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title : Contribution of traits and phylogenetic history to plant-pollinator network structure

date : 2013-08-07

author : Scott Chamberlain (@recology_) Simon Fraser University/rOpenSci

job : Co-authors Elizabeth Elle, Jana Vamosi, Ralph Cartar, Sarah Semmler, Anne Worley

framework : io2012

highlighter : highlight.js

hitheme : tomorrow

widgets : []

mode : selfcontained

assets :

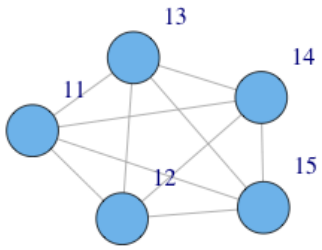
css: "assets/FontAwesome/css/font-awesome.css"

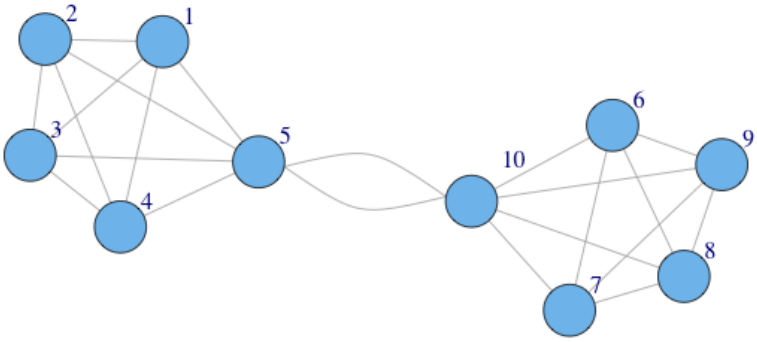
Find this talk here

Made with Slidify; the code here

Press "o" to bring up all slides - use to navigate

Species in communities form networks





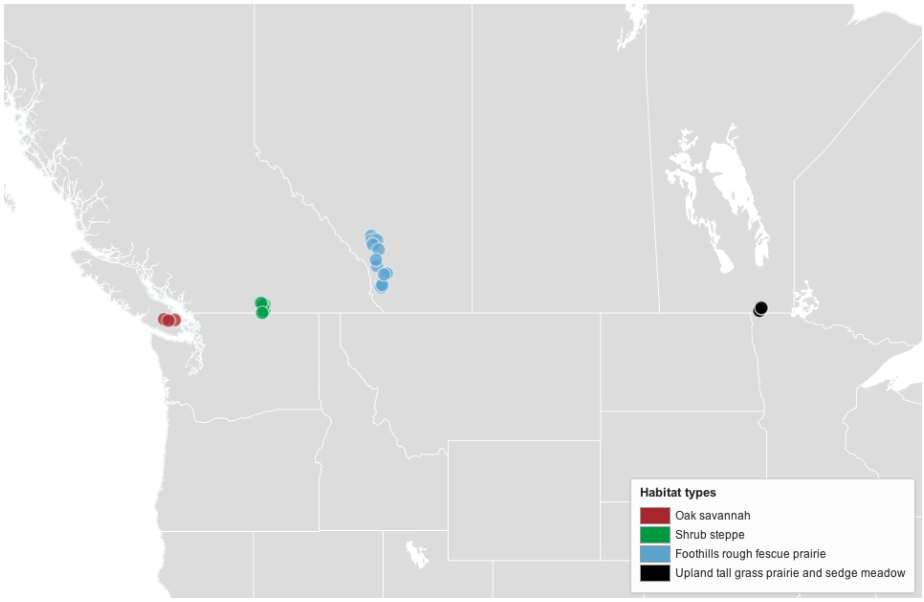
Patterns often similar among networks

adfsf

What drives network structure?

