

PAWS FOR EFFECT



*The PolyTrak  
Newsletter  
June 2007*

**Volume 1 - Number 6**  
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# Paws for Effect - The PolyTrak Newsletter

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## IT'S SUMMER!

For our readers in the Northern Hemisphere it is rapidly approaching the "lazy, hazy, crazy days of summer"---a time when many of us abandon our computers, indoor activities and head for the great outdoors. Vacations, the BBQ, trips to the "ole swimming hole" or whatever activities we humans do to enjoy the warmer weather. Even the feline population, including those great Maine Coon polys, head for the window ledge, the open screened window, and those great outdoor runs for cats that we see on your websites. It's a time for fun and relaxation.

Even we at PolyTrak are torn sometimes between the everyday activities or stopping to "smell the roses". 😊 Maybe a computer and internet connection on the patio would be the solution! However, now that we have made the excuses about why we may not be up to speed all the time, we have many things planned here at PolyTrak over the next few months. The Staff is sometimes hesitant to make promises or using an American saying: - "Let the cat out of the bag" - about our plans for PolyTrak for fear of not be able to deliver on time. (Disclaimer: PolyTrak, or this author, do not endorse the practice of bagging of cats---with one exception: Our "Bear" loves to hide in a paper grocery bag waiting to pounce on an unsuspecting poly who may be passing by. 😊) The four of us, armed with numerous ideas and suggestions from many of you, have been working feverishly for sometime now about a new look for PolyTrak. Unfortunately this is not something you will see in the next few days, but it is coming! We have been working with a lot of you incorporating ideas and suggestions about what you would like to see. In addition, we feel it will be a more eye-pleasing layout and we are also working to make the website easier to navigate. PolyTrak has grown to a large and constantly changing endeavour and we want to make your visit pleasant and informative. So watch for announcements about new things at PolyTrak. All of us here will be working hard through the summer...even if it is from the patio or the beach. 😊

*"One must love a cat on its own terms."- Paul Gray*



## EDITOR'S NOTE

Although it may be summer and, as it was mentioned earlier, sometimes we all tend to relax a bit more. Not so for members of the PolyTrak staff. They have been very busy analyzing, building tables and crunching numbers. You will find this issue quite lengthy. At the same time, we think you find this a **very important issue** in terms of polydactylism in the Maine Coon Breed.

It was recently suggested in a major cat related website that there were no current studies into polydactylism and much of the information was incorrectly referenced and unsubstantiated. This is far from the truth as there are studies, both formal and informal going on all the time in addition to PolyTrak. This appears to be one more rumour that the poly breeders and fanciers will have to dispel. As the "substantiated" data continues to pour in we are, one-by-one, dispelling many of the "poly" rumours that have been passed on over the years. If you are Maine Coon breeder working with polys or are keen to understand more about the Pd gene then you will find this issue extremely enlightening. We had to change some of the style of our normal newsletter to accommodate the tables and numbers, but it shows some very interesting facts about the Maine Coon polydactyl.



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## JUST THE FACTS!

By Vonne Bode

In January I glanced at my Excel sheet with kitten data and I decided to put some digit configurations in a cumulative table. In last month's issue of *Paws for Effect*, I already spoke about my dilemma in classifying the cat with 5 digits that do not have the standard digits. This is because I also wanted to make a classification of 1-4 WD. So, although these kinds of paws aren't strictly "polydactyl paws", they do have an extra phalanx in the first digit of the front paw. This enlarged digit often clearly stands out like a thumb. In the earlier issue I also mentioned the general definitions used for polydactyly. But since we've seen the Pd gene has its unique expressions in a cat carrying its polydactyl gene, I think the general definitions don't cover this anymore. Also we have to be aware we're talking about polydactyly in the Maine Coon breed only, not in domestic non-breeds.

