



Analyzing herbivore movements in relation to resource availability in the Savuti-Mababe-Linyanti Ecosystem (SMLE) in Northern Botswana

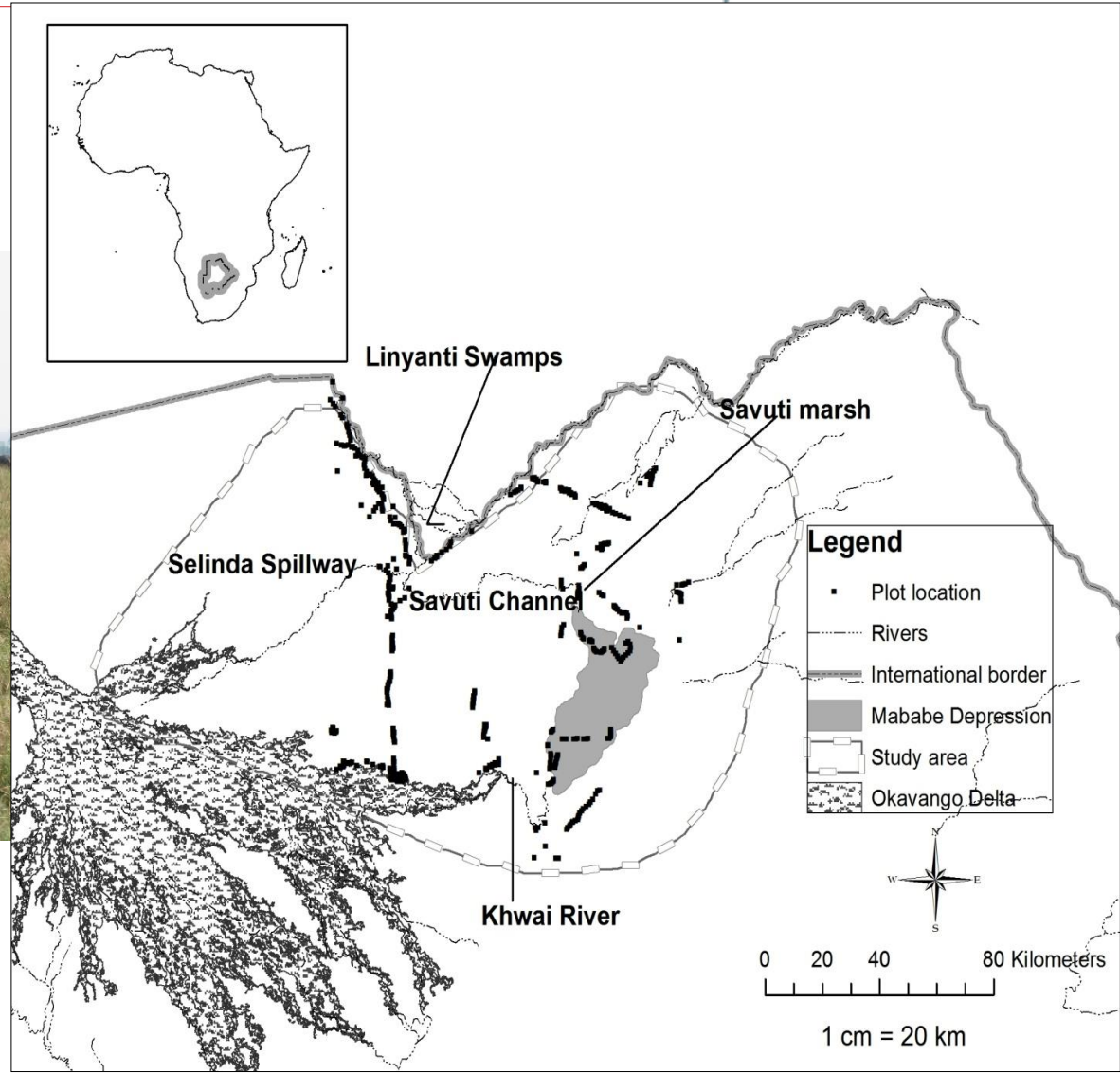
Sianga. K, Fynn.R & Bonyongo, M.C

Introduction

- Foraging strategies of herbivores
- Surface water availability (dry season)
- Predation risk

