

TO PROFILE OR NOT TO PROFILE

by Donna Miner · Domino Whippets

Introduction

It isn't long after joining the whippet fancy that new members begin to hear rumors of pedigree irregularities in whippets. Very often, the stories are big on shock value and feature well-known personages in the breed. Such stories are not restricted to just one area of interest. Both show and performance factions within the breed feature prominently among them. Factual or not, these stories pique the interest of most new exhibitors and have provided continuous fodder for the gossip mill for decades!

Any exhibitor who tries to learn the facts behind such rumors is usually treated to lots of speculation, typically colored by the bias of their source. So very few people have documented evidence related to well-known cases that stories have become almost legend. The telling of such stories tends to either condemn or exonerate those accused of perfidy without any proof whatsoever. Newbies have tended, without reservation, to believe their mentors. Thus, they line up on one side or the other with regard to believing the tales. The unfortunate result had been continuous and gruesome division in the fancy.

Historical Perspective

With DNA parentage science almost 50 years old, one would think that the answer would be simple. Everyone should just test, right? Unfortunately, it's one of those situations where no consensus in the whippet fancy has ever been reached.

Back in the 1990s, there was chatter on internet lists with regard to using DNA profiles to verify parentage on puppies. Because the dog community came late to DNA profiling, we were in our infancy with regard to this technology while breeders of other species (cattle, horses, etc.) accepted the science and surged ahead. Due to our inexperience, many untruths were told about the process that still float about on Facebook groups to this day. One such myth is that people can cheat on DNA profiles by substituting dogs. Another is that a profile is only valid if the collection process is witnessed by a reputable person, such as a veterinarian. As a result, voluntary DNA sample submission became the subject of ridicule, with some incredibly vocal people insisting that DNA cheating would become a standard practice.

Acceptance of DNA profiling as a standard procedure was complicated by the fact that many established breeders pooh-poohed the concept of DNA profiles in the belief that their long-term reputation as responsible breeders protected

them from challenges to their dogs' pedigrees. It was deemed sufficient to avoid people of "bad reputation" through the process of using references.

As a result, voluntary submission of DNA samples became fairly rare, with the majority of profiles being the result of AKC-required submission in instances involving frequently-used sires, imported dogs, frozen semen collection, multiple-sired litters.

A Personal Journey

Like most people starting out in the breed, I heard the rumors and, also like most new people, I tended to align my opinions with those of my early mentors. After all, who can you trust if you can't trust your mentors?

Having swallowed a set of beliefs without question, it never occurred to me that I might become the target of similar rumors someday, despite making every effort to do things 100% on the up-and-up. But, when I had been in the breed for over 10 years and experienced a bit of success, I was to become the target of some sharp-tongued gossip.

It began when one of my males was invited to sire a litter. Before the litter was even born, nasty rumors were floated which implied that a different dog had actually provided the stud service and that my dog was merely used as a "placeholder" in the

pedigree of the litter, purportedly to cover the use of another animal, a dog which was in my care but did not own. The breeder of the litter was horrified by these allegations and, to protect her professional reputation, she insisted on AKC DNA profiles on both sire and dam.

At the time, I felt this breeder was being oversensitive to wild gossip, but looking back on the situation, I am very grateful for her wisdom in insisting on AKC DNA profiles. Her insistence on documentation was the inspiration for my thoughts with regard to defending the integrity of one's work in the breed.

Chances are, no one will ever object to any particular dog, UNTIL that dog happens to become a big winner or goes on to produce big-winning offspring. Despite every breeder making an effort to produce pups that will succeed, no one can ever predict when lightning will strike and that big winner will be the result of their efforts. When and if that happens, a breeder will suffer considerable angst should allegations of pedigree fraud be directed their way!

Proactive, systemic defense

In 2010, I elected to become more proactive and to submit voluntary AKC DNA profiles on all intact whippets in my home. I did a few at a time so that the expense wasn't overwhelming. Establishing definitive identities on each intact animal was a relatively inexpensive means of ensuring protection for my breeding program and reputation. A year later, I expanded my AKC DNA profile submissions to include a bitch I leased from another breeding program and as many of her direct living ancestors as were available to be sampled. It became apparent to me that I should collect this data whenever the opportunity presented itself, as the opportunity might not come my way again. In addition, I was concerned that collection be made while the dogs were still alive to be profiled, as the opportunity to collect samples is generally gone once the dog is deceased.

In 2012, I began to bring AKC DNA profile kits to any breeding and to collect samples on any dog used at stud immediately upon completion of the breeding. Then, two years later, AKC DNA profiles became a standard requirement for any bitch put to one of my stud dogs. And if that bitch had living direct ancestors that could be sampled relatively

easily, I would collect their samples, as well. By this time, I began to compete with the Continental Whippet Association. As most whippet people are aware, this program uses the dog's pedigree to determine eligibility to participate. So, when pedigree determines eligibility, it is critical that pedigrees be accurate.

My personal concern about CWA participation revolved around my breeding program being a blend of showbred and racebred lines. My dogs have CWA banned lines back behind the 4-generation pedigree used to assess eligibility, so it seemed wise to demonstrate that my dogs were exactly what their pedigree claimed, insofar as I was able.

As a result, I began to AKC DNA profile AND microchip every puppy produced by my breeding program as well as any stud puppy that I brought back into my breeding program. I did this as an act of good faith so that incontrovertible proof of each pup's identity could be established. In the event of a challenge, I felt it was desirable to be able to show proof of accurate records.

Although AKC considers DNA profiles to be "private" and releases only a dog's DNA profile number through their database, I considered it prudent to be transparent with my dogs' profiles. I opted to make my profiles public on my website and visible in the Whippet Health Foundation database. This makes my breeding program an open book. There is no need for anyone to look askance at my dogs' pedigrees. The documentation is publicly available and beyond question.

