Wildlife Genetics Proficiency Testing Program –Test # 021815

Consensus Report 04/30/2015

Test Start Date -02/18/2015
Test Due Date -04/24/2015

This document reports the results of the Wildlife Genetics Proficiency Testing Program. The National Fish and Wildlife Forensic Laboratory was the duty Lab and was responsible for sample preparation, sample verification, distribution, and gathering and reporting the results.

The results are self explanatory and are divided into three sections:
1. Results of Test for Species Origin
2. Results of Determination of Gender Origin
3. Results of Individual Identification

Each section contains the following:
1. The species source that you identified for Items 1, 2 and 3.
2. The methods used to make these identifications.

Scenario

A Wildlife Agent is investigating a poaching incident involving black bear. The suspect claims the meat in his freezer is coming from one black bear. All three tissue samples were recovered from the suspect's freezer.

The Agent requests that the species and gender origins of all submitted evidence be determined. He is also interested in knowing whether the three submitted evidence items are from the same individual animal. It is not known where the poaching incident occurred.

Items Submitted

Item 1: Tissue from suspect's freezer.
Item 2: Tissue from suspect's freezer.
Item 3: Tissue from suspect's freezer.

Wildlife Genetics Proficiency Testing Program Answers:

	Item 1	Item 2	Item 3
Species Origin	Elk *(Cervus elaphus)*	Black Bear *(Ursus americanus)*	Elk *(Cervus elaphus)*
Gender Origin	Male	Female	Male
Accession No.	QA1F38-QA1G09	QA3G51-QA3G81	QA1F38-QA1G09
Provider	Wyoming Game and Fish	USDA/APHIS - WS	Wyoming Game and Fish
Original ID	E799 Golden Stnd#1 HA2	ID#24064 Sixes Unit, OR	E799 Golden Stnd#1 HA2

Items 1 and 3 are from the same individual

The results of pre-distribution testing confirmed the expected results.

US Fish and Wildlife Service
National Fish and Wildlife Forensics Laboratory
1490 East Main Street
Ashland, Oregon 97520
541-482-4191

I) Compilation of Species Origin Results

1 Species Source

Lab	Item 1	Item 2	Item 3
I3K48M	Elk	Black Bear	Elk
M3B22N	*Cervus elaphus*	*Ursus americanus*	*Cervus elaphus*
J4L18F	North American Elk (*Cervus elaphus*)	American Black Bear (*Ursus americanus*)	North American Elk (*Cervus elaphus*)
B5H06W	*Cervus elaphus*	*Ursus americanus*	*Cervus elaphus*
D6S24F	*Cervus elaphus*	*Ursus americanus*	*Cervus elaphus*
S2F23G	North American Elk (*Cervus elaphus*)	American Black Bear (*Ursus americanus*)	North American Elk (*Cervus elaphus*)
R2J94A-1	Elk (*Cervus elaphus*)	Black Bear (*Ursus americanus*)	Elk (*Cervus elaphus*)
R2J94A-2	Elk (*Cervus elaphus*)	Black Bear (*Ursus americanus*)	Elk (*Cervus elaphus*)
B1V83W	Cervidae family	Ursidae family	Cervidae family
P2W87T-1	*Cervus elaphus* (North American Elk)	*Ursus americanus* (American Black Bear)	*Cervus elaphus* (North American Elk)
P2W87T-2	*Cervus elaphus* (North American Elk)	*Ursus americanus* (American Black Bear)	*Cervus elaphus* (North American Elk)
K2R46H	Elk (*Cervus canadensis*)	Black Bear (*Ursus americanus*)	Elk (*Cervus canadensis*)
D3H13G-1	*Cervus elaphus* (Elk)	*Ursus americanus* (Black Bear)	*Cervus elaphus* (Elk)
D3H13G-2	*Cervus elaphus* (Elk)	*Ursus americanus* (Black Bear)	*Cervus elaphus* (Elk)
D3H13G-3	*Cervus elaphus* (Elk)	*Ursus americanus* (Black Bear)	*Cervus elaphus* (Elk)
C3F65S	*Cervus elaphus*	*Ursus americanus*	*Cervus elaphus*
M1S68R	Elk (*Cervus elaphus*)	Black Bear (*Ursus americanus*)	Elk (*Cervus elaphus*)
B4W11V-1	Elk (*Cervus elaphus*)	Black Bear (*Ursus americanus*)	Elk (*Cervus elaphus*)
B4W11V-2	Elk (*Cervus elaphus*)	Black Bear (*Ursus americanus*)	Elk (*Cervus elaphus*)
B4W11V-3	Elk (*Cervus elaphus*)	Black Bear (*Ursus americanus*)	Elk (*Cervus elaphus*)
B4W11V-4	Elk (*Cervus elaphus*)	Black Bear (*Ursus americanus*)	Elk (*Cervus elaphus*)
J2R15F-1	*Cervus elaphus* (Elk)	*Ursus americanus* (Black Bear)	*Cervus elaphus* (Elk)
J2R15F-2	Elk	American Black Bear	Elk

