

# Habituating gorillas in Impenetrable Oruzogo, BINP



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# What is habituation?

- Tendency to become familiar (Ignore) with a stimulus after repeated and regular exposure to it

Attention

Time

Energy

Detestable

Reaction

Habituated

**For primates:**

**Repeated neutral contacts between humans and primates that leads to a reduction in fear and ultimately to the primates ignoring the humans.**

# Instinctively, gorillas are afraid of humans

- Attention, waste of time and energy translate into stress

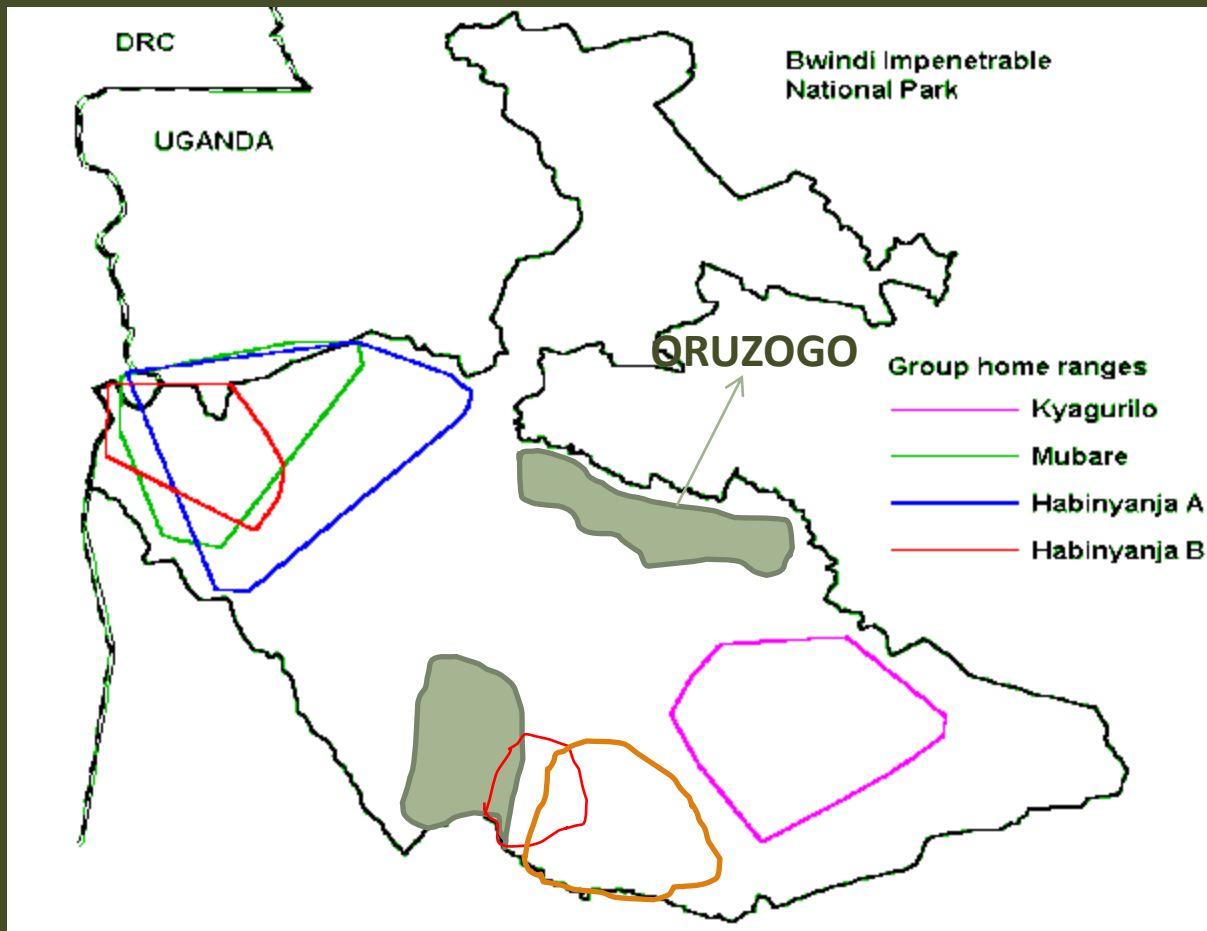
## STRESS???????????

