



FORUM

The New Guinea Singing Dog Conservation Society Newsletter

From the Editor

A warm thanks to all members who submitted pictures and articles for this issue. Please keep them coming in. This is your newsletter and your input is always welcome. Please submit all newsletter material to:

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Thank you for all your support!





NGSD Milk Composition

Last January I sent a sample of milk from my female Kori to Dr. Olaf Oftendal (Smithsonian Institution, National Zoological Park, Nutrition Laboratory) for analysis. Milk varies in fat and solids content (usually from more concentrated to less) as nursing progresses. The sample from Kori was taken at about week 5 after parturition. Here is her milk composition compared to domestic dog and cat, and foxes.

Species	Lactation stage (days)	Dry Matter%	Fat%	Crude Protein	Lactose/Sugars
Arctic fox	mid	28.6	13.5	11.1	3.0
Dom. Dog	7 - 37	22.7	9.5	7.5	3.8
Red fox	28 - 35	18.1	5.8	6.7	4.6
Dom. Cat	6 - 38	-	10.8	10.6	3.7
NGSD	45 - 46	28.4	9.3	11.65	3.05

Dr. Oftendal pointed out that milk composition varies a lot depending on many factors such as the animal's nutrition, so something as preliminary as this may not mean anything. BUT, looks to me as if Singers may have substantially richer milk (in solids and protein) than domestic dogs. One of the reasons I wanted Singer milk tested was because the pups develop so quickly, and by 8 weeks are almost 2/3 adult size. It's like watching time-lapse film! This is the only research results I have to offer this Forum. They need to be followed up with many more samples, which are not easy to get because Singers, unlike domestic dogs, do not let their milk down except while pups nurse. Dr. Mauricio Solano at Tufts University Veterinary College is working again on the Singer throat anatomy study and should have results to us in a few weeks.

DNA

Below is a summary of unpublished Singer DNA results. The names of the researchers and their institutions have been deleted because the results have not yet been published, and/or the researchers have not given me permission to share the results. More samples have been donated to the lab of Dr. Elaine Ostrander at Fred Hutchinson Cancer Center, to be part of the study that is identifying breeds by markers. The first part of the study was recently published in Science (Genetic Structure of the Purebred Domestic Dog. Heidi G. Parker, et al., Science 304:1160-1164). They will be including several wild canid species this next round, and they are as curious as we are where the Singers might fit in.

Synopsis of NGSD DNA Results to 6/04

Source: e-mail messages to/from Janice Koler-Matznick

Researcher A

10/24/01

(From Jan to researcher A) - But, given that time estimates from DNA have lots of assumptions (especially across species like from coyotes to wolves and dogs) and conditions, and depend on twisting and bending the data through more manipulations, I really don't trust the DNA origin dates as being "real."

Answer: I agree to a large extent, these dates must not be taken too seriously, but I think they can give you a hint of the probable time-span a thing happened. In the case of the dingoes, I would say I am pretty sure the Australian population was founded between 4,000 and 8,000 years ago.

1/28/02

The conclusions (which are still top secret) are in short: the first origin of domestic dogs is in Southeast Asia, possibly China, from which dogs spread around the world. The origin was 10,000 to 35,000 years ago. I would say 15,000 years is very probable but the data is not exact enough to say that for sure. 6/9/02

The on-line list (a Science page) is not yet available as the paper is not yet accepted. It is under review now so I hope for the best. However, we might be rejected, furthermore it only includes one singer, the one identical to dogs and dingoes, the other two types we will publish with the dingo data.

11/29/02

We are continuing to sequence samples, including your NG [pariah dog] samples. I am also working again on the dingoes. We have now more individuals analyzed. It appears we come up with a much older date [for modern domestic dog - ancestral Singer separation], about 12,000 years according to the molecular clock, than before. This would be just after the origin of dogs in East Asia. I am still pondering on this.

Singer Related Research Continued

2/26/03

I have run your village dog samples (Cutoff, Xena, Mrs Sparky, etc.). None was identical to dingo or NGSD. I also ran three samples sent from Kharkiv Zoo in Ukraine, I believe by your contact? They all had a NGSD type. What is the background of these samples? [Note: this was a Singer - one of two known to be in the former Soviet Union.]

Researcher B

12/5/02

(From X to multiple recipients): Hello Jan and [...X,] Attached is an Excel file with the NGSD data. There are several tabs to this file, and all the tabs for the various sheets are labeled at the bottom. You can sort by breed, certain stats, and then by each microsatellite marker we tested. Several observations: First, of all the breeds we've looked at so far, the NGSDs are the least polymorphic. The have an average OH of .286 compared to an average of .321 for Bull Terrier and a range of .462 to .743 for the other canids we have tested (Dingoes, Bali Dogs etc). Of the 20 loci looked at, the NGSD has 9 with one allele representing more than 90% of the frequencies. 11 loci have OH values of .26 or below. It looks like the NGSDs share the most allele frequencies with Akita and Dingo, but a more complex analysis would be needed to confirm. At AHT133, C05.771, C06.636, and C09.173, it looks like the dominant allele for the NGSD is significantly different from all other breeds we've profiled to date. FH2004, FH2161, and FH2289 are more heterozygous than the other loci for NGSD, but it looks like FH2004 and FH2289 have unique allele frequencies from the rest of the breeds.

12/6/02

From Jan: Dear [X], Thank you so much for the Singer results. Of course they are unintelligible to me without your interpretation, so I appreciate the synopsis. Here's my questions (you knew there would be some, right? <G>):

- 1. Is the number of "unique" sequences unusual, or are there breeds of modern dogs with a similar number of unshared sequences?
- 2. Given the restricted sampling of the wild Singer population, can this number of unique sequences from the founders of the captive population be extrapolated statistically to provide an indication of the potentially unique sequences in Singers?
- 3. Can the number of unshared sequences be used to work up an estimate of how long the Singers may have been isolated from the rest of the dog population?

