

Are sex differences in mobility all about mating?

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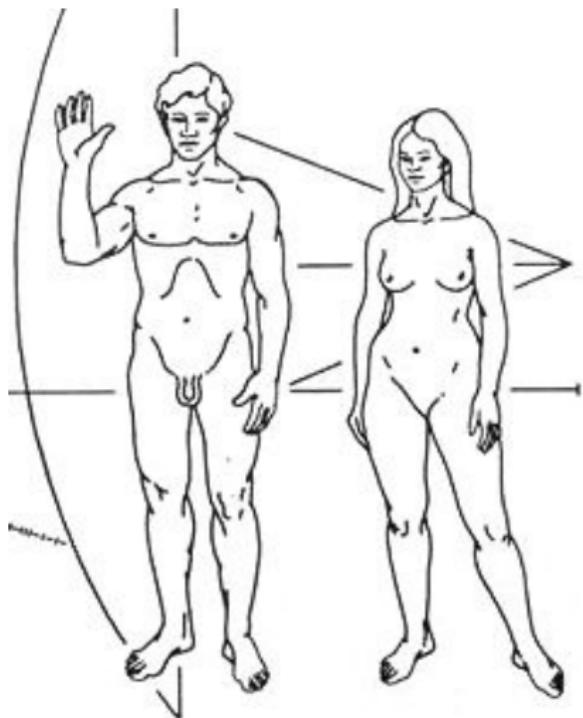
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Sex differences in range size and mobility

Possibly universal

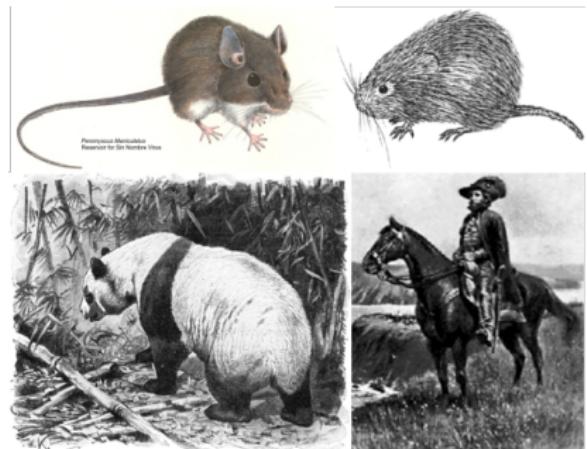
Anthropology, archaeology,
psychology



Looking for mates?

Hunting, warfare, childcare costs,
risk

Mate search and ranging



Twe



Measures of range size

Daily: GPS tracking

- MCP km^2

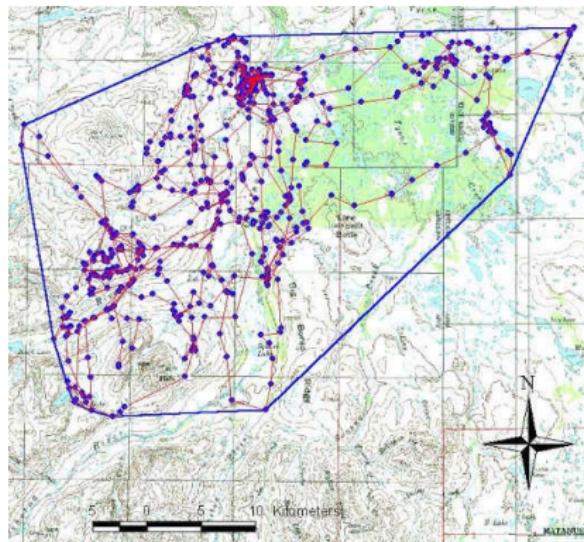
Annual: Travel interviews

- Unique visits
- Why? Lover?

Lifetime...

Lifetime: Regional checklist

- Once? Few? Many? (Ordinal)



Hypotheses

H1: Two men occupy larger ranges than women

H2: The sex difference in travel is explained by mate searching

H3: Range size predict men's reproductive success

Results: [H1] Do men travel more than women?

