



Reproductive performance of cattle breeds in Kunene North: Insights from Himba pastoralists, Namibia

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Introduction

- In Namibia, the indigenous Nguni breed is described to have low productivity compared to other, acquired breeds
- There have been numerous efforts to replace Nguni cattle by other, acquired breeds
- However, despite its small frame, Nguni is valued by Himba herders

Aims: (i) to compare reproductive performance of Nguni, cross breed (CB) and acquired breeds (AB) in Kunene North, and
(ii) to understand the factors influencing reproductive performance as perceived by Himba pastoralists

Results

Breed-groups and their characteristics

Indigenous (Nguni)	Cross Breeds (CB)	Acquired Breed (AB)
		
Nguni <ul style="list-style-type: none">Small frameLow milk productionDrought resistantWalk long distancesWell adapted to the area	Nguni x Herero Nguni x Simmental Nguni x Brahman <ul style="list-style-type: none">A blend of parents' traitsTakes either parent's traits	Brahman, Herero, Simmental <ul style="list-style-type: none">Large frameHigh milk productionNot drought resistantInability to walk long distancesNot well adapted to the area

Factors affecting reproduction in cattle herds as perceived by Himba pastoralists

Droughts affect all breeds/breed-groups

'Our cows' [Nguni] calving rate has fallen behind because of poor rainfall, which results in them not getting a bull. So, this cow delayed with 2 more years from the expected time' (Herder 6, Omuhonga)

'It [a Nguni cow] started giving birth at 6 years old because we were facing drought - and the movement was too much. Drought contributed to cows giving birth too late because they were hungry and could not attract a bull' (Herder 8, Omuhonga)

'They [AB] struggle to give birth, maybe they are finding it difficult to adapt to this area. They only give birth during very good rainfall years; maybe they have a better calving rate where they came from' (Herder 7, Omuhonga)



Long treks to pastures in dry seasons are a challenge for CB and AB



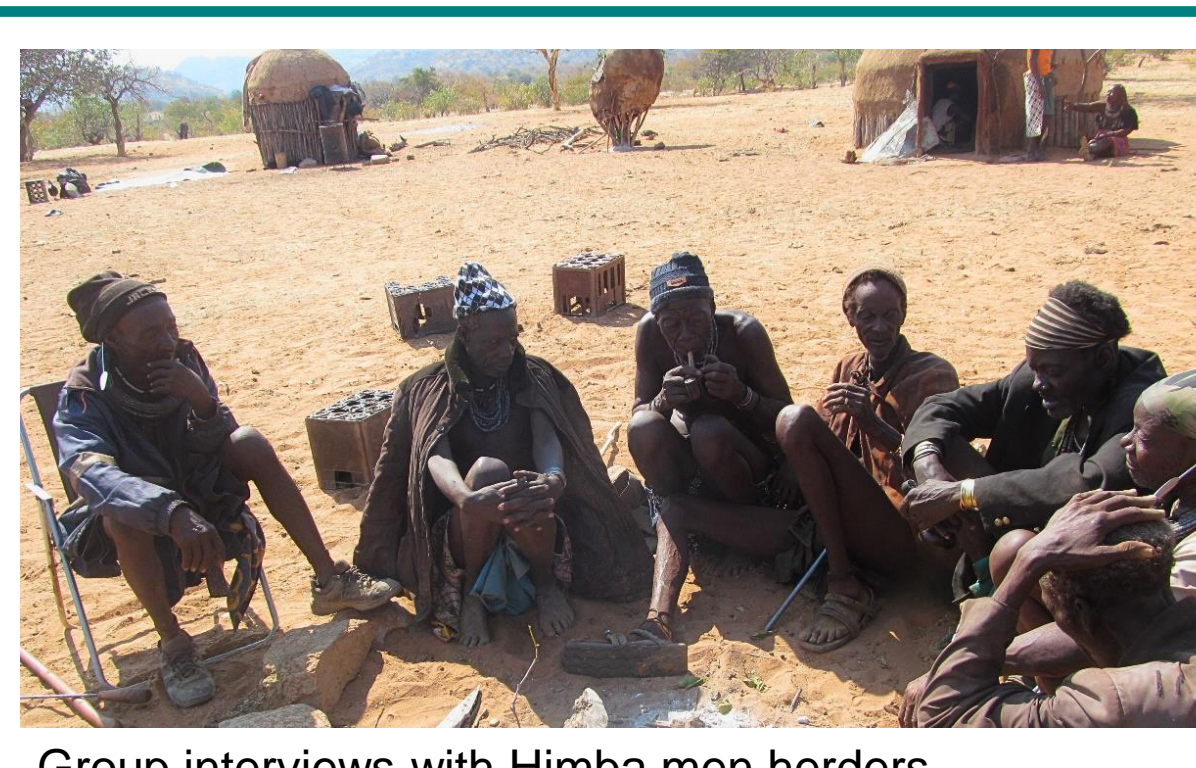
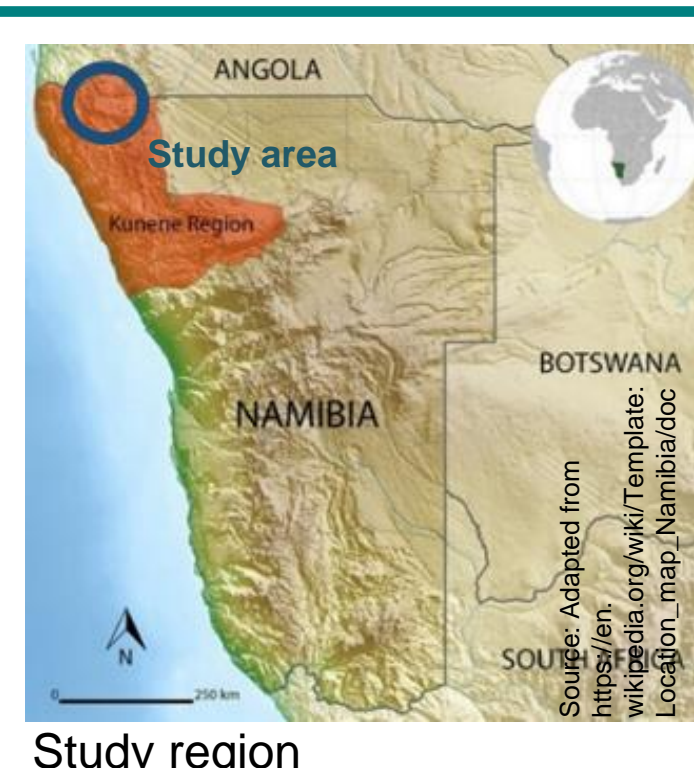
Figure 3: Left: cartoon of cattle navigating long distance. Right: rocky mountains terrain where pasture is found during dry seasons/droughts

