

**THE BONOBO AND ME - COMPARING FAMILY TREES
A PICTORIAL PRESENTATION**

With

Marian Brickner

A Campus Outreach Program in Science Education

In cooperation with

The University of Missouri-St. Louis



Grade Level: Pre K-6

Pre-Visit Activities: Discuss what a family tree is and help students construct one of their family if possible.

Presentation Time Period: Varies from 30-60 minutes as wanted.

- Materials:**
1. A black “portfolio” case with several pictures 13 x 19, several 8 x 10's
 2. A round “circular portfolio” case with a 5-foot U.S. map with ribbons on it showing where zoos are located that have Bonobo families.
 3. Life size portrait of an adult Bonobo.
 4. A weighted chain the average length of an adult male Bonobo (119cm) and one for the average adult female (111cm).
 5. Large globe.
 6. Skeletal hands, feet and skull replicas of humans (*Homo sapiens*), chimpanzees (*Pan troglodytes*), and Bonobo (*Pan paniscus*).
 7. One weight of 2 1/2 pounds and one 7 pounds.

Introduction to Presentation:

“Hi, I am Marian Brickner, a photographer. I am working on a book about a Bonobo family tree. Today I will introduce you to a family you may never have met yet.” **Has anyone heard of a Bonobo? What do you think a Bonobo might be? What can you tell me about them?**

“Bonobos are one of the Great Apes.” **Who can tell me an example of a great ape?**
“Scientists call them by their scientific name *Pan paniscus*.” **What is the scientific name of human beings?**

Historical Perspective:

“I have been following the family of a Bonobo named Linda.” (Show picture of Linda.) “Linda lives in Milwaukee and was born in 1956 in the Democratic Republic of the Congo, (Zaire) Africa in the central Congo Basin.” **If she was born in 1956, how old is Linda today? Can anyone show me on the globe where she came from? Where do we live?**

“Linda has seven children, five girls and two boys. Twenty-two grandchildren and ten great grandchildren.”

“This is Linda with some of her family.” (Pull out another picture with offspring. Place the picture on the board behind the presenter.)

“This is Vic, one of Linda’s great grandchildren. Vic lives in Cincinnati. Linda and Vic have never met.” (Vic’s picture is propped up next to Linda’s.) **Are there any questions? Why do you think they have never met?** (Allow time for discussion.)

Making Comparisons:

(Point out the size of the hands and feet using the picture of Lisalla.) **How many of our hands would fit into an arms length? How many Bonobo hands would fit into an arms length?** Explain: “A baby Bonobo is born weighing about 2 lbs. 8 oz. compared to a human at 6-9 pounds.” (Pass around weights representing weight of offspring.)

(Give them a skeletal model of a human and Bonobo hand and ask the students to determine actual numbers of hand lengths.)

(Display skulls from humans, chimpanzees and Bonobos.) (Ask the students if they can determine) **Which skull belongs to which organism? What are some of the features that distinguish the skulls from one another? What are some characteristics that are similar?**

(Display a life sized photo of an adult.) **How many of you are taller? How many are shorter?** (Have some students come up and stand by the picture.) (Pass a 119cm chain around that is same length as the average height of male Bonobos and one that is 111cm for average height of an adult female and ask the students to hold it up to themselves to see how they compare in height.)

(Display the large pictures of Linda’s children and some grandchildren.) (Tell where they live.) **Do you think there is a family resemblance?**

What do you see that might indicate a relationship? (Write characteristics that are similar on the board.)

(Ask for two volunteers and display the huge U.S. map.) (Ask one child to hold each end.) (Ask another volunteer to hold a long pointer.)

(The pointer student is asked to point to where we live.) “Please point to where we live.”

“There are seven zoo locations where the Bonobo families live.” (The pointer person then is asked to point to a location with a ribbon on it.) **What state is that?** (Bring out a ruler and ask for one more volunteer to hold the long ruler between two locations.) **How many inches are these locations apart?** On this map, one inch represents ____ miles. **Can you calculate how many miles apart those locations are?**

(Do this as many times as seems to keep their interest.) Thank the students and ask one to roll up the map and put the point or back into its contracted position.

Homeland Geography:

(Get out the map of Africa.) (Point to the Central Congo Basin region.) **“Where is this?”**

“The Bonobos originally came from the Congo between three specific rivers. The Congo River (Zaire River), to the north, the Lualaba River and bordered on the south by the Kasai River.”

“This area is about the size of the state of Texas.” (Try to draw out from the students question:)
“Are they endangered?”

(Develop a discussion on why they are considered endangered.) **What might be the factors involved in their endangerment?**

(Take out some of the smaller pictures, and show the mouth picture. Talk about how many muscles are in their lips (17).) **How many teeth do you think they have?** (Ask the students to guess how many they have in their upper and lower jaws. Ask them to do the same for chimpanzees and humans.) (Give one each of the three skulls to three students and have them count the teeth and report their findings.) (Draw Table 1 on the board and ask the students to record their results.) (Continue to go through many of the other pictures and hand them out to be passed around.)

Table 1. Teeth in Some Familiar Primates

Organism	Number of Teeth					
	Upper Jaw		Lower Jaw		Total	
	Guess	Actual	Guess	Actual	Guess	Actual
<i>Pan paniscus</i> Bonobo						
<i>Pan troglodytes</i> Chimpanzee						
<i>Homo sapiens</i> Human beings						

Family Tree:

(Display the family tree of Linda’s relatives. Ask students to share their family trees that they have devised ahead of time.)

Question - Answer Session:

(Ask the students if they have any other questions or comments.)

Closing:

Ask them to say when they go to a zoo where Bonobo families lives, “Please direct me to the Bonobos.” Ask them to repeat this three times.

Contact: Marian Brickner (insect1@swbell.net)