Facing the Challenges

No doubt, some of you may think that this is only an interesting story, but has little application in real life. However, I can assure you otherwise. I have personally defended against two pedigree challenges since I began to profile my stock.

Please read Case Study #1 and Case Study #2 on the following pages. Then, ask yourself if you would be prepared under similar circumstances.


CASE STUDY #1 – MISIDENTIFICATION OF SAMPLE

**THE AMERICAN KENNEL CLUB
DNA PROFILE**

ROSMOR RATATOUILLE

Breed: **Whippet** DNA Profile #: **V568896**
 Sex: **Male**
 Date of Birth: **March 24, 2009**
 Registration #: **HP338238/07**
 Date of Analysis: **June 23, 2009**
 Owned by: **Donna Miner**

The following genotype uniquely represents the MMI Genomics certified genetic identity of the dog named herein:
 C0804815 HP338238/07


AMERICAN KENNEL CLUB®

CD DMAD FF DD DF CC AB BE BB CC DE BD XY
 P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 P11 P12 P13 P14 P15 P16 P17 P18 P19 P20 P21 P22 P23 P24 P25 P26 P27 P28 P29 P30 P31 P32 P33 P34 P35 P36 P37 P38 P39 P40 P41 P42 P43 P44 P45 P46 P47 P48 P49 P50 P51 P52 P53 P54 P55 P56 P57 P58 P59 P60 P61 P62 P63 P64 P65 P66 P67 P68 P69 P70 P71 P72 P73 P74 P75 P76 P77 P78 P79 P80 P81 P82 P83 P84 P85 P86 P87 P88 P89 P90 P91 P92 P93 P94 P95 P96 P97 P98 P99 P100

M. H. Poindexter
 Margaret H. Poindexter, Assistant Vice-President
 American Kennel Club


Dennis Pustis
 Dennis Pustis, Ph.D., MBA
 MMI Genomics, Inc.

This is a profile for our dog, Remy. It is easy to see that he was profiled when he came back to my kennel as a stud puppy. Remy was whelped in March '09. He was DNA profiled in June '09. (The DNA profile process typically takes about 8 weeks.)

When his profile was processed by AKC, it was checked against both his DNA profiled parents and was verifiably the offspring of the parents recorded in his pedigree.

No problem, right? One would think that would be the last word, but in October 2018 (NINE years later), we received a letter from the AKC challenging his parentage. PAY VERY CLOSE ATTENTION to the paragraphs highlighted with stars!

I can assure you that it is absolutely terrifying to receive a letter of this nature. It twists your gut and gives you heart palpitations! And the cognitive disconnect, when you are holding a previous document that indicates all is well and a later document challenging the first finding? Well, it gives a person a serious case of head jam.


AMERICAN KENNEL CLUB

October 22, 2018

Ms. Donna Miner
 15 JOSHUA LN
 COVENTRY, CT 06238-1267

Reference Number: 201805907
 Whippet Litter HP338238
 Sire: Wheatland Bengal, HM733686/01
 Dam: Rosmor Delta Breeze, HPI06944/03
 Date of Mating: 01/20/2009
 Date of Birth: 03/24/2009

Dear Ms. Miner:

A parentage verification analysis of American Kennel Club ("AKC®") DNA Certifications from the sire and one or more members of litter HP338238 was conducted. We regret to inform you that the DNA results indicate that, Rosmor Lucy In The Sky, HP338238/08, is excluded to (cannot be the offspring of) the registered sire.

As a result, litter HP338238, its members, and their offspring have been placed on referral. This means that American Kennel Club services will not be provided if the dogs in this litter are bred, sold, or transferred, and awards will not be recorded if these dogs participate in any American Kennel Club sanctioned or licensed events. Recorded owners have been notified.

We are requesting that you provide us with the following:

- A list of all intact males and their AKC registration numbers that were present at the time of mating
- Where the mating took place
- A copy of the litter/breeding records
- Any additional comments regarding this matter

Litter HP338238 can be reinstated provided that additional DNA testing of the correct sire, dam and remaining pups determines correct parentage. If we do not receive a written response from you by (November 21, 2018), or correct parentage cannot be established, the

8051 Arco Corporate Drive Suite 100, Raleigh, NC 27617 TEL 919 816-3822 WWW.AKC.ORG

- ★ *Animals from the litter in question will not be provided with AKC services if they are bred, sold, or competing in AKC events!*
- ★ *AKC will evaluate the litter to see if it meets the requirements for Conditional Registration!*
- ★ *Discipline policies of the Compliance Audit Program may apply to the excluded litter and additional excluded litters resulting from my breeding program within 5 years will be presented to the Management Disciplinary Committee for appropriate action!*

Ms. Donna Miner Page 2

★ AKC® will evaluate the excluded litter to determine if it meets the conditional registration program requirements (<http://www.akc.org/condreg>). Be sure to include the above referenced case number in your reply. Please contact the Order Desk at (919) 233-9767 for additional DNA kits.

★ In addition, the sire referenced above falls under the Frequently Used Sires DNA Requirement, and as such, the discipline policies of the Compliance Audit Program may apply to this excluded litter. Therefore, as the sire owner, if you have any additional excluded litters in a five-year period, the American Kennel Club, under the provisions of Chapter 4, Section 6 of "The Rules Applying to Registration and Discipline" will not "register any dog or litter or...record the transfer of the dog..." Further, the matter will be presented to the Management Disciplinary Committee for appropriate action.

Sincerely,
Judy Rivezzo

Judy Rivezzo
 DNA Operations Department

JXR
 Enc.

These are some seriously daunting threats that should not be ignored, should a person receive such a notice. Conditional Registration is a serious threat to a breeding program. And the Management Disciplinary Committee can impose some onerous sanctions on an AKC participant.