The best descriptions on polydactyly I've found so far are from *Danforth* and *Sis & Getty* (who likely used it from *Danforth*). So my preferred type of definition for polydactyly would be something like: **Polydactyly (in the MC cat breed) is a condition caused by the single variable dominant gene, Pd, whose probable main effect is to incite some changes in the pre-axial part of the limb bud causing an excess of growth in that area. From this excess tissue, enlarged or supernumerary digits are developed.** Of course this description doesn't cover the 'hidden' polys that have a nub that's only visible through x-ray. But we could add this exception to the definition.

😊 I finally made the choice to classify the non-standard 5 digits paw as a poly paw too. Meaning a cat with this type of front paw and also the extra digits on the back would be called a 4WD, although this cat doesn't really have extra digits on its front paws.

I made two tables (but are combined and read as one, called Table A), one for the females and one for the males. Then I put down the digit possibilities per paw. This way every paw would get its own part in the table. The front paws are ranked from 4 to 8 digits. Also I made a distinction between the 5-digit standard paw (5R) and the 5-digit paw with no dewclaw (5LF/5RF). The back paws ranged from 4-7 digits. Next to that I made columns that showed which configurations would fall in the 1-4WD classifications. Then it was time to start counting toes. And boy, did I have to do it over again many times. 😊 I first looked at the gender of the kitten. Then I went to the right table and looked at how many paws would be classified as polydactyl. Next step was going to the right column (1-, 2-, 3- or 4WD) and put down the amount of digits for the left front paw (LF), then for the right front paw (RF) and the same for the two different back paws. After I had put all digits in the table (and I did count the digits many times to check) it was time to have a closer look at the table.

I believe the kitten data in the Polytrak database is very valuable since the group is far more diverse (in bloodlines) than the cats used in the *Danforth* study: *Heredity of Polydactyly in the Cat*. At the time I made my table, we had 200 kittens in the database of which 109 were polydactyl. But I could only use the poly kittens of which we knew the gender and the exact toe configurations, so this left me with 102 poly kittens to work with. These numbers already show we reached the 50% chance to become a poly kitten easily. 😊 Of these kittens 60 poly kittens (approx.59%) were males and 42 (approx. 41%) were females. The higher amount of males is not unusual since it seems to be the case that most of the time, more male than female kittens are born.

I always thought that a 4WD (general meaning extra digits on all 4 paws) was something extra special/more rare. But the data showed that the largest group consisted the 4WD polys. When looking at the males, this group contained 35 4WD. Of course this includes the 5 digits non-standard pawed cats too. But even if I were to exclude them (4) the group would still remain the largest. In the female group



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the 4WD is also the largest group, but when taking out the 5 digits non-standard pawed cats (2) it won't be anymore. Then the 2WD group would be the largest group. For both gender groups the 2WD takes second place and 3WD third. There was not even one 1WD kitten. So this makes the 1 pawed poly kitten rare. 😊 Further the kittens with 6 digits on the front paws are by far the largest group for both genders.

**TABLE A**

**LF** = Left Front paw, **RF** = Right Front paw, **LR** = Left Rear paw, **RR** = Right Rear paw. **4S** = cat with 4 digits on front paw instead of 5. **5R** = 5 digits standard front paw **LF5** = Left Front paw with 5 digits, but without a dewclaw. **2WD** = number shows how many paws are effected by the Pd gene, so poly.

