

An Australian alternative to choropleth maps; visualising geo-spatial disease data

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Australian Cancer Atlas

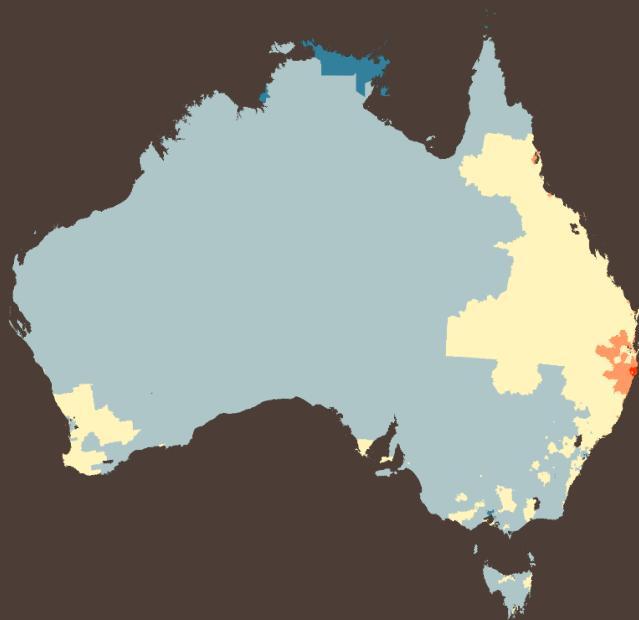


The screenshot shows the homepage of the Australian Cancer Atlas. At the top left is the QUT logo. The main title "Australian Cancer Atlas" is prominently displayed in large white letters against a blue background featuring a map of Australia. Below the title is a green button labeled "LAUNCH ATLAS". To the left of the button, there is a vertical sidebar with links: "Launch Atlas", "What is the Australian Cancer Atlas?", "More information", "Guided Tours", and "Statistics". The top navigation bar includes links for "Overview", "The Data", "Methodology", "Resources", "About", "Atlas", and a search icon.

Liver (F)



Melanoma (P)



Liver: Red and orange areas in North Queensland

Liver: Most of the South East is blue

Melanoma: Red and orange areas around Brisbane

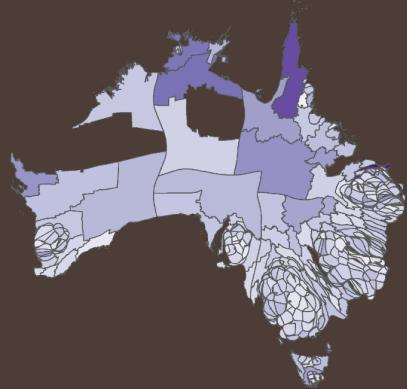
Melanoma: Most of the country is blue, except Queensland

Global Atlases

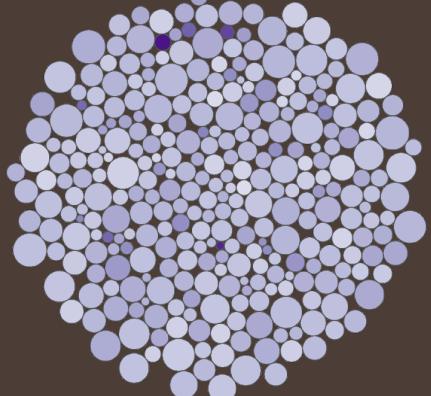


Alternative displays of Australia

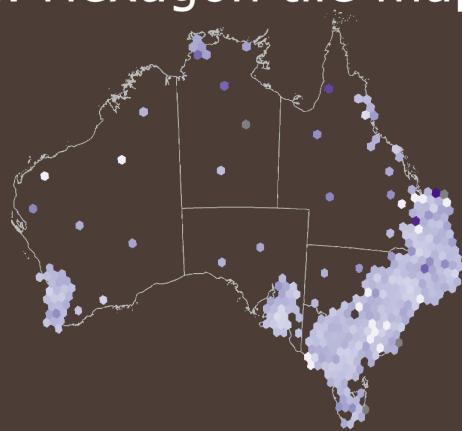
a. Contiguous Cartogram [1] b. Non-contiguous Cartogram [2]



c. Dorling Cartogram [3]