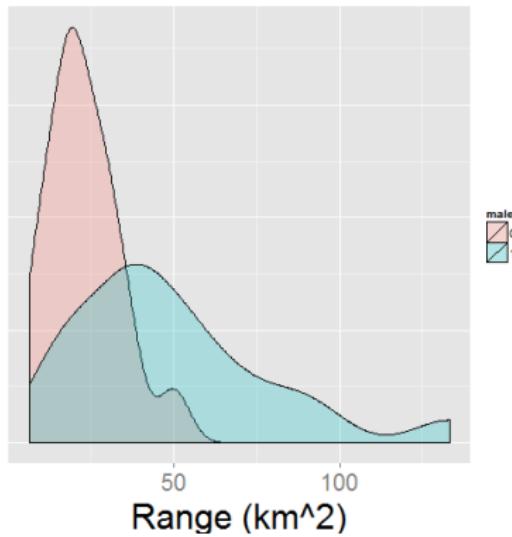


H1

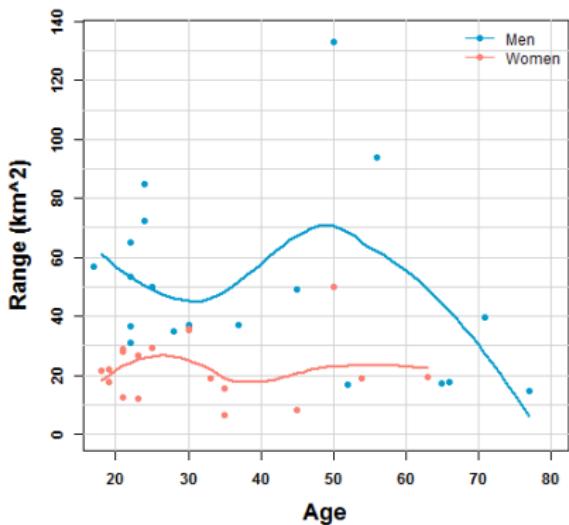
Measure	M_m	SD_m	M_f	SD_f	p
Daily (km ²)	49.6	30.3	22.6	10.9	.001
Annual (locations)					
Lifetime (0:3)					

H1: Daily range

Daily range



Daily range size

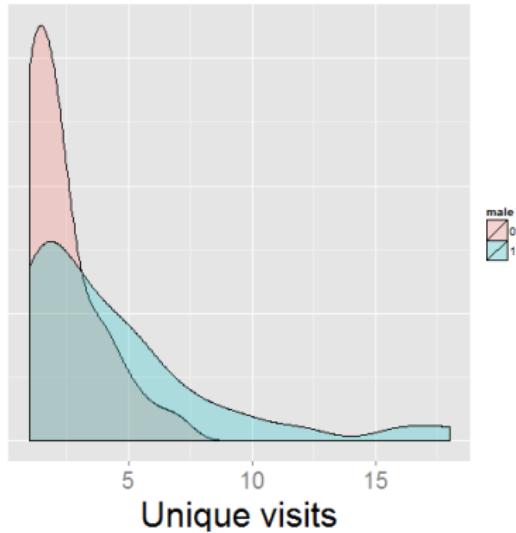


H1

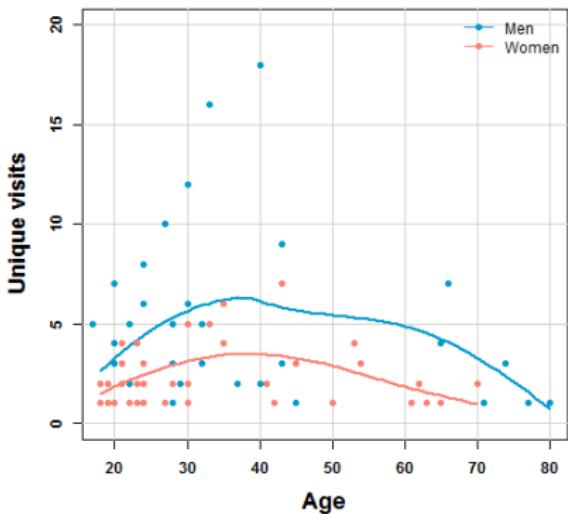
Measure	M_m	SD_m	M_f	SD_f	p
Daily (km ²)	49.6	30.3	22.6	10.9	.001
Annual (locations)	4.4	4.0	2.3	1.5	.003
Lifetime (0:3)					

H1: Annual travel

Annual travel



Annual ranging

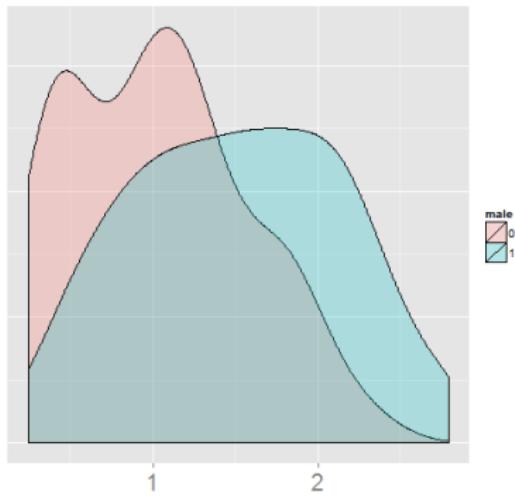


H1

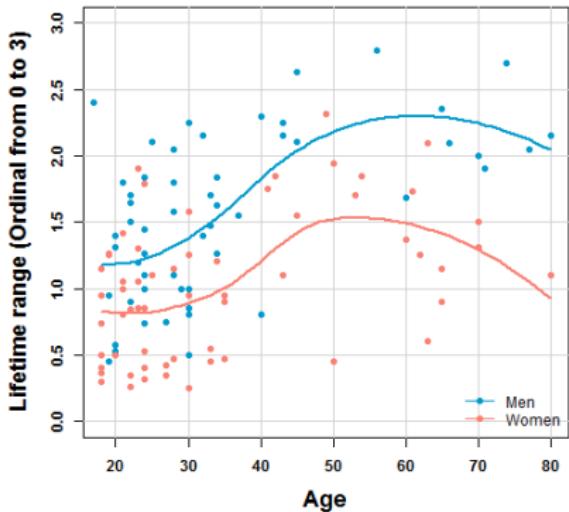
Measure	M_m	SD_m	M_f	SD_f	p
Daily (km ²)	49.6	30.3	22.6	10.9	.001
Annual (locations)	4.4	4.0	2.3	1.5	.003
Lifetime (0:3)	1.5	0.6	1.0	0.5	.000

