Leapin' Lemurs!
A look at lemur twins

Lynne Villers, curator at the Indianapolis Zoo, manages the current studbook and management program for the ring-tailed lemurs (Lemur catta) in North American zoos and other institutions. She keeps an enormous amount of data on every individual, that includes births, deaths, transfers from zoo to zoo, and other important events. Currently, over 530 individuals in the North American captive population have been genotyped by Dr. Jean Dubach, wildlife geneticist, for nine of these genetic markers, or STRs.

Why use DNA?

These STRs come about due to errors made during DNA replication. The simple repeats, usually only 2-6 bases long, are a result of a duplication error. However, because they repeated bases are unique to the individual and are passed from one generation to the next, they can be used to identify individuals and determine an organism's parentage. There are two copies of each gene inherited, one from the mother and the other from the father. Therefore, these STRs can be used to provide some very important information. DNA must be used since it is difficult to visually identify individuals, females may mate with multiple males making it difficult to determine paternity and females sometimes steal infants of other females, raising the offspring as their own. Remember, if a locus is homozygous, the numbers for both sequences will be the same. If they are different, the individual is heterozygous at that locus.

Ring-tailed lemurs are a prosimian, a type of primate, from the island of Madagascar which is located off the East coast of Africa. Lemurs are endemic to Madagascar, meaning they live nowhere else. They earn their common name from their easily recognizable erect tail that is covered in alternating white and black bands. They live in large groups that are female dominated, a system common among almost all lemurs. They typically weigh about five pounds and, with their long tail, measure about thirty-six inches long. These lemurs are diurnal. Though mainly arboreal, they are the most terrestrial of all lemurs, spending as much as 1/3 of their time on the ground. The ring-tailed lemur is also omnivorous, eating a wide range of plant materials as well as insects and other invertebrates and the occasional vertebrate like small birds or lizards. Ring-tailed lemurs have 56 chromosomes.

Ring-tailed lemurs often produce twins in zoos though not much is known about this in the wild, possibly due to their limited resources and the presence of predators. In zoos, where food is plentiful and safety is almost always guaranteed, this species of lemur often gives birth to twins. Since experts like Villers and Dubach are interested in keeping the gene pool diverse and healthy, it is important to determine if these twins are identical, from a single egg and genetically the same, or fraternal, from two separate eggs and, therefore, genetically different.

Procedure:

1) Obtain a Ring-tailed Lemur DNA Analysis Form from your teacher.

2) You will need to go through each line of DNA sequence and find the STR sequence. In these DNA sets, the repeat will only be 2 or 3 letters in length.

3) Once you have found the repeating sequence, count the number of times it repeats and write it on the line labeled

4) Then turn your sheet over and log your data into the table provided.

5) Wait for your teacher to give you the signal to find your twin. You will know your twin by the "Studbook ID #" at the top of your DNA Analysis Form. Twins' ID numbers are sequential.

6) Once you have located your twin, compare STR numbers and determine whether you are identical or fraternal.

7) Answer the analysis questions together.

Ringtailed Lemur DNA Analysis Form **Studbook ID# 1636 F**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATAAACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATAAACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C

Sequence 1: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D

Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Sequence 2:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Number of repeats ___/___

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 1637 F**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A
Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B
Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2:
GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C
Sequence 1:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D
Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTA

Sequence 2: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTA

Number of repeats ___/___

Locus E
Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCG

Number of repeats ___/___

Locus F
Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 1682 F**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A
Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B
Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C
Sequence 1:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D
Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTA

Sequence 2: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTA

Number of repeats ___/___

Locus E
Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F
Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 1683 F**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C

Sequence 1:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D

Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTA

Sequence 2: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTA

Number of repeats ___/___

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 1732 M**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ____/____

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ____/____

Locus C

Sequence 1:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ____/____

Locus D

Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTA

Sequence 2: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTA

Number of repeats ____/____

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ____/____

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ____/____

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 1733 M**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C