CASE STUDY #1 – CONDITIONAL REGISTRATION FAQ

What is Conditional Registration?

Conditional Registration is applied to a dog that has one or more unknown ancestors, generally because incorrect parentage has been discovered via compulsory DNA programs (Frequently Used Sire requirement or the Compliance Audit Program). Conditional Registration is only applied if the dog(s) in question appear to be purebred, but a registered parent is found to be incorrect and the correct parent cannot be determined.

Why is Conditional Registration applied rather than simply cancelling registration?

Due to the Frequently Used Sires requirement, some popular sires are not profiled until they are older and have sired 7 or more litters. When the AKC evaluates the dog's parentage (a routine check), if incorrect parentage is found, it can sometimes be impossible to determine correct parentage, as potential parent(s) may be deceased or be unable to be located. A single instance of an unknown sire can affect the registration of hundreds of descendants. Needless to say, this creates a very strong response from the many owners affected by any change.

Conditional Registration keeps the affected dogs inside the AKC program, albeit at reduced status. It also allows for informed breeders to be able to use these dogs wisely to maintain genetic diversity in the breed.

How is it designated?

A Conditional Registration number will start with the letter 'Q'.

This is a sample Conditional Registration certificate. Note the Yellow border, the Q prefix on the registration number, and the words "CONDITIONAL REGISTRATION CERTIFICATE" at the bottom of the border.

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NAME: SAMPLE DOG RUN THE FIELD
BREED: GOLDEN RETRIEVER
COLOR: LIGHT GOLDEN
SIRE: UNKNOWN
DAM: SAMPLE DOG TWO (GR0000002 01-01)
BREEDER: JOHN DOE
OWNER: JAKE DOE, 123 ABC ST, NOWHERE, NC 12345-6789

NUMBER: GR00000001
SEX: FEMALE
DATE OF BIRTH: JANUARY 1, 2003

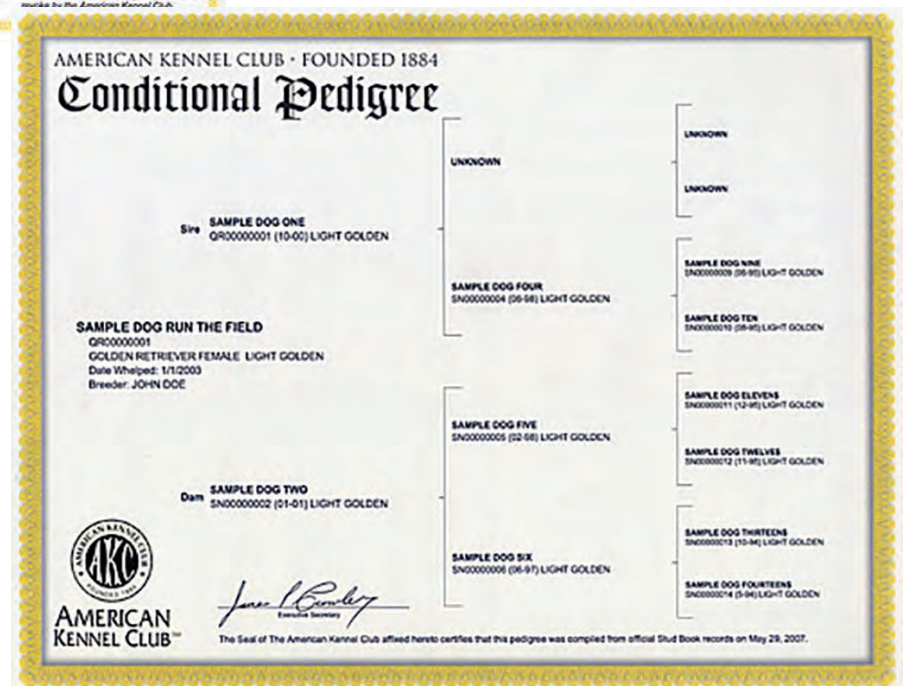
AMERICAN KENNEL CLUB
FOUNDED 1884

CERTIFICATE ISSUED
MARCH 12, 2003

This certificate invalidates all previous certificates issued if a date appears after the name and number of the sire and dam; it indicates the issue of the Stud Book Register in which the sire or dam is published. For Transfer Instructions, see back of Certificate. This Certificate issued with the right to correct or modify the American Kennel Club.

CONDITIONAL REGISTRATION CERTIFICATE

Similar markings will be on an AKC pedigree for any dog that is conditionally registered. The unknown ancestors are clearly marked.



What does it mean to your dog(s)?

Any dog with Conditional Registration is restricted from participation in AKC Conformation and Field Trials. The dog may also be restricted from competing in programs with pedigree restrictions, like CWA, or programs requiring regular AKC registration, like ASFA, WRA, and NOTRA. Titles in AKC Conformation and AKC Field Trials which were earned prior to demotion to Conditional Registration will be revoked. Titles earned in restricted pedigree events, like CWA, are likely to be revoked, as well. It is unknown how WRA, NOTRA, and ASFA, would respond to dogs demoted to Conditional Registration. This does not appear to be specified in their rules, as it is a situation that has not yet arisen.

However, dogs that are conditionally registered may participate in events that are open to dogs with ILP/PAL registration numbers, such as Obedience, Agility, FastCAT, CAT, and other events.

How does it affect your breeding program?

Dogs that are conditionally registered can continue to be used in a breeding program, so long as the issue of unknown parentage in the pedigree is fully disclosed. Offspring from Conditionally Registered animals will also have Conditional Registration until a full three-generation DNA-verified pedigree is achieved, at which point, the offspring will revert to full registration status.

CASE STUDY #1 – AKC MANAGEMENT DISCIPLINARY COMMITTEE

What is the AKC Management Disciplinary Committee (MDC)?

