

# ACF BREEDING POLICY FOR THE MANX AND CYMRIC CAT

10.20pm 29<sup>th</sup> March, 2015

## **THIS ACF POLICY IS TO BE APPLIED IN CONJUNCTION WITH ACF RULES, REGULATIONS AND BY-LAWS PART 2 PRACTICES ON BREEDING**

Note: The Governing Council of the Cat Fancy UK (GCCF) is country of origin of the Manx and Cymric cat. The GCCF have a Recommended Breeding Policy for the Manx Cat, First Edition, published in June 2011. This GCCF document should be read as a reference document and 'GCCF sections' of it have been referred to in this ACF Policy.

### **Origins and History** (Refer: GCCF section 2.0)

Since the GCCF Recommended Breeding Policy for the Manx cat, was published in June 2011; scientists have discovered four allelic DNA mutations in the T-gene of the Manx cat responsible for the short tails in the Manx cat. These mutations are dominant and homozygosity is presumed to result in early embryonic lethality.

Refer: Buckingham KJ, McMillin MJ, Brassil MM, Shively KM, Magnaye KM, Cortes A, Weinmann AS, Lyons LA, Bamshad MJ. Multiple mutant T alleles cause haploinsufficiency of Brachyury and short tails in Manx cats. *Mammalian Genome*. 2013 Oct; 24 (9-10): pages 400-8.

### **First Manx cats in Australia**

Manx cats have a very long history in Australia. Indeed, the catalogue of Victorian Kennel and Poultry Club Show in 1895 indicates that Manx cats were quite popular with 8 being entered in the show. Subsequently many other dedicated breeders have bred and shown these captivating cats including Mrs Rae Morgan who showed 'Encore' Manx in NSW, Victoria and Queensland from 1960.

Refer:

Where did we come from? (The origins of the cat fancy and pedigree cats in Australia) by Lesley Morgan Blythe, ACF Yearbook, 2004

Research by John Richardson and Julie Walker, March 2015

### **Background**

In some instances, the ACF requirements for breeding Manx and Cymric cats differ from the GCCF Recommended Breeding Policy for the Manx Cat. For example in GCCF section 7.1 the GCCF recommendation that "*Manx cats to be used for breeding should be given a health screen by a veterinary practitioner and certified free from any overt physical or health defects eg intestinal or neurological defects*" does not appear in the ACF Rules, Regulations and By-Laws Part 2 Practices on Breeding.

While the ACF does not require health screening by a veterinarian for breeding Manx cats, or a certificate that white kittens are free from deafness prior to being registered, the ACF By-Laws Part 2 Practices on Breeding recommends that "*Health must be the overriding consideration in any breeding program*". Also, cat breeders need to ensure compliance with current Federal and State government legislation and Local regulation applying to the keeping, breeding, management and selling of cats as well as ensuring their Member body requirements are adhered to.

The ACF disallows Rumpy to Rumpy matings, whilst GCCF allows Rumpy to Rumpy matings, with a restriction to frequency of such matings being specified, otherwise progeny are refused registration.

Refer: GCCF section 7.1  
ACF By-Laws Part 2 Practices on Breeding, 2015

### **Manx Health and Genetic Defects; Effects of the Manx Mutation** (Refer: GCCF section 6.0)

A radiographic study of Manx cats by Howell and Siegel (1966), found that Manx cats had a reduction in the number of vertebrae and length of vertebrae when compared to domestic cats. The study concluded with "*The greater the deletion in the number of lumbar, sacral, and caudal vertebrae, the greater the associated malformations and the higher the juvenile mortality rate*".

The GCCF section 6.0 also acknowledges that: "*the gene's actions when shortening the spine may go too far: Resulting in overall fewer spinal vertebrae..... These manifestations are highly undesirable and breeding programs should be followed to minimise any occurrence of these latter effects. Inclusion of tailed Manx and minimising mating of two Manx with shorter than average backs can help minimise these adverse occurrences in Manx breeding. Associated symptoms when the Manx gene overshorts the spine are, weak hind legs/difficulty walking, damage to the spinal cord and defects in innervations with associated problems with the bowels, bladder and digestion*".

Thus while anecdotal evidence is reassuring that: "*Manx and Cymric cats have been bred successfully without health issues in Australia and overseas by various breeders*", it is absolutely essential that Manx cat breeders be aware of the possible "undesirable manifestations" of the Manx mutation that are summarised at length in the 'GCCF Recommended Breeding Policy for the Manx cat' in sections 6.0 and 7.1 and by Buckingham et al, 2013, as well as ensuring that "*Both kittens and adults must be scrutinised closely for any of these defects and this information used in determining ongoing breeding practices. Any adults displaying any of the above symptoms **must not** be used for breeding*" and veterinary care must be sought for any Manx cats and kittens that display health and/or welfare issues, "*including urinary or faecal incontinence*" as well as more subtle and less dramatic distal spinal deformities.

Refer:  
Howell J M and Siegel PB. Morphological Effects of the Manx Factor in Cats. J. Hered 57(3) 1966, pages 100-104  
Collection of previous email correspondence from Manx breeders to John Richardson, March 2015

### **Selection of Breeding Manx** (Refer: GCCF section 7.1)

With regard to managing the effects of the Manx mutation the GCCF section 6.0 states that "*With care and proper breeding management, the health and the Manx life expectancy is the same as any other breed of cats.*" Furthermore experiences from breeders of Manx cats such as Jane Hellman have found that "*If you are sensible in your choice of breeding stock, that is using absolutely sound cats, there should be few problems*".

Thus, it is important that breeders have a well-managed and well-understood breeding program for Manx cats. Breeders need to ensure that they are not breeding for overly short backs ie where the length of the back is not in proportion to the entire cat, with the height of hindquarters equal to the entire cat (Refer: ACF Book of Standards, January 2015). In addition, to reduce the possibility of adverse occurrences in Manx breeding, it is recommended that breeders ensure that they are including Tailed Manx ie cats with "*a regular or near regular tail*" every second or third generation in their breeding program as well as considering outcrossing to British Shorthair

in accordance with ACF By-Laws Part 2 Practices on Breeding (Refer: Outcrossing Manx and Cymric cats in this ACF Policy).

