

Supporting Online Material for

Genetic Restoration of the Florida Panther

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Supplemental Materials and Methods

Field data and analyses

Field-research methodology, which has been ongoing starting in 1981, is described in numerous publications (*SI-4*). Briefly, adult and juvenile Florida panthers were captured using trained hounds and houndsmen (supplied by Livestock Protection Company, Alpine, Texas), chemically immobilized, and fitted with radio-collars. Vital signs (temperature, heart rate, respiration rate, and capillary refill time) and depth of anesthesia were monitored and recorded and all animals were given a physical examination to assess general health and physical condition. Pumas >4 months old were vaccinated subcutaneously against feline viral rhinotracheitis, feline calicivirus, feline panleukopenia virus (Fel-O-Vax PCT [FDAH]), and rabies (Rabvac™ 3 [FDAH])(initiated in 1985). Beginning June 2003, captive and free-ranging pumas also were vaccinated against FeLV (Fel-O-Vax Lv-K [FDAH] or Fevaxyn FeLV, Schering-Plough Animal Health Corporation, Omaha, Nebraska, USA, and rabies (Rabvac™ 3 [FDAH]). Captured panthers were dewormed with ivermectin (0.1 mg/kg, Ivomec®, Merial Limited, Iselin, New Jersey) and praziquantel (3.75 mg/kg, CestaJect™, Phoenix Pharmaceutical, Inc., St. Joseph, Missouri) and treated with Penicillin G procaine/benzathine (USVet®, Hanford Pharmaceuticals, Syracuse, New York). Panthers were implanted with a subcutaneous transponder identification chip (Trovan®, Douglas, United Kingdom), ear-tattooed, measured, and weighed. Neonatal kittens <6 weeks-of age were handled according to (*SI*) and marked with a subcutaneous (SQ) transponder identification chip.

All recovered Florida panther carcasses were necropsied by board-certified pathologists at the University of Florida Veterinary Medical Teaching Hospital (VMTH, Gainesville, Florida), Disney's Animal Kingdom (Celebration, Florida) or by the FWC Panther Section veterinarian at the Wildlife Research Laboratory (WRL; Gainesville, Florida).

Instrumented animals were monitored approximately every other day (Monday, Wednesday, Friday) from fixed-wing aircraft. Locations were plotted on 7.5-minute USGS topographic maps and recorded as Universal Transverse Mercator coordinates. Mating and denning behavior, aggressive

encounters among panthers, movements and home range shifts, dispersal, survival, recruitment, displacements and replacements of individuals, and other social and ecological interactions were interpreted from radiotelemetry data and field investigations. The study included field observations, radio-telemetry monitoring (>86,000 relocations from 164 individuals representing >3,000 panther-years collected by National Park Service and FWC personnel), and biomedical assessments (404 physical and blood chemistry exams of 173 individuals and >200 necropsies).

Yearly population size estimates are from estimated ages at capture or recovery of carcasses, capture and marking of kittens of known age, and monitoring of radio-collared panthers. Estimated ages of adult panthers were backdated and added to population estimates for previous years.

Genetic data and analyses

Blood and tissue samples were collected from wild-caught and captive panthers from southern Florida since 1978, including pumas from captive populations in Florida and representative pumas from the western United States, including the released Texas females. Total genomic DNA was extracted from blood or tissue samples using one of three standard extraction techniques: phenol-chloroform (S5), salt precipitation (S6), or commercial extraction kits (Qiagen, Valencia, CA).

Twenty-three short-tandem-repeat (STR) loci (F37, F42, FCA43, FCA57, FCA75, FCA90, FCA91, FCA94, FCA95, FCA98, FCA124, FCA133, FCA161, FCA193, FCA 243, FCA249, FCA293, FCA310, FCA369, FCA441, F559, FCA566, FCA668) were selected based on their information content [number of alleles, heterozygosity, and their consistency to amplify in canonical Florida panthers (CFP)] and ease and consistency of scoring from over 250 STRs developed in the domestic cat (*Felis catus*) genome mapping project. STRs were amplified and scored following previously described PCR amplification conditions (S7-8) and were generally repeated 2-5 times for each animal to ensure accuracy and repeatability.

Common measures of STR genetic variation, average observed heterozygosity (H_o), average number of alleles per locus, average allele size range per locus, number of unique alleles, and average

variance were estimated with MICROSAT (S9). Heterozygosity values are relative and highly inflated overall since the 23 STR loci were selected from a larger group of 280 loci based on minimum allele frequency of >0.1 . Pairwise genetic distances among individual were estimated based on the proportion of shared alleles (Dps) with [1-ps/kf] option in MICROSAT (S9) and were used to construct neighbor-joining phylogenetic trees with the program NEIGHBOR in the PHYLIP 3.5 package (S10).

A Bayesian procedure, implemented in the program STRUCTURE (S11), was used to identify populations or genetic clusters and to estimate the genetic heritage of individuals (fig. S1, table S2). The Bayesian STRUCTURE approach evaluates conformance of STR loci to Hardy Weinberg and linkage equilibrium in homogenous populations and uses departure as an indication of population substructure. In addition to assigning individuals to various lineages based upon composite STR genotypes, the analysis also estimates the proportion of genetic contribution from each group for individuals of mixed origin.

Animals were assigned to groups of different genetic heritage based on the assignment results from STRUCTURE and from the results of the pedigree analyses that were made using the program CERVUS (version 3.0) (S12). CFP had no direct non-CFP relatives or $<5\%$ non-CFP genetic contribution from the STRUCTURE analyses.

Animals were assigned to different chronological groups based on the year they were born, using the midpoint of estimated birth dates when exact birth dates were not know, and in some analyses based on if they were alive during a certain time period.

Probable parents were determined using the program CERVUS (version 3.0) (S12) by first testing all individuals as possible parents using the “neither-parent known” option, followed by the “one-parent known” option, and then using field data (known birth and death dates, sex, geographic location, behavioral observations, i.e. denning behavior, etc.) to eliminate individuals. Only parents exhibiting zero “mismatches” with offspring were considered.

An individual exclusion probability, or the average probability of excluding a single unrelated candidate parent from parentage of a given offspring at one or more loci, assuming no typing errors occur was calculated for each offspring in CERVUS (*S12*). If one parent was known, or hypothesized, the exclusion probability was calculated taking into account alleles that were unambiguously descended from the known parent. Using a likelihood approach, a LOD (log-likelihood) score was calculated for every assigned parent or pair of parents in CERVUS based on the genotypes of the candidate parent, offspring and other parent (if known).

Relying primarily on our genetic inferences of parents, but also assisted with information from field observations, an interconnected pedigree was constructed (fig. S3-S4). In a few cases when there was no genetic data available, we included suppositions based on field observations. For example, kittens (< 6-months-old) of the same litter based on field observations (and which were not sampled or genotyped) were assumed to have the same parents as their littermates. Individuals that could not be linked in pedigree either did not have a matching candidate parent or offspring in the data set or had multiple options, among which we could not confidently establish paternity or maternity.

Unless otherwise specified, individuals were grouped into age-classes by calendar years (e.g. in survival estimates). Therefore, for most summaries, each animal has a "kitten year", a "juvenile yr", and "adult years", regardless of when they were born or when they died during that year.

The Seminole Indians maintained a group of western North American pumas in an enclosure on their Reservation (SEM on Fig. 1a) adjacent to the northern boundary of the Big Cypress National Preserve (BCNP, Fig. 1a). From 1997-1999 up to eight individuals periodically escaped and although they were subsequently recaptured, our genetic analyses comparing free-ranging panthers and captive SEM showed that the escaped SEM produced several free-living descendants (Fig. 1A-B, Fig. 2, tables S1-S2 (*S13*)).

An abridged pedigree of the population highlighting CFP lineages is displayed in fig. S3 and TX lineages in fig. S4a-d. Excluding founders, 97 of 108 CFP were assigned at least one parent. At least 14 CFP contributed to the AdmFP population with representation from two of the original

matrilines (FP03 and UCFP15) and one patriline (FP04) (fig. S3, table S2). Many first-order inbreeding loops were observed (red-lines in fig. S3), perpetuated primarily by sires breeding daughters (n=17) or mating between siblings (n=6). Among CFP there was one mother-son and 25 aunt-nephew/ uncle-niece/or first- and second-cousin matings. This inbreeding pattern has continued among the TX offspring, as exemplified by FP79 (fig. S3, S4).

Physiological Correlates

Male testicular development, the presence of cowlicks in the hair pattern on the mid-dorsal thoracic line, and the presence of a kinked tail consisting of an abnormal bend caused by a deformity in one or more terminal tail vertebrae were evaluated during field capture, autopsies, and biomedical physical examinations in captivity. CFP had significantly higher incidence of cowlicks (81% vs 6-38%; $p<0.05$), tail kinks (90% vs 0-40%; $p<0.05$), and cryptorchidism (66% vs 6-17%; $p<0.05$) compared with other panther groups (Table 1).

Prior to 1995, heart murmurs were commonly detected in CFP and eight CFP with congenital atrial septal defects (ASD) (resulting in holes between cardiac atria) were documented at necropsy from 1991-1995 (born 1981-91). Since 1995, nine additional ASD cases have been documented, three in CFP and six in AdmFP (all born since 2001) (table S2-3). Nine of the eleven CFP with an ASD have known sires, and all of these descend from 3 males in FP07's patriline (FP07, FP12 and FP45 in fig. S3). The one AdmFP (FP129) of known parents that exhibited an ASD was the offspring of a father/daughter mating (table S2, fig. S4d). The prevalence of atrial septal defects between CFP and other heritage groups was not significantly different (17% vs 7-14%), but has declined in the population from 21% (in panthers born prior to 1995) to 7.5% (for panthers born 1995-2007) (table S3a-d).

On average, over 70% of CFP had one or more of these four aberrant characters, while 80% of AdmFP exhibited none of these characteristics (table S3b,d). The 1995 TX introduction clearly reduced the incidence of these characters (Table 1, table S3a). For example, 63% of all males (76% of

CFP males) born from 1990-1995 were cryptorchid, including three completely sterile males with no descended testicles (table S2), while 88% of males born 2005-2007, largely AdmFP, had two descended testicles (table S3a).

Sperm was collected from adult males when possible during physical exams, either in the field or in captivity. For sperm collection, each male was induced into a surgical plane of anesthesia following standard protocols (S2, S4). Semen was collected by an electro-ejaculation technique (S14) that relied on a 2.6 cm diameter rectal probe with three longitudinal, stainless-steel electrodes (12.0 x 0.5 cm) and a 60 Hz, sine wave stimulator (P. T. Electronics, Boring, Oregon) which was used to elicit ejaculation following a standardized set of low voltage stimulations (2 to 6 V) over three series of 30 stimuli each. Freshly obtained semen was evaluated for ejaculate volume and sperm concentration via a standard haemocytometer method (S14-S15). Where possible, subjective estimates of sperm motility and forward progression (i.e., the type of forward movement of sperm from rapid, straight direction to quivering, no progression on a scale of 0 to 5; 5 being best) were determined at 400X using a microscope (S14-15). For post-mortem gamete rescue, sperm from minced epididymal tissue collected at necropsy was washed in Ham's F10 medium and similarly analyzed.

An estimate of the frequency of abnormal sperm morphology was determined from fixed aliquots of raw semen as previously described (S15). A 10 ul aliquot of the fresh electroejaculate was added to 100 ul of fixative (0.3% glutaraldehyde in saline) for morphologic examination of spermatozoa by phase-contrast microscopy (1,000X power) (S14-15). Sperm were categorized as normal or as abnormal, with anomalies including macrocephaly, microcephaly, bicephaly, abnormal head shape, abnormal acrosome, coiled flagellum, bent midpiece with cytoplasmic droplet, bent midpiece without cytoplasmic droplet, bent flagellum with cytoplasmic droplet, bent flagellum without cytoplasmic droplet, proximal cytoplasmic droplet, and distal cytoplasmic droplet (S14-15). We are reporting only the most-serious abnormalities (% normal and % head abnormalities).

The CFP testicular volume was significantly smaller than any of the other groups ($p < 0.05$ for both living and dead males). The inter-mating between a CFP male and a TX female resulted in F1

males (n=2) with testicular volumes significantly larger than the other groups of males (p=0.001, table S5). In other admixed matings (either TX-BC, CFP-BC, or EVG-BC) testicular volume and percent normal sperm declined to values similar to TX males while the percentage of acrosomal defects reverted to former CFP and EVG levels (Table S5-S6).

Florida panthers, both CFP and EVG, produced an extraordinarily low proportion of structurally normal spermatozoa (~5-10%) and a high percentage (>35%) of sperm with a serious deformity in the acrosomal membrane, a structure critical to fertilization. It is noteworthy that wild TX pumas also ejaculate a comparatively high proportion of pleiomorphic spermatozoa (Table 1). However, TX pumas produce considerably fewer sperm with the unusual and serious acrosomal defect than the Florida panther males (13.8% vs 38.9%, table S5-6). CFPxTX-F1 males had fewer acrosomal defects than the TX males and significantly less than all of the other Admixed males (31% vs. 52%, p<0.002, table S5-6). Also, percent normal sperm and testicular volume were significantly higher (p=0.07 and p<0.001 respectively) in the F1s than in all other admixed males (table S5). On balance, despite the high percentage of acrosomal defects and other defective sperm seen in all but the F1 males, there has been a net improvement in male reproductive traits over the CFP and EVG; there are now fewer cryptorchid males with more functional (and larger) testicles per male, all of which should result in better sperm production and improved fertility.

Modeling Panther Jumps between Texas Descendants and Canonical Panthers

We modeled the effect of ancestry (admixed or canonical Florida panthers [AdmFP and CFP, respectively]), sex, and age (as well as their interactions) on the number of times panthers jumped when treed using the SAS GLIMMIX procedure (v9.2) and a Generalized Linear Mixed Model, incorporating the potential explanatory variables and the random variable for each individual panther, and assuming a Poisson distribution for the number of times jumped. The best fit model based on Akaike's information corrected criterion (AICC), as well as the fixed effects, were used to select the best-fitting model based on the potential explanatory variables.

We chose the model that incorporated only ancestry. These models had a lower AICC score and did not have significant effects of either sex or age, or their respective interaction (AICC for Ancestry = 365.88; Ancestry, Sex, Ancestry*Sex = 366.62; Ancestry, Age, Ancestry*Age = 369.12). There was a significant effect of ancestry ($F_{1, 81} = 4.33$, $P = 0.041$), with AFP jumping an average of 0.60 ± 0.10 (N = 115 captures of 64 different panthers) times while CFP jumped 0.34 ± 0.09 (N = 61 captures of 31 different panthers) times. There were also significant panther-specific or individual effects, as seen in the significant random effect (Chi square = 8.31, $p < 0.002$). We note that there has been a non-significant trend towards less jumping in AdmFP panthers born between 2001-2008 in comparison to the cohort of AdmFP born between 1995-2000 (0.45 ± 0.11 vs 0.77 ± 0.15 ; $F_{1, 51} = 3.51$, $P = 0.067$), perhaps as more back-cross panthers with CFP heritage were chased.

Kitten Survival

We estimated kitten survival using the live capture, dead recovery, den failure, and radio-tracking data collected during June 1995 to May 2008 and Burnham's live-recapture dead-recovery modeling framework (*S16*, *S17*). Burnham's model has four parameters: survival probability (S), recapture probability (p), recovery probability (r), and fidelity (F). We fixed F to 1 for all panthers, because the recapture and recovery areas were the same and encompass the entire range of the Florida panther; we also fixed p and r to 1 for radio-collared panthers because we accurately knew fates of radio-collared panthers. Sub-adult and adult panthers were also included in these analyses to more effectively estimate parameters relevant to kitten survival (*S18*).

We present results from a model with additive effects of ancestry (with two ancestry categories: 1) CFP and CFP-BC and 2) EVG-BC, TX-BC, and F1) on kitten survival and an additive effect of ancestry (with two ancestry categories: F1 and all other panthers) on sub-adult and adult survival. Based on Akaike's information criterion adjusted for quasi-likelihood and small sample size (QAICc) ranking, this model was best supported by data (*S18*). We compared this model to one without the effect of ancestry on kitten survival using a likelihood ratio test (*S17*).

Sub-Adult and Adult Survival

We estimated annual survival and examined the effects of covariates using a Cox proportional hazard regression (*S19-S20*) analysis of radio-tracking data. Florida panthers that lost their collars or experienced collar failure were right-censored. We investigated potential effects of genetic ancestry and genetic diversity on survival rates. Given that the first offspring produced by a Texas female were born in 1995 and were not adults until 1997, these analyses were based on a subset of data collected from 1997 until December 31, 2006. Only 2 admixed panthers (born during 1995 and 1996) reached 10 years of age by the end of 2006, and both for periods of <1 year; thus, we excluded older-adult panthers from these analyses. We present results from a model that included interactive effects of sex and age class (sub-adult through adult), and an additive effect of ancestry (2 ancestry categories; F1 and all other panthers). Based on Akaike's information criterion (AIC) ranking, this model was best supported by data (*S21*). We compared this model to an equivalent model without ancestry using a likelihood ratio test.

Sub-Adult and Adult Cause-Specific Mortality Analysis

We attributed mortality of radio-collared panthers to 1 of 4 causes: 1) hit by vehicle, 2) intraspecific aggression, 3) other (included known causes of death such as disease, heart failure, and infections unrelated to intraspecific aggression), and 4) unknown (mortalities for which evidence from field and necropsy examinations was insufficient to assign cause of death). We tested for effects of ancestry and average heterozygosity on cause-specific mortality rates, using the radio-tracking and necropsy data of all sub-adult and adult panthers that could be assigned an ancestry category from 1997-2006. We ran a Cox proportional-hazard regression for each covariate, stratified by the cause of death (*S22*). Risk ratios are presented for covariates that significantly affected cause-specific mortality. For ancestry, we compared cause-specific mortality of all admixed panthers to that of CFP. Risk ratios

for heterozygosity were scaled as the proportional increases in instantaneous hazard from a cause with an increase of 0.1 in the heterozygosity (e.g., 0.2 to 0.3).

We projected female panther survivorship (probability of survival) by ancestry category using estimated survival rates for kittens, sub-adult and adult females by ancestry categories. Survivorship was estimated as the product of annual survival rates. Since we assumed that female panthers become adults at age 2.5, the geometric mean of sub-adult and adult survival was used as the survival rate for ages 2-3. Standard errors were estimated using the delta method with the simplifying assumption that kitten, sub-adult, and adult survivals were independent (S17).

Effective Population Size

The effective population size (N_e) was estimated from demographic data as $N_e = 4N_{ef}N_{em}/(N_{ef}+N_{em})$ based on the number of female (N_{ef}) and male (N_{em}) breeders (had bred during or prior to that year) during 1995, 1998, 2001, 2004, and 2007 (S23) (roughly 4 generations).

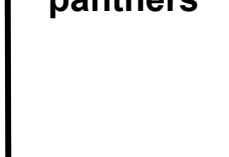
Supplemental Figures

Figure S1. Genetic heritage of Florida panthers (> 1.5 yr-old) alive in 1995, 1998, 2001, 2004 and 2007 using STR-based Bayesian STRUCTURE analyses (see table S2). The number of genotyped panthers relative to the known number alive is noted at the left for each year. For each year, vertical bars represent unique individuals; Florida panthers to the left of the solid black line are canonical Florida panthers (CFP) or Everglades Florida panthers (EVG) born prior to 1995 and those to the right are genetically admixed Florida panthers (AdmFP). Each bar is colored/shaded in up to nine categories identified by Bayesian STRUCTURE analysis (*S11*). These include groups consisting predominantly of CFP (groups 1-3 in colored boxes), EVG and their descendents (group 4), and five groups of admixed origin, including 2 groups (groups 5-6) with a genetic signal representing predominantly back-crossed CFP (CFP-BC) heritage, one admixed category of approximately 50% TX ancestry (group 7), one reflecting the genetic heritage from the Seminole (SEM) Florida panthers (group 8) (*S13*), and a predominately TX-BC group (group 9). The mean genetic heritage across individuals for each year is depicted in the pie charts, highlighting the numerical percentage representing predominantly CFP genetic heritage. The black diamonds (2007 row) mark the two CFPs (FP113 and FP160) monitored in 2007. FP113 was still being monitored and was breeding in 2010.

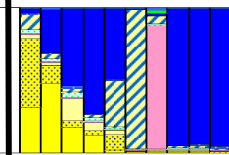
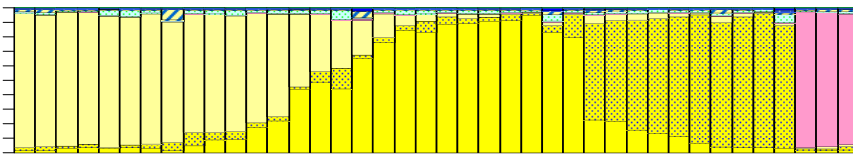
Canonical & Everglades Florida panthers

Admixed panthers

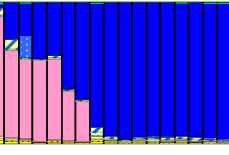
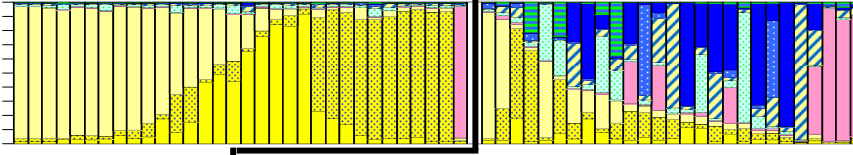
1995
(n=26/26)
(typed/alive)



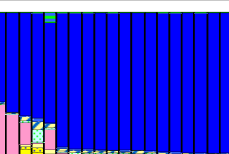
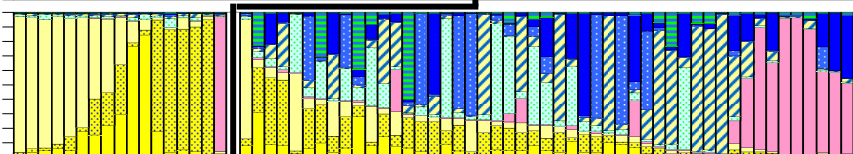
1998
(n=50/50)



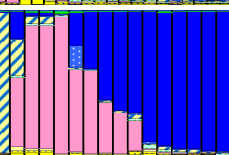
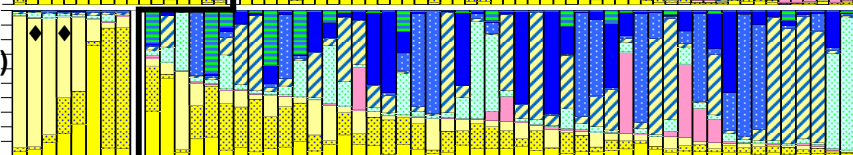
2001
(n=75/77)



2004
(n=85/95)



2007
(n=72/102)



Structure groups (k=9)



Percent of panthers who are $\geq 50\%$ CFP (right of thick bar)

Figure S2. Minimum annual panther population size based on inferred genetic heritage from 1986-2007 of both adults (as in Fig. 3a) and kittens. Genetic heritage of post-dispersal (1- 1.5-year-old) and adult (>1.5-year-old) CFP in yellow, EVG in pink, TX in red, CFPxTX-F1 and EVGxTX-F1 in dark orange, and TX-BC in blue and other admixed panthers (AdmFP) in light orange as determined by pedigree data and Bayesian genetic analyses (fig. S1) of STR allele distributions. Individuals that were not genetically characterized are UNK (in green). Kittens (with striated colors) are split into CFP (yellow), EVG (pink), and admixed (in blue), with undetermined shown in green. Yearly numbers are based on estimated ages at capture or recovery of carcasses (e.g., roadway mortality) and on the capture and marking of kittens of known age, and the monitoring of radio-collared panthers. The estimated ages of panthers examined as adults were backdated and were added to population estimates for previous years.

Adult and kitten Florida Panthers of varying heritage: 1986 - 2007

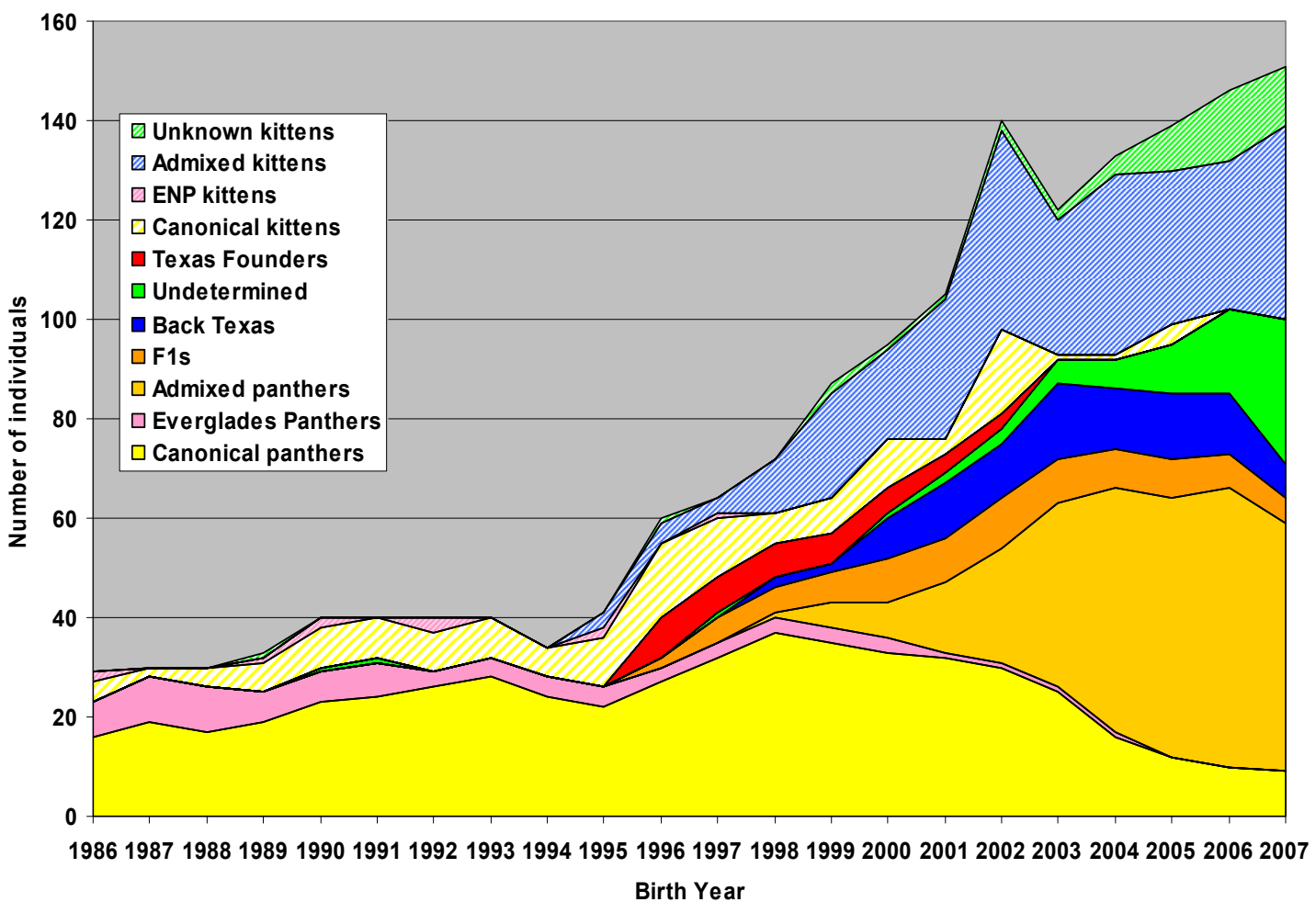


Figure S3. Pedigree of Florida panther population spanning eight generations (>30 years) including principal canonical Florida panthers (CFP; in yellow), introduced Texas (TX) female that successfully bred (in blue), and Everglades panthers (EVG; in pink) that contributed first-generation (F1) admixed offspring. CFP non-breeding females (n=12), neonatal kittens (n=49), and individuals unlinked to this pedigree are excluded (2 parent/offspring pairs). CFP founders (in generations 1-2) are identified by number or as unknown male (Unk CM) or female (Unk CF). The 14 CFP that mated with TX females or their adult descendents (see text) are marked with a “T” and their surviving offspring (n=80) are depicted in Fig. S4a-d. Inbred offspring (first order) are connected with their parents by red lines. One of the two CFP (FP113) that was still being monitored in 2007 is marked by a black diamond (the other is unlinked to this pedigree).

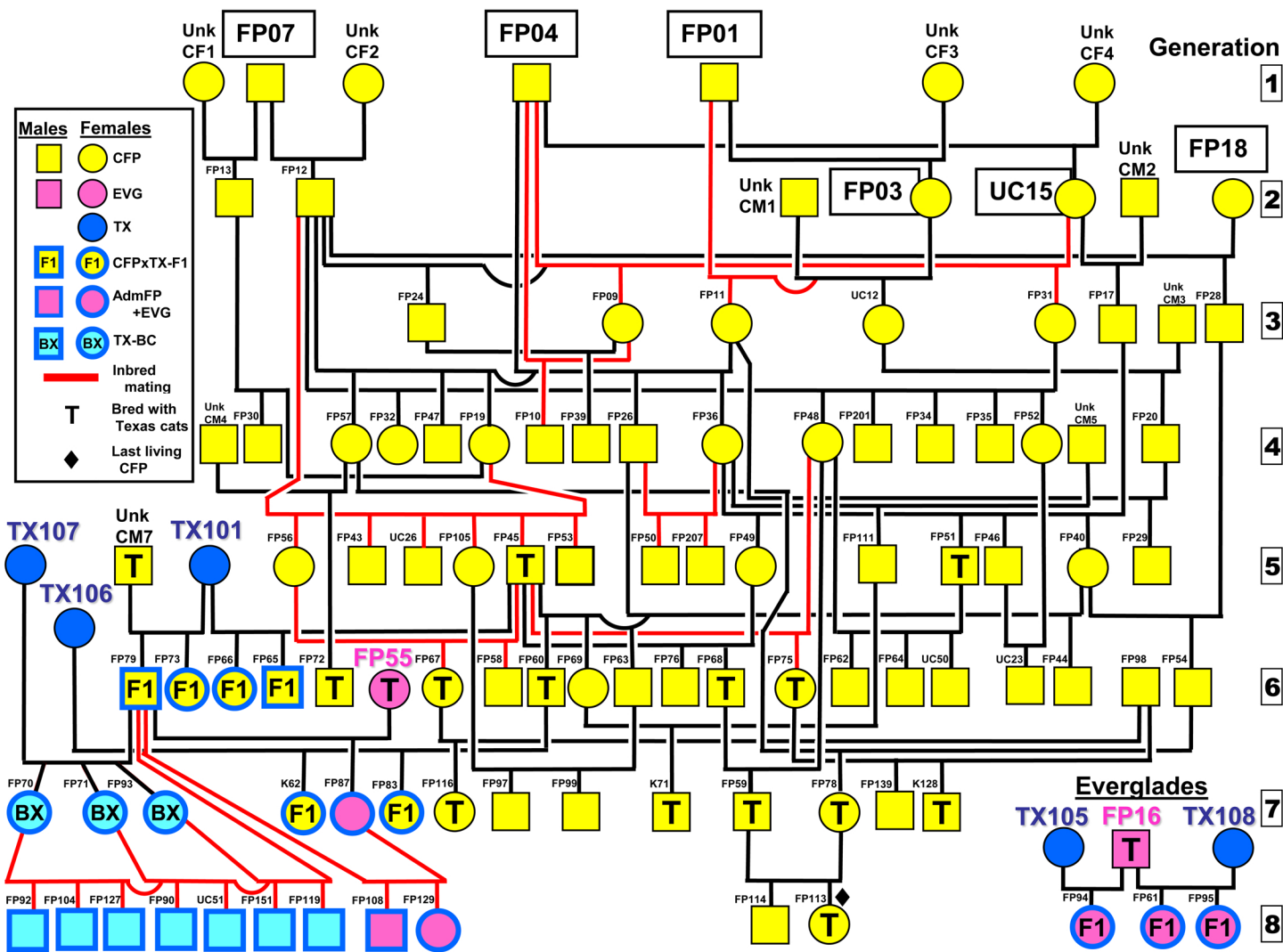
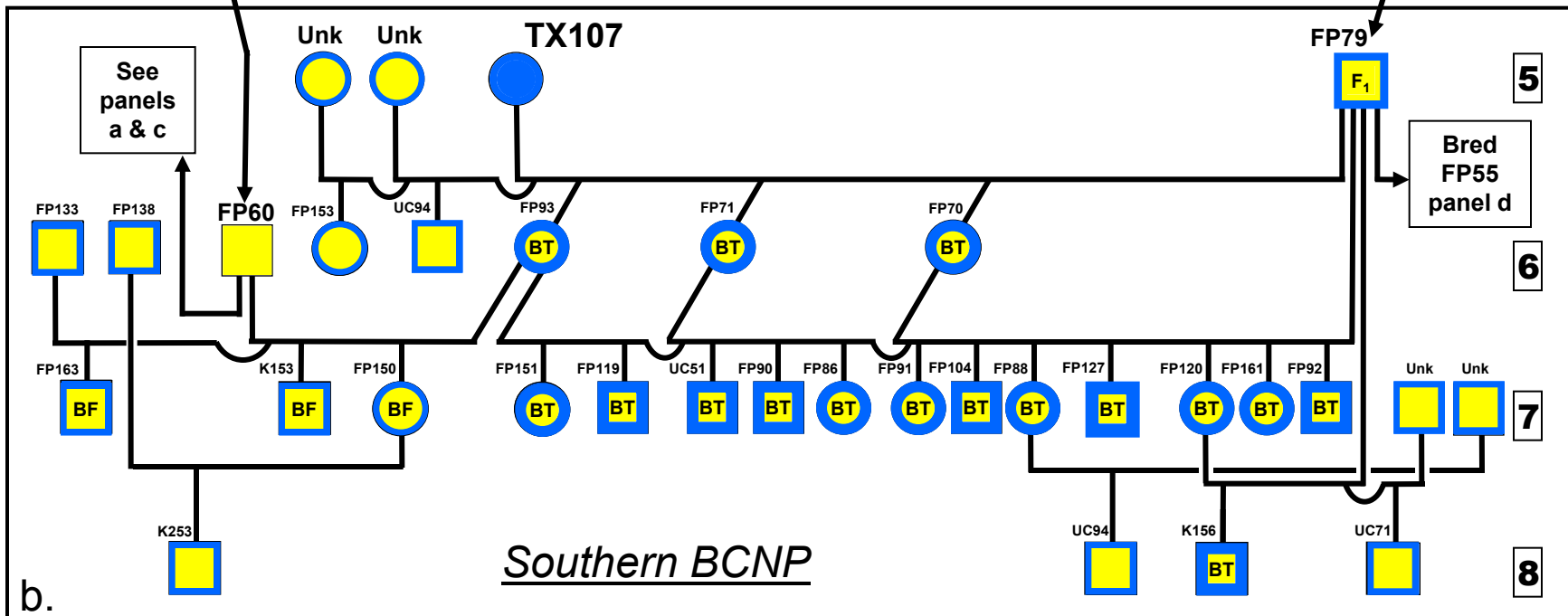
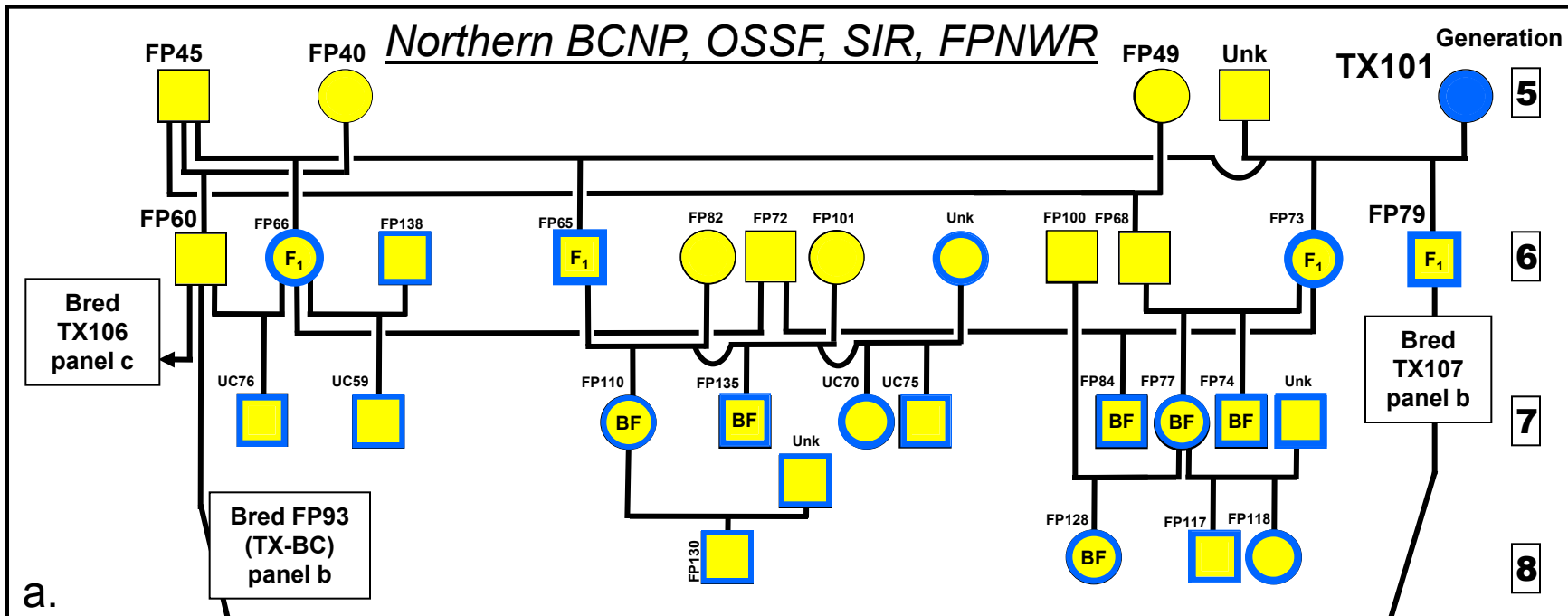


Figure S4. Detailed pedigree of the adult descendents and CFP breeding partners of the five successful TX females introduced into southern Florida in 1995 showing only offspring known to have survived.

a) TX101 produced 4 F1s and bred with two CFPs, b) TX107 bred only with an F1 (FP79) to produce 3 TX-BC offspring, c) TX106 bred with one CFP to produce two F1s and she bred with an unknown Admixed male, d) TX105 and TX-108 both bred FP16 (EVG) to produce 3 F1s.