Sequence 1:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D

Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTA

Sequence 2: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTA

Number of repeats ___/___

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2:
TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 2441 F**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATATACGCGCCTAATAACCTACCTATAGCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGCGCCTAATAACCTACCT

Number of repeats ___/___

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTAGCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C

Sequence 1: ATGCAAATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTCCACTAGCTA

Sequence 2:
ATGCAAATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTCCA

Number of repeats ___/___

Locus D

Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTA

Sequence 2: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTA

Number of repeats ___/___

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCGCC

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCC

Number of repeats ___/___

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTA

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTA

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 2442 F**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATACGCGCCTAATAACCTACCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGCGCCTAATAACCTACCT

Number of repeats ____/____

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTAGC

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTAGC

Number of repeats ____/____

Locus C

Sequence 1:
ATGCAAATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTCCACTAGCTA

Sequence 2:
ATGCAAATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTCTA

Number of repeats ____/____

Locus D

Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTAT

Sequence 2: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTAT

Number of repeats ____/____

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCGCC

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCC

Number of repeats ____/____

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAG

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAG

Number of repeats ____/____

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 2491 F**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A
Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATACGCGCCTAATAACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATAGCGCCTAATAACCTACCTATAGCTAGCATCCT

Number of repeats ____/____

Locus B
Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTAGC

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTAGC

Number of repeats ____/____

Locus C
Sequence 1: ATGCAAATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTCCACTAGCTA
Sequence 2:
CAAATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTCCACTA

Number of repeats ____/____

Locus D
Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTAT

Sequence 2: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTAT

Number of repeats ____/____

Locus E
Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCGCC

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCGCC

Number of repeats ____/____

Locus F
Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ____/____

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 2492 F**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATACGCGCCTAATAACCTACCTATAGCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGCGCCTAATAACCTACCTATAGCT

Number of repeats ____/____

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTAGC

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTAGC

Number of repeats ____/____

Locus C

Sequence 1: ATGCAAATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTCCACTAGCTA

Sequence 2: ATGCAAATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTCCACTAGCTA

Number of repeats ____/____

Locus D

Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTAT

Sequence 2: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTAT

Number of repeats ____/____

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCGCC

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCGCC

Number of repeats ____/____

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAG

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAG

Number of repeats ____/____

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 2837 F**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTA

Number of repeats ___/___

Locus C

Sequence 1: GCATATGCAAATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTCCA

Sequence 2: GCATATGCAAATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTCCA

Number of repeats ___/___

Locus D

Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Sequence 2: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTAT

Number of repeats ___/___

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCG

Number of repeats ___/___

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 2838 F**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATACGCGCCTAATAACCTACCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATACGCGCCTAATAACCTACCT

Number of repeats ____/____

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTA

Number of repeats ____/____

Locus C

Sequence 1:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ____/____

Locus D

Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTA

Sequence 2: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTA

Number of repeats ____/____

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCGCC

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCC

Number of repeats ____/____

Locus F

Sequence 1: GACTTAGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ____/____

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 2879 M**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A
Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATACGCGCCTAATAACCTACCTATAGCTAGCAT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATACGCGCCTAATAACCTACCTATAGCTAGCAT

Number of repeats ___/___

Locus B
Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTAGC

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTAGC

Number of repeats ___/___

Locus C
Sequence 1:
ATGCAAATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGC
TCCACTAGCTA
Sequence 2: ATGCAAATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTCCACTAGCTA

Number of repeats ___/___

Locus D
Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTAT

Sequence 2: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTAT

Number of repeats ___/___

Locus E
Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCG

Number of repeats ___/___

Locus F
Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 2880 M**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATACGCGCCTAATAACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATACGCGCCTAATAACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTAGC

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTAGC

Number of repeats ___/___

Locus C

Sequence 1:
TAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTCCACTAGC

Sequence 2:
TAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTCCACTAGC

Number of repeats ___/___

Locus D

Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCTAG

Sequence 2: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAG

Number of repeats ___/___

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCT

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCT

Number of repeats ___/___

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 2900 M**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C