Also, the use of DNA testing for known coat colours and inherited diseases; radiology and veterinary advice may assist breeders with identifying suitable healthy cats for Manx and Cymric breeding programs. Any defective individual Manx cat or outcross cat should clearly not be used for showing or breeding under any circumstances and breeders should seek veterinary advice about managing the health status of such cats.

The 'GCCF Recommended Breeding Policy for the Manx cat' in sections 6.0 credits: "*the addition of folic acid to a queen's diet prior to, during and for 10 days after mating*" as a factor in reducing the effects of the Manx mutation. Although the research on the benefits of adding dietary folic acid was on humans, supplementation may be of some benefit to Manx cats and is recommended until further research has been conducted.

Refer:

The Manx Cat, J. Hellman. Cats and Catdom Annual, 1979.

### **Type, Size and Weight of Manx cats**

Type, requiring that Manx cats have a usual gait and walk normally (Refer: GCCF section 5.1) and Size and Weight (Refer: GCCF 5.10), are of great importance due to defect or health concerns. Thus these aspects are detailed further in this ACF Policy to assist breeders, judges and registrars, as well as enable the public to avoid cats which may have defects or health issues.

**Type – Manx gait** (Refer: GCCF section 5.1)

*"Manx have a usual gait and walk normally"*. A Hopping Gait is a deformity and such is well known to breeders and judges, particularly since publication in 1965 by the Isle of Man veterinarian and Manx breeder, D. W. Kerruish of the Manxland prefix, as well as the GCCF removing the Hopping Gait from its Manx cat Standard circa 1979. Renowned GCCF Manx Breeder, Jane Hellman of Tattleberry Manx, unequivocally states in her 1979 article The Manx Cat, "*This was the best thing that the GCCF, in consultation with the Shorthaired Cat Society could have done as hoppers are deformed cats.*"

Refer:

The Manx Cat 1965. D. W. Kerruish, M.R.C.V.S. Nelson Press Co. Ltd. 3rd edition  
The Manx Cat, J. Hellman. Cats and Catdom Annual 1979.

Manx breeders and judges in Australia need to be aware, that "Hoppers", as Manx cats with a hopping or bobbing, 'rabbit-like' gait are generally known, are deformed. Any Manx cat that is presented for judging and is unable to walk normally and/or stand properly needs to be disqualified under the ACF Rules and Faults concerning disqualifications in the ACF Book of Standards.

Refer:

ACF Book of Standards, January 2015

Manx cats in The Book of the Cat, Edited by M.Wright and Sally Walters; Pan Books, London and Sydney, p72-73, 1981

Furthermore, discussions with Anthony Nichols and Dr Karen Kempself of the GCCF Genetic Committee in March 2015, have resulted in the following definition of Hopping Gait being proposed:-

A hopping gait is a gait where the rear legs of the cat do not or cannot move independently of each other and habitually move forward at the same time during all locomotion, where the cat may also, but not always, display partial paralysis or other anomaly.

### **Size and Weight** (Refer: GCCF section 5.10)

*“The Manx can be seen with most colours and pattern. The Manx is a medium to large, robust cobby, well muscled cat. The average weight and size of a male Manx is approximately 10 to 12 pounds (4.5 to 5.5 kg), comparable to that of its near cousin the British Shorthair. A female can range in weight from approximately 8 to 10 pounds (3.5 to 4.5 kg). Neuters and spays will be heavier than entire, perhaps a kg or so more.”*

The size and weight parameters for the Manx cat, has been well established over some 111 years of wisdom and experience by the GCCF registered breeders, the USA CFA registered breeders and registered breeders on the Isle of Man. In 1903, large Manx cats were considered coarse. UK and USA Breeders used Manx cats from the Isle of Man mated with other Manx cats from the island and consistency of breeding resulted in the breed maintaining the current size and weight, which was fortunately documented by the respected USA Manx breeder, Barbara St. Georges of the Briar-Brae prefix, in her publication reprinted in 2006.

Concerns exist with regard to breeding Manx cats of a size and weight well beyond those long accepted for the breed. It is felt that there is potential for health-related issues found in large cats, as well as the Manx breed ceasing to be what it has always been. Indeed the current ACF standard describes the Manx cat as *“The overall impression of the Manx is a medium-sized, muscular cat, with rounded rump, taillessness and a soft, double coat.”*

Refer:

The Book of the Cat - Frances Simpson 1903, page 252

Interpreting the Manx Standard – Barbara St. Georges - Manx Breed Council – Updated 2006.

ACF Book of Standards, January 2015

### **The Manx Gene - Observable phenotypes** (Refer: GCCF section 4.4)

*“The pleiotropic effect of the Manx gene leads to different observable phenotypes i.e.*

- a) *The dimple rumpy - here the cat will have a small indentation at the base of the spine*
- b) *The rumpy - a completely tailless cat*
- c) *The rumpy riser - a cat who has a small rise at the base of the spine caused by a small piece of cartilage or bone which may rise, but must not move sideways*
- d) *The stumpy - a cat with a tail between 1-5 inches long*
- e) *The longy - a cat with a tail longer than 5 inches, but shorter than a standard tail.”*

The GCCF definition (see above) of the Rumpy, Rumpy Riser and Stumpy differs from the ACF Book of Standards, January 2015 which uses the following description for Manx and Cymric tails:

**“Tail:** *The overall impression should be of balance for roundness of rump to back and hind leg length, giving the impression of proportion to body length, with no anterior contraction of the hock.*

**Rumpy [51]:** *Exhibits should appear tailless. The rump should be felt to be completely rounded, with no substantial extension of tail bone or cartilage, although minor rises will be permitted if these do not interfere with the roundness of the rump.*

**Rumpy Riser [52]:** *A rise of bone at the end of the spine is allowed and should not be penalised unless it stops the judge’s hand, thereby spoiling the tailless appearance of the cat.*

**Stumpy [53]:** *A rise of bone which is allowed a maximum length of 3cm. The rump should be extremely broad and round*

Furthermore the ACF By-Laws Part 2 Practices on Breeding, 2015 use the following '14.11 Breed Specific Codes' for Manx and Cymric tails:

*'Codes that apply to only the Manx and its longhaired counterpart, the Cymric to indicate the amount of tail.*

*51 = rumpy (no tail)*

*52 = rumpy riser (a tiny rise in the bone at the end of the spine)*

*53 = stumpy (a rudimentary tail not longer than 3-4 cm [1.2 to 1.6 inches])*

*54 = longie (a regular or near regular tail these cats are used for breeding but may not be shown)'*

In Australia, it is evidenced from speaking with Manx cat breeders that there are Manx cats registered as tail classifications differing from their actual classification (Refer: Tail reclassification of Manx kittens and cats in this ACF Policy). In order to eliminate any confusion that judges, registrars and breeders may have as to what Risers, Stumpy tails and Tailed Manx are, the following notes and diagrams about each tail classification have been added to this ACF Policy.

