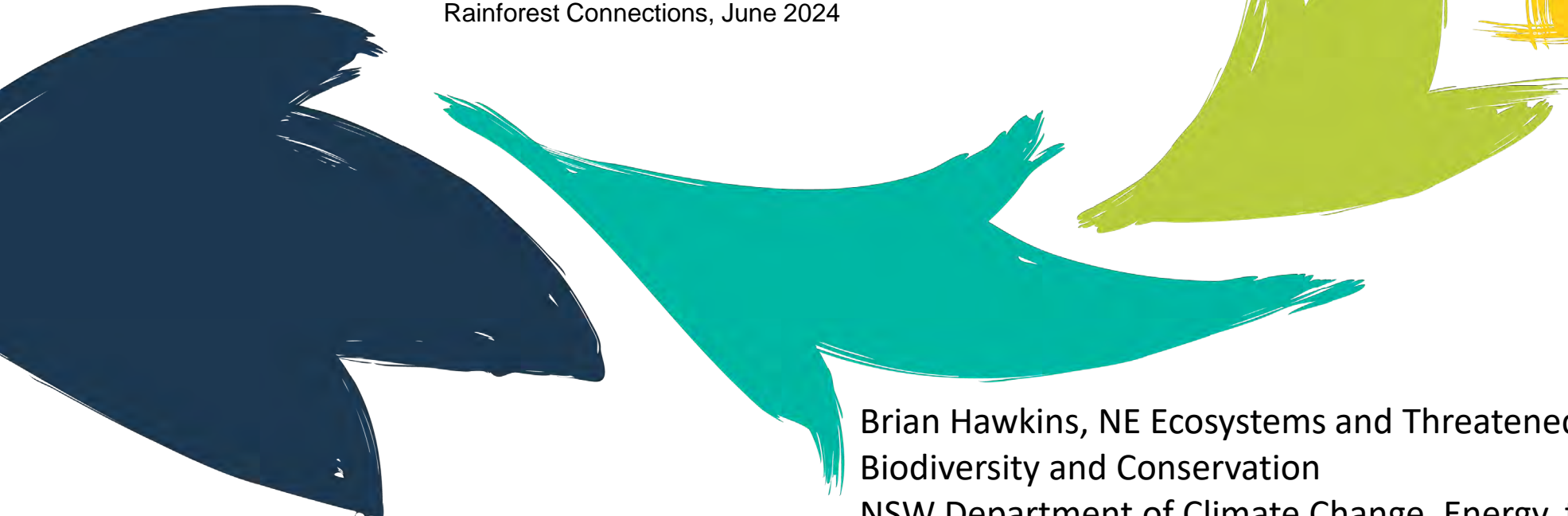


SAVING OUR SPECIES

The Fruit-dove's Forest

spatio-temporal patterns of landscape fruit availability
and frugivore abundance in subtropical NSW

Rainforest Connections, June 2024



Brian Hawkins, NE Ecosystems and Threatened Species
Biodiversity and Conservation

NSW Department of Climate Change, Energy, the Environment and Water



Topknot Pigeon (*Lopholaimus antarcticus*)



Image: Kai Boesen - Own work, CC BY-SA 4.0,
<https://commons.wikimedia.org/w/index.php?curid=110867319>

Wompoo Fruit-dove (*Ptilinopus magnificus*)