- Traits
- Phylogeny
- Phenology

Study sites



Traits - Pollinators

Traits - Plants

— &twocol

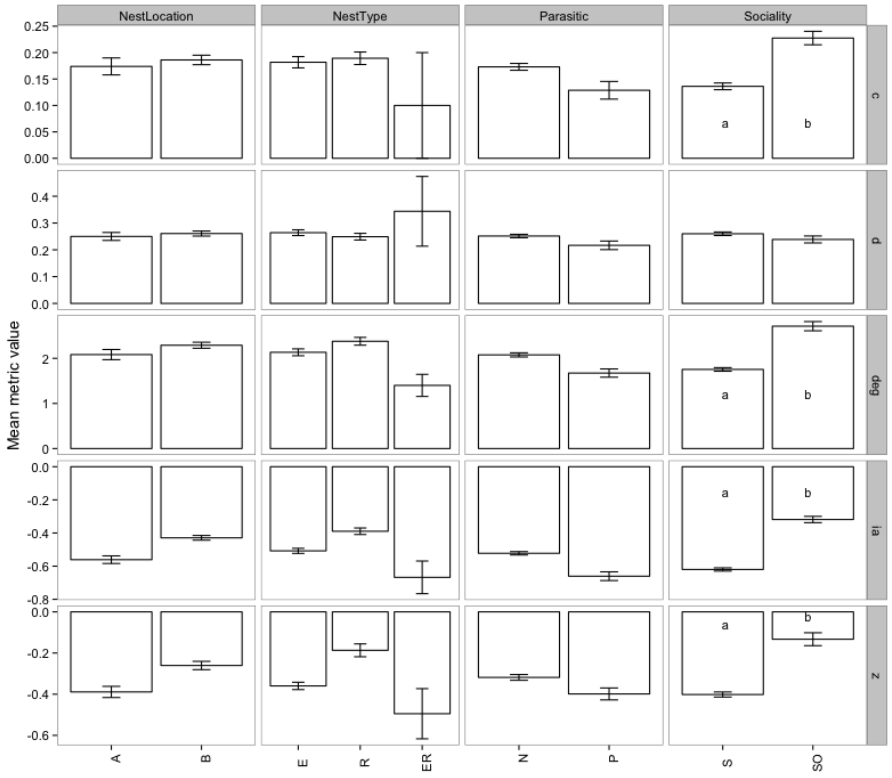
Phylogeny

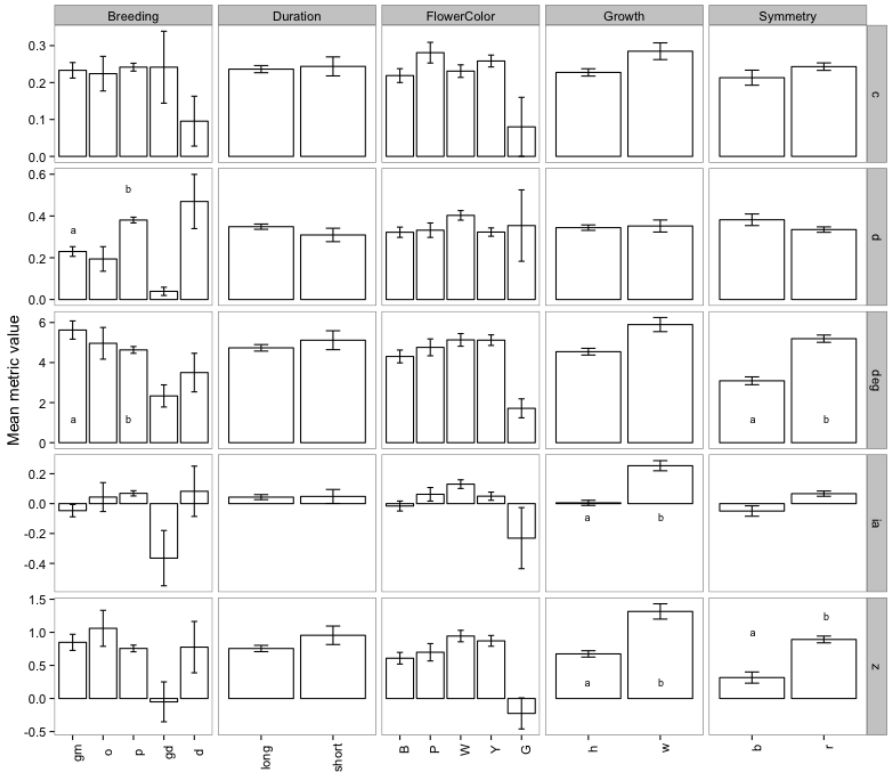
* =left

plants

* =right

pollinators


NestLocation
NestType
Parasitic
Sociality
Mean metric value
c
d
deg
ia
z
A
B
E
R
ER
N
P
S
SO
a
b


