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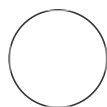
Bat Measurements - ISL Peru

Gideon

Cristian Tirapelle¹, Erkenwick¹, Jorge Luis Mendoza-Silva¹,
 Pamela Sánchez-Vendizú², Mrinalini Watsa^{3,1}

¹Field Projects International; ²Universidad Austral de Chile;

³San Diego Zoo Wildlife Alliance



Cristian Tirapelle
 Field Projects International

ABSTRACT

This protocol describes the external morphological measurements taken on bats prior to release and is actively used by Field Projects International at the Estación Biológico Los Amigos, Madre de Dios, Peru.

All measurements are taken with a digital caliper.

IMAGE ATTRIBUTION

Jorge Luis Mendoza-Silva

GUIDELINES

This protocol accompanies the "Bat Capture and Processing - ISL Peru" protocol.

MATERIALS

Digital calliper
 Bat Processing sheet
 Pen
 Handling gloves

Bat Anatomical References

- 1 **Noseleaf length:** The noseleaf is a membranous fold of skin of variable size located on or around the nostrils. This **length** is measured from the base of the horseshoe until the tip of the spear.



Image illustrating how to measure the noseleaf length. Image taken from "Field Guide to Amazonian Bats"

- 2 **Noseleaf width:** The greatest **distance** of the noseleaf at the level of the horseshoe.



Image illustrating how to measure the nose-leaf width. Courtesy of Jorge Luis Mendoza Silva.

- 3 **Ear length:** Distance from the notch to the fleshy tip of the pinna.

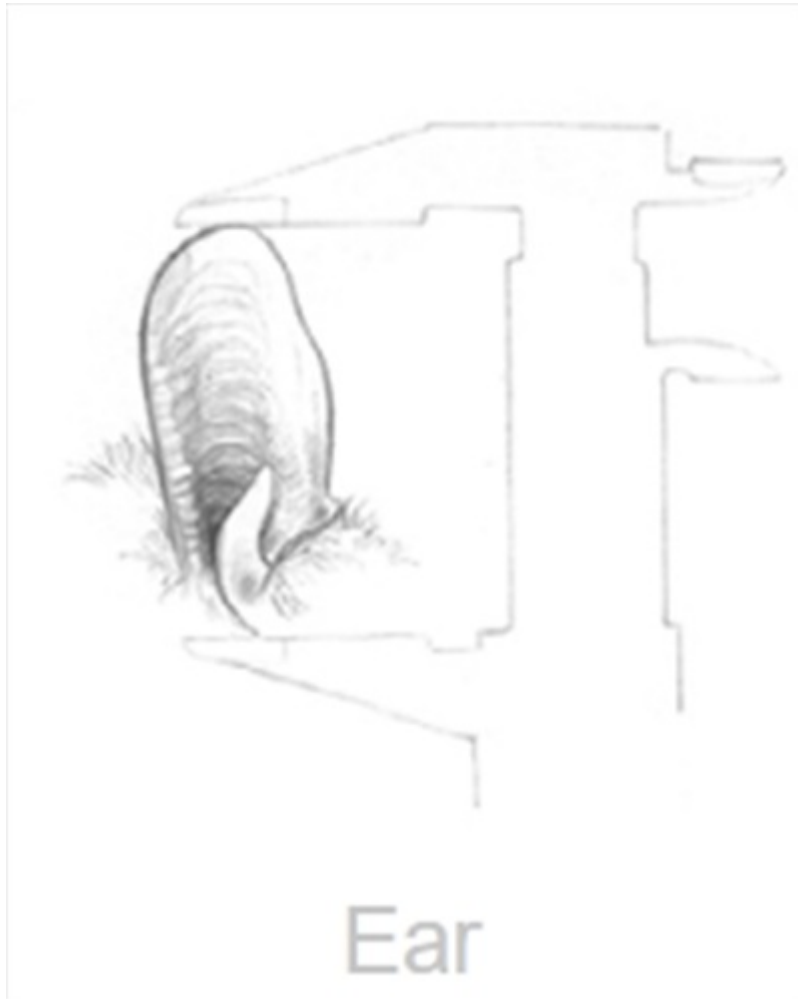


Image illustrating how to measure the ear length. Image taken from "Field Guide to Amazonian Bats".