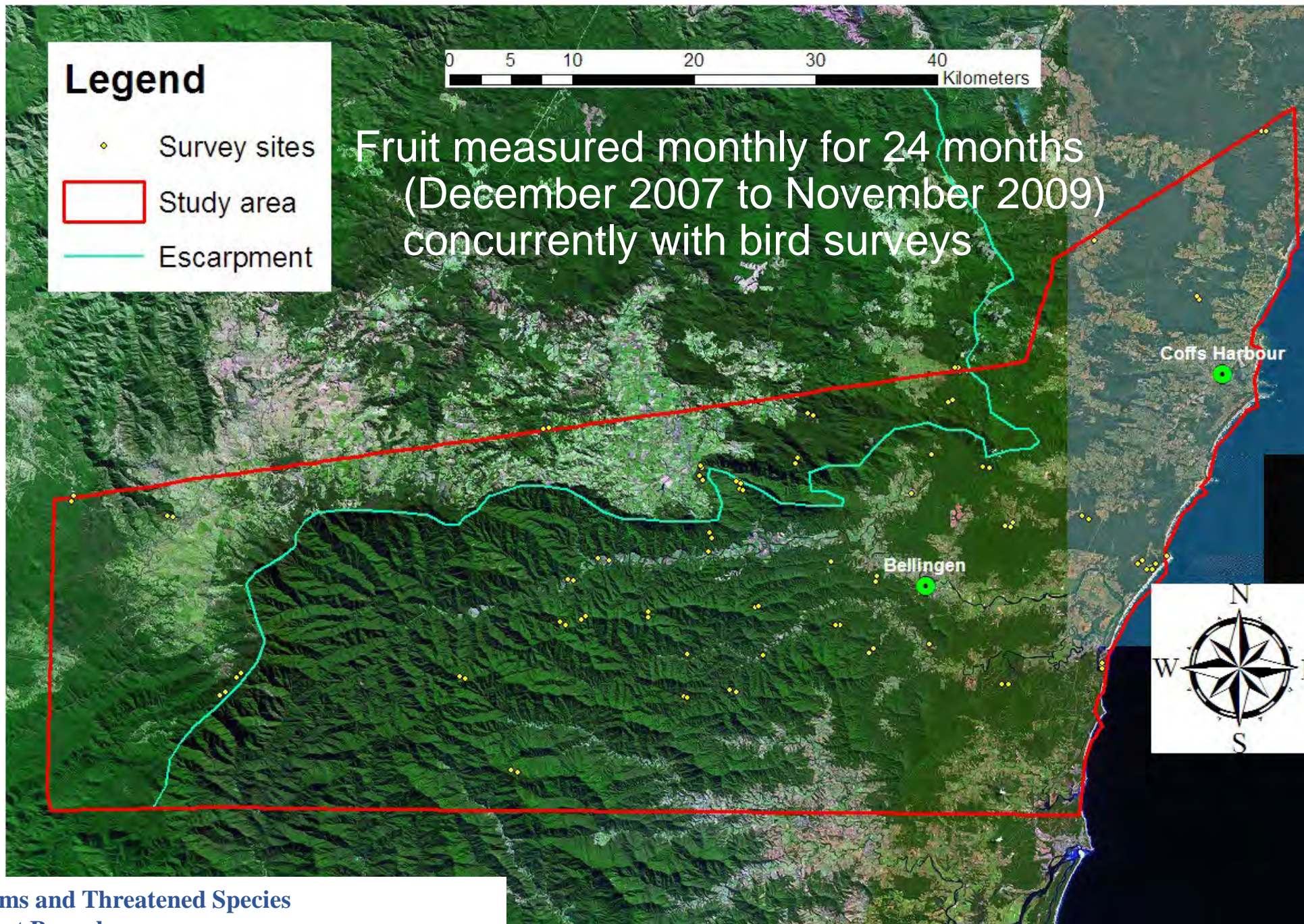


Legend

- Survey sites
- Study area
- Escarpment

0 5 10 20 30 40 Kilometers

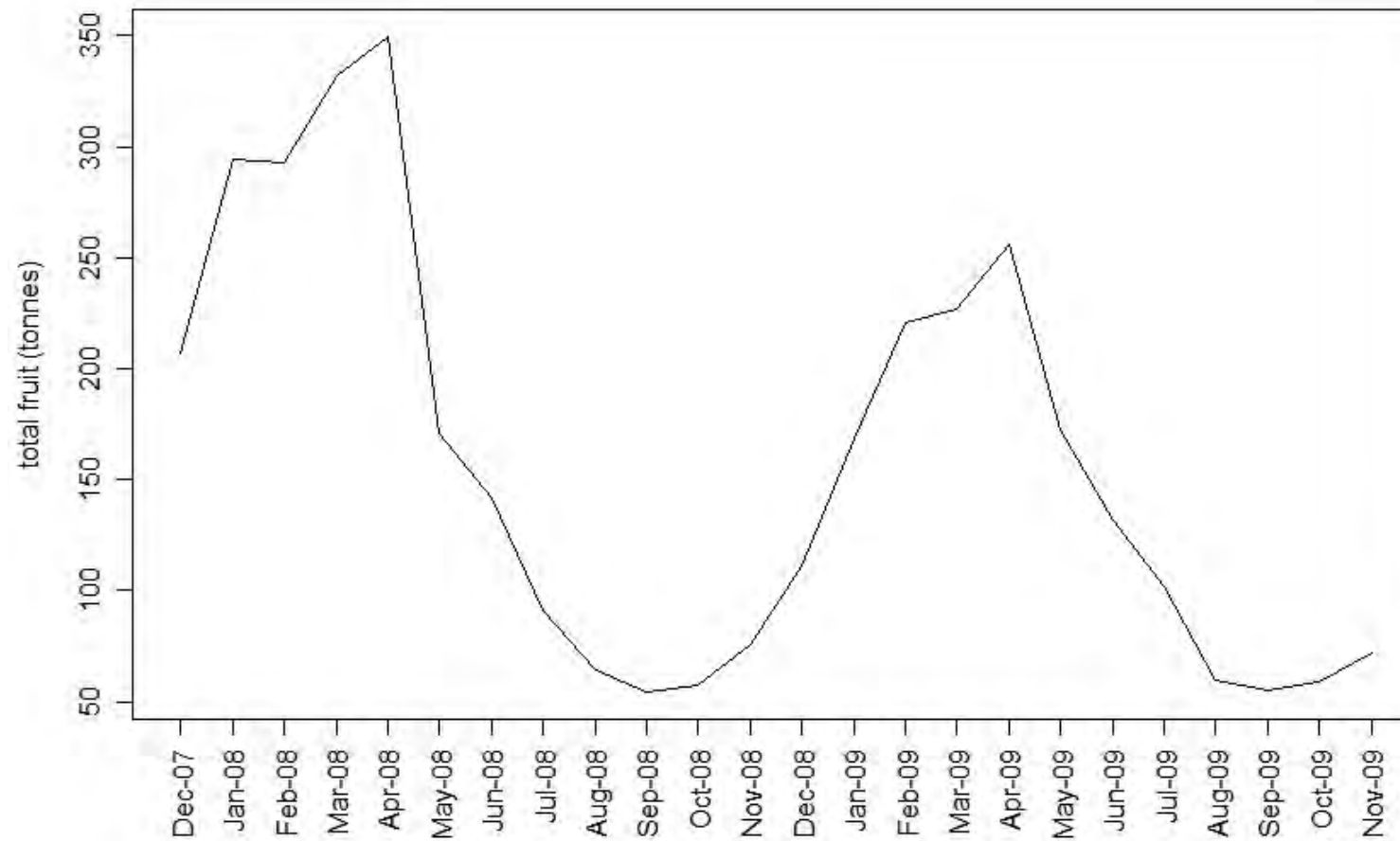
Fruit measured monthly for 24 months
(December 2007 to November 2009)
concurrently with bird surveys





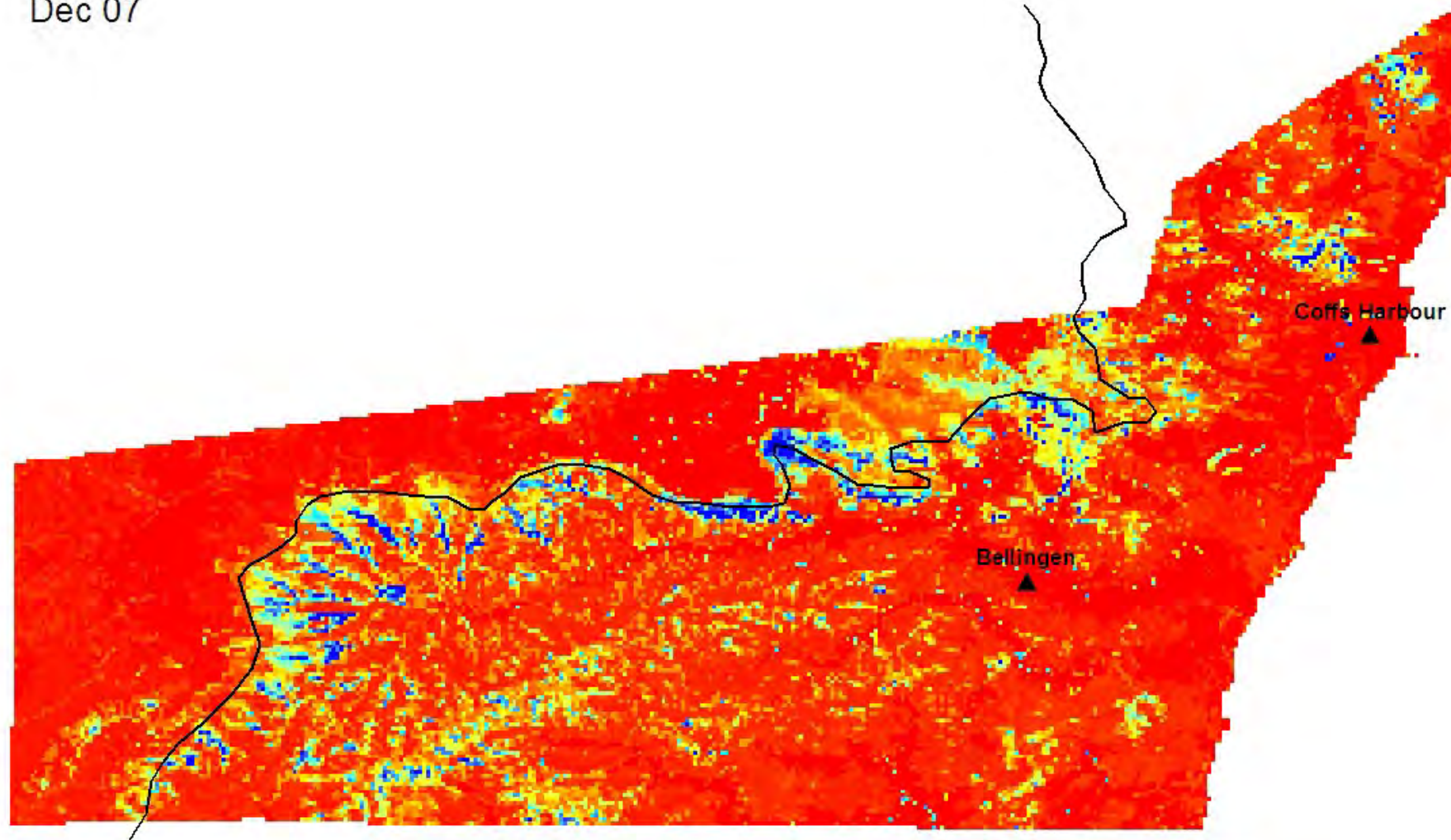
Ecosystems and Threatened Species
North East Branch