Breeding
Duration
FlowerColor
Growth
Symmetry
c
d
dgd
ia
z
Mean metric value
gm
o
p
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d
long
short
B
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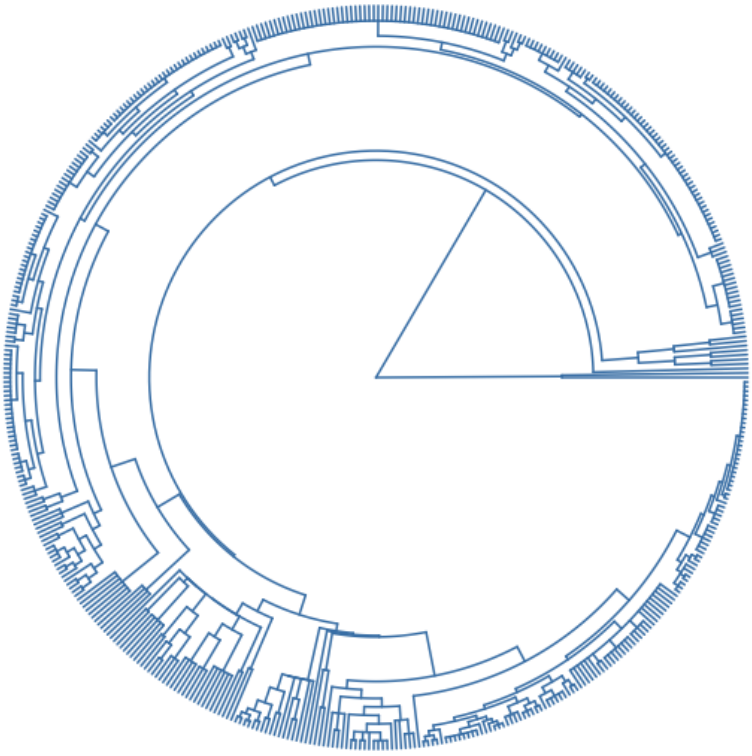
w
b
r