The "Charter and Bylaws of The American Kennel Club, Inc." (full text at <https://images.akc.org/pdf/rulebooks/RCNA01.pdf>) give the AKC Board of Directors broad authority to investigate, or appoint a committee such as the MDC to investigate, matters are brought to their attention relative to the mission of the AKC and the precepts upon which it was founded. The Board of Directors may prefer charges when an investigation results in sufficient evidence to warrant such action.

What are the possible penalties for infractions?

SUSPENSION OF ALL AKC PRIVILEGES (continued)

OFFENSES	MITIGATED	STANDARD	AGGRAVATED
II. Registration Violations			
a. Submission of a false application to register or transfer (not signature forgeries), which affect the Stud Book*	3 yr/\$500	5 yr/\$1000	Up to life/up to \$5000
b. Selling or buying AKC registration papers*	5 yr/\$500	10 yr/\$1000	Up to life/up to \$5000
c. Refusing to produce dogs or records*	6 mo/\$500	5 yr/\$1000 ¹	Up to life/up to \$3000 ¹
d. Non-compliance with AKC's Rules and Regulations on Record Keeping and Identification	Rep/up to \$50	6 mo/up to \$500	Up to life/up to \$3000 ²
e. Submission of an AKC litter application which the individual should have known contained a false certification as to the sire and/or dam of the litter (DNA exclusion)*	2 Exclusions/5 yrs 6 mo/\$500	3 Exclusions/5 yrs 1 yr/\$1000	4 Exclusions/5 yrs Up to 5 yr/up to \$2000

¹If reinstated, must start with a new colony, or in lieu thereof, bring back dogs from the old colony for which a DNA profile is recorded with the AKC and is positively identified via microchip or tattoo.

²The actual fine assessed shall be sufficient to cover all reinstatement costs, but in no instance shall it exceed the maximum amount indicated.

This is a subset of the entire spectrum of disciplinary actions that may be imposed for violations. For further information about the process, consult the AKC Discipline Guidelines. It is important for all participants in the AKC program to understand not only the possible offenses that might merit discipline, but the factors that are considered in imposing penalties, as they can be very serious.

http://images.akc.org/pdf/AKC_DISCIPLINE_GUIDELINES_7.12.2016.pdf

How are disciplinary actions reported to the fancy?

Information on disciplinary actions is reported monthly on the AKC Secretary's Page:

<https://www.akc.org/about/minutes-reports/secretarys-page/>

In this case, we received a very quick follow-up letter from AKC about a week later that cleared things up. Apparently, someone submitted a profile with an erroneous registration number. The sampled dog was NOT actually a littermate to our dog, so of course the DNA was a no-match. Because we had successfully profiled our dog much earlier, he and his profiled littermates were reinstated immediately.

Perhaps this example can give one an idea how quickly things can go sour and how far beyond your control it can be. If you take no measures to protect yourself, your dogs and your breeding program, you can quickly find yourself in serious hot water.

Although this situation was the result of an honest error, it is not beyond imagining that a misidentified sample could be submitted with malicious intent. The only defense against both error and malice is proactive DNA profiling of one's stock at the earliest opportunity.



AMERICAN
KENNEL CLUB®

November 4, 2018

Ms. Donna Miner
15 JOSHUA LN
COVENTRY, CT 06238-1267

Reference Number: 201805907
Male Whippet Rosmor Ratatouille HP338238/07
Litter Number: HP338238
Sire: Wheatland Bengal, HM733686/01
Dam: Rosmor Delta Breeze, HP106944/03

Dear Ms. Miner and Ms. Bennett:

This is a follow up to our letter dated October 22, 2018, concerning the registration of your dog as listed above.

As indicated in our letter, one or more pups in the litter of which your dog is a member is excluded to (cannot be an offspring of) its registered sire. Based on the submission of additional DNA samples and documentation, we understand that the identity of the excluded member was due to a misidentification of the sample submitted for the dog and not the parentage of the litter. Through additional DNA testing, we have verified the correct identity of the dog.

As a result, we have reinstated the registration of litter HP338238 and its offspring. Since your dog is a member of litter HP338238, we have reinstated the registration of your dog. All necessary corrections in our DNA database have been made and we consider this matter closed.

Thank you for your cooperation and patience in this matter.

Sincerely,

Brandi Flock

Brandi Flock
DNA Operations Department

BWF

CASE STUDY #1 – AKC DNA PROFILE KITS

What they ARE:

- A means to establish the unique genetic identity of the dog
- Used for parentage verification

What they ARE NOT:

- Not intended to determine the dog's breed or whether a dog is purebred
- Not used to determine genetic health
- Not used to determine appearance or performance traits

Where can I get an AKC DNA Test Kit?

- Kits can be ordered through the AKC website at this address:
<https://shop.akc.org/products/akc-dna-test>

What is the COST of this test?

- Regular AKC DNA Kit - \$50
 - Prepaid/Nonrefundable - \$45
 - Special rate for new titlelists (within 30 days of receiving an AKC title in the mail) - \$35
- Follow the instructions on the coupon on the back of the Letter of Congratulations that comes with your title. You will be asked for information contained on the letter, so keep it handy when you call. If you ask nicely, they will sell you TWO kits at the reduced price. NOTE: Kits ordered under the special offer may be used on any dog you choose and they do not expire.

Where is the VALUE in this test?:

- The puppy buyer benefits by knowing that parents are profiled, so that true parentage can be guaranteed by the breeder.
- Enormous value to the breeder, as indisputable proof that the parentage of their puppies is verifiable. The more generations a breeder has profiled, the stronger the proof of pedigree accuracy becomes. This is proof of breeder integrity that goes the extra mile beyond "reputation". This is a permanent record, maintained by the AKC and visible through the AKC database, surviving beyond the breeder's career in the breed.