Seasonal cycle of fruit availability



Important areas and plant species

Dec 07

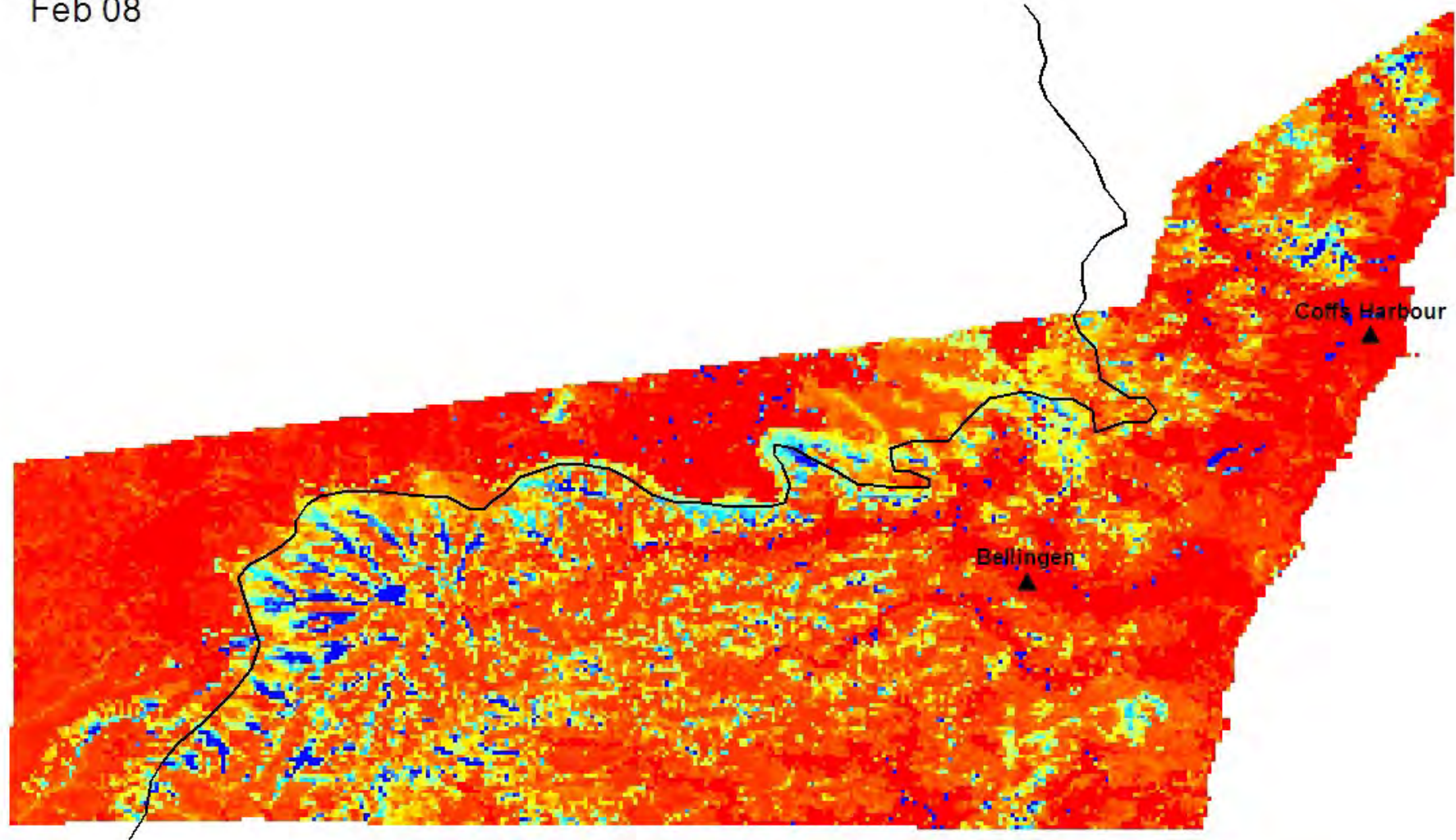




Giant Pepper Vine (*Piper novaehollandiae*)



Feb 08

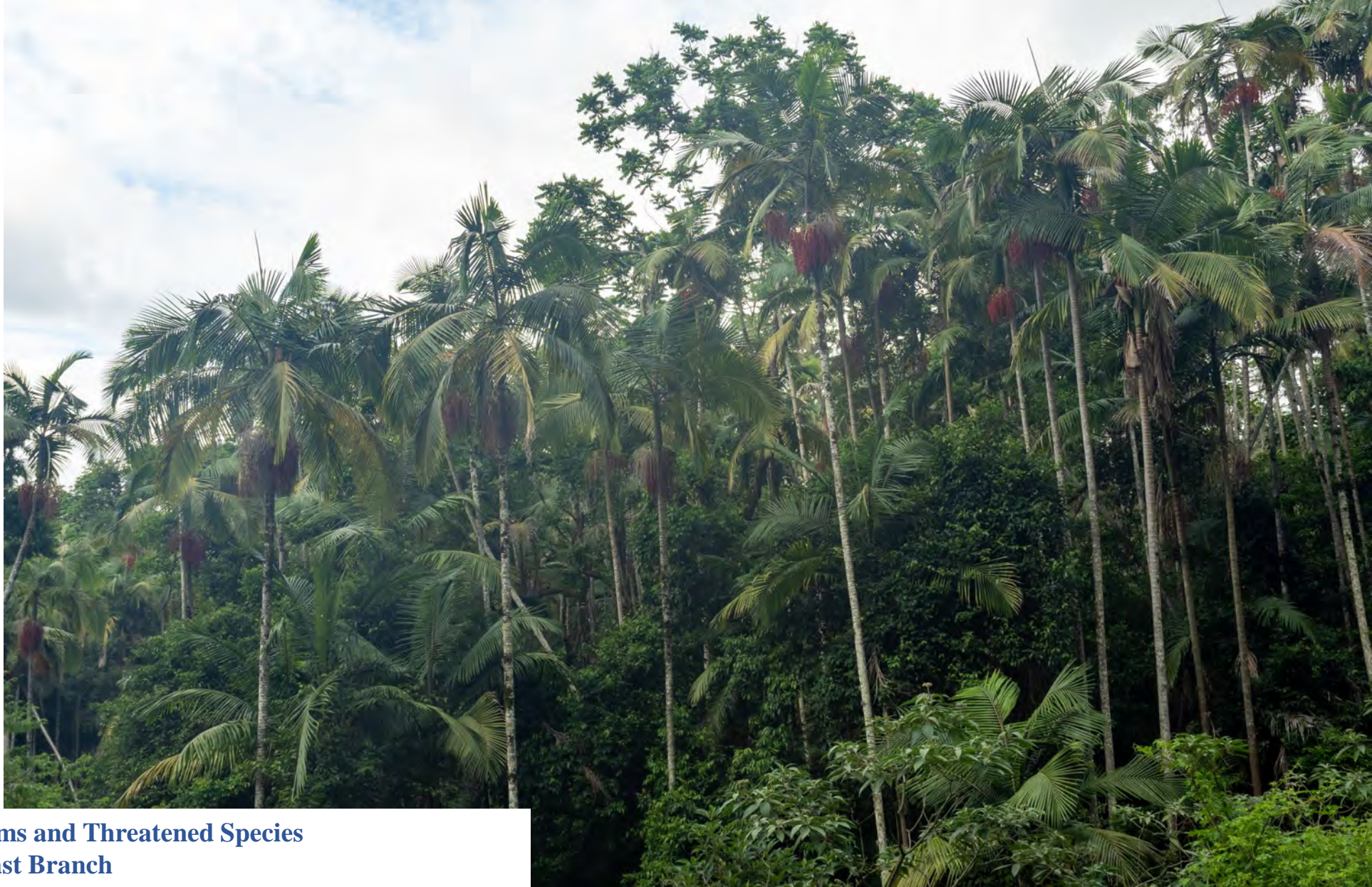


Bangalow/Piccabeen Palm (*Archontophoenix cunninghamiana*)

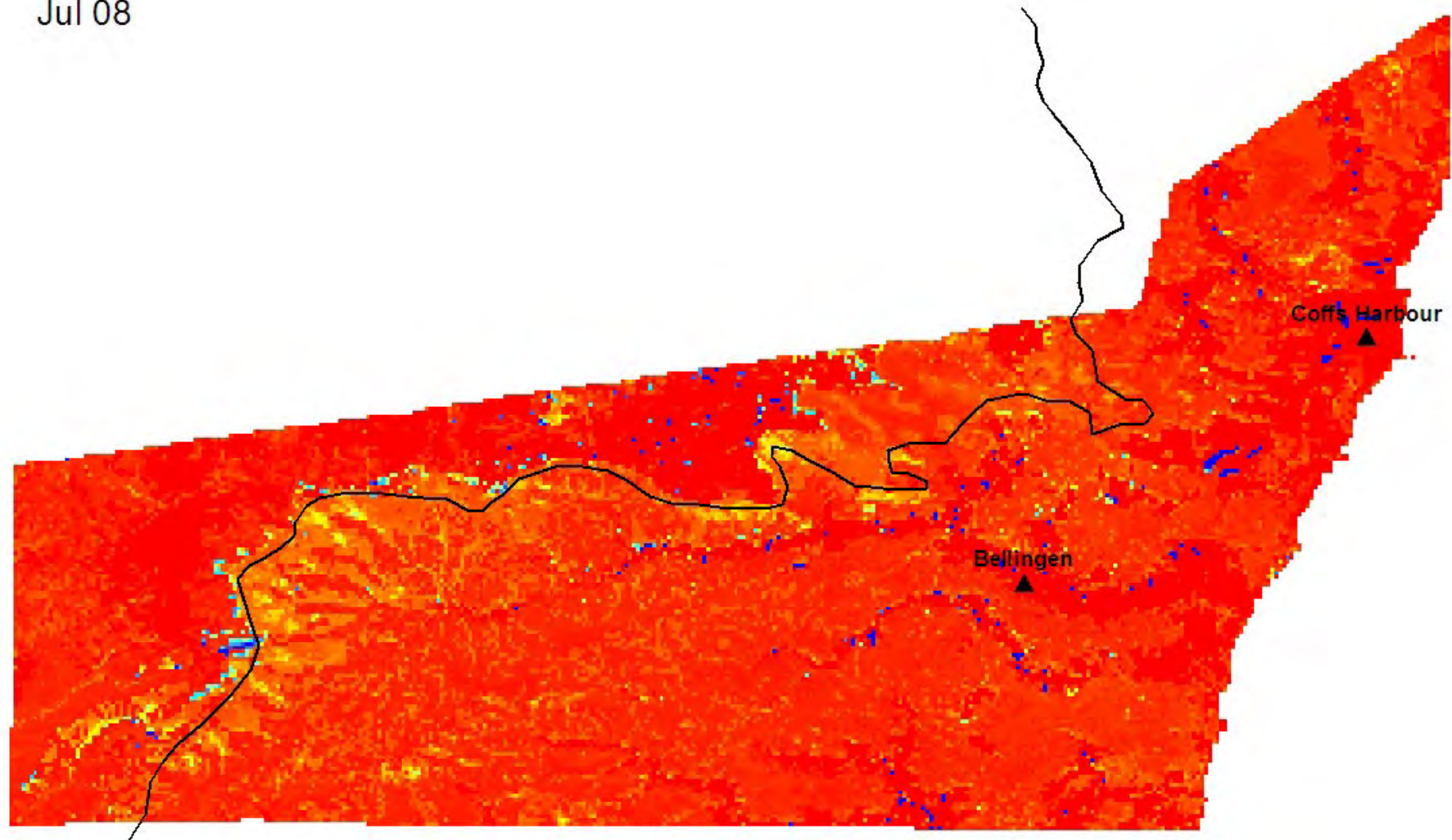


Image: Kai Boesen - Own work, CC BY-SA 4.0,
<https://commons.wikimedia.org/w/index.php?curid=110867319>