d. Hexagon tile map



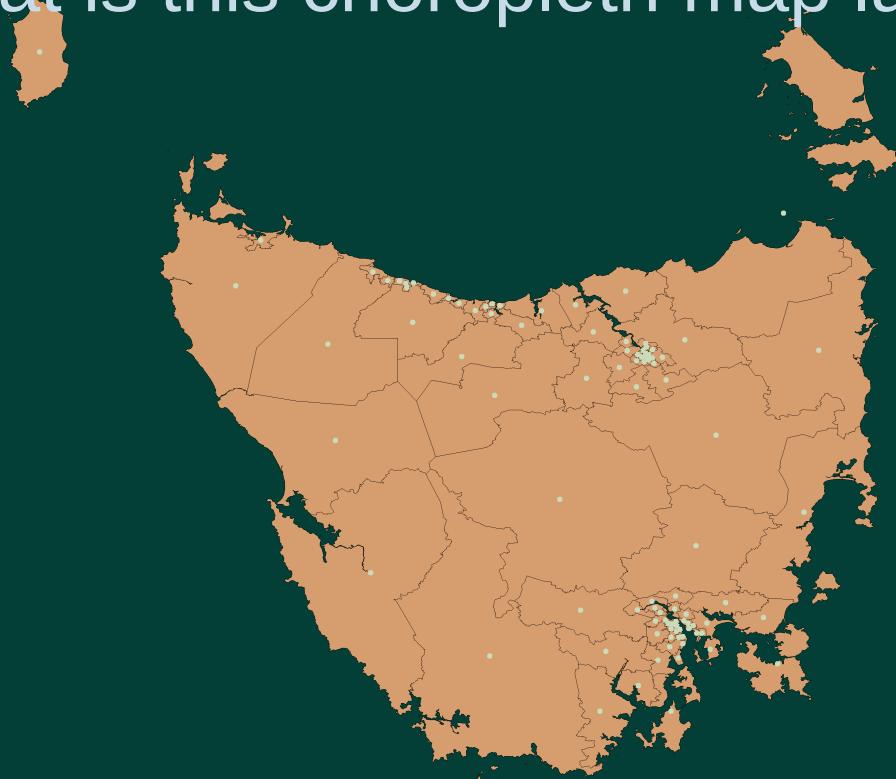
Aims

- 1: Hexagon tile maps: an algorithm
- 2: Animation: connecting the choropleth and hexagon tile maps
- 3: Test the effectiveness: understanding the hexagon tile map in action

