Favoured and disfavoured trees by urban residents in Zimbabwe and South Africa

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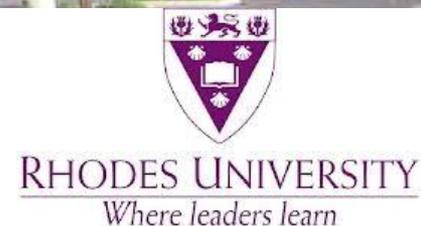
Urban trees provide multiple benefits to urban people and local environments

But different species provide different services or in different quantities

And different social, cultural and economic groups have different needs, world views and perspectives

Consequently,

1. knowing which tree species local communities or groups want is important for municipal and community tree-planting programmes

2. knowing the reasons for particular preferences or the attributes of preferred species can also allow for broader species selections and substitutions

Yet, there is surprisingly little work internationally or in South Africa and so tree choices are mostly made by municipal officials, or simply by 'what is available'

1. Objective and key questions

- OBJECTIVE: to determine what are, and the reasons for, urban residents' preferences for specific tree species across a range of towns in southern Africa, and how this varies between towns.

- KEY QUESTIONS:
  - what tree species do urban residents in southern African towns regard as their favourite tree?
  - why do they regard it as their favourite tree species?
  - are there any tree species they dislike, and why?
  - how do preferences vary between towns and with respondent profile?

Zimbabwe

Mt

Gw

Bu

Ma

Namibia

Botswana

Mu

Th

Ma

Tz

Mozambique

South
Africa

St

SE

FB

20°S

30°S

South Africa Outline Map
cc: ALearningFamily.com

10°E

20°E

30°E
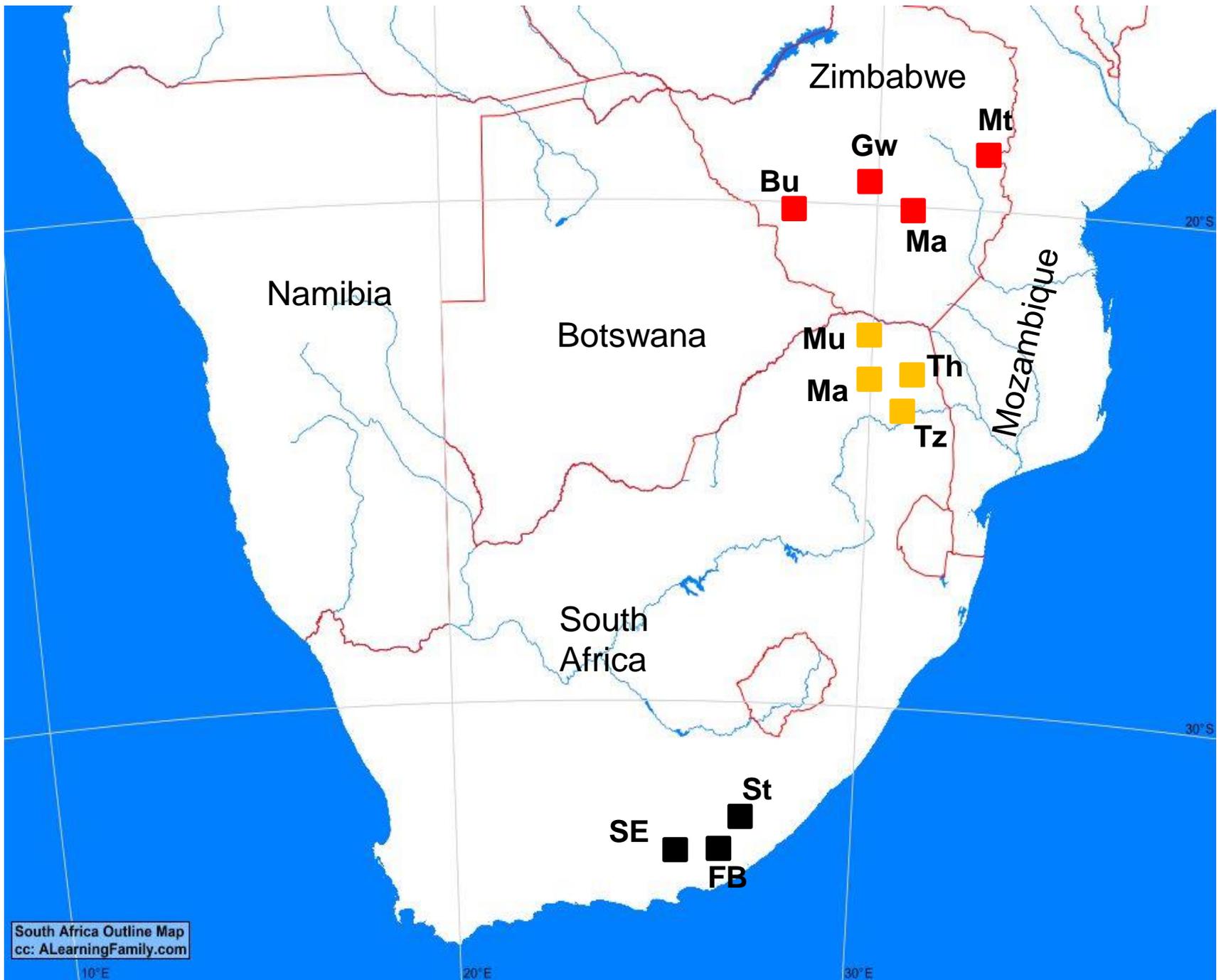
- Within each town, approximately 100 residents were interviewed distributed more or less equally between the central business district (CBD), a poor and an affluent neighbourhood.

