LAB 6: PROSIMIAN AND NEW WORLD MONKEY TRAITS

You will have a primate identification practicum in lab on April 4th or 5th. Today, you will learn about primate skulls, and how skull traits differ among the first half of our. Next week, we will repeat the same process for Old World Monkeys and Apes. Then, March 28th or 29th, you will have a lab to dedicate to developing a decision tree for determining the taxonomic position of skulls during the practicum.

Use the grid on the next page to guide your examination of traits each primate skull.

Tooth formula: Tooth formula is one important method of identifying taxonomic groups and understanding the adaptation of a particular species. You should report the tooth formula of each primate using the following format: I 2/2, C 1/1, P 2/2, M 3/3, or alternatively $2^{\text{−}1^{\text{−}2^{\text{−}3}}}$.

Please note that tooth formula is both one of the most useful ways of separating taxonomic groups and occasionally complicated. You should ask for assistance whenever in doubt – and especially when looking at the Prosimians.

Orbit position and enclosure: Do the eyes face forward or more toward the side of the head? Write "forward" or "lateral" to describe the position. Also, are the orbits open in the back or enclosed by bone (with emphasis on the upper lateral area)? Write "open" or "enclosed" in the space provided.

Molar cusp shape: Are the cusps of the molars (the top surface) relatively pointy and sharp or relatively flat and low?

Bony ear tube: Is there a bony ear tube or not?

Bilophodont or Y5 molars: Are the molars bilophodont (vaguely 8-shaped) or Y5 shaped? Note: This applies only to Old World Monkeys and Apes

Crests: Are nuchal and/or sagittal crests present on the skull? Note which or both. You may wish to describe how extreme the crest(s) are.

Other identifying characteristics: Some species or groups have unique characteristics, such as a toothcomb or a unique orbit shape. Make note of any characteristics that may help you identify this particular species/group. Consult your notes or instructor to make sure this characteristic is typical for all members of the group, not just for this individual, since you may be given a different specimen for the practicum.
<table>
<thead>
<tr>
<th>Genus</th>
<th>Tooth Formula</th>
<th>Molar Cusp Shape</th>
<th>Bilophodont/Y5 Molars</th>
<th>Bony Ear Tube</th>
<th>Orbit Position and Enclosure</th>
<th>Crests</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lemur</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ring-Tailed Lemur)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Loris</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Slender Loris)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Carlito</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Philippine Tarsier)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aotus</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Night Monkey)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Saimiri</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Squirrel Monkey)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Callithrix</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Marmoset)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Alouatta</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Howler Monkey)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pithecia</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Saki)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>