Bangalow/Piccabeen Palm (*Archontophoenix cunninghamiana*)



Jul 08



Weedy regrowth



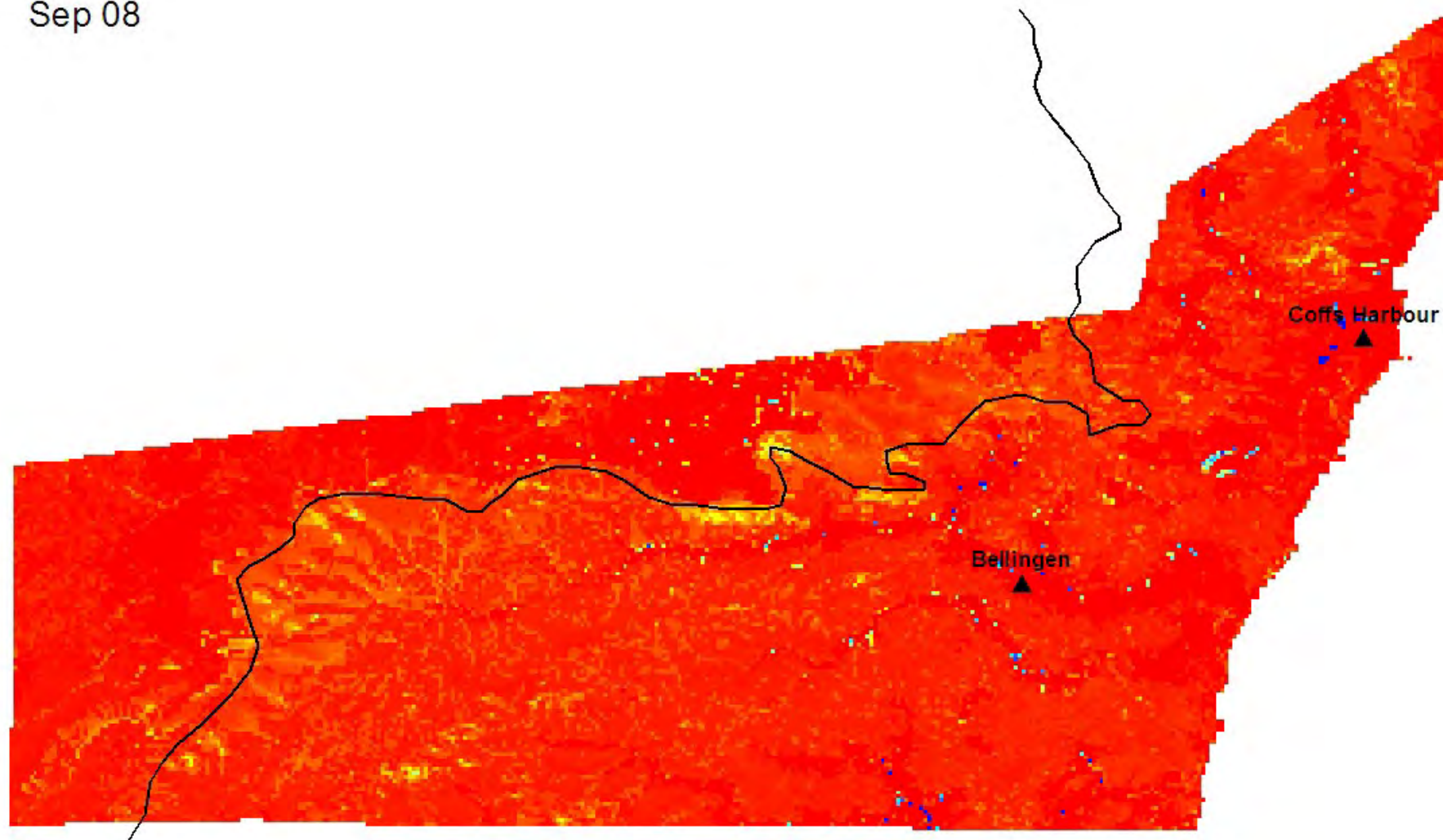


White Cedar (*Melia azedarach*)

Camphor Laurel (*Cinnamomum camphora**)

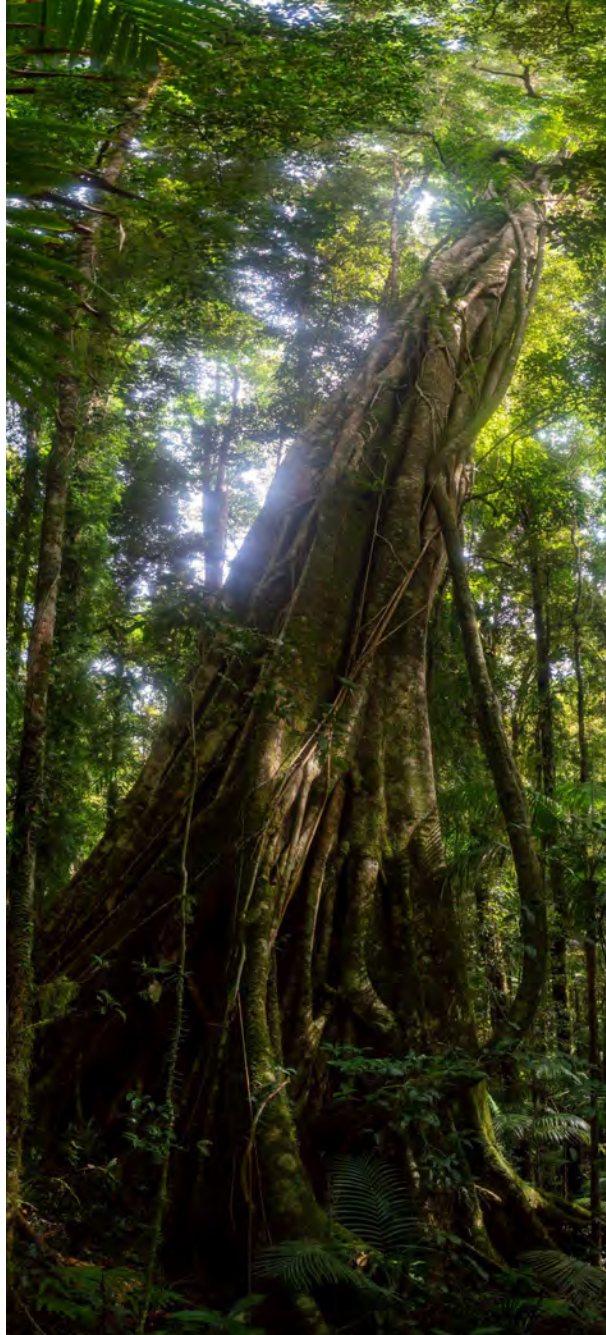


Sep 08



Common Acronychia (*Acronychia oblongifolia*)