- Sample households were selected randomly from Google Earth images. In the CBD it was opportunistic through approaching adults in public spaces such as parks and taxi ranks.

- The questionnaire was composed of mainly closed-ended questions and took 20-30 minutes.

- If a respondent's favourite tree was observable within the immediate surroundings, a photograph was taken to aid subsequent identification, along with the local name.

Favourite tree species

- 59 different tree species mentioned across all 11 towns

- 55 % were indigenous, 45 % non-native

- Between 16 and 26 different species were listed per town with a mean of 21.5 $\pm$ 2.7

- 27 species were mentioned by five or fewer people

- Two species were mentioned in every town:
  - Jacaranda
  - Apple

Number of mentions as favourite tree species by ≥ 25 respondents across the 11 study towns

Species	No. of mentions	No. of towns	Species	No. of mentions	No. of towns
Jacaranda	115	11	Marula	42	8
Mango	112	8	Oak spp.	38	6
Baobab	80	8	Gum spp.	35	8
Mopane	80	8	Yellowwood spp.	34	5
Sweet thorn	68	4	Pine spp.	30	9
Wild olive	58	3	Apple	28	11
Avocado	49	10	Guava	26	8
Brachy spici	46	7			

The five most frequently mentioned favourite tree species per region

| Zimbabwe	Limpopo	Eastern Cape
Mango	Mango	Sweet thorn
Jacaranda	Baobab	Wild olive
Mopane	Mopane	Jacaranda
Brachystegia	Jacaranda	Oak
Baobab	Marula	Yellowwood

Sørensen's Index of Similarity in favourite tree species composition between regions

