.”

The more common theory among Peterbald breeders is that all coat expression is due to polygenetic inheritance

“Polygenic traits are determined by more than one gene and by interactions among several alleles. The genes contributing to these traits equally influence the phenotype and the alleles for these genes are found on different chromosomes. The alleles have an additive effect on the phenotype resulting in varying degrees of phenotypic expression. Individuals may express varying degrees of a dominant phenotype, recessive phenotype, or intermediate phenotype. Those that inherit more dominant alleles will have a greater expression of the dominant phenotype, while those that inherit more recessive alleles will have a greater expression of the recessive phenotype. Those that inherit various combinations of dominant and recessive alleles will express the intermediate phenotype to varying degrees.”

The Peterbald

2. Genetics continued...

Whatever the case, because there is a lack of genetic research into how the coat variations come to be, breeders are at a loss at how to breed for one trait or another. There are some theories, but the coat expressions regardless of the parent's phenotypic make-up vary greatly from mating to mating.

It is for this very reason that some breeders worldwide are asking for changes to their original standards with their respective Governing Bodies, but some organisations are more open to change than others. Many standards worldwide are outdated and promote hairlessness as preferred but as explained above, this is an unrealistic ideal put in place by breeders who knew little about how their genetic make-up would affect these cats for generations. The risk of the "hairlessness preferred" standard could most likely lead to breeders removing the brush coat from the gene pool to blindly attempt to breed more chamois and velour coats, which is premature and detrimental to a developing breed when we do not know for sure which polygenes are dominant and which are recessive.

For this reason, education and experiencing the breed in different stages of life and coat development is very important. The best way to create awareness and educate breeders and judges is to allow all of these coats to be shown with equal importance until more genetic information becomes available to breeders.



Coat development - 4 weeks, 9 weeks and 9 months. At 4 weeks the coat appears to be a velour starting to transition to brush, but at 9 weeks the kitten has lost coat and appears velour with guard hairs. By 9 months, the coat has already gone through several stages of dress and undress and is now a full, heavy brush. He will start to drop coat as his hormones begin to mature and should settle by two years of age, theoretically.

3. Coats



Much has been discussed regarding genetic variables above. It is the coats that define the Peterbald and make it unique from the Oriental or the Siamese.

THE CHAMOIS

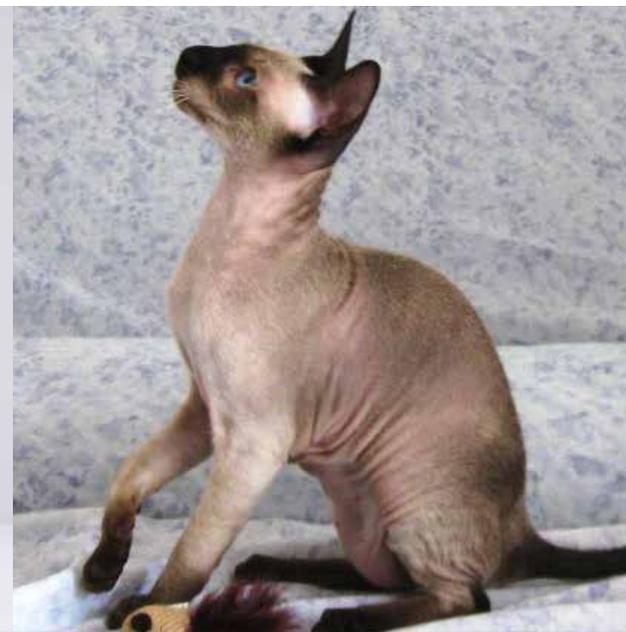
Very short, almost hairless coat called “chamois”. This coat appears hairless, but upon close inspection, one will notice a fine down or “peach fuzz”. Cats often have more down on their extremities and are more “wrinkly” than the other coat varieties. Kittens are often a bit smaller, requiring moderate supplementation due to a faster metabolism and higher body temperature.



3. Coats continued

THE VELOUR

The Velour has a tight, short coat that feels velvety to the touch giving resistance when stroked “the wrong way” like suede. A velour Peterbald may have soft down or very short, soft fur on its extremities. This coat requires a moderate amount of grooming and stays relatively clean for much longer than a Chamois. A velour may develop guard hairs that are easily removed. Also known as a flock coat.