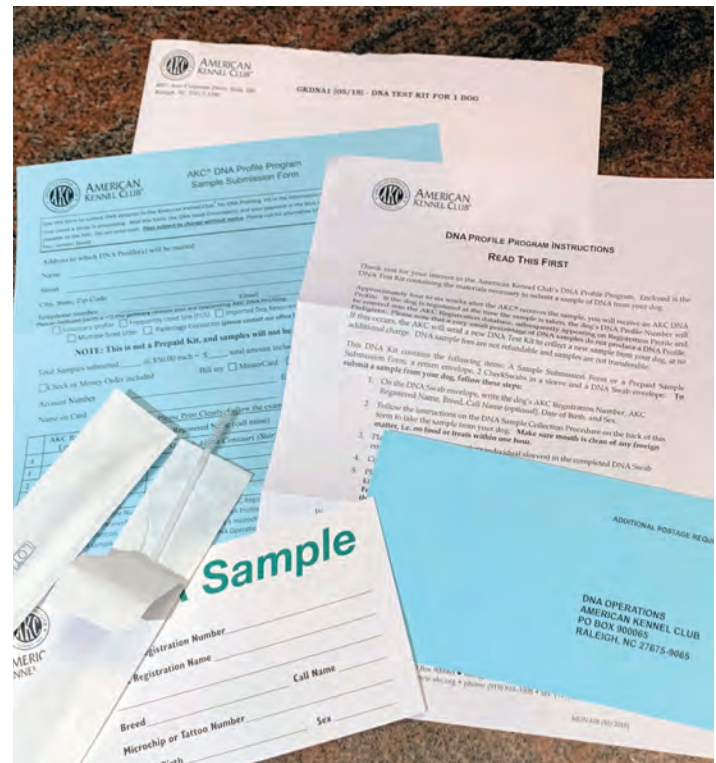
How long does it take to get RESULTS?

- Generally, results are returned in about 8 weeks.
- If results are taking longer than 8 weeks, this may indicate a problem with your test. The most frequent problem is that the sample sent in was insufficient. In this case, AKC will send a Resample Kit (no charge), but this will take another 8 weeks.
- Helpful hint: Record the date you mail your sample so that you can estimate when you will receive results.

What does the kit look like?

Contents include:

- Instructions
- Submission Form
- Two Swabs in Sleeves
- Return Envelope (Extra postage required!!)



CASE STUDY #1 – AKC DNA PROFILE KITS

What is the collection process?

The American Kennel Club DNA Profiling Program

DNA Sample Collection Procedure

YOUR DNA KIT contains all of the materials necessary to collect DNA samples from your dogs for the AKC® DNA Profiling Program. For the best results, **withhold all food at least one hour** before collecting the samples and **make sure mouth is clean**. Fill in the information on the DNA Swab envelopes before beginning the collection procedure. Complete steps 1 through 7 for one dog at a time to avoid mixing up the samples. There is a video on the DNA page on the AKC web site that demonstrates the procedure.



one >	OPEN THE SWAB PACKAGE BY PEELING BACK THE LOOSE EDGES OF THE CHEEKSWAB SLEEVE ABOUT ONE INCH.
two >	GRASP THE SWAB'S PLASTIC HANDLE AND PULL THE SWAB OUT. HUMAN CELLS WILL NOT CONTAMINATE THE BRUSH. DO NOT WORRY IF YOU ACCIDENTALLY TOUCH THE BRISTLES ON THE BRUSH.
three >	STEADY YOUR DOG'S HEAD. YOU CAN HOLD THE DOG'S HEAD FIRMLY AGAINST YOUR BODY WITH ONE ARM, HAVE A FRIEND STEADY THE DOG, OR SIMPLY HOLD ITS HEAD IN YOUR HAND (WITH SMALLER BREEDS) WHILE YOU TAKE ITS SAMPLE.



The American Kennel Club DNA Profiling Program



four >	PLACE THE SWAB INTO THE DOG'S MOUTH AGAINST THE INSIDE SURFACE OF THE CHEEK. WHILE APPLYING LIGHT PRESSURE WITH YOUR THUMB FIRMLY ROTATE THE SWAB AGAINST THE DOG'S CHEEK FOR ABOUT 10 TO 20 SECONDS. THE OBJECT IS TO COLLECT LOOSE CHEEK CELLS NOT SALIVA.
five >	IMMEDIATELY REINSERT THE SWAB INTO THE CHEEKSWAB SLEEVE (NO NEED TO SEAL THE SLEEVE).
six >	PLACE THE CHEEKSWAB SLEEVE INTO THE DNA SWAB ENVELOPE AND SEAL THE ENVELOPE.
seven >	SIGN YOUR NAME OVER THE BACK FLAP OF THE DNA SWAB ENVELOPE.
eight >	RETURN THE SAMPLES WITH THE SAMPLE SUBMISSION FORM AND YOUR PAYMENT IN THE RETURN ENVELOPE INCLUDED IN THE DNA KIT.

DNA Operations
The American Kennel Club
e-mail: dna@akc.org
www.akc.org



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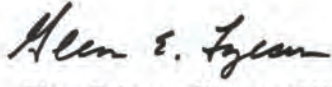

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CASE STUDY #2 – SAMPLE COLLECTION ERROR

Routine Sample Submission

Woodford came to our home as a stud puppy in September 2014. The first thing we did after registering him was to submit a DNA profile kit to the AKC, as it had become routine to submit a profile for every dog coming into our home .

When the results were severely delayed, taking almost double the normal time to come back, I should have been alerted to an irregularity. Woodford's profile arrived along with a letter. Shown below and the following page.