Zimbabwe
77 %

56 %

Limpopo
72 %

28 %

32%

Eastern Cape
69 %
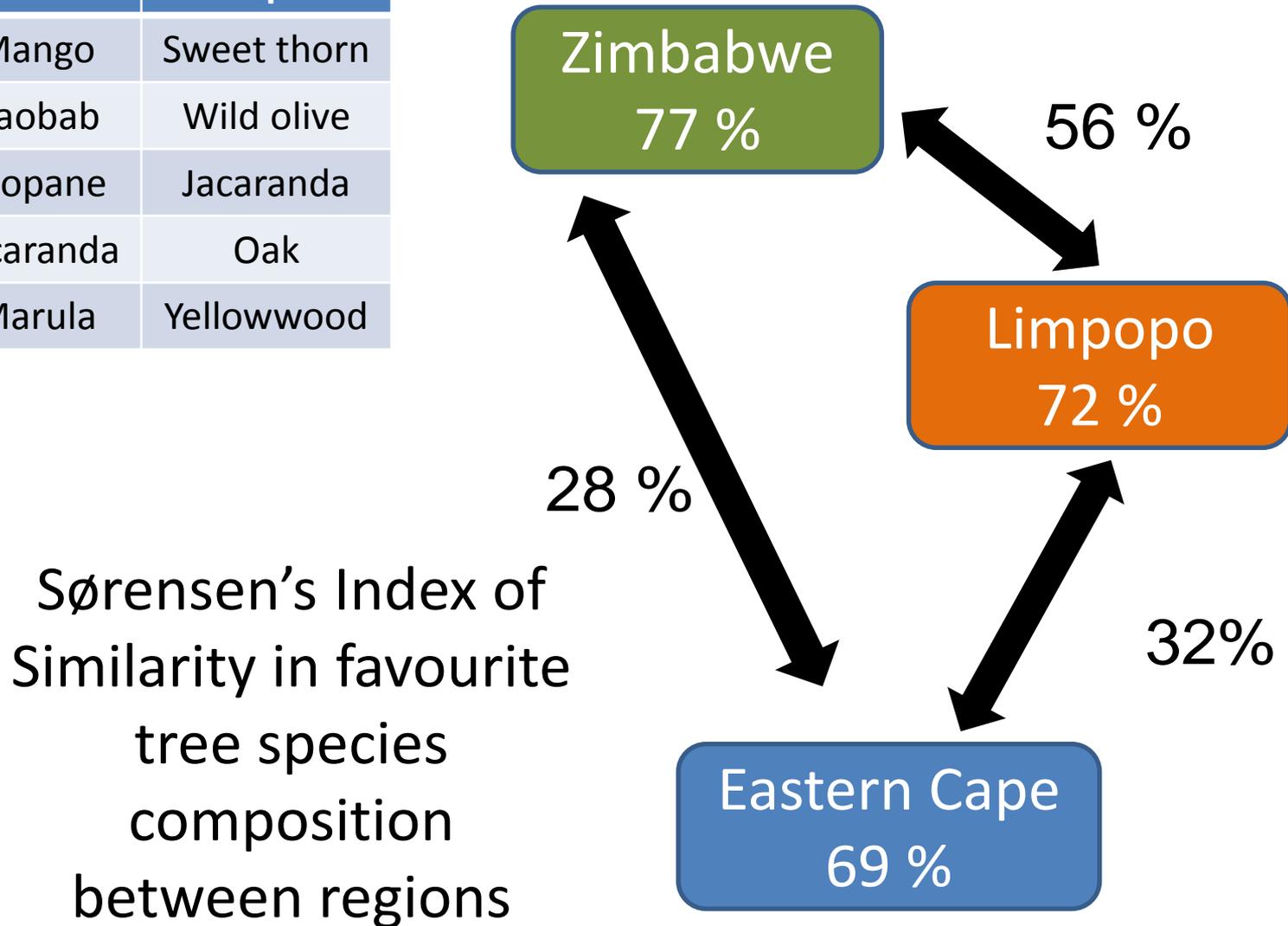
Reasons why mentioned as favourite by ≥ 30 respondents across the 11 study towns

Reason	% of resp.	No. of towns	Reason	% of resp.	No. of towns
Tasty fruits	45.4	11	Culturally important	9.6	10
Childhood memories	42.5	11	Pleasant scent	5.7	11
Large size	36.1	11	Colourful leaves or bark	5.3	8
Good shade	30.2	11	Food for mopane worms	4.7	8
Beautiful flowers/ shape	17.1	11	Good timber	3.3	7
Good firewood	10.5	11	Fruits are good for beer making	2.7	8
Medicine	9.8	11			

Sørensen's Index of Similarity in reasons for favouring specific tree species between regions