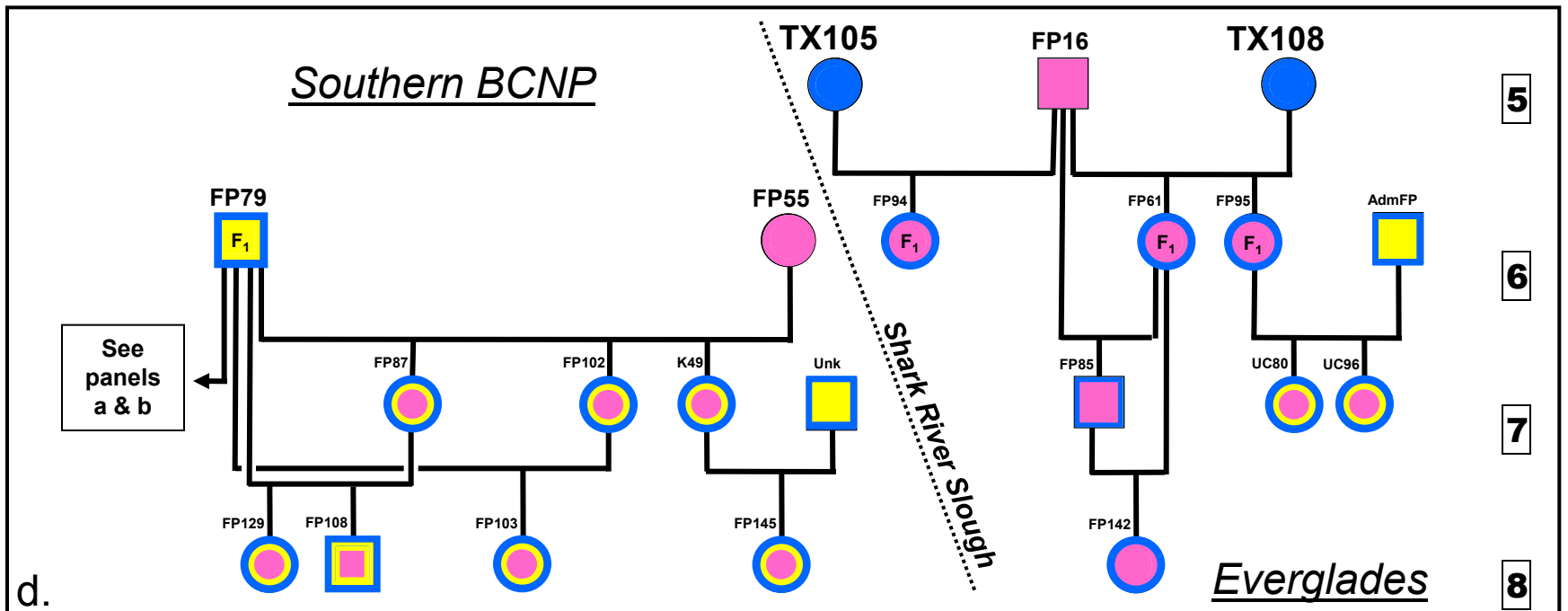
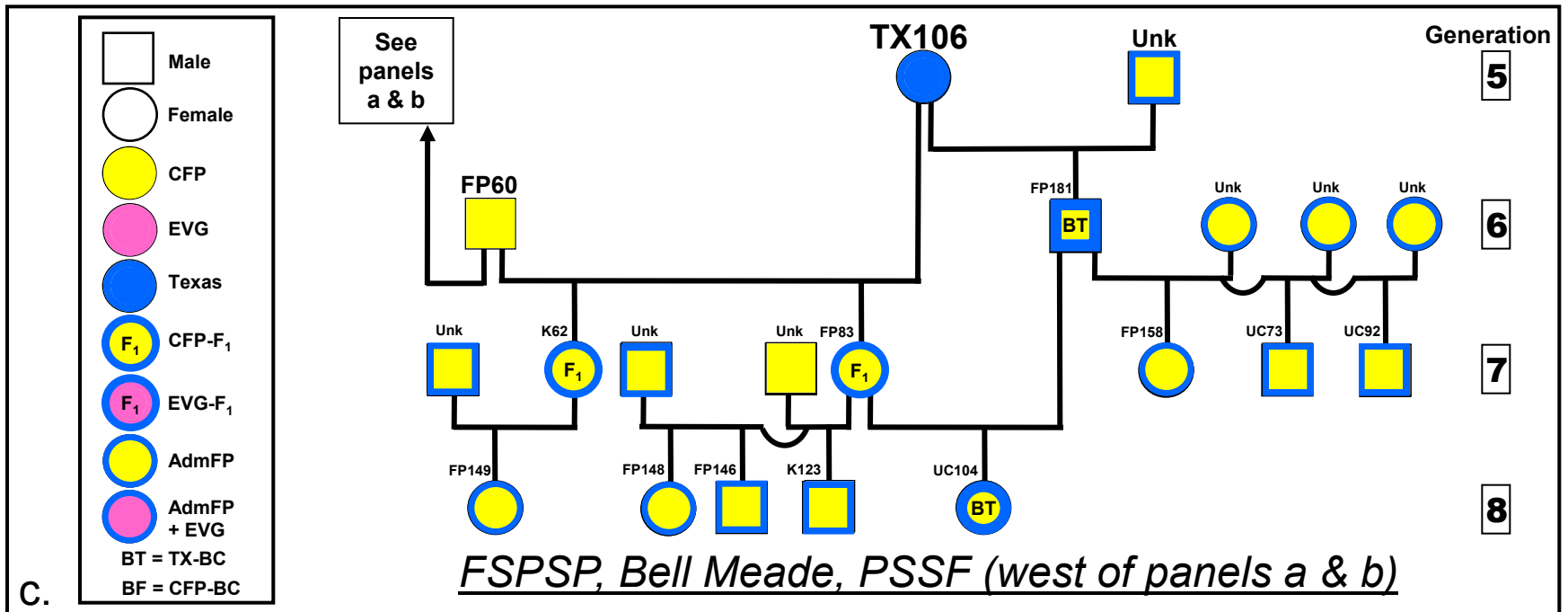
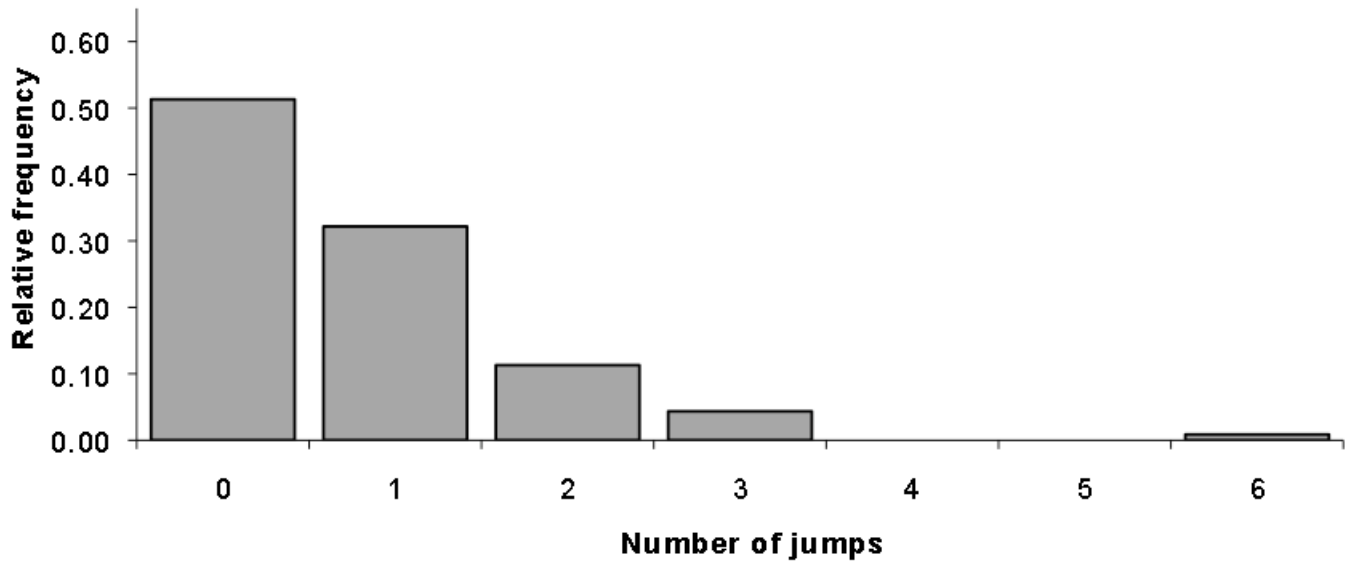


Figure S5. Frequency that the panthers of different genetic heritage jumped from trees after being chased by dogs during capture. a) Admixed panthers, b) CFPs. Per capture event, admixed panthers jumped significantly more often ($p=0.041$) than did the CFPs.

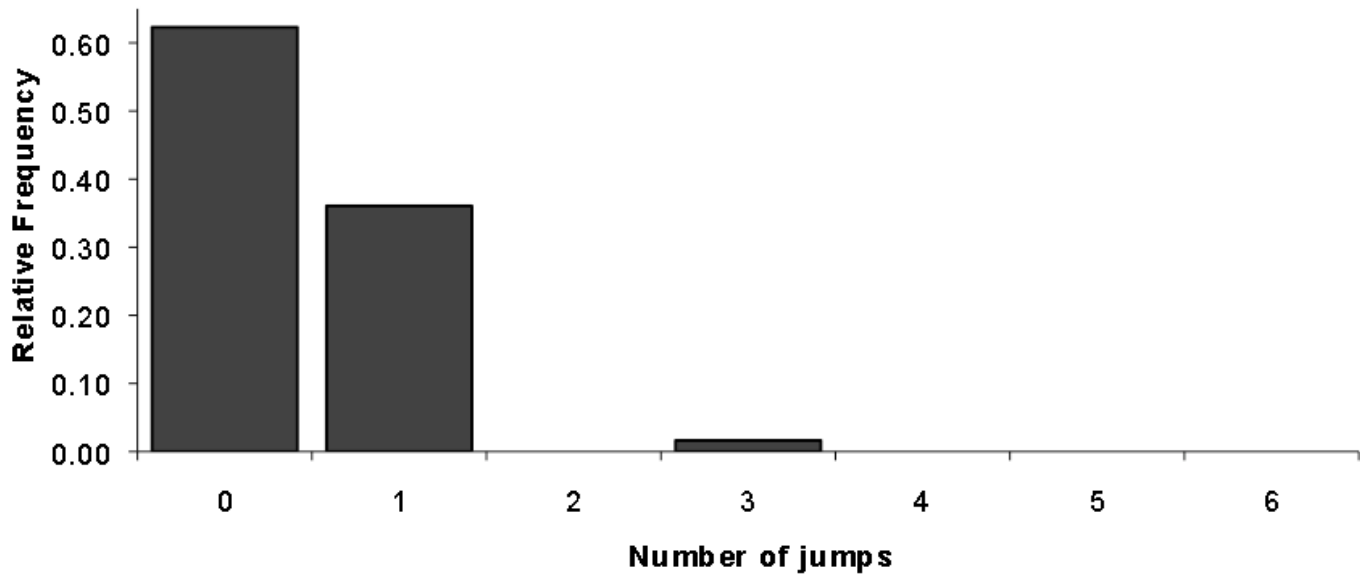
A.

Admixed pumas



B.











Canonical panthers



Supplemental table 1. Chronology of significant events in Florida panther research and management.

1850 - 1900	Florida panther range contracts from much of southeastern United States to peninsular Florida as hunting, bounties, depredation, and habitat loss extirpate panthers from >95% of original 19th century range
1950 - 1972	Florida panther widely considered to be extirpated based on lack of field evidence
1957 - 1967	Seven pumas from Les Piper's private collection (Everglades Wonder Garden, Bonita Springs, FL) released into Everglades National Park
1958	Florida panther provided legal protection in Florida
1967	Florida panther listed as Federal Endangered Species
1972	Presence of Florida panthers confirmed in southern Florida by the capture of aged female at Fish Eating Creek (field survey by World Wildlife Fund(2))
1972	First Florida panther road-kill documented in Moorehaven, FL.
1973	United States Congress passes the Endangered Species Act and gives Florida panther legal protection
1976	Florida Fish and Wildlife Conservation Commission (FWC) begins collection of field observations (>5000 reports processed) and identifies a focal area of panther activity in southwestern Florida (FSSP)
1981	FWC commences capture and radio telemetry of panthers
1982	Florida panther named Florida state animal
1983	Florida panther biomedical studies and specimen collection initiated
1989	Florida Panther National Wildlife Refuge and Corkscrew Regional Ecosystem Watershed established, protecting 80,000 acres of habitat
1992	IUCN Captive Breeding Specialist Group Workshop, Yulee, FL, recommends restoration plan to introduce females of Texas puma subspecies into Florida
1995	Eight female pumas from Texas captured and translocated to Florida
1997 - 1999	Periodic escapes of captive western pumas from the Seminole Indian Reservation
1998	First documented dispersal of a collared panther to the north of the Caloosahatchee River
2002 - 2004	Feline Leukemia Virus outbreak implicated in the death of 5 panthers
2003	Last Texas female puma removed from Florida
2007	The 100 th panther mortality by vehicle collision documented
2008	Male panther from southern Florida shot near Georgia/Alabama state line, approximately 100km southwest of Atlanta, Georgia

Supplemental table 2. List of 591 pumas used in analyses with demographic information, occurrence of traits, diversity estimates, dam and sire identification, pedigree information, and structure results. Symbols and abbreviations are defined in the first panel.

Description of Table Columns	
Color Codes	
	Canonical Florida panther (CFP)
	Everglades Florida panther (EVG) or part of pedigree can be traced to an EVG founder (pink)
	AdmFP that is derived from TX, but specific the founders are unknown (magenta)
	AdmFP that is derived from TX, but specific founders are unknown
	Texas ancestry can be traced through each generation to a specific Texas female ancestor
	AdmFP that shares some Seminole heritage in addition to the Texas ancestry (has one unique Seminole allele, or parent or littermate has this)
	AdmFP that has a lot of Seminole heritage (either shown by structure or by 2 or more unique Seminole alleles in self, parent or littermate)
	AdmFP is a descendent of FP79, either known from the pedigree or inferred by presence of his unique allele (348 at F42)
	Unknown genetic heritage - either tissue is not available, is of poor quality, or has not been analyzed yet
	Abnormal value or outlier (i.e. released cats)
Field ID	
K #	Kittens handled in the den are given a sequential "K#", if found dead they usually continue to be identified by their K#
FP#	Live captured panthers are assigned a sequential "Florida panther (FP)" number, including those previously marked as kittens (note that FP200-FP210 were captured and brought into captivity in the early 1990s)
UCFP#	Dead panthers not previously handled are given a sequential "Un-collared Florida Panther" #
WC#	Seminole Indian Reservation pumas identified as "WC" for Weed Cat (pumas originated from Frank Weed)
Piper	These animals are descendents of the panthers bred by Lester Piper (PIP) of Everglades Wonder Gardens (EWG), Bonita Springs. They were sampled in the 1980s and resided at multiple zoos and private facilities in Florida, including several still living at EWG. The oldest animal sampled was born in the early 1960s (Pco-11, "Camp Kalaqua") thus is representative of the animals released into Everglades National Park at that time (see Fig 2 for similarity to present day EVGs)
Genetic Group - primary designation: C - Canonical FP, E - Everglades FP, H - admixed (non-Florida), T - Texas founders, U - unknown	
PCO#: Laboratory of Genomic diversity (NCI) database ID for Puma concolor (Pco)	
FLMNH (UF#): Mammal collection ID numbers from the University of Florida Museum of Natural History, Gainesville, FL	
Necropsy ID:	
G#	Early necropsies in the 1980s conducted by Dr. Don Forrester, Dept. of Parasitology, U of F, Gainesville, FL; N# - Veterinary Teaching Hospital, University of Florida Veterinary School; CC# - Southeastern Cooperative Wildlife Disease Study (SCWDS) College of Veterinary Medicine, Athens, Georgia.
County of residence	
Florida County(ies) where the panther lived (or dispersed to) while radio-collared or where the carcass of an UCFP was found. Abbreviations: Br - Broward, Co - Collier, Da - Dade, Gl - Glades, He - Hendry, Hi - Highlands, Hil - Hillsborough, Le - Lee, Mo - Monroe, PB - Palm Beach, P Beach - Palm Beach	
Status on 4/1/2010	
Alive: radio collared and still monitored; Captivity: removed from the wild (illness, injury, orphaned, or for captive breeding) and is permanently residing in captivity; Radio-failure (RF): either radio-collar has malfunctioned or has dropped off, so animal cannot be followed nor can it be determined if they are still alive or not; Dead: body or remains collected; Kitten unk: handled and marked as a kitten, but it has not been handled since, therefore do not know if they are alive or not (majority or dead)	
Description of Table Columns	
Morphological traits; Atrial Septal defects, Number of descended testicles, presence of thoracic cowlick or kinked tail	
No: body examined and trait not present; Yes: body examined and trait present; Unk: unknown (or unknowable - carcass scavenged); Lost-RF: animal has been lost to carcass retrieval as its radio-collar failed; 1 or 2: number of intra-scrotal testicles found; na: not applicable (female); TBD - to be determined, necropsy pending	
Pedigree	
Colored squares representing ancestry - up to 4 sets of grandparents can be shown. Dams' heritage is always on the left, sire on the right, i.e. if only the parents are known, then the 4 left hand squares represent the dam and the 4 on the right represent the sire. If both sets of grandparents are known - then the first 2 squares are the dams mother and the next are her sires etc.	
Field Dam	
Identified as the dam by field observations and is based on the proximity of the adult female when the juvenile/sub-adult was captured OR the was the adult female attending the den (with kittens). Unknown (Unk) means no field dam was suspected.	
Genetic Dam	
Genotype data was analyzed by CERVUS and it was determined that this female was a good match (with input from field information about which females were alive and conceivably in the area). If parent was unknown (unk) it was because either PNI (parent not identified), MMI (multiple matches were identified but there was no field data to support the selection of any particular female over another), pqd (poor quality DNA), sna (the sample was not available), or ND (not determined yet)	
Dam Consensus - Assignment of parent was inferred based on a combination of Field Dam and Genetic dam evidence (see above), with weight given to genetic data.	
LOD score for support of the Dam - offspring pair	
Dam Support codes:	
Summary of evidence that final decision was based upon. F - field observation, G - genetic, LMG - littermate genetics (if self is lacking), T - telemetric data (i.e. overlapping use area with offspring & mate), or TC - telemetry data at conception date showed evidence of a male overlapping her location on one to several days.	
Field SIRE: is based on the radio-collared males' movements and home range as he associated with the putative dam.	
Genetic Sire, Sire consensus, Sire -offspring LOD score, and sire support: same as for female	
Dam-Sire-Offspring Trio LOD score: LOD score for all three individuals taken together	
Ave Het: Average heterozygosity; Ave # Alleles: average number of alleles for all the STRs analyzed for that individual	
Heritage call	
This is based on a combination of information: the individuals' pedigree (if known), STRUCTURE results (>5% non-Florida = admixed), and an inspection of microsatellite data looking for non-Florida alleles. In all cases, if one sibling shows evidence of admixture, this same status is assigned to all littermates. If panthers are obviously admixed, but lack the pedigree information to determine whether they are back-crossed to CFP, EVG, or TX, they are called "Admixed" or AdmFP. +SEM = Seminole heritage	
Structure results -	
STRUCTURE analysis defined 9 groups (K9): K1, K2, and K3 - 3 family groups of CFP, K4 - EVG and Admixed+EVG (including the EVGxTX-F1s), K5 - mostly CFP-BCs and FP107s family members, K6 - mostly CFP-BC with some AdmFPs and a few CFPxTX-F1s, K7 - AdmFPs and some F1s, K8 - AdmFP and Seminole heritage, K9 - mostly TX-BC and FP79's family (colors/patterns at top of column match the corresponding bar segments in Fig 3.)	

DEMOGRAPHIC INFORMATION

TRAITS

PEDIGREE

Field ID & Genetic group	SEX	PCO#	FLMNH & Necropsy IDs	County	Birth Year	Loss Year	Status on 4/1/2010	Atrial Septal Defect	Number of Descended Testicles	Thoracic Cowlick	Tail tip Kink	Pedigree						
												Dam	Sire					
FLORIDA PANTHERS																		
FP001	C	M	Pco-0048	UF19096 G83-64	Collier	1971	1983	Dead	Unk	2	Yes	Yes						
FP002	C	M	Pco-0049	UF20777	Collier	1971	1984	Dead	Unk	2	Yes	Yes						
FP003	C	F	Pco-0938	UF18798	Collier	1973	1983	Dead	Unk	na	Yes	Yes						
FP004	C	M	Pco-0009	UF22529	Collier	1974	1985	Dead	Unk	1	Yes	Yes						
FP005	C	F	Pco-0939	UF19090	Collier	1974	1983	Dead	Unk	na	Yes	Yes						
FP006	C	M	Pco-0940	UF16374	Collier	1975	1982	Dead	Unk	2	No	Yes						
FP007	C	M	Pco-0013	UF22409	Collier	1975	1985	Dead	No	2	Yes	Yes						
FP008	C	F	Pco-0012	UF24267	Collier	1974	1987	Captivity	No	na	Yes	Yes						
FP009	C	F	Pco-0014		Collier	1981	1997	Radio failure	Unk	na	Yes	Yes						
FP010	C	M	Pco-0018	UF23986 G84-26	Collier	1985	1987	Dead	Unk	2	Yes	Yes						
FP011	C	F	Pco-0019	UF30391	Collier	1981	2001	Dead	Unk	na	Yes	Yes						
FP012	C	M	Pco-0020	UF27616	Hendry	1981	1994	Dead	Yes	1	Yes	Yes						
FP013	C	M	Pco-0022	UF24096	Collier	1981	1987	Dead	Unk	2	Yes	Yes						
FP014	E	F	Pco-0061	UF18847	Dade	1981	1991	Dead	Unk	na	No	No						
FP015	E	F	Pco-0062	UF24563	Dade	1981	1988	Dead	Unk	na	No	No						
FP016	E	M	Pco-0065	UF29821	Da & Co	1985	2000	Dead	No	2	Yes	No						
FP017	C	M	Pco-0067	UF24646	Collier	1980	1990	Dead	Unk	2	Yes	Yes						
FP018	C	F	Pco-0068	UF24928	Hendry	1979	1990	Dead	Unk	na	Yes	Yes						
FP019	C	F	Pco-0069		Collier	1986	1997	Dead	No	na	No	Yes						
FP020	C	M	Pco-0071	UF24314	Collier	1983	1988	Dead	Yes	1	Yes	Yes						
FP021	E	F	Pco-0075		Dade	1985	1988	Captivity	No	na	No	No						
FP022	E	F	Pco-0076	UF26161	Dade	1986	1991	Dead	No	na	No	No						
FP023	E	F	Pco-0077	UF30393	Da & Co	1986	2000	Dead	Unk	na	No	No						
FP024	C	M	Pco-0107	UF24316	Gl & Hi	1984	1988	Dead	Unk	2	Yes	Yes						
FP025	E	M	Pco-0116	UF24315	Collier	1983	1988	Dead	Unk	2	Yes	No						
FP026	C	M	Pco-0118	UF26939	Hendry	1982	1994	Dead	Unk	1	No	Yes						
FP027	E	F	Pco-0120	UF24557	Dade	1985	1989	Dead	No	na	No	No						
FP028	C	M	Pco-0154	UF26157	Collier	1987	1992	Dead	No	1	Yes	Yes						
FP029	C	M	Pco-0155	UF26159	Hendry	1988	1992	Dead	No	1	Yes	Yes						
FP030	C	M	Pco-0156	UF24621	Collier	1988	1990	Dead	No	1	Yes	Yes						
FP031	C	F	Pco-0157	UF27148	Collier	1981	1994	Dead	No	na	Yes	Yes						
FP032	C	F	Pco-0160	UF30960	Collier	1986	2002	Dead	No	na	Yes	Yes						
FP033	C	M	Pco-0162	UF24595	Co & He	1987	1989	Dead	No	2	Yes	Yes						
FP034	C	M	Pco-0170	UF26844	Hendry	1989	1993	Dead	No	1	Yes	Yes						
FP035	C	M	Pco-0171	UF24611	Collier	1989	1990	Dead	Unk	1	Yes	Yes						
FP036	C	F	Pco-0174	UF29621	Collier	1985	1998	Dead	No	na	Yes	No						
FP037	E	M	Pco-0175	UF24931	Collier	1986	1990	Dead	Unk	2	No	No						
FP038	C	F	Pco-0176	UF27370	Co & Br	1985	1994	Dead	Yes	na	Yes	Yes						
FP039	C	M	Pco-0177	UF24644	Dade	1986	1990	Dead	Unk	1	Yes	Yes						
FP040	C	F	Pco-0180	UF28980	Collier	1988	1998	Dead	No	na	Yes	No						
FP041	C	F	Pco-0181	UF24929	Hendry	1988	1990	Dead	Unk	na	Yes	No						
FP042	E	M	Pco-0182	UF27700	Da & Co	1989	1995	Dead	No	2	No	Yes						
FP043	C	M	Pco-0184	UF26083	Co & He	1989	1991	Dead	Unk	1	Yes	No						
FP044	C	M	Pco-0348	UF26841	Co & Da	1990	1993	Dead	Unk	1	No	Yes						
FP045	C	M	Pco-0349	UF29262	Co & He	1990	1998	Dead	Unk	1	Yes	Yes						
FP046	C	M	Pco-0422	UF29370	Hendry	1989	1999	Dead	No	1	Yes	Yes						
FP047	C	M	Pco-0423	UF26840	Collier	1991	1993	Dead	Yes	1	Yes	Yes						
FP048	C	F	Pco-0424		Collier	1991	2006	Dead	Unk	na	Yes	Yes						
FP049	C	F	Pco-0425	UF30935	Collier	1990	2002	Dead	No	na	Yes	No						
FP050	C	M	Pco-0426	UF26843	Hendry	1991	1993	Dead	No	1	Yes	Yes						
FP051	C	M	Pco-0428	UF29263	Collier	1989	1998	Dead	No	2	Yes	Yes						
FP052	C	F	Pco-0485	UF27618	Collier	1991	1995	Dead	Yes	na	Yes	Yes						
FP053	C	M	Pco-0532	UF26842	Collier	1992	1993	Dead	Unk	2	Yes	Yes						
FP054	C	M	Pco-0486		Collier	1992	2000	Radio failure	Unk	2	Yes	Yes						
FP055	E	F	Pco-0540	UF31106	Collier	1992	2004	Dead	Unk	na	No	Yes						
FP056	C	F	Pco-0717		Collier	1991	1999	Radio failure	Unk	na	Yes	Yes						
FP057	C	F	Pco-0535		Collier	1992	2000	Radio failure	Unk	na	No	Yes						

Table S2

DEMOGRAPHIC INFORMATION

TRAITS

PEDIGREE

Field ID & Genetic group	SEX	PCO#	FLMNH & Necropsy IDs	County	Birth Year	Loss Year	Status on 4/1/2010	Atrial Septal Defect	Number of Descended Testicles	Thoracic Cowlick	Tail tip Kink	Pedigree		
												Dam	Sire	
FP058	C	M	Pco-0536	UF28802	Collier	1994	1997	Dead	No	0	Yes	Yes		
FP059	C	M	Pco-0716	UF31163	Collier	1995	2004	Dead	No	2	Yes	No		
FP060	C	M	Pco-0539		Collier	1995	2004	Dead	Unk	2	Yes	Yes		
FP061F1	H	F	Pco-0898		Dade	1996	2003	Radio failure	Unk	na	No	No		
FP062	C	M	Pco-0718		Polk	1996	2000	Radio failure	Unk	1	No	Yes		
FP063	C	M	Pco-0719	UF29819	Co & He	1995	2000	Dead	No	1	Yes	Yes		
FP064	C	M	Pco-0721	UF29532		1996	1999	Dead	No	1	Yes	Yes		
FP065 /K035F1	H	M	Pco-0909		Hendry	1996		Alive	Alive	2	Yes	No		
FP066 /K036F1	H	F	Pco-0902		Collier	1996	2000	Radio failure	Unk	na	No	No		
FP067	C	F	Pco-0722	UF31011	Hendry	1997	2003	Dead	Yes	na	Yes	No		
FP068	C	M	Pco-0723	UF29250	Collier	1993	2000	Dead	Unk	2	Yes	Yes		
FP069	C	F	Pco-0901	UF31182	Collier	1997	2005	Dead	No	na	Yes	Yes		
FP070 / K039	H	F	Pco-0724		Collier	1997	2006	Dead	No	na	No	No		
FP071 / K038	H	F	Pco-1095		Collier	1997	2005	Radio failure	Unk	na	No	No		
FP072	C	M	Pco-0725	UF29273	Hendry	1995	1998	Dead	No	2	Yes	Yes		
FP073 /K018F1	H	F	Pco-0903		Hendry	1995	2003	Dead	Unk	na	Yes	No		
FP074	H	M	Pco-0904	UF29567	He to GL	1997	1999	Dead	Unk	2	Yes	Yes		
FP075	C	F	Pco-0905		Collier	1998	2006	Radio failure	Unk	na	Yes	Yes		
FP076	C	M	Pco-0906	UF25908	Collier	1997	1999	Dead	Yes	0	Yes	Yes		
FP077	H	F	Pco-0907		Co & He	1997	2003	Dead	Unk	na	Yes	No		
FP078	C	F	Pco-0908	UF31021	Collier	1997	2002	Dead	No	na	Yes	Yes		
FP079 /K019F1	H	M	Pco-0910		Collier	1995	2006	Captivity	Unk	2	Yes	No		
FP080	C	F	Pco-0960	UF29826	Hendry	1996	2000	Dead	No	na	Yes	Yes		
FP081	C	M	Pco-0961		Hendry	1996	2002	Radio failure	Unk	1	Yes	Yes		
FP082	C	F	Pco-0962	UF31026	Hendry	1997	2003	Dead	Unk	na	Yes	Yes		
FP083 /K62F1	H	F	Pco-0914		Collier	1999	2006	Radio failure	Unk	na	No	No		
FP084	H	M	Pco-0963	UF25914	He to Gl	1999	2000	Dead	No	2	No	No		
FP085 / K059	H	M	Pco-0967		Dade	1999	2004	Dead	No	2	No	No		
FP086 / K068	H	F	Pco-0919		Collier	1999	2003	Dead	Unk	na	No	No		
FP087 / K060	H	F	Pco-0968		Collier	1999	2003	Dead	Unk	na	Yes	No		
FP088 / K064	H	F	Pco-0915		Collier	1999	2002	Radio failure	Unk	na	No	No		
FP089	C	M	Pco-0969	UF30064	Collier	1997	2000	Dead	Unk	1	Yes	Yes		
FP090 / K067	H	M	Pco-0918	UF30178	Co to PB	1999	2001	Dead	Unk	2	No	No		
FP091 / K066	H	F	Pco-0917	UF31101	Collier	1999	2003	Dead	Unk	na	No	No		
FP092 / K065	H	M	Pco-0916	UF30958	Co & Le	1999	2001	Dead	Unk	2	No	No		
FP093 / K058	H	F	Pco-0970		Collier	1999	2007	Radio failure	Lost - RF	na	No	No		
FP094F1	H	F	Pco-0974		Dade	1999	2007	Radio failure	Lost - RF	na	No	No		
FP095 /K045F1	H	F	Pco-0982		Dade	1998	2008	Radio failure	Lost - RF	na	No	No		
FP096 / K080	H	M	Pco-0972	UF30938	Collier	2000	2002	Dead	No	2	Yes	Yes		
FP097	C	M	Pco-0987	UF30431	Collier	2000	2001	Dead	No	2	No	Yes		
FP098	C	M	Pco-0989	UF30948	Collier	1998	2002	Dead	No	1	Yes	Yes		
FP099	C	M	Pco-0990		Collier	2000	2002	Dead	No	2	Yes	Yes		
FP100	C	M	Pco-0991		Co & He	1997	2007	Dead	Unk	1	No	Yes		
FP101	C	F	Pco-0992		Co & He	1999	2003	Radio failure	Unk	na	Yes	Yes		
FP102 / K048	H	F	Pco-0996		Collier	1998	2007	Radio failure	Unk	na	No	No		
FP103	H	F	Pco-0997		Collier	2000	2007	Dead	Unk	na	No	No		
FP104	H	M	Pco-1000		Collier	2000	2006	Dead	No	2	No	No		
FP105	C	F	Pco-0956	UF30434	Collier	1994	2002	Dead	Unk	na	Yes	Yes		
FP106	C	F	Pco-1002	UF31018	Collier	2000	2003	Dead	Unk	na	No	Yes		
FP107 / K079	H	F	Pco-0971		Collier	2000	2008	Dead	No	na	Yes	Yes		
FP108 / K090	H	M	Pco-0994	UF31020	Collier	2001	2002	Dead	No	2	Yes	No		
FP109	C	M	Pco-1022	UF31183	Hendry	1992	2003	Dead	No	1	Yes	Unk		
FP110 / K086	H	F	Pco-0984		Hendry	2000		Alive	Alive	na	Yes	No		
FP111	C	M	Pco-1023	UF30957	Hendry	1992	2002	Dead	No	1	No	Yes		
FP112	C	F	Pco-1024		Collier	1998	2002	Dead	No	na	Yes	Yes		
FP113	C	F	Pco-1037		Collier	2002		Alive	Alive	na	Yes	Yes		
FP114	C	M	Pco-1038	UF31110	Collier	2002	2003	Dead	No	1	Unk	Yes		
FP115	C	F	Pco-1058	UF31165	Hendry	1998	2003	Dead	No	na	No	Yes		

