The colobines: Ecological niches
Falk: Ch. 7 pp. 173 - 188

So why loxodont?

Why?

Easy enough

Generalized

Teeth as a life-history strategy

Quiz clock

Minutes remaining: ONE

30 sec ...

5 4 3 2
White uakari (*Cacajao calvus calvus*) & white-faced saki (*Pithecia pithecia*) (yes, he calls the uakari a saki...)

**Specialists at seed predation.**

Gray-necked owl monkey or douroucouli (*Aotus trivirgatus* [maybe; 1 split to 10+ in early 1980s])

**Cathemeral populations; cryptic species**

Howlers (*Alouatta ?pigra*) and spider monkeys (*Ateles sp.*)

**BBC Cousins: The monkeys**

Spider monkeys (*Ateles sp.*): ripe fruit specialists

**BBC Life of Mammals: The social climbers**
Bringing us to Old World monkeys; come in two flavors - colobine and cercopithecine

What is significance of short broad face & deep jaw, vs. longer, narrower & shallower? We talked about cusps last time What do these say about food quality and scarcity? Which group tends to be more arboreal?

Colobines: the OW howlers (?) Life of mammals: Social climbers

Diet
Morphology: unbiased correlate of key dietary adaptation Chivers & Hladik 1980: Index of Gut Differentiation

African colobines come in 2 main flavors...

Colobine: caecum + complex stomach

FOLIVORE (Lepilemur)

FRUGIVORE (Cercopithecus)

Stomach + Caecum + Colon Small Intestine

Empirically correlated with folivory.

B&W (Colobus): angolensis, satanas, guereza
Red (Procolobus): pennantii, kirkii, badius [?]
Two leaf monkeys, compared

**P. melalophos**

![Graph showing distribution of feeding levels for P. melalophos.]

**T. obscura**

![Graph showing distribution of feeding levels for T. obscura.]

**Distribution of feeding levels, Krau Game Reserve, Malasia**

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**P. pennantii kirkii**

Cousins: Monkeys

**C. guereza** (East Africa)

**P. [pennantii] kirkii** (Zanzibar)

Cousins: Monkeys

Sample is small, but what’s your impression of activity levels of the two species shown?

Compare ‘medicinal’ charcoal eating with Cebus fur rubbing. What’s similar/different?

African colobines

Two leaf monkeys, compared

**ASIA:** Leaf monkeys and langurs.

- **Mitered or banded leaf monkey** *(Presbytis melalophos)*
- **Dusky leaf monkey** *(Trachypithecus (Presbytis) obscura)*

- **Maroon leaf monkey** *(Presbytis rubicunda)*
- **Mitered or banded leaf monkey** *(Presbytis melalophos)*

Explain the pattern?

Maroon leaf monkey *(Presbytis rubicunda)*

Mitered or banded leaf monkey *(Presbytis melalophos)*

Dusky leaf monkey *(Trachypithecus (Presbytis) obscura)*

Two-flavor theme in Asia as well, though less clear... & not leaf v. langur!

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Complex diagram

Type of locomotion

What locomoting on

P. obscura much more quadrupedal movement, but given quadrupedal, not big difference in what they do it on

**T** = tree, **L** = liana
Two leaf monkeys, compared

**Group structure**
- Both SM or MM

**Group size**
- Dusky ~10
- Mitered ~15

As with B&W vs. red colobus, the mature leaf eater’s group size is smaller.

Dusky leaf monkey
*Trachypithecus obscura*

Mitered leaf monkey
*Sumatran surili* (*Presbytis melalophos*)

Silvered leaf monkey
*Trachypithecus cristatus*

Douc langur
*Pygathrix nemaeus*

Natal coats
- Not unique (or are they?)
- Define “conspicuous”??

Colobines: allomothering and infanticide.