	(Cervus elaphus)	*(Ursus americanus)*	*(Cervus elaphus)*
K1W95S-1 K1W95S-3 K1W95S-1 K1W95S-4	*Cervus elaphus* *Cervus elaphus*	*Ursus americanus* *Ursus americanus*	*Cervus elaphus* *Cervus elaphus*
K1W95S-2 K1W95S-3 K1W95S-2 K1W95S-4	Elk *(Cervus elaphus)* Elk *(Cervus elaphus)*	Black Bear *(Ursus americanus)* Black Bear *(Ursus americanus)*	Elk *(Cervus elaphus)* Elk *(Cervus elaphus)*
A2G87C	*Cervus elaphus* American Elk	*Ursus americanus* Black Bear	*Cervus elaphus* American Elk
R4R65C-1 R4R65C-2 R4R65C-3	Inconclusive	*Ursus americanus*	Inconclusive
B4C27D	*Cervus elaphus*	*Ursus americanus*	*Cervus elaphus*
J3V67H	*Cervus elaphus canadensis*	*Ursus americanus*	*Cervus elaphus canadensis*
R1J97A-1	*Cervus elaphus*	*Ursus americanus*	*Cervus elaphus*
R1J97A-2	*Cervus elaphus*	*Ursus americanus*	*Cervus elaphus*
R1J97A-3	*Cervus elaphus or* *Cervus nippon*	*Ursus americanus*	*Cervus elaphus or* *Cervus nippon*
B3E14C	North American Elk	North American Black Bear	North American Elk
M8B64N	North American Elk *Cervus canadensis*	North American Black Bear *Ursus americanus*	North American Elk *Cervus canadensis*
L4W29E	*Cervus elaphus*	*Ursus americanus*	*Cervus elaphus*
J6B42V-1 J6B42V-2 J6B42V-3	*Cervus elaphus* Elk	*Ursus americanus* Am.Blk Bear	*Cervus elaphus* Elk