12/2/02

Researcher B answers: Thank you for your reply. I will address your questions in a little more detail when I have more time next week and I would also like to speak to some other investigators here at Davis to see if they would be interested in adding to this effort. Dr. Bannasch has been characterizing Y chromosome haplotypes in different dog breeds and populations which may provide some insight into foundation effects and/or relationships. We also have another PI here at X, Dr. X, who

specializes in wildlife genetics, particularly in how they relate to population and conservation efforts. I would like to talk to both of them if you have no objections and share some of your information? How many wild NGSD are speculated to exist and are they all in NG? Who is leading the conservation effort? [Note: I never heard from this person again, despite several inquiries.]

Researcher C

9/8/02

Hi Janice-... It has been some time since we last spoke, but been plodding on with this work in spare time and with spare cash. I know that [...X] at [X] had talked to you about some of the NGSD work I was performing there. Results are interesting and consistent with origins of NGSD. One Dingo (or vice versa) haplotype for MHC [major histocompatibility complex] so far. The litter you provided for MHC work was homozygous for one haploltype but in Lehr's sample, there was more variation. ... I need further details on Bingo and Darkie.

9/17/02

Data are still coming together, as most of this is done without funding and on as can basis. The pup samples that you provided all had the same 3 locus DRB1/DQA1/DQB1 haplotype that is very similar to a common haplotype in the domestic dog. Difference is at the DRB1 locus, that has a new allele but only by single base substitution. Bingo is a heterozygote and carries one haplotype which is the same as for your pups provided. Other haplotype is one that I am seeing commonly in Alan's unrelated Dingo panel (pilot of 10 samples). Darkie is the same as for your pups, i.e. homozygous for the same haplotype. 9/17/02

(From Jan to X's) At 04:42 PM 9/13/02, wrote: I want to encourage you three to get together and publish your results for Singer DNA, even if only as a preliminary "short communication." With the three approaches combined (mtDNA, microsats, MHC) it gives a strong paper on NGSD separability from modern domestic dogs, and their close relationship to the Australian dingo. So, what do you think? The paper could be about both dingoes and Singers (or should I say Australian and New Guinea dingoes?).

Reply from X: Depends on the data set, as we all are using different material. The power would come from selecting representative samples for the lines within breeds to do all three. Not done to date to my knowledge and would be incredibly powerful.

Researcher D

11/20/02

Jan, I just thought I'd let you know that I have discovered an allelic variation that is present in NGSDs and not in any of the ~85 breeds of domestic dogs I have tested so far. I do not have an estimate of the allelic frequency within singers (it is not 100%) at this time. I thought that this may be of interest to you and perhaps to the ngsd community at-large.

Singer Related Research Continued

6/25/03

Thanks Jan. I haven't followed up on the Singer snp I found yet. The paper is close to done and I am working on my dissertation (feverishly). Everything has gone great and I should have something to send you soon. . . .

5/20/04

Hi Jan, I have not yet been able to publish my work, it is in review at journal #4 now, but who knows. About the only thing interesting that you could say [at the American Mammal Society meeting] is that I have identified what appears to be a Singer-specific single nucleotide difference in a gene, but did not compare it against dingo, so it sharing that allele with dingo cannot be excluded.

Researcher E

4/21/03

(Jan to...X) Did you receive the Papuan village dog samples which I sent some weeks ago, and the swabs of the two 'supposed' NGSDs I sent about three weeks ago?

9/14/03

Dear Janice, I have tested the Papuan samples you sent and they all seem to be mainly domestic dogs and not Singers. I will send you the results asap.

3/9/04

Hi Janice, Don't have anything I can give you at the moment. I will be doing some writing very soon though. All I can say now is that New Guinea Singing Dog is very closely related to the Australian dingoes with very similar mitochondrial DNA sequences and very similar microsatellite alleles at loci that can be used to differentiate dingoes from European domestic dogs. For the actual data showing this you will have to wait a little longer.

Behavior Study

Janice Koler-Matznick

Over the years I have observed that in the Singer litters I've raised here, the pups never developed any dominant/ subordinant relationships. All the pups are equals, and the



bigger pups will self-handicap and fall down so the smaller siblings can have their turn at being "top dog." This is very unusual for canids. So, I taped at least 25 hours of puppy interactions for each of the last two litters born here. Now I will review and quantify the puppy behaviors, so that I can demonstrate scientifically any differences between Singers and domestic dogs or other canids. Lyn Watson, The Australian Dingo Conservation Society, Australia, is filming dingo pup social development and Patricia Goodman of Wolf Park, USA, is filming gray wolf development, for comparison to the Singers.

Papuan Dog Photos: A Singer?

Here are three dog photos from the Folopa region sent to Mr. Kirk Siemsen, a former resident of the Papua New Guinea Highlands, by his friend, Carol Anderson. Kirk kindly offered to share these photos to get everyone's opinion if they are Singers. He told us: "The Folopa region is a very remote region in the Highlands, I believe the southern part of the Bismark Range. Carol said that she could just barely get these pictures off, as the mother was very skittish and kept leading her pup away (I'm not sure if the pictures of the pup are actually the adult's). [T]hey do look very malnourished; in this region, there is no need for a dog, so it's extremely unlikely that there [was] any hybridization."

Jan and Joan think they look very Singer-like, at least much more so than any other village dog pictures we've seen so far. They definitely have bushy tails and double coats. The typical Papuan village dog looks very like a Basenji, with broader longer ears and slick coats. These specimens are so undernourished, it is hard to tell how much more like our captive Singers they would look if they had grown up in a different environment. Kirk is on the NGSDCS Yahoo discussion list, so if you want to put in your thoughts about these dogs, post them to the list.





The Singers in Tok Pisin Language

In March, Kirk created a site that has our web site information translated into in Melanesian Pidgin (Tok Pisin). This is the trade language spoken in Papua New Guinea. Kirk did this to expose us to the indigenous language and to make the Singer information more available to the Papuans.

