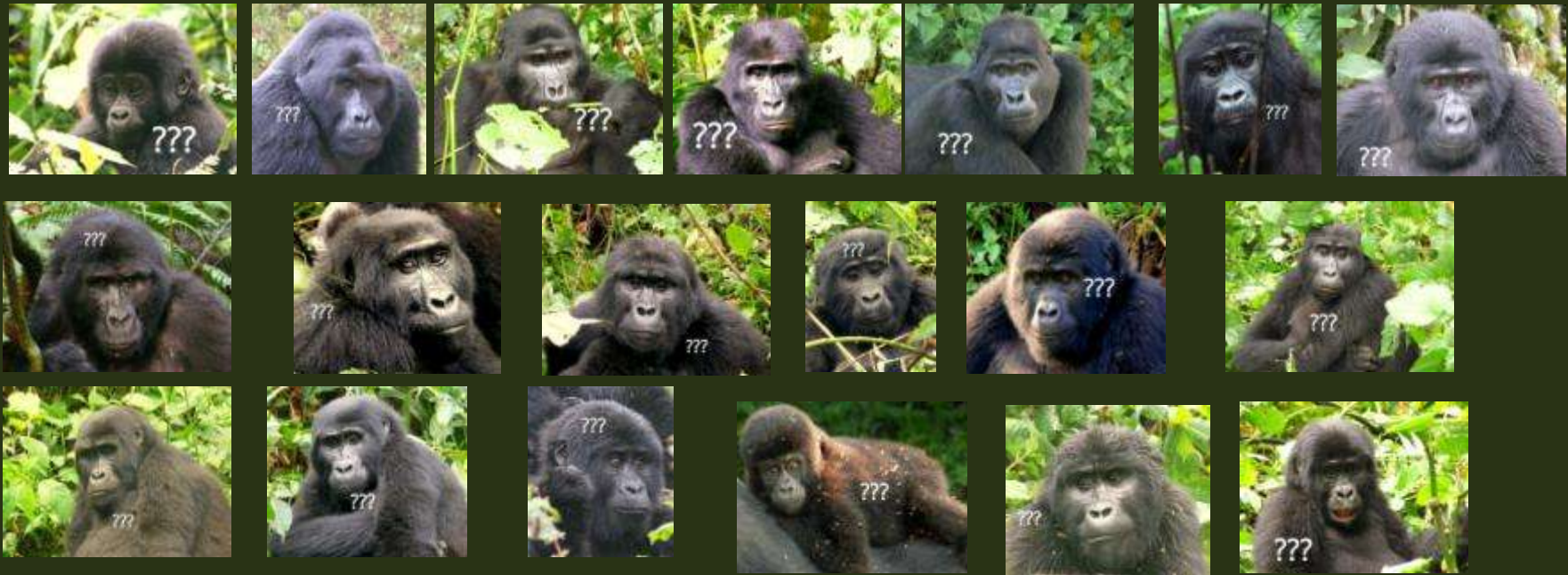


Using gorilla Identification as part of Monitoring the Demography of Bwindi Mt Gorillas



UWA -BMCAM, WT, WFG, Ranger trackers & guides (Raymond Kato & Joseph Arinaitwe)

MPIEvan (Peter Kabano & Martha Robbins)

Summary

Demography: **Statistical** study of an animal population (All Mt gorillas) and sub-populations (Bwindi gorillas).

- It encompasses the study of the Size, structure, and distribution
- And Spatial and/or temporal changes in them
- In response to Birth, migration, aging and death