NOTE: The ACF Manx and Cymric standard descriptions for Rumpy Riser and Stumpy tails (see above) differ from other well known Manx Studies, eg: De Forrest and Basrur 1979 which describe the following: *"The distinction between rumpy-riser and stumpy is based on the ability of the latter to move the coccygeal vertebrae laterally, this movement being impossible in rumpy-risers."*

In addition, the following diagrams and text provided courtesy of Jane and Glenn Hellman also confirm, a Rise on a Rumpy Riser is either fixed, or can only rise or lower, it is incapable of lateral/rotational movement and it is not a Stumpy tail, Also, tails on Tailed Manx are flexible and not fused as Stumpy tails are.

Refer: The following illustrations and texts, by eminent GCCF Manx breeder Jane Hellman of Tattleberry Manx and her husband, Glenn Hellman. These have previously been published in another format and the combined format provided here, was prepared some years ago with Jane and Glenn Hellman, to allow John Richardson to use it for educational purposes.

# CLASSIFICATION OF MANX CAT TYPES

## Description of diagrams

Authors: Jane and Glenn Hellman

Fig. 1 Top view of relevant parts of normal spine

Fig. 1.

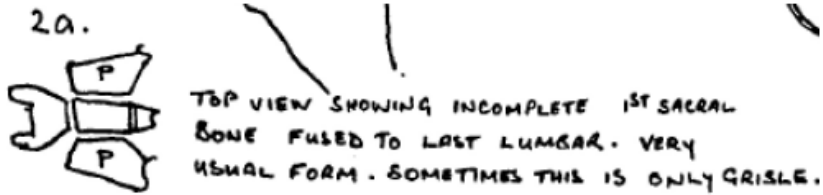
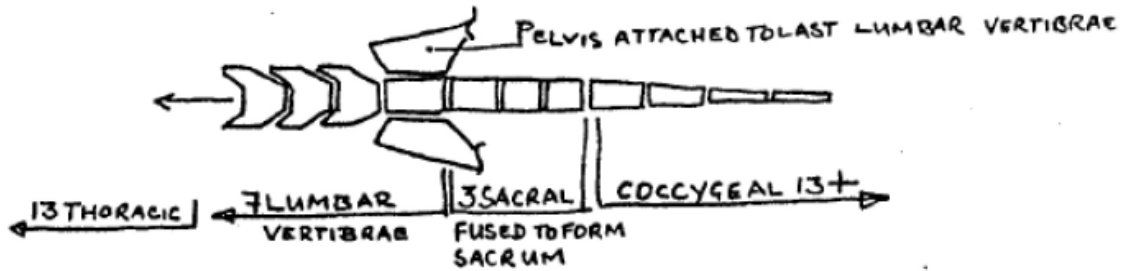
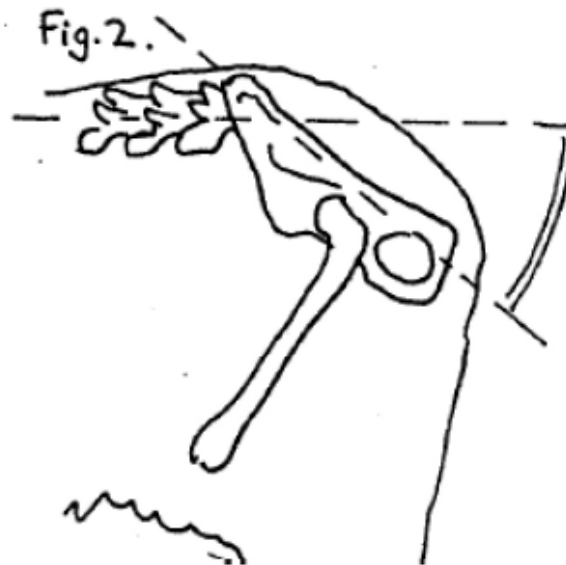
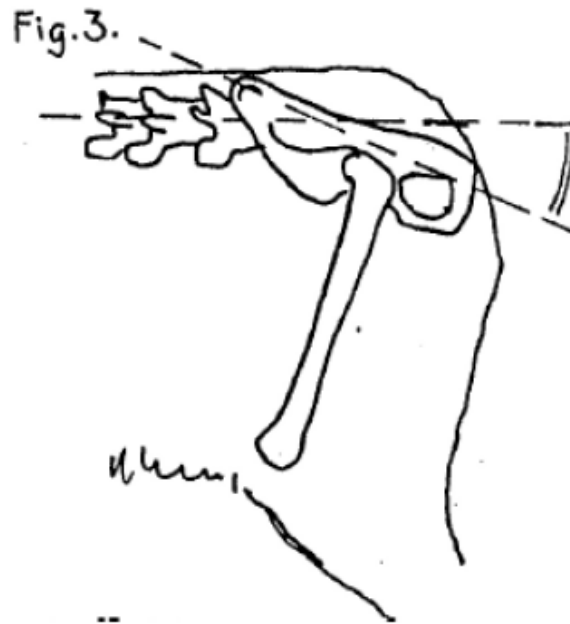


Fig.2 RUMPY, a cat that has no complete SACRAL vertebrae, frequently the first one is present but incomplete and fused to the last Lumbar vertebra.