POLY MALE						POLY FEMALE					
	1WD: 0	2WD: 22	3WD: 3	4WD 35	Total: 60		1WD: 0	2WD: 19	3WD: 2	4WD 21	Total : 42
<b>4S</b>		1			1	<b>4S</b>					
<b>5R</b>		1			1	<b>5R</b>					
<b>LF5</b>		6		5	11	<b>LF5</b>		6	1	2	9
<b>LF6</b>		10	3	21	34	<b>LF6</b>		12	1	13	26
<b>LF7</b>		4		9	13	<b>LF7</b>		1		5	6
<b>LF8</b>						<b>LF8</b>				1	1
<b>4S</b>		1			1	<b>4S</b>					
<b>5R</b>		1			1	<b>5R</b>					
<b>RF5</b>		6		4	10	<b>RF5</b>		5	2	2	9
<b>RF6</b>		11	3	22	36	<b>RF6</b>		12		15	27
<b>RF7</b>		3		9	12	<b>RF7</b>		2		4	6
<b>RF8</b>						<b>RF8</b>					
<b>LR4</b>		20	1		21	<b>LR4</b>		19			19
<b>LR5</b>		2	2	29	33	<b>LR5</b>			2	21	23
<b>LR6</b>				6	6	<b>LR6</b>					
<b>LR7</b>						<b>LR7</b>					
<b>RR4</b>		20	2		22	<b>RR4</b>		19	2		21
<b>RR5</b>		2	1	29	32	<b>RR5</b>				20	20
<b>RR6</b>				6	6	<b>RR6</b>				1	1
<b>RR7</b>						<b>RR7</b>					
Of 102 polys 55% = 4WD (50% of the females & 58% of the males = 4WD). And 42% = 2WD											

I once read, although I don't recall where, that the front paws need to be polydactyl in order to get extra digits on the back paws too. Also *Danforth* never observed polydactyly in the hind feet, except when it was also present in the front feet. Well we have data that says it can occur, maybe rare, but possible. In the tables you can see that 2 male kittens indeed have extra digits on the back paws without the front paws being affected by the Pd gene. This means they had no extra digits, not even the non-standard 5 digit combination, on their front paws. Of course it's possible that one of them has a nub that's only visible with an x-ray.

As you might know, some breeders against polys have voiced their concern about the amount of digits on one paw, mentioning a cat with 12 digits on a paw. It could be that they have misinterpreted the writings about polydactyly, such as *Danforth's: Heredity of Polydactyly in the Cat*. Here *Danforth* states: "Such polydactyl (or more properly hyper-dactyl) cats may sometimes have a total of as many as



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8, or possible even 10, extra digits." The word "total" is very important here, since this means counting **all** the digits of **all** four paws and not the digits of one paw. Ten extra digits would mean an average of 7 digits per foot. But we know that the Pd gene doesn't produce symmetrical paws in standard fashion. So in theory, the 12-digit paw would fit in the total of 10 extra digits. *Danforth* mentioned, however, in his findings a paw never exceeded the 7 digits. And we at Polytrak are also still waiting for the day to get an entry of a 12 digit paw on a MC poly. 😊 We haven't received anything that comes near that number. As you can see in the table there's only one kitten that had more digits on a paw greater than 7, but still this was only an 8-digit paw.

When it was time to write an article for this issue of *Paws for Effect*, I decided to make another table, Table B. This time a summarized table of the numerical variation in the kittens' toe configurations. I made columns that represented each paw again. Then rows, each contains different toe configuration combinations, with the digits corresponding with the paw they were on. Further I added two columns for the different genders and their frequency of each digit combination. Also there is a column summarizing the total of the different digit combinations. I compared this data with *Danforth's* observations. *Danforth's* most frequently seen combinations were 6, 6, 5, 5 and 6, 6, 6, 6. While in my findings it is 6, 6, 4, 4 and 6, 6, 5, 5. Anyway, you can use the tables to do different types of (percentage) analyses.

**TABLE B**

A summarized table of the numerical variation in the kittens toe configuration.

PM = Poly male, PF = Poly female, LF = Left Front paw, RF = Right Front paw, LR = Left Rear paw, RR = Right Rear paw. 4S = cat with 4 digits on a front paw instead of 5. 5R = 5 digits in front as in a standard front paw LF5 = Left Front paw with 5 digits, but without a dewclaw.