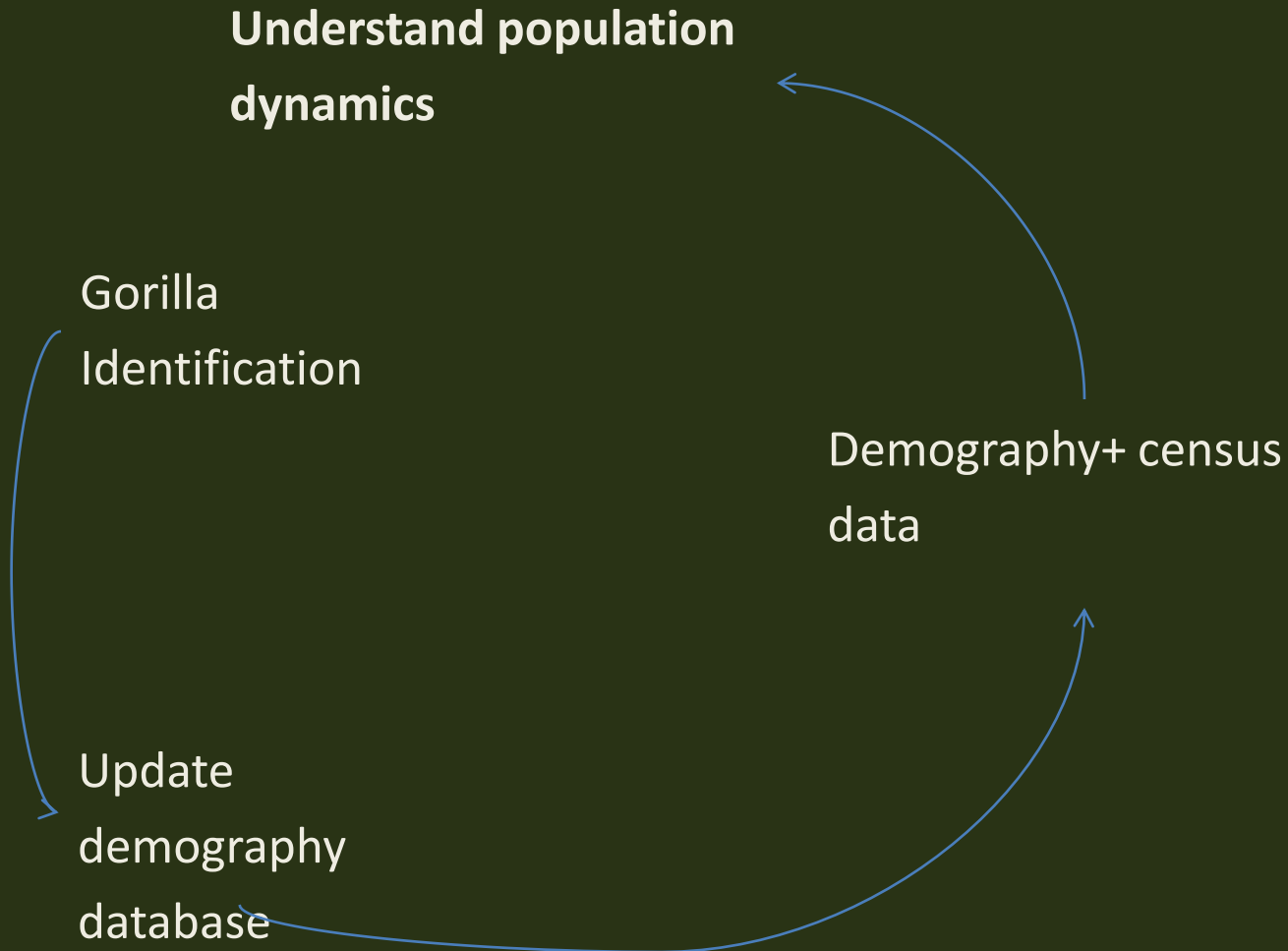
Inter-birth intervals, mortality rates and growth rates

Population dynamics studies short-term and long-term changes in the size and age composition of populations, and the biological and environmental processes influencing those changes.

Deals with the way populations are affected by

- Birth and death rates
- Immigration and emigration
- And studies such as ageing population or population declines

Link between Gorilla ID & Demography



Goals of the exercise (All habituated gorilla groups)

Identification and Naming (Unnamed immatures & immigrants)

- Eases monitoring for individuals and entire groups (e.g. accurate health records for individuals and timely interventions)

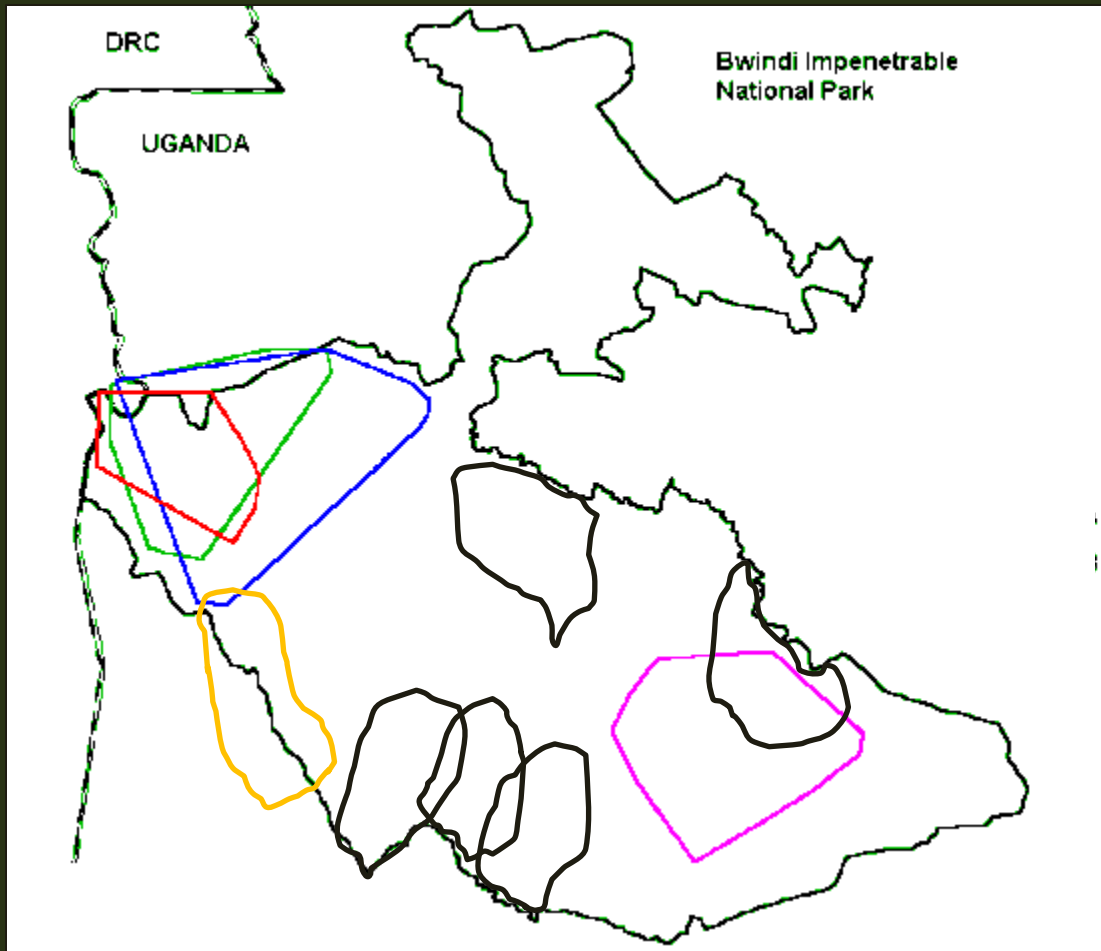
Updating the demography database (1992 to 2007 completed; not updated since- Present)