It is linked to the NGSDCS website or can be seen at:

www.freewebs.com/singsingdok

Expanding the NGSD USA Gene Pool: the German Male

We have decided the black and tan color male Singer the Neumunster Zoo (Germany) has promised to send us will go to the Lowry Park Zoo, Tampa, FL. This zoo has a great custom-designed Singer exhibit, and they have kindly agreed to keep this male intact and part of the breeding program. We are very excited about importing this unrelated (as far as we know, and at most would be a partial relative to our other German import, Olga, several generations back) black and tan male. This color variety is recessive, meaning that the dog must inherit the black and tan gene from both parents to be black and tan. All the offspring from the double recessive color male mated to a female with double dominant genes (sable in Singers) will carry one copy of the black and tan gene and one sable. So, this male's first generation offspring will all be red sable, but latter, as their offspring are mated, there is a good statistical chance a few will inherit both recessive genes and be black and tan. Negotiations are going slowly with Dr. Druewa, the director of the Neumunster Zoo, but we have every confidence the male will be in Florida in a few weeks.

Jan and Bonnie Present Singer Info at Another Scientific Meeting

Jan Koler-Matznick and Bonnie Yates attended the American Society of Mammalogists meeting held at Humbolt State University, Arcata, California. They did what is called a "poster presentation" where large printed posters describing research topics are put up and at a designated time the authors attend them to answer questions. Joan Dalgleish designed the poster, and it was not only informative, but also very pleasing to the eye. Jan and Bonnie took a laptop with Singer videos, slide shows and vocaliza-

tion recordings and set it up in front of the poster. The display was very popular, with viewers standing at times two and three deep. Jan and Bonnie did not get a break from talking about Singers for 2 hours, and that is a half hour past the end of the poster session! This is very unusual for posters, as most authors get asked questions by only a few viewers the entire session. During the meeting two museum directors asked to be put on the list for Singer specimens for their research collections,

and Jan and Bonnie made and renewed contacts that will be beneficial for the Singers. The NGSDCS once again paid Jan's expenses, and she thanks the membership for their support. Joan and Bonnie paid their own expenses and volunteered many hours of their time, and the NGSDCS thanks them for their dedication to the "Singer Cause."

Photo of Jan standing next to the poster at Humbolt, the day after the poster session.





It's a Singer pool party and everyone is enjoying themselves. These are three of a few Singers that own John & Suzette Jones. Over the years, John and Suzette have provided a sanctuary home for many a Singer rescue in need. Thank you John & Suzette for all you do and for helping those Singers get a second chance at life.

The Singer Gallery - Photo Stories









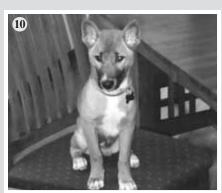
















←Photo Descriptions

- 1) A young Monty plays with a ball. Monty now resides at the San Diego Zoo. Not as a zoo exhibit, but is an ambassador for her kind and is part of their educational program.
- 2) Spike comfortably perched on the window sill views the world around him. He owns Susan and Marcus Oliver.
- 3) A young Pan sleeps and dreams. Pan owns John and Alice-Moon Fanelli.
- 4) Solo on the porch looking pretty darn good. She owns Tami Gingrich.
- 5) Pan enjoying a quiet nap on his chair. He owns John and Alice Moon-Fanelli.
- 6) Noodles goes boating. She owns Bruce and Ann Baker.
- 7) Dante taking a little scratch. He owns Celeste Spade.
- 8) Keowee taking an afternoon nap. He owns Scott and Yoko Collier.
- 9) Kaian climbing on the wood pile. He owns Moe Kunkle and family.
- 10) A young Crosby sitting in the kitchen chair oversees dinner prepared. He owns Jessica Bianco and family.
- 11) Simon out in the snow last winter. He owns Shannon and Jeff Hiltner.
- 12) Rescue Buttons (now adopted Haley) in the toy pile. She owns Greg Letourneau.

Pantaliamon:

Rambling Thoughts on Life with Pan

It is common knowledge that I experience separation anxiety when I am away from Pan! I say this somewhat tongue in cheek, but there's a fair amount of reality to the statement. There is not a friend, family member, student or colleague that is not exposed to some story about Pan and if I have time and a captive audience, about Singer behavior and the controversy regarding their taxonomic status. Sometimes I acknowledge that I border on being obsessive, or perhaps obnoxious depending on one's viewpoint, but I dearly love this dog and feel like part of me is missing when we are separated. Hence his full name, Pantaliamon, named after a character from Phillip Pullman's trilogy, His Dark Materials, where in one parallel universe humans have physical animal daimon that reflect their human's spirit and human and daimon cannot be physically separated from each other. Of course, Pan, the Greek god of the forests, noted for lascivious and lyrical charms suits a Singer's nature just as well. I just find him completely fascinating, so when Jan and Joan asked me to write a segment about Pan for the newsletter, it seemed like quite the indulgence. What special qualities these canids have that is so completely captivating, defies my verbal capabilities. Perhaps Mary Lee's eloquent and spiritual memorial to her Singer Keeta best captures a Singer's essence.

If asked to describe Pan's more tangible qualities, I would say that he's extremely fleet and agile; constantly cognizant of his 3-dimensional environment. Even at 10 weeks of age, he attended to birds flying overhead and exhibited a keen interest in trees, so much so that it was a bit of a challenge to walk him in wooded areas. Unlike most wild canid species whose lives seem ruled by neophobia, Jan's "sensible caution" label probably best describes a Singer's approach to the world. Pan reacts to novelty, but quickly recovers. Another charming characteristic is his tendency to balance his intelligence with a "sense of humor". When his mental acuity presents a "complication" in the home, it is easily addressed with benevolent training methods and quickly forgiven because when his eyes are dancing as he's "pulled one over on you", frustration quickly melts away. Pan's not a "trickster" like the coyotes I once studied; he's more of a "prankster". There's a difference. "Tricksters" test to see how much control they can gain via their behavior.

"Pranksters" use their "charm" to obtain your attention. One's working against you; the other's working with you. I've had to practice what I preach in order to control Pan's penchant for attention seeking thievery. Not rewarding him with attention for these acts is part of the strategy. Even more important is ensuring that he has no need to seek attention because he is socially satisfied and productively occupied on a daily basis.