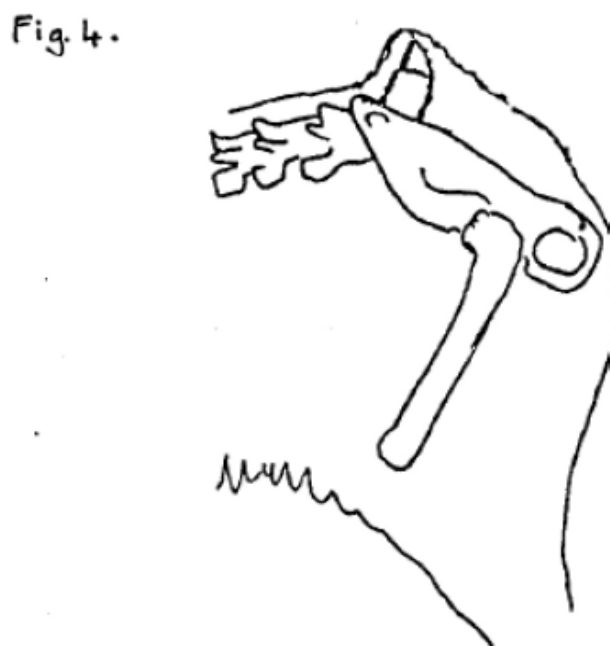


**Fig.3 Roundness of rump is affected by the angle of attachment of the Pelvis.**



**Figs. 4, 5, 6 RUMPY RISER There are three types of Riser identifiable**

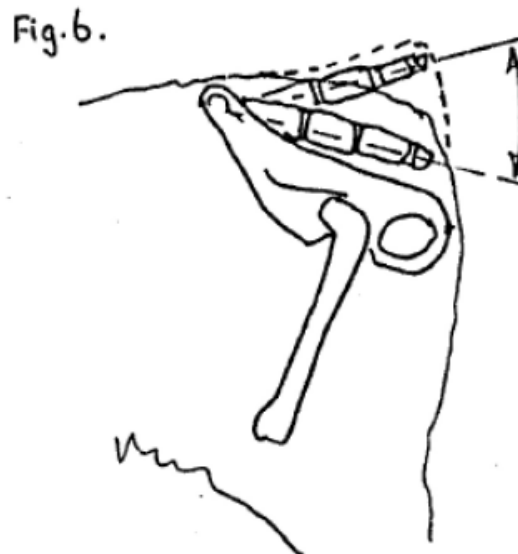
**Fig. 4 The "fixed" rise. This is the section of SACRAL bones fused in the vertical position. As it is immovable, apart from spoiling the roundness of the bottom, it will "stop the hand" (CFA Standard)**



**Fig. 5** This is perhaps the commonest form of Riser. This shows 2 complete and 1 incomplete SACRAL vertebrae which re fused together and can be raised and lowered from the junction with the last Lumbar vertebra. This type can have just an incomplete vertebra as in fig, 2a, which if it moves must be considered a Riser, through to the one illustrated. These are eminently showable cats (in this respect).

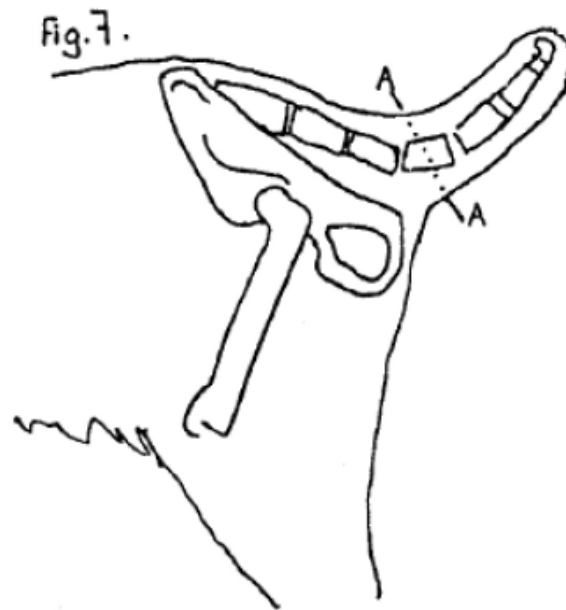


**Fig. 6** Is basically the same but with all 3 SACRAL vertebrae plus an incomplete coccygeal one, also moveable in the same way. Although the angular movement is the same, because of the extra length the vertical movement is greater, thereby again spoiling the roundness and interfering with the hand as it is run down the back. In some cats even when the rise is relaxed it makes a noticeable bump in the skin. These cats are not of show standard. These last two types of riser can be very difficult to detect on the show bench as some cats will clamp it down because of shyness with strangers or fear of the unfamiliar surroundings. Sometimes scratching the cat on the last two lumbar vertebrae encourages it not to lift any rise but also take its "stand". A Judge of course does not have recourse to X-ray equipment and so must judge the cat by feel. This of course does not mean a finger poked up the bottom.





**Fig. 7 Everyone's idea of a Stumpy. However a Stumpy can also have no more vertebrae than Fig. 6, but because the skin is shaped around the bone as at AA Fig. 7, it becomes a Stumpy. This is important because such a cat is definitely not show quality and again it is hard to detect on the bench.**



**LONGIE** Where a Stumpy ends and a Longie begins is a matter of personal decision as a Longie is a long Stumpy. But the definitive difference between a Longie and a full-tailed cat of Manx parentage, however long the Longie's tail, is that the last coccygeal vertebra present is distorted and the cat carries the Manx gene.

**Some cats possess a flap or patch of thickened skin where the tail would begin. Unless this is associated with COCCYGEAL vertebrae, it can not be considered a stump, although it may well spoil the appearance of the roundness of the bottom and thereby lose as many points.**

As is clearly observed from the text and diagrams for Figures 2 and 3, the ideal and required roundness of rump for the Manx cat, is determined by the angle of attachment of the pelvis.

Wisdom from respected former Manx breeders, is that the main factor determining the quality of a Manx cat's conformation and soundness, is the whole skeletal system, from which everything else relative to type and conformation is determined, e.g. Roundness of rump, length of body in proportion to entire cat, neck, short but not overly short back, height of hindquarters equal to the length of body, good breadth of chest, boning, eye shape, ear set etc.

Although the ACF standard does not specifically ask for the Manx cat to have an 'arched' back per se, breeders and judges must be aware that the ACF standard requires the Manx cat to have "short front legs" and "back legs to be longer than the front with powerful deep thighs". The longer back legs coupled with the requirement for "the rump to be higher than the shoulders" and the "short but not overly short back ending in a definite round rump" result in the Manx having an arched or rounded back and longer back legs.