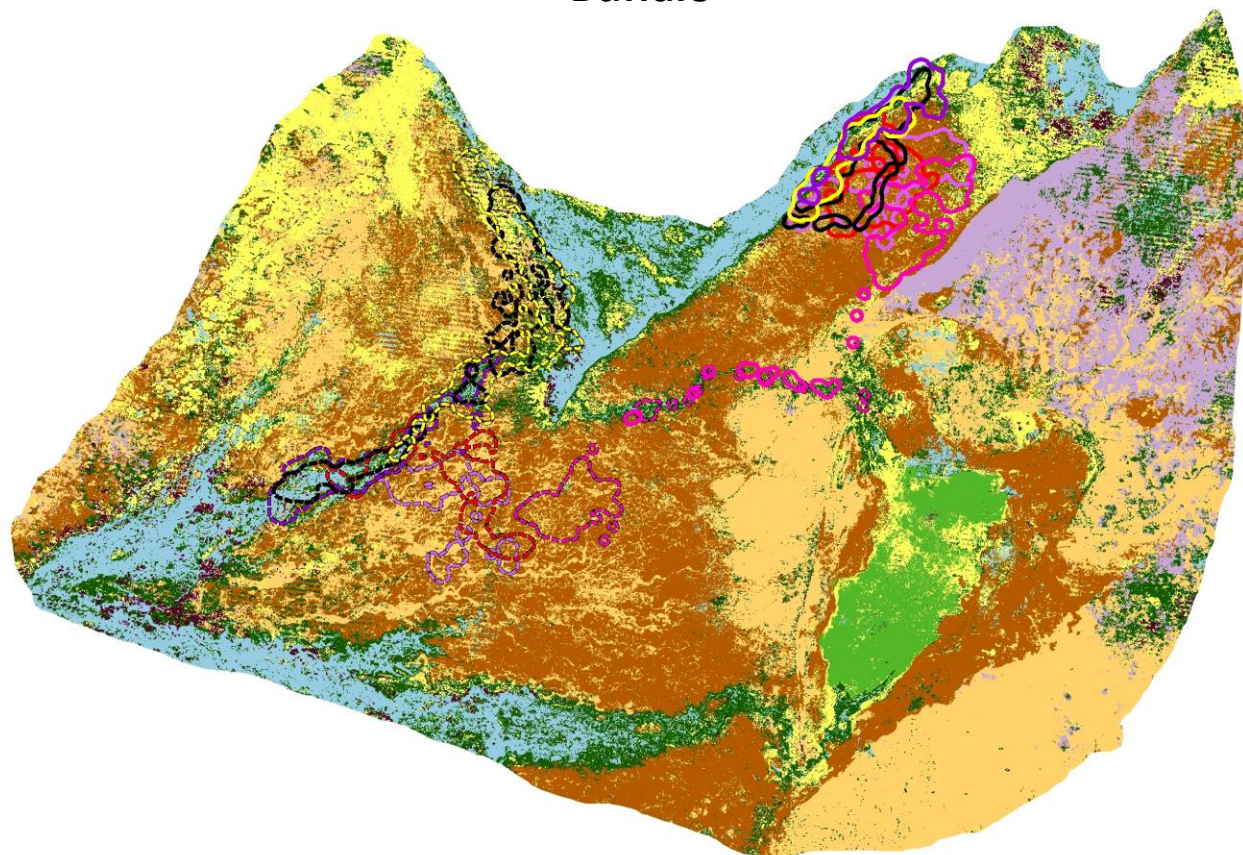


Study area



Results

Buffalo



Legend

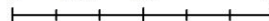
- B1_2012 Early wet season
- B1_2012 Mid wet season
- B1_2012 Late wet season
- B1_2012 Early dry season
- B1_2012 Mid dry season
- B1_2012 Late dry season
- B2_2012 Early wet season
- B2_2012 Mid wet season
- B2_2012 Late wet season
- B2_2012 Early dry season
- B2_2012 Mid dry season
- B2_2012 Late dry season

Class

- Baikiaea forests
- Riverine
- Mopane
- Sandveld
- Tall open grasslands
- Acacia grasslands
- Wetland
- Dry floodplains