38.1% variation explained (p<0.01)
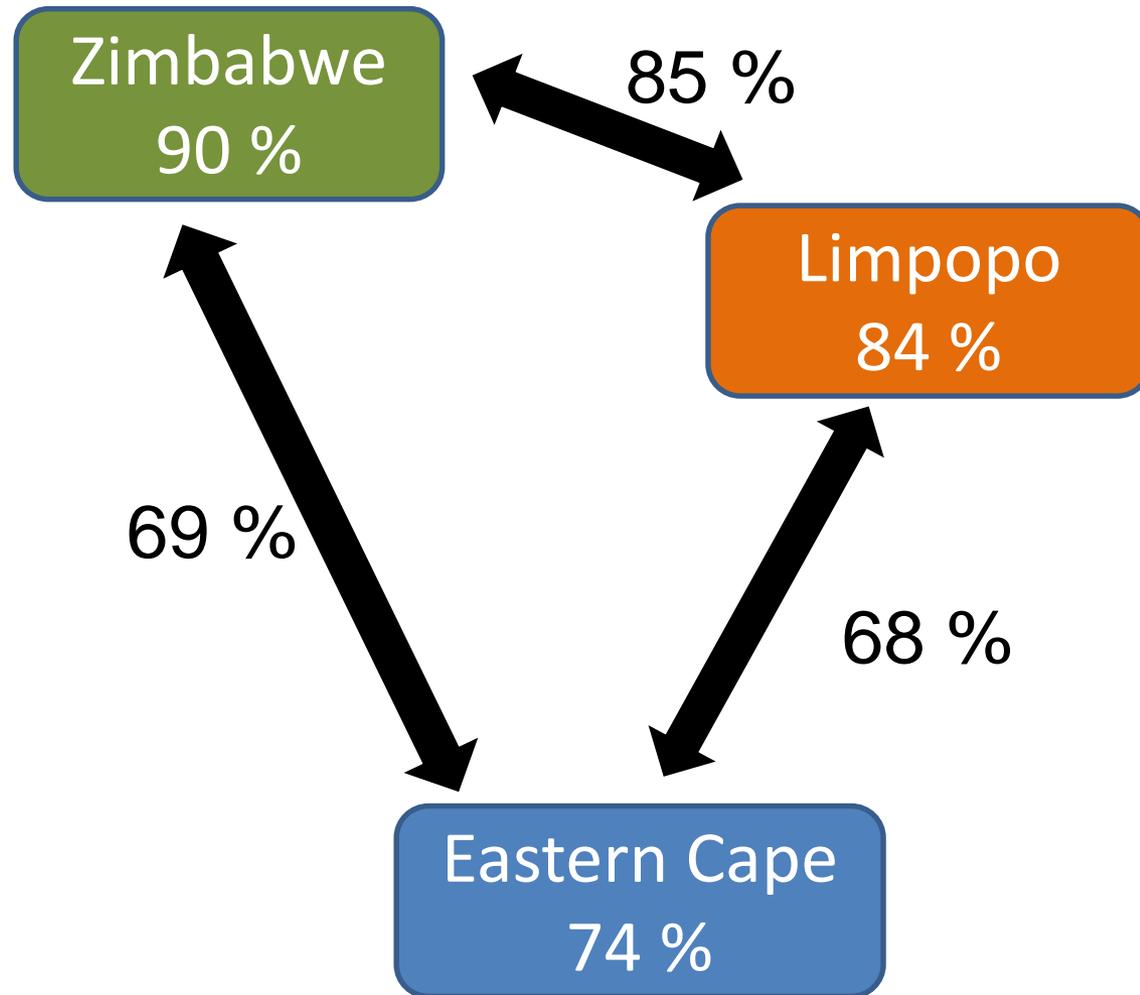