- Anxiety
- Worry
- Tension
- Trauma
- Pressure
- hassle

# Why habituate gorillas?

- **Costs and benefits to:**
- **Gorillas**
- **Humans (tourists, researchers, park managers)**

# Brief History on Habituation



Mubare - 1992

Habyinyanja - 1997 (split in 2002, with Rushagura group forming)

Nkuringo - 1997

Bitukura – 2007 (Karamuzi, split off (3 months))

Nshongi – 2007 (Mishaya split off in 2010)

Oruzogo and Kahunje- 2009

- **NOT MORE THAN 50%**

# Goal of this study

- Habituate Oruzogo gorilla group
- Identify and name the gorillas (Camera)
- Measure the progress of habituation
- Train the UWA rangers on data collection

# Protocol

- Habituation Impact Assessment
- Follow-up; commence habituation (appropriate group size (census style nest counts))
- Home range (GPS)
- Daily travel distance (Odometer)
- Feeding
- No. of gorillas seen and identified
- Health

# Negative reactions by gorillas towards humans (Index of level of habituation)

- -None or a few gorillas in sight
- -Gorillas running away OR approaching)
- -Gorillas being aggressive  
(CHG, CB, PVEG, FGT, SCM, PGT, BARK)
- -Vigilance
- -Gorillas doing less of their normal behavior
- -Extreme stress: sickness, fewer babies, more deaths





Can we know if human presence has a negative impact on the gorillas?

- Yes

**Through systematic study (Collect data)**

647 hours on 391 days across 16 months (December 2009-March 2011)

1.6 hours (100 minutes)/day

# Points of focus

From when habituation commenced:

- No. of gorillas in sight
- Negative behavior
- Are the gorillas reacting more negatively:
  - When we get closer
  - Habituator's actions
  - As time progresses (Trends)
  
- Vigilance

# Scan Sampling:

- at a regular interval, record what gorillas in view are doing *at that instant*:
  - Number of gorillas in view
  - Feeding (F), Resting (R) or Travelling (T) or not in view
  - Are the gorillas watching the observers (W) or not?

Time	# of gorillas in view	Activity

Time	# of gorillas in view	Activity
9:25	3	W

Time	# of gorillas in view	Activity
9:25	3	W
9:30	3	F-W

Time	# of gorillas in view	Activity
9:25	3	W
9:30	3	F-W
9:35	3	F-W

Time	# of gorillas in view	Activity
9:25	3	W
9:30	3	F-W
9:35	3	F-W
9:40	3	R



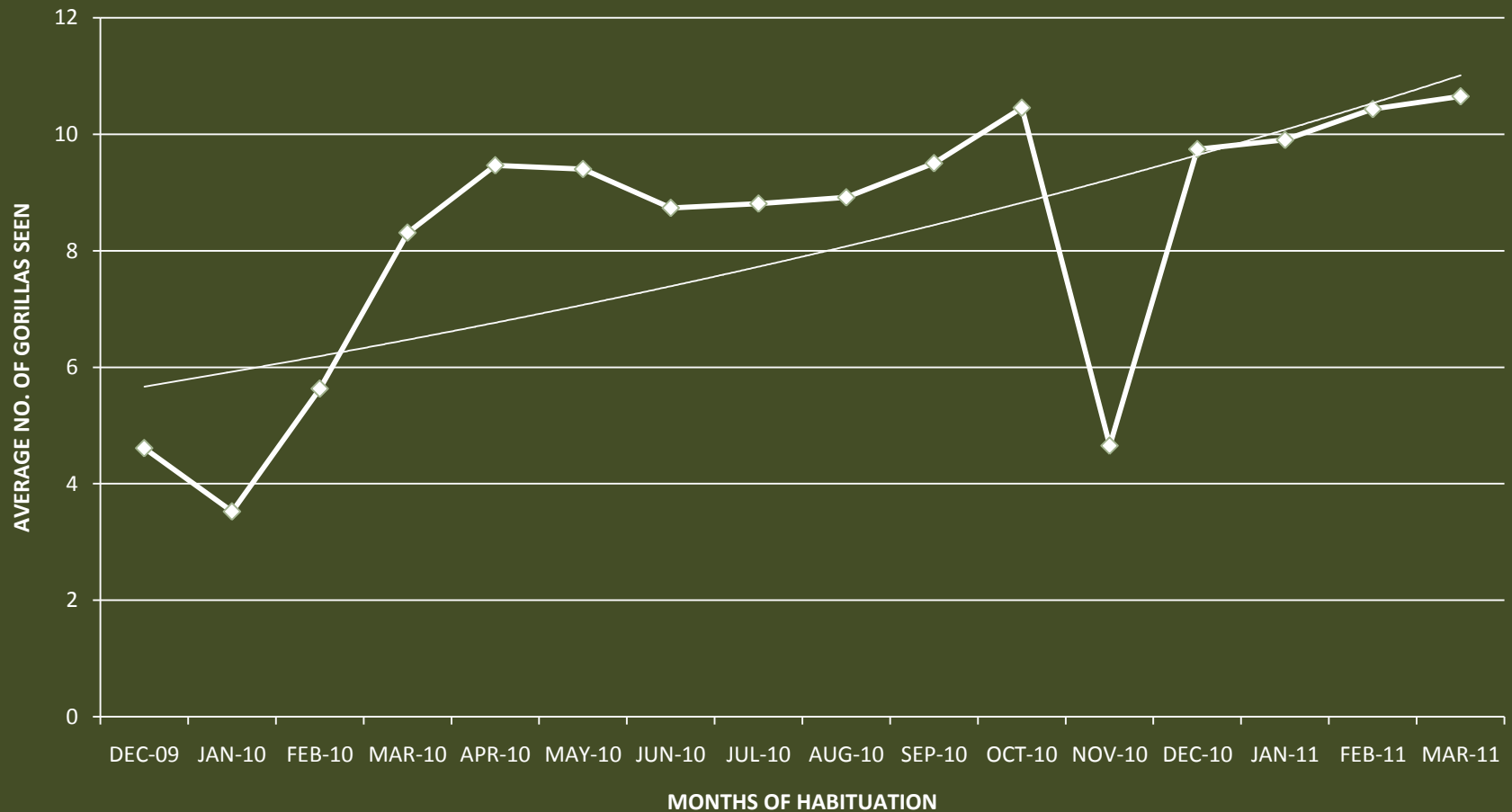
Time	# of gorillas in view	Activity
9:25	3	W
9:30	3	F-W
9:35	3	F-W
9:40	3	R
9:45	3	R