Refer: ACF Book of Standards, January 2015

## **Tail re-classification of Manx kittens and cats**

Breeders need to exercise care when registering the Tail classification of kittens, as where Rumpy Risers and Stumpy tails grow beyond a breeder's assessment, it may become necessary to have the kitten assessed for re-classification prior to it entering adult class, to ensure it complies with the class specifications and is not disqualified or outclassed. Although Rumpy Riser and Stumpy Manx are well known for the potential to "clamp" their Rise or Stumpy tail when on the show bench, it may be the situation where an exhibit displays a Stumpy tail rather than what is registered as a Rise, or displays a Stump which exceeds 3cm in length.

There may be situations, where a Manx cat registered as a Rumpy Riser achieves Title status in adult class, but is subsequently judged to be a Stumpy and assessed/re-classified. Likewise, a Manx cat registered as a Stumpy achieves Title status in adult class, but is subsequently judged to be a Rumpy Riser and assessed/re-classified or a Manx cat registered as a Stumpy achieves Title status in adult class, but is subsequently judged to be a Stumpy with a Stumpy tail exceeding 3 cm in length.

In all these tail reclassification scenarios, the Show Manager is to inform the relevant ACF affiliate Secretary and Registrar. The affiliate Secretary is to inform the ACF Secretary with the recommendation that the other registering bodies in Australia be informed of the change of Tail classification.

There is sometimes confusion, where people unfamiliar with the Manx breed, classify Rumpy Risers as Stumpy Manx. To remove confusion, Manx breeders and judges must be aware, that a Riser can only rise or lower, unlike a Manx Stumpy tail which is capable of lateral movement from side to side, vertical movement and rotating.

Manx Rumpy Risers, Stumpy and Tailed Manx are not defective, but are normal manifestations of the Manx Taillessness gene. Indeed, the shape and type of Rumpy Risers, Stumpy tails and Tails are perfectly normal or usual for the Manx cat breed.

## **Further information on the Tail shape of Manx cats**

Since the late 1800's, it has been documented that there is no right or wrong shape when it comes to Manx Risers, Stumpy tails and Tails, or anything that is a perceived Tail Fault in the Manx breed, as the Manx gene inherently produces a variety of Risers, Stumpy tails and Tails, unlike most other breeds of tailed cats where deviations, kinks etc are faults. Indeed in 1903, Frances Simpson especially acknowledges that : - *".....a cat with, perhaps, an inch of tail, .....may possibly be really a better Manx, more calculated to do good to the breed, than an absolutely tailless cat. ....It may possess more Manx character, A cat may have a couple of joints of tail, crooked or straight, and yet be a pure Manx....."* This also relates to Robinson's statement regarding Stumpy:- *"Here, the tail is longer and usually moveable although often deformed, knobby and kinked."*

Refer:

Page 250 – The Book of the Cat – Frances Simpson 1903

Page 181 – Genetics for Cat Breeders 2<sup>nd</sup> Edition – Roy Robinson 1977

Thus, it has been documented for over 100 years, that Manx Stumpy tails are fused and may be generally knobby, kinked, twisted, or have some deformity, including a pouch of skin etc and that all manifestations of Stumpy tails are correct and do not adversely impact the ability of such Stumpy Manx to produce high quality progeny, including Rumpy, or Rumpy Riser, as such Stumpy Manx can do great good to benefit the Manx breed. Various Manx cat breeders worldwide do not desex/remove Stumpy Manx from breeding programs for possessing such Stumpy tails.

In Australia, Louise Kelly of Bywater Manx has also found that: *“It is very rare to find a Manx tail that is only fused without being also kinked and knobly”*

Refer: Information from Louise Kelly was originally published on her website. Subsequently Louise Kelly has provided John Richardson with her website document and written permission to use as he see fit.

### **Recognition of Tailed Manx for Show**

Manx Stumpy and Tailed Manx are generally not shown in the UK or USA despite the fact that Rumpy Risers, Stumpys and Tailed Manx are normal/usual manifestations in the Manx cat breed, thus these types of tail in the Manx cat are not tail faults per se. In Australia, CCCA, recognizes Tailed Manx for exhibition purposes in a litter, by including the following description for Tailed Manx in its Standard: **“TAILED: A full medium length tail in balance with the body with no kinks or breaks visually evident.”**

### **Categories of Tailed Manx**

Tailed Manx are currently considered to fall within two categories:- One which does not have the dominant Manx Gene and will not produce Tailless progeny and another category which appears to have the Manx Gene as these Tailed Manx will produce Tailless progeny when mated to another Tailed Manx. Dr Leslie Lyons advised on 22 June 2014, by email, “Well now that we have the mutations – we could just start testing cats and finding out! No one has shown interest before – but we can likely get this testing going at the VGL – but would need to make sure people want to do the test. I would think that some tailed Manx are really a shortened variety.”

Kelly Tanner of Kelsha Manx in the USA, conducted a study in 1995, where Manx breeders were surveyed to ascertain whether Tailed Manx to Tailed Manx matings that they had conducted produced Tailless progeny. Anecdotal information found that some 62.5 % of such matings had produced Tailless offspring under the genetic theory that one parent needed to have a shortened tail to produce shortened tail kittens. Besides Kelly Tanner, Jane Hellman of Tattleberry Manx UK and other Manx Breeders also formed the view that some Tailed Manx could be a shortened variety with the Manx gene variably expressed.

Refer: K. Tanner. Inheritance of Taillessness In Tailed Cats & Manx - Theories & Case Histories, Published in the 1995-1996 Manx Yearbook Edited by Terry Drum.

### **Impact of tail length on Manx cats**

Taillessness, or Stumpy Tails does not prevent sound Manx cats from being agile, well able to stand on the show bench, balance and being adept hunters as evidenced by these photos of Manx displaying balance and agility.



Nonetheless breeders need to be mindful that there may be occasion where a Tailed Manx cat that has an abnormally shaped tail may require surgery under anaesthesia by a veterinary surgeon *“for the long-term comfort of the cat”*.