		AMERICAN KENNEL CLUB®																										
December 22, 2014																												
DONNA MINER 15 JOSHUA LN COVENTRY CT 06238																												
Letter of DNA Analysis																												
Breed: Whippet		DNA Profile #: V744405																										
Sex: Male																												
Date of Birth: 11-JUL-2014																												
ID #: 985112002099867																												
Date of Analysis: 26-NOV-2014																												
AKC #: HP47973502																												
AKC Name: Wildabout Woodford																												
Owner(s): Donna Miner																												
The following genotype uniquely represents the Neogen Corporation genetic identity of the dog named herein:																												
Neogen #: C0880842																												
C	D	N	D	A	A	C	E	D	D	D	G	C	D	B	B	A	C	B	B	D	E	D	D	B	E	X	Y	
PEZ 1	PEZ 3	PEZ 5	PEZ 6	PEZ 8	PEZ 12	PEZ 20	UCB 2010	UCB 2054	UCB 2079	PEZ 16	PEZ 17	PEZ 21	GEN															
																												
Glenn E. Lycan, Director of DNA Operations American Kennel Club														Stewart Bauck, General Manager GeneSeek Neogen Corporation														

CASE STUDY #2 – SAMPLE COLLECTION ERROR

Bad News from AKC

I had to read this letter three or four times before it sunk in. This breeding was a frozen AI breeding. The pup matched his sire, but not his dam. WHAT??? We had photos of the dam with the puppies! There was only one litter in the breeder's home. How could this possibly be a mismatch?

The AKC DNA Department rep suggested that there might be more than one litter in the home and the pup might belong to another litter. Not terribly helpful, as there was only one litter. And only enough semen sent to impregnate one bitch. We immediately sent a second kit to test Woodford again. Silly us. DNA always comes back the same, no matter how often a dog is tested.



AMERICAN
KENNEL CLUBSM

December 30, 2014

Donna Miner
15 Joshua Ln
Coventry, CT 06238

Dear Donna Miner:

Thank you for submitting the DNA sample from your Whippet WILDABOUT WOODFORD HP47973502. Enclosed is his/her American Kennel Club ("AKC®") Letter of DNA Analysis. This AKC DNA profile (or genotype) certifies the unique identity of your dog and can be used to determine correct parentage, provided that DNA samples are on file for the registered sire, dam and pup.

The AKC automatically evaluates the parentage for all registered dogs born after January 1, 2000, when the dog and one or both of its parents are DNA certified.

In evaluating the profile produced from the sample you submitted for WILDABOUT WOODFORD, it appears that your dog is excluded to (cannot be the offspring of) its sire and/or dam. An inquiry will be conducted to determine correct parentage of your dog. You will receive a more detailed letter once the inquiry has been initiated. A copy of this letter is being sent to the owner of the litter so they are also made aware of this issue.

We suggest that you do not breed, sell or transfer WILDABOUT WOODFORD or any remaining offspring you have on your property for this dog.

Thank you for your patience and for helping us ensure the integrity of the Registry of the American Kennel Club.

Very Truly Yours,

A handwritten signature in cursive script that reads 'Glenn E. Lycan'.

Glenn E. Lycan
The American Kennel Club
Director, DNA Operations and Case Management

CASE STUDY #2 – SAMPLE COLLECTION ERROR

Breeder Reaction and Peer Responses

Understandably, Woodford's breeder was incredibly upset by this notification from the AKC. They required an explanation in response to their communication to her. Having diligently bred a leased bitch with a DNA profile on record and using semen from a dog with a DNA profile on record, she had no explanation for the findings. It was definitely a letter to roil the gut and to provoke heart palpitations!

This notification was followed by another letter from AKC notifying us of an inquiry to be conducted into the matter. The threat of having the entire litter registration downgraded to "conditional registration" if the anomaly could not be resolved was distressing to breeder and puppy owners, alike. Conditional Registration is very much a worst case scenario, something that I wouldn't wish on anyone!



AMERICAN
KENNEL CLUB®

March 17, 2015

Ms. Donna Miner
15 JOSHUA LN
COVENTRY, CT 06238-1267

Reference Number: 201502354
Male Whippet Wildabout Woodford HP479735/02
Litter Number: HP479735
Sire: Domino Pop Goes The Weasel, HM892505/01
Dam: Sailaway Wilpen Avanti Vin, HP295903/02

Dear Ms. Miner:

A parentage verification analysis of American Kennel Club ("AKC®") DNA Certifications from the registered sire, dam, and Wildabout Woodford, HP479735/02 was conducted. We regret to inform you that the DNA results indicate that your dog is excluded to (cannot be the offspring of) the registered dam.

As a result, the registration of your dog and the registrations of his offspring have been placed on referral. This means that American Kennel Club services will not be provided if the dogs in this litter are bred, sold, or transferred, and awards will not be recorded if these dogs participate in any American Kennel Club sanctioned or licensed events. Recorded owners have been notified. We regret the necessity of taking this action. **Please be advised that this inquiry does not imply incorrect parentage or incorrect identity for any offspring that Wildabout Woodford may have sired.**

The litter owner has been informed that Litter HP479735 can be reinstated provided that additional DNA testing of the correct sire, dam and remaining pups determines correct parentage. If correct parentage cannot be established, the AKC® will evaluate the excluded litter to determine if it meets the conditional registration program requirements (<http://www.akc.org/condreg>). We can only suggest that you contact the breeder from whom you purchased your dog for additional information. All recorded owners will receive written notification at the conclusion of this inquiry.

Ms. Donna Miner

Thank you for your patience in this matter.

Sincerely,

A handwritten signature in black ink that reads 'Glenn E. Lycan'.

Glenn E. Lycan
Director, Customer Relations & DNA Operations

GEL:bwf

CASE STUDY #2 – SAMPLE COLLECTION ERROR - AKC PROFILE EVALUATION

It was a simple matter to compare her profile to her daughter (Woodford's dam). In so doing, we discovered that not only did the dam not match Woodford, but neither did she match the maternal granddam! Note the exclusions at two locations.

