



SMITHSONIAN INSTITUTION
NATIONAL MUSEUM OF NATURAL HISTORY – DIVISION OF MAMMALS
DESTRUCTIVE SAMPLING APPLICATION

Name: Ligiane Martins Moras Title: PhD
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Student requests will be considered if submitted with the consent of their advisor. Provide contact information for the person accepting responsibility for a student request.

Name: Don E. Wilson Title: Dr
Department/Institution: Departament of Vertebrate Zoology - Division of Mammals/ NMNH
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Purpose and scientific merit of the proposed research: The material will be used as part of my doctoral thesis project entitled “Phylogeny of Cynomops and taxonomy of Cynomops abrasus (Temminck, 1826) (Chiroptera, Molossidae)”. The main objective of my study is the to build a phylogeny for the genus Cynomops focusing in the review of the species Cynomops abrasus, using morphological and molecular sequence data.

Specimens to be included (add attachments if necessary):

503877 - Cynomops paranus (male) - Panama
260180 - C. planirostris (male) - Brazil (Southeastern)
260181 - C. planirostris (female) - Brazil (Southeastern)
445943 - C. planirostris - Colombia
445944 - C. planirostris - Colombia
552738 - C. planirostris (female) - Paraguay
556087 - C. planirostris (male)- Brazil (North)
339864 - C. mexicanus
339865 - C. mexicanus
339868 - C. mexicanus

Sampling method(s) to be employed (please be precise as to amount of tissue and specimen source):
Removal of skulls, including mandibles, through mouth using a bistoury.

Provide evidence of your experience and competence with this protocol: I have experience with specimen's preparation since 2006 and I removed around 500 skulls since then.

Why are samples obtained from museum specimens preferable to freshly obtained tissues? Are fresh samples available? Does not apply

Explain why NMNH specimens must be used. Have other collections been approached? I need analyse the skulls of these exemplars because in NMNH collection: 1) There are just females of *C. paranus* with available skulls; 2) Most of the *C. planirostris* with skull available are from Venezuela, and I need see the other localities to analyse biogeographic variation between them; 3) There are seven specimens identified as *C. mexicanus*, but I need see the skulls to check if the specimens are correctly identified, since *C. mexicanus* is known to occur only in Mexico and these specimens are from Panama.

Any other information that you feel is pertinent to this request: I selected just a part of the specimens to have skulls removed (10 specimens out of 37).

To begin the permissions process, submit this form to: mammalloans@si.edu