Pan's comparatively truncated social behavior, extreme predatory focus and persistent nature are dramatically different from the wolves, coyotes and coydogs I observed for years at the University of Connecticut. On occasion, our captive canids had the opportunity to demonstrate their predatory prowess when a bird or cat unwittingly entered the enclosure. However, they were never as focused on predation as Pan. He attends to every single moving object in his environment. Absolutely nothing escapes his attention. He's not on alert due to fear. It's all about food, plain and simple. I'm also struck by his highly predatory style of play and primitive communicative posturing. His play repertoire pretty much boils down to "go for the neck", "go for the haunch" and when in doubt, "mount". He exhibits little to no resource guarding behavior and minimal dominance-subordinance behaviors.



Pan playing with a Wheaton Terrier.

While the coyotes were less socially complex than our wolves, even they showed more communicative subtleties than Pan. In the year and a half that Pan and I have been together, I'm not sure what to make of him in terms of his taxonomic status. Since I have only experienced Pan, perhaps he is unique in some of these respects.

Continued next page

Rambling Thoughts on Life with Pan continued

I hope that in the next newsletter, we will be able to contribute scientific evidence rather than anecdotal observations to support the unique qualities of Singer behavior. (Jan and I continue to promise one another that we will score the volumes of tapes on Singer play behavior that she has accumulated and compare them to videos we hope to acquire on wolf, dingo and domestic dog play behavior. Play behavior is an excellent "window" into a species' social milieu so it should be a stimulating endeavor...for our spare time.)

What I can say with clarity at this point is how I raised Pan to fit into our particular lifestyle. All the effort we expended for the first year of Pan's life has certainly paid off. He's a joy to be around and a pretty "easy keeper" now. He understands the household rules and abides by them. He's cooperative, respectful and not at all labor intensive.



I must admit that during the first year, I wondered what I'd gotten myself into. Pan required constant supervision and redirection, more so I thought than your average puppy. But then, I hadn't had a puppy in the house for 16 years, so perhaps my initial expectations were unrealistic. Anyway, my recipe for success with Pan is as follows and I hope that the synopsis will be informative to those who may be contemplating sharing their lives with a Singer. For those readers who already share their lives with a Singer, I imagine many of my observations will corroborate your own experiences. In speaking with various owners and reading the posts on the Singer list, I'm fascinated by the

behavioral consistency between Singers. No matter what type of environment they are raised in, Singers appear to show less variability in their overall behavior than one would find in breeds of domestic dogs. If that in fact is true, it would be well worth documenting.

Environment:

My husband John and I, both middle-aged adults and counting, live in a rural environment in northeastern Connecticut. Pan shares our home with 3 wild-dog-savvy indoor cats, outdoor barn cats, and has frequent exposure to horses and wildlife. We do not have a fenced yard, but John did build a large chain link outdoor pen that is topped with wire and the floor has buried wire. We've provided a variety of obstacles for Pan to navigate in his pen to provide three-dimensional environmental enrichment. Pan lives full time in the house when we are home. When we can't focus our attention on him, he enjoys going to his pen to survey his outdoor domain. He is never outdoors off leash unless he is in a fenced area at daycare or training classes. I've found that if John and I are busy and Pan spends more time in his pen than usual, his predatory behaviors seem to intensify. While in his pen, he has visual access to quite a bit of wildlife and also our barn cats. After Pan completes a full day outdoor stint in the pen, our indoor cats "groan" when Pan is let in the house as they know that he'll need to be "slapped" back into shape. "They'll take your eye out faster than a red-rider BB gun" is our frequent reminder to Pan when he gets "fresh" chasing and nose-poking the cats. His behavior with the indoor cats always seems to be playful and not predatory. However, that doesn't mean he couldn't injure one of them with his rough play style or that he couldn't be quickly stimulated to switch from play to predatory mode. Whenever the animals are up and active, they are closely supervised and separated if arousal levels become too

We place a gate at the bottom of the stairs so that the cats can seek safe refuge upstairs when they feel it's necessary. This also ensures that Pan is always on the same floor as us so that he can be supervised. Other than that, he lives indoors with no restrictions. Pan prefers to sleep in his Vari-Kennel at night, but in the colder months he will crawl into bed with us in



the early morning. He insists on sleeping under the covers between us. I rarely see him go into a deep sleep out in the open after dark. When I attempted to substitute his Vari-Kennel for a wire crate during the warm summer months, he paced and refused to settle. Pan seems to need to feel "enclosed" in order to have a good night's sleep.

Diet:

I was forewarned about persnickety Singer appetites. When Pan was a pup I tried a variety of commercial diets, all to no avail. He was slightly thin, his coat lacked luster and his appetite was picky. My friends who own Inuit Sled Dogs suggested Eagle Power Pack (30% protein 20% fat) mixed with poached meat (chicken, turkey, and beef). That did the trick! Pan's appetite is excellent on this diet and he's in perfect weight (25 lbs.) His ribs are no longer visible, but easily palpated. For treats, Pan particularly enjoys bully sticks, chew hooves, pig ears and an occasional greenie. He also receives regular samples of our food, though not from the table. On ONE occasion I fed Pan from the table and to this day, he continues to "pan-handle" during meals. I knew better, but had a weak moment. Pan and persistence are synonymous.

Pan has various toys that lend themselves to being stuffed with food that he enjoys. His favorite stuffing's include vanilla yogurt frozen in a Kong, American cheese, Brie, goat cheese, carrots, freeze dried liver, chicken liver, peanut butter and various all natural dog biscuits.

Just about any leftovers can be mashed and frozen in a Kong to Pan's liking. All in all, he's grown up to have a fairly sophisticated and flexible palate. Fortunately his penchant for wine (grapes are poisonous for dogs) has waned. When he was a pup, Pan would regularly lap out of an accessible wine glass. However he still shares "Grandma Jan's" passion for Coca Cola!