2 Methods Used

Lab	Methods/ Genetic Marker(s)
I3K48M	DNA Sequence Analysis
M3B22N	DNA Sequence Analysis/ portion of Cytochrome b
J4L18F	DNA Sequence Analysis/ mtDNA sequence of Cyt-b
B5H06W	DNA Sequence Analysis/ portion of the Cytochrome b gene
D6S24F	DNA Sequence Analysis/ mtDNA sequence of cyt b/ mtDNA seq of D-loop
S2F23G	DNA Sequence Analysis/ cytochrome b
R2J94A-1	DNA Sequence Analysis/ mitochondrial 16S ribosomal RNA gene
R2J94A-2	DNA Sequence Analysis/ mitochondrial 16S ribosomal RNA gene
B1V83W	Isoelectric Focusing/ SOD & Esterase staining
P2W87T-1	DNA Sequence Analysis/ Analysis of cytochrome b gene; mtDNA
P2W87T-2	DNA Sequence Analysis/ Analysis of cytochrome b gene within mtDNA
K2R46H	Immunodiffusion/ Ouchterlony Isoelectric Focusing/ PGI, SOD
D3H13G-1	Isoelectric Focusing/ Phosphoglucose Isomerase (PGI) Counter Immunoelectrophoresis
D3H13G-2	Isoelectric Focusing/ Phosphoglucose Isomerase (PGI) Counter Immunoelectrophoresis
D3H13G-3	Isoelectric Focusing/ Phosphoglucose Isomerase (PGI) Counter Immunoelectrophoresis
C3F65S	Immunodiffusion/ Counter Immunoelectrophoresis Isoelectric Focusing/ Phosphoglucose Isomerase
M1S68R	Immunodiffusion/ Ouchterlony - Deer and Bear anti-serums Isoelectric Focusing/ PGI (IEF3-9); EAP (IEF5-8)
B4W11V-1	DNA Sequence Analysis/ tRNA and Cytochrome b genes
B4W11V-2	DNA Sequence Analysis/ tRNA and Cytochrome b genes
B4W11V-3	DNA Sequence Analysis/ tRNA and Cytochrome b genes
B4W11V-4	DNA Sequence Analysis/ tRNA and Cytochrome b genes
J2R15F-1	Immunodiffusion/ Ouchterlony (Anti-Cervid & Anti-Bear) Isoelectric Focusing/ PGI & EAP with Phast System
J2R15F-2	Immunodiffusion/ Ouchterlony with Cervid & Ursid antisera Isoelectric Focusing/ PGI & EAP with Phast System
K1W95S-1 K1W95S-3 K1W95S-1 K1W95S-4	DNA Sequence Analysis/ 12s rRNA DNA Sequence Analysis/ 12s rRNA

K1W95S-2 K1W95S-3 K1W95S-2 K1W95S-4	DNA Sequence Analysis/ 12s rRNA mtDNA sequencing DNA Sequence Analysis/ 12s rRNA mtDNA sequencing
A2G87C	DNA Sequence Analysis
R4R65C-1 R4R65C-2 R4R65C-3	DNA Sequence Analysis/ Cytochrome B
B4C27D	DNA Sequence Analysis/ Sanger mito sequencing Cyt B, COI, D-loop STR Analysis/ Deer STR analysis
J3V67H	DNA Sequence Analysis/ COI Barcoding region, BLAST COI
R1J97A-1	DNA Sequence Analysis/ COI & Cyt b DNA sequencing
R1J97A-2	DNA Sequence Analysis/ COI & Cyt B partial gene seq, phylogenetic analysis
R1J97A-3	DNA Sequence Analysis/ mtDNA COI and Cyt b sequencing analyses BLAST
B3E14C	DNA Sequence Analysis/ Seq. of COI
M8B64N	DNA Sequence Analysis/ DNA Barcode - COI
L4W29E	DNA Sequence Analysis/ COI and Cyt B DNA seqs ref BOLD and in-house sequence databases
J6B42V-1 J6B42V-2 J6B42V-3	DNA Sequence Analysis