The Peterbald

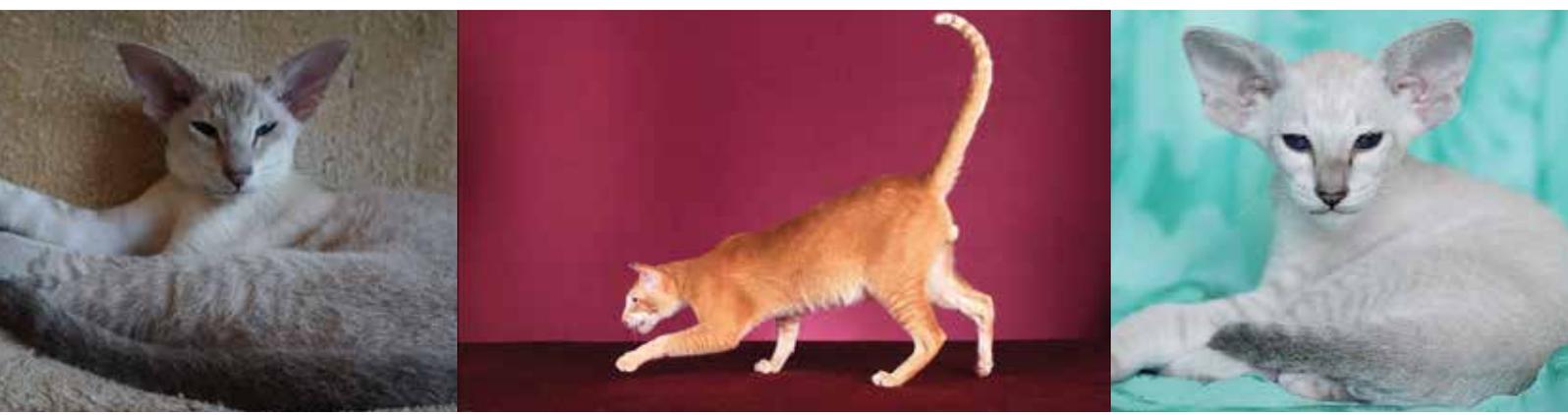
3. Coats continued

THE BRUSH

The Brush can vary in length, texture and density and be categorised as light or heavy. The light brush is a short, sparse coat of coarse or wiry fur. One might see “skin” between the sparser layers of brush and guard hairs are easily removed. Density may vary in light to heavy transitions.



The heavy or full brush is a fuller version. The coat is longer or remains quite short. It may be coarse, wiry, appear soft and/or fuzzy that can look “untidy”. The coat may slightly stand out from the body unlike a normal coat, which should lay flat. Because the heavy brush is more dense, one will not see “skin” between the brush hairs and it may display a “full” brush coat, especially in young cats. Normal fur or a softer coat may be visible on the extremities and stomach especially where white is a factor. Textures of brush coats may vary with age, environment, climate, hormones and coat colours and patterns.



The Peterbald

4. Development

WHERE TO FROM HERE?

The further development of the Peterbald is of the utmost importance as it reaches its intermediate stages. The stage has been set. The type of the Peterbald has come a long way from its first outcrosses in 1993. In the USA and South Africa, Scandinavia, Russia and in Europe, the Peterbald has been outcrossed with Oriental and Siamese solely to improve on the type of the Peterbald and their variant offspring.