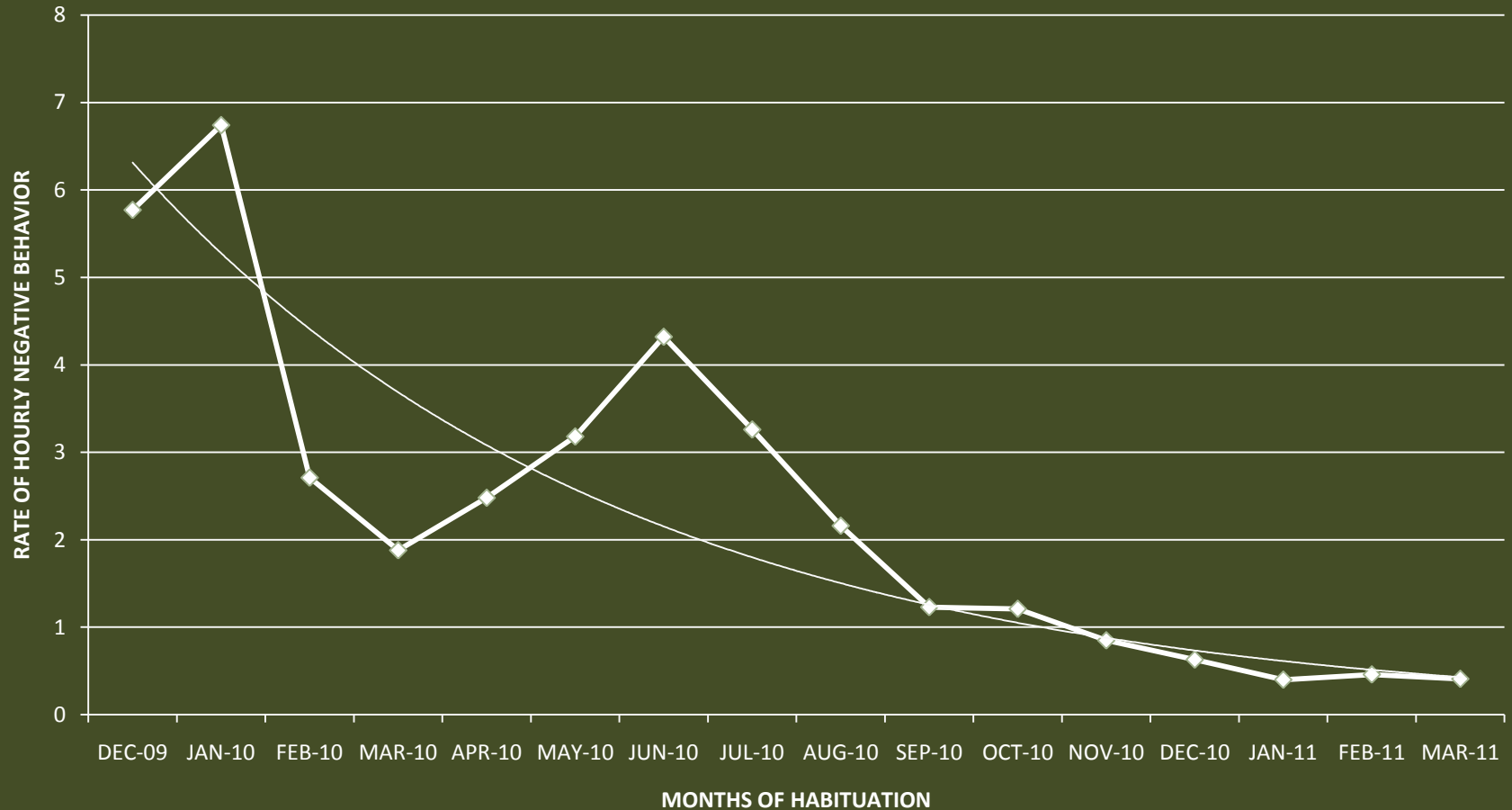
# Does the absolute number of negative reactions give an answer??