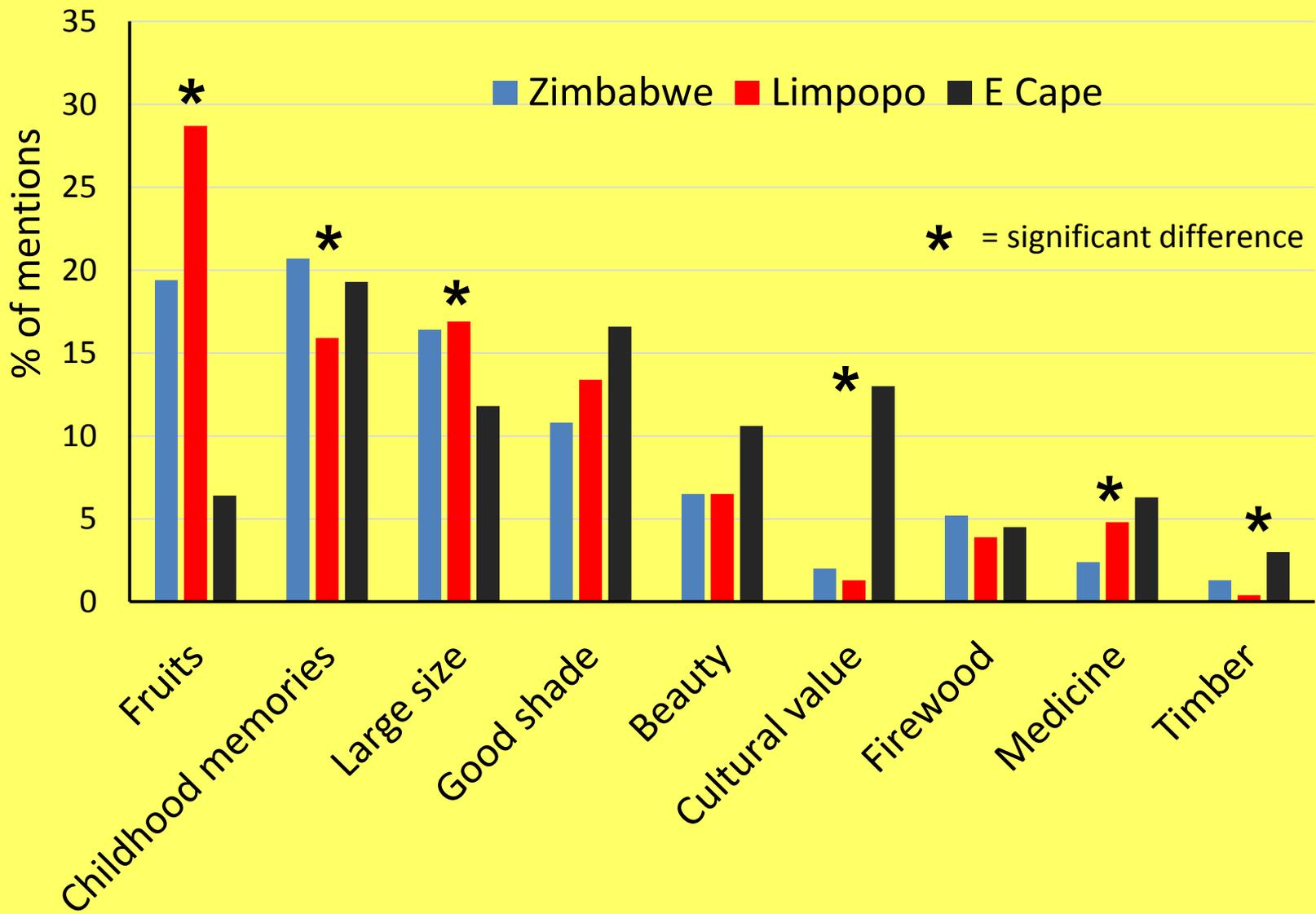