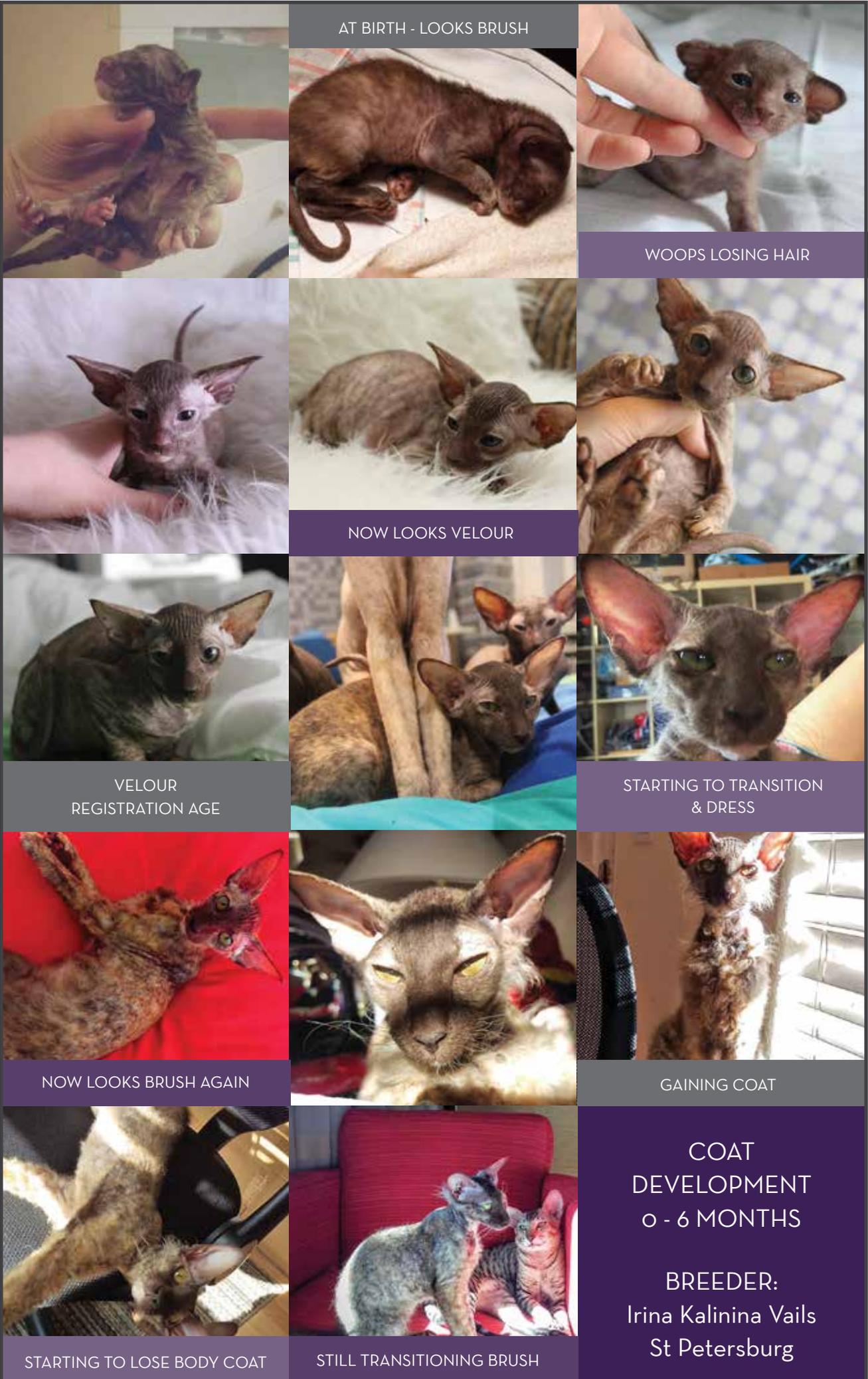
A good testament to improvement in type is the fact that variants produced by at least one Peterbald parent have come so far with regards to type, that they are indistinguishable from their Oriental and Siamese cousins. In the early days of the programme in South Africa and abroad, these kittens were often described as a badly typed Oriental or “pet quality”. Now they would be considered show contenders in organisations that accept them for championship status.

Putting that aside, Peterbald offspring have improved over the years, becoming more typey and in line with what the original founder breeders wanted to achieve: An Oriental / Siamese look coupled with a unique Donskoy coat!

Breeders will continue to work towards this ideal and part of that is phasing out the outcross to the Donskoy that epitomizes the old typed Peterbald and which promotes the reduction of the breeding pool by favouring the hairless. Where the Oriental and Siamese outcross still assists with the entrenchment of the type of the Peterbald, the Don is moving in a completely different direction and both breeds should continue to develop on their own. The ideal in the next 20 years will be to have more and more Peterbald in Peterbald pedigrees, to move down the line from foundation matings, and to only require the need for an outcross for purposes of genetic diversity.

The main development factors that are important moving forward are not only type and coat related. It is to form communities to keep abreast of what the breeders want, what the judge's see and what is in the best interest of the breed's health and future development.

More breeders need to commune worldwide and work together to increase the chances of cohesion and agreement on where the breed is going and to raise funds for genetic research. For this purpose a survey has been sent out to breeders worldwide to find out what they envision for the breed and the results of which will be published for organisations internationally to study.



AT BIRTH - LOOKS BRUSH

WOOPS LOSING HAIR

NOW LOOKS VELOUR

VELOUR
REGISTRATION AGE

STARTING TO TRANSITION
& DRESS

NOW LOOKS BRUSH AGAIN

GAINING COAT

STARTING TO LOSE BODY COAT

STILL TRANSITIONING BRUSH

COAT
DEVELOPMENT
0 - 6 MONTHS

BREEDER:
Irina Kalinina Vails
St Petersburg

THIS KITTEN IS NOW 10 MONTHS OLD AND LOSING MORE COAT
AND WILL MOST LIKELY END UP A VELOUR ONCE SHE IS FINISHED UNDRRESSING.