Refer: Transcribed website information from Louise Kelly provided to John Richardson

## **Manx Longhair – Cymric**

Longhair Manx, also known as Cymric, are a Semi-long haired cat, which appears to have been called Manx Longhair, because the coat is longer than a Manx Shorthair. Manx Longhair have always existed alongside Manx Shorthair, but were never included in the original Manx Standard when the first Pedigree cat show was held at Crystal Palace in 1871. In 1903, *The Book of the Cat*, by Frances Simpson stated, “*Now and then we see longhaired Manx advertised, but these are, of course, mongrels or abortions, and by no means Manx cats.*” *The GCCF Recommended Breeding Policy* for the Manx cat, unequivocally states, “*Both longhair and shorthair traits were represented in the original mutation.*”

Longhair Manx, or Cymric, as they are also known, were accepted not to be the result of breeders outcrossing Manx to Persian, or other longhair breeds, to establish a 20<sup>th</sup> century variant of Manx, although such outcrosses occurred in various feline registries, including Australia, before being not permitted. An excellent article relative to Cymric, is available on the Manx Fanciers Yahoo Group, where the Cymric history are established and recorded. Nonetheless in 2007, scientists found that the Manx, like other Shorthair (SH) breeds that carry the longhair gene such as British, Scottish Fold and Devon Rex, had one of four specific allelic mutations in the Fibroblast Growth Factor 5 gene that were responsible for longhair (LH) in cats. This particular allelic mutation in longhair Manx cats was also found in other longhair breeds such as Balinese, Birman, Persian, Siberian, Somali, Turkish Angora and Turkish Van.

Refer: Kehler JS, David VA, Schäffer AA, Bajema K, Eizirik E, Ryugo DK, Hannah SS, O'Brien SJ, Menotti-Raymond M. Four Independent Mutations in the Feline *Fibroblast Growth Factor 5* Gene Determine the *Long-Haired* Phenotype in Domestic Cats. *J Hered.* 2007; 98(6): 555–566.

## **History of Cymrics**

The following history of Cymrics is attributed to Leslie Falteisek: “*Cymrics had been around for decades...a LH recessive gene in many of the Manx lines around the world. Longhair Manx were first recognized by the breed name "Cymric" for championship status in Canadian Cat Assoc. (CCA) in May 1976. The first Cymric champion was Blair Wright's Ch. Helle's Comus Jupiter. Blair Wright started to work with the breed in 1972, and in 1973 his first Cymric kitten was born, not from Longhair Manx but from two Shorthair Manx, Kellog Jupiter of Helle (C/E White) x LaFox's Circe of Helle (Blue Cream Manx).*

*The first Cymric was registered with the USA CFA in 1979, and the first CFA breed profile was published for the Cymric in 1991 picturing GC Plahn's Pedal P. of Clacritter on the front. They were recognized for championship in CFA in 1990. The first CFA Cymric GC was Clacritter Callyn and that same year the first Best of Breed Cymric was GC KabelKim Julius”.*

Cymric have now been recognized by the GCCF since June 2013, but the Standard has not been included, as there is no Cymric registered with GCCF as yet.

Cymric cats were recognized by ACF in 1994 – “*The Cymric breed was accepted so long as exhibits were not derived from colourpoints or carriers.*”(Refer ACF History – Lesley Morgan)

Refer: Leslie Falteisek, CFA Clacritter Manx and USA CFA Cymric secretary since 1974.

## **Manx and Cymric – Registration of litters containing both SH and LH**

Many Shorthair Manx worldwide carry the recessive LH gene. The USA CFA issues registration numbers which identify Manx carrying both the SH and LH genes, to cater for situations where “Split Litters” occur, which include both SH and LH kittens

“Split Litters” pose no problems where Manx are mated with Manx, but Registrars need to exercise diligence where there is outcross to British Shorthair, as Manx Longhair/Cymric progeny cannot result, unless the British Shorthair parent is independently DNA tested and proven to also carry the longhair gene.

## **Outcrossing Manx and Cymric cats**

**Indigenous Manx and Cymric cats from the Isle of Man**, whether unregistered or registered may be used in Manx and Cymric breeding programs in accordance with ACF By-Laws Part 2 Practices on Breeding. Breeders planning to import Indigenous cats should seek advice before doing so as per ACF By-Laws Part 2 Practices on Breeding, *“Application for Registration Rule 4.15: Transfer of registration for cats bred outside the Member Body’s jurisdiction is not automatic; the Registrar will check pedigrees. Before importing a cat into the Member Body’s jurisdiction (whether for Full Registration or Sub-Register status), it is advisable to check the level of generation under the ACF (Inc.) system for registration”*.

Breeders, Judges and Registrars, need to be aware, that the Standards for Manx/Cymric throughout the world, have been amended many times since the first known breed standard was published in 1903 (Refer: Manx cat, Wikipedia, March 2015) requiring breeders to selectively breed to changing, ideal Standards perceived by humankind, whilst indigenous Manx have been left to breed freely without constraints.

The skill of Manx cat breeders rests with their ability to breed indigenous Manx to the applicable/operative Manx/Cymric Standard of the day. Due to the various amendments of Manx/Cymric Standards, it is not expected that Indigenous Manx/Cymric will exactly match current Standards, Breeders should select indigenous Manx/Cymric for health, soundness and being representative of the Manx breed. Indigenous Manx/Cymric may also carry both the SH and LH genes.

## **British Shorthair cats**

The GCCF 7.0. Breeding System and 7.3. Outcrossing states the following:

*“The prime motive is to perpetuate the Manx as a recognisable breed; to improve the quality of the breed as measured against the Standard of Points; with a view to success on the show bench. The skill in breeding lies in the choice of the individual cats and how these cats may be mated with each other – these two acts should be regarded as completely separate, although interconnected.”*

*“Breeders should be aware that the British Shorthair is not the same as the Manx type and therefore the first generation kittens from an outcross mating with ancestors with differing type yields more variability and less consistency in the type of kittens which can last for two to three generations.”*

It is also worthwhile to note the importance of minimizing the dilution of Manx phenotype and character, so Manx cats do not resemble ‘Tailless British Shorthair cats’.