Table S2

DEMOGRAPHIC INFORMATION

TRAITS

PEDIGREE

Field ID & Genetic group	SEX	PCO#	FLMNH & Necropsy IDs	County	Birth Year	Loss Year	Status on 4/1/2010	Atrial Septal Defect	Number of Descended Testicles	Thoracic Cowlick	Tail tip Kink	Pedigree		
												Dam	Sire	
FP116	C	F	Pco-1051		Hendry	2002	2007	Dead	No	na	Yes	Yes		
FP117	H	M	Pco-1059		Hendry	2002	2004	Dead	No	2	No	No		
FP118	H	F	Pco-1060		Hendry	2002	2003	Dead	No	na	Yes	No		
FP119 / K115	H	M	Pco-1064		Collier	2002		Alive	Alive	2	No	No		
FP120	H	F	Pco-1065		Collier	2000	2005	Dead	No	na	No	No		
FP121	H	F	Pco-1085		Hendry	2001	2006	Radio failure	Unk	na	No	No		
FP122	C	F	Pco-1087		Hendry	2001	2004	Dead	No	na	Yes	Yes		
FP123	H	M	Pco-1088		Hendry	2000	2004	Dead	No	2	Yes	No		
FP124	H	F	Pco-1091		Collier	2000	2008	Radio failure	Unk	na	No	No		
FP125	H	M	Pco-1092		Co & Da	2003	2006	Radio failure	Unk	2	No	No		
FP126	H	M	Pco-1093		Co & He	2003	2005	Dead	No	2	No	No		
FP127	H	M	Pco-1094		Collier	2002	2007	Dead	No	2	No	No		
FP128 / K082	H	F	Pco-0977		Hendry	2000	2007	Dead	Unk	na	Yes	No		
FP129 / K089	H	F	Pco-0993		Collier	2001	2006	Dead	Yes	na	No	No		
FP130 / K150	H	M	Pco-1071		Orange	2003	2007	Dead	No	2	No	Yes		
FP131	H	M	Pco-1097		Collier	1999	2008	Dead	No	2	No	No		
FP132	H	M	Pco-1098		Hendry	2001	2004	Dead	No	2	No	No		
FP133	H	M	Pco-1123		Collier	2000		Alive	Unk	2	No	Yes		
FP134	H	M	Pco-1124		Collier	2002	2007	Dead	Unk	2	Yes	Yes		
FP135 / K147	H	M	Pco-1067		Collier	2003	2006	Dead	No	2	No	Yes		
FP136	H	F	Pco-1125		Collier	2001	2005	Dead	No	na	No	No		
FP137	H	M	Pco-1126		Hendry	2002	2007	Radio failure	Lost - RF	2	No	No		
FP138	H	M	Pco-1127		Co & He	2001	2008	Dead	No	2	No	Yes		
FP139	C	M	Pco-1048		Hendry	2002	2005	Radio failure	Unk	1	Yes	Yes		
FP140	H	F	Pco-1166		Collier	2002	2009	Dead	Unk	na	No	Yes		
FP141	H	M	Pco-1167		Co & He	2002		Alive	Alive	2	No	No		
FP142	H	F	Pco-1168		Dade	2003	2007	Radio failure	Lost - RF	na	No	No		
FP143	H	M	Pco-1169		Hendry	2004	2007	Radio failure	Lost - RF	2	No	No		
FP144	H	M	Pco-1170		Collier	2004	2007	Radio failure	Lost - RF	2	No	No		
FP145	H	F	Pco-1171		Collier	2004	2007	Radio failure	Lost - RF	na	No	No		
FP146	H	M	Pco-1174		Collier	2003	2008	Radio failure	Lost - RF	2	No	No		
FP147 / K184	H	M	Pco-1150		Collier	2005	2007	Radio failure	Lost - RF	2	Yes	No		
FP148	H	F	Pco-1193		Collier	2003	2007	Radio failure	Lost - RF	na	No	No		
FP149	H	F	Pco-1233		Collier	2004	2007	Radio failure	Lost - RF	na	Yes	No		
FP150 / K152	H	F	Pco-1079		Collier	2003	2008	Radio failure	Lost - RF	na	No	No		
FP151 / K113	H	F	Pco-1031		Collier	2002	2008	Radio failure	Lost - RF	na	Unk	No		
FP152	H	M	Pco-1238		Collier	2002	2008	Dead	No	2	No	Yes		
FP153	H	F	Pco-1239		Collier	2001		Alive	Alive	na	No	No		
FP154	H	M	Pco-1240		Collier	2004	2008	Radio failure	Lost - RF	1	No	Yes		
FP155	H	M	Pco-1292		Hendry	2005	2008	Dead	Unk	2	No	No		
FP156	H	M	Pco-1293		Collier	2005	2008	Radio failure	Lost - RF	2	No	No		
FP157	H	M	Pco-1294		Lee	2004	2008	Dead	Unk	2	No	Yes		
FP158	H	F	Pco-1295		Collier	2005		Alive	Alive	na	Yes	Yes		
FP159	H	M	Pco-1296		Lee	2002	2009	Radio failure	Lost - RF	1	Yes	No		
FP160	C	F	Pco-1297		Lee	2003	2008	Radio failure	Lost - RF	na	Yes	Yes		
FP161 / K169	H	F	Pco-1115		Collier	2004		Alive	Alive	na	Unk	No		
FP162	U	F	Pco-1298		Collier	2005		Alive	Alive	na	No	No		
FP163 / K227	H	M	Pco-1242		Collier	2007	2008	Radio failure	Lost - RF	2	No	No		
FP164	U	M	Pco-1299		Collier	2006	2008	Dead	Unk	2	No	No		
FP165	U	M	Pco-1327		Hendry	2007	2009	Radio failure	Alive	2	No	No		
FP166	U	M	Pco-1334		Hendry	2004	2009	Dead		2	No	No		
FP167	U	M	Pco-1335		Hendry	2006	2009	Radio failure	Alive	2	No	Yes		
FP168	U	F	Pco-1336		Lee	2002		Alive	Alive	na	No	Yes		
FP169	U	M	Pco-1337		Collier	2004		Alive	Alive	2	No	Yes		
FP170	U	F	Pco-1341		Collier	2006		Alive	Alive	na	Yes	No		
FP171	U	U	Pco-1342		Collier	2006		Alive	Alive	2	No	No		
FP172	U	F	Pco-1367		Collier	2005	2010	Dead	Unk	TBD	TBD	TBD		
FP173	U	M	Pco-1370		Lee	2006		Alive	Unk	TBD	TBD	TBD		

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PEDIGREE

Field ID & Genetic group	SEX	PCO#	FLMNH & Necropsy IDs	County	Birth Year	Loss Year	Status on 4/1/2010	Atrial Septal Defect	Number of Descended Testicles	Thoracic Cowlick	Tail tip Kink	Pedigree		
												Dam	Sire	
FP174	J	M	Pco-1371		Collier	2005	2010	Dead	Unk	TBD	TBD	TBD		
FP175 / K254	H	F	Pco-1281			2007		Alive	Unk	na	Unk	Unk		
FP176	J	M	Pco-1372		Hendry	2006		Alive	Unk	TBD	TBD	TBD		
FP177 / K235	H	M	Pco-1248		Collier	2007		Alive	Unk	2	No	No		
FP178	J	F	Pco-1374		Collier	2007		Alive	Unk	TBD	TBD	TBD		
FP179	J	M	Pco-1375			2005		Alive	Unk	TBD	TBD	TBD		
FP180 / K264	H	F	Pco-1300			2008		Alive	Unk	na	Unk	Unk		
FP181 / K093	H	M	Pco-0999			2001		Alive	Unk	Unk	Unk	Unk		
FP182 / K279	H	F	Pco-1340			2009		Alive	Unk	Unk	Unk	Unk		
FP200 "Big Guy"	E	M	Pco-0010		Collier	1982	1984	Captivity	No	2	Yes	Yes		
FP201	C	M	Pco-0186		Collier	1990	1991	Captivity	No	1	Yes	Yes		
FP202	E	M	Pco-0187		Collier	1990	1991	Captivity	Unk	2	No	No		
FP203	E	M	Pco-0188		Collier	1990	1991	Captivity	No	2	Yes	Yes		
FP204	C	F	Pco-0189			1990	1991	Captivity	Yes	na	Yes	No		
FP205	C	F	Pco-0190		Collier	1990	1991	Captivity	Yes	na	Yes	Yes		
FP206	C	F	Pco-0191		Collier	1990	1991	Captivity	No	na	Yes	No		
FP207	C	M	Pco-0427		Collier	1991	1992	Captivity	Unk	0	Yes	Yes		
FP208	C	F	Pco-0429		Collier	1992	1992	Captivity	Unk	na	Yes	Yes		
FP209	E	F	Pco-0502		Collier	1992	1992	Captivity	Unk	na	No	Yes		
FP210	E	M	Pco-0503		Collier	1992	1992	Captivity	No	2	No	No		
UCFP002	C	M	Pco-0050	UF14390 G78-65	Dade	1975	1978	Dead	Unk	Unk	Yes	Yes		
UCFP003	C	M	Pco-0225	UF24160	Collier	1976	1979	Dead	Unk	Unk	Unk	Yes		
UCFP004	C	F	Pco-0941	UF11915 G80-4	Collier	1978	1979	Dead	Unk	na	Yes	Yes		
UCFP005	C	M	Pco-0051	UF11927 G80-15	Collier	1978	1980	Dead	Unk	Unk	Yes	Yes		
UCFP006	C	F	Pco-0183	UF10424 G81-19	Collier	1979	1981	Dead	Unk	na	No	Yes		
UCFP007	C	U	Pco-0223	UF10460	Collier	1981	1981	Dead	Unk	Unk	Unk	Unk		
UCFP008	E	M	Pco-0087	G83-75 "James Billy"	Hendry	1980	1983	Dead	Unk	Unk	Yes	Unk		
UCFP009	C	M	Pco-0047	UF18944 G83-22	Glades	1981	1983	Dead	Unk	2	Yes	Yes		
UCFP010	U	F	Pco-0226	UF19077	P Beach	1979	1983	Dead	Unk	na	No	No		
UCFP011	U	F	Pco-0046	UF23985 G84-20	P Beach	1982	1984	Dead	Unk	na	No	No		
UCFP012	C	F	Pco-0052	UF20958 G84-26	Collier	1975	1984	Dead	Unk	na	Unk	Yes		
UCFP013	C	F	Pco-0944	UF20957	Collier	1983	1985	Dead	Unk	na	Unk	Yes		
UCFP014	C	F	Pco-0945	UF20973	Collier	1983	1985	Dead	Unk	na	Unk	Unk		
UCFP015	C	F	Pco-0059	UF24268	Collier	1982	1986	Dead	Unk	na	Yes	Yes		
UCFP017	C	M	Pco-0946	UF24042	Volusia	1978	1987	Dead	Unk	Unk	Unk	Unk		
UCFP018	C	M	Pco-0158	N89-64	Collier	1986	1989	Dead	No	1	Yes	Yes		
UCFP019	C	M	Pco-0185	383	Collier	1989	1990	Dead	Unk	1	Yes	Yes		
UCFP020	C	F	Pco-0192	UF25922	Collier	1990	1991	Dead	Yes	na	Yes	Yes		
UCFP021	C	F	Pco-0488	742	Collier	1992	1992	Dead	No	na	Yes	Yes		
UCFP022	C	M	Pco-0947	726	Collier	1991	1993	Dead	No	2	Yes	Yes		
UCFP023	C	M	Pco-0948	94	Co & He	1993	1994	Dead	Unk	1	No	Yes		
UCFP024	C	F	No DNA		Collier	1996	1996	Dead	No	na	Unk	Unk		
UCFP025	C	F	Pco-0949	UF29199	Collier	1996	1998	Dead	No	na	Unk	Unk		
UCFP026	C	M	Pco-0950	UF29242	Collier	1994	1998	Dead	No	2	No	Yes		
UCFP027	C	F	Pco-0726	UF30433	Hendry	1997	1999	Dead	No	na	No	Yes		
UCFP028	C	M	Pco-0951	UF9789	Glades	1969	1972	Dead	Unk	Unk	Unk	Unk		
UCFP029	C	M	Pco-1019	UF30430	Hendry	1992	1996	Dead	No	1	Yes	Yes		
UCFP030	J	F	Pco-0952	UF28713	Collier	1995	1996	Dead	No	na	No	No		
UCFP031	C	U	Pco-0953	UF29261	Collier	1995	1997	Dead	Unk	Unk	Unk	Unk		
UCFP032	J	U	No DNA			unk		Dead	Unk	Unk	Unk	Unk		
UCFP033	H	M	Pco-0934	UF29566	Hendry	1999	1999	Dead	No	1	No	No		
UCFP034	H	M	Pco-0973	UF23849	Hendry	1998	2000	Dead	Yes	2	No	No		
UCFP035	C	M	Pco-0975	UF30022	Collier	1998	2000	Dead	No	1	Yes	Yes		
UCFP036	H	F	Pco-0979	UF30023	Collier	1998	2000	Dead	No	na	Yes	Yes		
UCFP037	H	F	Pco-0983		Collier	1995	2000	Dead	No	na	No	Yes		
UCFP038	H	F	Pco-1003	UF30367	Hendry	1999	2001	Dead	No	na	Yes	No		
UCFP039	H	F	Pco-1004	UF30366	Collier	2000	2001	Dead	No	na	No	Yes		
UCFP040	H	M	Pco-1005	UF30398	Collier	2000	2001	Dead	No	2	Yes	Yes		

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Field ID & Genetic group	SEX	PCO#	FLMNH & Necropsy IDs	County	Birth Year	Loss Year	Status on 4/1/2010	Atrial Septal Defect	Number of Descended Testicles	Thoracic Cowlick	Tail tip Kink	Pedigree		
												Dam	Sire	
UCFP041	H	M	Pco-1006	UF30399	Collier	1999	2001	Dead	No	1	Unk	Yes		
UCFP042	H	F	Pco-1082	UF30959	Co & He	1998	2001	Dead	Unk	na	Unk	Unk		
UCFP043	H	M	Pco-1016	UF30374	Co & He	1999	2001	Dead	No	2	No	Yes		
UCFP044	C	U	Pco-1020			1996	1996	Dead	Unk	Unk	Unk	Unk		
UCFP045	C	M	Pco-1028	UF30937	Glades	1999	2002	Dead	No	1	No	Yes		
UCFP046	H	M	Pco-1029	UF30936	Collier	2001	2002	Dead	No	1	Yes	No		
UCFP047	C	U	Pco-1045		Hendry	<1950	1954	Dead	Unk	Unk	Unk	Unk		
UCFP048	H	F	Pco-1078	UF31012	Hendry	2002	2002	Dead	No	na	No	No		
UCFP049 /K98	H	F	Pco-1007	UF31019	Hendry	2001	2002	Dead	No	na	Yes	No		
UCFP050	C	M	Pco-0958	UF31024	Co & Le	1996	2003	Dead	No	1	Yes	Yes		
UCFP051	H	M	Pco-1061		Co to Hil	2001	2003	Dead	No	2	Yes	No		
UCFP052	U	M	Pco-1069	UF31010	Hendry	1999	2003	Dead	No	2	Unk	No		
UCFP053	H	F	Pco-1083	UF31025	Collier	2000	2003	Dead	Unk	na	Unk	Yes		
UCFP054	C	M	Pco-1070	UF31022	Collier	2002	2003	Dead	Yes	1	Yes	Yes		
UCFP055	H	M	Pco-1074		Hendry	2002	2003	Dead	Unk	2	Unk	No		
UCFP056	H	M	Pco-1075		Hendry	2002	2003	Dead	Unk	2	Unk	Yes		
UCFP057	H	F	Pco-1076		Hendry	1998	2003	Dead	No	na	No	No		
UCFP058	C	F	Pco-1084	UF31023	Co & Le	2002	2003	Dead	No	na	No	No		
UCFP059	H	M	Pco-1214		Collier	2003	2003	Dead	No	2	No	Yes		
UCFP060	H	M	Pco-1086		Collier	2001	2003	Dead	No	2	No	No		
UCFP061	H	F	Pco-1215		Hendry	2001	2003	Dead	No	na	Yes	No		
UCFP062	H	F	Pco-1216	UF31108	Collier	2003	2004	Dead	No	na	No	No		
UCFP063	C	M	Pco-1096	UF31162	Collier	2000	2004	Dead	No	1	No	Yes		
UCFP064	H	U	Pco-1102			2000	2004	Dead	Unk	Unk	Unk	Unk		
UCFP065	H	M	Pco-1103	UF31109	Collier	2002	2004	Dead	No	2	No	Yes		
UCFP066	H	M	Pco-1116	UF31103	Collier	2001	2004	Dead	No	2	Yes	Yes		
UCFP067	H	F	Pco-1144		Collier	2004	2004	Dead	Unk	na	Unk	Unk		
UCFP068	H	F	Pco-1128		Collier	2000	2004	Dead	Unk	na	No	No		
UCFP069	H	F	Pco-1122	UF31161	Collier	2002	2004	Dead	No	na	Yes	Yes		
UCFP070	H	F	Pco-1194		Collier	2003	2004	Dead	No	na	No	No		
UCFP071	H	M	Pco-1195		Collier	2002	2005	Dead	No	2	No	No		
UCFP072	H	M	Pco-1196		Collier	2003	2005	Dead	No	Unk	Yes	No		
UCFP073	H	M	Pco-1197		Collier	2004	2005	Dead	Unk	2	No	No		
UCFP074	H	M	Pco-1198		Flagler	2002	2005	Dead	No	2	Unk	No		
UCFP075	H	M	Pco-1199		Collier	2003	2005	Dead	No	2	Yes	Yes		
UCFP076	H	M	Pco-1200		Collier	2004	2005	Dead	No	2	Yes	Yes		
UCFP077	H	F	Pco-1201		Hendry	2003	2006	Dead	No	na	No	No		
UCFP078	H	M	Pco-1202		Collier	2005	2006	Dead	No	2	No	Yes		
UCFP079	H	F	Pco-1203		Collier	2004	2006	Dead	No	na	No	No		
UCFP080	H	F	Pco-1217		Dade	2004	2006	Dead	No	na	No	No		
UCFP081	H	M	Pco-1204		Lee	2004	2006	Dead	Unk	2	No	No		
UCFP082	U	M	No DNA		Hendry	unk	2006	Dead	Unk	Unk	Unk	Unk		
UCFP083	H	M	Pco-1205		Lee	2003	2006	Dead	Unk	2	No	No		
UCFP084	H	M	Pco-1206		Orange	2002	2006	Dead	Unk	2	No	No		
UCFP085	H	M	Pco-1207		Hendry	2003	2006	Dead	No	2	No	No		
UCFP086	U	M	Pco-1210		Collier	unk	2006	Dead	Unk	Unk	Unk	Unk		
UCFP087	H	M	Pco-1226	G89-64	Lee	2004	2006	Dead	No	2	No	No		
UCFP088	H	F	Pco-1271		Collier	2004	2006	Dead	No	na	No	No		
UCFP089	H	M	Pco-1272		Co & He	2002	2006	Dead	No	2	Yes	Yes		
UCFP090	H	F	Pco-1237		Hendry	2006	2007	Dead	Yes	na	No	No		
UCFP091	H	M	Pco-1273		Hendry	2006	2007	Dead	Yes	2	No	Yes		
UCFP092	H	M	Pco-1251		Collier	2005	2007	Dead	No	2	Unk	No		
UCFP093	H	M	Pco-1250		Lee	2005	2007	Dead	No	1	No	No		
UCFP094	H	M	Pco-1274		Collier	2004	2007	Dead	No	2	No	No		
UCFP095	H	M	Pco-1275		Polk	2004	2007	Dead	No	2	No	No		
UCFP096	H	F	Pco-1276		Dade	2004	2007	Dead	No	na	Yes	No		
UCFP097	H	F	Pco-1269		Lee	2002	2007	Dead	Yes	na	No	No		
UCFP098	H	M	Pco-1277		Collier	2005	2007	Dead	No	1	No	No		

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Field ID & Genetic group	SEX	PCO#	FLMNH & Necropsy IDs	County	Birth Year	Loss Year	Status on 4/1/2010	Atrial Septal Defect	Number of Descended Testicles	Thoracic Cowlick	Tail tip Kink	Pedigree		
												Dam	Sire	
UCFP099	H	M	Pco-1278		Lee	2006	2007	Dead	No	2	Yes	Yes		
UCFP100	H	M	Pco-1311		Collier	2005	2007	Dead	No	2	No	Yes		
UCFP101	H	M	Pco-1279		Dade	2003	2007	Dead	No	2	No	Unk		
UCFP102	H	M	Pco-1312		Collier	2005	2007	Dead	No	2	Yes	No		
UCFP103	H	M	Pco-1288		Collier	2005	2008	Dead	No	2	No	No		
UCFP104	H	F	Pco-1303		Collier	2006	2008	Dead	No	na	Yes	No		
UCFP105	J	F	Pco-1313		Collier	2002	2008	Dead	Unk	na	Unk	Unk		
UCFP106	H	M	Pco-1314		Lee	2006	2008	Dead	Yes	1	No	Yes		
UCFP107	H	F	Pco-1306		Collier	2005	2008	Dead	No	na	No	No		
UCFP108	J	F	No DNA		Collier	2005	2008	Dead	No	na	No	No		
UCFP109	J	M	No DNA		Collier	2000	2008	Dead	Unk	Unk	Unk	No		
UCFP110	J	F	Pco-1324		Dade	2008	2008	Dead	No	na	No	No		
UCFP111	H	F	Pco-1325		Collier	2008	2008	Dead	No	na	No	Yes		
UCFP112	H	M	Pco-1326		P Beach	2006	2008	Dead	No	2	No	No		
UCFP113	J	M	No DNA		Lee	2004	2008	Dead	No	2	No	Yes		
UCFP114	C	F	Pco-1329		Collier	2004	2008	Dead	No	na	No	No		
UCFP115	J	M	Pco-1331		Hendry	2005	2009	Dead	No	2	No	Yes		
UCFP116	J	F	Pco-1333		Collier	2004	2009	Dead	No	na	Yes	Yes		
UCFP117	J	M	No DNA		Hendry	2006	2009	Dead	No	2	No	No		
UCFP118	J	M	Pco-1343		Lee	2007	2009	Dead	No	2	No	No		
UCFP119	J	F	Pco-1344		Collier	2007	2009	Dead	No	na	Yes	No		
UCFP120	J	F	No DNA		Hendry	2007	2009	Dead	Unk	na	No	No		
UCFP121	J	M	Pco-1346		Collier	2007	2009	Dead	No	2	Yes	No		
UCFP122	J	M	Pco-1347		Collier	2007	2009	Dead	Unk	1	No	No		
UCFP123	H	M	Pco-1328	CC328-08	Georgia	2005	2008	Dead	No	2	Unk	Unk		
UCFP124	J	M	Pco-1361		Collier	2008	2009	Dead	Unk	TBD	TBD	TBD		
UCFP125	J	F	Pco-1363		Collier	2007	2009	Dead	Unk	TBD	TBD	TBD		
UCFP126	J	M	No DNA		Collier	2007	2009	Dead	Unk	TBD	TBD	TBD		
UCFP127	J	F	No DNA		Collier	2006	2009	Dead	Unk	TBD	TBD	TBD		
UCFP128	J	N/A	No DNA		unknown	TBD	2009	Dead	Unk	TBD	TBD	TBD		
UCFP129	J	M	Pco-1364		Collier	2009	2009	Dead	Unk	TBD	TBD	TBD		
UCFP130	J	F	Pco-1365		Collier	2006	2009	Dead	Unk	TBD	TBD	TBD		
UCFP131	J	F	Pco-1366		Hendry	2009	2009	Dead	Unk	TBD	TBD	TBD		
UCFP132	J	M	No DNA		Osceola	2006	2009	Dead	Unk	TBD	TBD	TBD		
UCFP133	J	M	No DNA		Collier	2006	2009	Dead	Unk	TBD	TBD	TBD		
UCFP134	J	M	Pco-1368		Co & Le	2006	2009	Dead	Unk	TBD	TBD	TBD		
UCFP135	J	F	No DNA		Collier	2005	2009	Dead	Unk	TBD	TBD	TBD		
UCFP136	J	F	Pco-1382		Collier	2009	2009	Dead	Unk	TBD	TBD	TBD		
UCFP137	J	M	No DNA		Lee	2007	2010	Dead	Unk	TBD	TBD	TBD		
UCFP138	J	M	No DNA		Collier	2001	2009	Dead	Unk	TBD	TBD	TBD		
UCFP139	J	F	Pco-1369		Co & Le	2007	2010	Dead	Unk	TBD	TBD	TBD		
UCFP-LawEnfor	H	U	Pco-1224			Unk	2006	Dead	Unk	Unk	Unk	Unk		
K002	C	M	Pco-0487			1992		Kitten Unk	Unk	Unk	Unk	Unk		
K003	C	M	No DNA			1993		Kitten Unk	Unk	Unk	Unk	Unk		
K004	C	F	No DNA			1993		Kitten Unk	Unk	na	Unk	Unk		
K005	C	F	No DNA			1993		Kitten Unk	Unk	na	Unk	Unk		
K006	C	M	Pco-0955			1993		Kitten Unk	Unk	Unk	Unk	Unk		
K007	C	F	No DNA			1993		Kitten Unk	Unk	na	Unk	Unk		
K008	C	F	No DNA			1993		Kitten Unk	Unk	na	Unk	Unk		
K010	C	F	No DNA			1994		Kitten Unk	Unk	na	Unk	Unk		
K011 or K009	C	M	No DNA			1994		Kitten Unk	Unk	Unk	Unk	Unk		
K013	C	F	Pco-0957			1994		Kitten Unk	Unk	na	Unk	Unk		
K014	E	F	No DNA			1995		Kitten Unk	Unk	na	Unk	Unk		
K015	E	F	No DNA			1995		Kitten Unk	Unk	na	Unk	Unk		
K017	C	F	Pco-1220			1995		Kitten Unk	Unk	na	Unk	Unk		
K020	C	M	No DNA			1995		Kitten Unk	Unk	Unk	Unk	Unk		
K021	C	M	No DNA			1995		Kitten Unk	Unk	Unk	Unk	Unk		
K022	C	M	No DNA			1995		Kitten Unk	Unk	Unk	Unk	Unk		

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Field ID & Genetic group	SEX	PCO#	FLMNH & Necropsy IDs	County	Birth Year	Loss Year	Status on 4/1/2010	Atrial Septal Defect	Number of Descended Testicles	Thoracic Cowlick	Tail tip Kink	Pedigree	
												Dam	Sire
K023F1	H	F	No DNA		1995		Kitten Unk	Unk	na	Unk	Unk		
K024	C	F	No DNA		1996		Kitten Unk	Unk	na	Unk	Unk		
K025	C	M	No DNA		1996		Kitten Unk	Unk	Unk	Unk	Unk		
K026	C	M	No DNA		1996		Kitten Unk	Unk	Unk	Unk	Unk		
K027	C	F	No DNA		1996		Kitten Unk	Unk	na	Unk	Unk		
K028	C	F	No DNA		1996		Kitten Unk	Unk	na	Unk	Unk		
K029	C	Unk	No DNA		1996		Kitten Unk	Unk	Unk	Unk	Unk		
K030	C	Unk	No DNA		1996		Kitten Unk	Unk	Unk	Unk	Unk		
K034F1	H	F	No DNA		1996		Kitten Unk	Unk	na	Unk	Unk		
K037	C	M	Pco-0720		1997		Kitten Unk	Unk	Unk	Unk	Unk		
K040	C	M	No DNA		1997		Kitten Unk	Unk	Unk	Unk	Unk		
K041	C	F	No DNA		1997		Kitten Unk	Unk	na	Unk	Unk		
K043	C	M	No DNA		1997		Kitten Unk	Unk	Unk	Unk	Unk		
K044	J	M	No DNA		1997		Kitten Unk	Unk	Unk	Unk	Unk		
K046F1	H	M	No DNA		1998		Kitten Unk	Unk	Unk	Unk	Unk		
K047F1	H	M	No DNA		1998		Kitten Unk	Unk	Unk	Unk	Unk		
K049	H	F	Pco-1219	Collier	1998	2005	Dead	No	na	No	No		
K050	H	M	No DNA		1998		Kitten Unk	Unk	Unk	Unk	Unk		
K051	C	M	No DNA		1998		Kitten Unk	Unk	Unk	Unk	Unk		
K052	H	M	No DNA	Collier	1998		Kitten Unk	Unk	Unk	Unk	Unk		
K053	H	F	No DNA	Collier	1998		Kitten Unk	Unk	na	Unk	Unk		
K054	H	M	No DNA	Collier	1998		Kitten Unk	Unk	Unk	Unk	Unk		
K055	J	M	No DNA		1999		Kitten Unk	Unk	Unk	Unk	Unk		
K056	H	F	No DNA		1999		Kitten Unk	Unk	na	Unk	Unk		
K057	H	M	No DNA		1999		Kitten Unk	Unk	Unk	Unk	Unk		
K061	H	M	No DNA		1999		Kitten Unk	Unk	Unk	Unk	Unk		
K062F1	H	F	Pco-0913		1999	2004	Parent in '04	Unk	na	Unk	Unk		
K069	H	M	Pco-0920		1999		Kitten Unk	Unk	Unk	Unk	Unk		
K070	H	F	Pco-0921		1999		Kitten Unk	Unk	na	Unk	Unk		
K071	C	M	Pco-0929		1999	2005	Parent in '05	Unk	Unk	Unk	Unk		
K072	C	F	Pco-0930	Hendry	1999		Kitten Unk	Unk	na	Unk	Unk		
K073	C	F	Pco-0931	Hendry	1999		Kitten Unk	Unk	na	Unk	Unk		
K074	C	F	Pco-0932		1999		Kitten Unk	Unk	na	Unk	Unk		
K075	C	F	Pco-0933		1999		Kitten Unk	Unk	na	Unk	Unk		
K076	H	M	Pco-0935	Collier	1999	2000	Dead	No	Unk	Unk	No		
K077	H	F	Pco-0936		1999		Kitten Unk	Unk	na	Unk	Unk		
K078	H	F	Pco-0937		1999		Kitten Unk	Unk	na	Unk	Unk		
K081	H	M	Pco-0976		2000		Kitten Unk	Unk	Unk	Unk	Unk		
K083	H	M	Pco-0978		2000		Kitten Unk	Unk	Unk	Unk	Unk		
K084	C	M	Pco-0980		2000		Kitten Unk	Unk	Unk	Unk	Unk		
K085	C	F	Pco-0981		2000		Kitten Unk	Unk	na	Unk	Unk		
K087	H	F	Pco-0985	Hendry	2000		Kitten Unk	Unk	na	Unk	Unk		
K088	H	M	Pco-0986	Hendry	2000		Kitten Unk	Unk	Unk	Unk	Unk		
K091	H	M	Pco-0995		2001		Kitten Unk	Unk	Unk	Unk	Unk		
K092	H	F	Pco-0998		2001		Kitten Unk	Unk	na	Unk	Unk		
K094	H	M	Pco-1218	UF31104	2001	2004	Dead	No	2	No	No		
K095	H	F	No DNA	Collier	2001		Kitten Unk	Unk	na	Unk	Unk		
K096	H	M	No DNA	Collier	2001		Kitten Unk	Unk	Unk	Unk	Unk		
K097	H	F	No DNA	Collier	2001		Kitten Unk	Unk	na	Unk	Unk		
K099	H	M	Pco-1008	Hendry	2001		Kitten Unk	Unk	Unk	Unk	Unk		
K100	H	M	Pco-1009	Hendry	2001		Kitten Unk	Unk	Unk	Unk	Unk		
K101	H	M	Pco-1010	Hendry	2001		Kitten Unk	Unk	Unk	Unk	Unk		
K102	C	M	Pco-1011		2001		Kitten Unk	Unk	Unk	Unk	Unk		
K103	C	M	Pco-1012		2001		Kitten Unk	Unk	Unk	Unk	Unk		
K104	H	M	Pco-1013		2001		Kitten Unk	Unk	Unk	Unk	Unk		
K105	H	M	Pco-1014		2001		Kitten Unk	Unk	Unk	Unk	Unk		
K106	H	M	Pco-1015		2001		Kitten Unk	Unk	Unk	Unk	Unk		
K107	H	M	Pco-1017		2001		Kitten Unk	Unk	Unk	Unk	Unk		