Housebreaking:

A number of Singer owners have lamented their lack of success with 100% fool-proof house training for their Singers. Perhaps I am lucky, but Pan was relatively easy to house train. At eight weeks of age, he flew from Oregon to Boston with nary an accident in his crate. I mention this because for the first few weeks he was home, he left urine deposits indoors daily even though he had eliminated outdoors. After running exhaustive medical tests to rule out any underlying medical condition contributing to his "infractions", I had to agree with Jan that his behavior was due to anxiety marking. John and I instituted the standard housetraining protocol and it worked like a charm. Pan was escorted out on leash to the very same location in our yard every hour and asked to go "peeps" and "poops". We recognized and accommodated his preference to defecate on elevated areas and chose a suitable bank site as his defecation area. The omnipresent snow banks during our past two winters presented a variety of options! If he eliminated, he was praised profusely. If he did not, he was escorted back indoors, supervised and taken out 10-15 minutes later. Elimination was treated as a "command" and to this day has not been a problem. Pan has never defecated in the house and once we got beyond the first few weeks of anxiety marking, he has not urinated in the house either. We continue to have a scheduled routine and he eliminates on command. Of course he "tells" us when it's "time" and we acknowledge him. I must confess that this success with house training was facilitated by Sharon who operates the daycare center where Pan has stayed since he was a young pup. When Pan was a pup, Sharon took him out for regular walks so that he didn't have a chance to eliminate in his run. While Sharon professes to offer this house training service to customers with puppies, if the truth be told I believe she was so smitten with Pan that she went an extra couple of miles with him! The bottom line is, from my N of one experience, Singers can be trained to eliminate on command IF they are adequately supervised, given ample opportunity to eliminate in appropriate areas and IF their location preferences are acknowledged. Pan has grown up to be such a "clean" dog that he is reluctant to eliminate in his pen at home. He does have a toilet area in his pen for defecation and if he must defecate in his pen, it is confined to this small specified area. He will always void his bladder before entering his pen. He's adamant about this and will abruptly "put on the brakes" right in front of the pen gate to urinate.

Exercise:

One of the biggest difficulties we had with Pan when he was young was coping with his energy level. Our past 2 winters were tough and not at all conducive to building a suitable outdoor enclosure. The snow was too deep and the weather too cold to walk for any distance. Again I relied on Sharon and her daycare service.

Pan's photo album









While not every daycare operator is intellectually and experientially sophisticated enough to help raise a Singer, Sharon and her husband John were just what Pan needed. We often laugh and reflect that "it took a village to raise a Singer". After an exhaustive interview, on both parties' parts, Pan was enrolled in daycare at nine weeks of age. During weekdays, I dropped him off in the morning and John picked him up in the evening. Pan was walked on leash several times per day and allowed 30 minutes to four hours of play time in a fenced exercise yard with one or two dogs who would attempt to set limits on Pan's behavior if he became too rough. During his first year, extensive daily aerobic exercise was essential in order for us to live in peace at home. If he had a good day at daycare, Pan would come home active, but relaxed enough to have manners and focus on training and visiting with us. If he didn't receive enough exercise, which was rare, it was "Katie bar the doors." Games of hide and seek, chew toys and clicker training got us through the rough days. Focusing his energy on productive and acceptable activities was a full time job for the first year. The constant effort that first year, though, has paid off. He is now quite mellow and wellmannered in the home and really doesn't require much supervision or constant structured attention.

Socialization:

During his time at daycare, Sharon exposed Pan to a far wider variety of people that I have access to and turned him out with the few dogs that she had boarding with her that she felt could "tolerate" his strong play behavior. In some respects I regret turning over his interdog socialization training to someone else, but given my lifestyle he would not have been exposed to any appropriate dogs so daycare was my best socialization option. Pan had the opportunity to play daily with a few dogs, including an adult female German Shepherd, Sharon's adult female Australian Shepherd and a juvenile male Schnauzer. Pan also played appropriately with a Bull Dog pup and a young Soft Coated Wheaton, both females, at another daycare facility where he stayed on occasion. He was deemed too rough to play with any of the other dogs once he was approximately seven months of age. In retrospect, while these dogs all enforced a "give and take" play style", they tolerated his rough play

well so Pan never learned to "turn down the volume". Hence as an adult, his "go for the neck, go for the haunch, mount and take no prisoners" approach to play is pretty much rejected by most adult dogs he encounters, especially adult males. No surprise there! Still his early exposure to other dogs in daycare, puppy socialization and agility classes has given him the manners to behave on leash in the presence of other dogs even if he can't play off leash with them. Now, at one year eight months of age, he becomes quickly aroused in the presence of male dogs in particular and at the slightest hint the other dog doesn't respect Pan's superior position, the hackles go up and Pan gets ready to launch. He seems to be more "show" than serious about fighting. I just accept him for who he has become and quietly remove him from the situation before it escalates and preferably avoid the experience altogether. He still plays rough, but fairly well with a couple female Border Collies who will tolerate his predatory play style in short doses. With females he goes into clear courting mode. With male dogs he can behave in their presence with no contact. If contact is initiated, Pan immediately takes control, with no discussion. As an example, in obedience class Pan gravitated to a one-year old intact male Doberman Pinscher. Pan and Mario seemed to gravitate towards one another in class. On two occasions we let them romp in the room together. All seemed to go well, surprisingly enough. During the third romp session, Pan grabbed Mario by the neck, threw him to the ground and proceeded to spin Mario on his back in circles. Both dogs clearly were enjoying the "game". We all agreed that if dogs can giggle, Mario and Pan were clearly laughing. Then Mario leapt up and decided it was Pan's turn to be "the mop". With a quick and appropriate

correction, Pan made it quite clear that Mario was always to be the "mop" and Pan the "mopper". Give and take with other canids is not Pan's strong suit. I suspect it's due to a combination of his innate temperament and his early experience with dogs who tolerated and in some cases encouraged his roughness.

Pan has always actively sought interaction with people. In fact, if we are at a social gathering

and no one is paying attention to him, he "acts out a bit" by head tossing and screeching. Everyone always asks if he's singing and I assure them that's not the case! What a piercing sound! This past Fourth of July Pan accompanied John and me to a family picnic attended by some 90+ people. Pan and I sat off on the sidelines for a half hour or so, so we could "survey" the situation. Pan casually gnawed on his bully stick and observed the crowd. Finally he got up and indicated that it was time that we greet the "masses". I must say, if it's not too late, John Kerry might want to reconsider his running mate. Geez, can Pan work a crowd! Initially he was a bit sensitive about people who rushed to pet his head without proper introduction, which of course as you all know includes complete investigation of the person's mouth, ears and hair. After much frustration, Pan succumbed to the "flooding" and accepted all those who walked by and absently patted him on the head. At one point, Pan was resting by my feet at a table while I was visiting with some family members. He was quietly, almost pensively, chewing on his bully stick while surveying the crowd. As soon as cousin Liz vacated her chair, Pan jumped into the seat sitting properly upright and glanced at everyone as if to say "so, what do you want to know about me". It's always all about Pan and he ensures that everyone understands that! Very comical!

