



# Both sexes engage in same-sex sexual behaviour in *Colobus angolensis ruwenzorii*: Reports of same-sex mounting

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## Background

- Research on same-sex sexual behaviour in primates is focussed in few species (e.g. bonobos, *Pan paniscus*, and Japanese macaques, *Macaca fuscata*: Vasey, 2007)
- Few reports on same-sex sexual behaviour in some taxa may be due to lack of expression, but could also represent methodological or practical challenges, such as when:
  - Behaviours are difficult to observe, for example in arboreal, cryptic, or nocturnal species (Ramsay & Teichroeb, 2019)
  - Species are not represented in captivity (Ramsay & Teichroeb, 2019)
  - Behaviours have been observed but have not been published (Anderson et al., Submitted)
- Same-sex sexual behaviour has recently been reported in *Colobus vellerosus* (Teichroeb et al., 2023), but no reports are available for other black-and-white colobus species
- Here, I report for the first time observations of same-sex sexual behaviour in *Colobus angolensis ruwenzorii***

## Methods

Data were collected during a three-month field season from May 2022 - August 2022 in the Manwa Forest Reserve (~280ha) near Lake Nabugabo, Masaka District, Uganda. Follows occurred from 8:00 to 16:00 each day, alternating between three focal core units consisting of multiple males and multiple females. Scan samples of all group members behaviour were taken every 15 minutes, and 10-minute focal animal samples were collected from each adult and subadult between scans. All observations of sexual behaviour were recorded as they were seen (Altmann, 1974).

## Definitions

Same-sex sexual behaviour is typically defined as genital contact or manipulation between members of the same sex (Vasey, 1995). As sexual behaviour often includes a sequence of behaviour before and after genital contact (Enomoto, 1974), these were also considered. Within *C. a. ruwenzorii* these behaviours can include:

- Presenting for sex:** Sexual solicitation involving positioning hips towards another and lifting hips in the air
- Hip grab:** Usually following a sexual solicitation, the solicitree grabs the hips of the solicitor and positions themselves behind them
- Mounting:** When one individual mounts another



## Results

**Table 1** Observations of same-sex sexual behaviour

Event	Date	Observation
1	2022-06-03, approx. 9:30:00	Adult male RUSSEL approached adult male JANK
1		RUSSEL presented for sex to JANK
1		JANK hip grabs RUSSEL
1		JANK grooms RUSSEL
1		RUSSEL leaves
2	2022-06-13, 13:04:52	Adult female NAMELESS mounted adult female LUNA
3	2022-06-14, 11:08:57	Adult male PANDA approached adult male TODD
3		PANDA presented for sex to TODD
3		TODD mounted PANDA, thrusted multiple times, and ejaculated
4	2022-06-14, 11:21:43	PANDA presented for sex to KOALA

- Four events of same-sex sexual behaviour were observed** during the three-month field season (described in Table 1)
- Two events involved sexual solicitation without mounting or ejaculation (1, 4)
- Two events involved mounting (2, 3)
- One event was between females (2), while the other three events were between males (1, 3, 4)

## Discussion

- These observations of same-sex sexual behaviour in *C. a. ruwenzorii* provide evidence that same-sex sexual behaviour occurs among both sexes in this species, as reported in other black-and-white colobus (Teichroeb et al., 2023)
- Same-sex sexual behaviour occurred most frequently in adult males, similar to reports in *C. vellerosus*, but this trend may change with more data
- Sequences of behaviour generally followed the same sequence observed in opposite-sex sexual behaviour (approach and present, followed by either mounting or grooming)

## Conclusion

Given the lack of data on same-sex sexual behaviour in black-and-white colobus, it is difficult to conclude on the evolutionary or functional significance of this behaviour. However, there is now evidence that same-sex sexual behaviour occurs in at least two black-and-white colobus species. More reporting on same-sex sexual behaviour in African colobines would improve our ability to:

- Draw evolutionary and functional conclusions
- Conduct meta-analyses
- Increase the strength of phylogenetic analysis

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## References

- References and .Rmd file can be found here  
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