The GCCF restrictions of outcross to British Shorthair cats do not apply to the ACF, where from 2015, under ACF By Laws Part 2 Practices on Breeding, the following applies:

### **13.11.23 Manx (Shorthair) and Cymric (Longhair)<sup>1</sup>**

**13.11.23.1** Solid Colour coat pattern (White, Black, Blue, Red & Cream only)

**13.11.23.2** Tabby coat pattern (Classic, Mackerel & Spotted only & Silver equivalents)

**13.11.23.3** Tipped\*/Shaded\*/Smoke coat pattern (\*these in silver and golden)

---

<sup>1</sup> 2014: Amended: Manx/Cymric limiting colours/patterns recognised & breeding to exclude domestic non pedigree

#### 13.11.23.4 Broken Colours coat pattern (Tortie, Bicolour & Van)

**Note:** a) Manx/Cymric may be mated:

1. with British Shorthairs<sup>234</sup> but only every alternate generation; and
2. with the exception of chocolate, lilac, cinnamon, fawn, caramel and apricot coloured cats and those indicating hybridization with Himalayan coat pattern [ie Siamese colour restriction] and Abyssinian ticked tabby. The Himalayan coat pattern to be allowed until 1 January 2016.

Refer: ACF By-Laws Part 2 Practices on Breeding, 2015

**Refer: GCCF 7.1. Selection of Breeding Manx - Manx Ancestry is essential for a cat to be a Manx cat.** The GCCF unequivocally states:-

*"Manx means a particular head and body type, coat quality and eye colour, and most importantly, "Manx" ancestry."*

Manx cats are one of the original pedigree breeds. Registries in the UK and USA have records of Manx cats imported from the Isle of Man and used for breeding and/or showing as well as for establishing pedigrees. Thus registry records and pedigrees are essential to establish whether pedigree Manx have ancestry to Manx cats from the Isle of Man, or if they have outcross, and to what extent there is outcross. Such information is of great importance for Manx cat breeding programs, to maintain the breed and prevent the introduction of health issues or unrecognised coat colours from domestic cats or other breeds.

During the history of Manx cats in Australia, some breeders were permitted to out cross Manx cats, whilst other breeders chose not to outcross. Early pedigree records identify out crossed cats. Indeed, some if not all ACF Member bodies have accepted Manx and Cymric with domestic cats from Australia or pedigreed breeds other than British Shorthair in their pedigrees. Records of these Manx and Cymric cats were documented on pedigrees in ACF Member body databases and show catalogues. Although Manx cats have never been an 'experimental breed' per se, some ACF Member bodies have used the ACF Sub-Register (SR) generation progression terminology on pedigrees to identify Manx being crossed with other breeds or domestics.

Apart from out crossing Manx cats in Australia, there has been on occasion, 'found' tailless cats that have been used to breed Manx cats in Australia. Indeed one such cat was found on the docks in Sydney and assumed "*to have come ashore from a British ship*". Nonetheless, it is unknown whether such found 'Manx' cats could ever be traced to the Isle of Man or whether these cats represented new mutations in the tailless gene.

Refer: Discussion with Lesley Morgan, ACF All Breeds Cat Judge and International Liaison Officer, Secretary and Archivist, Cat Association Tasmania in March 2015

Page128 – Manx, in *The Complete Book of Cats in Australia*, Barbara Walcott and Dorothy Rickards, 3<sup>rd</sup> Edition (revised)

---

<sup>2</sup> 2002: Added: Manx/Cymric Note: except pointed coat pattern or pointed coat pattern carriers and only under the ACF (Inc.) rules for Experimental Breeding & Rumpy x Rumpy is not permitted.

<sup>3</sup> 2010: Deleted: Manx/Cymric Note: except pointed coat pattern or pointed coat pattern carriers & those indicating hybridisation with Siamese, Burmese and Abyssinian are not permitted.

<sup>4</sup> 2011: Deleted: Manx/Cymric 'only under the ACF (Inc.) rules for Experimental Breeding'

## **Purpose of the amended ACF By-Laws Part 2 Practices on Breeding, and Standard for Manx and Cymric cats, 2015**

The purpose of the amended ACF By-Laws Part 2 Practices on Breeding, and Standard for Manx and Cymric cats is that healthy, high quality Manx and Cymric cats are bred without outcross to domestic cats or pedigreed breeds other than the allowable British Shorthair every second generation, thus discouraging outcross breeding too frequently without utilisation of Manx cats from the full range of cats with varying tail lengths available within the breed.

The ACF By-Laws Part 2 Practices on Breeding for Manx/Cymric, 2015 and Standard for Manx/Cymric, 2015 do not allow for any outcross other than British Shorthair. However, by the use of current Experimental Program provisions in the ACF By-Laws Part 2 Practices on Breeding, since circa 2012, Domestic cats have been bred with cats registered as Manx or Cymric within ACF Member body Affiliation.

The ACF By-Laws Part 2 Practices of Breeding: *13.11.23 Manx (Shorthair) and Cymric (Longhair)*<sup>1</sup> was amended to disallow breeding Manx/Cymric to Domestic cats by specifying that: *"2014: Amended: Manx/Cymric limiting colours/patterns recognised & breeding to exclude domestic non pedigree"*

### **Identification of the T-gene mutations for shortened tails in Manx and other breeds**

The GCCF 7.1 statement *"Manx means a particular head and body type, coat quality and eye colour, and most importantly, "Manx" ancestry."* is important given that cats with shortened tails have randomly occurred in places other than the Isle of Man eg Japanese Bobtail, Kurilian Bobtail (Buckingham et al, in 2013). In addition there is anecdotal evidence of 'found' domestic cats with shortened tails.

In 2013, scientists discovered that there are four different allelic DNA mutations in the T-gene of the Manx cat responsible for the short tails in the Manx cat. Interestingly DNA testing of other breeds with shortened tails in the study, such as the Pixie Bob (USA; 1995) and American Bobtail (USA; 1960s) has revealed that these breeds have one of these allelic DNA mutations that have been identified in the Manx T-gene (Buckingham et al, 2013).