Pan is particularly fond of men, gentle with geriatrics, tolerant of overly-nurturing women and curious, but a bit wary of young children, presumably due to his lack of experience with "little people". He communicates quite clearly with people so I never worry about him biting, certainly not with the intent to cause injury.



Environmental Enrichment:

When Pan was a pup, he was under CONSTANT human surveillance. John and I made sure he always had something to occupy his very active mouth so that he didn't select any of our possessions as toys. A busy pup is a good pup and a happy pup! We'd alternate chew toys, squeaky toys and long lasting food-stuffed toys. Toys were rotated so that Pan didn't tire of them. John was and still is a master at putting 3-4 "toys" together for Pan's entertainment. As an example, he wrapped the sheepskin Jan sent with Pan in the plane around a tennis ball and stuffed it into a carpeted cylinder that once was a cat toy. Now we often take a Dr. Noys stuffed toy (Velcro opening very convenient) and take several Dr. Novs "stuffing packs", also with Velcro openings and fill one with a squeaker, a couple others with treats, insert them into the stuffed toy and watch Pan go to town. He adores the sound of ripping Velcro. We also continue to ensure that he receives walks in a variety of different environments. He accompanies us to most social gatherings we attend and on some of our daily errands. Occasionally I sneak him into work with me and he rests quietly on the wicker chair that I'd had in our kitchen when he was a pup. Just feels like home to him. He's really grown up to be quite amenable to whatever I throw his way.

When we are negligent in providing Pan with sufficient entertainment, he always manages to amuse himself. Last week I was working at my computer when I heard a raucous in the living room. I leapt up to see what was the matter and found Pan and my cat TiAmo batting a brown bat back and forth between each other on the floor. Pan would nose the bat and with a swift swipe pass it to TiAmo. She would nose it in kind and with the same paw movement, send it back to Pan. Needless to say, the "soccer players" were removed, the bat was captured, and fortunately tested negative for rabies.

A far safer form of entertainment Pan has devised is playing "chute" on the couch. Like most dog lovers, John and I placed an old blanket over the couch so Pan can snuggle with us without ruining the upholstery. At one point, Pan's bully stick ended up under the blanket and he clawed and dug until he put a head-sized hole in the blanket. One night Pan was resting with John on the



couch and John
noticed that Pan had
quietly "disappeared". Suddenly
Pan emerged from
under the blanket
and through the
hole. Now when Pan
is fired up he plays
"chute" and quickly
slips under the blanket and shoots
through the hole.
Very creative!

Training:

As soon as Pan arrived at eight weeks of age, we began his training. I taught him tricks using the clicker training method, to which he responded quite well. Obedience training (sit, down, come,

wait, walk on leash) and manners (leave it, settle and enough) were instituted from the very beginning. We worked hard on bite inhibition and he understands that humans and indoor cats must be treated with a soft mouth. As mentioned previously, his training with dogs was not as successful. Pan's very mouthy so I know softening his grasp takes conscious effort on his part! Pan was, and continues to be like a "sponge" and seems to relish every opportunity to learn and work. Pan was taught to follow a command before he received any resource he needed or desired. Commands were meant to be fun so that we learned to enjoy working together. In the beginning we mixed obedience commands with tricks. After we enrolled in agility, he enjoyed performing make-shift agility commands at home. For example, he has learned to weave figure-8's between my legs, "go around left and go around right" around a kitchen chair and "jump" over my leg. The one trick Pan seems for lack of a better word, perplexed by is the bow. He readily "assumes the position" upon command, but he never looks completely comfortable in a mental sense. Clearly, it's not a physical challenge for him, but he always has this "perplexed" expression. I've never witnessed Pan performing a play bow during natural play with other dogs, so perhaps this is a foreign body posture for him.



When I first got Pan, I remember Jan's Darwin commenting that he hoped I wouldn't "take the Singer out of Pan" with too much training. While I worried about that at the time, in retrospect I'm not sure that's possible. In fact, I think the opposite might be true. A singer in captivity without "employment" would be quite under-stimulated. They are far too intelligent to thrive without mental stimulation. Since Pan is our only dog, it is up to John and me to provide him with entertainment. He seems to approve of our choice of activities. Pan's eyes are always dancing and we tease him that his tail is going to fall off one day from too much wagging! He's the most joyful creature I've ever experienced. One can't be in his presence and remain in a sour mood for long.

I started Pan in puppy socialization class when he was 10 weeks old. By the end of the 6-week course, he was too tough to be accepted into another puppy class. I might add that he was properly placed in his puppy groups (many pups are over-faced in puppy class by inexperienced trainers).

His experience was positive, but his genes won out. No more puppy classes for Pan-the-Man. By four months of age he was already too adult to give and take with the domestic "youngsters". Classes started up again in the spring. Sharon and I agreed that Pan was not mentally prepared at seven months of age to thrive in an obedience class where he had to inhibit his behaviors. Thus we agreed that Pan would go straight from puppy class to beginner agility. What a fabulous idea!