Tasmania: 98 SA2 regions

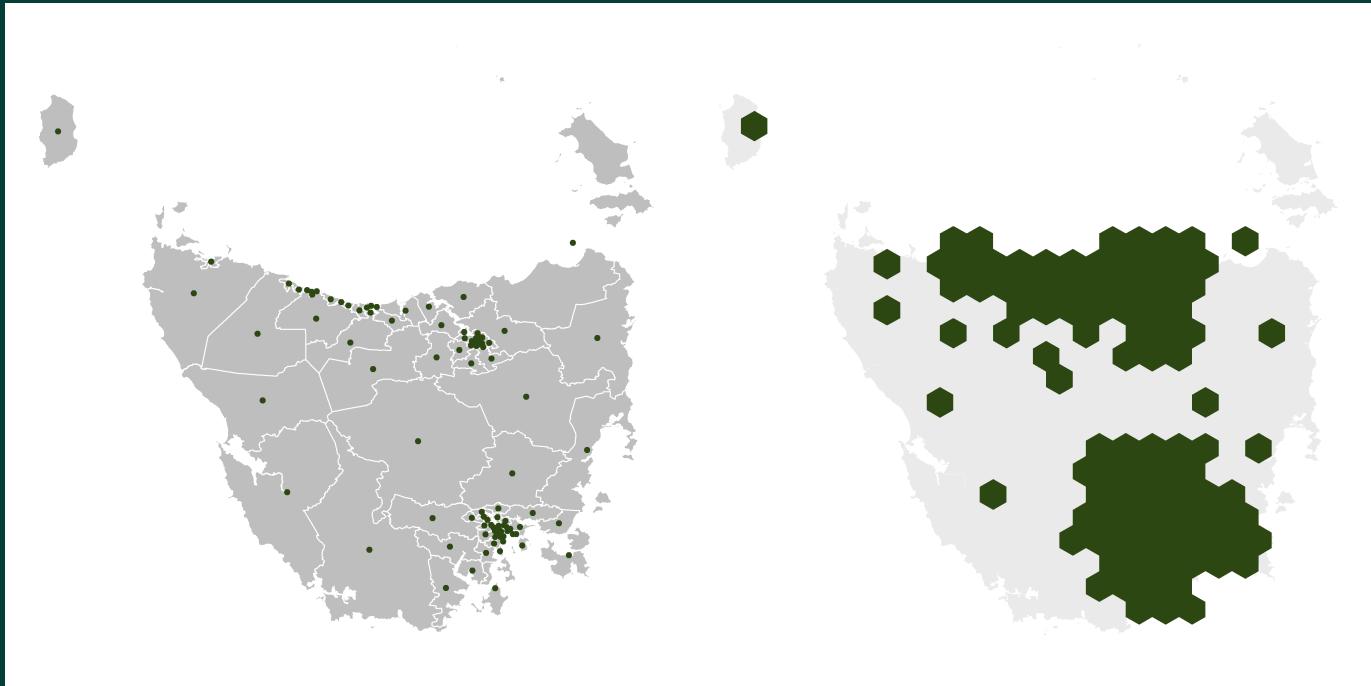


What is this choropleth map lacking?