- It depends on how much time you see each gorilla.
- So you need to create a rate:
  - $\text{Number of negative behaviours} / \text{number of times in view}$

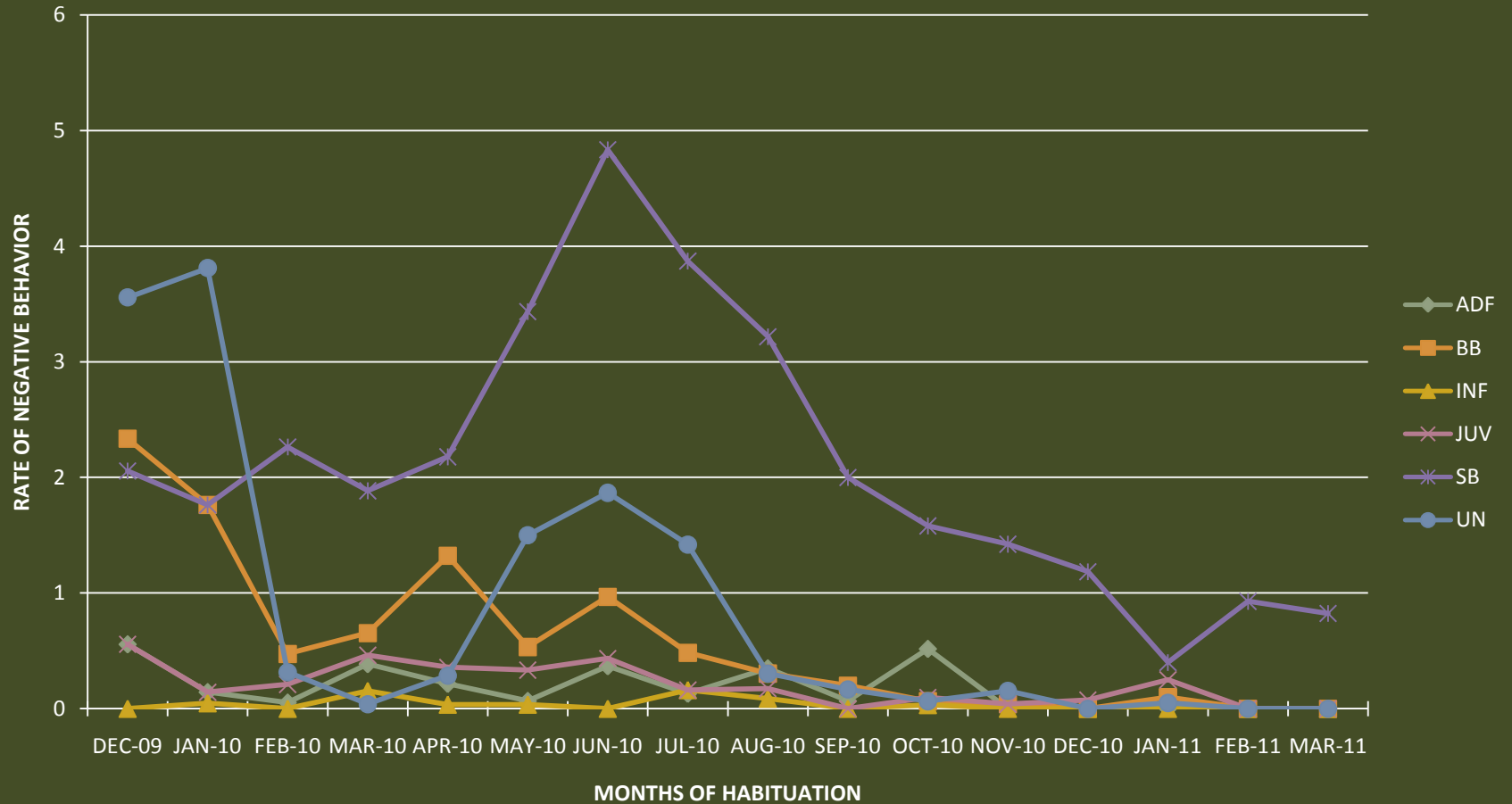
# Daily average number of gorillas seen over time presented per month