Table S2

DEMOGRAPHIC INFORMATION

TRAITS

PEDIGREE

Field ID & Genetic group	SEX	PCO#	FLMNH & Necropsy IDs	County	Birth Year	Loss Year	Status on 4/1/2010	Atrial Septal Defect	Number of Descended Testicles	Thoracic Cowlick	Tail tip Kink	Pedigree	
												Dam	Sire
K108	H	M	Pco-1018		2001		Kitten Unk	Unk	Unk	Unk	Unk		
K109	H	M	Pco-1025	Hendry	2002		Kitten Unk	Unk	Unk	Unk	Unk		
K110	H	M	Pco-1026	Hendry	2002		Kitten Unk	Unk	Unk	Unk	Unk		
K111	H	F	Pco-1027	Hendry	2002		Kitten Unk	Unk	na	Unk	Unk		
K112	H	F	Pco-1030		2002		Kitten Unk	Unk	na	Unk	Unk		
K114	H	F	Pco-1032	Collier	2002		Kitten Unk	Unk	na	Unk	Unk		
K116	H	F	Pco-1034	Collier	2002		Kitten Unk	Unk	na	Unk	Unk		
K117	C	F	Pco-1035		2002		Kitten Unk	Unk	na	Unk	Unk		
K118	C	F	Pco-1036		2002		Kitten Unk	Unk	na	Unk	Unk		
K121	H	M	Pco-1039		2002		Kitten Unk	Unk	Unk	Unk	Unk		
K122	H	F	Pco-1040		2002		Kitten Unk	Unk	na	Unk	Unk		
K123	H	M	Pco-1041		2002	2004	Parent in '04	Unk	Unk	Unk	Unk		
K124	C	F	Pco-1042		2002		Kitten Unk	Unk	na	Unk	Unk		
K125	C	M	Pco-1043		2002		Kitten Unk	Unk	Unk	Unk	Unk		
K126	C	M	Pco-1044		2002		Kitten Unk	Unk	Unk	Unk	Unk		
K127	H	F	Pco-1046		2002		Kitten Unk	Unk	na	Unk	Unk		
K128	C	M	Pco-1047	Hendry	2002	2004	Dead	No	2	Yes	Yes		
K130	C	M	Pco-1049		2002		Kitten Unk	Unk	Unk	Unk	Unk		
K131	C	M	Pco-1050		2002		Kitten Unk	Unk	Unk	Unk	Unk		
K133	C	M	Pco-1052		2002		Kitten Unk	Unk	Unk	Unk	Unk		
K134	C	M	Pco-1053		2002		Kitten Unk	Unk	Unk	Unk	Unk		
K135	H	M	Pco-1054		2002		Kitten Unk	Unk	Unk	Unk	Unk		
K136	H	F	Pco-1055		2002		Kitten Unk	Unk	na	Unk	Unk		
K137	H	F	Pco-1056		2002		Kitten Unk	Unk	na	Unk	Unk		
K138	H	M	Pco-1057		2002		Kitten Unk	Unk	Unk	Unk	Unk		
K139	H	F	Pco-1221	Dade	2002		Kitten Unk	Unk	na	Unk	Unk		
K140	H	M	Pco-1222	Dade	2002		Kitten Unk	Unk	Unk	Unk	Unk		
K141	H	M	No DNA	Dade	2002		Kitten Unk	Unk	Unk	Unk	Unk		
K142	H	F	Pco-1223	Dade	2002		Kitten Unk	Unk	na	Unk	Unk		
K143	H	F	Pco-1062		2003		Kitten Unk	Unk	na	Unk	Unk		
K144	H	M	Pco-1063		2003		Kitten Unk	Unk	Unk	Unk	Unk		
K145	H	F	No DNA		2003		Kitten Unk	Unk	na	Unk	Unk		
K146	H	F	Pco-1066		2003		Kitten Unk	Unk	na	Unk	Unk		
K148	H	F	Pco-1068		2003		Kitten Unk	Unk	na	Unk	Unk		
K149	H	F	Pco-1072	Hendry	2003		Kitten Unk	Unk	na	Unk	Unk		
K151	H	F	Pco-1073	Hendry	2003		Kitten Unk	Unk	na	Unk	Unk		
K153	H	M	Pco-1080	Collier	2003	2005	Dead	No	2	No	Yes		
K154	H	M	Pco-1081		2003		Kitten Unk	Unk	Unk	Unk	Unk		
K155	H	F	Pco-1089		2004		Kitten Unk	Unk	na	Unk	Unk		
K156	H	M	Pco-1090	Collier	2004	2004	Dead	No	2	No	No		
K157	H	M	Pco-1099		2004		Kitten Unk	Unk	Unk	Unk	Unk		
K158	H	M	Pco-1100		2004		Kitten Unk	Unk	Unk	Unk	Unk		
K159	H	F	Pco-1101		2004		Kitten Unk	Unk	na	Unk	Unk		
K160	H	F	Pco-1104		2004		Kitten Unk	Unk	na	Unk	Unk		
K161	H	F	Pco-1105		2004		Kitten Unk	Unk	na	Unk	Unk		
K162	H	M	Pco-1106		2004		Kitten Unk	Unk	Unk	Unk	Unk		
K163	H	M	Pco-1109		2004		Kitten Unk	Unk	Unk	Unk	Unk		
K164	H	M	Pco-1110		2004		Kitten Unk	Unk	Unk	Unk	Unk		
K165	H	F	Pco-1111		2004		Kitten Unk	Unk	na	Unk	Unk		
K166	H	F	Pco-1112		2004		Kitten Unk	Unk	na	Unk	Unk		
K167	H	F	Pco-1113		2004		Kitten Unk	Unk	na	Unk	Unk		
K168	H	M	Pco-1114		2004		Kitten Unk	Unk	Unk	Unk	Unk		
K170	H	F	Pco-1117		2004		Kitten Unk	Unk	na	Unk	Unk		
K171	H	M	Pco-1118		2004		Kitten Unk	Unk	Unk	Unk	Unk		
K172	H	F	Pco-1119		2004		Kitten Unk	Unk	na	Unk	Unk		
K173	H	F	Pco-1120		2004		Kitten Unk	Unk	na	Unk	Unk		
K174	H	M	Pco-1121	Collier	2004		Kitten Unk	Unk	Unk	Unk	Unk		
K175	H	M	Pco-1141		2005		Kitten Unk	Unk	Unk	Unk	Unk		

Table S2

DEMOGRAPHIC INFORMATION

TRAITS

PEDIGREE

Field ID & Genetic group	SEX	PCO#	FLMNH & Necropsy IDs	County	Birth Year	Loss Year	Status on 4/1/2010	Atrial Septal Defect	Number of Descended Testicles	Thoracic Cowlick	Tail tip Kink	Pedigree	
												Dam	Sire
K176	H	M	Pco-1142		2005		Kitten Unk	Unk	Unk	Unk	Unk		
K177	H	F	Pco-1143		2005		Kitten Unk	Unk	na	Unk	Unk		
K178	H	M	Pco-1191		2005		Kitten Unk	Unk	Unk	Unk	Unk		
K179	H	F	Pco-1192		2005		Kitten Unk	Unk	na	Unk	Unk		
K180	H	F	Pco-1145		2005		Kitten Unk	Unk	na	Unk	Unk		
K181	H	F	Pco-1146		2005		Kitten Unk	Unk	na	Unk	Unk		
K182	H	F	Pco-1148		2005		Kitten Unk	Unk	na	Unk	Unk		
K183	H	M	Pco-1149		2005		Kitten Unk	Unk	Unk	Unk	Unk		
K185	U	M	No DNA		2005		Kitten Unk	Unk	Unk	Unk	Unk		
K186	U	F	No DNA		2005		Kitten Unk	Unk	na	Unk	Unk		
K187	C	M	Pco-1153		2005		Kitten Unk	Unk	Unk	Unk	Unk		
K188	C	F	Pco-1154		2005		Kitten Unk	Unk	na	Unk	Unk		
K189	C	M	Pco-1155		2005		Kitten Unk	Unk	Unk	Unk	Unk		
K190	H	M	Pco-1156		2005		Kitten Unk	Unk	Unk	Unk	Unk		
K191	H	M	Pco-1157		2005		Kitten Unk	Unk	Unk	Unk	Unk		
K192	H	M	Pco-1158		2005		Kitten Unk	Unk	Unk	Unk	Unk		
K193	H	F	No DNA		2005		Kitten Unk	Unk	na	Unk	Unk		
K194	H	F	Pco-1160		2005		Kitten Unk	Unk	na	Unk	Unk		
K195	H	M	No DNA		2005		Kitten Unk	Unk	Unk	Unk	Unk		
K196	H	M	Pco-1162		2005		Kitten Unk	Unk	Unk	Unk	Unk		
K197	H	M	Pco-1163		2005		Kitten Unk	Unk	Unk	Unk	Unk		
K198	H	M	Pco-1164		2005		Kitten Unk	Unk	Unk	Unk	Unk		
K199	H	F	Pco-1165		2005	2007	Dead	Unk	na	Yes	Unk		
K200	H	F	Pco-1172		2006		Kitten Unk	Unk	na	Unk	Unk		
K201	H	M	Pco-1173		2006		Kitten Unk	Unk	Unk	Unk	Unk		
K202	H	F	Pco-1176		2006		Kitten Unk	Unk	na	Unk	Unk		
K203	H	M	No DNA		2006	2006	Dead	Unk	Unk	Unk	Unk		
K204	H	M	Pco-1178		2006		Kitten Unk	Unk	Unk	Unk	Unk		
K205	H	F	Pco-1179		2006		Kitten Unk	Unk	na	Unk	Unk		
K206	H	M	Pco-1180		2006		Kitten Unk	Unk	Unk	Unk	Unk		
K207	H	F	Pco-1181		2006		Kitten Unk	Unk	na	Unk	Unk		
K208	H	F	Pco-1182		2006		Kitten Unk	Unk	na	Unk	Unk		
K209	H	F	Pco-1183		2006		Kitten Unk	Unk	na	Unk	Unk		
K210	H	F	Pco-1184		2006		Kitten Unk	Unk	na	Unk	Unk		
K211	H	F	No DNA		2006		Kitten Unk	Unk	na	Unk	Unk		
K212	H	F	Pco-1186		2006		Kitten Unk	Unk	na	Unk	Unk		
K213	H	F	Pco-1187		2006		Kitten Unk	Unk	na	Unk	Unk		
K214	H	F	Pco-1188		2006		Kitten Unk	Unk	na	Unk	Unk		
K215	H	F	No DNA		2006		Kitten Unk	Unk	na	Unk	Unk		
K216	H	M	Pco-1190		2006		Kitten Unk	Unk	Unk	Unk	Unk		
K217	H	M	Pco-1211		2006		Kitten Unk	Unk	Unk	Unk	Unk		
K218	H	M	Pco-1212		2006		Kitten Unk	Unk	Unk	Unk	Unk		
K219	H	F	Pco-1229		2006		Kitten Unk	Unk	na	Unk	Unk		
K220	H	M	Pco-1230		2006		Kitten Unk	Unk	Unk	Unk	Unk		
K221	H	F	Pco-1234		2006		Kitten Unk	Unk	na	Unk	Unk		
K222	H	M	Pco-1235		2006		Kitten Unk	Unk	Unk	Unk	Unk		
K223	H	F	Pco-1236		2006		Kitten Unk	Unk	na	Unk	Unk		
K224	H	M	No DNA		2007		Kitten Unk	Unk	Unk	Unk	Unk		
K225	H	M	No DNA		2007		Kitten Unk	Unk	Unk	Unk	Unk		
K226	H	M	Pco-1241		2007		Kitten Unk	Unk	Unk	Unk	Unk		
K228	H	F	Pco-1243		2007		Kitten Unk	Unk	na	Unk	Unk		
K229	H	F	Pco-1244		2007		Kitten Unk	Unk	na	Unk	Unk		
K230	H	M	Pco-1245		2007		Kitten Unk	Unk	Unk	Unk	Unk		
K231	H	F	No DNA		2007		Kitten Unk	Unk	na	Unk	Unk		
K232	H	M	No DNA		2007		Kitten Unk	Unk	Unk	Unk	Unk		
K233	H	F	Pco-1246		2007		Kitten Unk	Unk	na	Unk	Unk		
K234	H	M	Pco-1247		2007		Kitten Unk	Unk	Unk	Unk	Unk		
K236	H	F	Pco-1252		2007		Kitten Unk	Unk	na	Unk	Unk		

Table S2

DEMOGRAPHIC INFORMATION

TRAITS

PEDIGREE

Field ID & Genetic group	SEX	PCO#	FLMNH & Necropsy IDs	County	Birth Year	Loss Year	Status on 4/1/2010	Atrial Septal Defect	Number of Descended Testicles	Thoracic Cowlick	Tail tip Kink	Pedigree	
												Dam	Sire
K237	H	F	Pco-1253		2007		Kitten Unk	Unk	na	Unk	Unk		
K238	H	M	Pco-1254		2007		Kitten Unk	Unk	Unk	Unk	Unk		
K239	H	F	Pco-1258		2007		Kitten Unk	Unk	na	Unk	Unk		
K240	H	F	Pco-1259	Collier	2007		Kitten Unk	Unk	na	Unk	Unk		
K241	H	M	Pco-1255		2007		Kitten Unk	Unk	Unk	Unk	Unk		
K242	H	F	Pco-1256		2007		Kitten Unk	Unk	na	Unk	Unk		
K243	H	F	Pco-1257		2007		Kitten Unk	Unk	na	Unk	Unk		
K244	H	M	Pco-1260		2007		Kitten Unk	Unk	Unk	Unk	Unk		
K245	H	M	Pco-1261		2007		Kitten Unk	Unk	Unk	Unk	Unk		
K246	H	F	Pco-1262		2007		Kitten Unk	Unk	na	Unk	Unk		
K247	H	F	Pco-1263	Collier	2007	2007	Dead	No	na	Unk	Yes		
K248	H	M	Pco-1264	Collier	2007	2007	Dead	Unk	Unk	Unk	Unk		
K249	H	F	Pco-1265	Collier	2007	2007	Dead	Unk	na	Unk	Unk		
K250	H	M	Pco-1266		2007		Kitten Unk	Unk	Unk	Unk	Unk		
K251	H	M	Pco-1267		2007		Kitten Unk	Unk	Unk	Unk	Unk		
K252	H	F	Pco-1268		2007		Kitten Unk	Unk	na	Unk	Unk		
K253	H	M	Pco-1280	Collier	2007	2009	Dead	No	2	No	Yes		
K255	H	F	Pco-1283		2007		Kitten Unk	Unk	na	Unk	Unk		
K256	H	F	Pco-1282		2007		Kitten Unk	Unk	na	Unk	Unk		
K257	H	M	Pco-1284	Hendry	2007		Kitten Unk	Unk	Unk	Unk	Unk		
K258	H	M	Pco-1285	Hendry	2007		Kitten Unk	Unk	Unk	Unk	Unk		
K259	H	M	Pco-1286	Collier	2007	2007	Dead	Unk	Unk	Unk	Unk		
K260	H	U	Pco-1287	Collier	2007	2007	Dead	Unk	na	Unk	Unk		
K261	H	M	Pco-1289		2007		Kitten Unk	Unk	Unk	Unk	Unk		
K262	H	M	Pco-1290		2007		Alive	Unk	Unk	Unk	Unk		
K263	H	M	Pco-1291		2007		Kitten Unk	Unk	Unk	Unk	Unk		
K265	H	M	Pco-1301		2008		Kitten Unk	Unk	Unk	Unk	Unk		
K266	H	M	Pco-1304		2008		Kitten Unk	Unk	Unk	Unk	Unk		
K267	H	M	Pco-1305		2008		Kitten Unk	Unk	Unk	Unk	Unk		
K268	H	F	Pco-1316	Collier	2008	2008	Dead	No	na	Unk	Unk		
K269	H	M	Pco-1315	Collier	2008	2008	Dead	Unk	Unk	Unk	Unk		
K270	H	F	Pco-1317		2008		Kitten Unk	Unk	Unk	Unk	Unk		
K271	H	M	Pco-1318		2008		Kitten Unk	Unk	Unk	Unk	Unk		
K272	H	M	Pco-1319		2008		Kitten Unk	Unk	Unk	Unk	Unk		
K273	H	M	Pco-1320		2008		Kitten Unk	Unk	Unk	Unk	Unk		
K274	H	F	Pco-1321		2008		Kitten Unk	Unk	Unk	Unk	Unk		
K275	H	M	Pco-1322		2008		Kitten Unk	Unk	Unk	Unk	Unk		
K276	H	M	Pco-1323		2008		Kitten Unk	Unk	Unk	Unk	Unk		
K277	H	M	Pco-1338		2009		Kitten Unk	Unk	Unk	Unk	Unk		
K278	H	M	Pco-1339		2009		Kitten Unk	Unk	Unk	Unk	Unk		
K280	U	F	Pco-1345		2009		Kitten Unk	Unk	Unk	Unk	Unk		
K281	H	M	Pco-1354		2009		Kitten Unk	Unk	Unk	Unk	Unk		
K282	H	M	Pco-1355		2009		Kitten Unk	Unk	Unk	Unk	Unk		
K283	U	M	Pco-1356		2009		Kitten Unk	Unk	Unk	Unk	Unk		
K284	U	M	Pco-1357		2009		Kitten Unk	Unk	Unk	Unk	Unk		
K285	U	M	Pco-1358	Collier	2009		Kitten Unk	Unk	Unk	Unk	Unk		
K286	U	M	Pco-1359	Collier	2009		Kitten Unk	Unk	Unk	Unk	Unk		
K287	U	F	Pco-1360	Collier	2009		Kitten Unk	Unk	na	Unk	Unk		
K288	U	M	Pco-1376		2010		Kitten Unk	Unk	Unk	Unk	Unk		
K289	U	M	Pco-1377		2010		Kitten Unk	Unk	Unk	Unk	Unk		
K290	U	M	Pco-1378		2010		Kitten Unk	Unk	Unk	Unk	Unk		
K291	H	F	Pco-1379	Collier	2010		Kitten Unk	Unk	na	Unk	Unk		
K292	H	M	Pco-1380	Collier	2010		Kitten Unk	Unk	Unk	Unk	Unk		
K293	H	F	Pco-1381	Collier	2010		Kitten Unk	Unk	na	Unk	Unk		
K294	H	U	Pco-1383		2010		Kitten Unk	Unk	Unk	Unk	Unk		
K295	H	U	Pco-1384		2010		Kitten Unk	Unk	Unk	Unk	Unk		
K296	H	U	Pco-1385		2010		Kitten Unk	Unk	Unk	Unk	Unk		
K297	H	F	Pco-1386	Collier	2010		Kitten Unk	Unk	na	Unk	Unk		

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DEMOGRAPHIC INFORMATION

TRAITS

PEDIGREE

Field ID & Genetic group	SEX	PCO#	FLMNH & Necropsy IDs	County	Birth Year	Loss Year	Status on 4/1/2010	Atrial Septal Defect	Number of Descended Testicles	Thoracic Cowlick	Tail tip Kink	Pedigree	
												Dam	Sire
K298	H	F	Pco-1387		2010		Kitten Unk	Unk	na	Unk	Unk		
K299	H	M	Pco-1388	Hendry	2010		Kitten Unk	Unk	Unk				
unmar Ked2	H	U	No DNA		2002		Kitten Unk	Unk	Unk	Unk	Unk		
FP080 fetus #1	C	U	Pco-0964	Hendry	2000	2000	Dead	Unk	Unk	Unk	Unk		
FP080 fetus #2	C	U	Pco-0965	Hendry	2000	2000	Dead	Unk	Unk	Unk	Unk		
FP080 fetus #3	C	U	Pco-0966	Hendry	2000	2000	Dead	Unk	Unk	Unk	Unk		
FP116 fetus #1	J	U	Pco-1308	Hendry	2007	2007	Dead	Unk	Unk	Unk	Unk		
FP116 fetus #2	J	U	Pco-1309	Hendry	2007	2007	Dead	Unk	Unk	Unk	Unk		
TEXAS FEMALE PUMAS													
TX101-BCNP BI	T	F	Pco-0730	Hendry	1991	2000	Dead	No	na	No	No		
Tx103 fetus #1	H	U	Pco-0954		1999	1999	Dead	Unk	Unk	Unk	Unk		
TX102-BCNP BI	T	F	Pco-0731	Hendry	1991	1995	Dead	No	na	No	No		
TX103-LP	T	F	Pco-0737	Monroe	1991	1999	Dead	Unk	na	No	No		
TX104-FSSP	T	F	Pco-0732	Collier	1991	1998	Dead	No	na	No	No		
TX105-ENP	T	F	Pco-0739	Dade	1991	2003	Captivity	Unk	na	No	No		
TX106-FSSP	T	F	Pco-0733	Collier	1991	2003	Captivity	Unk	na	No	No		
TX107-RP	T	F	Pco-0736	Collier	1991	2001	Dead	No	na	No	No		
TX108-ENP	T	F	Pco-0740	Dade	1991	2002	Captivity	Unk	na	No	No		

DEMOGRAPHIC INFORMATION

TRAITS

PEDIGREE

Field ID & Genetic group	SEX	PCO#	FLMNH & Necropsy IDs	County	Birth Year	Loss Year	Status on 4/1/2010	Atrial Septal Defect	Number of Descended Testicles	Thoracic Cowlick	Tail tip Kink	Pedigree	
												Dam	Sire
SEMINOLE INDIAN RESERVATION PUMAS													
WC00 "Little Boy"	W	M	Pco-0742										
WC01 "castrated 10m"	W	M	Pco-0922										
WC02 "Opal daughter"	W	F	Pco-0959										
WC03	W	F	Pco-0923										
WC04 "neutered"	W	F	Pco-0924										
WC05 "Taz"	W	M	Pco-0925										
WC06 "castrated 10"	W	M	Pco-0926										
WC07 "Opal"	W	F	Pco-0927										
WC08 "Bubba"	W	M	Pco-0928										
PIPER - EVERGLADES WONDER GARDENS PANTHERS													
Piper "Cmp Kalaqua"	M		Pco-0011										
Piper "Offspring"	F		Pco-0034										
Piper "Ocho"	M		Pco-0039										
Piper "Bert Wahl"	M		Pco-0040										
Piper "Dies Dose"	F		Pco-0053										
Piper "Kima"	M		Pco-0054										
Piper "Survivor"	U		Pco-0055										
Piper "Florida"	F		Pco-0078										
Piper "Osceola"	M		Pco-0084										
Piper "Hayeta"	F		Pco-0085										
Piper "Synda"	F		Pco-0169										
Piper "Delilah / Fatim"	F		Pco-0178										
Piper "Baca"	M		Pco-0179										
Piper "Numa"	M		Pco-0443										

DAM IDENTIFICATION

SIRE IDENTIFICATION

Field ID & Genetic group	Field Dam	Genetic Dam	Dam Consensus	Dam-offspring LOD score	Dam support	Field Sire	Genetic Sire	Sire Consensus	Sire Offspring LOD score	Sire support	Dame Sire and offspring LOD score
FLORIDA											
FP001	Unk	Unk-PNI	UnK-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
FP002	Unk	Unk-pqd	Unk-pqd			Unk	Unk-pqd	Unk-pqd			
FP003	Unk	Unk-PNI	Unk-PNI		G	Unk	FP001	FP001	6.97E+00	G	
FP004	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
FP005	Unk	Unk-sna	Unk-sna			Unk	Unk-sna	Unk-sna			
FP006	Unk	Unk-sna	Unk-sna			Unk	Unk-sna	Unk-sna			
FP007	Unk	Unk-PNI	UnK-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
FP008	Unk	UCFC12	UCFP12	6.49E+00	G	Unk	FP001	FP001	5.96E+00	G	7.14E+00
FP009	Unk	UCFC15	UCFP15	9.40E+00	G	Unk	FP004	FP004	5.42E+00	G	4.79E+00
FP010	FP009	FP009	FP009	8.85E+00	F G	Unk	FP004	FP004	6.33E+00	G	3.49E+00
FP011	Unk	FP003	FP003	6.37E+00	G	Unk	FP001	FP001	6.58E+00	G	4.74E+00
FP012	Unk	Unk-PNI	UnK-PNI		G	Unk	FP007	FP007	4.56E+00	G	
FP013	Unk	Unk-PNI	UnK-PNI		G	Unk	FP007	FP007	4.92E+00	G	
FP014	Unk	Unk-PNI	UnK-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
FP015	Unk	Unk-PNI	UnK-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
FP016	FP014	FP014	FP014	1.36E+01	F G	Unk	FP025	FP025	1.86E+01	G	2.01E+01
FP017	Unk	UCFC15	UCFP15	7.22E+00	G	Unk	Unk-PNI	Unk-PNI		G	
FP018	Unk	Unk-PNI	UnK-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
FP019	FP011	FP011	FP011	3.80E+00	F G TC	FP012	FP012	FP012	3.15E+00	F G TC	5.47E+00
FP020	Unk	UCFC12	UCFP12	2.63E+00	G	Unk	Unk-PNI	Unk-PNI		G	
FP021	FP014	FP014	FP014	1.10E+01	F G	Unk	FP025	FP025	1.90E+01	G	1.56E+01
FP022	FP015	FP015	FP015	1.97E+01	F G	Unk	Unk-PNI	Unk-PNI		G	
FP023	FP015	FP015	FP015	1.74E+01	F G	Unk	Unk-PNI	Unk-PNI		G	
FP024	Unk	UCFC15	UCFP15	3.09E+00	G	Unk	FP012	FP012	8.57E+00	G	1.23E+01
FP025	Unk	FP014	FP014	7.57E+00	G	Unk	Unk-PNI	Unk-PNI		G	
FP026	Unk	FP011	FP011	3.41E+00	G T	Unk	FP004	FP004	6.32E+00	G T	7.27E+00
FP027	Unk	FP015	FP015	2.06E+01	G	Unk	Unk-PNI	Unk-PNI		G	
FP028	Unk	FP018	FP018	1.31E+01	G T	Unk	FP012	FP012	5.65E+00	G T	7.77E+00
FP029	FP011	FP011	FP011	4.55E+00	F G TC	FP020	FP020	FP020	5.26E+00	F G TC	8.41E+00
FP030	FP019	FP019	FP019	3.56E+00	F G TC	FP013	FP013	FP013	6.16E+00	F G TC	7.34E+00
FP031	Unk	UCFC15	UCFP15	6.29E+00	G	Unk	FP004	FP004	5.67E+00	G	4.14E+00
FP032	Unk	FP031	FP031	4.44E+00	G T	Unk	FP012	FP012	2.15E+00	G T	4.77E+00
FP033	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP034	FP031	FP031	FP031	6.06E+00	F G T	FP012	FP012	FP012	3.67E-01	F G T	3.08E+00
FP035	FP031	FP031	FP031	4.99E+00	F G T	FP012	FP012	FP012	2.42E+00	F G T	4.31E+00
FP036	Unk	FP011	FP011	3.93E+00	G T	Unk	FP004	FP004	5.21E+00	G T	6.31E+00
FP037	Unk	FP015	FP015	1.45E+01	G	Unk	Unk-PNI	Unk-PNI		G	
FP038	Unk	Unk-PNI	UnK-PNI		G	Unk	FP007	FP007	7.38E+00	G	
FP039	Unk	FP009	FP009	2.14E+00	G	Unk	FP024	FP024	1.71E+00	G	5.71E+00
FP040	Unk	FP036	FP036	3.26E+00	G T	Unk	FP017	FP017	2.04E+00	G T	3.19E+00
FP041	Unk	FP036	FP036	3.68E+00	G T	Unk	FP017	FP017	6.28E+00	G T	8.25E+00
FP042	FP014	FP014	FP014	4.41E+00	F G TC	FP016	FP016	FP016	1.10E+01	F G TC	1.16E+01
FP043	FP019	FP019	FP019	5.02E+00	F G TC	FP012	FP012	FP012	8.08E+00	F G TC	7.90E+00
FP044	FP040	FP040	FP040	3.99E+00	F G TC	FP026	FP026	FP026	5.69E+00	F G TC	7.95E+00
FP045	FP019	FP019	FP019	5.57E+00	F G TC	FP012	FP012	FP012	5.25E+00	F G TC	7.19E+00
FP046	Unk	FP036	FP036	3.82E+00	G T	Unk	FP017	FP017	6.60E+00	G T	8.67E+00
FP047	FP011	FP011	FP011	4.19E+00	F G TC	FP012	FP012	FP012	4.89E+00	F G TC	6.68E+00
FP048	FP031	FP031	FP031	2.23E+00	F G TC	FP012	FP012	FP012	3.84E+00	F G TC	6.89E+00
FP049	Unk	FP036	FP036	4.91E+00	G T	Unk	FP017	FP017	9.26E+00	G T	1.03E+01
FP050	FP036	FP036	FP036	6.86E+00	F G TC	FP026	FP026	FP026	5.38E+00	F G TC	4.85E+00
FP051	Unk	FP036	FP036	4.71E+00	G T	Unk	FP017	FP017	8.21E+00	G T	9.10E+00
FP052	FP031	FP031	FP031	1.99E+00	F G TC	FP012	FP012	FP012	3.32E+00	F G TC	5.76E+00
FP053	FP019	FP019	FP019	7.80E+00	F G T	FP012	FP012	FP012	5.36E+00	F G T	6.68E+00
FP054	FP040	FP040	FP040	2.06E+00	F G	FP028	FP028	FP028	7.94E+00	F G	1.22E+01
FP055	FP023	FP023	FP023	1.22E+01	F G TC	FP042	FP042	FP042	1.43E+01	F G TC	2.20E+01
FP056	Unk	FP019	FP019	6.31E+00	GT	Unk	FP012	FP012	6.56E+00	G T	8.93E+00
FP057	Unk	FP011	FP011	3.88E+00	G T	Unk	FP012	FP012	3.39E+00	G T	4.23E+00

DAM IDENTIFICATION

SIRE IDENTIFICATION

Field ID & Genetic group	Field Dam	Genetic Dam	Dam Consensus	Dam-offspring LOD score	Dam support	Field Sire	Genetic Sire	Sire Consensus	Sire Offspring LOD score	Sire support	Dame Sire and offspring LOD score
FP058	FP056	FP056	FP056	9.91E+00	F G T	Unk	FP045	FP045	9.78E+00	G T	9.36E+00
FP059	FP048	FP048	FP048	4.41E+00	F G	Unk	FP068	FP068	7.48E+00	G T	1.09E+01
FP060	FP040	FP040	FP040	4.84E+00	F G T	Unk	FP045	FP045	4.03E+00	G T	6.05E+00
FP061F1	TX108	TX108	TX108	1.51E+01	F G TC	FP016	FP016	FP016	1.79E+01	F G TC	2.41E+01
FP062	FP048	FP048	FP048	8.39E+00	F G T	Unk	FP051	FP051	5.81E+00	G T	6.37E+00
FP063	Unk	FP040	FP040	4.07E+00	G T	Unk	FP045	FP045	6.57E+00	G T	8.02E+00
FP064	FP048	FP048	FP048	4.73E+00	F G T	Unk	FP051	FP051	7.11E+00	G T	8.41E+00
FP065 / K035F1	TX101	TX101	TX101	8.89E+00	F G TC	FP045	FP045	FP045	9.00E-01	F G TC	7.83E+00
FP066 / K036F1	TX101	TX101	TX101	7.25E+00	F G TC	FP045	FP045	FP045	-1.64E+00	F G TC	5.85E+00
FP067	FP056	FP056	FP056	9.51E+00	F G TC	FP045	FP045	FP045	8.21E+00	F G TC	8.10E+00
FP068	Unk	FP049	FP049	4.98E+00	G T	Unk	FP045	FP045	3.63E+00	G T	7.74E+00
FP069	FP040	FP040	FP040	2.53E+00	F G T	FP045	FP045	FP045	4.75E+00	F G T	6.39E+00
FP070 / K039	TX107	TX107	TX107	1.21E+01	F G	Unk	FP079	FP079 _{F1}	5.90E+00	G T	6.25E+00
FP071 / K038	TX107	TX107	TX107	2.09E+01	F G	Unk	FP079	FP079 _{F1}	2.04E+00	G T	6.33E+00
FP072	Unk	FP057	FP057	6.15E+00	G	Unk	Unk-PNI	Unk-PNI		G	
FP073 / K018F1	TX101	TX101	TX101	9.90E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
FP074	FP073	FP073	FP073 _{F1}	4.64E+00	F G T	Unk	FP068	FP068	2.89E+00	G TC	6.40E+00
FP075	FP048	FP048	FP048	7.03E+00	F G T	FP068	FP045	FP045	3.78E+00	G T	4.69E+00
FP076	Unk	FP049	FP049	6.46E+00	G T	Unk	FP045	FP045	2.13E+00	G T	6.05E+00
FP077	Unk	FP073	FP073 _{F1}	1.03E+01	G T	Unk	FP068	FP068	1.72E+00	G TC	6.50E+00
FP078	Unk	FP057	FP057	4.81E+00	G	Unk	FP054	FP054	3.34E+00	G	4.24E+00
FP079 / K019F1	TX101	TX101	TX101	8.41E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
FP080	Unk	FP049	FP049	5.71E+00	G	Unk	FP046	FP046	9.39E+00	G	9.45E+00
FP081	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP082	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP083 / K62F1	TX106	TX106	TX106	1.73E+01	F G	FP054/060	FP060	FP060	-1.49E+00	F G	6.34E+00
FP084	FP073	FP073	FP073 _{F1}	5.15E+00	F G TC	Unk	FP072	FP072	2.99E+00	G TC	6.62E+00
FP085 / K059	FP061	FP061	FP061 _{F1}	2.61E+01	F G TC	FP016	FP016	FP016	2.62E+01	F G TC	1.99E+01
FP086 / K068	FP071	FP071	FP071	1.10E+01	F G TC	FP079	FP079	FP079 _{F1}	8.24E+00	F G TC	8.62E+00
FP087 / K060	FP055	FP055	FP055	1.36E+01	F G T	FP079	FP079	FP079 _{F1}	5.44E+00	G T	9.21E+00
FP088 / K064	FP070	FP070	FP070	1.10E+01	F G TC	FP079	FP079	FP079 _{F1}	7.69E+00	F G TC	7.84E+00
FP089	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP090 / K067	FP071	FP071	FP071	1.33E+01	F G TC	FP079	FP079	FP079 _{F1}	6.44E+00	F G TC	8.70E+00
FP091 / K066	FP070	FP070	FP070	8.39E+00	F G TC	FP079	FP079	FP079 _{F1}	3.31E+00	F G TC	4.56E+00
FP092 / K065	FP070	FP070	FP070	9.90E+00	F G TC	FP079	FP079	FP079 _{F1}	5.18E+00	F G TC	5.02E+00
FP093 / K058	TX107	TX107	TX107	2.09E+01	F G	FP079?	FP079	FP079 _{F1}	3.04E+00	F G T	7.04E+00
FP094F1	TX105	TX105	TX105	2.58E+01	F G TC	FP016	FP016	FP016	1.02E+01	F G TC	2.02E+01
FP095 / K045F1	TX108	TX108	TX108	2.44E+01	F G TC	FP016	FP016	FP016	1.52E+01	F G TC	1.95E+01
FP096 / K080	FP078	FP078	FP078	7.11E+00	F G	FP059	Unk-PNI	Unk-PNI		G	
FP097	FP105	FP105	FP105	4.74E+00	F G T	Unk	FP100/63	FP063	4.49E+00	G T	4.41E+00
FP098	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP099	FP105	FP105	FP105	5.97E+00	F G T	Unk	FP100/63	FP063	7.19E+00	G T	7.45E+00
FP100	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP101	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP102 / K048	FP055	FP055	FP055	1.57E+01	F G T	Unk	FP079	FP079 _{F1}	7.90E+00	G T	1.30E+01
FP103	FP102	FP102	FP102	1.66E+01	F G T	Unk	FP079	FP079 _{F1}	9.53E+00	G T	6.57E+00
FP104	Unk	FP070	FP070	1.51E+01	G	FP079	FP079	FP079 _{F1}	1.14E+01	G T	1.22E+01
FP105	FP019	FP019	FP019	4.05E+00	F G TC	Unk	FP012	FP012	3.77E+00	G TC	4.90E+00
FP106	FP105	FP105	FP105	5.47E+00	F G T	Unk	FP063	FP063	7.23E+00	G T	7.30E+00
FP107 / K079	FP078	FP078	FP078	8.43E+00	F G	FP059	Unk-MMI	Unk-MMI		F G	
FP108 / K090	FP087	FP087	FP087	1.06E+01	F G	FP079	FP079	FP079 _{F1}	1.22E+00	F G TC	3.83E+00
FP109	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP110 / K086	FP082	FP082	FP082	3.30E+00	F G TC	FP065	FP065	FP065 _{F1}	2.66E+00	F G TC	8.33E+00
FP111	Unk	FP036	FP036	2.97E+00	G	Unk	Unk-PNI	Unk-PNI		G	
FP112	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP113	FP078	FP078	FP078	7.80E+00	F G TC	FP059	FP059	FP059	4.81E+00	F G TC	3.78E+00
FP114	FP078	FP078	FP078	6.23E+00	F G TC	FP059	FP059	FP059	3.92E+00	F G TC	3.35E+00
FP115	Unk	FP082	FP082	6.40E+00	G T	Unk	UCFP26	UCFP26	4.38E+00	G	6.62E+00