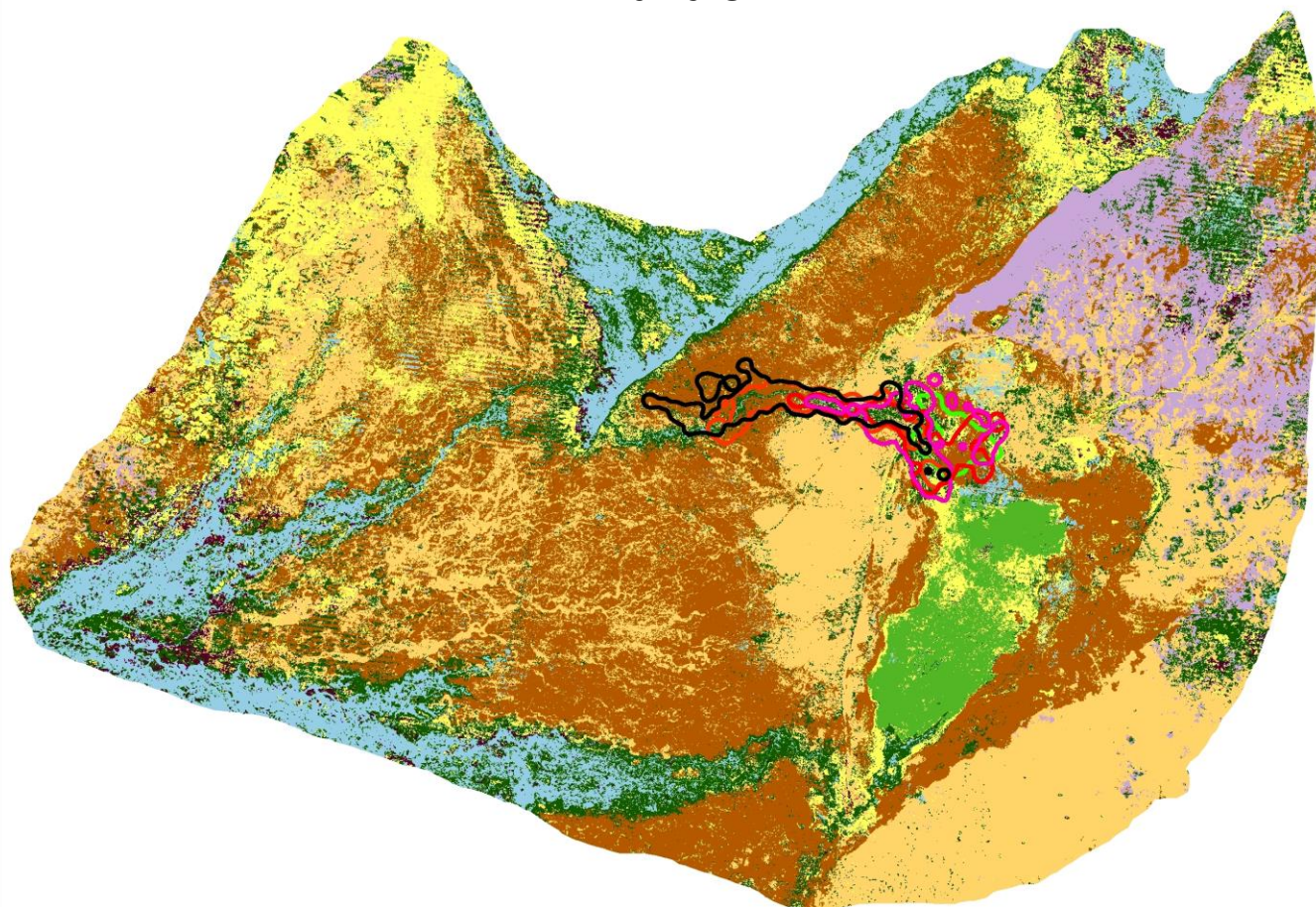


0 12.5 25 50 Kilometers



Results cont'd

Buffalo



Legend

- B3_2013 Early wet season
- B3_2013 Mid wet season
- B3_2013 Late wet season
- B3_2013 Early dry season
- B3_2013 Mid dry season