II) Compilation of Gender Origin Results

1 Gender Origin

Lab	Item 1	Item 2	Item 3
I3K48M	Male	Female	Male
M3B22N	Male	Female	Male
J4L18F	Male	Female	Male
B5H06W	Male	Female	Male
D6S24F	Male	Female	Male
S2F23G	Male	Female	Male
R2J94A-1	NA	Female	NA
R2J94A-2	NA	Female	NA
B1V83W	Male	NA	Male
P2W87T-1	Male	Female	Male
P2W87T-2	Male	Female	Male
K2R46H	Male	Female	Male
D3H13G-1	Male	Female	Male
D3H13G-2	Male	Female	Male
D3H13G-3	Male	Female	Male
C3F65S	Male	Female	Male
M1S68R	Male	Female	Male
B4W11V-1	Male	Female	Male
B4W11V-2	Male	Female	Male
B4W11V-3	Male	Female	Male
B4W11V-4	Male	Female	Male
J2R15F-1	Male	Female	Male
J2R15F-2	Male	Female	Male
K1W95S-1 K1W95S-3 K1W95S-1 K1W95S-4	Male Male	No data – test not performed non-consensus	Male Male
K1W95S-2 K1W95S-3 K1W95S-2 K1W95S-4	Male Male	No data non-consensus	Male Male
A2G87C	Male	Female	Male
R4R65C-1 R4R65C-2 R4R65C-3	Male	Female	Male
B4C27D	Male	Female	Male
J3V67H	Male	Female	Male

R1J97A-1	NA	NA	NA
R1J97A-2	NA	NA	NA
R1J97A-3	NA	NA	NA
B3E14C	NA	NA	NA
M8B64N	NA	NA	NA
L4W29E	Male	NA	Male
J6B42V-1 J6B42V-2 J6B42V-3	NA	NA	NA

2 Methods Used

Lab	Methods/ Genetic Marker(s)
I3K48M	-
M3B22N	PCR & electrophoretic separation of portions of the ZFX/ZFY and SRY genes linked to the sex chromosomes of mammals
J4L18F	Multiplex PCR of ZFX/Y & SRY gene regions
B5H06W	PT2→ PCR & electrophoretic separation of portions of the ZFX/ZFY and SRY genes linked to the sex chromosome of mammals PT1 & PT3→ Cap. electrophoretic analysis for the presence or absence of a portion of the SRY gene
D6S24F	PCR amplification of the ZFX and ZFY genes of the X & Y chromosomes
S2F23G	Multiplex PCR amplification & Gel electrophoresis (Agarose) of: Exon primers to the last exon of ZFY & ZFX as control primers to the HMG region of SRY, positive amp= ♂, negative= ♀
R2J94A-1	Fragment analysis, Bovine Amelogenin
R2J94A-2	Fragment analysis, Bovine Amelogenin
B1V83W	Amplification of the zfx/y and sry genes
P2W87T-1	PCR amplification of ZFX/ZFY regions on X & Y chromosomes. PCR product was run on an agarose gel to determine gender (2 bands=male; 1 band=female).
P2W87T-2	PCR amplification of ZFX/ZFY regions on X and Y chromosomes. PCR product was run on an agarose gel to determine gender (2 bands=male; 1 band=female).
K2R46H	PCR amplification and analysis of the ZFX/ ZFY control region and SRY genes
D3H13G-1	Amplification of the zinc finger protein of the X- chromosome and the testes determining factor of the Y- chromosome (if present) using PCR
D3H13G-2	Amplification of the zinc finger protein of the X- chromosome and the testes determining factor of the Y- chromosome (if present) using PCR
D3H13G-3	Amplification of the zinc finger protein of the X- chromosome and the testes determining factor of the Y- chromosome (if present) using PCR
C3F65S	Amplification of the ZFX region on the X-chromosome and the SRY region on the Y-chromosome
M1S68R	PCR amplification and analysis of ZFX and ZFY using PAGE PCR amplification and analysis of SRY using CE
B4W11V-1	For bear, bear Amelogenin; for elk, elk SRY. Amplification with dye-labeled primers
B4W11V-2	For bear, bear Amelogenin; for elk, elk SRY. Amplification with dye-labeled primers
B4W11V-3	For bear, bear Amelogenin; for elk, elk SRY. Amplification with dye-labeled primers
B4W11V-4	For bear, bear Amelogenin; for elk, elk SRY. Amplification with dye-labeled primers
J2R15F-1	ZFX & SRY PCR based gender typing
J2R15F-2	PCR-based gender typing using ZFX/SRY