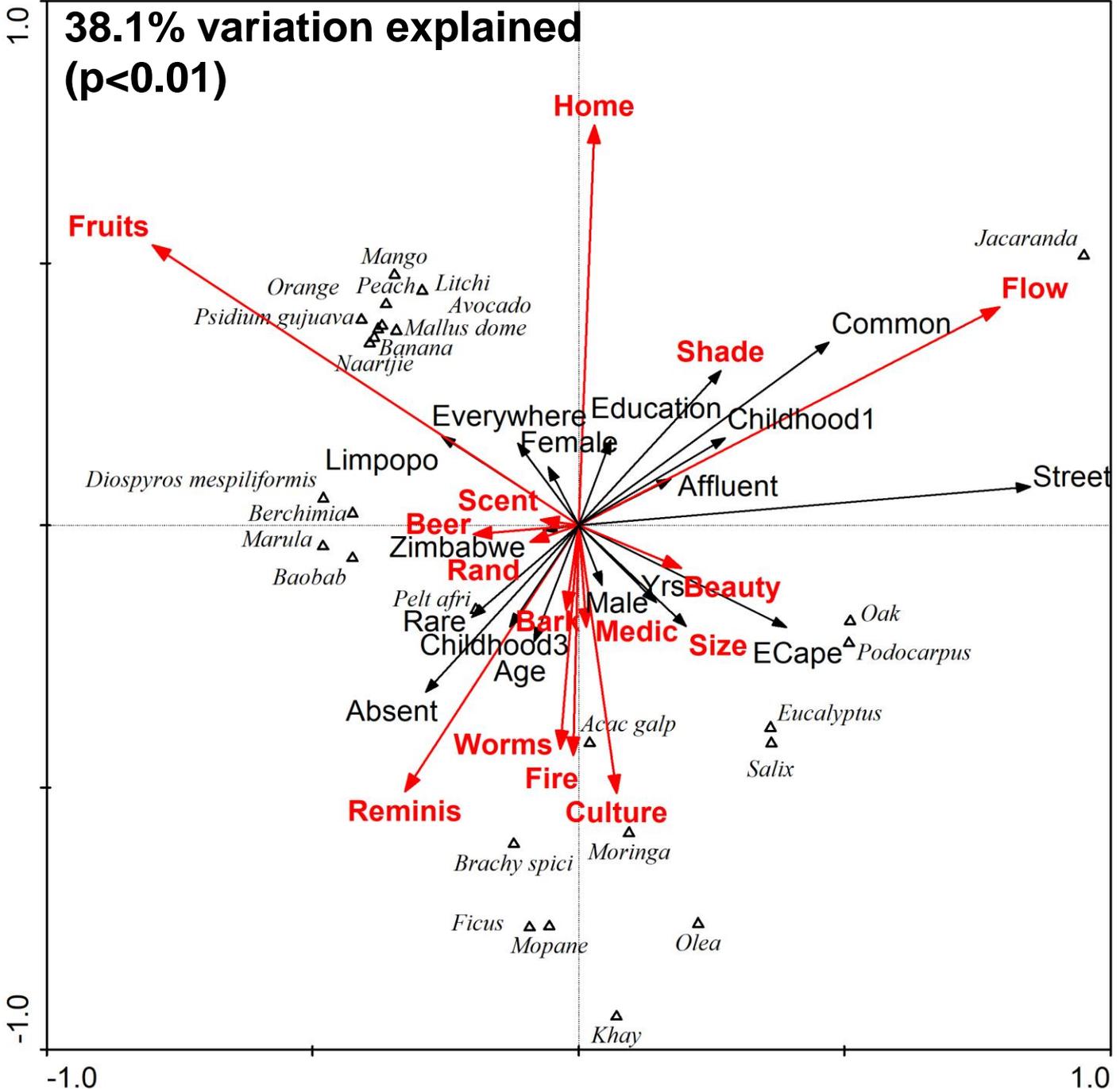
Disliked tree species