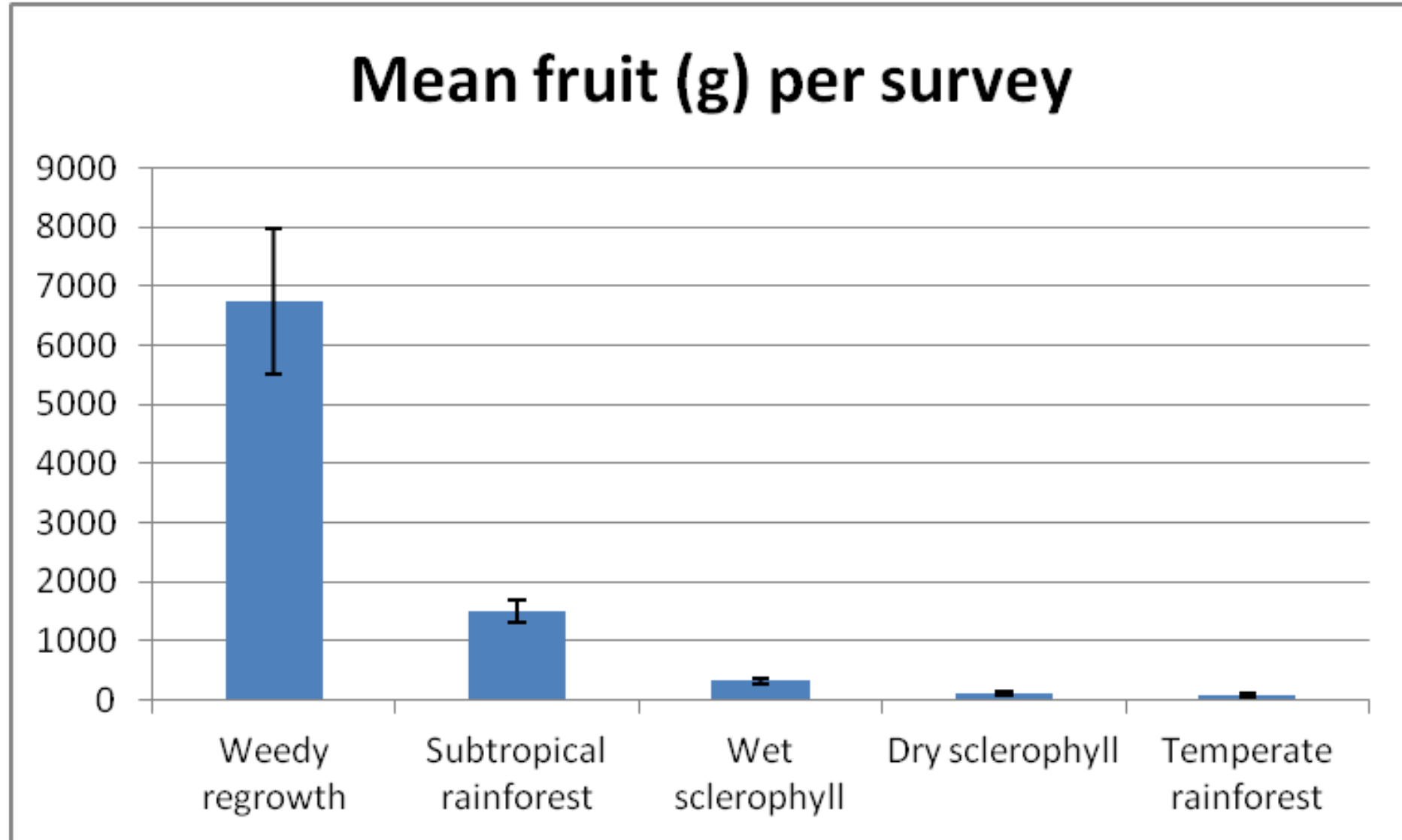




Big figs (*Ficus watkinsiana* and others)

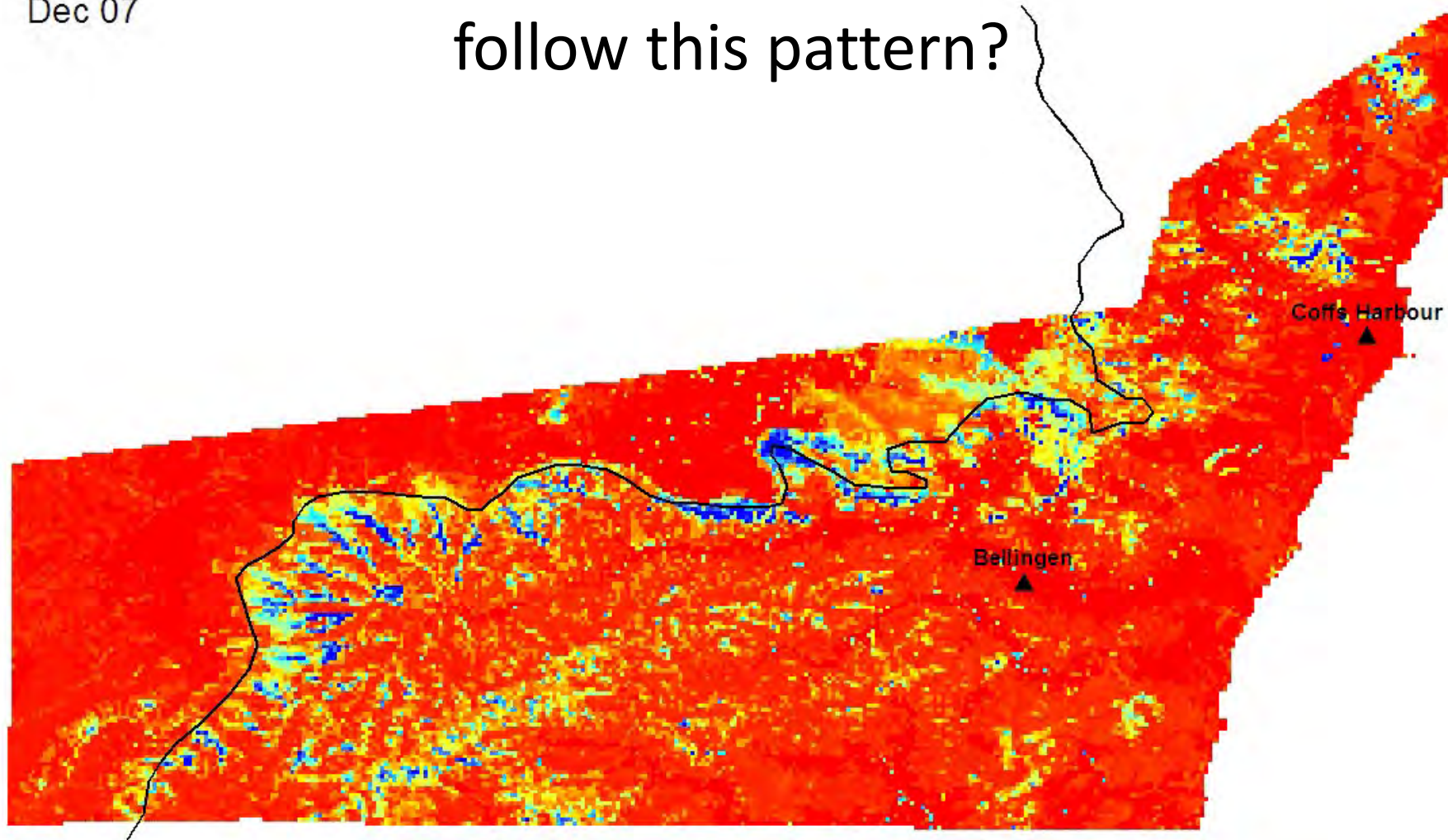


Important vegetation types



Dec 07

Do frugivorous bird abundances follow this pattern?