Initial DNA Comparison of Granddam to Dam																												
	PEZ 1		PEZ 3		PEZ 5		PEZ 6		PEZ 8		PEZ 12		PEZ 20		UCB 2010		UCB 2054		UCB 2079		PEZ 16		PEZ 17		PEZ 21		GEN	
Granddam	A	C	E	K	A	A	C	C	D	D	G	G	C	C	B	B	A	C	B	B	G	G	C	E	B	E	X	X
Dam	C	D	K	N	A	A	E	F	C	E	G	H	C	C	B	B	C	C	A	B	C	G	B	C	E	E	X	X
									No Match		No Match																	

Once we were aware of this mismatch to both granddam and offspring, it was a simple matter to respond to the AKC.

I worked with the breeder to craft a response demonstrating this double mismatch. It was important that we point out to AKC that they had the profile on the granddam, as she was CKC registered, but not AKC registered. It required a bit of checking on their part to verify this information.

In addition, we submitted a retest for the dam and initial tests on the other three pups in the litter. Evidently, our response piqued the interest of the AKC DNA investigation team. We were told that they pulled the DNA profiles of every whippet that was submitted the same day as Woodford's dam was initially profiled. Apparently, there was a fairly large number submitted that day, as the result of a DNA Profile Clinic that was held at a whippet event.

At long last, resolution!

We were stunned to learn that the AKC investigator found a profile among those submitted that day that was not only a match for Woodford, but also for his maternal granddam! In an interesting plot twist, the profile was recorded as belonging to a spayed bitch that had the same owner as Woodford's dam. It was clearly a case of the samples being placed into the wrong envelopes.

The AKC corrected the record by switching the two profiles to the correct two animals and reissuing the certificates. Once this was done, it was easy to see that the profiles were perfectly matched, with zero exclusions, between granddam, dam, and offspring.

Final DNA Comparison of Granddam to Dam																												
	PEZ 1		PEZ 3		PEZ 5		PEZ 6		PEZ 8		PEZ 12		PEZ 20		UCB 2010		UCB 2054		UCB 2079		PEZ 16		PEZ 17		PEZ 21		GEN	
Granddam	A	C	E	K	A	A	C	C	D	D	G	G	C	C	B	B	A	C	B	B	G	G	C	E	B	E	X	X
Dam	C	C	D	K	A	A	C	F	C	D	C	G	C	C	B	B	A	D	B	B	E	G	C	D	B	E	X	X

Final DNA Comparison of Dam to Woodford																												
	PEZ 1		PEZ 3		PEZ 5		PEZ 6		PEZ 8		PEZ 12		PEZ 20		UCB 2010		UCB 2054		UCB 2079		PEZ 16		PEZ 17		PEZ 21		GEN	
Sire	C	D	N	N	A	A	E	F	C	D	D	E	C	D	B	B	C	E	A	B	C	D	D	E	B	D	X	Y
Dam	C	C	D	K	A	A	C	F	C	D	C	G	C	C	B	B	A	D	B	B	E	G	C	D	B	E	X	X
Woodford	C	D	N	D	A	A	C	E	D	D	D	G	C	D	B	B	A	C	B	B	D	E	D	D	B	E	X	Y

Ultimately, the resample of Woodford's dam and the initial profiles on his littermates all proved to be well matched to each other and this situation was resolved in favor of reinstatement of the litter registration and clearing the breeder of any wrongdoing.

CASE STUDY #2 – SAMPLE COLLECTION ERROR - AKC PROFILE EVALUATION

It is interesting to note that this event had a knowledgeable organizer who was considered a “witness” to the sampling process, presumably to prevent detractors from leveling accusations of dog substitution. Even with a “witness” present, accurate results could not be guaranteed and an error was made in identification of two whippets. This example is a good argument to counter claims that a witness should be required. It did not help in this case and is not required by the AKC.



AMERICAN
KENNEL CLUB®

April 30, 2015

Ms. Donna Miner
15 JOSHUA LN
COVENTRY, CT 06238-1267

Reference Number: 201502354
Male Whippet Wildabout Woodford HP479735/02
Litter Number: HP479735
Sire: Domino Pop Goes The Weasel, HM892505/01
Dam: Sailaway Wilpen Avanti Vin, HP295903/02

Dear Ms. Miner:

This is a follow up to our letter dated March 10, 2015, concerning the registration of your dog as listed above.

As indicated in our letter, Wildabout Woodford was excluded to (cannot be an offspring of) its registered dam. Based on the submission of additional DNA samples and documentation, we understand that the identity of the excluded member was due to a misidentification of the sample submitted for the dam and not the parentage of the litter. Through additional DNA testing, we have verified the correct identity of the dam.

As a result, we have reinstated the registration of HP479735 and its offspring, which includes your dog. All necessary corrections in our DNA database have been made and we consider this matter closed.

Thank you for your cooperation and patience in this matter.

Sincerely,

Judy Rivezzo
DNA Operations Department

JXR:kda
Enc.

HYPOTHETICAL EXAMPLE

Hypothetically Horrifying

In order to understand the ramifications of a potential error in DNA profiles, let us reconsider the situation discussed earlier in Case #2. In that situation, we had Woodford, (8 week old puppy), his dam (7 years old), and his living maternal granddam (12 years old), in autumn of 2014.

Let us imagine a somewhat different situation, ten years into the future (2024). In this hypothetical, Woodford was not profiled as a pup. Nor was his maternal granddam profiled. By this time, Woodford and his littermates have accumulated many achievements: AKC Field Champion titles (and lesser titles such as JC, SC, or MC), CWA racing championships such as ARX, NARX, SRA (and lesser titles such as PR TRP, or possibly DPC). In addition, two of the littermates have won CWA National Race Meets. And three of the littermates have produced numerous litters that are competing in conformation, lure coursing, and racing competition, much like their sires/dams.