K1W95S-1 K1W95S-3 K1W95S-1 K1W95S-4	SRY - sex- determining region Y chromosome ZF - zinc finger SRY - sex- determining region Y chromosome ZF - zinc finger
K1W95S-2 K1W95S-3 K1W95S-2 K1W95S-4	SRY - sex- determining region Y chromosome ZF - zinc finger (X chromosome control) SRY - sex- determining region Y chromosome ZF - zinc finger (X chromosome control)
A2G87C	PCR using Primers Sryb3/Sryb5 and ZFX/ZFY Scored using banding pattern on agarose gel – comparison with known male & female white tail deer
R4R65C-1 R4R65C-2 R4R65C-3	PCR amplification of the ZFX/ZFY and SRY genes
B4C27D	SRY, ZFX/ZFY PCR Fragment analysis
J3V67H	Sexing primers with electrophoresis gel
R1J97A-1	NA
R1J97A-2	NA
R1J97A-3	NA
B3E14C	NA
M8B64N	NA
L4W29E	In-house method for deer sexing amplifying an x-chromosome fragment (zfx) and y-chromosome fragment (sry) in a single reaction and scoring presence/absence of each via capillary electrophoresis. Included scoring with genetic profile data.
J6B42V-1 J6B42V-2 J6B42V-3	NA

III) Compilation of Individual Identification Results

Lab	*Individual typing is not performed on the following species identified in this proficiency test*	1) What could be the minimum number of animals represented in these 3 samples?	2) Which samples have the same genetic profile?
I3K48M	-	2	Samples: Item 1 & Item 3
M3B22N	*Cervus elaphus* *Ursus americanus*	NA	NA
J4L18F	1, 2, 3	2	NA
B5H06W	*Ursus americanus*	2	Item 1 and Item 3
D6S24F	bear/elk	NA	NA
S2F23G	NA	NA	NA
R2J94A-1	NA	2	Item 1 and Item 3
R2J94A-2	NA	2	Item 1 and Item 3
B1V83W	Ursidae family *Cervus elaphus*	NA	NA
P2W87T-1	NA	2	Based on 12 microsatellite markers, Item 1 and Item 3 cannot be excluded as originating from the same animal
P2W87T-2	NA	2	Based on 12 microsatellite markers, Item 1 and Item 3 cannot be excluded as originating from the same animal
K2R46H	0	2	Item 1 and Item 3
D3H13G-1	NA	2	Items #1 and 3
D3H13G-2	NA	2	Items #1 and 3
D3H13G-3	NA	2	Items #1 and 3
C3F65S	-	2	Items #1 and #3
M1S68R	-	2	Item 1 and Item 3
B4W11V-1	-	2	Item 1 and Item 3 share the same genetic profile
B4W11V-2	-	2	Item 1 and Item 3 share the same genetic profile
B4W11V-3	-	2	Item 1 and Item 3 share the same genetic profile
B4W11V-4	-	2	Item 1 and Item 3 share the same genetic profile
J2R15F-1	-	2	Item 1 & Item 3
J2R15F-2	-	2	Item 1 & Item 3
K1W95S-1	-	2	Samples 1 and 3 had the

K1W95S-3			same genetic profile, using WDFW Elk STR panel Sample 2 was not tested using the WDFW Elk STR panel since it was identified conclusively as a bear Sample 2 was not tested at any WDFW STR panel
K1W95S-1 K1W95S-4	-	2	Samples 1 and 3 had the same genetic profile, using WDFW Elk STR panel Sample 2 was not tested using the WDFW Elk STR panel since it was identified conclusively as a bear
K1W95S-2 K1W95S-3	Item 2, identified as Black bear *(Ursus americanus)*	2 one black bear and one elk	Items 1 and 3 were both identified as male elk *(Cervus elaphus)* and had identical STR genotypes
K1W95S-2 K1W95S-4	-	2 one black bear and one elk	Items 1 and 3 were both identified as male elk *(Cervus elaphus)* and had identical STR genotypes
A2G87C	-	2	Items 1 and 3
R4R65C-1 R4R65C-2 R4R65C-3	*Ursus americanus*	NA	NA
B4C27D	*Ursus americanus*	2	Item 1 and Item 3
J3V67H	*Ursus americanus*	2	Samples 1 and 3
R1J97A-1	NA	NA	NA
R1J97A-2	NA	NA	NA
R1J97A-3	NA	NA	NA
B3E14C	NA	NA	NA
M8B64N	NA	NA	NA
L4W29E	*Ursus americanus*	2	Item 1 and Item 3
J6B42V-1 J6B42V-2 J6B42V-3	NA	NA	NA