LF	RF	LR	RR	PM	PF	Total
4S	4S	5	5	1	0	1
5LF	5RF	4	4	6	5	11
5R	5R	5	5	1	0	1
5LF	6	4	4	0	1	1
5LF	7	4	4	0	1	1
6	6	4	4	10	12	22
7	6	4	4	1	0	1
7	7	4	4	3	1	4
5LF	5RF	5	4	0	1	1
6	5RF	5	4	0	1	1
6	6	5	4	2	0	2
6	6	4	5	1	0	1
5LF	5RF	5	5	4	2	6
5LF	6	5	5	1	0	1
6	6	5	5	16	12	28
6	7	5	5	2	1	3
7	6	5	5	2	2	4
7	7	5	5	4	3	7
8	6	5	5	0	1	1
6	6	6	6	3	0	3
7	7	6	6	3	0	3

Just have a look for yourself and see what you come up with. I will provide more up to date data in a couple of months. 😊 -- Vonne --



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## POLYTRAK: THE FACTS SPEAK FOR THEMSELVES

By Deb Brown

When people first started getting together to discuss the Maine Coon Polydactyl they had limited information and resources. The Internet was in its infancy. There was a lot of speculation, myths and stories but not a lot of hard fact. So people started digging deeper, resources became better, and they found a very limited number of articles and books written by the medical/scientific community. Most of this documentation was decades old. There were articles on websites, written by breeders that cherished and maintained the polydactyl trait. They documented history and heritage and the immergence of the Maine Coon as a recognized breed and included the documentation of the polydactyl as well. It is interesting to view different websites and see those that openly include the poly in their stories of history and those that completely omit this small bit of data. 😊

Creating a database to track the Maine Coon polydactyl was discussed off and on. The main purpose was to dispel the myths of the “multi-toed” or “twisted legged cat”. Then, at a TICA Annual show, Dr. Solveig Pflueger suggested we create a database to track digit configuration. She wanted to see a creation that tracked kittens in a litter and what number were polys. Well we took that a few steps further!

PolyTrak does Litter Tracking Worldwide. Unique kitten number, kitten identification, date of birth, poly or non poly, number of paws affected, gender, registry, colour, individual paw digit configuration, unique litter number, litter size, still born, cattery, sire, dam, PawPeds link (where available) pictures (where available) and remarks describing the digit definition. In a little over one year we have surpassed the study done by *Danforth* and included data far beyond any study done in the past! And we are still growing thanks to the contributions of breeders sending in their litter information.

So what does the data tell us so far? **Lots!**

A brief summary:

*The litter-tracking database contains this information:*

317 kittens      37 sires      52 dams      (13 kittens turned into sires and dams)

We have an incredible amount of data concerning digits and their presentations (see article and tables by Vonne Bode). We have documentation that poly x poly litters do not present health hazards. Parental digit configurations are not consistently passed along to their poly offspring

Our calculation table shows to date:

TABULATED TOTALS & PERCENTAGES		
Total Kittens Listed = 317		
Total Males = 160 (54.8%)	Total Females = 132 (45.2%)	Total Not Counted = 25
Total Polys = 176 (58.7%)	Total Non Polys = 124 (41.3%)	Total Not Counted = 17
Number of Pd gene affected paws per kitten (Polydactyl) Number of Polys sampled = 176		
1WD = 2 (1.2%)	2FWD = 61 (35.7%)	2RWD = 7 (4.1%)
3WD = 13 (7.6%)	4WD = 88 (51.5%)	Unknown = 5



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POLYTRAK: THE FACTS SPEAK FOR THEMSELVES –  
CONTINUED...

You will not find this data anywhere else in the world! This data represents the dedicated Maine Coon Breeders protecting and promoting the Maine Coon Polydactyl. You are answering the questions. You are providing the facts. You are dispelling the myths. It is now an accepted fact with TICA and the CCA that polydactyly is NOT a health risk. This data will grow year by year. Documentation now exists where it did not before.

Another one of the greatest challenges for the poly is confirming and documenting the Heritage. This data is as important as the tracking. If you have any information or line chasing documentation, showing the heritage of the pedigrees please contact [Kitty Chandler](#). All help is greatly appreciated!