AKC finally requests submittal under their Frequently Used Sire requirement (seven litters in a lifetime or three litters in a calendar year). So, the sample is collected and duly submitted for a DNA profile. Just as in the Case #2 scenario, we are horrified to learn that the result shows a mismatch to Woodford's dam.

At this point, Woodford is 10 years old. His dam is 17 years old and likely expired. His granddam would be 22 years old, so definitely no longer available for sampling. The AKC asks for an explanation for the mismatch for a litter born back in 2014. And what could one possibly say? It would be virtually impossible to offer any plausible explanation for the mismatch with two critical ancestors unavailable to be sampled.

Worst Case Scenario

When AKC can't locate any solution in their files (and chances are good that they would not find an answer in this case), their only choice would be to demote Woodford and his littermates to Conditional Registration. Conditional Registration trickles down to descendants, so all of the offspring from Woodford and his littermates would be demoted to Conditional Registration. And if there are grandpups, those would be demoted to Conditional Registration, as well. Conditional Registration persists until there is a DNA-verifiable pedigree for 3 generations. That's a long time, in dog-years.

Meanwhile, all the whippets that are so demoted are stripped of all their AKC Lure Coursing achievements/titles. They are also stripped of all AKC Conformation achievements/titles. Likewise for any other program they participated in that required regular AKC Registration. So, it's likely they would lose all other racing and coursing achievements/titles. In addition, when all of those titles are rescinded, it could impact AWC ROM/ROMX titles awarded to ancestors and those awards could be revoked. In addition, there is the distinct possibility of a cascade of legal action brought by clients who bought puppies in good faith, who are then impacted by loss of regular AKC Registration and revocation of titles and achievements.

All in all, this is something I would not wish on anyone in the fancy.

KNOWING BETTER AND DOING BETTER

It's safe to say that if you're not doing profiles now, I would encourage you to give it some thought. Keep in mind that unlike cardiac or eye exams, a DNA profile is done only once in a lifetime, so it's one of the most cost-effective tests you can give to your whippets.

Take advantage of the AKC's offer of prepaid kits at \$35 apiece with a new title. Do your oldest dogs first to make sure you don't lose the opportunity to sample them. Seek out older ancestors for sampling if they are alive and accessible. Consider sampling every puppy you produce, to protect their pedigrees and to protect your own reputation as a reputable breeder.

Conclusion

Until AKC DNA profiles become a standard practice in the fancy, every whippet breeder or owner is living in a house of cards. A pedigree error that occurred years ago and brought to light after multiple generations of descendants can devastate even the most reputable of breeders. Every breeder is reliant on the accuracy of records produced by the breeder before them and is operating ON FAITH when it would be so much better to be working with HARD PROOF that could protect their work from complete devastation. The possibility of disaster sits at the doorstep of every participant in the fancy and can ruin breeding programs faster and more completely than a ruinous health outcome!

DNA profiles must become de rigueur in the whippet fancy and the sooner, the better. Until the list of practices that define the Responsible Breeder includes DNA profile of every puppy's sire and dam (and eventually, the puppy, itself), the fancy is in peril.

What can we do?

- *Each of us must raise our standards to include this one-time, inexpensive, simple procedure on our breeding stock (at a minimum)*
- *We must require proof of completed AKC DNA profiles on breeding partners or collect samples for submission at the time of breeding.*
- *As responsible breeders, we can include AKC DNA profile numbers in advertisements, much as we include health testing status in our ads.*
- *AKC DNA Profile numbers should be included in database entries in The Breed Archives.*
- *The very FIRST THING that puppy buyers should be advised to ask a breeder is whether AKC DNA profiles are available for the parents of any puppy they might consider for purchase, as without assurance that the pedigree is accurate, health testing history and achievements in competition may not be relevant.*

Recommended Best Practices

1. Start small and grow your profiling efforts as you become more comfortable with the practice.
2. When collecting samples, fill out your paperwork first. Then sample one dog and seal the envelope before proceeding to the next dog.
3. Wash your hands between collecting samples from one dog and the next dog.
4. Consider the use of microchips to definitively link your dogs to their DNA specimens and to their other health tests.
5. Scan your dogs' microchips before DNA sample collection or performing any other health test. Ensure that the microchip number is listed on the paperwork of every health test and that the box for "verified ID" is checked on the paperwork. (Look for that "Verified Permanent ID", -VPI suffix on your OFA certificate numbers.)

KNOWING BETTER AND DOING BETTER

6. Have your AKC DNA profile numbers listed in a public database such as OFA, the Whippet Health Foundation, or The Breed Archive.
7. Add a requirement for AKC DNA profiles on both sire and dam to your breeding contracts.
8. Do carry a free (not pre-paid) AKC DNA Sample Kit to any breeding, just in case the profile hasn't already been submitted and processed. It is important to have that sample, just in case the promised AKC DNA profile number never materializes. (Sadly, people do lie about having their dogs profiled and you may not get another chance to collect a sample.)
9. Add AKC DNA profiles to the list of requirements that define the Responsible Breeder.
10. Advise puppy buyers to seek Responsible Breeders when shopping for a pup and to request AKC DNA profiles for both parents of any litter.
11. In the event that AKC reports an anomaly to you, **DO NOT HIDE THIS INFORMATION!** You are ethically bound to notify your breeder, the owners of any dog that has used your dog for breeding, and any person who has acquired a puppy descended from the animal in question that an issue is under investigation. The issue may resolve favorably, but in the event that it does not, it is imperative to demonstrate concern for the impact that this may have on others. In this light, it is wise to notify any organization in which the dog participates that the AKC has reported a pedigree anomaly, so that they can advise you on the wisest course of action regarding continued competition.

*Do the best you can
until you know better.
Then when you know better,
do better.*

- Maya Angelou