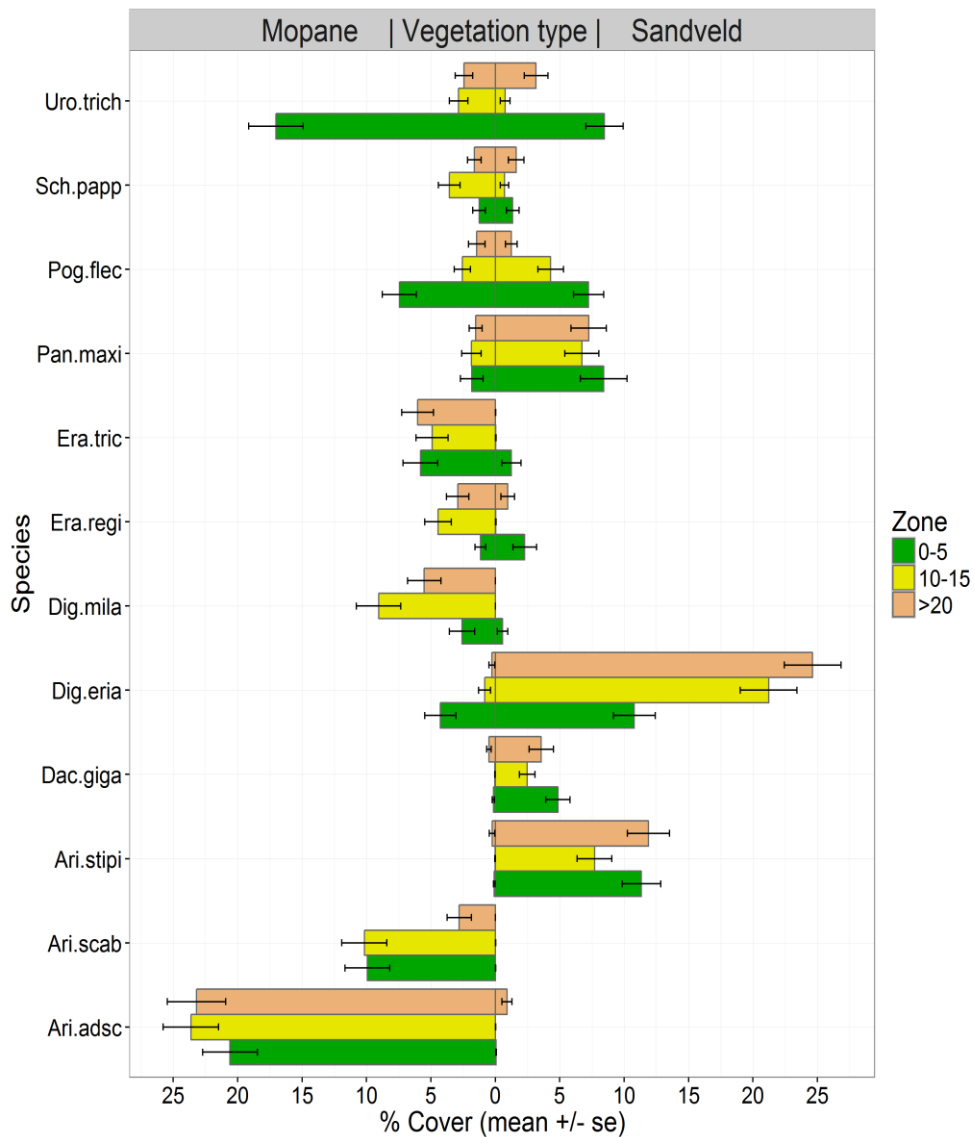
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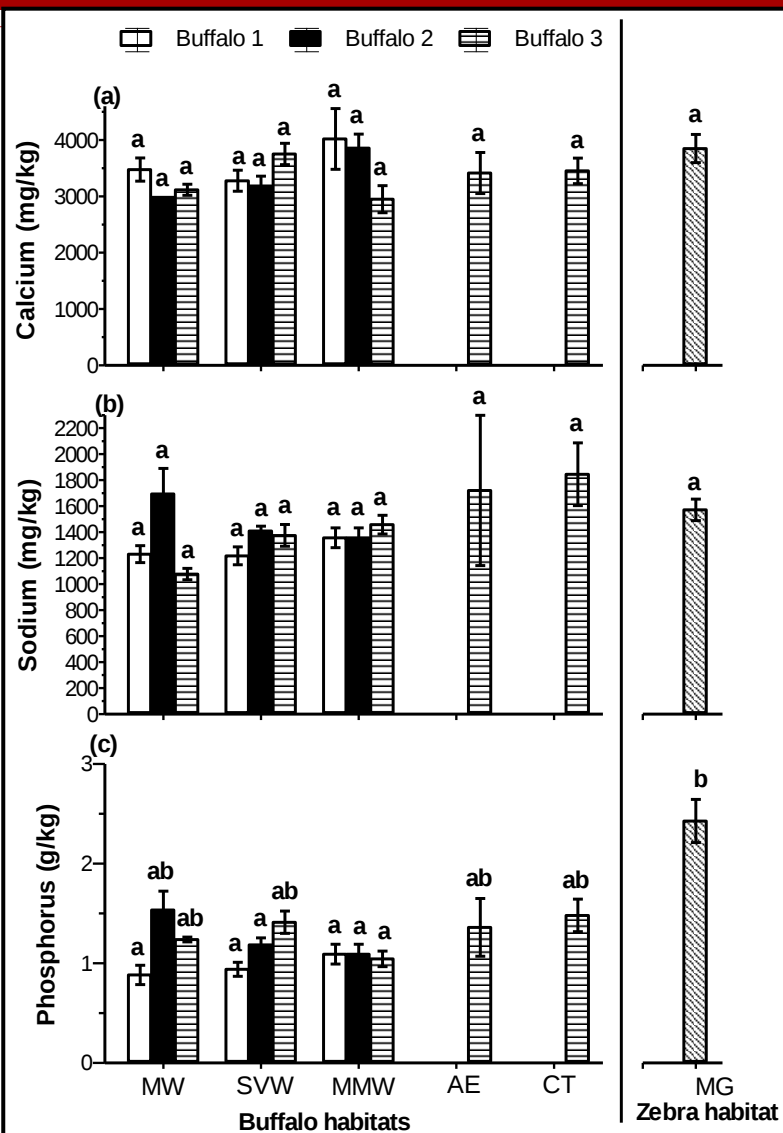
Forage abundance