COAT DEVELOPMENT 10 MONTHS

BREEDER:

Irina Kalinina Vails, USA (Formerly Russia)

The Peterbald

5. Shortcomings at Show Level

Breeders have noticed shortcomings with certain show rules for the breed that hinder fair competition in kittens and young adults. In some organisations the kitten's coat needs to be registered. This poses a problem where kittens change coat type often.

Lets look at an instance some may experience

1. A kitten will be born with a bald head, and the breeder will check the coat change in the first few days. The kitten should develop a "true" coat supposedly, early on.
2. The kitten changes coat again in 2 weeks and back again by 8 weeks.
3. The breeder registers the kitten at 10 weeks of age with the coat it currently or most likely is.
4. The kitten changes coat again. The breeder changes her mind and potentially changes the registered coat with the registrar.
5. The kitten is now 4 months old and ready for showing. The breeder enters the kitten in a show weeks prior with its registered breed code, confident the kitten will settle in time for the show..
6. By the time the show arrives, the kitten has changed coat again or is in transition and is now at a disadvantage. The kitten cannot compete with other breeds because its coat on show day may be different to that of its registered coat or it may be transitioning between coats.

The suggestion by many breeders is to drop the breed codes by certain organisations that make a concrete statement as to what coat a kitten may be. Because they will only mostly likely settle into their coats by 18 - 24 months of age, there are too many variables and too many different accounts to know for sure at an early age.

For this reason, we believe that kittens and immature cats should have allowances made for coat development and transitions, and this should not be held against them.

Another suggestion that was put forward in discussion with local and international breeders is that the Peterbald should be judged on the coat it displays on the day of the show. This eliminates confusing registrations and inconsistencies, and the cat is judged for its coat quality on the day but judges will need to be well versed in the different coats beforehand to understand transition.



BRUSH



BRUSH



CHAMOIS



CHAMOIS



CHAMOIS AND VELOUR



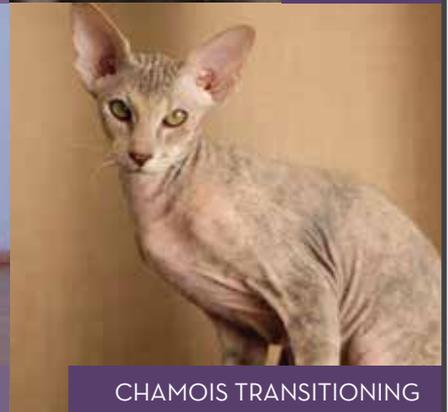
CHAMOIS



CHAMOIS



BRUSH TRANSITIONING



CHAMOIS TRANSITIONING



VELOUR



VELOUR



VELOUR TRANSITIONING



ADULT CHAMOIS FEMALE

COAT
TYPES
VARIOUS

ALL IMMATURE
CATS / KITTENS
UNDER 2 YEARS

THANK YOU TO THE FOLLOWING BREEDERS FOR ALLOWING US
TO USE PICTURES OF THEIR CATS TO ILLUSTRATE THE COATS
AND TYPE OF THE PETERBALD.

USA

TICA

Susanna Shon (Purrsia), TICA Judge

USA (FORMERLY RUSSIA)

TICA

Irina Kalinina Vails

RUSSIA

WCF

Yulia Ukleyn (Kissiopeia Nova)

RUSSIA

WCF

Марина Смирнова (Neva Grace)

GERMANY

TICA

Christina Mittler (Triskell)

SWEDEN

FIFE

Jenny Frolen (Cupcakes)

SWEDEN

FIFE

Amanda Wesfal (Odd Is)



TOP LEFT: IW SGC Purrsia Elle Sappelle Camille Black Velour (Flock)
TOP RIGHT: RW QGC Purrsia Ma Cherie Amour "Chelsey" Brown Ticked Tabby Velour (Flock)
BOTTOM LEFT: The first ever winning Peterbald in TICA, IW SGC Purrsia Mathilda Chocolate Velour (Flock)
BOTTOM RIGHT: RW SGC Purrsia Mademoiselle "Penelope" Black & White Chamois

In conclusion, I hope that this presentation gives you some more insight into the Peterbald and explains in more depth, the coat variations and complexities of the breed.

For more information please contact the Siamese, Oriental and Peterbald Alliance, a CFSA affiliated breed group dedicated to the development of the Peterbad breed - www.kzncatclub.com/sopa