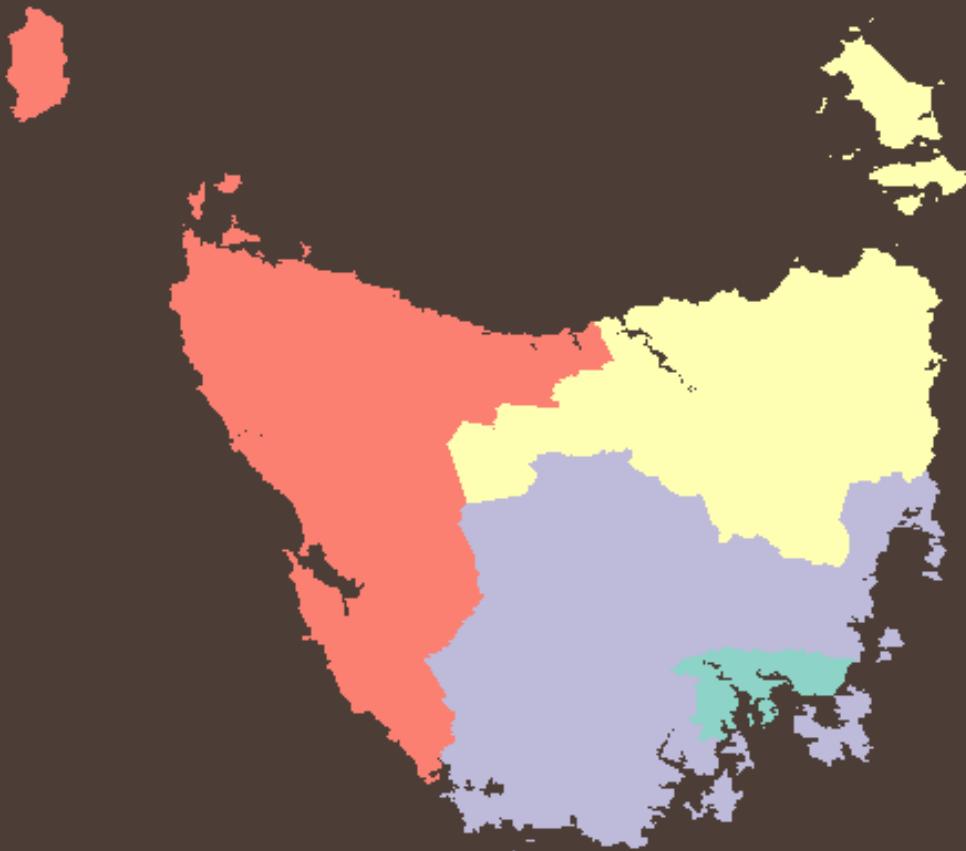


Choosing a hexagon

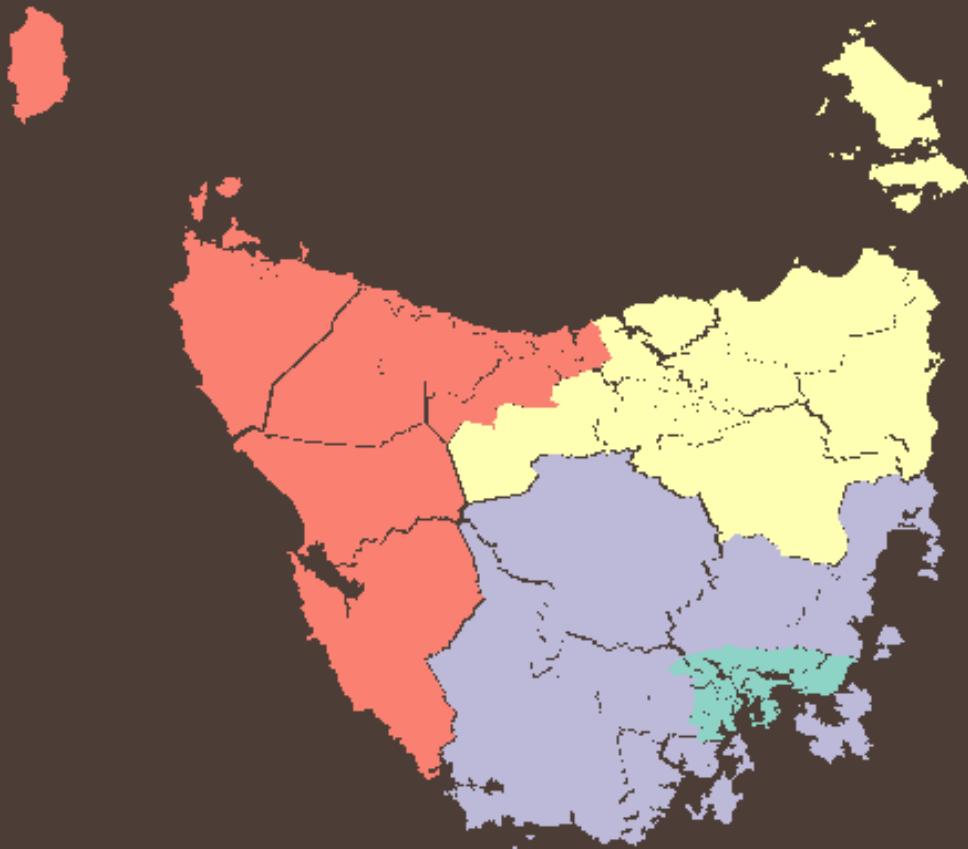
Final product



Animating