*"Any cat who misses a mouse pretends it was aiming for the dead leaf." - Charlotte Gray*

## AMSTERDAM EXHIBITION

The "Poly" (Maine Coon flavour) and PolyTrak were represented recently at the largest Dutch "House Animal Days" event in the RAI convention center in Amsterdam by Vonne Bode and, Sharon Otten-Boult This is an annual event in the Netherlands that draws 30,000+ people to the area for a 3-day exhibition. PolyTrak's Vonne Bode and Sharon Otten-Boult of TLC Polycoons exhibited 3 great MC Polys. UpperValleys Silverfoot P, owned by Vonne, TLC Polycoons Butch P Cassidy and Thunderchick P, owned by Sharon. This was great exposure for the poly. We will have more about this event next time.



*"People that hate cats will come back as mice in their next life." - Faith Resnick*

## WHERE DO THE POLYS COME FROM?

By Ken Bussard

This will not be one of the many articles you may have read about the origin of the Maine Coon polydactyl, although they are very interesting and informative. This is the story of, what I feel, is a resurgence of the MC poly and breeders. Keep in mind there are no Polydactyl breeders...there are Maine Coon breeders who also work with polydactyls. Polydactyl is not a breed (although there is at least one Association that may argue that point). It is a trait variation of a recognized breed standard...in our case the Maine Coon. Many stories hint at the 40% figure for polys in the Maine Coon population at the time of the creation of the breed. In reality we don't know if that 40% is accurate, although it seems statically close. There was no one, at the time of the breed classification, running around the forests and bush of the Northeast with a clipboard counting polys. Unfortunate as that is, we can with the help of today's technology and understanding of genetics, approach a much higher degree of accuracy and understanding of the "polydactyl". So I guess we will always be stuck with the estimated 40% figure for Pd expression in the original Maine Coons. But what if that figure was 25% or even 75%? We will never know, however unlikely that kind of percentage might be. If it were 75% or anything above 50%, then the "polydactyl or Pd-gened" cat becomes the norm and the 5-5-4-4 cat becomes the anomaly. 😊 Wouldn't that be a laugh!



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In reality it really makes no difference which form of the Maine Coon was dominant. They are all Maine Coons...plain and simple. Today many breeders breed for "type" and try to strictly adhere to the breed standard. Some want the feral look; others want the sweeter look. This depends a lot on Associations and geographical location. Size and bone structure is quite often a plus in the show ring. To some the Brown (Black) Tabby colour was considered the original Maine Coon look. Today the variety of colours and markings is almost endless, except for colour point. The original Maine Coon, with foundation cats expressing extra toes, is now not considered an acceptable part of the breed today. It was accepted with the first recorded standard with MCBFA prior to acceptance with cat associations. A documented inherited trait not accepted to the point of near extinction. **Why?** Well there are hundreds of reasons why people say they are non-acceptable. Some try to perpetuate rumours and "wives tales" of deformities, "quality of life" issues, excessive numbers of toes...ad nauseam. Thank goodness with groups of breeders, fanciers, PolyTrak, chat groups and even the general public, there is a resurgence of the "poly" and a great education process is underway. A small, but growing group and the noise we make is getting louder. We are beginning to understand much of the science behind the Pd gene. We are all learning, or least confirming what we already suspected: There is no single genetic or quality of life issue that would prevent the Maine Coon poly from gaining it's rightful place in the show ring, the homes and Catteries of the World, in my humble opinion.

There is one reason for not accepting the "polys" that we have trouble combating. That is the generic reason of "I personally don't like polys!" or "Gee that is a funny looking cat!". In my opinion we shouldn't even try to argue that point. Everyone is entitled to an opinion, but reasonable decisions should be based purely on fact and health. Not just personal dislikes of a trait "Beauty is in the eye of the beholder"! Many of you show cats and attend cat shows, just as I do. There are some breeds that I find

appealing and others: well 😞.... I won't mention any, since I am not here to "bash" someone's pet or breeding program. In fact I have no problem with the showing of any breed, as long as you are not creating health or quality of life issues for that cat (which some are doing with the full acceptance of the Associations and breed committees of the World). I fully support their right to breed and show to the standard their breed committee formed. I don't have to like it and I am certainly not the one judging the cat or buying it. It is not my position to pass judgement on someone else's breeding program and how their cat looks. So lets "turn the table" a bit. Who has the right to pass judgement on a cat just because he/she is a Maine Coon Polydactyl? I will try to keep the answer to that question short: **"NO ONE!"**. Just as I respect the rights of others to own and breed whatever is personally desired, those not appreciating the history/trait of the Maine Coon Poly, should fully return that respect. Make an informed decision on the basis of fact not prejudice.