Table S2

DAM IDENTIFICATION

SIRE IDENTIFICATION

Field ID & Genetic group	Field Dam	Genetic Dam	Dam Consensus	Dam-offspring LOD score	Dam support	Field Sire	Genetic Sire	Sire Consensus	Sire Offspring LOD score	Sire support	Dame Sire and offspring LOD score
FP116	FP067	FP067	FP067	7.26E+00	F G TC	Unk	FP098	FP098	5.57E+00	G TC	7.35E+00
FP117	Unk	FP077	FP077	8.70E-01	G T	Unk	Unk-PNI	Unk-PNI		G	
FP118	Unk	FP077	FP077	-2.02E+00	G T	Unk	Unk-PNI	Unk-PNI		G	
FP119 / K115	FP093	FP093	FP093	8.98E+00	F G TC	FP079	FP079	FP079 _{F1}	6.46E+00	F G TC	5.72E+00
FP120	Unk	FP070	FP070	1.08E+01	G T	Unk	FP079	FP079 _{F1}	7.74E+00	G T	4.54E+00
FP121	Unk	UCFP57	UCFP57	0.00E+00	G	Unk	Unk-PNI	Unk-PNI		G	
FP122	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP123	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP124	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
FP125	FP124	FP124	FP124	2.76E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
FP126	FP124	FP124	FP124	9.95E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
FP127	Unk	FP070	FP070	1.30E+01	G T	Unk	FP079	FP079 _{F1}	5.32E+00	G T	3.65E+00
FP128 / K082	FP077	FP077	FP077	4.08E+00	F G T	Unk	FP100	FP100	4.58E+00	G T	7.70E+00
FP129 / K089	FP087	FP087	FP087	9.75E+00	F G	FP079	FP079	FP079 _{F1}	4.72E+00	F G TC	3.18E+00
FP130 / K150	FP110	FP110	FP110	4.47E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
FP131	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
FP132	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
FP133	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP134	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP135 / K147	FP101	FP101	FP101	3.34E+00	F G TC	FP065/100	FP065	FP065 _{F1}	5.47E+00	F G TC	1.23E+01
FP136	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP137	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP138	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP139	FP075	FP075	FP075	4.20E+00	F G TC	FP098/100	FP098	FP098	5.28E+00	F G TC	6.45E+00
FP140	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP141	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP142	Unk	FP061	FP061 _{F1}	2.83E+01	G	Unk	FP085	FP085	3.22E+01	G	2.89E+01
FP143	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
FP144	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
FP145	Unk	K049	K049	9.77E+00	G	Unk	Unk-PNI	Unk-PNI		G	
FP146	Unk	FP083	FP083 _{F1}	9.08E+00	G	Unk	Unk-MMI	Unk-MMI		G	
FP147 / K184	FP129	FP129	FP129	2.61E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
FP148	Unk	FP083	FP083 _{F1}	1.19E+01	G T	Unk	Unk-PNI	Unk-PNI		G	
FP149	Unk	K062	K062 _{F1}	7.07E+00	G	Unk	Unk-MMI	Unk-MMI		G	
FP150 / K152	FP093	FP093	FP093	8.94E+00	F G TC	FP060	FP060	FP060	2.80E+00	F G TC	8.58E+00
FP151 / K113	FP093	FP093	FP093	1.37E+01	F G TC	FP079	FP079	FP079 _{F1}	8.64E+00	F G TC	9.74E+00
FP152	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP153	Unk	Unk-MMI	Unk-MMI		G	Unk	FP079	FP079 _{F1}	9.51E+00	G	
FP154	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP155	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
FP156	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP157	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP158	Unk	Unk-PNI	Unk-PNI		G	Unk	K093	FP181 / K093	7.55E+00	G	
FP159	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP160	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
FP161 / K169	FP070	FP070	FP070	8.06E+00	F G	Unk	FP079	FP079 _{F1}	1.55E+00	G T	3.48E+00
FP162	Unk	Unk-pqd	Unk-pqd			Unk	Unk-pqd	Unk-pqd			
FP163 / K227	FP093	FP093	FP093	1.27E+01	F G T	Unk	FP133	FP133	7.33E+00	G T	1.00E+01
FP164	Unk	Unk-pqd	Unk-pqd			Unk	Unk-pqd	Unk-pqd			
FP165	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
FP166	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
FP167	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
FP168	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
FP169	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
FP170	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
FP171	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
FP172	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
FP173	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			

DAM IDENTIFICATION

SIRE IDENTIFICATION

Field ID & Genetic group	Field Dam	Genetic Dam	Dam Consensus	Dam-offspring LOD score	Dam support	Field Sire	Genetic Sire	Sire Consensus	Sire Offspring LOD score	Sire support	Dame Sire and offspring LOD score
FP174	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
FP175 / K254	FP150	FP150	FP150	5.17E+00	F G	TBD	FP138	FP138	2.15E+00	G	5.23E+00
FP176	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
FP177 / K235	FP113	FP113	FP113	9.70E-01	F G	FP119	FP154	FP154	9.14E+00	G	1.32E+01
FP178	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
FP179	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
FP180 / K264	FP151	FP151	FP151	5.94E+00	F G	Unk	FP138	FP138	-1.25E+00	G	2.52E+00
FP181 / K093	TX106	TX106	TX106	1.71E+01	F G	FP060	Unk-PNI	Unk-PNI		G	
FP182 / K279	FP161	Unk-ND	FP161		F	Unk	Unk-ND	Unk-ND			
FP200 "Big Guy"	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
FP201	FP031	FP031	FP031	4.57E+00	F G TC	FP012	FP012	FP012	2.76E+00	F G TC	5.72E+00
FP202	FP009	FP009	FP009	9.77E+00	F G TC	FP037	FP037	FP037	1.78E+01	F G TC	1.95E+01
FP203	FP009	FP009	FP009	9.73E+00	F G TC	FP037	FP037	FP037	1.73E+01	F G TC	1.91E+01
FP204	FP031	FP031	FP031	3.92E+00	F G TC	FP012	FP012	FP012	4.44E+00	F G TC	8.65E+00
FP205	FP019	FP019	FP019	7.20E+00	F G TC	FP012	FP012	FP012	6.10E+00	F G TC	5.92E+00
FP206	FP040	FP040	FP040	5.00E+00	F G TC	FP026	FP026	FP026	5.51E+00	F G TC	7.18E+00
FP207	FP036	FP036	FP036	5.15E+00	F G TC	FP026	FP026	FP026	9.37E+00	F G TC	9.19E+00
FP208	FP032	FP032	FP032	7.47E+00	F G TC	FP012	FP012	FP012	4.26E+00	F G TC	4.59E+00
FP209	FP023	FP023	FP023	2.18E+01	F G TC	FP042	FP042	FP042	3.02E+00	F G TC	6.53E+00
FP210	FP023	FP023	FP023	1.18E+01	F G TC	FP042	FP042	FP042	7.18E+00	F G TC	9.76E+00
UCFP002	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
UCFP003	Unk	Unk-pqd	Unk-pqd			Unk	Unk-pqd	Unk-pqd			
UCFP004	Unk	Unk-pqd	Unk-pqd			Unk	Unk-pqd	Unk-pqd			
UCFP005	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
UCFP006	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
UCFP007	UCFP06	Unk-pqd	UCFP06		F	Unk	Unk-pqd	Unk-pqd			
UCFP008	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
UCFP009	Unk	FP003	Unk-PNI		G	Unk	FP001	FP001	6.28E+00	G	
UCFP010	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
UCFP011	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
UCFP012	Unk	FP003	FP003	3.22E+00	G	Unk	Unk-PNI	Unk-PNI		G	
UCFP013	Unk	Unk-pqd	Unk-pqd			Unk	Unk-pqd	Unk-pqd			
UCFP014	Unk	Unk-pqd	Unk-pqd			Unk	Unk-pqd	Unk-pqd			
UCFP015	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
UCFP017	Unk	Unk-pqd	Unk-pqd			Unk	Unk-pqd	Unk-pqd			
UCFP018	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP019	Unk	Unk-PNI	Unk-PNI		G	Unk	FP033	FP033	7.85E+00	G	
UCFP020	FP011	FP011	FP011	4.50E+00	F G TC	FP012	FP012	FP012	2.24E+00	F G TC	3.26E+00
UCFP021	FP019	FP019	FP019	5.72E+00	F G T	FP012	FP012	FP012	4.99E+00	F G T	4.21E+00
UCFP022	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP023	FP052	FP052	FP052	3.27E+00	F G TC	FP046	FP046	FP046	6.49E+00	F G TC	6.79E+00
UCFP024	FP032	Unk-sna	FP032		F	Unk	Unk-sna	Unk-sna			
UCFP025	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP026	Unk	FP019	FP019	5.81E+00	G T	Unk	FP012	FP012	7.00E+00	G TC	9.36E+00
UCFP027	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP028	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP029	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP030	Unk	Unk-pqd	Unk-pqd			Unk	Unk-pqd	Unk-pqd			
UCFP031	Unk	Unk-pqd	Unk-pqd			Unk	Unk-pqd	Unk-pqd			
UCFP032	Unk	Unk-sna	Unk-sna			Unk	Unk-sna	Unk-sna			
UCFP033	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
UCFP034	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
UCFP035	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP036	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP037	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP038	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
UCFP039	Unk	Unk-PNI	Unk-PNI		G	Unk	FP060	FP060	1.64E+00	G	
UCFP040	Unk	Unk-PNI	Unk-PNI		G	Unk	FP060	FP060	1.55E+00	G	

DAM IDENTIFICATION

SIRE IDENTIFICATION

Field ID & Genetic group	Field Dam	Genetic Dam	Dam Consensus	Dam-offspring LOD score	Dam support	Field Sire	Genetic Sire	Sire Consensus	Sire Offspring LOD score	Sire support	Dame Sire and offspring LOD score
UCFP041	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP042	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
UCFP043	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP044	FP036	Unk-pqd	FP036		F	FP045	Unk-pqd	FP045		F T(C?)	
UCFP045	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP046	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP047	Unk	Unk-pqd	Unk-pqd			Unk	Unk-pqd	Unk-pqd			
UCFP048	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP049 /K98	FP067	FP067	FP067	4.91E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
UCFP050	FP048	FP048	FP048	7.89E+00	F G T	Unk	FP051	FP051	5.02E+00	G T	5.58E+00
UCFP051	Unk	FP071	FP071	9.72E+00	G T	Unk	FP079	FP079 _{F1}	5.83E+00	G T	7.99E+00
UCFP052	Unk	Unk-pqd	Unk-pqd			Unk	Unk-pqd	Unk-pqd			
UCFP053	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP054	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP055	Unk	Unk-PNI	Unk-PNI		G	Unk	UCFP056	Unk-PNI		G	
UCFP056	Unk	Unk-PNI	Unk-PNI		G	Unk	UCFP055	Unk-PNI		G	
UCFP057	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
UCFP058	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP059	Unk	FP066	FP066 _{F1}	5.25E+00	G	Unk	FP138	FP138	1.55E+00	G	4.89E+00
UCFP060	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP061	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP062	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP063	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP064	Unk	Unk-pqd	Unk-pqd			Unk	Unk-pqd	Unk-pqd			
UCFP065	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP066	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP067	FP113	FP113	FP113	5.43E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
UCFP068	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP069	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP070	Unk	Unk-MMI	Unk-MMI		G	Unk	FP065	FP065 _{F1}	1.11E+01	G	
UCFP071	Unk	FP120	FP120	9.37E+00	G	Unk	Unk-PNI	Unk-PNI		G	
UCFP072	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP073	Unk	Unk-MMI	Unk-MMI		G	Unk	K093	FP181 / K093	9.77E+00	G	
UCFP074	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP075	Unk	Unk-MMI	Unk-MMI		G	Unk	FP065	FP065 _{F1}	1.05E+01	G	
UCFP076	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
UCFP077	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
UCFP078	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
UCFP079	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
UCFP080	Unk	FP095	FP095 _{F1}	1.04E+01	G	Unk	Unk-PNI	Unk-PNI		G	
UCFP081	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP082	Unk	Unk-sna	Unk-sna			Unk	Unk-sna	Unk-sna			
UCFP083	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
UCFP084	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP085	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP086	Unk	Unk-pqd	Unk-pqd			Unk	Unk-pqd	Unk-pqd			
UCFP087	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP088	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP089	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP090	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP091	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP092	Unk	Unk-MMI	Unk-MMI		G	Unk	K093	FP181 / K093	1.04E+01	G	
UCFP093	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP094	Unk	Unk-MMI	Unk-MMI		G	Unk	FP079	FP079 _{F1}	4.89E+00	G	
UCFP095	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP096	Unk	FP095	FP095 _{F1}	7.85E+00	G	Unk	Unk-MMI	Unk-MMI		G	
UCFP097	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP098	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	

DAM IDENTIFICATION

SIRE IDENTIFICATION

Field ID & Genetic group	Field Dam	Genetic Dam	Dam Consensus	Dam-offspring LOD score	Dam support	Field Sire	Genetic Sire	Sire Consensus	Sire Offspring LOD score	Sire support	Dame Sire and offspring LOD score
UCFP099	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP100	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP101	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP102	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP103	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
UCFP104	Unk	FP083	FP083 _{F1}	8.13E+00	G	Unk	K093	FP181 / K093	1.13E+01	G	9.98E+00
UCFP105	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP106	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP107	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP108	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP109	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP110	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP111	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP112	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP113	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP114	Unk	Unk-MMI	Unk-MMI		G	Unk	Unk-MMI	Unk-MMI		G	
UCFP115	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP116	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP117	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP118	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP119	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP120	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP121	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP122	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP123	Unk	Unk-MMI	Unk-MMI		G	Unk	FP137	FP137	5.15E+00	G	
UCFP124	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP125	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP126	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP127	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP128	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP129	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP130	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP131	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP132	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP133	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP134	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP135	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP136	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP137	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP138	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP139	Unk	Unk-ND	Unk-ND			Unk	Unk-ND	Unk-ND			
UCFP-LawEnfor	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
K002	FP040	FP040	FP040	2.61E+00	F G	FP028	FP028	FP028	7.44E+00	F G	1.12E+01
K003	FP040	Unk-sna	FP040		F LMG TC	FP026	Unk-sna	FP026		F TC	
K004	FP040	Unk-sna	FP040		F LMG TC	FP026	Unk-sna	FP026		F TC	
K005	FP040	Unk-sna	FP040		F LMG TC	FP026	Unk-sna	FP026		F TC	
K006	FP048	FP048	FP048	6.69E+00	F G TC	FP012	FP012	FP012	2.40E+00	F G TC	2.57E+00
K007	FP048	Unk-sna	FP048		F LMG TC	FP012	Unk-sna	FP12		F LMG TC	
K008	FP048	Unk-sna	FP048		F LMG TC	FP012	Unk-sna	FP12		F LMG TC	
K010	FP056	Unk-sna	FP056		F T	Unk	Unk-sna	FP045		LMG T	
K011 or K009	FP056	Unk-sna	FP056		F T	Unk	Unk-sna	FP045		LMG T	
K013	FP019	FP019	FP019	5.32E+00	F G TC	Unk	FP012	FP012	7.19E+00	G TC	7.50E+00
K014	FP055	Unk-sna	FP055		F TC	FP042	Unk-sna	FP042		F TC	
K015	FP055	Unk-sna	FP055		F TC	FP042	Unk-sna	FP042		F TC	
K017	FP048	FP048	FP048	5.49E+00	F G	Unk	FP68/K002	FP068	1.30E+00	G T	3.44E+00
K020	FP056	Unk-sna	FP056		F TC	FP045	Unk-sna	FP045		F TC	
K021	FP056	Unk-sna	FP056		F TC	FP045	Unk-sna	FP045		F TC	
K022	FP056	Unk-sna	FP056		F TC	FP045	Unk-sna	FP045		F TC	

DAM IDENTIFICATION

SIRE IDENTIFICATION

Field ID & Genetic group	Field Dam	Genetic Dam	Dam Consensus	Dam-offspring LOD score	Dam support	Field Sire	Genetic Sire	Sire Consensus	Sire Offspring LOD score	Sire support	Dame Sire and offspring LOD score
K023F1	TX106	Unk-sna	TX106		F TC	FP051	Unk-sna	FP051		F TC	
K024	FP036	Unk-sna	FP036		F	FP045	Unk-sna	FP045		F T(C?)	
K025	FP036	Unk-sna	FP036		F	FP045	Unk-sna	FP045		F T(C?)	
K026	FP036	Unk-sna	FP036		F	FP045	Unk-sna	FP045		F T(C?)	
K027	FP019	Unk-sna	FP019		F TC	FP054/051	Unk-sna	FP054		F TC	
K028	FP019	Unk-sna	FP019		F TC	FP054/051	Unk-sna	FP054		F TC	
K029	FP056	Unk-sna	FP056		F TC	FP045	Unk-sna	FP045		F TC	
K030	FP056	Unk-sna	FP056		F TC	FP045	Unk-sna	FP045		F TC	
K034F1	TX105	Unk-sna	TX105		F TC	FP016	Unk-sna	FP016		F LMG TC	
K037	FP040	FP040	FP040	2.62E+00	F G T	FP045	FP045	FP045	4.73E+00	F G T	6.64E+00
K040	FP056	Unk-sna	FP056		F TC	FP045	Unk-sna	FP045		F LMG TC	
K041	FP056	Unk-sna	FP056		F TC	FP045	Unk-sna	FP045		F LMG TC	
K043	FP056	Unk-sna	FP056		F TC	FP045	Unk-sna	FP045		F LMG TC	
K044	FP055	Unk-sna	FP055		F	Unk	Unk-sna	Unk-sna			
K046F1	TX108	Unk-sna	TX108		F LMG TC	FP016	Unk-sna	FP016		F LMG	
K047F1	TX106	Unk-sna	TX106		F TC	FP054/059	Unk-sna	FP059		F TC	
K049	FP055	FP055	FP055	1.81E+01	F G T	Unk	FP079	FP079 _{F1}	2.04E+00	G T	6.95E+00
K050	FP055	Unk-sna	FP055		F T	Unk	Unk-sna	FP079 _{F1}		LMG T	
K051	FP048	Unk-sna	FP048		F T	FP068	Unk-sna	FP045		F T	
K052	FP066	Unk-sna	FP066 _{F1}		F TC	FP072	Unk-sna	FP072		F TC	
K053	FP066	Unk-sna	FP066 _{F1}		F TC	FP072	Unk-sna	FP072		F TC	
K054	FP066	Unk-sna	FP066 _{F1}		F TC	FP072	Unk-sna	FP072		F TC	
K055	FP049	Unk-sna	FP049		F	Unk	Unk-sna	Unk-sna			
K056	TX107	Unk-sna	TX107		F LMG	FP079?	Unk-sna	FP079 _{F1}		F LMG T	
K057	TX107	Unk-sna	TX107		F LMG	FP079?	Unk-sna	FP079 _{F1}		F LMG T	
K061	FP055	Unk-sna	FP055		F T	Unk (FP79??)	Unk-sna	FP079 _{F1}		F LMG T	
K062F1	TX106	TX106	TX106		F G	FP054/060	FP060	FP060		F G	
K069	FP071	FP071	FP071	1.29E+01	F G TC	FP079	FP079	FP079 _{F1}	-1.45E+00	F G TC	7.27E-01
K070	FP071	FP071	FP071	1.03E+01	F G TC	FP079	FP079	FP079 _{F1}	9.99E+00	F G TC	1.21E+01
K071	FP069	FP069	FP069	5.65E+00	F G	Unk	FP111	FP111	3.20E+00	G	4.67E+00
K072	FP069	FP069	FP069	3.27E+00	F G	Unk	FP111	FP111	4.82E+00	G	5.46E+00
K073	FP069	FP069	FP069	4.16E+00	F G	Unk	FP111	FP111	5.96E+00	G	7.63E+00
K074	FP048	FP048	FP048	4.94E+00	F G	FP068/63	FP068	FP068	9.64E+00	F G	1.39E+01
K075	FP048	FP048	FP048	3.14E+00	F G T	FP068/63	FP068	FP068	9.68E+00	F G T	1.27E+01
K076	FP066	FP066	FP066 _{F1}	6.64E+00	F G TC	FP060	FP060	FP060	5.53E+00	F G TC	8.48E+00
K077	FP066	FP066	FP066 _{F1}	2.28E+00	F G TC	FP060	FP060	FP060	2.25E+00	F G TC	4.51E+00
K078	FP066	FP066	FP066 _{F1}	8.19E+00	F G TC	FP060	FP060	FP060	4.25E+00	F G TC	6.59E+00
K081	FP077	FP077	FP077	6.10E+00	F G T	Unk	FP100	FP100	4.34E+00	G T	6.78E+00
K083	FP077	FP077	FP077	7.88E+00	F G T	Unk	FP100	FP100	3.16E+00	G T	6.24E+00
K084	FP067	FP067	FP067	6.01E+00	F G	Unk	UCFP50	UCFP50	5.20E+00	G	7.80E+00
K085	FP067	FP067	FP067	4.98E+00	F G	Unk	UCFP50	UCFP50	6.34E+00	G	7.57E+00
K087	FP082	FP082	FP082	3.49E+00	F G TC	FP065	FP065	FP065 _{F1}	7.18E+00	F G TC	1.33E+01
K088	FP082	FP082	FP082	2.46E+00	F G TC	FP065	FP065	FP065 _{F1}	7.71E+00	F G TC	1.33E+01
K091	FP087	FP087	FP087	1.39E+01	F G	FP079	FP079	FP079 _{F1}	1.72E+00	F G TC	5.46E+00
K092	TX106	TX106	TX106	1.27E+01	F G	FP060	Unk-PNI	Unk-PNI		G	
K094	FP088	FP088	FP088	1.31E+01	F G	Unk	Unk-PNI	Unk-PNI		G	
K095	FP088	Unk-sna	FP088		F LMG	Unk	Unk-sna	Unk-sna			
K096	FP088	Unk-sna	FP088		F LMG	Unk	Unk-sna	Unk-sna			
K097	FP088	Unk-sna	FP088		F LMG	Unk	Unk-sna	Unk-sna			
K099	FP067	FP067	FP067	6.93E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K100	FP067	FP067	FP067	3.60E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K101	FP067	FP067	FP067	3.65E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K102	FP075	FP075	FP075	6.17E+00	F G TC	FP059	FP059	FP059	6.06E+00	F G TC	6.26E+00
K103	FP075	FP075	FP075	6.23E+00	F G TC	FP059	FP059	FP059	2.83E+00	F G TC	2.37E+00
K104	FP055	FP055	FP055	7.33E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K105	FP102	FP102	FP102	1.01E+01	F G TC	FP079	FP079	FP079 _{F1}	7.83E+00	F G TC	9.26E+00
K106	FP102	FP102	FP102	1.47E+01	F G TC	FP079	FP079	FP079 _{F1}	9.44E+00	F G TC	7.52E+00
K107	FP049	FP049	FP049	5.10E+00	F G	Unk	Unk-PNI	Unk-PNI		G	

Table S2

DAM IDENTIFICATION

SIRE IDENTIFICATION

Field ID & Genetic group	Field Dam	Genetic Dam	Dam Consensus	Dam-offspring LOD score	Dam support	Field Sire	Genetic Sire	Sire Consensus	Sire Offspring LOD score	Sire support	Dame Sire and offspring LOD score
K108	FP077	FP077	FP077	3.97E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K109	FP073	FP073	FP073 _{F1}	-5.30E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K110	FP073	FP073	FP073 _{F1}	3.97E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K111	FP073	FP073	FP073 _{F1}	8.54E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K112	FP095	FP095	FP095 _{F1}	1.69E+01	F G T	FP085	FP085	FP085	2.55E+01	F G T	2.65E+01
K114	FP093	FP093	FP093	9.62E+00	F G TC	FP079	FP079	FP079 _{F1}	7.85E+00	F G TC	7.60E+00
K116	FP093	FP093	FP093	9.89E+00	F G TC	FP079	FP079	FP079 _{F1}	4.70E+00	F G TC	5.27E+00
K117	FP078	FP078	FP078	6.94E+00	F G TC	FP059	FP059	FP059	4.15E+00	F G TC	3.23E+00
K118	FP078	FP078	FP078	8.42E+00	F G TC	FP059	FP059	FP059	5.63E+00	F G TC	4.49E+00
K121	FP101	FP101	FP101	3.70E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K122	FP101	FP101	FP101		F LMG	Unk	Unk-PNI	Unk-PNI		LMG	
K123	FP083	FP083	FP083 _{F1}	6.00E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K124	FP106	FP106	FP106	4.31E+00	F G	Unk	UCFP50	UCFP50	5.81E+00	G	6.23E+00
K125	FP106	FP106	FP106	4.77E+00	F G	Unk	UCFP50	UCFP50	4.76E+00	G	4.80E+00
K126	FP106	FP106	FP106	6.92E+00	F G	Unk	UCFP50	UCFP50	7.05E+00	G	8.62E+00
K127	FP055	FP055	FP055	1.38E+01	F G TC	FP079	FP079	FP079 _{F1}	5.39E+00	F G TC	9.17E+00
K128	FP075	FP075	FP075	5.17E+00	F G TC	FP098/100	FP098	FP098	8.91E+00	F G TC	1.17E+01
K130	FP112	FP112	FP112	4.25E+00	F G TC	FP098/100	FP100	FP100	6.26E+00	F G TC	7.58E+00
K131	FP112	FP112	FP112	5.83E+00	F G TC	FP098/100	FP100	FP100	4.82E+00	F G TC	6.68E+00
K133	FP067	FP067	FP067	4.11E+00	F G TC	Unk	FP098	FP098	7.64E+00	G TC	9.85E+00
K134	FP067	FP067	FP067	5.02E+00	F G TC	Unk	FP098	FP098	7.20E+00	G TC	9.54E+00
K135	FP107	FP107	FP107	8.21E+00	F G TC	Unk	FP059	FP059	3.73E+00	G TC	2.81E+00
K136	FP107	FP107	FP107	1.03E+01	F G TC	Unk	FP059	FP059	5.26E+00	G TC	4.69E+00
K137	FP102	FP102	FP102	1.34E+01	F G TC	FP079	FP079	FP079 _{F1}	6.86E+00	F G TC	8.64E+00
K138	FP102	FP102	FP102	1.13E+01	F G TC	FP079	FP079	FP079 _{F1}	2.66E+00	F G TC	4.08E+00
K139	FP061	FP061	FP061 _{F1}	1.85E+01	F G	Unk	Unk-PNI	Unk-PNI		G	
K140	FP061	FP061	FP061 _{F1}	1.18E+01	F G	Unk	Unk-PNI	Unk-PNI		G	
K141	FP061	Unk-sna	FP061 _{F1}		F LMG	Unk	Unk-sna	Unk-PNI		LMG	
K142	FP061	FP061	FP061 _{F1}	1.63E+01	F G	Unk	Unk-PNI	Unk-PNI		G	
K143	FP087	FP087	FP087	6.27E+00	F G TC	FP079	FP079	FP079 _{F1}	6.32E+00	F G TC	7.17E+00
K144	FP087	FP087	FP087	1.05E+01	F G TC	FP079	FP079	FP079 _{F1}	9.41E+00	F G TC	1.32E+01
K145	FP087	Unk-sna	FP087		F LMG TC	FP079	Unk-sna	FP079 _{F1}		F LMG TC	
K146	FP101	FP101	FP101	3.30E+00	F G TC	FP065/100	FP065	FP065 _{F1}	4.73E+00	F G TC	1.09E+01
K148	FP101	FP101	FP101	2.84E+00	F G TC	FP065/100	FP065	FP065 _{F1}	4.03E+00	F G TC	9.53E+00
K149	FP110	FP110	FP110	4.31E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K151	FP110	FP110	FP110	2.40E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K153	FP093	FP093	FP093	1.15E+01	F G TC	FP060	FP060	FP060	-1.62E+00	F G TC	5.11E+00
K154	FP093	FP093	FP093	9.20E+00	F G TC	FP060	FP060	FP060	-4.14E-01	F G TC	5.80E+00
K155	FP120	FP120	FP120	8.20E+00	F G T	Unk	FP079	FP079 _{F1}	8.34E+00	G T	5.22E+00
K156	FP120	FP120	FP120	9.93E+00	F G T	Unk	FP079	FP079 _{F1}	7.13E+00	G T	6.53E+00
K157	FP075	FP075	FP075	6.11E+00	F G T	Unk	FP133	FP133	3.34E+00	G T	4.34E+00
K158	FP075	FP075	FP075	4.11E+00	F G T	Unk	FP133	FP133	5.92E+00	G T	8.60E+00
K159	FP075	FP075	FP075	3.82E+00	F G T	Unk	FP133	FP133	6.53E+00	G T	8.59E+00
K160	FP116	FP116	FP116	3.64E+00	F G T	FP065	FP065	FP065 _{F1}	6.37E+00	F G T	1.12E+01
K161	FP116	FP116	FP116	2.99E+00	F G T	FP065	FP065	FP065 _{F1}	2.10E+00	F G T	2.42E+00
K162	FP116	FP116	FP116	3.59E+00	F G T	FP065	FP065	FP065 _{F1}	1.68E+00	F G T	3.94E+00
K163	FP107	FP107	FP107	7.09E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K164	FP107	FP107	FP107	7.21E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K165	FP107	FP107	FP107	6.68E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K166	FP107	FP107	FP107	5.14E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K167	FP070	FP070	FP070	9.83E+00	F G	Unk	FP079	FP079 _{F1}	8.60E+00	G T	6.90E+00
K168	FP070	FP070	FP070	1.23E+01	F G	Unk	FP079	FP079 _{F1}	9.27E+00	G T	9.40E+00
K170	FP102	FP102	FP102	1.30E+01	F G T	FP079	FP079	FP079 _{F1}	1.02E+01	F G T	9.96E+00
K171	FP102	FP102	FP102	1.44E+01	F G T	FP079	FP079	FP079 _{F1}	5.84E+00	F G T	4.00E+00
K172	FP102	FP102	FP102	1.58E+01	F G T	FP079	FP079	FP079 _{F1}	1.07E+01	F G T	1.18E+01
K173	FP121	Unk-pqd	FP121		F	Unk	Unk-pqd	Unk-pqd			
K174	FP124	FP124	FP124	6.38E+00	F G	Unk	K123	K123	1.59E+00	G	4.97E+00
K175	FP124	FP124	FP124	-1.12E+00	F G	Unk	Unk-PNI	Unk-PNI		G	