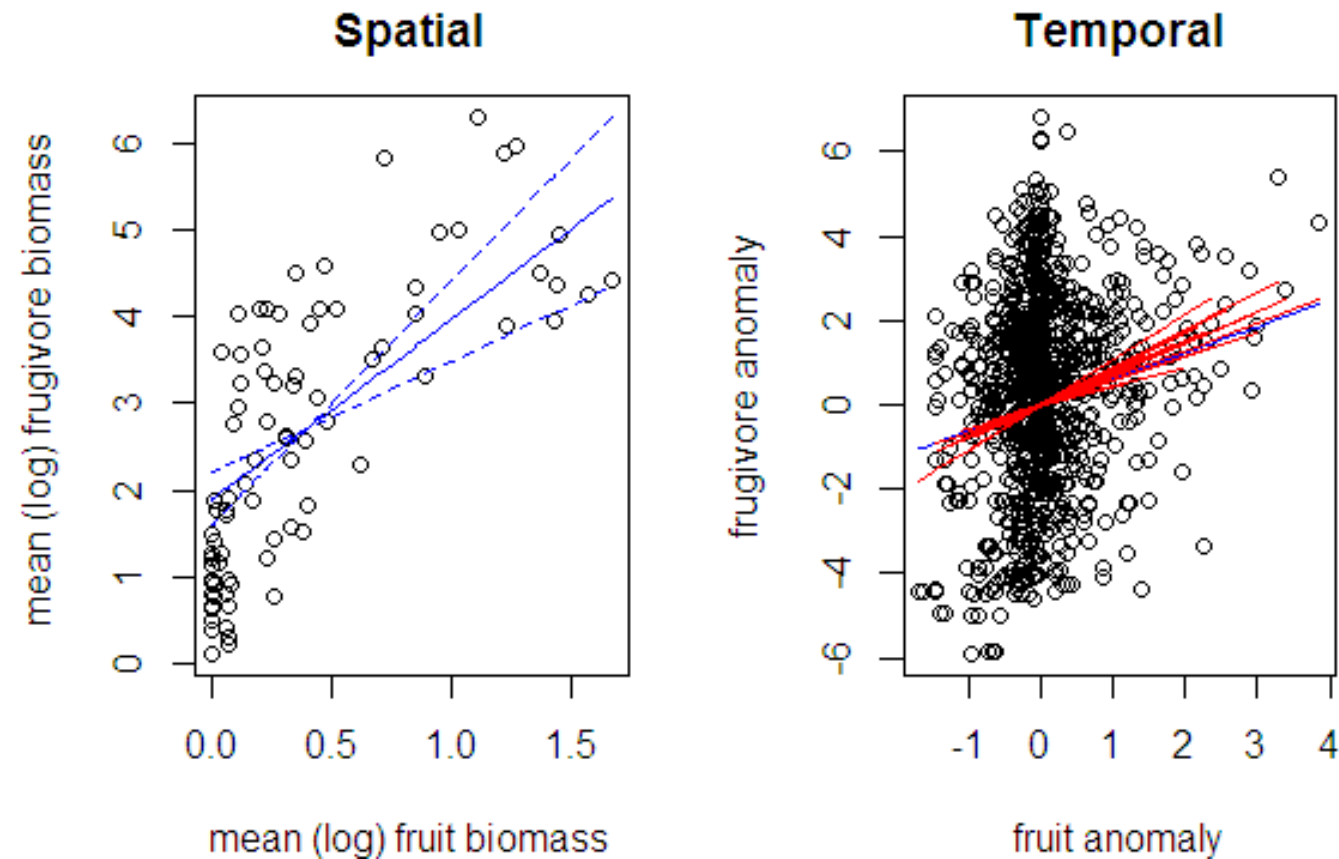
YES. Sort of.

Fruit biomass explained 20% of the variation in frugivore biomass

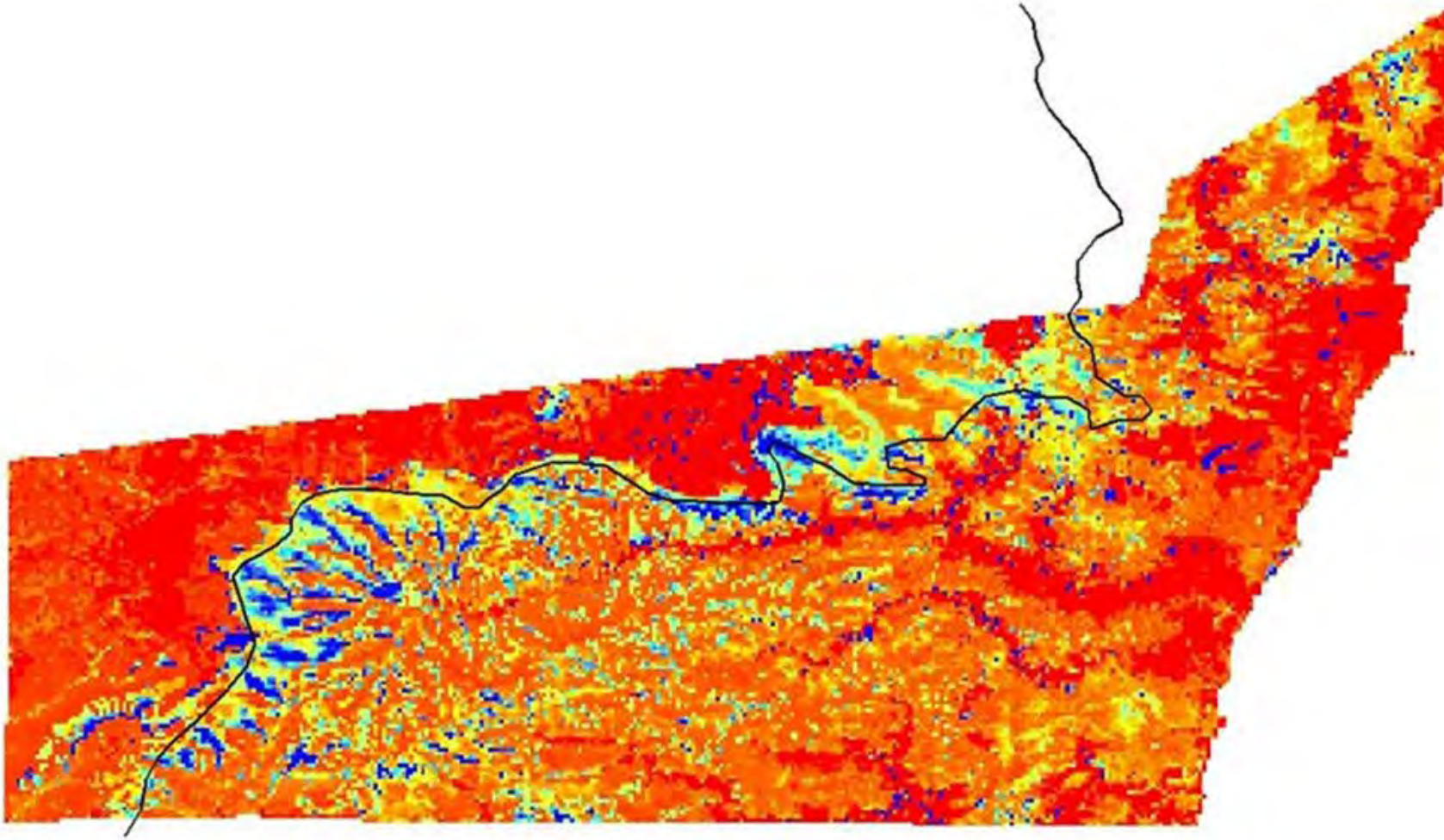
This figure increased to 26% when fruiting plant diversity (number of fleshy-fruited spp. at a site, and number of fleshy-fruited spp. in fruit during a given survey) was added to the model

Variables relating to climate and vegetation structure were not supported for inclusion in the model

YES. Sort of.

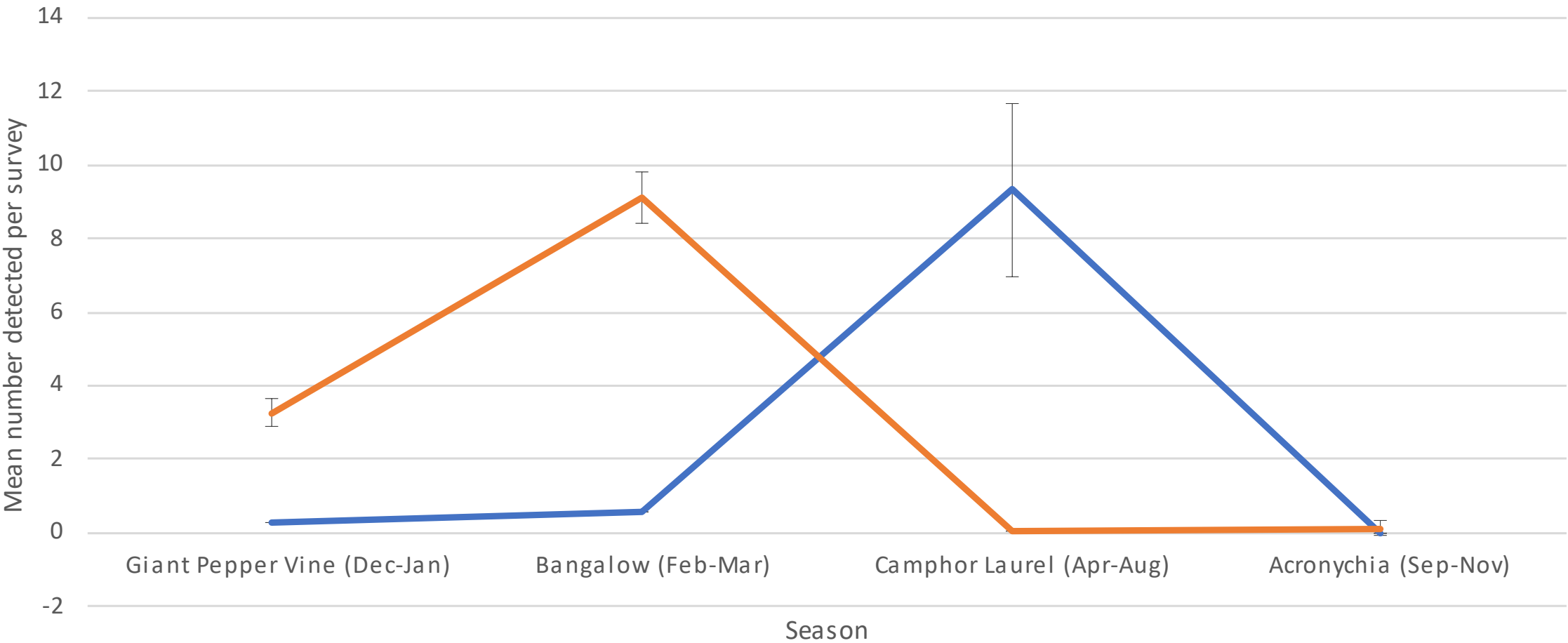


Fruit summed for all months



Exception: “Fruit nomads”