Pan learned to follow my commands and work with me doing something he loved - navigating obstacles! We've done all our training on a 20-foot web line (takes some coordination on my part!) for safety reasons as the training facilities only have 4-5 foot welded wire fencing which is inadequate to contain Pan should he decide that he'd prefer to pursue another activity. However, I must say, he respects fences and thus far has never shown any intention or even desire to escape his confines; no matter how simple it might be for him to do so. He is magnificent to watch in

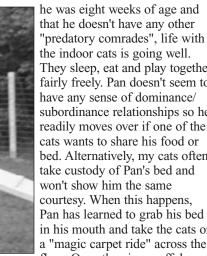
agility! A few times I think both of us have flashed back to his heritage and I can envision him navigating the wild terrain of New Guinea. I've been told by many observers that they've never seen such an exquisitely navigated "A-frame"; his speed through the tunnel and chute has amazed one and all; and his grace through the weave poles is breath-taking! Before I deceive you all and have you wondering how I've mastered such a feat with a Singer, I must confess that everyone says "IF you could get Pan to reliably follow your commands, there's no dog in the world that could hold a candle to him in agility ...world champion...like I care, since we do it for fun. The truth is, sometimes he focuses on my commands and other times he simply delights in traversing whatever obstacle is in front of him. When we're a team, it's a "death-bed moment" for me...something so beautiful I can see myself envisioning the experience with my last dying breath. In reality, many nights I endure a few belly flops and come home with grass stains just trying to race him to the end of an obstacle to grab the lead line. He keeps me young, but I'm considering taking extra calcium! This summer Pan attends agility at two different facilities (just to keep him socialized in a variety of environments). I am hoping now that he is 1 year and 8 months old that he will be more focused on commands since he's really started to settle down. I'm not so hung up on the training aspect as I am on preventing myself from injury while trying to keep up with him. Darn, these Singers are FAST!

Pan did complete Obedience One this past March. He understands and executes all the basic obedience commands beautifully, but he made it clear that walking around in a circle nose to hindquarters with a large group of rowdy domestic pups was not his cup of tea. He was completely bored albeit well-behaved, head tossing aside. When it came time for graduation exercises, Pan sat on the sidelines head tossing and screeching while the other dogs performed

their tests. When it came time for his turn, I think people in the class wondered if he could settle down enough to perform. Pan was completely on task when he was performing AND the center of attention. It's always all about Pan.

Singers and "Prey":

One of my primary concerns was a Singer's amazing capacity and "drive" for predatory behavior since I have a number of cats. Given that my indoor cats were able to train Pan from the time



the indoor cats is going well. They sleep, eat and play together fairly freely. Pan doesn't seem to have any sense of dominance/ subordinance relationships so he readily moves over if one of the cats wants to share his food or bed. Alternatively, my cats often take custody of Pan's bed and won't show him the same courtesy. When this happens, Pan has learned to grab his bed in his mouth and take the cats on a "magic carpet ride" across the floor. Once they jump off, he

rests on his bed often with a "harrumph", but if they still want to share the space, he will gladly move over and make room. What a guy!



The barn cats at home and at daycare are subject to Pan's mood. Some days, he seems to recognize them as "outdoor family" to be respected and other days he seems to consider them prey. Last summer I was walking Pan past our asparagus patch. Pan was heeling jauntily by my side when.. swoosh...like a hawk he leapt into the patch and came out with one of my barn cats in his mouth. I issued a stern LEAVE IT and he released Serafina. She was unharmed and I felt lucky. Needless to say, we now give the garden or any other area where animals could be hiding a wide berth.

Life with Pan is not at all what I expected. I never anticipated such behavioral plasticity. I assumed that he would impose some limitations on our lifestyle as our coydogs did. In fact the opposite is true. Because Pan is so amenable to socialization, he's forced me to be more social! Nor did I expect him to be such a partner and companion. If you'll indulge me in one last story about Pan, I believe this sums up our special bond. I took a week off from work this May to indulge myself in one of my favorite pastimes, working in the gardens. I ordered five yards of cow manure (which unbeknownst to me was a LOT of recycled hay) to refurbish the soil. When working outdoors, I tend to become so engrossed that I often forget to consume sufficient food and liquids. Anyway, after a day of shoveling and wheel-barrowing manure throughout the yard I woke up at 2:00 AM feeling feverish and chilled. When I stood up, I collapsed and couldn't stand. I called to John who had fallen asleep on the couch downstairs, but he didn't hear me. Pan was at my side instantly and repeatedly nosed my mouth and nuzzled my face. I crawled down the stairs thinking I was having a stroke and trying to get John's attention. Pan went to John and pawed at him until he awakened.

To make a long story short, I clearly was dehydrated and suffering from acute low blood sugar from not eating. I revived instantly with food and beverage. My bond with Pan was forever changed that morning. I was quite stunned that he so cognizant of my needs and came to my rescue. However, having spoken with three other Singer owners who have had similar experiences, I am no longer surprised, but nonetheless I remain grateful for and moved by Pan's dedication to me.

Given my experience with Pan and the knowledge I've gained from speaking with other Singer owners, it seems that with sensible management, Singers can adapt to a wide variety of environments and lifestyles. To describe the emotional bonding that is possible with these special creatures is beyond words. Though I've always been more logical than spiritual, in the end Pan may show me another way of viewing the world. He is a true gift to John and me and enriches our lives daily.

Alice Moon-Fanelli

About the author

Alice Moon-Fanelli, PhD, is a behavior geneticist and consultant on companion animal behavior at Tufts University School of Veterinary Medicine (TUSVM). She received her MS and PhD from the University of Connecticut in etiology and canine behavior genetics and completed a postdoctoral fellowship at TUSVM researching animal models of obsessive compulsive disorder. She is currently employed as a clinical assistant professor at TUSVM and is actively involved in research, behavior consultations and teaching.

NGSDCS Funds Needed

We have opportunities to fund some rather inexpensive genetic and behavior research. We also must start saving to finance wild Singer conservation, and we still are short of necessary funds for importing the German male and transporting the female to Germany in exchange. If you are up for NGSDCS membership renewal, remember that all but \$10 of what you donate (the estimated value of the Forum) is tax deductible. Please give what you can: maybe for awhile you could support the Singer cause rather than the usual charities you give to. Most large charities will not be affected if a few people direct their funds elsewhere, but even a little more to the NGSDCS can make a big difference. If all members did that for one to two years, we would probably have enough to make real progress on defining the Singer's uniqueness, and thus toward their conservation as a true wild species.

Another way to assist fundraising is to check with your employer to see if they have a matching funds program for employee charitable (non-profit) donations. The NGSDCS was very lucky that Patricia Lee and Tom Barnhardt checked, and Tom's employer has a program that provides three times the employee donation to recognized non-profits.

Donations can be directed to a specific NGSDCS project or function as follows, and your donation will be designated only for that use: research, rescue, general fund.