Pedigrees and Registry records exist to trace pedigree Manx cat ancestry back to cats exported from the Isle of Man. Thus, commercial DNA testing is most desirable to confirm Manx origins (Isle of Man; 1810) and assist in the identification of the possible presence of the Manx gene in Tailed Manx with a view to aid in breeding selection given that anecdotal evidence suggests Tailed Manx cats born from Manx parents may or may not have one of the Manx gene mutations (Refer: K.Tanner, 1995-1996 and Categories of Tailed Manx in this ACF Policy). Irrespective, these Manx cats are naturally occurring cats in the breeding of Indigenous Manx cats, or registered pedigree Manx cats. Indeed, preliminary discussions with commercial testing laboratories indicate that DNA testing for these published mutations is likely to be made available in the future.

Refer: Buckingham KJ, McMillin MJ, Brassil MM, Shively KM, Magnaye KM, Cortes A, Weinmann AS, Lyons LA, Bamshad MJ. Multiple mutant T alleles cause haploinsufficiency of Brachyury and short tails in Manx cats. *Mammalian Genome*. 2013 Oct; 24 (9-10): pages 400-8.

K.Tanner. Inheritance of Taillessness In Tailed Cats & Manx - Theories & Case Histories, Published in the 1995-1996 Manx Yearbook Edited by Terry Drum.

Vella CM, Shelton LM, McGonagle JJ, Stanglein TW. *Robinson's genetics for cat breeders and veterinarians*, 4th edn. Oxford, UK: Butterworth Heinemann, 1999; pages 10-11.

## **Manx cats at various stages of maturing**

Manx cats are a breed which is slow to mature and generally mature around 5 years of age, where they achieve their ideal size and musculature with flanks of great depth and powerful, deep thighs. There are various stages of development to maturity, where various aspects of unique Manx features impact the way they are perceived and judged on the show bench.

The unique Manx ear set is often described as “Rocker Cradle” ear set and may take time to develop in some Manx cats. This is well known to Manx breeders and some report development times of around 16 months up to 4 years.

Refer: American Manx Club Facebook Group 20 December 2012.

The Rise, Stump and Tail of Manx Rumpy Risers, Stumpys and Tailed Manx may also take up to 4 – 5 years to grow to their final length/development.

The following photographs are provided to assist breeders and judges, view Manx/Cymric at different ages that they may be exhibited in Australia. The photographs have been made available with the kind permission of the Cat Fanciers’ Association, Inc. and photographers in the USA, and are not for use without attribution.



Manx at Different Ages  
Kitten  
Shorthair



Manx at Different Ages  
Kitten  
Longhair



Manx at Different Ages  
Young Adult  
Shorthair



Manx at Different Ages

Young Adult Longhair



Manx at Different Ages  
Mature  
Shorthair



Manx at Different Ages  
Mature Longhair



The following information is provided to assist breeders and judges with the handling of Manx and Cymric cats when exhibited. The text relative to handling Manx cats and kittens, has been made available with the kind permission of the USA Cat Fanciers' Association, Inc.

### **Handling Manx cats and kittens for Judging**

The entire judging table should be made available while judging Manx cats so they are free to safely move around the table to show themselves off to the judge.

Two hands are required to carry a Manx cat to and from the cage with support of their rear end. This is best done with one hand under the chest and the other supporting both hind legs under the rear feet. They are never carried with your hands around the belly with their legs dangling in mid-air. Spinal injuries can result from mishandling.

Manx cats should be gently placed on the judging table in the same fashion as any other breeds and should never be dropped from above or launched from the side on to the table.

To get a Manx cat to stand, gently feather their extreme back area of the body (rump) with your fingers or hand to encourage them to stand

At no time should a Manx cat ever be pushed or held down on the table and not allowed to stand by pinning them down.

If you allow them to do so, a Manx cat will show themselves with a minimum of 'handling' on the part of the judge.

A Manx cat should never be stretched or swung in the air. They do best with their feet on the table.

Rumpy risers should be judged the same as a Rumpy. Rumpy risers are valuable to the Manx cat breeding program to ensure soundness and the proper body length. Rumpy risers have a small bone where the tail would be and they should not be penalized in the show ring if the rise does not stop the Judge's hand. A rise goes up and down only, not sideways and if it does go sideways, it is a tail. Most of the time a rise will not be seen on a Manx cat as they will hold it down when a hand passes over their rump.

### **References for ACF Policy**

- (1) ACF By-Laws Part 2 Practices on Breeding, 2015
- (2) ACF Book of Standards, January 2015
- (3) The Book of the Cat - Frances Simpson 1903
- (4) 'The Manx Cat' 1965. D. W. Kerruish. Nelson Press Co. Ltd. 3rd edition
- (5) The Manx Cat, J. Hellman. Cats and Catdom Annual 1979
- (6) Interpreting the Manx Standard. Barbara St. Georges. Cat Fanciers' Association. Reprinted 2006
- (7) Inheritance of Taillessness In Tailed Cats & Manx - Theories & Case Histories by Kelly Tanner Published in the 1995-1996 Manx Yearbook Edited by Terry Drum
- (8) Genetics for Cat Breeders 2<sup>nd</sup> Edition – Roy Robinson 1977
- (9) Buckingham KJ, McMillin MJ, Brassil MM, Shively KM, Magnaye KM, Cortes A, Weinmann AS, Lyons LA, Bamshad MJ. Multiple mutant T alleles cause haploinsufficiency of Brachyury and short tails in Manx cats. Mammalian Genome. 2013 Oct; 24 (9-10): pages 400-8.
- (10) Kehler JS, David VA, Schäffer AA, Bajema K, Eizirik E, Ryugo DK, Hannah SS, O'Brien SJ, Menotti-Raymond M. Four Independent Mutations in the Feline *Fibroblast Growth Factor 5* Gene Determine the *Long-Haired* Phenotype in Domestic Cats. J Hered. 2007; 98(6): 555–566.

## **Acknowledgements**

This initial ACF Breeding Policy for Manx and Cymric was compiled on behalf of the ACF recommendation at June 2014 meeting, by working group: Julie Walker, Rebecca Kuss, John Richardson and edited by Dr Kerry Fowler with input from veterinarians Dr Michael Auld and Dr Isobel Johnstone. The photographs have been made available with the kind permission of the Cat Fanciers' Association, Inc. and photographers in the USA. The line drawings and relative text were prepared some years ago with Jane and Glenn Hellman generously allowing John Richardson to use the combined format provided here for educational purposes.