DAM IDENTIFICATION

SIRE IDENTIFICATION

Field ID & Genetic group	Field Dam	Genetic Dam	Dam Consensus	Dam-offspring LOD score	Dam support	Field Sire	Genetic Sire	Sire Consensus	Sire Offspring LOD score	Sire support	Dame Sire and offspring LOD score
K176	FP124	FP124	FP124	2.84E+00	F G	Unk	Unk-pqd	Unk-PNI		G	
K177	FP124	FP124	FP124		F G	Unk	Unk-pqd	Unk-PNI		LMG	
K178	FP110	FP110	FP110	2.95E+00	F G	Unk	K128	K128	5.71E+00	G	6.94E+00
K179	FP110	FP110	FP110	6.90E+00	F G	Unk	K128	K128	4.64E+00	G	6.05E+00
K180	FP107	FP107	FP107	7.99E+00	F G	FP119/131	Unk-MMI	Unk-MMI		G	
K181	FP107	FP107	FP107		F LMG	FP119/131	Unk-MMI	Unk-MMI		F LMG	
K182	FP129	FP129	FP129	3.52E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K183	FP129	FP129	FP129	5.29E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K185	FP113	Unk-sna	FP113		F	FP131/133	Unk-sna	Unk-sna			
K186	FP113	Unk-sna	FP113		F	FP131/133	Unk-sna	Unk-sna			
K187	FP116	FP116	FP116	5.76E+00	F G	Unk	K071	K071	5.64E+00	G	6.14E+00
K188	FP116	FP116	FP116	9.50E+00	F G	Unk	K071	K071	6.29E+00	G	6.17E+00
K189	FP116	FP116	FP116	6.90E+00	F G	Unk	K071	K071	6.16E+00	G	5.26E+00
K190	FP128	FP128	FP128	2.57E+00	F G	Unk	FP081	FP081	6.71E+00	G	1.01E+01
K191	FP128	FP128	FP128	1.77E+00	F G	Unk	FP081	FP081	6.21E+00	G	1.00E+01
K192	FP075	FP075	FP075	2.58E+00	F G TC	FP135	FP135	FP135	6.61E+00	F G TC	9.30E+00
K193	FP075	Unk-sna	FP075		F LMG TC	FP135	Unk-sna	FP135		F LMG TC	
K194	FP075	FP075	FP075	3.21E+00	F G TC	FP135	FP135	FP135	2.84E+00	F G TC	4.83E+00
K195	FP075	Unk-sna	FP075		F LMG TC	FP135	Unk-sna	FP135		F LMG TC	
K196	FP110	FP110	FP110	6.61E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K197	FP110	FP110	FP110	2.13E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K198	FP110	FP110	FP110	2.32E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K199	FP110	FP110	FP110	4.19E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K200	FP107	FP107	FP107	4.75E+00	F G	FP131	Unk-PNI	Unk-PNI		G	
K201	FP107	FP107	FP107	8.20E+00	F G	FP131	Unk-PNI	Unk-PNI		G	
K202	FP121	FP121	FP121	2.80E+00	F G	Unk	Unk-pqd	Unk-PNI		G	
K203	FP121	Unk-sna	FP121		F	Unk	Unk-sna	Unk-sna			
K204	FP121	FP121	FP121	3.54E+00	F G	Unk	Unk-pqd	Unk-PNI		G	
K205	FP094	FP094	FP094 _{F1}	1.19E+01	F G	Unk	FP125	FP125	6.40E+00	G	9.22E+00
K206	FP094	FP094	FP094 _{F1}	1.61E+01	F G	Unk	FP125	FP125	4.01E+00	G	5.98E+00
K207	FP094	FP094	FP094 _{F1}	1.07E+01	F G	Unk	FP125	FP125	2.22E+00	G	4.95E+00
K208	FP145	FP145	FP145		F G	FP138	FP133	FP133		G T	
K209	FP145	FP145	FP145		F G	FP138	FP133	FP133		G T	
K210	FP145	FP145	FP145	8.87E+00	F G	FP138	FP133	FP133	3.86E+00	G T	1.07E+01
K211	FP093	Unk-sna	FP093		F TC	FP133	Unk-sna	FP138		LMG TC	
K212	FP093	FP093	FP093	8.50E+00	F G TC	FP133	FP138	FP138	5.18E+00	G TC	1.12E+01
K213	FP093	FP093	FP093	8.91E+00	F G TC	FP133	FP138	FP138	3.25E+00	G TC	8.40E+00
K214	FP095	FP095	FP095 _{F1}	2.38E+01	F G	Unk	FP125	FP125	6.39E+00	G T	1.37E+01
K215	FP095	Unk-sna	FP095 _{F1}		F	Unk	Unk-sna	FP125		LMG T	
K216	FP095	FP095	FP095 _{F1}	6.97E+00	F G	Unk	FP125	FP125	7.57E-01	G T	5.64E+00
K217	FP102	FP102	FP102	1.53E+01	F G	FP138	FP138	FP138	3.32E+00	F G	9.44E+00
K218	FP102	FP102	FP102	1.59E+01	F G	FP138	FP138	FP138	9.88E-01	F G	6.78E+00
K219	FP140	FP140	FP140	4.90E+00	F G	FP119	FP131	FP131	5.56E+00	G	1.08E+01
K220	FP140	FP140	FP140	1.13E+00	F G	FP119	FP131	FP131	7.49E+00	G	1.17E+01
K221	FP148	FP148	FP148	5.81E+00	F G	FP146?	Unk-PNI	Unk-PNI		G	
K222	FP148	FP148	FP148	1.41E+01	F G	FP146?	Unk-PNI	Unk-PNI		G	
K223	FP148	FP148	FP148	8.70E+00	F G	FP146?	Unk-PNI	Unk-PNI		G	
K224	FP124	Unk-sna	FP124		F	Unk	Unk-sna	Unk-sna			
K225	FP124	Unk-sna	FP124		F	Unk	Unk-sna	Unk-sna			
K226	FP093	FP093	FP093	8.69E+00	F G T	Unk	FP133	FP133	3.72E+00	G T	7.66E+00
K228	FP093	FP093	FP093	1.04E+01	F G T	Unk	FP133	FP133	4.36E+00	G T	4.48E+00
K229	FP110	FP110	FP110	8.47E-01	F G	FP137	Unk-PNI	Unk-PNI		G	
K230	FP110	FP110	FP110	4.53E+00	F G	FP137	Unk-PNI	Unk-PNI		G	
K231	FP110	Unk-sna	FP110		F LMG	FP137	Unk-sna	Unk-PNI		LMG	
K232	FP110	Unk-sna	FP110		F LMG	FP137	Unk-sna	Unk-PNI		LMG	
K233	FP113	FP113	FP113	2.66E+00	F G	FP119	FP154	FP154	8.56E+00	G	1.35E+01
K234	FP113	FP113	FP113	3.89E+00	F G	FP119	FP154	FP154	5.74E+00	G	9.68E+00
K236	FP103	FP103	FP103	1.30E+01	F G TC	FP127	FP127	FP127	3.05E+00	F G TC	4.45E+00

DAM IDENTIFICATION

SIRE IDENTIFICATION

Field ID & Genetic group	Field Dam	Genetic Dam	Dam Consensus	Dam-offspring LOD score	Dam support	Field Sire	Genetic Sire	Sire Consensus	Sire Offspring LOD score	Sire support	Dame Sire and offspring LOD score
K237	FP103	FP103	FP103	-6.06E-01	F G TC	FP127	FP127	FP127	2.88E+00	F G TC	3.91E+00
K238	FP103	FP103	FP103	1.10E+01	F G TC	FP127	FP127	FP127	8.30E+00	F G TC	1.06E+01
K239	FP149	FP149	FP149	9.65E+00	F G	Unk	K093	FP181 / K093	1.07E+01	G	1.28E+01
K240	FP149	FP149	FP149	1.13E+01	F G	Unk	K093	FP181 / K093	9.86E+00	G	8.81E+00
K241	FP151	FP151	FP151	1.37E+01	F G	Unk	FP133	FP133	6.68E+00	G	1.10E+01
K242	FP151	FP151	FP151	1.23E+01	F G	Unk	FP133	FP133	5.47E+00	G	7.85E+00
K243	FP151	FP151	FP151	1.40E+01	F G	Unk	FP133	FP133	4.21E+00	G	7.48E+00
K244	FP145	FP145	FP145	4.59E+00	F G	FP133	FP133	FP133	3.12E+00	G	7.05E+00
K245	FP145	FP145	FP145	7.28E+00	F G	FP133	FP133	FP133	1.15E+00	G	5.41E+00
K246	FP145	FP145	FP145	8.32E+00	F G	FP133	FP133	FP133	3.49E+00	G	7.80E+00
K247	FP107	FP107	FP107	8.12E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K248	FP107	FP107	FP107	7.08E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K249	FP107	FP107	FP107	7.88E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K250	FP128	FP128	FP128	6.06E+00	F G	Unk	FP141	FP141	6.31E+00	G	8.00E+00
K251	FP128	FP128	FP128	7.30E+00	F G	Unk	FP141	FP141	2.29E+00	G	4.39E+00
K252	FP128	FP128	FP128	8.08E+00	F G	Unk	FP141	FP141	4.19E+00	G	6.37E+00
K253	FP150	FP150	FP150	6.37E+00	F G	TBD	FP138	FP138	4.69E+00	G	6.90E+00
K255	FP150	FP150	FP150	6.54E+00	F G	TBD	FP138	FP138	1.33E+00	G	3.76E+00
K256	FP150	FP150	FP150	7.38E+00	F G	TBD	FP138	FP138	3.17E+00	G	7.12E+00
K257	FP110	FP110	FP110	3.97E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K258	FP110	FP110	FP110	8.19E-01	F G	Unk	Unk-PNI	Unk-PNI		G	
K259	FP151	FP151	FP151	7.56E+00	F G	TBD	Unk-PNI	Unk-PNI		G	
K260	FP151	FP151	FP151		F LMG	TBD	Unk-PNI	Unk-PNI		LMG	
K261	FP107	FP107	FP107	5.25E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K262	FP107	FP107	FP107	1.04E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K263	FP107	FP107	FP107	3.75E+00	F G	Unk	Unk-PNI	Unk-PNI		G	
K265	FP151	FP151	FP151	7.85E+00	F G	Unk	FP138	FP138	1.19E+00	G	5.17E+00
K266	FP140	FP140	FP140	4.39E+00	F G	FP154	FP154	FP154	2.15E+00	G	5.23E+00
K267	FP140	FP140	FP140	3.64E+00	F G	FP154	FP154	FP154	1.33E+00	G	3.76E+00
K268	FP162	nk-pqd Dam	FP162		F LMG	FP138	Unk-PNI	Unk-PNI		LMG	
K269	FP162	nk-pqd Dam	FP162		F G	FP138	Unk-PNI	Unk-PNI		G	
K270	FP158	FP158	FP158	1.15E+01	F G	FP146	FP146	FP146	8.32E+00	G	8.31E+00
K271	FP158	FP158	FP158		F	FP146	FP146	FP146		LMG	
K272	FP158	FP158	FP158	1.13E+01	F G	FP146	FP146	FP146	1.11E+01	G	1.11E+01
K273	FP158	FP158	FP158	1.05E+01	F G	FP146	FP146	FP146	1.02E+01	G	9.41E+00
K274	FP153	FP153	FP153	5.03E+00	F G	TBD	FP138	FP138	4.56E+00	G	9.15E+00
K275	FP153	FP153	FP153	7.75E+00	F G	TBD	FP138	FP138		G	
K276	FP153	FP153	FP153	5.10E+00	F G	TBD	FP138	FP138	1.66E+00	G	8.31E+00
K277	FP161	Unk-ND	FP161		F	Unk	Unk-ND	Unk-ND			
K278	FP161	Unk-ND	FP161		F	Unk	Unk-ND	Unk-ND			
K280	FP162	Unk-ND	FP162		F	Unk	Unk-ND	Unk-ND			
K281	FP153	Unk-ND	FP153		F	Unk	Unk-ND	Unk-ND			
K282	FP153	Unk-ND	FP153		F	Unk	Unk-ND	Unk-ND			
K283	FP168	Unk-ND	FP168		F	Unk	Unk-ND	Unk-ND			
K284	FP168	Unk-ND	FP168		F	Unk	Unk-ND	Unk-ND			
K285	FP171	Unk-ND	FP171		F	Unk	Unk-ND	Unk-ND			
K286	FP171	Unk-ND	FP171		F	Unk	Unk-ND	Unk-ND			
K287	FP171	Unk-ND	FP171		F	Unk	Unk-ND	Unk-ND			
K288	FP172	Unk-ND	FP172		F	Unk	Unk-ND	Unk-ND			
K289	FP172	Unk-ND	FP172		F	Unk	Unk-ND	Unk-ND			
K290	FP172	Unk-ND	FP172		F	Unk	Unk-ND	Unk-ND			
K291	FP145	Unk-ND	FP145		F	Unk	Unk-ND	Unk-ND			
K292	FP145	Unk-ND	FP145		F	Unk	Unk-ND	Unk-ND			
K293	FP145	Unk-ND	FP145		F	Unk	Unk-ND	Unk-ND			
K294	FP162	Unk-ND	FP162		F	FP133	Unk-ND	Unk-ND			
K295	FP162	Unk-ND	FP162		F	FP133	Unk-ND	Unk-ND			
K296	FP162	Unk-ND	FP162		F	FP133	Unk-ND	Unk-ND			
K297	FP148	Unk-ND	FP148		F	Unk	Unk-ND	Unk-ND			

DAM IDENTIFICATION

SIRE IDENTIFICATION

Field ID & Genetic group	Field Dam	Genetic Dam	Dam Consensus	Dam-offspring LOD score	Dam support	Field Sire	Genetic Sire	Sire Consensus	Sire Offspring LOD score	Sire support	Dame Sire and offspring LOD score
K298	FP148	Unk-ND	FP148		F	Unk	Unk-ND	Unk-ND			
K299	FP148	Unk-ND	FP148		F	Unk	Unk-ND	Unk-ND			
unmar Ked2	FP095	Unk-sna	FP095 _{F-1}		F T	Unk	Unk-sna	FP085		LMG T	
FP080 fetus #1	FP080	FP080	FP080	8.71E+00	F G T	FP081	FP081	FP081	6.19E+00	F G T	4.10E+00
FP080 fetus #2	FP080	FP080	FP080	7.60E+00	F G T	FP081	FP081	FP081	6.46E+00	F G T	4.48E+00
FP080 fetus #3	FP080	FP080	FP080	7.94E+00	F G T	FP081	FP081	FP081	7.14E+00	F G T	4.41E+00
FP116 fetus #1	FP116	FP116	FP116		F G	TBD	Unk-MMI	Unk-MMI		G	
FP116 fetus #2	FP116	FP116	FP116		F G	TBD	Unk-MMI	Unk-MMI		G	
TEXAS FE											
TX101-BCNP BI	Unk	Unk-PNI	UnK-Texas		G	Unk	Unk	UnK-Texas		G	
Tx103 fetus #1	TX103	TX103	TX103		F G	Unk	Unk-pqd	Unk-pqd			
TX102-BCNP BI	Unk	Unk-PNI	UnK-Texas		G	Unk	Unk	UnK-Texas		G	
TX103-LP	Unk	Unk-PNI	UnK-Texas		G	Unk	Unk	UnK-Texas		G	
TX104-FSSP	Unk	Unk-PNI	UnK-Texas		G	Unk	Unk	UnK-Texas		G	
TX105-ENP	Unk	Unk-PNI	UnK-Texas		G	Unk	Unk	UnK-Texas		G	
TX106-FSSP	Unk	Unk-PNI	UnK-Texas		G	Unk	Unk	UnK-Texas		G	
TX107-RP	Unk	Unk-PNI	UnK-Texas		G	Unk	Unk	UnK-Texas		G	
TX108-ENP	Unk	Unk-PNI	UnK-Texas		G	Unk	Unk	UnK-Texas		G	

DAM IDENTIFICATION

SIRE IDENTIFICATION

Field ID & Genetic group	Field Dam	Genetic Dam	Dam Consensus	Dam-offspring LOD score	Dam support	Field Sire	Genetic Sire	Sire Consensus	Sire Offspring LOD score	Sire support	Dame Sire and offspring LOD score
SEMINOL											
WC00 "Little Boy"	WC-07	WC-07	WC-07	2.58E+01	G	WC-08	WC-08	WC-08	1.79E+01	F G	1.74E+01
WC01 "castrated 10m"	WC-07	Unk-PNI	Unk-PNI		G	WC-08	WC-08	WC-08	2.27E+01	F G	
WC02 "Opal daughter"	WC-07	WC-07	WC-07	2.20E+01	F G	Unk	NA	WC-08	2.13E+01	F G	2.10E+01
WC03	WC-07	WC-07	WC-07	1.24E+01	F G	WC-08	WC-08	WC-08	2.30E+01	F G	2.42E+01
WC04 "neutered"	WC-07	WC-07	WC-07	1.77E+01	F G	WC-08	WC-08	WC-08	2.09E+01	F G	1.82E+01
WC05 "Taz"	WC-07	WC-07	WC-07	1.64E+01	F G	WC-08	WC-08	WC-08	2.16E+01	F G	1.84E+01
WC06 "castrated 10"	WC-07	Unk-PNI	Unk-PNI		G	WC-08	WC-08	WC-08	2.87E+01	G	
WC07 "Opal"	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
WC08 "Bubba"	Unk	Unk-PNI	Unk-PNI		G	Unk	Unk-PNI	Unk-PNI		G	
PIPER - E											
Piper "Cmp Kala"											
Piper "Offspring"											
Piper "Ocho"											
Piper "Bert Wah"											
Piper "Dies Dos"											
Piper "Kima"											
Piper "Survivor"											
Piper "Florida"											
Piper "Osceola"											
Piper "Hayeta"											
Piper "Synda"											
Piper "Delilah / f"											
Piper "Baca"											
Piper "Numa"											

GENETIC DIVERSITY

STRUCTURE ANALYSIS (K=9)

Field ID & Genetic group	Avg Het	Avg # Alleles	Heritage Calls	CFP	CFP	CFP	EVG +AdmFP	CFP-BC +AdmFP	CFP-BC +AdmFP	AdmFP	AdmFP +SEM	TX-BC
				1	2	3	4	5	6	7	8	9
FLORIDA												
FP001	0.167	1.33	CFP	0.071	0.056	0.818	0.00	0.033	0.005	0.007	0.004	0.005
FP002			CFP									
FP003	0.184	1.37	CFP	0.035	0.011	0.893	0.01	0.007	0.018	0.005	0.004	0.015
FP004	0.222	1.44	CFP	0.013	0.057	0.863	0.02	0.012	0.008	0.011	0.002	0.011
FP005			CFP									
FP006			CFP									
FP007	0.167	1.33	CFP	0.476	0.034	0.455	0.00	0.015	0.007	0.004	0.002	0.004
FP008	0.095	1.19	CFP	0.01	0.769	0.174	0.00	0.01	0.005	0.004	0.002	0.023
FP009	0.119	1.24	CFP	0.009	0.013	0.951	0.01	0.008	0.006	0.003	0.002	0.004
FP010	0.136	1.27	CFP	0.019	0.038	0.905	0.00	0.017	0.008	0.003	0.002	0.005
FP011	0.167	1.33	CFP	0.239	0.022	0.654	0.01	0.011	0.038	0.005	0.004	0.018
FP012	0.227	1.46	CFP	0.884	0.023	0.047	0.00	0.018	0.011	0.003	0.008	0.004
FP013	0.176	1.35	CFP	0.571	0.013	0.364	0.02	0.017	0.007	0.003	0.003	0.004
FP014	0.467	1.93	EVG	0.023	0.011	0.014	0.84	0.035	0.02	0.024	0.029	0.008
FP015	0.361	1.72	EVG	0.007	0.057	0.058	0.82	0.009	0.014	0.024	0.005	0.005
FP016	0.283	1.57	EVG	0.009	0.008	0.019	0.94	0.008	0.009	0.003	0.003	0.003
FP017	0.214	1.43	CFP	0.011	0.258	0.681	0.02	0.01	0.008	0.003	0.002	0.003
FP018	0.136	1.27	CFP	0.02	0.008	0.948	0.00	0.007	0.005	0.003	0.003	0.003
FP019	0.159	1.32	CFP	0.898	0.034	0.039	0.00	0.009	0.006	0.005	0.002	0.004
FP020	0.238	1.48	CFP	0.016	0.029	0.921	0.01	0.008	0.006	0.006	0.002	0.004
FP021	0.324	1.65	EVG	0.019	0.011	0.027	0.90	0.017	0.012	0.005	0.004	0.009
FP022	0.174	1.35	EVG	0.021	0.02	0.045	0.82	0.037	0.015	0.026	0.005	0.013
FP023	0.167	1.33	EVG	0.015	0.023	0.019	0.90	0.013	0.014	0.005	0.003	0.006
FP024	0.205	1.41	CFP	0.255	0.042	0.636	0.01	0.012	0.038	0.004	0.006	0.003
FP025	0.381	1.76	EVG	0.014	0.015	0.022	0.91	0.012	0.01	0.007	0.004	0.009
FP026	0.184	1.37	CFP	0.03	0.027	0.893	0.00	0.008	0.022	0.006	0.002	0.009
FP027	0.239	1.48	EVG	0.023	0.035	0.022	0.81	0.054	0.017	0.031	0.006	0.004
FP028	0.182	1.36	CFP	0.147	0.015	0.811	0.01	0.008	0.006	0.003	0.002	0.003
FP029	0.214	1.43	CFP	0.037	0.032	0.893	0.01	0.007	0.008	0.011	0.002	0.004
FP030	0.100	1.20	CFP	0.511	0.04	0.398	0.01	0.02	0.009	0.004	0.003	0.004
FP031	0.211	1.42	CFP	0.012	0.016	0.917	0.01	0.032	0.007	0.003	0.003	0.005
FP032	0.139	1.28	CFP	0.395	0.071	0.489	0.00	0.021	0.008	0.004	0.003	0.004
FP033	0.261	1.52	CFP	0.029	0.027	0.917	0.00	0.009	0.006	0.003	0.002	0.003
FP034	0.109	1.22	CFP	0.113	0.034	0.811	0.00	0.019	0.009	0.003	0.002	0.004
FP035	0.091	1.18	CFP	0.459	0.101	0.387	0.01	0.027	0.009	0.003	0.002	0.003
FP036	0.211	1.42	CFP	0.017	0.049	0.833	0.01	0.044	0.026	0.004	0.004	0.014
FP037	0.182	1.36	EVG	0.016	0.01	0.057	0.87	0.026	0.008	0.004	0.004	0.008
FP038	0.125	1.25	CFP	0.18	0.032	0.76	0.00	0.008	0.006	0.005	0.002	0.004
FP039	0.286	1.57	CFP	0.221	0.091	0.526	0.01	0.121	0.017	0.006	0.005	0.006
FP040	0.159	1.32	CFP	0.025	0.831	0.11	0.00	0.013	0.008	0.004	0.002	0.005
FP041	0.214	1.43	CFP	0.019	0.063	0.842	0.00	0.051	0.009	0.004	0.003	0.004
FP042	0.310	1.62	EVG	0.016	0.012	0.018	0.86	0.018	0.009	0.024	0.031	0.009
FP043	0.159	1.32	CFP	0.732	0.023	0.202	0.00	0.02	0.007	0.003	0.005	0.004
FP044	0.281	1.56	CFP	0.032	0.077	0.815	0.00	0.016	0.032	0.009	0.003	0.012
FP045	0.150	1.30	CFP	0.91	0.025	0.017	0.00	0.011	0.023	0.004	0.003	0.003
FP046	0.167	1.33	CFP	0.01	0.928	0.035	0.00	0.01	0.006	0.003	0.002	0.003
FP047	0.219	1.44	CFP	0.82	0.021	0.126	0.01	0.01	0.007	0.005	0.003	0.003
FP048	0.152	1.30	CFP	0.758	0.03	0.176	0.00	0.016	0.009	0.003	0.002	0.003
FP049	0.278	1.56	CFP	0.009	0.039	0.916	0.00	0.014	0.007	0.004	0.003	0.004
FP050	0.150	1.30	CFP	0.024	0.302	0.64	0.00	0.012	0.007	0.005	0.003	0.004
FP051	0.184	1.37	CFP	0.011	0.157	0.798	0.00	0.01	0.01	0.004	0.002	0.005
FP052	0.184	1.37	CFP	0.15	0.623	0.176	0.00	0.027	0.009	0.004	0.003	0.004
FP053	0.194	1.39	CFP	0.93	0.015	0.026	0.00	0.009	0.006	0.005	0.003	0.003
FP054	0.238	1.48	CFP	0.162	0.037	0.761	0.01	0.016	0.008	0.003	0.002	0.004
FP055	0.370	1.74	EVG	0.015	0.012	0.013	0.93	0.006	0.01	0.006	0.003	0.004
FP056	0.143	1.29	CFP	0.925	0.024	0.013	0.00	0.009	0.015	0.005	0.003	0.003
FP057	0.184	1.37	CFP	0.503	0.019	0.436	0.00	0.017	0.009	0.003	0.003	0.005

Table S2

GENETIC DIVERSITY

STRUCTURE ANALYSIS (K=9)

Field ID & Genetic group	Avg Het	Avg # Alleles	Heritage Calls	CFP	CFP	CFP	EVG +AdmFP	CFP-BC +AdmFP	CFP-BC +AdmFP	AdmFP	AdmFP +SEM	TX-BC
				1	2	3	4	5	6	7	8	9
FP058	0.125	1.25	CFP	0.836	0.055	0.014	0.00	0.009	0.071	0.006	0.003	0.003
FP059	0.273	1.55	CFP	0.072	0.034	0.845	0.00	0.03	0.007	0.003	0.003	0.003
FP060	0.143	1.29	CFP	0.041	0.859	0.039	0.00	0.021	0.025	0.003	0.002	0.005
FP061F1	0.286	1.57	EVG-F1	0.009	0.006	0.007	0.86	0.008	0.054	0.005	0.04	0.012
FP062	0.068	1.14	CFP	0.046	0.078	0.831	0.00	0.022	0.011	0.004	0.002	0.003
FP063	0.136	1.27	CFP	0.815	0.051	0.088	0.00	0.023	0.008	0.005	0.002	0.004
FP064	0.159	1.32	CFP	0.025	0.054	0.887	0.00	0.014	0.008	0.003	0.002	0.004
FP065 /K035F1	0.304	1.61	CFP-F1	0.006	0.005	0.006	0.00	0.005	0.959	0.003	0.003	0.008
FP066 /K036F1	0.342	1.68	CFP-F1	0.031	0.106	0.019	0.01	0.014	0.321	0.01	0.005	0.489
FP067	0.159	1.32	CFP	0.906	0.009	0.029	0.00	0.033	0.005	0.004	0.007	0.003
FP068	0.262	1.52	CFP	0.02	0.031	0.907	0.00	0.02	0.007	0.004	0.004	0.003
FP069	0.190	1.38	CFP	0.816	0.095	0.047	0.00	0.019	0.008	0.006	0.002	0.004
FP070 / K039	0.348	1.70	TX-BC	0.007	0.009	0.007	0.00	0.01	0.012	0.009	0.006	0.938
FP071 / K038	0.357	1.71	TX-BC	0.004	0.005	0.005	0.00	0.005	0.007	0.014	0.005	0.953
FP072	0.130	1.26	CFP	0.71	0.028	0.22	0.00	0.017	0.01	0.004	0.002	0.004
FP073 /K018F1	0.341	1.68	CFP-F1	0.056	0.034	0.118	0.01	0.027	0.016	0.007	0.004	0.73
FP074	0.281	1.56	CFP-BC	0.017	0.127	0.479	0.00	0.024	0.03	0.006	0.013	0.299
FP075	0.159	1.32	CFP	0.905	0.028	0.032	0.00	0.014	0.01	0.003	0.002	0.003
FP076	0.275	1.55	CFP	0.033	0.031	0.895	0.00	0.016	0.012	0.003	0.003	0.003
FP077	0.275	1.55	CFP-BC	0.152	0.046	0.176	0.01	0.037	0.028	0.016	0.005	0.533
FP078	0.175	1.35	CFP	0.884	0.019	0.034	0.00	0.044	0.007	0.003	0.002	0.003
FP079 /K019F1	0.348	1.70	CFP-F1	0.007	0.009	0.007	0.01	0.006	0.009	0.004	0.003	0.949
FP080	0.075	1.15	CFP	0.013	0.888	0.067	0.00	0.014	0.007	0.004	0.002	0.003
FP081	0.152	1.30	CFP	0.014	0.849	0.031	0.00	0.059	0.014	0.014	0.007	0.008
FP082	0.182	1.36	CFP	0.037	0.795	0.135	0.00	0.016	0.006	0.003	0.002	0.003
FP083 /K62F1	0.341	1.68	CFP-F1	0.044	0.178	0.045	0.01	0.035	0.031	0.643	0.004	0.015
FP084	0.214	1.43	CFP-BC	0.137	0.018	0.406	0.02	0.03	0.023	0.007	0.007	0.356
FP085 / K059	0.227	1.46	EVG-BC	0.007	0.004	0.005	0.94	0.006	0.007	0.004	0.023	0.003
FP086 / K068	0.227	1.46	TX-BC	0.006	0.005	0.006	0.00	0.005	0.017	0.005	0.004	0.949
FP087 / K060	0.286	1.57	EVG-BC	0.007	0.01	0.011	0.57	0.008	0.015	0.003	0.004	0.371
FP088 / K064	0.196	1.39	TX-BC	0.006	0.008	0.006	0.01	0.007	0.011	0.008	0.004	0.946
FP089	0.065	1.13	CFP	0.046	0.694	0.217	0.00	0.017	0.009	0.004	0.003	0.006
FP090 / K067	0.238	1.48	TX-BC	0.005	0.007	0.005	0.00	0.007	0.014	0.007	0.003	0.947
FP091 / K066	0.261	1.52	TX-BC	0.016	0.018	0.016	0.00	0.026	0.03	0.009	0.005	0.875
FP092 / K065	0.200	1.40	TX-BC	0.018	0.025	0.017	0.01	0.019	0.032	0.006	0.004	0.874
FP093 / K058	0.364	1.73	TX-BC	0.003	0.004	0.004	0.00	0.004	0.006	0.008	0.005	0.963
FP094F1	0.405	1.81	EVG-F1	0.008	0.005	0.019	0.56	0.007	0.007	0.152	0.01	0.227
FP095 /K045F1	0.326	1.65	EVG-F1	0.015	0.013	0.024	0.85	0.012	0.049	0.006	0.015	0.02
FP096 / K080	0.136	1.27	CFP-BC	0.89	0.014	0.024	0.00	0.017	0.008	0.031	0.002	0.01
FP097	0.105	1.21	CFP	0.577	0.27	0.08	0.00	0.046	0.013	0.004	0.003	0.005
FP098	0.109	1.22	CFP	0.021	0.911	0.042	0.00	0.01	0.006	0.003	0.002	0.003
FP099	0.100	1.20	CFP	0.935	0.019	0.016	0.00	0.011	0.007	0.004	0.002	0.003
FP100	0.087	1.17	CFP	0.798	0.057	0.092	0.00	0.033	0.007	0.004	0.003	0.004
FP101	0.136	1.27	CFP	0.017	0.771	0.178	0.00	0.015	0.007	0.003	0.003	0.004
FP102 / K048	0.283	1.57	EVG-BC	0.004	0.005	0.006	0.57	0.005	0.005	0.004	0.004	0.394
FP103	0.341	1.68	TX-BC+EVG	0.007	0.006	0.007	0.35	0.006	0.012	0.003	0.004	0.61
FP104	0.250	1.50	TX-BC	0.004	0.005	0.004	0.00	0.004	0.007	0.003	0.003	0.968
FP105	0.132	1.26	CFP	0.902	0.032	0.027	0.00	0.018	0.008	0.003	0.003	0.004
FP106	0.150	1.30	CFP	0.873	0.061	0.036	0.00	0.011	0.006	0.005	0.002	0.004
FP107 / K079	0.095	1.19	CFP-BC	0.538	0.018	0.026	0.00	0.399	0.008	0.003	0.002	0.003
FP108 / K090	0.250	1.50	TX-BC+EVG	0.013	0.025	0.02	0.58	0.019	0.071	0.007	0.008	0.254
FP109	0.152	1.30	CFP	0.026	0.903	0.038	0.00	0.01	0.011	0.004	0.002	0.004
FP110 / K086	0.348	1.70	CFP-BC	0.038	0.137	0.036	0.00	0.036	0.738	0.004	0.003	0.005
FP111	0.239	1.48	CFP	0.056	0.667	0.226	0.00	0.012	0.017	0.007	0.005	0.005
FP112	0.152	1.30	CFP	0.028	0.911	0.019	0.00	0.016	0.014	0.004	0.002	0.003
FP113	0.167	1.33	CFP	0.886	0.018	0.046	0.00	0.032	0.007	0.003	0.002	0.003
FP114	0.125	1.25	CFP	0.821	0.067	0.032	0.00	0.058	0.008	0.004	0.003	0.004
FP115	0.182	1.36	CFP	0.085	0.822	0.057	0.00	0.008	0.007	0.014	0.002	0.003

GENETIC DIVERSITY

STRUCTURE ANALYSIS (K=9)

Field ID & Genetic group	Avg Het	Avg # Alleles	Heritage Calls	CFP	CFP	CFP	EVG +AdmFP	CFP-BC +AdmFP	CFP-BC +AdmFP	AdmFP	AdmFP +SEM	TX-BC
				1	2	3	4	5	6	7	8	9
FP116	0.174	1.35	CFP	0.509	0.227	0.219	0.00	0.012	0.017	0.005	0.002	0.005
FP117	0.357	1.71	SEM+AdmFP	0.024	0.077	0.28	0.01	0.094	0.015	0.057	0.391	0.053
FP118	0.273	1.55	SEM+AdmFP	0.05	0.044	0.047	0.01	0.23	0.119	0.045	0.443	0.015
FP119 / K115	0.250	1.50	TX-BC	0.007	0.005	0.007	0.01	0.008	0.013	0.004	0.006	0.945
FP120	0.295	1.59	TX-BC	0.009	0.009	0.008	0.00	0.009	0.009	0.006	0.004	0.944
FP121	0.261	1.52	SEM+AdmFP	0.037	0.265	0.099	0.01	0.253	0.009	0.022	0.304	0.007
FP122	0.136	1.27	CFP	0.024	0.939	0.012	0.00	0.008	0.006	0.004	0.002	0.003
FP123	0.200	1.40	CFP-BC	0.055	0.029	0.109	0.03	0.411	0.047	0.008	0.008	0.307
FP124	0.227	1.46	AdmFP+EVG	0.029	0.017	0.02	0.48	0.013	0.248	0.004	0.005	0.189
FP125	0.318	1.64	AdmFP+EVG	0.043	0.024	0.027	0.16	0.03	0.417	0.038	0.019	0.244
FP126	0.281	1.56	AdmFP+EVG	0.009	0.008	0.009	0.48	0.012	0.022	0.005	0.024	0.43
FP127	0.304	1.61	TX-BC	0.008	0.01	0.008	0.00	0.014	0.019	0.008	0.01	0.919
FP128 / K082	0.159	1.32	CFP-BC	0.244	0.027	0.079	0.01	0.402	0.049	0.004	0.084	0.103
FP129 / K089	0.190	1.38	TX-BC+EVG	0.014	0.022	0.053	0.15	0.011	0.033	0.006	0.004	0.704
FP130 / K150	0.261	1.52	CFP-BC+EVG	0.065	0.123	0.05	0.17	0.044	0.521	0.004	0.003	0.02
FP131	0.283	1.57	AdmFP+EVG	0.005	0.006	0.005	0.28	0.004	0.007	0.003	0.003	0.684
FP132	0.413	1.83	SEM+AdmFP	0.022	0.208	0.065	0.01	0.01	0.048	0.025	0.603	0.015
FP133	0.182	1.36	CFP-BC	0.241	0.111	0.034	0.00	0.015	0.308	0.007	0.003	0.279
FP134	0.286	1.57	CFP-BC+EVG	0.163	0.076	0.077	0.29	0.019	0.303	0.006	0.005	0.059
FP135 / K147	0.283	1.57	CFP-BC	0.013	0.049	0.103	0.00	0.014	0.797	0.003	0.003	0.015
FP136	0.273	1.55	TX-BC	0.004	0.004	0.004	0.00	0.004	0.006	0.004	0.004	0.967
FP137	0.286	1.57	AdmFP+SEM	0.011	0.049	0.011	0.00	0.011	0.792	0.018	0.066	0.039
FP138	0.283	1.57	CFP-BC+SEM	0.042	0.152	0.05	0.06	0.53	0.008	0.076	0.071	0.011
FP139	0.079	1.16	CFP	0.078	0.834	0.051	0.00	0.011	0.012	0.004	0.003	0.004
FP140	0.184	1.37	CFP-BC+SEM	0.03	0.169	0.051	0.01	0.672	0.02	0.034	0.009	0.01
FP141	0.261	1.52	CFP-BC	0.057	0.309	0.308	0.01	0.04	0.024	0.01	0.229	0.008
FP142	0.174	1.35	EVG-BC	0.007	0.004	0.004	0.95	0.006	0.007	0.003	0.018	0.004
FP143	0.310	1.62	SEM+AdmFP	0.147	0.222	0.05	0.00	0.021	0.029	0.025	0.376	0.128
FP144	0.250	1.50	CFP-BC	0.078	0.028	0.025	0.04	0.079	0.696	0.015	0.029	0.01
FP145	0.375	1.75	AdmFP+EVG	0.056	0.037	0.034	0.51	0.117	0.024	0.086	0.006	0.135
FP146	0.250	1.50	AdmFP	0.023	0.113	0.03	0.02	0.04	0.051	0.716	0.003	0.009
FP147 / K184	0.227	1.46	AdmFP+SEM	0.016	0.144	0.018	0.01	0.139	0.362	0.009	0.11	0.19
FP148	0.182	1.36	AdmFP	0.215	0.022	0.019	0.003	0.022	0.009	0.701	0.004	0.004
FP149	0.275	1.55	AdmFP+EVG	0.019	0.048	0.029	0.23	0.042	0.011	0.604	0.004	0.014
FP150 / K152	0.261	1.52	CFP-BC	0.027	0.236	0.012	0.00	0.016	0.123	0.016	0.008	0.557
FP151 / K113	0.304	1.61	TX-BC	0.005	0.006	0.006	0.00	0.004	0.007	0.004	0.003	0.963
FP152	0.275	1.55	CFP-BC	0.071	0.277	0.062	0.01	0.06	0.053	0.443	0.004	0.021
FP153	0.152	1.30	TX-BC	0.004	0.008	0.006	0.00	0.005	0.02	0.004	0.003	0.948
FP154	0.261	1.52	AdmFP	0.114	0.053	0.066	0.00	0.019	0.098	0.006	0.004	0.637
FP155	0.211	1.42	CFP-BC	0.012	0.184	0.079	0.01	0.289	0.014	0.124	0.146	0.146
FP156	0.263	1.53	AdmFP	0.015	0.044	0.023	0.00	0.02	0.843	0.007	0.007	0.036
FP157	0.132	1.26	CFP-BC+SEM	0.033	0.364	0.027	0.01	0.021	0.515	0.005	0.013	0.018
FP158	0.194	1.39	TX-BC	0.018	0.055	0.011	0.01	0.016	0.077	0.721	0.005	0.092
FP159	0.176	1.35	CFP-BC	0.039	0.154	0.145	0.01	0.169	0.443	0.006	0.015	0.025
FP160	0.139	1.28	CFP	0.151	0.026	0.763	0.00	0.019	0.024	0.004	0.003	0.005
FP161 / K169	0.235	1.47	TX-BC	0.014	0.014	0.016	0.01	0.026	0.012	0.011	0.009	0.893
FP162			Unknown									
FP163 / K227	0.261	1.52	AdmFP	0.106	0.035	0.019	0.00	0.024	0.058	0.015	0.005	0.735
FP164			Unknown									
FP165			Unknown									
FP166			Unknown									
FP167			Unknown									
FP168			Unknown									
FP169			Unknown									
FP170			Unknown									
FP171			Unknown									
FP172			Unknown									
FP173			Unknown									