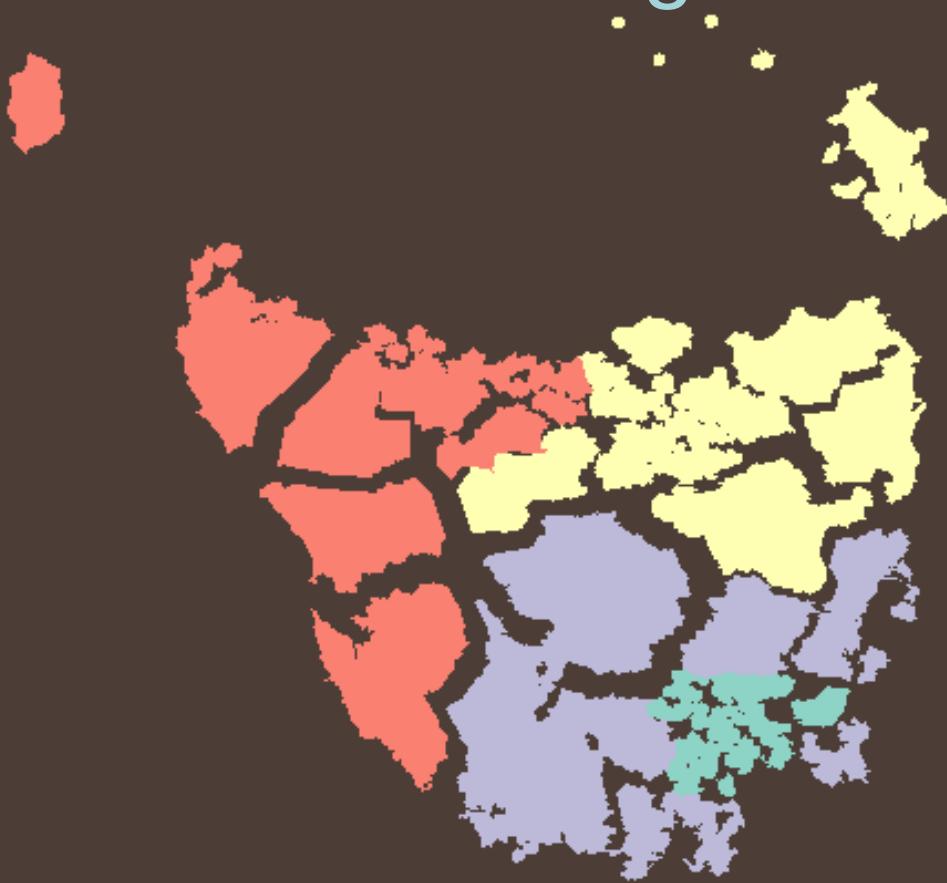


Animating



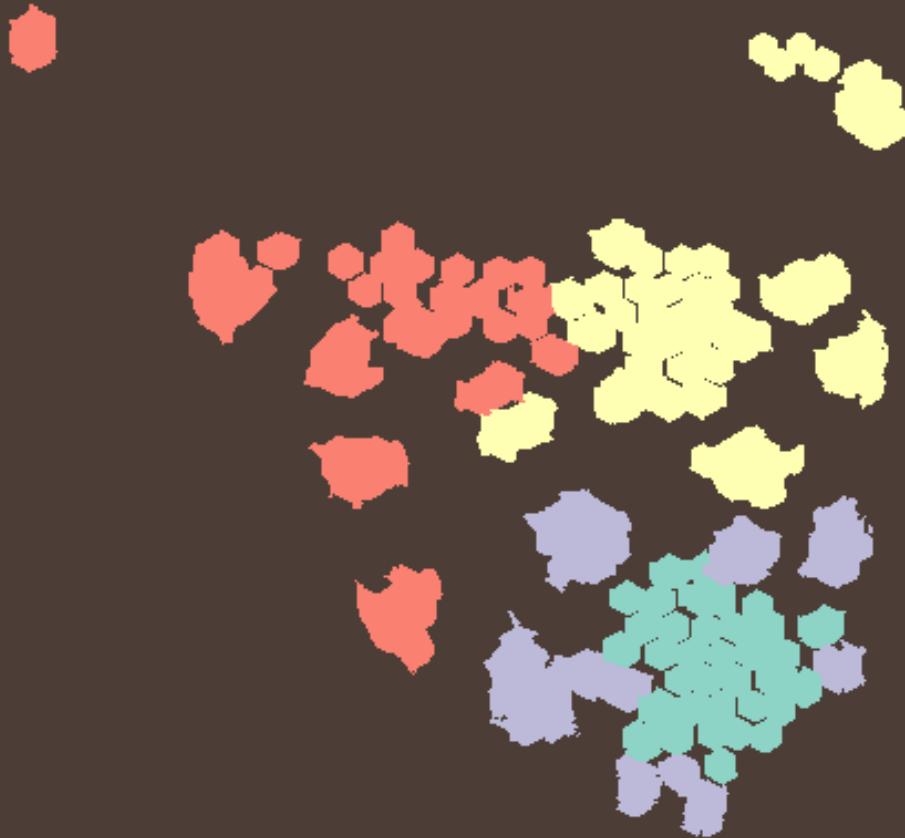
animation: srkobakian-qut.netlify.com/tasanim.gif