3 Methods Used

Lab	Methods/ Genetic Marker(s)
I3K48M	STR Analysis/ Markers used (6 loci) are for WTD; genotypes, (?) but no frequency information
M3B22N	NA
J4L18F	NA
B5H06W	STR Analysis/ BL42, BMC1009, BM203, BM4208, BM4107, BM888 and BM5004
D6S24F	NA
S2F23G	NA
R2J94A-1	STR Analysis/ Elk MPX1: BM4028, BM4107, BM203, BM4513, BM888, BL42, OvirH, INRA107, BMC1009 Elk MPX2: BM6506, Rt13, CSSM041, Rt1, BM3507, BM1225, BM848
R2J94A-2	STR Analysis/ Elk MX1: INRA107, BMC1009, BM4028, BM4107, BM203, BM4513, BM888, BL42, OVIRH Elk MX2: BM6506, Rt13, CSSM041, Rt1, BM3507, BM1225, BM848
B1V83W	NA
P2W87T-1	STR Analysis/ BM4208, BM4107, BM1009, IGF, BM4513, BM1225, BL42, BM848, AF102257, AF102246, BM415, BM5004 (North American Elk) STR Analysis/ G10B, G1D, G10H, G10L, MU05, G1A, G10C, G10U, G10X, MSUT6, G10M, MU59, MU50 (American Black Bear)
P2W87T-2	STR Analysis/ BM4208, BM4107, BM1009, IGF, BM4513, BM1225, BL42, BM848, AF102257, AF102246, BM415, BM5004 (North American Elk)
K2R46H	STR Analysis/ BL42, BM203, BM888, BM4107, BM4208, BM4513, BMC1009, INRA107, OVIRH
D3H13G-1	STR Analysis/ VH110, BM888, BM4107, BM4513, BM1225, RM006, INRA040, BM4208, BMC1009, RT1, BOVRBP, ETH152
D3H13G-2	STR Analysis/ VH110, BM888, BM4107, BM4513, BM1225, RM006, INRA040, BM4208, BMC1009, RT1, BOVRBP, ETH152
D3H13G-3	STR Analysis/ VH110, BM888, BM4107, BM4513, BM1225, RM006, INRA040, BM4208, BMC1009, RT1, BOVRBP, ETH152
C3F65S	STR Analysis/ VH110, BM4513, INRA040, RT1, BM888, BM4208, BOVRBP, BM4107, RM006, BMC1009, ETH152
M1S68R	STR Analysis/ Protocol DNA020B – Markers BL42, BM1009, BM203, BM4208, BM4107, BM888 and BM5004
B4W11V-1	STR Analysis/ BL42, BM203, BM4107, BM6506, BM888, BMC1009, CELB9, CELJP23, FCB193, FCB5, GNZ106, GNZ204, GNZ282, OARCP26, T108b, T26, TGLA94
B4W11V-2	STR Analysis/ BL42, BM203, BM4107, BM6506, BM888, BMC1009, CELB9, CELJP23, FCB193, FCB5, GNZ106, GNZ204, GNZ282, OARCP26, T108b, T26, TGLA94
B4W11V-3	STR Analysis/ BL42, BM203, BM4107, BM6506, BM888, BMC1009, CELB9, CELJP23, FCB193, FCB5, GNZ106, GNZ204, GNZ282, OARCP26, T108b, T26, TGLA94