H1: Lifetime range

Lifetime range



Lifetime range



Lifetime range (Ordinal from 0 to 3)

H2: Do men travel to visit mates?

24% locations visited by men had lovers.



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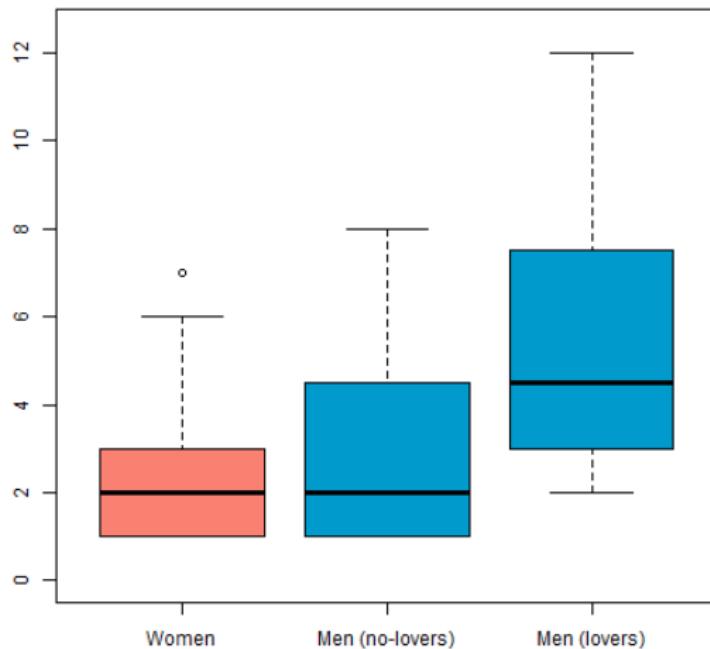
Only loveless trips sex-diff drops .5

Lovers and frequented locations



H2: Men travel facultatively

$$M_f = 2.3, M_{m1} = 2.8, M_{m2} = 6.3$$



H3: Does mobility translate into reproductive success?

Does the added MS of mobility translate into RS?

If so, is relationship stronger in men than women?

RS = # of children (self report)



H3: Does mobility translate into reproductive success?

Men				
Scale	Kids	Std Err	p	
Daily	1.83	0.77	.030	
Annual				
Women				
Scale	Kids	Std Err	p	
Daily	0.61	0.64	.354	
Annual				

Expected “children added” by a standard deviation increase in range size at each scale. Controlling for age.

H3: Does mobility translate into reproductive success?

Men				
Scale	Kids	Std Err	p	
Daily	1.83	0.77	.030	
Annual	1.44	0.51	.008	
Lifetime				

Women				
Scale	Kids	Std Err	p	
Daily	0.61	0.64	.354	
Annual	1.05	0.40	.014	
Lifetime				

Expected “children added” by a standard deviation increase in range size at each scale. Controlling for age.

H3: Does mobility translate into reproductive success?

Men			
Scale	Kids	Std Err	p
Daily	1.83	0.77	.030
Annual	1.44	0.51	.008
Lifetime	1.53	0.59	.012

Women			
Scale	Kids	Std Err	p
Daily	0.61	0.64	.354
Annual	1.05	0.40	.014
Lifetime	0.56	0.37	.132

Expected “children added” by a standard deviation increase in range size at each scale. Controlling for age.

Summary

Men travel more than women at both scales

Mate searching explains \approx half of this difference

Rangier men have higher RS. Some positive relationship among women as well

Variance in reproductive success

Population	Var_m	Var_f	$V_m : V_f$
Yomut (Iran)	8.1	7.1	1.14
Pimbwe (Tanzania)	9.0	7.3	1.24
Tsimane (Bolivia)	19.9	12.7	1.57
Aka (CAR)	8.6	5.2	1.66
!Kung (Botswana)	8.6	4.9	1.77
Meriam (Australia)	11.7	6.4	1.82
Hadza (Tanzania)	14.3	7.7	1.86
Twe-Himba (Namibia)	19.7	7.6	2.60
Xavante (Brazil)	12.1	3.9	3.10
Ache (Paraguay)	15.1	3.6	4.22
Yanomamo (Venezuela)	39.6	8.0	4.94
Kipsigis (Kenya)	85.6	5.9	14.51

Acknowledgments