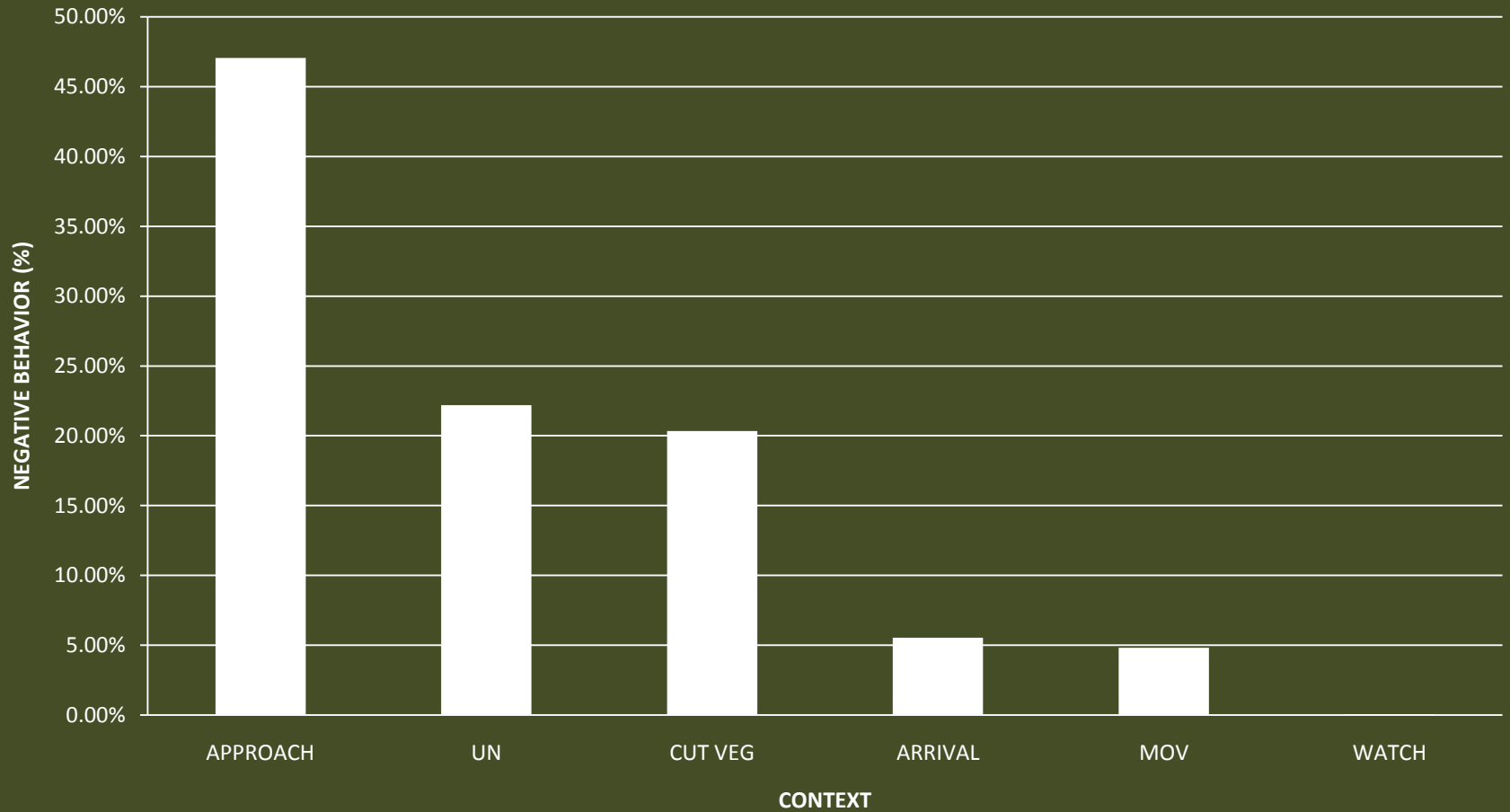
# Hourly rate of negative behavior displayed by Oruzogo group members over time presented per month