Animating

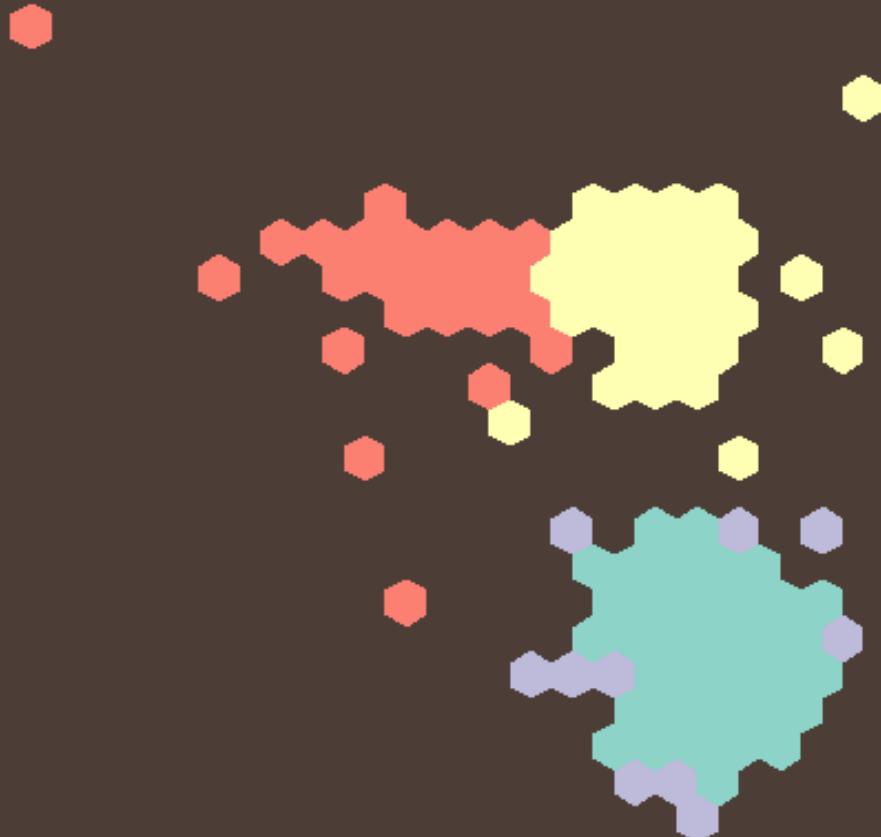


Animating

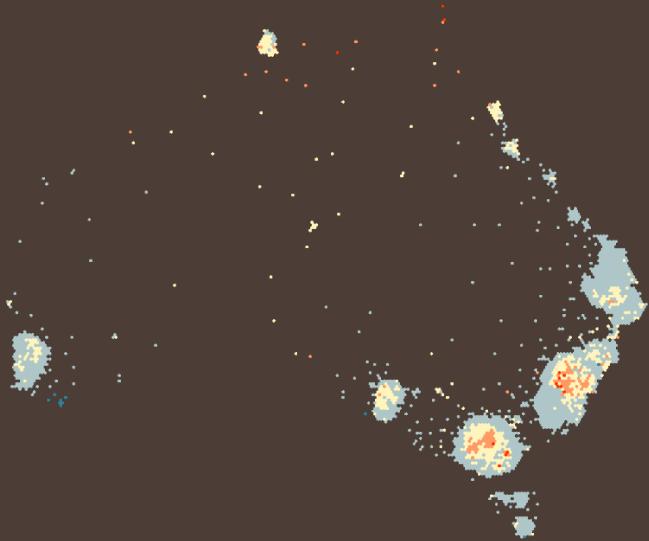
Animating



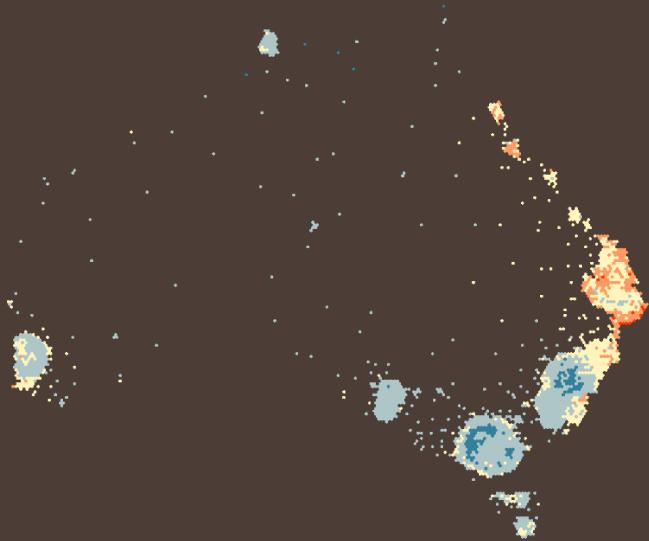
Animating



Liver (F)



Melanoma (P)



