

**CASE STUDY: What Do We Tell the Sheriff?****Determining Minimum Numbers of Individuals (MNI) for a Scatter of Bones**

Read the following scenario below and answer the following questions.

**Part I: A Walk in the Park**

It is a gorgeous fall day and people are enjoying it by bicycling, hiking, and picnicking at Itasca State Park. The day's mood changes however when you receive a phone call from the local sheriff's office asking your forensic anthropology team to come out to the state park.

"A hiker found some bones near Lake Itasca and wants us to come out and identify them. We're wondering if these are the three brothers who disappeared last summer. Can you help us?"

You tell them that you'll be there as soon as possible and quickly place a few calls to other members of your forensic team. You load your SUV and drive over to Itasca State Park to meet your colleagues and investigate the situation.



1. What questions do you want to answer at the scene?
  
  
  
  
  
  
  
  
  
  
2. What kind of data do you think you will collect? How will you collect it?
  
  
  
  
  
  
  
  
  
  
3. List a few pieces of equipment you think that that you will need to pack in your SUV?

## **Part II: A First Assessment**

The sheriff's officers and the hiker lead you to the scene. By the time you arrive, there is only half-an-hour of daylight remaining. In the somewhat secluded glade of trees you see scattered bones. While the sheriff's officers hurriedly photograph the scene, you map the bone scatter and determine that the bones are human. One of your team members compiles a preliminary inventory as you collect each bone:

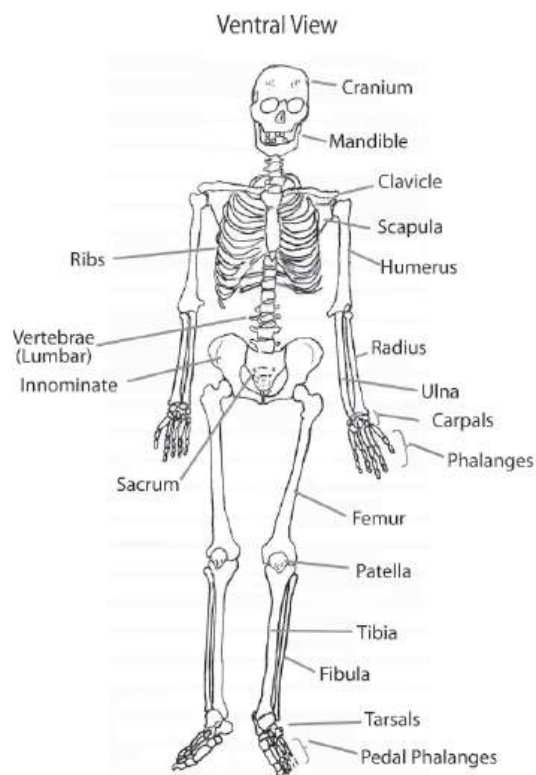
- 3 skulls
- 4 os coxae
- 6 femora
- 2 tibiae
- 2 humeri
- 5 scapulae

**Refer to the figure to the right for the location of these bones in the human skeleton as needed.**

1. What characteristics would you look for to identify if the bones were human?

2. How many bones are in the collection? (This is the NISP or Number of Identified Specimens)

3. What is the maximum number of individuals who could be represented by these bones?



## **Part III: What Do You Tell the Media?**

As you leave the scene, local reporter Harry Harrison of the Itasca Daily Newspaper approaches you. While walking the bike trail back to your vehicle he says he wants to interview your team about the bones. The parents of the 3 brothers are calling the sheriff hourly to get more information about the skeletal remains, they want to confirm the identifications and plan the memorial service.

1. What do you do about the newspaper reporter?

2. What do you do about the family?

#### **Part IV: The Final Inventory**

The next morning your team returns to work in the laboratory where you get a call from the sheriff. The family of the 3 missing boys is pressuring him for information. Your team begins the final osteological exam. After careful examination, you produce your final inventory. You are working with the same number of bones, but you now have determined which side of the body they come from (when applicable).

- 3 skulls
- 4 os coxae (1 right and 3 left)
- 6 femora (4 right 2 left)
- 2 tibiae (left)
- 2 humeri (right)
- 5 scapulae (3 right and 2 left)

1. Based on the revised inventory, would you change your NISP? Why or why not?
2. What would you tell the sheriff?

**Using the supplemental chapter on Forensic Anthropology, answer the following questions.**

1. Describe the characteristics that can distinguish between a male and female skull.
2. When examining the os coxae (pelvis), what features of the pelvis would you use to determine gender?
3. What are the 3 major features a forensic scientist would look at to determine age?
4. When determining the race of a skeleton, what characteristics do scientists look at?