Buffalo habitat selection

	Mean ± SE (Annual MCP vs Herds KDE wet)	Mean ± SE (Annual MCP vs Herds KDE_Dry)	Mean ± SE (Annual MCP vs Herds KDE_EW)	Mean ± SE (Annual MCP vs Herds KDE_MW)	Mean ± SE (Annual MCP vs Herds KDE_LW)	Mean ± SE (Annual MCP vs Herds KDE_ED)	Mean ± SE (Annual MCP vs Herds KDE_MD)	Mean ± SE (Annual MCP vs Herds KDE_LD)
Acacia grasslands	-0.12±0.36	0.15±0.13	0.13±0.30	-0.28±0.42	-0.14±0.28	0.02±0.17	0.13±0.18	0.17±0.18
Baikiaea forests	-0.98±0.01	-0.95±0.04	-0.97±0.02	-0.99±0.01	-0.98±0.01	-0.96±0.03	-0.94±0.05	-1.00±0.00
Dry floodplains	-0.43±0.31	-0.19±0.47	-0.29±0.31	-0.48±0.38	-0.38±0.28	-0.17±0.45	-0.18±0.49	-0.14±0.70
Mopane	0.16±0.25	-0.22±0.16	-0.03±0.31	0.34±0.17	0.13±0.20	-0.10±0.17	-0.33±0.16	-0.46±0.10
Riverine	-0.04±0.27	0.41±0.04	0.17±0.23	-0.30±0.28	0.08±0.23	0.34±0.07	0.46±0.04	0.46±0.01
Sandveld	-0.14±0.16	-0.27±0.07	-0.22±0.14	-0.15±0.25	-0.17±0.12	-0.23±0.04	-0.26±0.09	-0.52±0.12
Tall open grasslands	-0.11±0.46	-0.35±0.36	0.02±0.51	-0.22±0.39	-0.35±0.47	-0.57±0.21	-0.25±0.42	-0.98±0.00
Wetland	-0.54±0.08	0.04±0.27	-0.36±0.23	-0.91±0.04	-0.33±0.10	-0.06±0.26	0.09±0.25	0.52±0.16

Forage quality



Management Implications

- This study documented movement patterns of buffalo in northern Botswana. Results suggest that
- To ensure the sustainability of herbivore populations: wet season and dry season habitats should be protected.

Thank you!!!

