**Table 17.2.** Evidence for foraging costs of within-group scramble food competition in the African colobines and data available indicating an associated fitness cost

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Species** | **Site** | **Foraging costs** | **Fitness costs** | **Source** |
| *Colobus* |  |  |  |  |
| *C. angolensis ruwenzorii* | Nyungwe | -Extremely large foraging group shows an extremely large home range (>2440 ha) |  | 1 |
| *C. guereza* | Bole Valley, Lake Shalla |  | -Lower reproductive rate in larger groups | 2 |
|  | Kakamega | -The largest study group had the longest DPL\* |  | 3 |
|  | Kibale | -Increase in DPL, group spread while feeding, time spent feeding & dietary diversity in lean season | -Decreased energy balance for lactating females in lean season | 4 |
| *C. polykomos* |  |  |  |  |
| *C. satanas* |  |  |  |  |
| *C. vellerosus* | Boabeng-Fiema | -At similar home range quality, larger groups have larger ranges & group spread, longer DPL & feeding time |  | 5 |
| *Piliocolobus* |  |  |  |  |
| *P. badius* |  |  |  |  |
| *P. bouvieri* |  |  |  |  |
| *P. epieni* |  |  |  |  |
| *P. foai* |  |  |  |  |
| *P. gordonorum* |  |  |  |  |
| *P. kirkii* |  |  |  |  |
| *P. langi* |  |  |  |  |
| *P. oustaleti* |  |  |  |  |
| *P. parmentieri* |  |  |  |  |
| *P. pennantii* |  |  |  |  |
| *P. preussi* |  |  |  |  |
| *P. rufomitratus* |  |  |  |  |
| *P. semlikiensis* |  |  |  |  |
| *P. tephrosceles* | Kibale | -Controlling for food availability, larger groups had longer DPL, larger home range, larger group spread & move faster  -Patch depletion shown (lower intake rates & greater movement rates as patch occupancy increases), patches occupied longer in larger groups | -Number of offspring per female is lower in larger groups | 6-8 |
| *P. temminckii* |  |  |  |  |
| *P. tholloni* |  |  |  |  |
| *P. waldronae* |  |  |  |  |
| *Procolobus* |  |  |  |  |
| *P. verus* |  |  |  |  |

\*DPL = Daily path length; 1 Fashing et al. 2007b; 2 Dunbar 1987; 3 Fashing 2001b; 4 Harris *et al.* 2010; 5 Teichroeb & Sicotte 2009; 6 Gillespie & Chapman 2001; 7 Snaith & Chapman 2008; 8 Snaith & Chapman 2005

**Table 17.3.** Data available for female dispersal and the presence of a linear dominance hierarchy in African colobines

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Site** | **Female dominance hierarchy**  **Linear? Despotic? Nepotistic?a** | | | **Incidence of female dispersalb** | **References** |
| *Colobus* |  |  |  |  |  |  |
| *C. angolensis ruwenzorii* | Nabugabo |  |  |  | Commonc | Stead & Teichroeb 2019 |
| *C. guereza* | Kibale | Likely |  |  | Rare | Harris 2005, Harris *et al.* 2009a |
| *C. polykomos* | Taï  Tiwai | Yes |  | Individualistic | Occurs  Occurs | Korstjens *et al*. 2002; Korstjens 2001; Dasilva 1989 |
| *C. satanas* |  |  |  |  |  |  |
| *C. vellerosus* | Boabeng-Fiema | Yes | Some grps | Individualisticd | Occurs | Wikberg *et al*. 2013; Teichroeb *et al*. 2009a |
| *Piliocolobus* |  |  |  |  |  |  |
| *P. badius* | Taï |  |  |  | Occurse | Korstjens *et al*. 2002 |
| *P. bouvieri* |  |  |  |  |  |  |
| *P. epieni* |  |  |  |  |  |  |
| *P. foai* |  |  |  |  |  |  |
| *P. gordonorum* |  |  |  |  |  |  |
| *P. kirkii* |  |  |  |  | Occurs | Siex 2003 |
| *P. langi* |  |  |  |  |  |  |
| *P. oustaleti* |  |  |  |  |  |  |
| *P. parmentieri* |  |  |  |  |  |  |
| *P. pennantii* |  |  |  |  |  |  |
| *P. preussi* |  |  |  |  |  |  |
| *P. rufomitratus* | Tana River |  |  |  | Common | Marsh 1979b |
| *P. semlikiensis* |  |  |  |  |  |  |
| *P. tephrosceles* | Kibale | Weak | Unlikely | Unlikely | Common | Struhsaker 1975 |
| *P. temminckii* | Abuko | Yes |  | Unlikely | Common | Starin 1991, 1994 |
| *P. tholloni* |  |  |  |  |  |  |
| *P. waldronae* |  |  |  |  |  |  |
| *Procolobus* |  |  |  |  |  |  |
| *P. verus* | Taï |  |  |  | Common | Korstjens & Schippers 2003 |

aUnlikely in this column refers to populations where genetic data are not available but since female dispersal occurs, nepotistic hierarchies are unlikely without very high rates of female parallel dispersal.

bIncidence of female dispersal (following Sterck & Roth, this volume): Common – most or all females disperse at least once; Occurs – significant portion of the females disperse at least once; Rare – female philopatry is the norm but occasional female dispersal is reported.

cSample size still small (N = 4 over one year in 12 core units) but this species shows bonding between the sexes rather than within one sex (Arseneau-Robar *et al.* 2018).

dSome nepotism was observed in coalition formation (Wikberg *et al*. 2013).

eMay actually be common but study groups were large and individuals were not individually identified.