Liver: Red and orange areas in North Queensland, Melbourne, Sydney

Liver: Most of the South East is blue, city areas are yellow

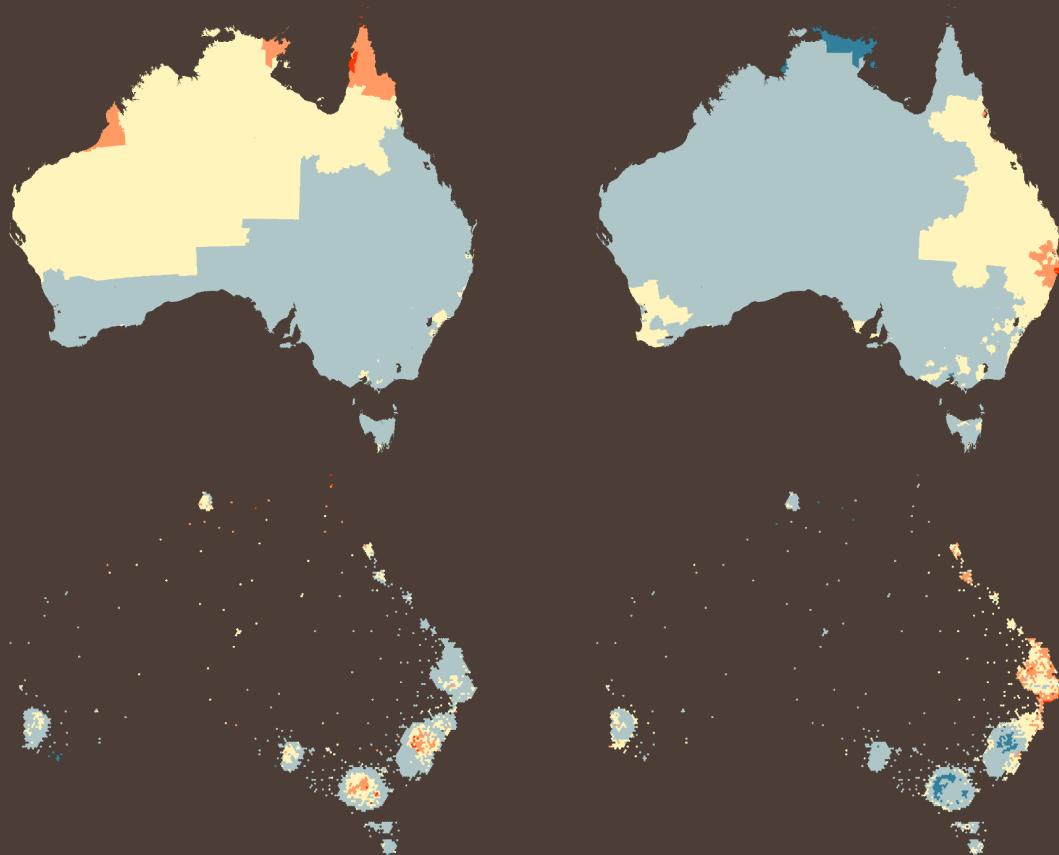
Melanoma: Red and orange areas around Queensland cities and Brisbane, not in CBD

Melanoma: Most of the other areas are blue

What can we learn?

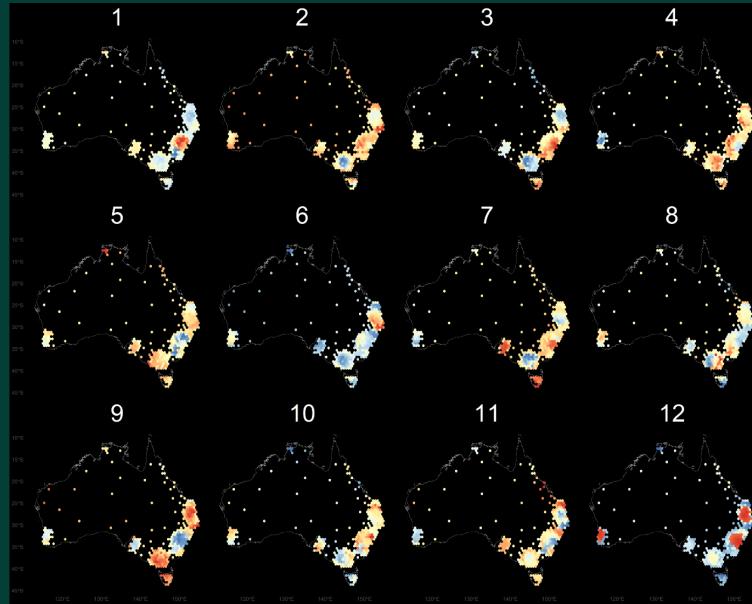
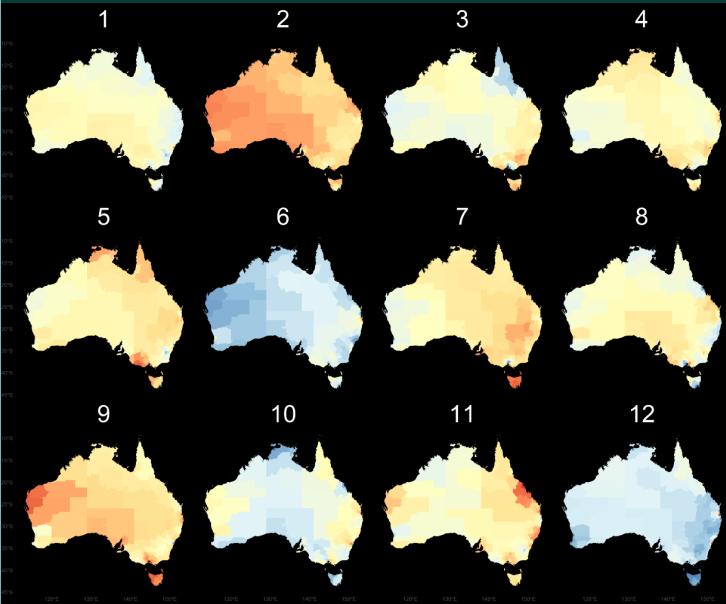
Liver (F)