Sequence 1: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D

Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Sequence 2: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Number of repeats ___/___

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2:
TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 2901 M**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B

Sequence 1:
GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2:
GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C

Sequence 1: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D

Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Sequence 2:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Number of repeats ___/___

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form

Studbook ID# 3025 F

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ____/____

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ____/____

Locus C

Sequence 1: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ____/____

Locus D

Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTA

Sequence 2: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTA

Number of repeats ____/____

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ____/____

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ____/____

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 3026 F**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A
Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B
Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C
Sequence 1:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D
Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTA

Sequence 2: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTA

Number of repeats ___/___

Locus E
Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F
Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 3029 M**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C

Sequence 1: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D

Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTA

Sequence 2:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTA

Number of repeats ___/___

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 3030 M**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A
Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ____/____

Locus B
Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ____/____

Locus C
Sequence 1: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ____/____

Locus D
Sequence 1:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTA

Sequence 2:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTA

Number of repeats ____/____

Locus E
Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ____/____

Locus F
Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ____/____

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 3116 F**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C

Sequence 1: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D

Sequence 1:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Sequence 2:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Number of repeats ___/___

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 3117 F**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C

Sequence 1: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D

Sequence 1:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Sequence 2:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Number of repeats ___/___

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 3243 M**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A
Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ____/____

Locus B
Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ____/____

Locus C
Sequence 1:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: GCATATGCAAATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTCCA

Number of repeats ____/____

Locus D
Sequence 1:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Sequence 2: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTAT

Number of repeats ____/____

Locus E
Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ____/____

Locus F
Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCT

Number of repeats ____/____

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 3244 M**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C

Sequence 1:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D

Sequence 1:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Sequence 2: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTAT

Number of repeats ___/___

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 3308 F**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C

Sequence 1: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D

Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Sequence 2:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTAT

Number of repeats ___/___

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 3309 F**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C

Sequence 1: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D

Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Sequence 2:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTAT

Number of repeats ___/___

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2:
TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 3322 F**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C

Sequence 1:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D

Sequence 1:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Sequence 2:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Number of repeats ___/___

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 3323 F**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A
Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B
Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C
Sequence 1:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D
Sequence 1:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Sequence 2:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Number of repeats ___/___

Locus E
Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F
Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 3365 M**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C

Sequence 1:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: GCATATGCAAATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTCCA

Number of repeats ___/___

Locus D

Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Sequence 2:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTAT

Number of repeats ___/___

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 3366 M**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A
Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B
Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C
Sequence 1:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: GCATATGCAAATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTCCA

Number of repeats ___/___

Locus D
Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Sequence 2:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTAT

Number of repeats ___/___

Locus E
Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F
Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 3397 M**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C

Sequence 1: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D

Sequence 1:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Sequence 2:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Number of repeats ___/___

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 3398 M**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C

Sequence 1: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D

Sequence 1:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Sequence 2:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Number of repeats ___/___

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 3532 F**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A
Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B
Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C
Sequence 1:
ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D
Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Sequence 2:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTAT

Number of repeats ___/___

Locus E
Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2:
TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F
Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ringtailed Lemur DNA Analysis Form **Studbook ID# 3533 F**

Count the number of sequence repeats in the loci below. Write the numbers on the line and in the table at the bottom to compare once you find your twin. Once you have completed the first row of the table, you will use the parent genotypes to find your twin.

Locus A

Sequence 1: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Sequence 2: TACGATTTCGCCCTATATATATATATATATATATATATATATATATATATATATATAGACCTACCTATAGCTAGCATCCT

Number of repeats ___/___

Locus B

Sequence 1: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Sequence 2: GAAGTGTGGAGGGCAGGGATAATTGCTAAGCACACACACACACACACACACACACACACACACACACACACACACACACGACCTAGACCTA

Number of repeats ___/___

Locus C

Sequence 1: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Sequence 2: ATAGGAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTC

Number of repeats ___/___

Locus D

Sequence 1: ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTATAGCT

Sequence 2:
ACTAGGGCTAGAACTCCTCCTAGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAACCTACCTAT