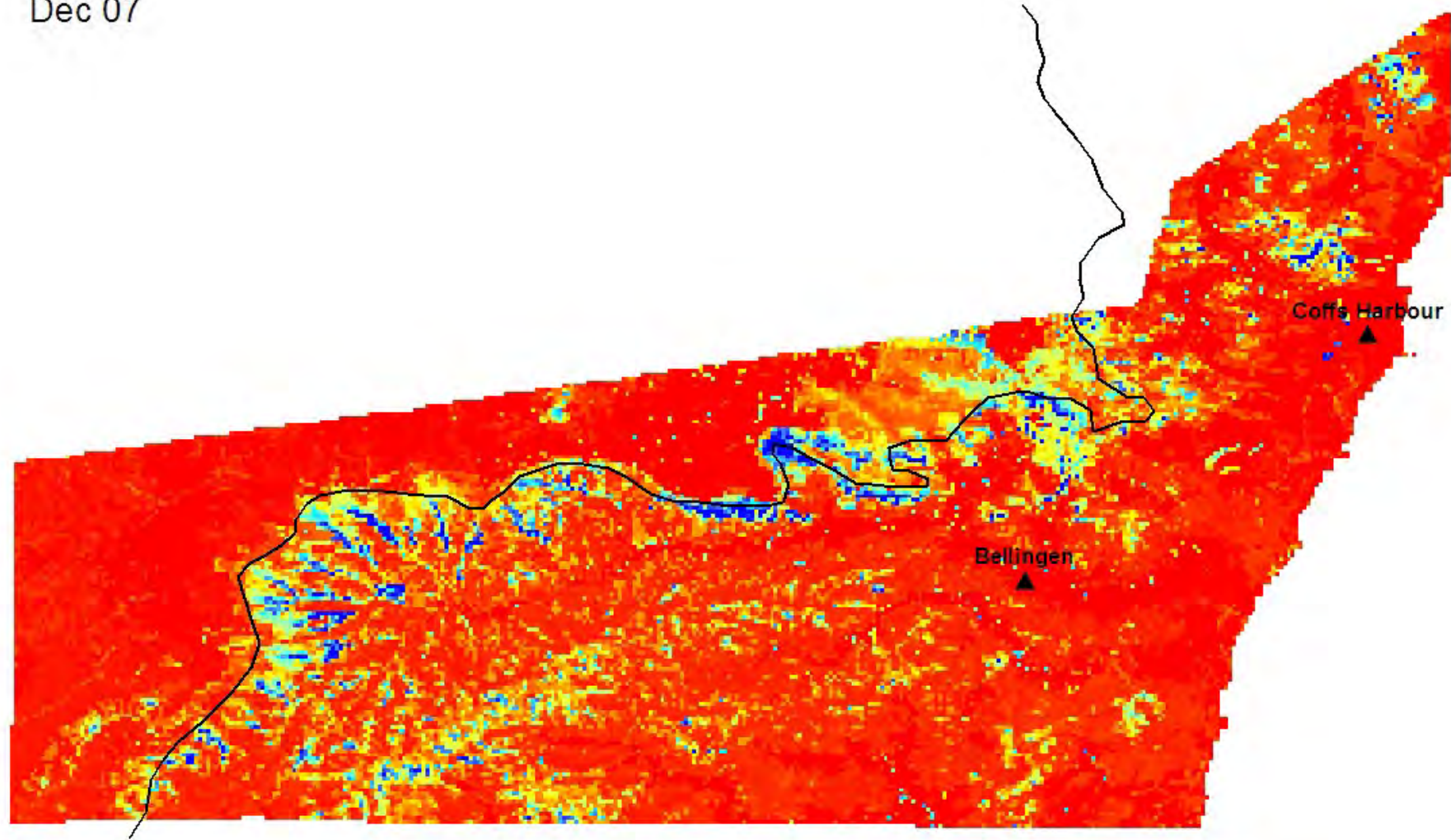
Topknot Pigeon



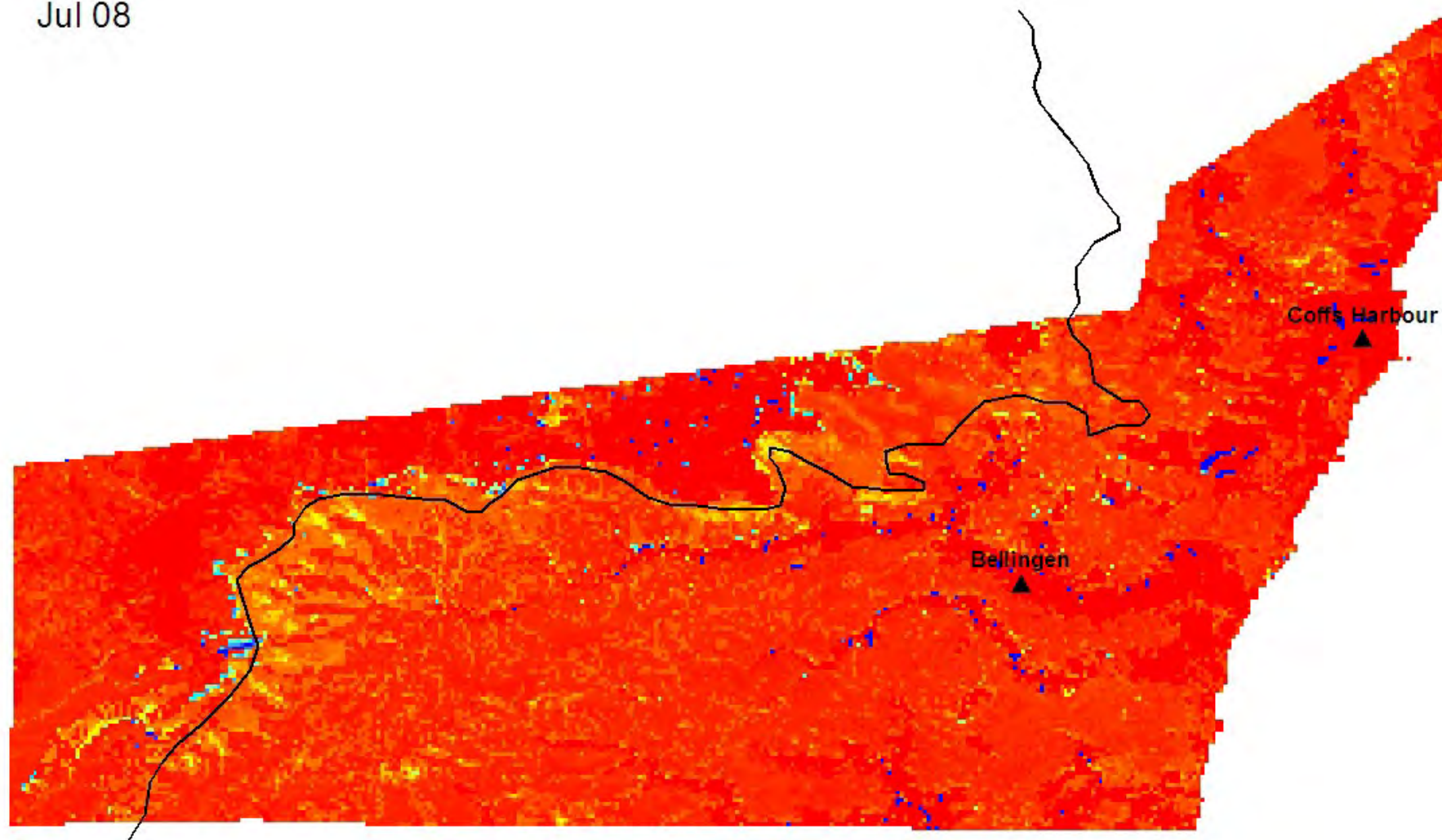
— Weedy regrowth — Subtropical rainforest



