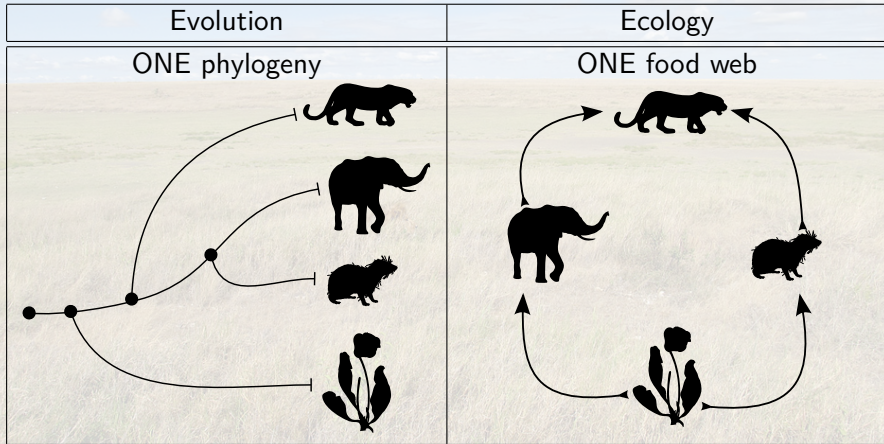


Stochasticity and Evolution in Food Webs

Giulio Dalla Riva
University of Canterbury, NZ

Granada Seminar June 16, 2015

species ARE related



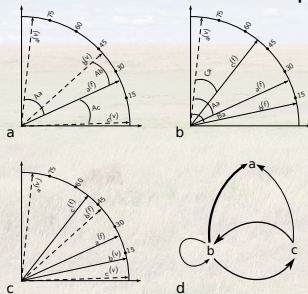
Evolution in/of Ecology

Evolution shaped the stochastic backbones of Food Webs

[Two images: Serengeti and Weddell]

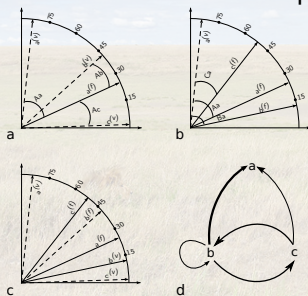
Food Webs embedded

► Random Dot Product Graphs



Food Webs embedded

► Random Dot Product Graphs



► Phylogenetic vs. Observed traits

$\text{vcv}(\hat{X} | \text{evolutionary model})$ vs. $\text{vcv}(X)$

More questions (than answers)

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- ▶ Fine wirings may be deceiving
- ▶ Evolutionary model is inadequate

(Not a) Conclusion

- Spoiler 1: Evolutionary distinctiveness vs. Web Centrality

(Not a) Conclusion

- ▶ Spoiler 1: Evolutionary distinctiveness vs. Web Centrality
- ▶ Spoiler 2: An ecological informed model of species evolution maybe it's (almost) there.

Thanks!

Joint work with Daniel B. Stouffer (University of Canterbury)

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By the way, I'm looking for a postdoc.