For years some have implicitly called for the culling or eliminating the MC poly through selective breeding. If the Maine Coon polydactyl were a California Condor, a Snail Darter, North American Spotted Owl or any of hundreds of other species that are nearing extinction, then the hue and cry would have gone out to "Save the Poly". Unfortunately it is only a known issue in the cat fancy. Fortunately, in spite of years of bias by some, the "poly" is beginning to re-emerge. Thanks to the Maine Coon Breeders that held fast to their beliefs, this wonderful trait is on its way to making a come back.

In working with PolyTrak, I am seeing a gradual increase in Maine Coon breeders working with the polys. Their reasons are many and hopefully in the near future we will start hearing some of the great stories from them as to why they took on the challenge. 😊 I am sure it would be enlightening and informative. To date we have 48 breeders listed worldwide in our Cattery section. Most of these breeders have submitted breeders and litters to our database. I do not remember the original number of



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breeders when PolyTrak first started, but I believe it was in the lower 20's. So in a little over a year's time we have more than doubled the breeder entries. To me this indicates that there are more and more Maine Coon breeders working with polys. This is heartening to see and I applaud all of you for working with them. Recently I went through our list of breeders in PolyTrak and came up with a count by Country. This list is certainly not everyone, but it gives one an idea of how the effort is growing in 11 countries. Remember, you are the voice of the Maine Coon Polydactyls.

## **THIS IS WHERE THE POLYS COME FROM!**

Australia – 1    Canada – 1    Belgium - 2  
France – 3    Denmark – 7    Germany - 4  
United Kingdom – 1    Italy – 1  
Netherlands – 16    New Zealand - 1  
United States – 11

Have you submitted your litters? Remember we are glad to help out and answer any questions you have. Just email us: [info@polytrak.net](mailto:info@polytrak.net)



## **RECALLED PET FOODS**

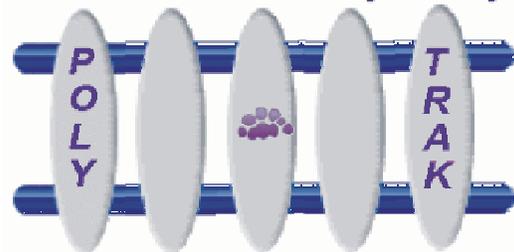
By Kitty Chandler

The tainted pet food crisis continues on almost a daily basis with new or added foods to the “suspect list” of products that could potentially be tainted with melamine. It is vital that you keep up to date and insure that your cat or pet is not consuming these products. I am sure that you read or have seen on television products that have been pulled from the shelves of store.

It is hard sometimes to catch which brands and types are on the list for different areas. There are hundreds, maybe thousands, of brands out there...but most are only packaged or distributed by these Companies. The original product is actually made by relatively few with ingredients that contain the suspected melamine. I recommend that you visit Itchmo's recalled pet food list regularly to see what brands and products are on the list.

<http://www.itchmo.com/recalls.html>.

## *Maine Coon Polydactyl*



## *International Database*

Well that is it for another month. We thank you and hope that you enjoyed this month's issue of *Paws for Effect*. This has been a long, but very informative issue in our opinion. We hope that learned a little (or a lot) about the Maine Coon Polydactyl. Our present circulation is at 60 and growing. If you know someone that would like to receive this newsletter on a monthly basis have them email [ptnewsletter@polytrak.net](mailto:ptnewsletter@polytrak.net) or visit our website at <http://www.polytrak.net>.

**BYE FOR NOW!**