GENETIC DIVERSITY

STRUCTURE ANALYSIS (K=9)

Field ID & Genetic group	Avg Het	Avg # Alleles	Heritage Calls	CFP	CFP	CFP	EVG +AdmFP	CFP-BC +AdmFP	CFP-BC +AdmFP	AdmFP	AdmFP +SEM	TX-BC
				1	2	3	4	5	6	7	8	9
FP174			Unknown									
FP175 / K254	0.263	1.53	AdmFP+SEM	0.03	0.201	0.016	0.01	0.249	0.109	0.042	0.007	0.34
FP176			Unknown									
FP177 / K235	0.250	1.50	CFP-BC	0.232	0.021	0.072	0.01	0.049	0.061	0.005	0.004	0.549
FP178			Unknown									
FP179			Unknown									
FP180 / K264	0.167	1.33	AdmFP+SEM	0.022	0.295	0.065	0.01	0.03	0.21	0.009	0.006	0.358
FP181 / K093	0.348	1.70	TX-BC	0.046	0.018	0.087	0.01	0.034	0.039	0.752	0.003	0.015
FP182 / K279			AdmFP									
FP200 "Big Guy"	0.295	1.59	EVG	0.118	0.037	0.264	0.48	0.04	0.021	0.032	0.008	0.005
FP201	0.206	1.41	CFP	0.093	0.072	0.774	0.00	0.038	0.008	0.004	0.003	0.004
FP202	0.184	1.37	EVG x CFP	0.009	0.024	0.381	0.54	0.026	0.008	0.004	0.004	0.006
FP203	0.167	1.33	EVG x CFP	0.015	0.01	0.588	0.35	0.021	0.006	0.003	0.003	0.004
FP204	0.152	1.30	CFP	0.238	0.011	0.717	0.01	0.012	0.008	0.003	0.002	0.003
FP205	0.114	1.23	CFP	0.916	0.029	0.029	0.00	0.007	0.006	0.003	0.002	0.003
FP206	0.158	1.32	CFP	0.076	0.104	0.761	0.00	0.011	0.022	0.007	0.002	0.014
FP207	0.159	1.32	CFP	0.017	0.02	0.917	0.00	0.008	0.021	0.005	0.002	0.007
FP208	0.109	1.22	CFP	0.745	0.03	0.19	0.00	0.016	0.006	0.003	0.002	0.003
FP209	0.239	1.48	EVG	0.119	0.102	0.114	0.61	0.012	0.028	0.004	0.003	0.005
FP210	0.312	1.63	EVG	0.017	0.021	0.016	0.87	0.021	0.02	0.008	0.008	0.016
UCFP002	0.227	1.46	CFP	0.03	0.018	0.921	0.00	0.007	0.006	0.005	0.002	0.007
UCFP003			CFP									
UCFP004			CFP									
UCFP005	0.062	1.13	CFP									
UCFP006	0.194	1.39	CFP	0.159	0.017	0.774	0.01	0.008	0.014	0.006	0.003	0.004
UCFP007			CFP									
UCFP008	0.341	1.68	EVG	0.398	0.022	0.035	0.48	0.031	0.009	0.017	0.004	0.003
UCFP009	0.143	1.29	CFP	0.024	0.122	0.734	0.01	0.015	0.007	0.067	0.018	0.005
UCFP010	0.325	1.65	Released	0.02	0.085	0.026	0.01	0.016	0.06	0.007	0.767	0.014
UCFP011	0.316	1.63	Released	0.019	0.009	0.048	0.32	0.02	0.049	0.14	0.378	0.021
UCFP012	0.261	1.52	CFP	0.035	0.124	0.78	0.03	0.009	0.005	0.003	0.003	0.009
UCFP013			CFP									
UCFP014			CFP									
UCFP015	0.250	1.50	CFP	0.014	0.023	0.936	0.00	0.007	0.008	0.003	0.002	0.003
UCFP017			CFP									
UCFP018	0.114	1.23	CFP	0.786	0.049	0.104	0.00	0.036	0.013	0.003	0.002	0.003
UCFP019	0.275	1.55	CFP	0.05	0.043	0.873	0.00	0.014	0.008	0.003	0.002	0.003
UCFP020	0.176	1.35	CFP	0.631	0.054	0.254	0.00	0.02	0.013	0.013	0.004	0.007
UCFP021	0.188	1.38	CFP	0.863	0.064	0.033	0.00	0.016	0.009	0.004	0.003	0.004
UCFP022	0.167	1.33	CFP	0.621	0.177	0.067	0.00	0.084	0.021	0.017	0.004	0.006
UCFP023	0.130	1.26	CFP	0.025	0.702	0.233	0.00	0.014	0.013	0.003	0.002	0.004
UCFP024			CFP									
UCFP025	0.205	1.41	CFP	0.042	0.762	0.157	0.00	0.017	0.009	0.004	0.003	0.004
UCFP026	0.159	1.32	CFP	0.928	0.015	0.031	0.00	0.009	0.006	0.004	0.002	0.003
UCFP027	0.114	1.23	CFP	0.912	0.023	0.035	0.00	0.01	0.008	0.003	0.002	0.004
UCFP028	0.174	1.35	CFP	0.894	0.049	0.025	0.00	0.007	0.011	0.004	0.003	0.004
UCFP029	0.114	1.23	CFP	0.03	0.871	0.046	0.00	0.033	0.008	0.004	0.002	0.004
UCFP030	0.167	1.33	Unknown									
UCFP031			CFP									
UCFP032			Unknown									
UCFP033	0.188	1.38	CFP-BC+SEM	0.071	0.628	0.052	0.01	0.087	0.01	0.037	0.1	0.006
UCFP034	0.262	1.52	SEM+AdmFP	0.016	0.731	0.021	0.01	0.012	0.01	0.004	0.192	0.004
UCFP035	0.190	1.38	CFP	0.017	0.919	0.018	0.00	0.011	0.013	0.008	0.004	0.007
UCFP036	0.114	1.23	CFP-BC	0.279	0.545	0.043	0.00	0.028	0.071	0.005	0.01	0.017
UCFP037	0.190	1.38	CFP-BC	0.027	0.476	0.313	0.01	0.028	0.106	0.008	0.004	0.031
UCFP038	0.194	1.39	SEM+AdmFP	0.019	0.648	0.013	0.01	0.034	0.01	0.051	0.215	0.006
UCFP039	0.326	1.65	CFP-BC+EVG	0.047	0.164	0.023	0.32	0.019	0.317	0.035	0.003	0.074
UCFP040	0.286	1.57	CFP-BC+EVG	0.05	0.204	0.025	0.30	0.011	0.105	0.008	0.003	0.291

GENETIC DIVERSITY

STRUCTURE ANALYSIS (K=9)

Field ID & Genetic group	Avg Het	Avg # Alleles	Heritage Calls	CFP	CFP	CFP	EVG +AdmFP	CFP-BC +AdmFP	CFP-BC +AdmFP	AdmFP	AdmFP +SEM	TX-BC
				1	2	3	4	5	6	7	8	9
UCFP041	0.235	1.47	CFP-BC	0.029	0.633	0.183	0.01	0.037	0.072	0.025	0.003	0.008
UCFP042	0.100	1.20	CFP-BC+SEM	0.034	0.089	0.019	0.01	0.777	0.022	0.008	0.039	0.006
UCFP043	0.239	1.48	SEM+AdmFP	0.023	0.386	0.071	0.00	0.246	0.01	0.011	0.24	0.01
UCFP044	0.100	1.20	CFP									
UCFP045	0.152	1.30	CFP	0.028	0.915	0.019	0.00	0.012	0.013	0.003	0.002	0.004
UCFP046	0.304	1.61	CFP-BC+EVG	0.232	0.119	0.061	0.25	0.052	0.045	0.01	0.004	0.226
UCFP047			CFP									
UCFP048	0.152	1.30	CFP-BC	0.02	0.066	0.04	0.01	0.146	0.672	0.004	0.012	0.033
UCFP049 /K98	0.167	1.33	CFP-BC+EVG	0.72	0.119	0.03	0.07	0.024	0.01	0.012	0.007	0.003
UCFP050	0.143	1.29	CFP	0.332	0.143	0.442	0.00	0.059	0.011	0.004	0.002	0.004
UCFP051	0.174	1.35	TX-BC	0.006	0.009	0.008	0.00	0.008	0.011	0.019	0.003	0.933
UCFP052	0.000	1.00	Unknown									
UCFP053	0.143	1.29	CFP-BC+SEM	0.628	0.226	0.024	0.03	0.021	0.039	0.005	0.024	0.004
UCFP054	0.114	1.23	CFP	0.073	0.861	0.026	0.00	0.019	0.01	0.003	0.002	0.003
UCFP055	0.196	1.39	SEM+AdmFP	0.078	0.042	0.048	0.00	0.233	0.032	0.005	0.552	0.005
UCFP056	0.304	1.61	SEM+AdmFP	0.181	0.047	0.043	0.00	0.046	0.03	0.013	0.63	0.006
UCFP057	0.235	1.47	SEM+AdmFP	0.157	0.112	0.034	0.00	0.212	0.075	0.01	0.385	0.011
UCFP058	0.205	1.41	CFP	0.399	0.094	0.465	0.01	0.018	0.009	0.004	0.002	0.003
UCFP059	0.227	1.46	CFP-BC+SEM	0.015	0.054	0.021	0.00	0.576	0.052	0.006	0.012	0.261
UCFP060	0.217	1.44	TX-BC	0.099	0.073	0.027	0.00	0.038	0.01	0.743	0.004	0.004
UCFP061	0.217	1.44	CFP-BC+SEM	0.037	0.008	0.02	0.01	0.591	0.308	0.016	0.005	0.006
UCFP062	0.238	1.48	AdmFP+EVG	0.029	0.007	0.017	0.14	0.011	0.025	0.005	0.071	0.692
UCFP063	0.136	1.27	CFP	0.878	0.032	0.06	0.00	0.011	0.007	0.003	0.002	0.003
UCFP064	0.167	1.33	AdmFP+EVG									
UCFP065	0.159	1.32	CFP-BC	0.053	0.452	0.082	0.02	0.019	0.3	0.007	0.003	0.063
UCFP066	0.114	1.23	CFP-BC	0.824	0.043	0.084	0.00	0.017	0.007	0.015	0.004	0.003
UCFP067	0.159	1.32	CFP-BC+SEM	0.027	0.016	0.011	0.00	0.927	0.005	0.003	0.003	0.003
UCFP068	0.281	1.56	AdmFP	0.025	0.037	0.032	0.01	0.085	0.056	0.025	0.005	0.724
UCFP069	0.206	1.41	CFP-BC+SEM	0.037	0.103	0.08	0.01	0.541	0.069	0.069	0.047	0.049
UCFP070	0.250	1.50	AdmFP	0.012	0.005	0.011	0.01	0.006	0.576	0.003	0.005	0.376
UCFP071	0.273	1.55	AdmFP	0.005	0.006	0.005	0.01	0.015	0.01	0.011	0.011	0.932
UCFP072	0.286	1.57	CFP-BC	0.04	0.206	0.04	0.00	0.058	0.016	0.624	0.005	0.006
UCFP073	0.227	1.46	CFP-BC	0.042	0.058	0.242	0.00	0.074	0.032	0.54	0.002	0.006
UCFP074	0.196	1.39	CFP-BC	0.085	0.094	0.091	0.00	0.684	0.026	0.009	0.003	0.005
UCFP075	0.174	1.35	AdmFP+SEM	0.01	0.007	0.008	0.01	0.015	0.836	0.003	0.074	0.037
UCFP076	0.273	1.55	CFP-BC+EVG	0.076	0.106	0.109	0.07	0.013	0.036	0.465	0.03	0.091
UCFP077	0.233	1.47	AdmFP	0.009	0.008	0.008	0.01	0.011	0.866	0.007	0.073	0.013
UCFP078	0.227	1.46	CFP-BC	0.057	0.011	0.028	0.01	0.021	0.836	0.011	0.007	0.025
UCFP079	0.239	1.48	CFP-BC	0.28	0.068	0.095	0.00	0.021	0.126	0.004	0.003	0.4
UCFP080	0.386	1.77	TX-BC+EVG	0.008	0.009	0.012	0.40	0.008	0.012	0.012	0.006	0.53
UCFP081	0.239	1.48	AdmFP	0.027	0.245	0.016	0.00	0.01	0.081	0.008	0.004	0.606
UCFP082			Unknown									
UCFP083	0.227	1.46	SEM+AdmFP	0.023	0.015	0.012	0.00	0.038	0.642	0.008	0.232	0.025
UCFP084	0.167	1.33	CFP-BC	0.073	0.46	0.089	0.00	0.055	0.099	0.004	0.008	0.209
UCFP085	0.239	1.48	CFP-BC	0.018	0.019	0.012	0.01	0.564	0.072	0.004	0.005	0.301
UCFP086			Unknown									
UCFP087	0.341	1.68	AdmFP	0.078	0.101	0.074	0.01	0.144	0.08	0.005	0.01	0.503
UCFP088	0.152	1.30	CFP-BC	0.087	0.064	0.575	0.00	0.113	0.139	0.003	0.003	0.013
UCFP089	0.227	1.46	CFP-BC	0.087	0.086	0.046	0.01	0.292	0.06	0.119	0.032	0.271
UCFP090	0.261	1.52	CFP-BC	0.025	0.029	0.015	0.02	0.032	0.841	0.013	0.004	0.025
UCFP091	0.217	1.44	AdmFP	0.012	0.033	0.019	0.01	0.014	0.769	0.119	0.004	0.018
UCFP092	0.295	1.59	CFP-BC	0.099	0.034	0.027	0.01	0.036	0.212	0.524	0.006	0.057
UCFP093	0.174	1.35	CFP-BC	0.115	0.278	0.058	0.00	0.037	0.409	0.007	0.008	0.084
UCFP094	0.300	1.60	AdmFP+EVG	0.007	0.019	0.012	0.21	0.014	0.03	0.006	0.005	0.7
UCFP095	0.304	1.61	SEM+AdmFP	0.012	0.351	0.13	0.01	0.03	0.011	0.014	0.434	0.013
UCFP096	0.289	1.58	AdmFP+EVG	0.052	0.056	0.048	0.56	0.065	0.027	0.02	0.016	0.158
UCFP097	0.159	1.32	CFP-BC	0.086	0.148	0.022	0.01	0.033	0.691	0.005	0.002	0.005
UCFP098	0.261	1.52	AdmFP	0.016	0.045	0.025	0.01	0.059	0.02	0.26	0.007	0.557

GENETIC DIVERSITY

STRUCTURE ANALYSIS (K=9)

Field ID & Genetic group	Avg Het	Avg # Alleles	Heritage Calls	CFP	CFP	CFP	EVG +AdmFP	CFP-BC +AdmFP	CFP-BC +AdmFP	AdmFP	AdmFP +SEM	TX-BC
				1	2	3	4	5	6	7	8	9
UCFP099	0.196	1.39	AdmFP	0.124	0.009	0.049	0.02	0.008	0.072	0.009	0.005	0.706
UCFP100	0.139	1.28	CFP-BC+SEM	0.01	0.009	0.016	0.01	0.916	0.012	0.01	0.01	0.012
UCFP101	0.190	1.38	AdmFP	0.011	0.009	0.018	0.01	0.655	0.021	0.018	0.008	0.247
UCFP102	0.176	1.35	AdmFP	0.036	0.197	0.07	0.00	0.027	0.149	0.01	0.01	0.496
UCFP103	0.269	1.54	AdmFP	0.048	0.072	0.037	0.01	0.016	0.28	0.014	0.09	0.438
UCFP104	0.167	1.33	TX-BC	0.027	0.034	0.023	0.01	0.02	0.024	0.839	0.005	0.02
UCFP105			Unknown									
UCFP106	0.095	1.19	CFP-BC	0.079	0.03	0.532	0.01	0.102	0.217	0.003	0.006	0.026
UCFP107	0.158	1.32	CFP-BC	0.156	0.228	0.118	0.01	0.034	0.01	0.437	0.005	0.006
UCFP108			Unknown									
UCFP109			Unknown									
UCFP110			Unknown									
UCFP111	0.176	1.35	CFP-BC+SEM	0.017	0.025	0.078	0.01	0.592	0.047	0.007	0.027	0.2
UCFP112	0.147	1.29	CFP-BC	0.095	0.318	0.04	0.01	0.234	0.123	0.039	0.115	0.029
UCFP113			Unknown									
UCFP114	0.067	1.13	CFP	0.037	0.828	0.054	0.00	0.051	0.013	0.005	0.003	0.005
UCFP115			Unknown									
UCFP116			Unknown									
UCFP117			Unknown									
UCFP118			Unknown									
UCFP119			Unknown									
UCFP120			Unknown									
UCFP121			Unknown									
UCFP122			Unknown									
UCFP123	0.100	1.20	AdmFP	0.067	0.021	0.045	0.00	0.012	0.66	0.18	0.004	0.008
UCFP124			Unknown									
UCFP125			Unknown									
UCFP126			Unknown									
UCFP127			Unknown									
UCFP128			Unknown									
UCFP129			Unknown									
UCFP130			Unknown									
UCFP131			Unknown									
UCFP132			Unknown									
UCFP133			Unknown									
UCFP134			Unknown									
UCFP135			Unknown									
UCFP136			Unknown									
UCFP137			Unknown									
UCFP138			Unknown									
UCFP139			Unknown									
UCFP-LawEnfor	0.174	1.35	TX-BC									
K002	0.200	1.40	CFP	0.782	0.025	0.163	0.00	0.009	0.008	0.003	0.002	0.004
K003			CFP									
K004			CFP									
K005			CFP									
K006	0.100	1.20	CFP	0.561	0.067	0.307	0.00	0.039	0.014	0.004	0.002	0.004
K007			CFP									
K008			CFP									
K010			CFP									
K011 or K009			CFP									
K013	0.143	1.29	CFP	0.933	0.015	0.027	0.00	0.008	0.006	0.003	0.002	0.003
K014			EVG									
K015			EVG									
K017	0.143	1.29	CFP	0.592	0.026	0.119	0.00	0.24	0.009	0.004	0.004	0.004
K020			CFP									
K021			CFP									
K022			CFP									

GENETIC DIVERSITY

STRUCTURE ANALYSIS (K=9)

Field ID & Genetic group	Avg Het	Avg # Alleles	Heritage Calls	CFP	CFP	CFP	EVG +AdmFP	CFP-BC +AdmFP	CFP-BC +AdmFP	AdmFP	AdmFP +SEM	TX-BC
				1	2	3	4	5	6	7	8	9
K023F1			CFP-F1									
K024			CFP									
K025			CFP									
K026			CFP									
K027			CFP									
K028			CFP									
K029			CFP									
K030			CFP									
K034F1			EVG-F1									
K037	0.147	1.29	CFP	0.609	0.139	0.179	0.01	0.029	0.022	0.005	0.003	0.006
K040			CFP									
K041			CFP									
K043			CFP									
K044			EVG x Unk									
K046F1			EVG-F1									
K047F1			CFP-F1									
K049	0.341	1.68	EVG-BC	0.013	0.015	0.013	0.62	0.011	0.065	0.006	0.004	0.256
K050			EVG-BC									
K051			CFP									
K052			CFP-BC									
K053			CFP-BC									
K054			CFP-BC									
K055			CFPxUnk									
K056			TX-BC									
K057			TX-BC									
K061			EVG-BC									
K062F1	0.318	1.64	CFP-F1	0.018	0.048	0.027	0.02	0.013	0.207	0.543	0.007	0.123
K069	0.289	1.58	TX-BC	0.014	0.044	0.029	0.00	0.012	0.027	0.016	0.003	0.852
K070	0.250	1.50	TX-BC	0.004	0.006	0.005	0.00	0.005	0.007	0.006	0.004	0.96
K071	0.238	1.48	CFP	0.557	0.248	0.154	0.00	0.015	0.009	0.007	0.002	0.004
K072	0.200	1.40	CFP	0.164	0.597	0.192	0.00	0.022	0.011	0.004	0.002	0.004
K073	0.114	1.23	CFP	0.431	0.154	0.333	0.00	0.026	0.016	0.022	0.005	0.009
K074	0.262	1.52	CFP	0.097	0.014	0.85	0.00	0.018	0.008	0.004	0.003	0.003
K075	0.250	1.50	CFP	0.051	0.073	0.838	0.00	0.018	0.007	0.003	0.003	0.004
K076	0.190	1.38	CFP-BC	0.012	0.056	0.013	0.00	0.025	0.877	0.005	0.004	0.008
K077	0.159	1.32	CFP-BC	0.115	0.266	0.215	0.00	0.091	0.043	0.008	0.121	0.136
K078	0.167	1.33	CFP-BC	0.021	0.086	0.017	0.02	0.01	0.73	0.01	0.003	0.108
K081	0.175	1.35	CFP-BC	0.188	0.065	0.207	0.01	0.221	0.015	0.006	0.009	0.281
K083	0.200	1.40	CFP-BC	0.135	0.055	0.17	0.01	0.327	0.013	0.007	0.005	0.277
K084	0.167	1.33	CFP	0.456	0.404	0.07	0.00	0.044	0.008	0.009	0.002	0.003
K085	0.182	1.36	CFP	0.451	0.414	0.053	0.00	0.057	0.011	0.005	0.003	0.004
K087	0.341	1.68	CFP-BC	0.048	0.076	0.085	0.01	0.022	0.742	0.004	0.005	0.005
K088	0.295	1.59	CFP-BC	0.026	0.065	0.051	0.00	0.051	0.79	0.004	0.003	0.005
K091	0.273	1.55	TX-BC+EVG	0.009	0.008	0.01	0.48	0.011	0.016	0.004	0.003	0.461
K092	0.211	1.42	TX-BC	0.15	0.03	0.023	0.00	0.07	0.017	0.693	0.008	0.005
K094	0.261	1.52	TX-BC	0.004	0.005	0.004	0.00	0.006	0.008	0.009	0.01	0.95
K095			AdmFP									
K096			AdmFP									
K097			AdmFP									
K099	0.235	1.47	CFP-BC+EVG	0.699	0.028	0.092	0.01	0.035	0.016	0.095	0.008	0.017
K100	0.273	1.55	CFP-BC+EVG	0.404	0.031	0.103	0.29	0.046	0.045	0.044	0.014	0.024
K101	0.239	1.48	CFP-BC+EVG	0.394	0.025	0.099	0.32	0.059	0.009	0.062	0.027	0.01
K102	0.152	1.30	CFP	0.928	0.014	0.027	0.00	0.011	0.008	0.003	0.002	0.003
K103	0.053	1.11	CFP	0.8	0.059	0.091	0.00	0.012	0.023	0.004	0.003	0.005
K104	0.344	1.69	EVG-BC	0.022	0.028	0.022	0.38	0.015	0.307	0.021	0.013	0.19
K105	0.147	1.29	TX-BC+EVG	0.006	0.006	0.007	0.34	0.005	0.034	0.003	0.006	0.597
K106	0.227	1.46	TX-BC+EVG	0.005	0.005	0.005	0.33	0.007	0.01	0.004	0.004	0.629
K107	0.227	1.46	CFP-BC+EVG	0.064	0.068	0.515	0.23	0.03	0.022	0.03	0.01	0.028

GENETIC DIVERSITY

STRUCTURE ANALYSIS (K=9)

Field ID & Genetic group	Avg Het	Avg # Alleles	Heritage Calls	CFP	CFP	CFP	EVG +AdmFP	CFP-BC +AdmFP	CFP-BC +AdmFP	AdmFP	AdmFP +SEM	TX-BC
				1	2	3	4	5	6	7	8	9
K108	0.350	1.70	CFP-BC	0.073	0.43	0.07	0.02	0.039	0.023	0.024	0.111	0.205
K109	0.227	1.46	CFP-BC+SEM	0.059	0.028	0.765	0.01	0.049	0.063	0.003	0.006	0.018
K110	0.261	1.52	CFP-BC+SEM	0.354	0.051	0.172	0.01	0.017	0.02	0.004	0.006	0.369
K111	0.217	1.44	CFP-BC+SEM	0.155	0.027	0.203	0.01	0.008	0.193	0.003	0.025	0.378
K112	0.238	1.48	EVG-BC	0.013	0.015	0.017	0.84	0.017	0.076	0.008	0.008	0.011
K114	0.289	1.58	TX-BC	0.007	0.006	0.008	0.00	0.005	0.007	0.006	0.004	0.953
K116	0.367	1.73	TX-BC	0.008	0.012	0.009	0.01	0.008	0.007	0.011	0.007	0.933
K117	0.071	1.14	CFP	0.699	0.174	0.037	0.00	0.072	0.006	0.003	0.002	0.003
K118	0.095	1.19	CFP	0.889	0.029	0.031	0.00	0.033	0.006	0.003	0.002	0.003
K121	0.214	1.43	CFP-BC	0.051	0.134	0.379	0.02	0.318	0.027	0.007	0.044	0.026
K122			CFP-BC									
K123	0.227	1.46	CFP-BC	0.104	0.217	0.065	0.01	0.223	0.009	0.359	0.005	0.012
K124	0.114	1.23	CFP	0.666	0.256	0.03	0.00	0.022	0.013	0.003	0.003	0.003
K125	0.079	1.16	CFP	0.118	0.642	0.194	0.00	0.015	0.016	0.004	0.002	0.005
K126	0.136	1.27	CFP	0.681	0.171	0.101	0.00	0.022	0.01	0.006	0.002	0.004
K127	0.261	1.52	EVG-BC	0.021	0.018	0.02	0.51	0.01	0.043	0.008	0.007	0.368
K128	0.152	1.30	CFP	0.327	0.342	0.298	0.00	0.011	0.011	0.003	0.002	0.003
K130	0.119	1.24	CFP	0.236	0.427	0.199	0.00	0.108	0.015	0.004	0.003	0.005
K131	0.175	1.35	CFP	0.166	0.645	0.108	0.00	0.055	0.012	0.004	0.003	0.004
K133	0.167	1.33	CFP	0.142	0.689	0.117	0.00	0.03	0.007	0.004	0.003	0.004
K134	0.125	1.25	CFP	0.448	0.242	0.263	0.01	0.013	0.02	0.003	0.003	0.004
K135	0.109	1.22	CFP-BC	0.406	0.1	0.187	0.00	0.278	0.017	0.004	0.002	0.004
K136	0.091	1.18	CFP-BC	0.869	0.011	0.016	0.00	0.087	0.007	0.003	0.002	0.003
K137	0.239	1.48	TX-BC+EVG	0.006	0.013	0.011	0.31	0.012	0.011	0.004	0.004	0.63
K138	0.200	1.40	TX-BC+EVG	0.008	0.009	0.01	0.42	0.016	0.009	0.025	0.014	0.49
K139	0.409	1.82	AdmFP+EVG	0.009	0.013	0.008	0.43	0.01	0.021	0.013	0.178	0.322
K140	0.457	1.91	AdmFP+EVG	0.009	0.005	0.008	0.33	0.01	0.016	0.006	0.159	0.459
K141			AdmFP+EVG									
K142	0.409	1.82	AdmFP+EVG	0.007	0.007	0.005	0.44	0.007	0.014	0.009	0.011	0.505
K143	0.250	1.50	TX-BC+EVG	0.028	0.02	0.039	0.18	0.006	0.054	0.006	0.003	0.661
K144	0.250	1.50	TX-BC+EVG	0.016	0.01	0.012	0.23	0.004	0.021	0.007	0.003	0.696
K145			TX-BC+EVG									
K146	0.261	1.52	CFP-BC	0.048	0.086	0.153	0.00	0.031	0.655	0.003	0.003	0.017
K148	0.239	1.48	CFP-BC	0.021	0.066	0.06	0.00	0.029	0.797	0.005	0.004	0.013
K149	0.190	1.38	CFP-BC+EVG	0.247	0.213	0.057	0.19	0.146	0.101	0.019	0.008	0.019
K151	0.308	1.62	CFP-BC+EVG	0.063	0.459	0.049	0.01	0.085	0.215	0.022	0.022	0.079
K153	0.368	1.74	CFP-BC	0.02	0.121	0.036	0.01	0.066	0.027	0.011	0.009	0.704
K154	0.283	1.57	CFP-BC	0.052	0.064	0.084	0.00	0.103	0.036	0.006	0.004	0.649
K155	0.196	1.39	TX-BC	0.015	0.02	0.019	0.00	0.01	0.018	0.003	0.003	0.907
K156	0.167	1.33	TX-BC	0.01	0.012	0.012	0.00	0.01	0.015	0.007	0.003	0.927
K157	0.119	1.24	CFP-BC	0.773	0.023	0.063	0.01	0.011	0.107	0.003	0.002	0.012
K158	0.152	1.30	CFP-BC	0.22	0.089	0.07	0.00	0.029	0.571	0.003	0.003	0.011
K159	0.182	1.36	CFP-BC	0.496	0.043	0.071	0.00	0.067	0.116	0.004	0.003	0.197
K160	0.239	1.48	CFP-BC	0.154	0.01	0.019	0.00	0.017	0.777	0.009	0.004	0.006
K161	0.042	1.08	CFP-BC	0.139	0.025	0.041	0.01	0.048	0.709	0.006	0.007	0.014
K162	0.176	1.35	CFP-BC	0.193	0.029	0.073	0.01	0.035	0.596	0.018	0.01	0.038
K163	0.152	1.30	CFP-BC+SEM	0.016	0.007	0.008	0.00	0.944	0.008	0.006	0.003	0.004
K164	0.174	1.35	CFP-BC+SEM	0.029	0.009	0.011	0.00	0.925	0.009	0.007	0.004	0.004
K165	0.182	1.36	CFP-BC+SEM	0.061	0.038	0.029	0.01	0.785	0.017	0.02	0.003	0.042
K166	0.205	1.41	CFP-BC+SEM	0.02	0.032	0.028	0.00	0.893	0.008	0.008	0.003	0.005
K167	0.273	1.55	TX-BC	0.006	0.008	0.007	0.00	0.009	0.01	0.006	0.005	0.945
K168	0.250	1.50	TX-BC	0.005	0.006	0.006	0.00	0.006	0.011	0.006	0.005	0.953
K170	0.239	1.48	TX-BC+EVG	0.008	0.006	0.009	0.25	0.01	0.01	0.005	0.004	0.694
K171	0.196	1.39	TX-BC+EVG	0.011	0.017	0.017	0.35	0.017	0.015	0.004	0.003	0.565
K172	0.152	1.30	TX-BC+EVG	0.004	0.005	0.005	0.29	0.004	0.004	0.006	0.004	0.681
K173	0.300	1.60	AdmFP+SEM									
K174	0.196	1.39	CFP-BC+EVG	0.258	0.118	0.114	0.11	0.077	0.147	0.019	0.031	0.127
K175	0.300	1.60	CFP-BC+EVG+SEM	0.199	0.233	0.083	0.11	0.125	0.037	0.111	0.048	0.052