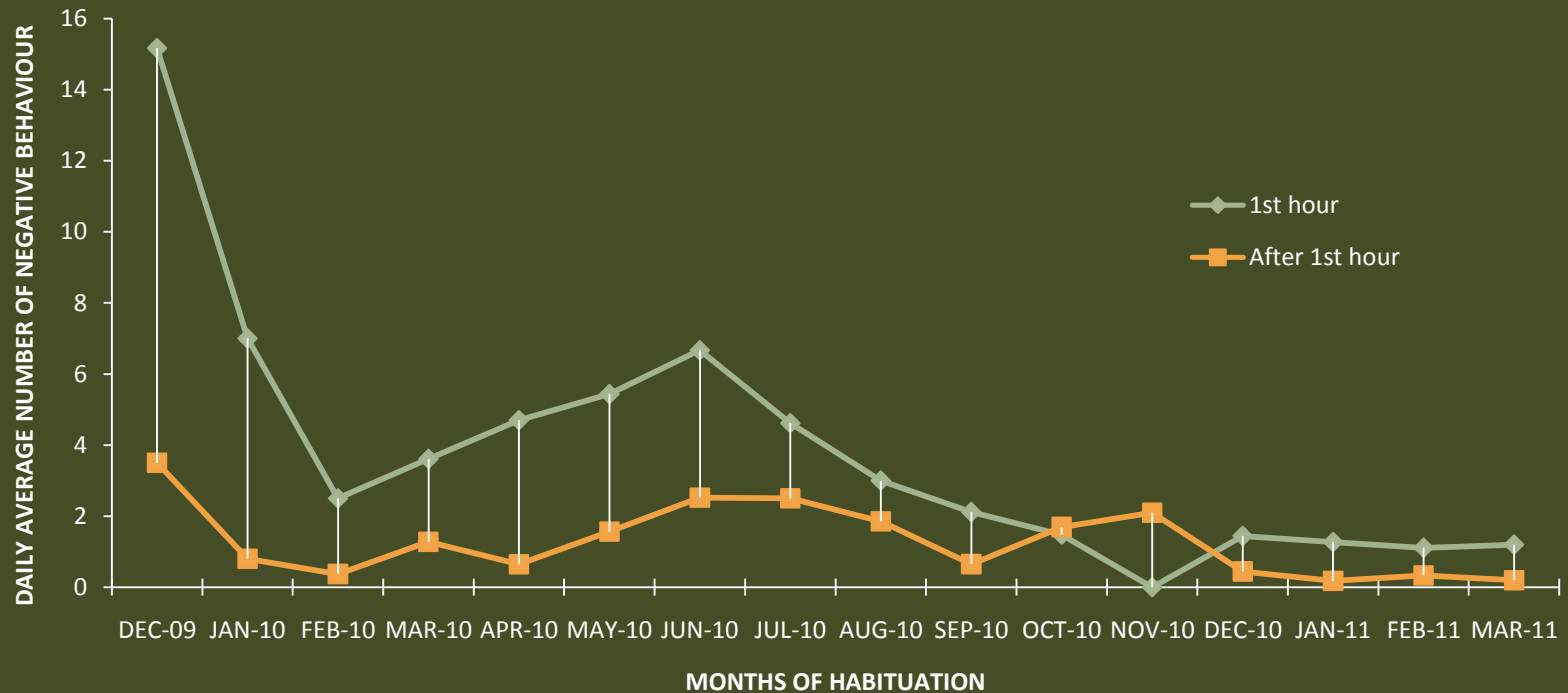
# Monthly rate of negative behaviour displayed by the different age classes