Making it sustainable (collaborative work)

Justification of Project

- Between 2006-2011, the number of habituated groups increased from 5 to 10 groups (approx. 60 – 160 gorillas)
- Recognized that not all habituated gorillas were named and/or reliably identified by staff
- Database upkeep was needed

Home range of Bwindi gorillas



Kyagurilo
Mubare
Habinyanja
Rushegura
Nkuringo
Bitukura
Nshongi
Mishaya
Oruzogo
Kahunje

Names and IDs (UWA field staff)

How???

All gorillas are just as physically (and uniquely) different/distinct as you are from your neighbour

- Ascertain & ID age classes (Sb, AdF, Bb, Sad, Juv & Inf) within a group
- Sexes (difficult beyond infancy, until adulthood)
- Parentage (observation)
- Physical appearance (unique features, deformities, etc), behavior and other attributes

NAME & ID individuals (photos)

Example



Data

GORILLA IDENTIFICATION AND NAMING EXERCISE

Gorilla family: Rushegura. Team leader: Kanyanjeyo Ghad. Period: 24/01/2012 to 23/02/2012

Family ranking	Name	Age group	Sex	Description	Identification features
2	Kabukojo	Bb	M	Local name implies one with scar-like lesions	Numerous dots on his nose Cut on right nostril

Demography database

Name	Mother	Birthdate	sex	Group	Death date	Record of transfer	Photo database
Kabukojo	Karungyi	1/01/01	M	Rushegura			..\Pictures\Rushegura\Kabukojo.JPG

Progress

Group name	Evaluation of Idng by field staff	Naming unnamed individuals	Updated database	Poster & field ID aid	Interactive field exercise
Kyaguliro	√	√	√	√	√
Mubare	√	√	√	√	√
Habinyanja	√	X	X	X	X
Nkuringo	X	X	X	X	X
Rushegura	√	√	√	√	X
Bitukura	√	X	√	√	√
Nshongi	X	X	X	X	X
Mishaya	X	X	X	X	X
Oruzogo	√	X	X	X	√
Kahunje	√	X	X	X	X

√=22

X=28



Mwirima (Sb)



Rushegura

Group BINP

Feb 2012



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Protecting Gorillas and their Habitats



Kabukojo (Bb)



Kalembenzi (Bb)



Buzinza (AdF)



Karungi (AdF)



Kibande (AdF)



Kirinvi (AdF)



Ruterana (SAdF)



Nyampazi (SAd)



Kafuruka (SAd)



Kanywani (SAd)



Kikombe (Juv)



Munyana (Juv)



Katabazi (Kirinvi)



Nderema (Kibande)



Kamara (Karungi
Inf)



Kanyindo (Kibande
Inf)



Nyanaku (Nyamunwa
Inf)



Kabunga
(Buzinza
Inf)

Challenges

Gorilla ID for UWA field staff

- Supervision of field staff
- Motivation (No reward/punishment)
- Transferred staff

Newly habituated groups

Continuity and sustainability (2007-2012)

Way forward/strategies

A careful track (record) of demographic variations (births, deaths, emigrations & immigrations) in all known gorilla groups is fundamental. This requires motivation and systematic reporting by field staff.

- Interactive supervised field exercises
- Develop photo ID databases for all individuals & groups
- Develop Posters and field ID aid material
- Reports
- Also



Collaborators

Thank You!



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MOUNTAIN GORILLA VETERINARY PROJECT



MAX-PLANCK-GESellschaft