Dec 07

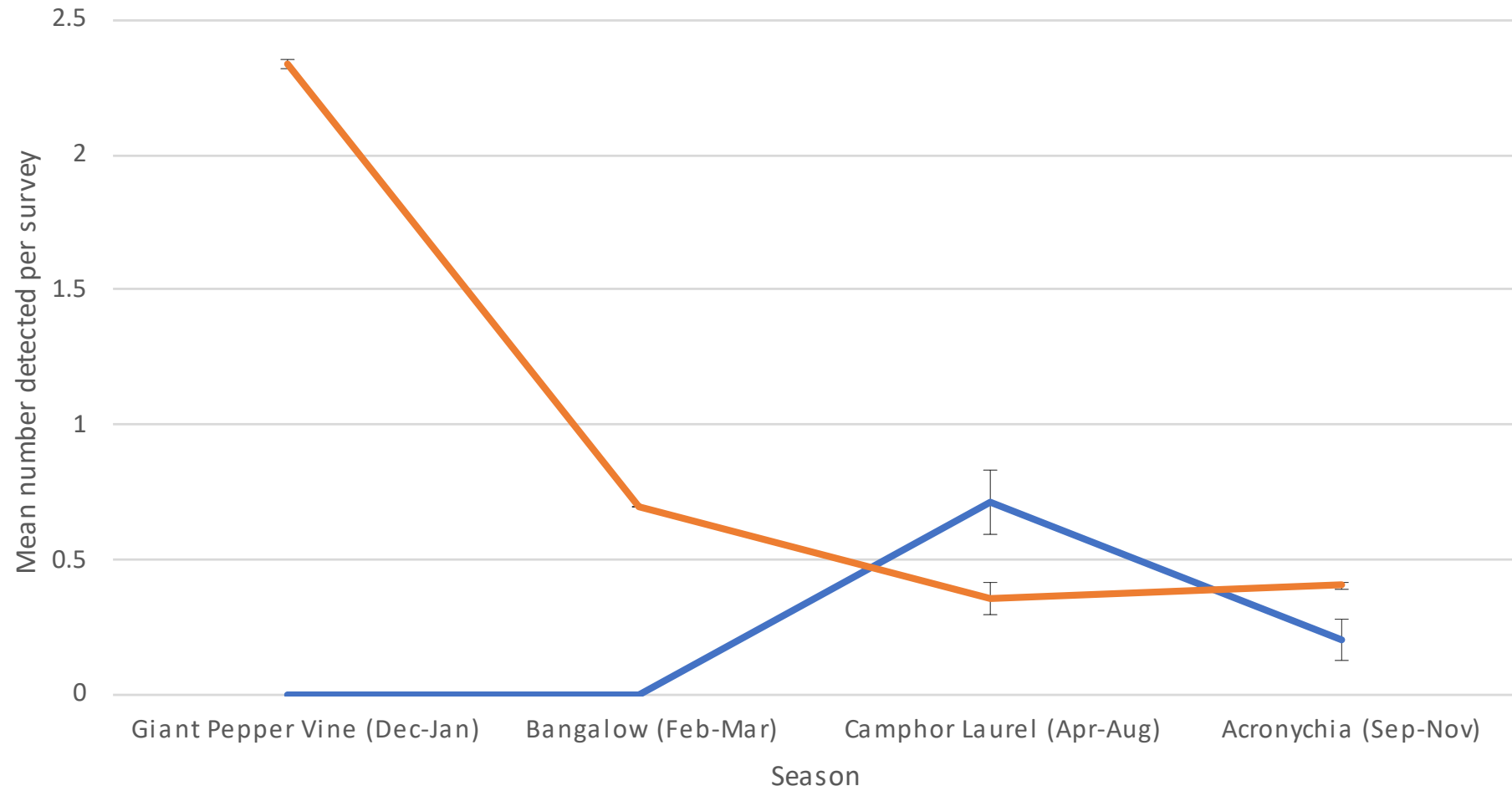


Jul 08



“Shop local”

Wompoo Fruit-dove



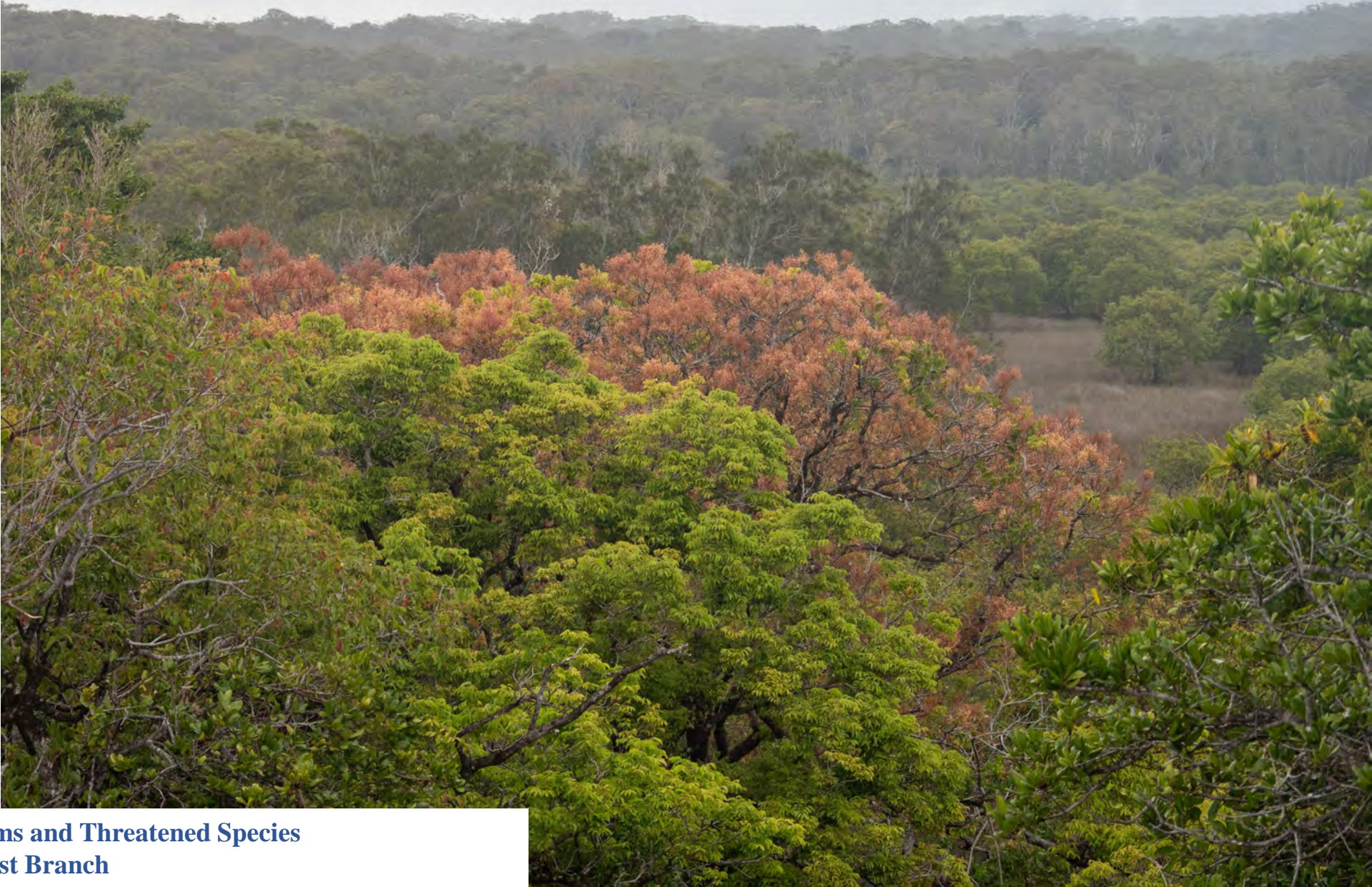
— Weedy regrowth — Subtropical rainforest



Small-leaved Fig (*Ficus obliqua*)



Exceptional years (e.g. droughts)







White-headed Pigeon (*Columba leucomela*)





This work is on Gumbaynggirr country.

Thanks for the assistance of Birds Australia,
the Holsworth Trust for Wildlife
and numerous volunteers in the Coffs Harbour-
Bellingen-Dorrigo area





YES. Sort of.