Remember, the NGSDCS also accepts donations of goods and/or services. Their value is determined by the donator and is tax deductible. We need a laptop to send to Papua so our member there, Mike Wilangue, can have internet access at home, and the ability to show Singer PowerPoint and video clips to educate people about the wild Singers. If you have a used laptop, or someone you know has one, that they no longer use, please consider donating it to the NGSDCS.

We also need the donation of time from a volunteer who can renovate our Canine World web site. It has been there for about 7 years and needs upgrading. This is the first window most people find to the Singers, and it needs to catch their imagination and provide up-to-date information. Please, if you have the skill, help us out for a few hours.



Thank you for your support

In Memory



Keeta

On March 13 she danced into my being and put a string of lights around my spirit. Every waking moment she educated me in her ways of being in this world. Keeta captivated the 'two legs' she met everywhere she went; college classes, faculty meetings, farmer's markets, seminars, retail stores, to name a few. She never met a dog she couldn't charm. On June 23 she ascended to her spirit spot in the heavens, the star Keeta @ Ursa Minor RA 14h37mls D 78degrees 52' given to her by friends.

Mary Lee Nitschke

Keeta was owned by Mary Lee Nitschke, PhD
Professor of psychology at Linfield College, Portland, Oregon
Member of the Association of Pet Dog Trainers and owns Animal School Pet Behavior
Services in Portland, Oregon, which does specialty evaluations and training of service dogs
for people with challenges or disabilities.

In a letter from Sally Wojahn, dated Thursday, July 01, 2004

I had the honor of having MaryLee and her New Guinea Singing Dog, Keeta, in my Puppy and Beginning classes this past 3 months. These were special classes for me since they had 3 Basenjis as well and the group stayed together for the two classes. Keeta was a very special little being who made her way into the hearts of all of us in those classes. We could tell right away that Keeta was 'different' with her cat-like movements, her 'little old soul' watchfulness as her eyes intently followed the basenjis. She didn't seem to be interested in the 'honorary basenji', airedale Tag. Keeta missed graduation last Saturday and I sadly told her classmates why. I know that none of us will ever forget Keeta. I thought you might want to meet Keeta so I have attached a photo from class.

Sallv



Buna

Buna was the mother/ grandmother/great grandmother to many Singers; she had four litters with her lifemate Kai. She LOVED puppies. She attended a science conference in Canada with me five years ago, and hated every minute except the times she got to "hunt" on the flexi-lead.

She was the first (of two so far) Singers to serve as a certified visiting therapy dog. Her picture promoted the Singers in dog magazines in USA, Sweden, Germany, France, Italy, Australia. Her DNA is in several university labs

The pain of emptiness is great, but I am filled with gratitude that I had the privilege of her friendship. She taught me a great deal and was always patient with me.

Janice Koler-Matznick



Roux

Roux and I had a truly cosmic connection and I can't think of him without crying a bit. The last shot of the Singer in the National Geographic film looks exactly like Roux. I miss him.

He will always be the gold standard of what a good dog a Singer can be."

Moe Kunkle and Family

Auction Singers

The state of Ohio has no exotic animal regulations. That is the reason they have huge Ohio auctions of exotic animals there. Member and Singer owner Tami Gingrich, attended a large exotic animal auction in Ohio, to see if any Singers would be offered for sale. If they were, her intention was to try to educate the potential buyers about the Singer's special security needs and personalities, and tell them about the NGSDCS.

Unfortunately, there were two pairs offered at the auction, as dingoes. Tami told us that the pair on the right were thin and obviously aged, and did not even acknowledge people were near. The younger pair on the left were very outgoing and solicited attention. Tami spent a couple of hours near the cages, trying to stay calm and unemotional while she explained to interested persons that these were Singers, not dingoes (well, at least not Australian dingo).

The consignor never showed up. So, Tami asked the auctioneer who had brought the Singers in. She was shown a list where the Singers were listed (as dingoes) along with scores of other types of animals, so the consignee was probably a wholesaler who took exotic animals on consignment from many owners. By this time, Tami was struggling to not give in to her sadness at seeing these poor Singers just waiting for the next blow of their lives, and so she did not stay to see them actually auctioned off. So, although we do not know for sure whom the owner/breeder was, we suspect it was probably the following person:

Jeff Burton, Backyard Safari 23397 Gutman Rd. Wapakoneta , OH 45895

See the web site:

http://www.cwapc.org/pr/pr_investigate_breeder_20031013.html

His facilities and record keeping and illicit dealing in tiger cubs, etc., has been under investigation by the federal authorities. He knows about the NGSDCS and still insists on calling his Singers dingoes.



He refuses to tell even those who bought his Singers, where he got the original breeding stock, so we have no way to trace them back to pedigreed stock.

Please, if you hear of an exotic animal auction, please write a letter of protest. Singers as young as 4 weeks have been sold at auction! No exotic animals should be sold at auctions. This only promotes over-breeding and mostly ends in the animals having miserable - and often short - lives. Those who choose to breed exotics should be forced to limit their animal's reproduction to those for whom they have homes waiting, or those they would be willing/able to keep: in other words, those they can take direct responsibility for. That is what our members do for the Singers.

NGSD Discussion List

Just a quick reminder to members and new members that an e-mail NGSD discussion list exits for those who would like to discuss the world of Singers with other owners out there.

To subscribe to the NGSD Discussion Group go to the list website at:

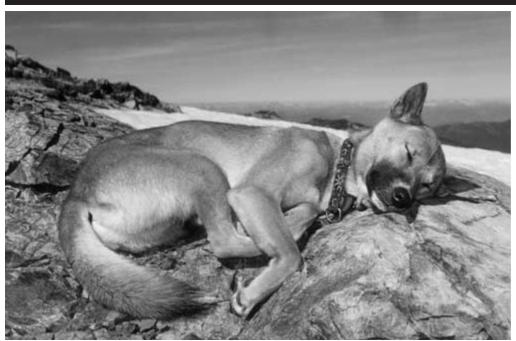
http://groups.yahoo.com/group/ngsd















Conservation through education

New Guinea Singing Dog Conservation Society

5265 Old Stage Road Central Point, Oregon 97502 USA