B4W11V-4	STR Analysis/ BL42, BM203, BM4107, BM6506, BM888, BMC1009, CELB9, CELJP23, FCB193, FCB5, GNZ106, GNZ204, GNZ282, OARCP26, T108b, T26, TGLA94
J2R15F-1	STR Analysis/ CDFG Elk Panel: CelT108, CelT26, CelT172, CelT501, OheC273, CelT268, CelT156, CelT507, CelT193, OheC217, CelT123, OheC180, OheC229a, CelT107, OheC143, OheC01
J2R15F-2	STR Analysis/ CDFG Elk Panel: CelT108, CelT26, CelT172, CelT501, OheC273, CelT268, CelT156, CelT507, CelT193, OheC217, CelT123, OheC180, OheC229a, CelT107, OheC143, OheC01
K1W95S-1 K1W95S-3 K1W95S-1 K1W95S-4	STR Analysis/ Elk Panel: BM1225, BM4107, BM4208, BM4513, BM5004, BM888, BMC1009, ETH152, RT7 STR Analysis/ Elk Panel: BM1225, BM4107, BM4208, BM4513, BM5004, BM888, BMC1009, ETH152, RT7 STR Analysis/ Bear Panel: G01A, G01D, G10B, G10C, G10L, G10X
K1W95S-2 K1W95S-3 K1W95S-2 K1W95S-4	STR Analysis/ WDFW elk STR microsatellite panel/ Marker set: BM1225, BM4107, BM4208, BM4513, BM5004, BM888, BMC1009, ETH152, RT7 STR Analysis/ WDFW elk STR microsatellite panel/ Elk marker set: BM1225, BM4107, BM4208, BM4513, BM5004, BM888, BMC1009, ETH152, RT7 STR Analysis/ WDFW bear STR microsatellite panel/ Bear marker set: G01A, G01D, G10B, G10C, G10L, G10X
A2G87C	STR Analysis/ P, D, N, Q, BM203, ILSTS011
R4R65C-1 R4R65C-2 R4R65C-3	NA
B4C27D	STR Analysis/ Cervid1, RT7, L, BM6506, N, RT5, INRA011, Q, S, OARFCB193, O, BM6438, BL25, P , K, RT13, D, BL42, BM888, BM4107, BM1225, BM4208, T7
J3V67H	STR Analysis/ DNA Sequence/ COI Barcoding region, BLAST Sequence Alignment Editor
R1J97A-1	NA
R1J97A-2	NA
R1J97A-3	NA
B3E14C	NA
M8B64N	NA
L4W29E	STR Analysis/ INRA131, RM95, TGLA127, TGLA40, TGLA337, RM188, RM12, IDVGA55, FCB193
J6B42V-1 J6B42V-2 J6B42V-3	NA

Response Summary Total Participants: 42

Confirmation	Item 1	Item 2	Item 3
Species Origin	39 (93%)	42 (100%)	39 (93%)
Gender Origin	32 (76%)	28 (67%)	32 (76%)
Individual Identification	26 (62%)		

Inconclusive	Item 1	Item 2	Item 3
Species Origin	3 (7%)	0 (0%)	3 (7%)
Gender Origin	0 (0%)	0 (0%)	0 (0%)
Individual Identification	0 (0%)		

N/A	Item 1	Item 2	Item 3
Species Origin	0 (0%)	0 (0%)	0 (0%)
Gender Origin	10 (24%)	12 (28%)	10 (24%)
Individual Identification	16 (38%)		

Out of Consensus	Item 1	Item 2	Item 3
Species Origin	0 (0%)	0 (0%)	0 (0%)
Gender Origin	0 (0%)	2 (5%)	0 (0%)
Individual Identification	0 (0%)		

END OF REPORT