'The Nguni cow gains weight quickly, it just eats little, the small grass that it finds is enough to make it full. While the other breeds do not get full, they graze from morning until night time that they will not come back home, at night they are still grazing. So, considering that this is the type of cow that is already hungry most of the times, and it does not really get full, suckling makes it even worse. It stays hungry [thin] for a longer period, which leads to it not attracting a bull faster' (Herder 5, Etoto)



Study Area

- Kunene North, Namibia
- Annual rainfall: 50 to 400 mm
- Home to Himba pastoralists
- Main livestock: cattle, goats, sheep
- Staple food: **sour milk** & maize porridge



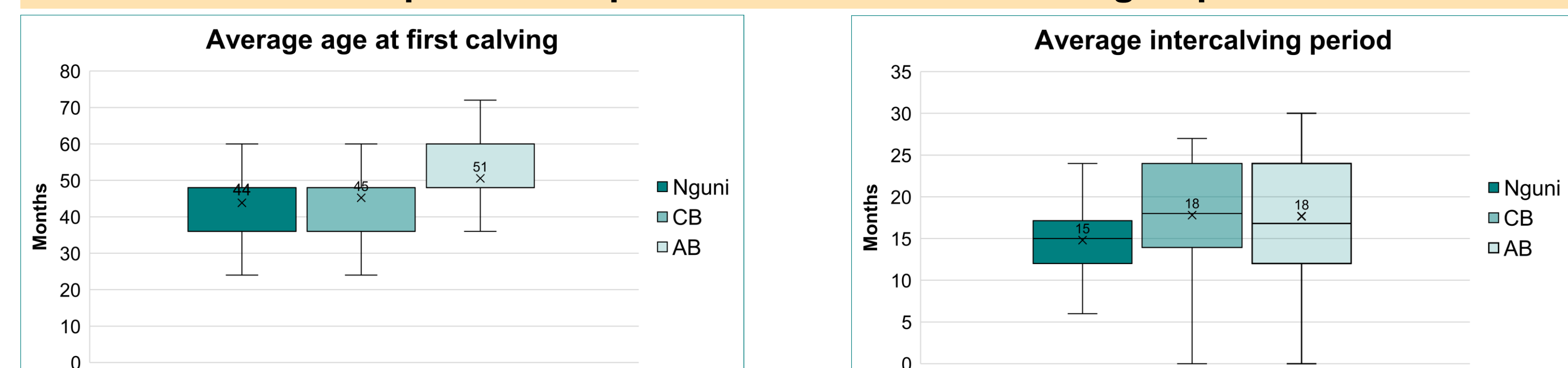
Acknowledgements:

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Conclusions

- Under the harsh conditions of Kunene North, Nguni cattle exhibit better reproductive performance compared to crossbreeds (CB) and acquired breeds (AB)
- Nguni cattle can fulfil their nutritional requirements even during dry seasons
- The higher reproductive performance of the Nguni is important in the system
- Drought and insufficient nutrition severely affect reproductive performance of AB
- Herders barter Nguni for cattle of CB and AB because of their higher milk yields in favourable conditions, and leave them grazing unsupervised when they are not lactating to regain body condition faster