Number of repeats ___/___

Locus E

Sequence 1: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Sequence 2: TAGGTCTGGTGAGAATAGGACGAGTCACACACACACACACACACACACACACACACACACACACATACGACCATTCGCCTCGCG

Number of repeats ___/___

Locus F

Sequence 1: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Sequence 2: GACTTAGTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTATCACCTAGCGACCTAGACCTAGCTAGCT

Number of repeats ___/___

Your name: _____ **Your twin's name:** _____ **Period:** _____

	Loci A	Loci B	Loci C	Loci D	Loci E	Loci F
YOU	/	/	/	/	/	/
YOUR TWIN	/	/	/	/	/	/

Analysis Questions:

1) Was your twin identical or fraternal? _____

2) Provide evidence to support your answer for question 1. _____

_____

3) Why is this type of twinning beneficial to a lemur population? _____

_____

4) How do these short tandem repeats (STRs) come about? _____

_____

5) Why are STRs ideal for distinguishing one individual from another? _____

_____

6) Since STRs identify an individual, what other questions could they answer? _____

_____

7) Circle the loci you had that were homozygous: A B C D E F

8) Circle the loci you had that were heterozygous: A B C D E F

Ring-tailed Lemur *(Lemur catta)* Genotype Data

Locus		A	A	B	B	C	C	D	D	E	E	F	F
ID#	Sex	LC5A	LC5B	LC6A	LC6B	LC7A	LC7B	LC8A	LC8B	LC10A	LC10B	Maki215a	Maki215b
1636	F	25	27	27	27	26	26	29	30	23	23	25	26
1637	F	28	30	26	33	31	32	31	33	19	31	26	26
1682	F	29	29	26	27	28	32	29	30	23	24	25	27
1683	F	29	30	27	27	24	32	29	30	23	24	29	29
1732	M	27	28	26	27	31	32	30	31	23	24	26	29
1733	M	29	30	27	27	31	32	31	31	23	30	27	28
2441	F	27	32	26	27	23	28	30	31	23	26	26	29
2442	F	27	32	26	27	28	30	30	31	23	26	26	27
2491	F	27	28	26	27	23	30	30	31	23	23	26	28
2492	F	28	32	26	27	23	23	30	31	23	26	25	27
2837	F	30	30	27	31	23	23	29	31	25	31	26	27
2838	F	30	30	27	31	32	33	31	33	25	29	27	28
2879	M	27	28	27	27	24	32	29	31	30	31	25	27
2880	M	27	27	26	27	30	31	28	30	27	30	25	28
2900	M	28	31	27	27	23	30	29	29	26	29	27	27
2901	M	28	31	31	30	23	30	29	31	23	26	27	27
3025	F	25	25	26	26	23	29	29	29	19	19	26	27
3026	F	28	30	27	28	29	33	28	28	19	24	26	27
3029	M	27	29	27	27	24	24	31	36	27	27	24	26
3030	M	27	27	27	27	24	24	36	36	24	27	26	26
3116	F	24	27	27	27	23	24	30	32	24	24	26	27
3117	F	29	30	27	27	24	29	30	32	24	27	26	27
3243	M	25	27	27	27	24	33	30	31	24	24	27	27
3244	M	25	27	27	27	33	33	30	31	24	24	27	27
3308	F	25	29	27	27	23	30	29	34	23	24	26	26
3309	F	25	29	27	27	23	30	29	33	23	29	26	26
3322	F	24	25	27	28	24	33	31	34	23	27	25	27
3323	F	24	25	27	27	24	33	31	33	23	23	27	27
3365	M	30	32	27	27	24	33	29	33	25	25	25	28
3366	M	30	32	26	27	23	33	29	33	23	23	26	28
3397	M	28	28	27	28	24	24	31	32	23	23	26	27
3398	M	24	28	27	27	24	33	31	32	23	23	26	27
3532	F	25	28	27	27	30	33	29	34	23	31	25	26
3533	F	25	25	27	27	30	30	29	34	23	23	26	27