- 4 **Tragus length:** The tragus is a small flap of skin in front of the external opening of the ear. The measurement corresponds to the greatest **length** from its base to its tip.



Image illustrating how to measure the tragus. Image taken from "Field Guide to Amazonian Bats".

- 5 **Forearm length:** Distance between the elbow and the wrist when the wing is folded. this measurement is taken 3 times for each bat, then averaged.



Image illustrating how to measure the forearm. Courtesy of Jorge Luis Mendoza Silva.

- 6 **Tibia length:** Distance from the proximal end of the tibia to the posterior base of the calcar.

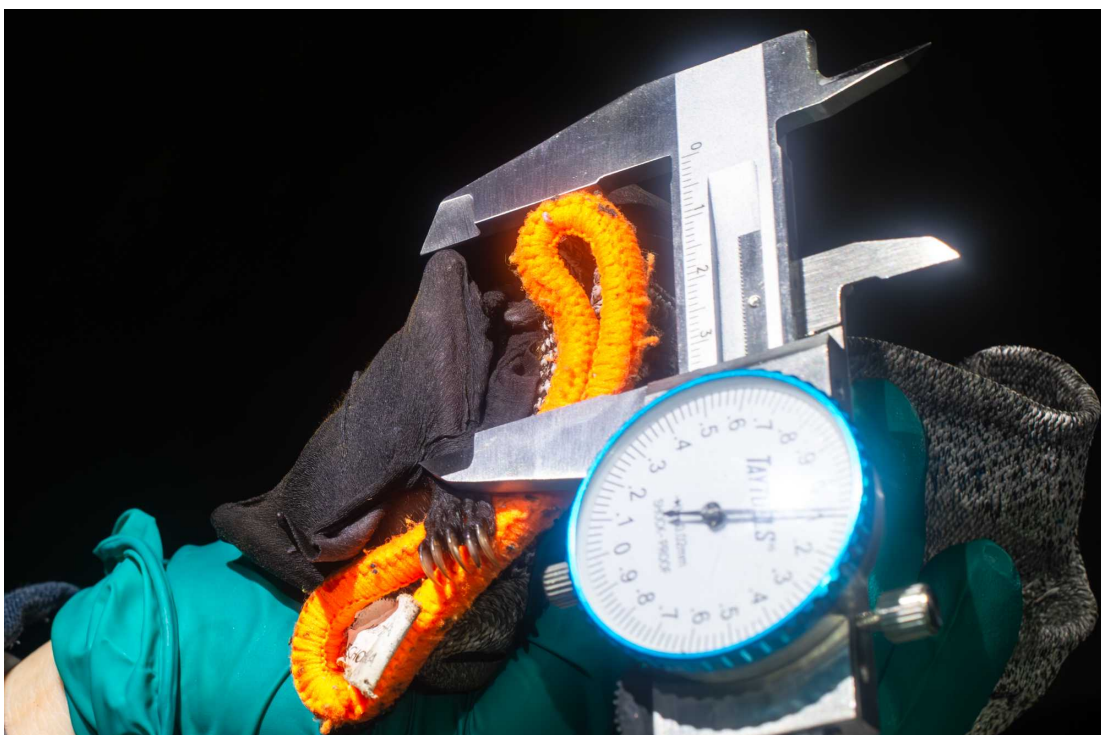


Image illustrating how to measure the tibia. Courtesy of Jorge Luis Mendoza-Silva.

- 7 **Thumb length:** From the metacarpal-phalangeal joint to the tip of the claw



Image illustrating different variations of the thumb from "Field Guide to Amazonian Bats".

- 8 **Calcar length:** The calcar is a cartilage that extends from the tarsus and it is connected to the uropatagium. The length is taken from its base in the tarsus to the tip.



Image illustrating how to measure the calcar from "Field Guide to Amazonian Bats".



Image illustrating how to measure the calcar from. Courtesy of Jorge Luis Mendoza Silva.