Reproductive performance of the 3 breed-groups



Age at first calving (AFC) and inter-calving period (ICP) of the 3 breed-groups; x – represent average values. For the AFC, the median lines do not show as they overlap with the 1st (for Nguni & CB) and 3rd quartile lines

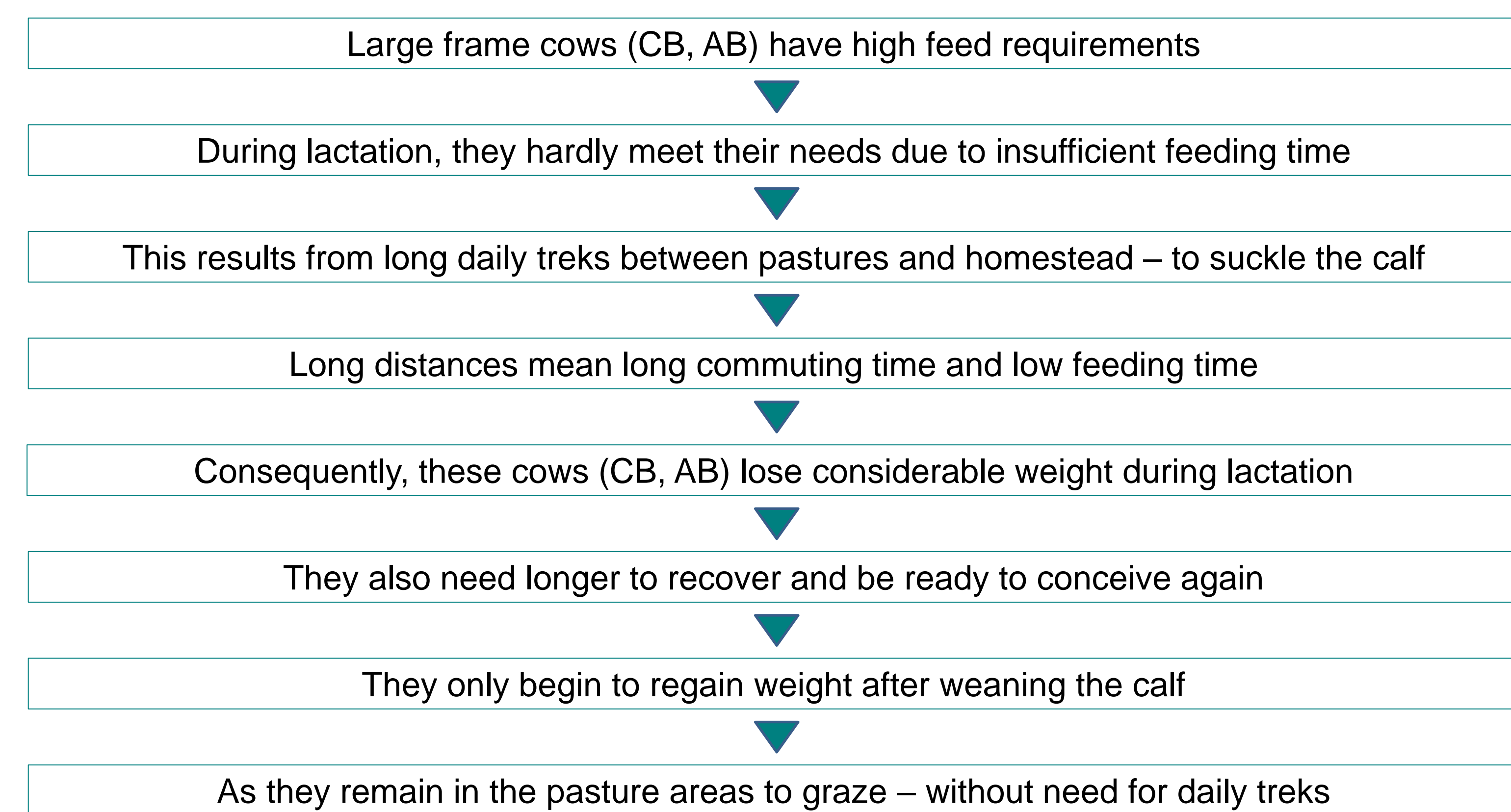
Why keep different breed-groups ?

- ✓ Nguni promote herd growth
- ✓ Enable rapid post-drought herd recovery
- ✓ Large herd allow to barter Nguni for AB & CB
- ✓ AB & CB have high milk yield during favourable fodder condition
- ✓ High milk production ensures food security



Calves born in one herd during 2024/25 calving period

CB & AB have disadvantages in variable and heterogenous environments



May 2023

a



June 2024

b

Same Brahman cow (AB) during its non-lactating (a) and lactating stage (b) in normal rainfall years

Methods

Interviews with herders / herd owners (March 2024 – May 2025)

- Progeny History of n=130 cows: 81 Nguni, 30 CB, 19 AB
- Information on: cow's age, age at first calving, number of offspring
- Narrative interviews on herding practices (n=23)
- Semi-structured interviews on bull selection criteria and availability



Interviews with Himba women herders



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