305 mentions

29 species
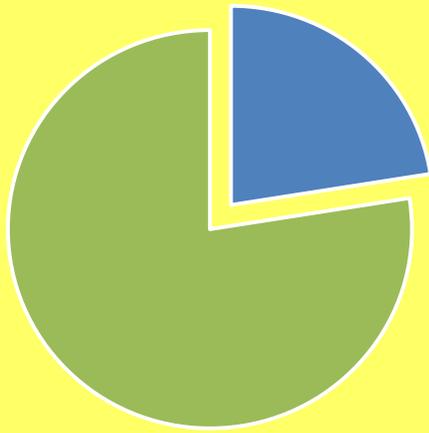
23 reasons

Less than one-quarter of respondents mentioned disliking a particular tree species

Many emphasised that they like all trees

- Dislikes
- No dislikes

However, the probability of disliking at least one tree species was not evenly distributed by gender

Dislikes ■ No dislikes

Chi^2 = 3.85; p<0.05
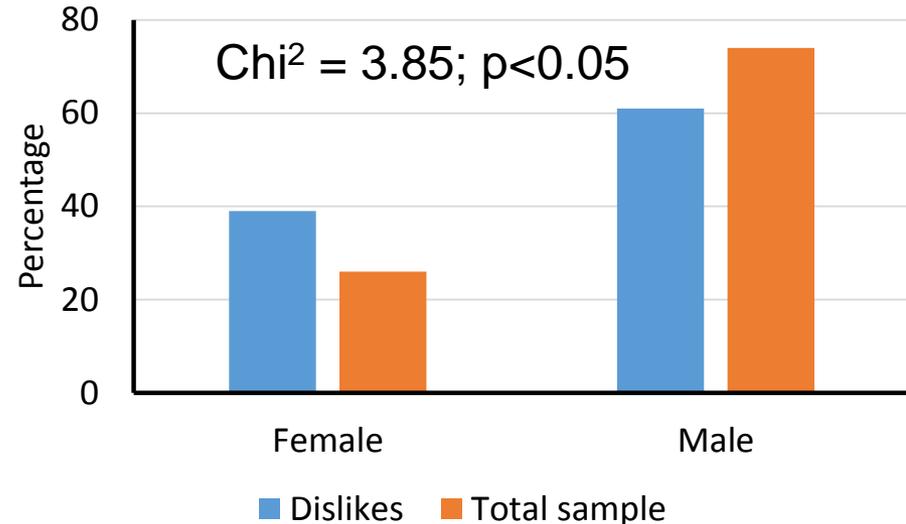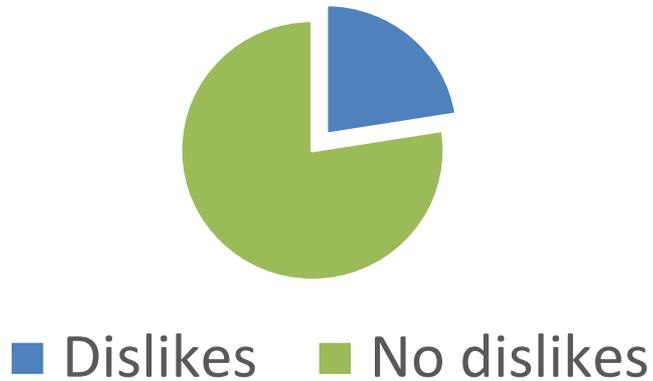
- No diff between regions
- No diff by age group
- No diff by education level

## Species listed as disliked by $\geq$ 5 respondents across the 11 study towns

Species	No. of mentions	No. of towns
Vachellia spp.	60	11
Jacaranda mimosifolia	55	11
Euphorbia spp.	32	11
Melia azedarach	19	9
Parinari curatellifolia	15	4
Eucalyptus spp.	9	4
Schinus terebinthifolia	8	3