# Context of negative behavior

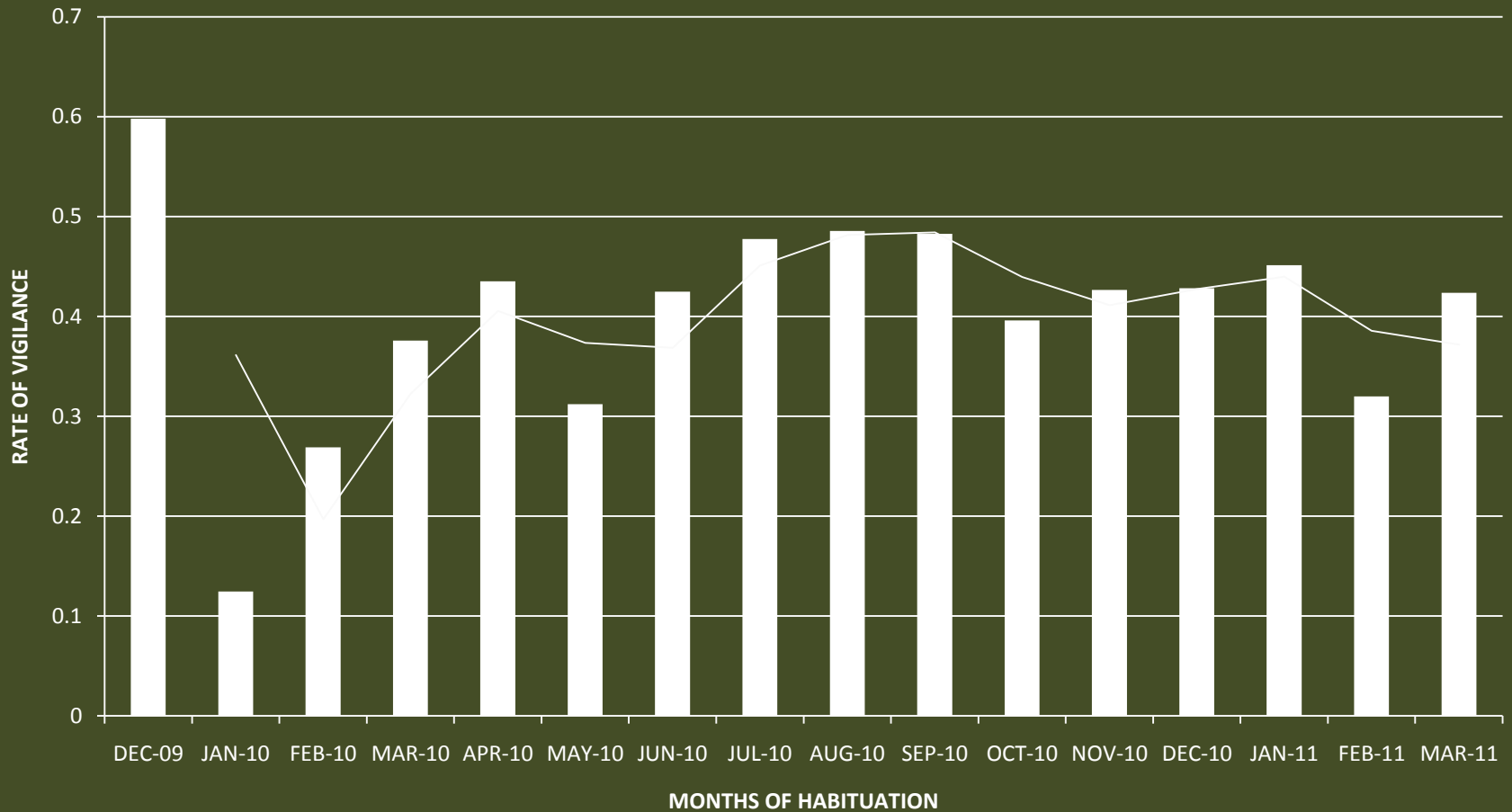


# Average number of negative behavior per hour of observation

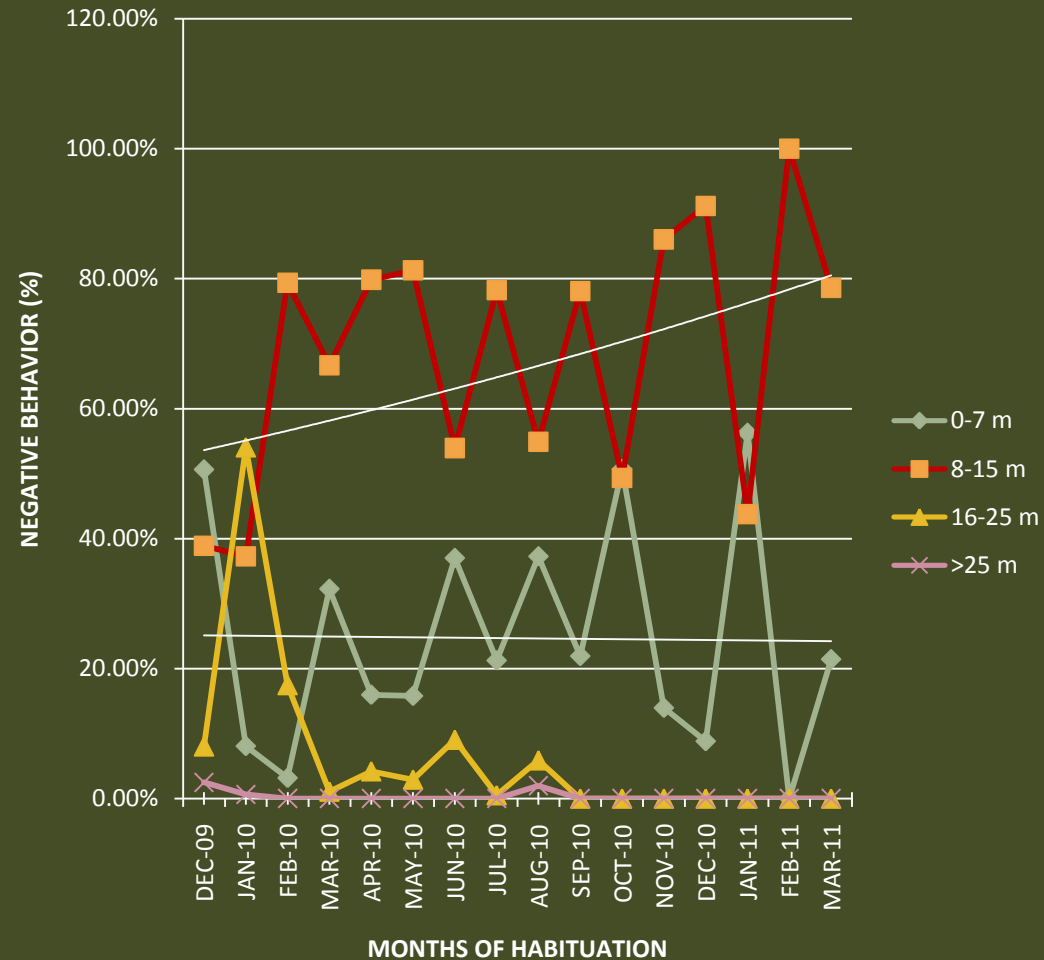
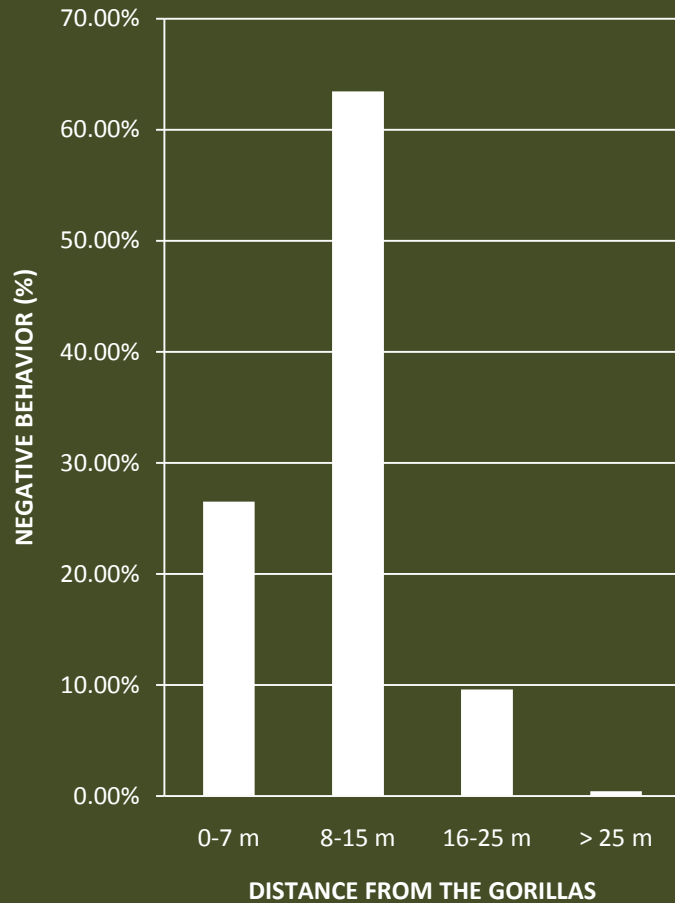




# Rate of vigilance shown by the gorillas per month



# PERCENTAGE NEGATIVE BEHAVIOUR WITH DISTANCE FROM THE GORILLAS



# ORUZOGO GROUP COMPOSITION

Age class	Number of individuals
SB	2
MED	10
JUV	4
ADF	1
INF	3

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• 2 SB

• 3 BB

• 5 ADF

• 3 JUV

• 3 INF

# ORUZOGO GROUP COMPOSITION

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- 2 SB

- 3 BB

- 5 ADF

- 3 JUV

- 3 INF

- 16 out of a possible 20

# All in all

- Good progress
- More gorillas are being seen
- Distance of tolerance decreasing
- Decrease in negative behaviour
- VIGILANCE still displayed

# Acknowledgements:

IGCP

ITFC

MPI

UWA (CAM, Wardens Research and monitoring,  
Tourism, All rangers)