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Field ID & Genetic group	Avg Het	Avg # Alleles	Heritage Calls	CFP	CFP	CFP	EVG +AdmFP	CFP-BC +AdmFP	CFP-BC +AdmFP	AdmFP	AdmFP +SEM	TX-BC
				1	2	3	4	5	6	7	8	9
K176	0.269	1.54	CFP-BC+EVG+SEM	0.033	0.086	0.069	0.18	0.025	0.219	0.039	0.037	0.316
K177	0.136	1.27	CFP-BC+EVG+SEM	0.122	0.187	0.464	0.14	0.029	0.023	0.006	0.006	0.022
K178	0.136	1.27	CFP-BC	0.28	0.09	0.114	0.01	0.016	0.469	0.004	0.005	0.017
K179	0.225	1.45	CFP-BC	0.064	0.052	0.054	0.01	0.023	0.782	0.004	0.004	0.006
K180	0.130	1.26	CFP-BC	0.316	0.249	0.064	0.00	0.347	0.01	0.003	0.002	0.003
K181			CFP-BC									
K182	0.179	1.36	CFP-BC	0.022	0.153	0.039	0.01	0.06	0.607	0.007	0.014	0.085
K183	0.100	1.20	AdmFP+SEM	0.038	0.075	0.043	0.03	0.118	0.093	0.006	0.008	0.591
K185			CFPxUnk									
K186			CFPxUnk									
K187	0.125	1.25	CFP	0.027	0.931	0.015	0.00	0.009	0.006	0.003	0.002	0.003
K188	0.114	1.23	CFP	0.341	0.499	0.122	0.00	0.012	0.011	0.006	0.002	0.003
K189	0.159	1.32	CFP	0.309	0.538	0.111	0.00	0.015	0.01	0.008	0.003	0.005
K190	0.217	1.44	CFP-BC	0.078	0.592	0.214	0.00	0.027	0.051	0.003	0.017	0.015
K191	0.227	1.46	CFP-BC	0.051	0.628	0.222	0.02	0.029	0.014	0.004	0.014	0.017
K192	0.227	1.46	CFP-BC	0.034	0.184	0.368	0.01	0.009	0.374	0.003	0.003	0.015
K193			CFP-BC									
K194	0.190	1.38	CFP-BC	0.147	0.374	0.306	0.01	0.013	0.118	0.003	0.006	0.018
K195			CFP-BC									
K196	0.217	1.44	TX-BC	0.005	0.004	0.004	0.00	0.004	0.968	0.003	0.003	0.006
K197	0.211	1.42	AdmFP	0.012	0.018	0.013	0.00	0.009	0.925	0.004	0.003	0.012
K198	0.205	1.41	AdmFP	0.076	0.067	0.018	0.00	0.022	0.799	0.004	0.003	0.007
K199	0.239	1.48	AdmFP	0.024	0.02	0.02	0.00	0.011	0.908	0.004	0.002	0.006
K200	0.174	1.35	CFP-BC	0.056	0.067	0.009	0.05	0.749	0.025	0.024	0.006	0.017
K201	0.130	1.26	CFP-BC	0.037	0.025	0.028	0.00	0.891	0.008	0.003	0.002	0.003
K202	0.176	1.35	CFP-BC+SEM	0.09	0.109	0.259	0.01	0.25	0.01	0.109	0.154	0.008
K203			CFP-BC+SEM									
K204	0.062	1.13	CFP-BC+SEM	0.362	0.085	0.471	0.01	0.041	0.009	0.008	0.009	0.008
K205	0.310	1.62	EVG-BC	0.012	0.017	0.033	0.57	0.215	0.018	0.06	0.016	0.055
K206	0.283	1.57	EVG-BC	0.031	0.02	0.026	0.43	0.133	0.018	0.025	0.012	0.308
K207	0.375	1.75	EVG-BC	0.015	0.014	0.04	0.54	0.057	0.013	0.025	0.031	0.262
K208	0.182	1.36	AdmFP	0.169	0.023	0.033	0.02	0.125	0.163	0.04	0.012	0.42
K209	0.318	1.64	AdmFP	0.115	0.032	0.038	0.06	0.06	0.091	0.276	0.011	0.32
K210	0.333	1.67	EVG-BC	0.043	0.062	0.04	0.37	0.035	0.1	0.013	0.003	0.334
K211			AdmFP+SEM									
K212	0.250	1.50	AdmFP+SEM	0.025	0.071	0.02	0.01	0.141	0.023	0.263	0.019	0.433
K213	0.250	1.50	AdmFP+SEM	0.043	0.054	0.052	0.01	0.084	0.012	0.109	0.028	0.612
K214	0.348	1.70	EVG-BC	0.012	0.011	0.013	0.55	0.024	0.109	0.012	0.145	0.128
K215			EVG-BC									
K216	0.325	1.65	EVG-BC	0.107	0.062	0.096	0.24	0.04	0.116	0.009	0.024	0.308
K217	0.273	1.55	EVG-BC+SEM	0.04	0.064	0.029	0.58	0.221	0.01	0.018	0.02	0.024
K218	0.350	1.70	EVG-BC+SEM	0.033	0.075	0.038	0.49	0.244	0.014	0.024	0.025	0.056
K219	0.273	1.55	AdmFP+SEM	0.01	0.012	0.011	0.01	0.363	0.038	0.011	0.014	0.537
K220	0.250	1.50	AdmFP+SEM	0.022	0.038	0.037	0.01	0.165	0.054	0.007	0.014	0.659
K221	0.200	1.40	AdmFP+SEM	0.051	0.028	0.106	0.01	0.111	0.378	0.266	0.039	0.011
K222	0.295	1.59	AdmFP+SEM	0.025	0.012	0.026	0.01	0.008	0.422	0.463	0.012	0.021
K223	0.217	1.44	AdmFP+SEM	0.034	0.01	0.017	0.01	0.031	0.601	0.278	0.009	0.009
K224			AdmFP									
K225			AdmFP									
K226	0.217	1.44	AdmFP	0.123	0.032	0.038	0.00	0.098	0.033	0.008	0.005	0.661
K228	0.283	1.57	AdmFP	0.097	0.047	0.048	0.00	0.019	0.137	0.011	0.004	0.635
K229	0.196	1.39	AdmFP+SEM	0.033	0.028	0.028	0.00	0.012	0.872	0.004	0.015	0.006
K230	0.261	1.52	AdmFP	0.146	0.022	0.036	0.00	0.102	0.678	0.004	0.003	0.005
K231			AdmFP+SEM									
K232			AdmFP+SEM									
K233	0.239	1.48	CFP-BC	0.332	0.015	0.096	0.01	0.025	0.062	0.004	0.004	0.456
K234	0.261	1.52	CFP-BC	0.399	0.019	0.082	0.01	0.092	0.07	0.008	0.005	0.318
K236	0.262	1.52	TX-BC+EVG	0.007	0.008	0.008	0.24	0.009	0.009	0.004	0.005	0.711

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STRUCTURE ANALYSIS (K=9)

Field ID & Genetic group	Avg Het	Avg # Alleles	Heritage Calls	CFP	CFP	CFP	EVG +AdmFP	CFP-BC +AdmFP	CFP-BC +AdmFP	AdmFP	AdmFP +SEM	TX-BC
				1	2	3	4	5	6	7	8	9
K237	0.238	1.48	CFP-BC	0.047	0.042	0.066	0.01	0.415	0.089	0.006	0.019	0.309
K238	0.304	1.61	TX-BC+EVG	0.005	0.006	0.005	0.17	0.005	0.006	0.005	0.004	0.797
K239	0.205	1.41	AdmFP	0.044	0.028	0.028	0.02	0.083	0.011	0.769	0.004	0.011
K240	0.217	1.44	AdmFP	0.02	0.065	0.029	0.00	0.093	0.009	0.768	0.003	0.008
K241	0.239	1.48	AdmFP	0.037	0.026	0.024	0.00	0.018	0.061	0.005	0.003	0.823
K242	0.261	1.52	AdmFP	0.113	0.104	0.046	0.00	0.013	0.042	0.008	0.003	0.668
K243	0.261	1.52	AdmFP	0.087	0.062	0.03	0.00	0.011	0.068	0.005	0.003	0.731
K244	0.239	1.48	CFP-BC+EVG	0.29	0.059	0.074	0.22	0.049	0.03	0.005	0.003	0.271
K245	0.227	1.46	CFP-BC+EVG	0.132	0.172	0.091	0.23	0.041	0.256	0.014	0.011	0.054
K246	0.261	1.52	CFP-BC+EVG	0.281	0.071	0.036	0.22	0.027	0.047	0.02	0.01	0.294
K247	0.119	1.24	CFP-BC	0.03	0.015	0.015	0.00	0.923	0.006	0.003	0.003	0.003
K248	0.152	1.30	CFP-BC	0.012	0.006	0.007	0.00	0.953	0.007	0.005	0.005	0.003
K249	0.119	1.24	CFP-BC	0.096	0.018	0.015	0.00	0.838	0.014	0.006	0.003	0.006
K250	0.217	1.44	CFP-BC	0.04	0.039	0.029	0.01	0.684	0.011	0.011	0.162	0.017
K251	0.205	1.41	CFP-BC	0.161	0.152	0.163	0.01	0.118	0.084	0.005	0.122	0.188
K252	0.174	1.35	CFP-BC	0.079	0.037	0.035	0.01	0.687	0.02	0.005	0.102	0.028
K253	0.200	1.40	AdmFP+SEM	0.008	0.026	0.015	0.01	0.256	0.012	0.017	0.011	0.65
K255	0.158	1.32	AdmFP+SEM	0.031	0.398	0.021	0.00	0.033	0.176	0.044	0.004	0.288
K256	0.275	1.55	AdmFP+SEM	0.045	0.545	0.028	0.00	0.02	0.016	0.042	0.005	0.295
K257	0.211	1.42	AdmFP	0.118	0.02	0.032	0.00	0.015	0.798	0.004	0.004	0.007
K258	0.184	1.37	AdmFP	0.015	0.013	0.01	0.00	0.007	0.931	0.004	0.003	0.012
K259	0.206	1.41	AdmFP	0.024	0.038	0.034	0.01	0.058	0.16	0.022	0.006	0.649
K260			AdmFP									
K261	0.158	1.32	CFP-BC+SEM	0.047	0.015	0.015	0.00	0.895	0.005	0.008	0.007	0.005
K262	0.263	1.53	CFP-BC+SEM	0.007	0.008	0.007	0.00	0.927	0.007	0.024	0.01	0.007
K263	0.184	1.37	CFP-BC+SEM	0.026	0.017	0.011	0.00	0.909	0.008	0.016	0.006	0.005
K265	0.222	1.44	AdmFP+SEM	0.038	0.102	0.061	0.01	0.116	0.025	0.021	0.007	0.622
K266	0.111	1.22	AdmFP	0.05	0.112	0.062	0.01	0.248	0.056	0.276	0.006	0.185
K267	0.111	1.22	AdmFP	0.058	0.084	0.047	0.00	0.067	0.272	0.059	0.011	0.398
K268			AdmFP									
K269	0.167	1.33	AdmFP	0.07	0.032	0.073	0.04	0.11	0.049	0.38	0.011	0.237
K270	0.088	1.18	AdmFP	0.038	0.029	0.022	0.00	0.03	0.019	0.847	0.004	0.007
K271			AdmFP									
K272	0.094	1.19	AdmFP	0.008	0.013	0.009	0.00	0.008	0.007	0.942	0.003	0.006
K273	0.176	1.35	AdmFP	0.032	0.022	0.022	0.01	0.016	0.016	0.869	0.003	0.014
K274	0.353	1.71	AdmFP+SEM	0.031	0.134	0.032	0.01	0.047	0.181	0.055	0.07	0.44
K275	0.278	1.56	AdmFP+SEM	0.016	0.38	0.032	0.00	0.014	0.176	0.01	0.032	0.336
K276	0.214	1.43	AdmFP+SEM	0.025	0.444	0.05	0.00	0.017	0.15	0.009	0.007	0.293
K277			AdmFP									
K278			AdmFP									
K280			Unknown									
K281			AdmFP									
K282			AdmFP									
K283			Unknown									
K284			Unknown									
K285			Unknown									
K286			Unknown									
K287			Unknown									
K288			Unknown									
K289			Unknown									
K290			Unknown									
K291			AdmFP									
K292			AdmFP									
K293			AdmFP									
K294			Unknown									
K295			Unknown									
K296			Unknown									
K297			AdmFP									

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STRUCTURE ANALYSIS (K=9)

Field ID & Genetic group	Avg Het	Avg # Alleles	Heritage Calls	CFP	CFP	CFP	EVG +AdmFP	CFP-BC +AdmFP	CFP-BC +AdmFP	AdmFP	AdmFP +SEM	TX-BC
				1	2	3	4	5	6	7	8	9
K298			AdmFP									
K299			AdmFP									
unmar Ked2			EVG-BC									
FP080 fetus #1	0.088	1.18	CFP	0.021	0.759	0.165	0.00	0.032	0.008	0.004	0.003	0.004
FP080 fetus #2	0.105	1.21	CFP	0.02	0.861	0.084	0.00	0.015	0.008	0.003	0.002	0.004
FP080 fetus #3	0.105	1.21	CFP	0.017	0.858	0.084	0.00	0.019	0.009	0.003	0.002	0.003
FP116 fetus #1	0.100	1.20	Unknown									
FP116 fetus #2	0.184	1.37	Unknown									
TEXAS FE												
TX101-BCNP BI	0.348	1.70	TX	0.006	0.005	0.009	0.03	0.013	0.048	0.019	0.031	0.843
Tx103 fetus #1	0.375	1.75	CFP-F1									
TX102-BCNP BI	0.391	1.78	TX									
TX103-LP	0.381	1.76	TX									
TX104-FSSP	0.342	1.68	TX									
TX105-ENP	0.283	1.57	TX	0.004	0.01	0.013	0.14	0.007	0.018	0.427	0.033	0.354
TX106-FSSP	0.262	1.52	TX	0.004	0.004	0.004	0.02	0.004	0.037	0.771	0.062	0.097
TX107-RP	0.326	1.65	TX	0.003	0.004	0.003	0.00	0.006	0.007	0.027	0.084	0.864
TX108-ENP	0.370	1.74	TX	0.004	0.005	0.005	0.53	0.006	0.02	0.006	0.175	0.253

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STRUCTURE ANALYSIS (K=9)

Field ID & Genetic group	Avg Het	Avg # Alleles	Heritage Calls	CFP	CFP	CFP	EVG +AdmFP	CFP-BC +AdmFP	CFP-BC +AdmFP	AdmFP	AdmFP +SEM	TX-BC
				1	2	3	4	5	6	7	8	9
SEMINOLE												
WC00 "Little Boy"	0.283	1.57	Seminole	0.004	0.004	0.005	0.00	0.008	0.003	0.008	0.961	0.004
WC01 "castrated 10m"	0.310	1.62	Seminole	0.016	0.008	0.013	0.00	0.006	0.017	0.028	0.890	0.018
WC02 "Opal daughter"	0.250	1.50	Seminole	0.009	0.011	0.008	0.00	0.017	0.01	0.016	0.916	0.009
WC03	0.211	1.42	Seminole	0.008	0.008	0.007	0.00	0.012	0.008	0.005	0.946	0.005
WC04 "neutered"	0.325	1.65	Seminole	0.03	0.022	0.013	0.00	0.042	0.015	0.01	0.784	0.08
WC05 "Taz"	0.333	1.67	Seminole	0.03	0.013	0.012	0.01	0.022	0.011	0.007	0.891	0.01
WC06 "castrated 10"	0.326	1.65	Seminole	0.009	0.014	0.007	0.00	0.006	0.032	0.005	0.910	0.014
WC07 "Opal"	0.341	1.68	Seminole	0.012	0.009	0.008	0.01	0.012	0.015	0.067	0.855	0.016
WC08 "Bubba"	0.381	1.76	Seminole	0.009	0.006	0.006	0.00	0.015	0.009	0.006	0.939	0.007
PIPER - E												
Piper "Cmp Kala"	0.214	1.43	Piper									
Piper "Offspring"	0.250	1.50	Piper									
Piper "Ocho"	0.283	1.57	Piper									
Piper "Bert Wah"	0.194	1.39	Piper									
Piper "Dies Dos"	0.316	1.63	Piper									
Piper "Kima"	0.261	1.52	Piper									
Piper "Survivor"	0.312	1.63	Piper									
Piper "Florida"	0.250	1.50	Piper									
Piper "Osceola"	0.413	1.83	Piper									
Piper "Hayeta"	0.273	1.55	Piper									
Piper "Synda"	0.386	1.77	Piper									
Piper "Delilah / f"	0.238	1.48	Piper									
Piper "Baca"	0.286	1.57	Piper									
Piper "Numa"	0.357	1.71	Piper									

Supplemental table 3. A) All free-ranging Florida panthers (> 1.5 years-old) of all genetic heritages B) Canonical Florida panthers (CFP), C) Everglades Florida panthers (EVG) and D) Texas (TX) combined with Seminole (SEM) panthers, estimates of molecular genetic variation (mean individual percent observed heterozygosity \pm standard error (SE) and average number of alleles per locus \pm SE estimated from 23 STR loci) and occurrence of physiological traits in Florida panthers alive during three time periods prior to the release of Texas females and two time periods post-release. Sample sizes for each estimate is in parentheses. Percentage of panthers with cowlicks, kinked tails, average number of testicles for males, and percentage of panthers with atrial septal defects were collected during handling of animals in the field or during necropsy.

A.

Heritage Group	No. per group	Average Heterozygosity	Average No. Alleles per locus	^A No. of descended testicles	Proportion of males cryptorchid	Proportion with atrial septal defects	Proportion with Kinked tails	Proportion with cowlick on thorax	Proportion with at least 1 trait
ALL Florida Panthers									
Pre-Introgression									
1970-1984	33	0.231 ± 0.017 (27)	1.46 ± 0.03 (27)	1.67 ± 0.14 (12)	0.33 ± 0.14 (12)	0.33 ± 0.21 (6)	0.86 ± 0.07 (29)	0.79 ± 0.08 (28)	0.71 ± 0.06 (31)
1985-1989	37	0.208 ± 0.014 (36)	1.42 ± 0.03 (36)	1.53 ± 0.12 (18)	0.5 ± 0.12 (18)	0.16 ± 0.09 (18)	0.68 ± 0.08 (37)	0.75 ± 0.07 (36)	0.58 ± 0.06 (37)
1990-1995	62	0.190 ± 0.009 (62)	1.38 ± 0.02 (62)	1.33 ± 0.10 (35)	0.63 ± 0.08 (35)	0.21 ± 0.07 (34)	0.77 ± 0.05 (61)	0.74 ± 0.06 (62)	0.64 ± 0.04 (62)
Post-Introgression									
1996-1998	67	0.220 ± 0.011 (64)	1.44 ± 0.02 (64)	1.38 ± 0.12 (26)	0.54 ± 0.10 (26)	0.06 ± 0.04 (31)	0.59 ± 0.06 (61)	0.63 ± 0.06 (62)	0.48 ± 0.04 (64)
1999-2001	102	0.224 ± 0.009 (101)	1.45 ± 0.02 (101)	1.56 ± 0.09 (41)	0.42 ± 0.08 (41)	0.07 ± 0.04 (46)	0.51 ± 0.05 (95)	0.49 ± 0.05 (93)	0.41 ± 0.03 (96)
2002-2004	139	0.226 ± 0.007 (137)	1.45 ± 0.01 (137)	1.77 ± 0.05 (65)	0.23 ± 0.05 (65)	0.06 ± 0.03 (72)	0.43 ± 0.04 (133)	0.42 ± 0.04 (126)	0.34 ± 0.04 (134)
2005-2007	116	0.240 ± 0.007 (105)	1.48 ± 0.01 (105)	1.88 ± 0.04 (59)	0.12 ± 0.04 (59)	0.09 ± 0.04 (53)	0.31 ± 0.04 (110)	0.26 ± 0.04 (107)	0.23 ± 0.03 (111)

B.

Heritage Group	No. per group	Average Heterozygosity	Average No. Alleles per locus	^A No. of descended testicles	Proportion of males cryptorchid	Proportion with Atrial Septal defects	Proportion with Kinked tails	Proportion with cowlick on thorax	Proportion with at least 1 trait
All Canonical Florida Panthers									
Pre-Introgression									
1970-1984	26	0.188 ± 0.010 (20)	1.38 ± 0.02 (20)	1.6 ± 0.14 (10)	0.40 ± 0.16 (10)	0.40 ± 0.24 (10)	1.00 ± 0 (24)	0.86 ± 0.07 (22)	0.81 ± 0.05 (25)
1985-1989	28	0.182 ± 0.010 (27)	1.36 ± 0.02 (27)	1.4 ± 0.13 (15)	0.60 ± 0.13 (15)	0.20 ± 0.11 (15)	0.89 ± 0.06 (28)	0.93 ± 0.05 (27)	0.74 ± 0.04 (28)
1990-1995	51	0.175 ± 0.007 (51)	1.35 ± 0.01 (51)	1.2 ± 0.10 (29)	0.76 ± 0.08 (29)	0.24 ± 0.08 (29)	0.86 ± 0.05 (50)	0.86 ± 0.05 (51)	0.74 ± 0.03 (51)
Post-Introgression									
1996-1998	41	0.164 ± 0.008 (40)	1.33 ± 0.02 (40)	1.2 ± 0.14 (21)	0.67 ± 0.11 (21)	0.08 ± 0.05 (26)	0.87 ± 0.06 (38)	0.79 ± 0.07 (69)	0.64 ± 0.04 (41)
1999-2001	42	0.161 ± 0.008 (42)	1.32 ± 0.02 (42)	1.2 ± 0.12 (21)	0.71 ± 0.10 (21)	0.08 ± 0.06 (24)	0.93 ± 0.04 (40)	0.73 ± 0.07 (41)	0.69 ± 0.04 (41)
2002-2004	40	0.158 ± 0.007 (40)	1.32 ± 0.01 (40)	1.3 ± 0.11 (18)	0.67 ± 0.11 (18)	0.09 ± 0.06 (22)	0.89 ± 0.05 (38)	0.74 ± 0.07 (38)	0.69 ± 0.04 (39)
2005-2007	11	0.144 ± 0.015 (11)	1.29 ± 0.03 (11)	1.0 ± 0 (2)	1.0 ± 0 (2)	0 ± 0 (3)	0.90 ± 0.10 (10)	0.80 ± 0.13 (10)	0.80 ± 0.10 (10)

C.

Heritage Group	No. per group	Average Heterozygosity	Average No. Alleles per locus	^A No. of descended testicles	Proportion of males cryptorchid	Proportion with Atrial Septal defects	Proportion with Kinked tails	Proportion with cowlick on thorax	Proportion with at least 1 trait
All Everglades Florida Panthers									
Pre-Introgression									
1970-1984	7	0.355 ± 0.022 (7)	1.71 ± 0.04 (7)	2.0 ± 0 (2)	0 (2)	0 (1)	0.20 ± 0.20 (6)	0.50 ± 0.22 (6)	0.31 ± 16.3 (6)
1985-1989	9	0.286 ± 0.035 (9)	1.57 ± 0.07 (9)	2.0 ± 0 (3)	0 (3)	0 (4)	0 (2)	0.22 ± 0.15 (9)	0.06 ± 0.04 (9)
1990-1995	11	0.260 ± 0.030 (11)	1.52 ± 0.06 (11)	2.0 ± 0 (6)	0 (6)	0 (5)	0.36 ± 0.15 (11)	0.18 ± 0.12 (11)	0.18 ± 0.07 (11)
Post-Introgression									
1996-1998	3	0.273 ± 0.059 (3)	1.55 ± 0.12 (3)	2.0 (1)	0 (1)	0 (1)	0.33 ± 0.33 (3)	0.33 ± 0.33 (3)	0.33 ± 0.33 (3)
1999-2001	3	0.273 ± 0.059 (3)	1.55 ± 0.12 (3)	2.0 (1)	0 (1)	0 (1)	0.33 ± 0.33 (3)	0.33 ± 0.33 (3)	0.33 ± 0.33 (3)

D.

Heritage Group	No. per group	Average Heterozygosity	Average No. Alleles per locus	^A No. of descended testicles	Proportion of males cryptorchid	Proportion with Atrial Septal defects	Proportion with Kinked tails	Proportion with cowlick on thorax	Proportion with at least 1 trait
Texas Founders									
Pre-Introgression									
1996-2001	8	0.324 ± 0.015 (8)	1.65 ± 0.03 (8)	NR	NR	NR	0 (5)	0 (5)	0 (5)
All AdmFP Post-Introgression									
1996-1998	10	0.320 ± 0.011 (9)	1.64 ± 0.02 (9)	2.0 ± 0 (3)	0 (3)	0 (2)	0.10 ± 0.10 (10)	0.50 ± 0.17 (10)	0.23 ± 0.08 (10)
1999-2001	49	0.260 ± 0.011 (48)	1.52 ± 0.02 (48)	1.9 ± 0.07 (19)	0.11 ± 0.07 (19)	0.05 ± 0.05 (21)	0.21 ± 0.06 (47)	0.34 ± 0.07 (44)	0.22 ± 0.04 (47)
2002-2004	96	0.253 ± 0.007 (96)	1.51 ± 0.01 (96)	1.9 ± 0.04 (46)	0.07 ± 0.04 (46)	0.04 ± 0.03 (49)	0.23 ± 0.04 (92)	0.29 ± 0.05 (86)	0.18 ± 0.02 (92)
2005-2007	94	0.251 ± 0.007 (94)	1.50 ± 0.01 (94)	1.9 ± 0.04 (51)	0.10 ± 0.04 (51)	0.11 ± 0.05 (45)	0.22 ± 0.04 (89)	0.21 ± 0.04 (86)	0.17 ± 0.02 (90)

Supplemental table 4. Estimated annual survival rates \pm SE by sex and age class. For this analysis, kittens are defined as age 0-1 year for both sexes, sub-adults as age 1-2.5 years for females and 1-3.5 years for males, and prime-adults as age 2.5-10 years for females and 3.5–10 years for males. Panthers that could not be classified as CFP, CFPxTX-F1, EVGxTX-F1, TX-BC or EVG-BC and adults > 10 yrs old were excluded. One single-remaining pre-restoration EVG female was included with the CFP in the sub-adult and prime-adult analysis. Results from a model with two ancestry categories (1: CFP and CFP-BC and 2: EVG-BC, TX-BC, CFPxTX-F1 and EVGxTX-F1) are presented for kitten survival and results from a model with two different ancestry categories (1: CFP, CFP-BC, EVG-BC, and TX-BC and 2: CFPxTX-F1 and EVGxTX-F1) are presented for sub-adults and prime-adults. Both models were significantly ($p < 0.05$) better supported by the data than the equivalent models without ancestry effects.

Age Class	Sex	CFP and CFP-BC	TX-BC and EVG-BC	CFPxTX-F1 and EVGxTX-F1
Kitten	All	0.243 \pm 0.061	0.518 \pm 0.107	0.518 \pm 0.107
Sub-Adult	Female	0.958 \pm 0.041		0.995 \pm 0.007
Sub-Adult	Male	0.681 \pm 0.073		0.957 \pm 0.044
Prime-Adult	Female	0.825 \pm 0.039		0.978 \pm 0.022
Prime-Adult	Male	0.787 \pm 0.057		0.973 \pm 0.028

Supplemental Table 5. Comparison of testicular volume and two measures of sperm morphology (percentage normal sperm and percentage abnormal acrosomes) among ejaculates from live canonical Florida panthers (CFP), Everglades Florida panthers (EVG), admixed Florida panthers (AdmFP) and Texas pumas, as well as from CFP and AdmFP testes rescued post mortem. Number of individuals examined listed in parentheses. Expanded data in table S6.

¹Testicular volume in each male included only descended testicles. Within columns, similar letters indicate that no differences were observed ($p < 0.05$).

²Electro-ejaculation was performed under anesthesia.

³Percentage cryptorchid: CFP = 43.8%; AdmFP = 25%, EVG, CFP-TX-F1, and TX = 0%.

⁴Data from 11 CFP males, 5 EVG males, 9 TX males, and 7 Colorado males are from (S24); an additional 5 CFP males were included for a total of 16 CFP males.

⁵Aspermia: 1 ejaculated and 1 gamete rescue CFP was aspermic and oligospermic, respectively, and 4 of the AdmFP were aspermic (2 ejaculates and 2 gamete rescues).

⁶Testes were collected post-mortem, thus testicular volume does not include the scrotum.

⁷Percentage of these males cryptorchid: CFP = 50% AdmFP = 0%.

⁸Western males were not included in statistical evaluation [raw data from (S24) was not available] and ejaculated and gamete rescued male data were analyzed separately. For ejaculated males, testicular volume CFP < AdmFP ($p = 0.05$), CFP < F1s ($p = 0.001$), EVG < F1s ($p = 0.01$), and AdmFP < F1s ($p = 0.07$). For percent normal sperm CFP < EVG ($p = 0.03$), F1s > all others ($p < 0.001$). For abnormal acrosomes F1s < all others ($p < 0.002$). For the gamete rescue males, testicular volume CFP < AdmFP ($p = 0.005$), normal sperm CFP < AdmFP ($p = 0.08$) (Fishers exact test in each comparison).

Panther population and sampling method	Testicular ¹ volume (cm ³) ± SE	Spermatozoa morphology percent ± SE	
		Normal	Abnormal acrosomes
Ejaculates from live Florida males²			
	11.3 ± 1.6 ^A	5.4 ± 0.7 ^C	38.9 ± 3.2 ^{A,C}
Canonical Florida panthers (16) ^{3,4,5}	(15)	(15)	(15)
	14.0 ± 1.9 ^B	9.5 ± 0.6 ^B	38.8 ± 2.8 ^{A,C}
Everglades Florida panthers (5) ^{3,4}	(4)	(5)	(5)
Admixed Florida panthers			
	18.2 ± 3.1 ^{B,C}	7.0 ± 6.0 ^{B,C}	51.5 ± 7.5 ^{A,C}
All AdmFP except F1s (4) ^{3,5}	(4)	(2)	(2)
	27.7 ± 1.8 ^D	20.5 ± 4.5 ^A	7.0 ± 3.0 ^B
CFPxTX-F1 C (2) ³	(2)	(2)	(2)
Gametes rescued from testes at post-mortem⁶			
	8.8 ± 1.0 ^N	10.1 ± 1.9 ^N	35.3 ± 2.8 ^{N,C}
Canonical Florida panthers (14) ^{5,7}	(10)	(13)	(13)
	15.1 ± 1.7 ^P	16.9 ± 3.6 ^P	31.0 ± 5.3 ^{N,C}
Admixed Florida panthers (14) ^{5,7}	(9)	(10)	(10)
Ejaculates from live Western U.S. male pumas⁸			
	17.8 ± 1.7	14.0 ± 3.5	13.8 ± 1.2
Texas males (9) ^{3,4}	(9)	(9)	(9)
	10.8 ± 0.7	16.3 ± 2.1	19.5 ± 0.8
Colorado males (7) ⁴	(7)	(7)	(7)

Supplemental Table 6. Detail of data used to calculate values in Table S5. Codes in column 2 refer to panther heritage categories (C=CFP, E=EVG, BE=EVG-BC, BF=CFP-BC, BxT=TX-BC, AD=AdmFP, % Texas Unknown, * = inbred; †= related to FP79; S = sire; L+ = grand sire). **This animal had high % microcephalic and spermatids - ~18% of each

Collection method	Codes ^A	Panther ID	No. of Testes	Testes vol. per male	Vol / testis	% normal	%Acro+ Head	Date
CANONICAL								
Ejaculation	C	FP07	2	ND	ND	8.3	44.0	26-Jan-85
Ejaculation	C	FP12	1	8.81	8.8	5.7	39.7	28-Jan-86
Ejaculation	C	FP13	2	14.91	7.5	10.3	46.0	27-Feb-86
Ejaculation	C	FP17	2	13.77	6.9	10.0	29.0	26-Jan-89
Ejaculation	C	FP20	1	6.85	6.9	4.5	41.5	10-Jul-87
Ejaculation	C	FP24	2	21.22	10.6	4.0	52.5	30-Jan-88
Ejaculation	C	FP26	1	5.45	5.5	2.0	49.3	1-Mar-88
Ejaculation	C	FP28	1	7.39	7.4	4.5	3.6**	24-Jan-92
Ejaculation	C	FP29	1	5.67	5.7	3.0	31.5	12-Feb-90
Ejaculation	C	FP33	2	12.74	6.4	2.5	51.2	5-Mar-89
Ejaculation	C	FP34	1	5.29	5.3	5.5	35.5	11-Jan-91
Ejaculation	C	FP39	2	7.25	3.6	7.5	30.0	19-Feb-90
Ejaculation	C	FP43	1	3.09	3.09	aspermic		8-Jan-91
Ejaculation	C	FP51	2	20.6	10.3	5	46	28-Jan-98
Ejaculation	C	FP54	2	17.0	8.5	2	37	1-Jan-04
Ejaculation	C	FP60	2	19.0	9.5	6	46	1-Jan-04
			N=	16	15	15	15	14
			Ave canoni	1.56	11.27	7.05	5.39	38.85
			S.E.	0.13	1.58	0.58	0.69	3.18
GamResc	C	FP4	1	6.85	6.9	6.0	48.0	19-Apr-85
GamResc	C	FP13	2	ND	ND	18.0	35.0	15-Feb-87
GamResc	C	FP20	1	6.01	6.0	6.5	47.5	24-Aug-88
GamResc	C	FP30	1	ND	ND	12.0	22.0	30-Jan-90
GamResc	C	FP33	2	15.09	7.5	25.5	26.0	23-Nov-89
GamResc	C	FP39	2	5.25	2.6	19.5	24.0	18-May-90
GamResc	C	UCFP018	1	8.32	8.3	9.0	52.5	26-Jan-89
GamResc	C	FP59	2	12.4	6.2	3	32	26-Nov-04
GamResc	C	UCFP035	1	ND	ND	6	40	23-Jun-00
GamResc	C	FP98	1	8.0	8.0	7	28	1-Jul-02
GamResc	C	FP99	2	11.9	6.0	oligospermic		28-Nov-02
GamResc	C	K128	2	8.3	4.2	5	42	8-Dec-04
GamResc	C	UCFP050	1	ND	ND	10	28	29-Jan-03
GamResc	C	UCFP063	1	6.3	6.3	4	34	27-Feb-04
			N=	14	10	10	13	13
			Ave canoni	1.43	8.84	6.19	10.12	35.31
			S.E.	0.14	1.02	0.55	1.90	2.75

Collection method	Codes ^A	Panther ID	No. of Testes	Testes vol. per male	Vol / testis	% normal	%Acro+ Head	Date
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Admixed Florida panthers

EVERGLADES

Ejaculation	E	FP16	2	14.47	7.2	9.5	48.5	2-Feb-88
Ejaculation	E	FP25	2	17.75	8.9	11.5	31.0	16-Feb-88
Ejaculation	E	FP37	2	ND	ND	7.5	38.0	30-Jan-90
Ejaculation	E	FP42	2	8.71	4.4	9.5	38.5	5-Feb-91
Ejaculation	E	FP200	2	14.91	7.5	9.5	38.0	17-Jan-90
			N=	5	4	4	5	5
			Ave canoni	2.00	13.96	6.98	9.50	38.80
			S.E.	0.00	1.89	0.95	0.63	2.80

CFPxTX-F1

Ejaculation	F1	FP065 _{F1-CT}	2	25.9	13.0	16	4	14-Feb-01
Ejaculation	F1	FP079 _{F1}	2	29.5	14.7	25	10	15-Nov-00
			Ave F1	2.00	27.68	13.84	20.50	7.00
			S.E.	0.00	1.78	0.89	4.50	3.00

Other AdmFP

Ejaculation	AD	FP154	1	9.5	9.5	13	44	21-Feb-07
Ejaculation	BE*	FP085 _{B-Enp}	2	24.0	12.0	1	59	18-Feb-03
Ejaculation	AD L	FP131	2	18.0	9.0	aspermic		22-Feb-07
Ejaculation	BT* S	FP104 _{Bx(BxT)}	2	21.1	10.6	aspermic		28-Feb-05
			N=	4	4	4	2	2
			Ave Admixe	1.75	18.15	10.26	7.00	51.50
			S.E.	0.25	3.13	0.66	6.00	7.50

GamResc	AD	UCFP60	2	ND	ND	18	34	13-Dec-03
GamResc	BE	FP084 _{B-FI}	2	ND	ND	9	53	20-Apr-00
GamResc	BF	FP074	2	12.72	6.36	12	17	8-Sep-99
GamResc	BF	UCFP089	2	13.1	6.6	18	19	13-Dec-06
GamResc	BF	FP108 _{TXF1x(B)}	2	10.5	5.3	42	33	20-Nov-02
GamResc	BF	UCFP085	2	ND	ND	22	33	6-Jun-06
GamResc	BF	FP152	2	25.9	13.0	14	20	22/Oct/08
GamResc	BF	UCFP095	2	16.1	8.0	ND	ND	19-Apr-07
GamResc	BE*	FP085 _{B-Enp}	2	13.4	6.7	ND	ND	4-Mar-04
GamResc	BT L	K094 _{Bx(BxTX)}	2	9.7	4.9	6	49	18-Aug-04
GamResc	BT* S	FP090 _{Bx(BxT)}	2	ND	ND	15	3	26-Apr-01
GamResc	BT* S	UCFP051	2	14.5	7.3	10	40	11-Mar-03
GamResc	BT* S	FP104 _{Bx(BxT)}	2	ND	ND	aspermic		10-Mar-06
GamResc	SM	FP132+SEM	2	20.3	10.2	aspermic		23-Jul-04
			N=	14	9	9	10	10
			Ave admixe	2.00	15.14	7.57	16.60	30.10
			S.E.	0.00	1.70	0.85	3.20	4.88

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