Melanoma (P)

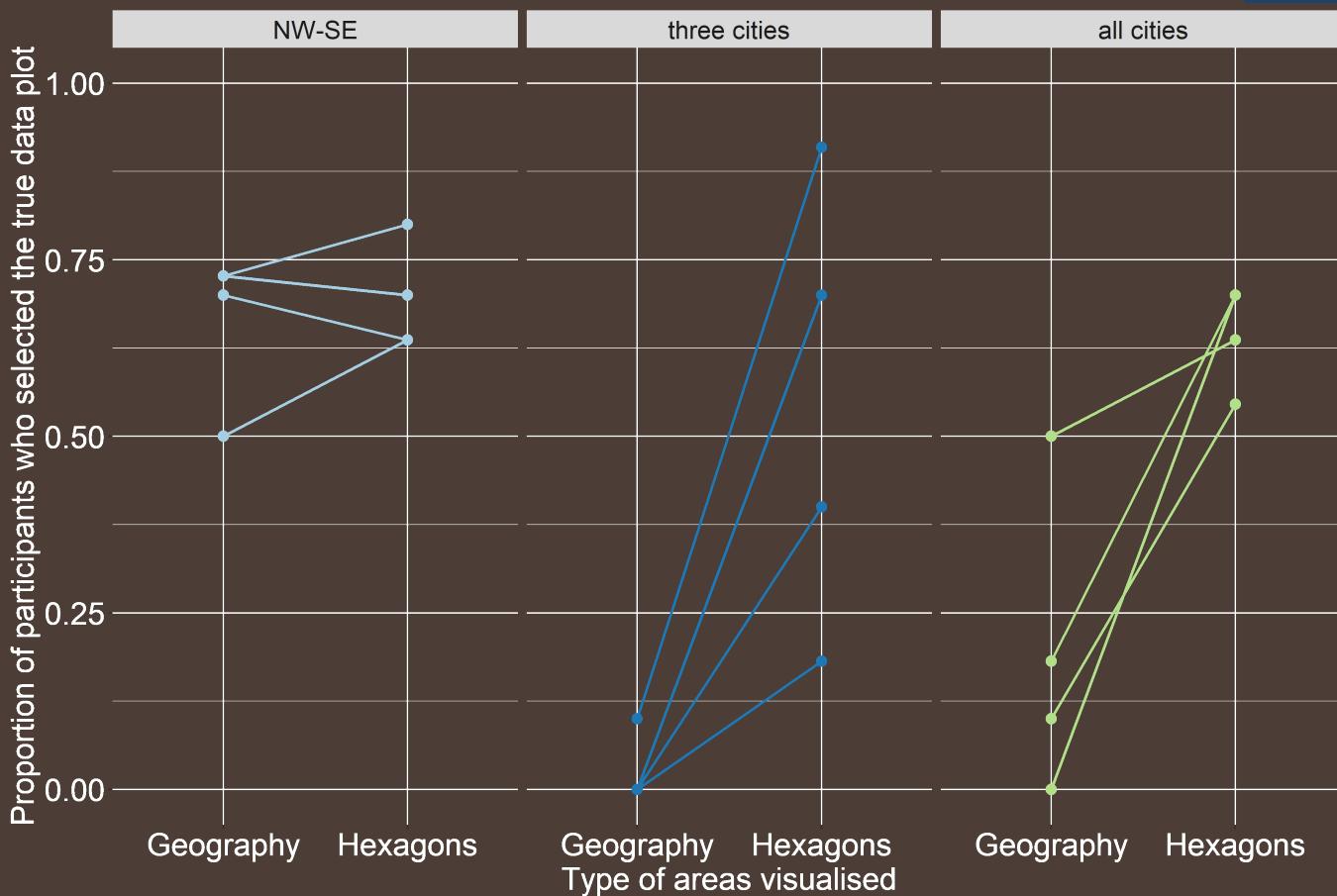


Line up experiment

Same data, different display



Probability of detection



References

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Thank you!

DProf. Kerrie Mengersen, Dr Earl Duncan, Prof. Di Cook

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scripts and data available  [srkobakian](#)

title slide image [NASA/EarthKAM](#)

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