Reasons why disliked
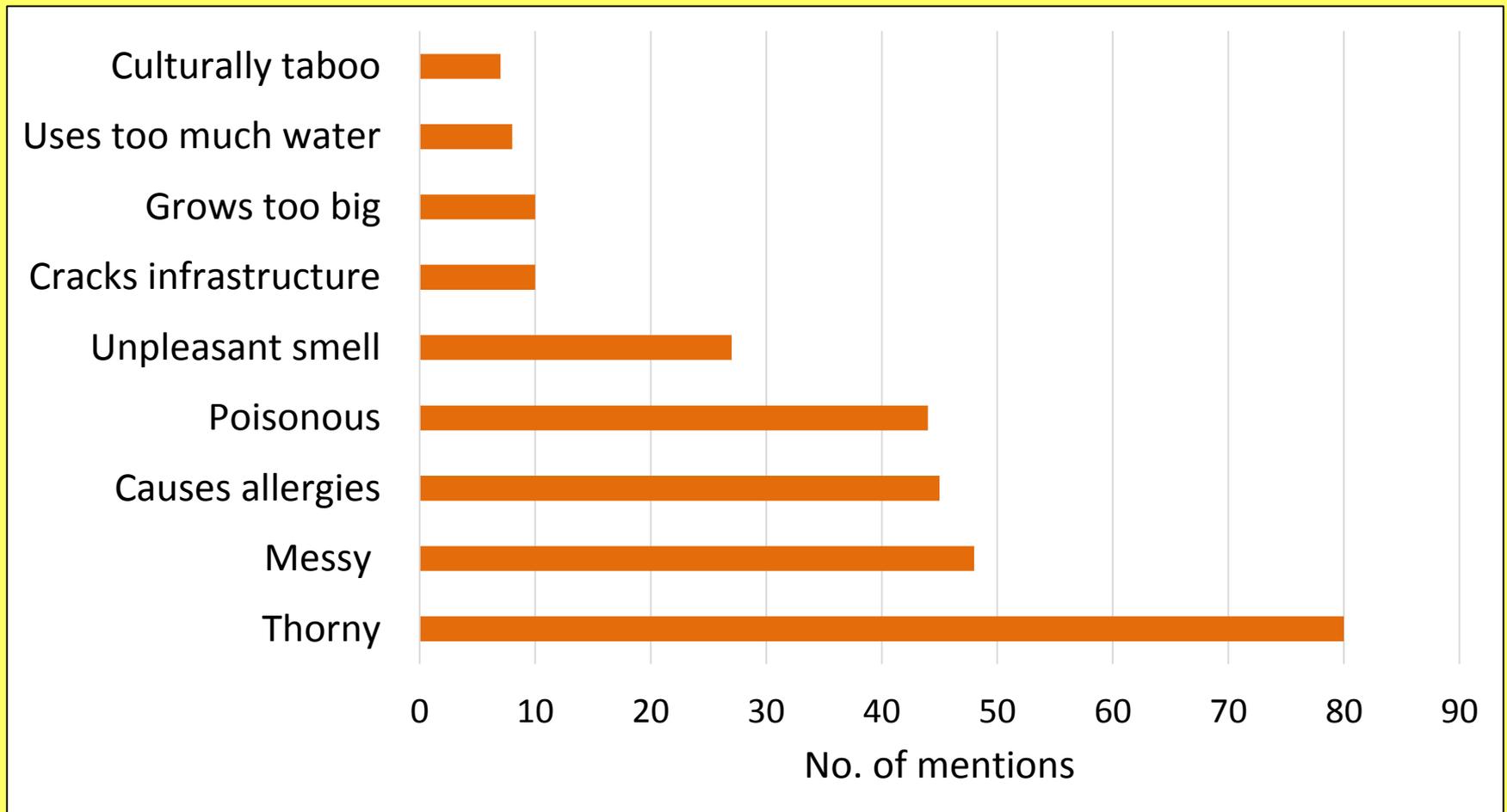
Conclusions

- Peoples' preferences and affinities for trees in urban spaces are highly variable

- Yet there are some important generalisations:

1. A high diversity of species and reasons were listed, which should be a core principle of planting programmes

2. Within a region there is a high commonality of species & reasons

3. Between regions both change

4. Much is informed by the species they have around them & their childhood spaces, i.e. species with which they are familiar

5. Some species which are highly favoured by some people are disfavoured by others, emphasising the need for participation in species choices

The end

Thank you

Questions?