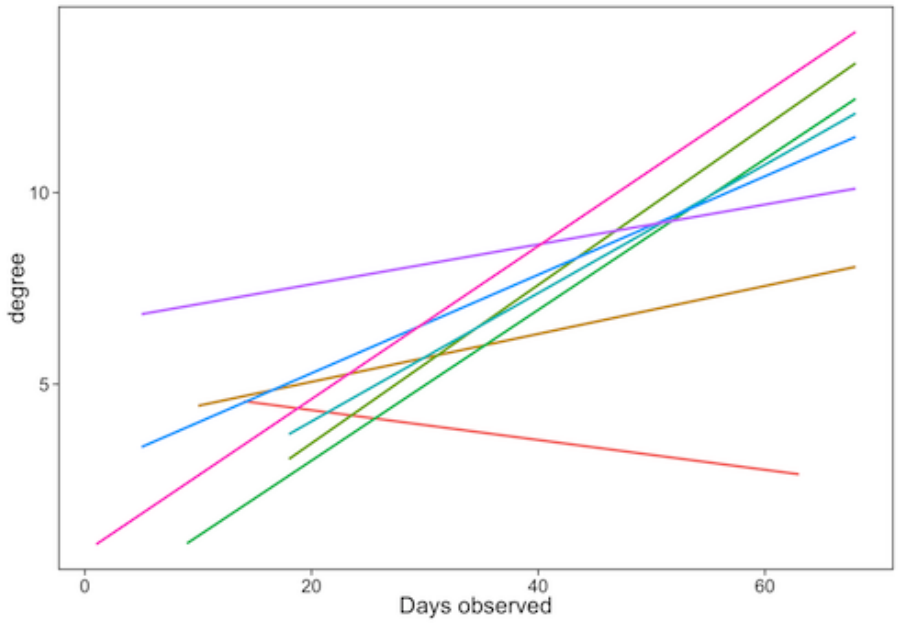
Phylogeny

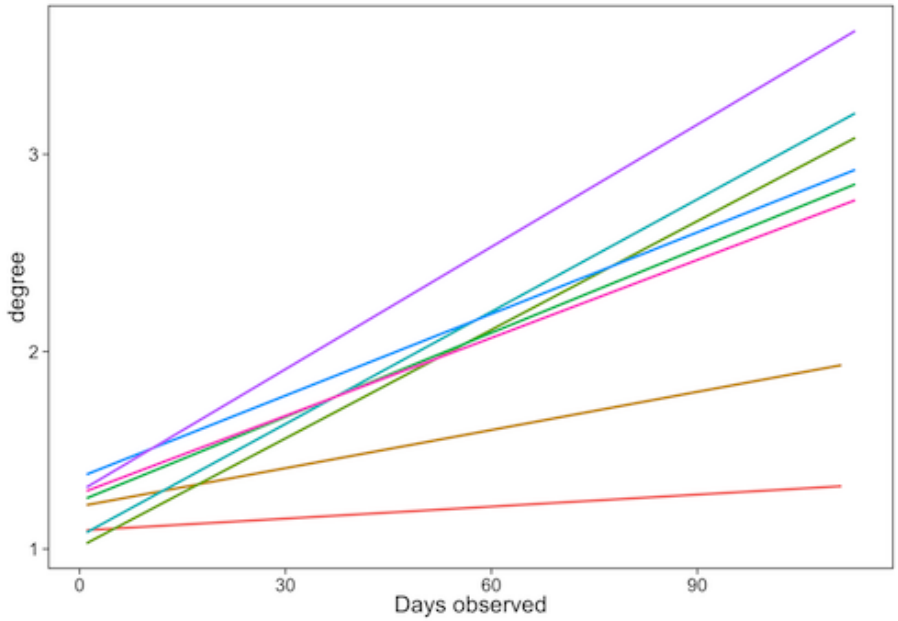
IMAGE

— &twocol

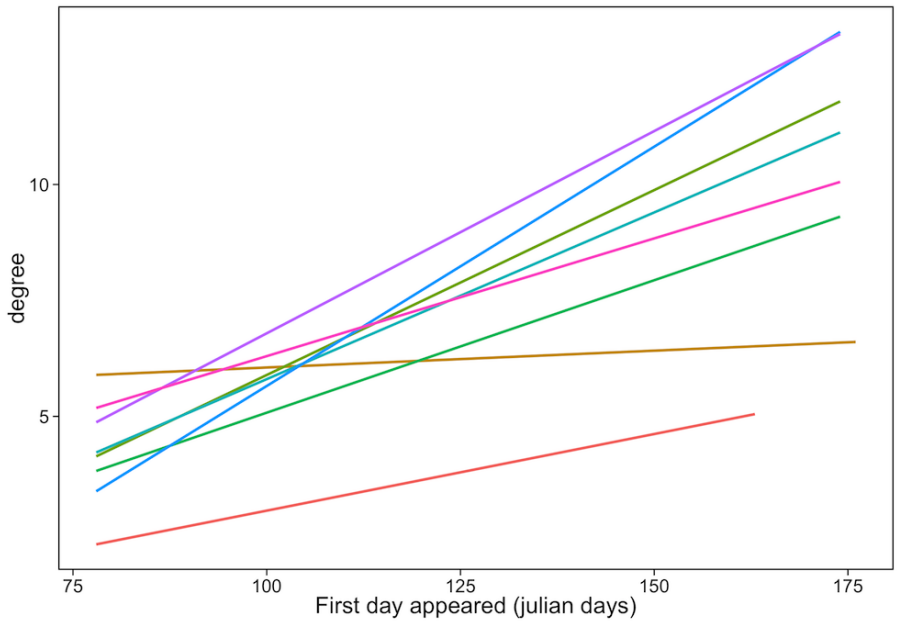
Phenology

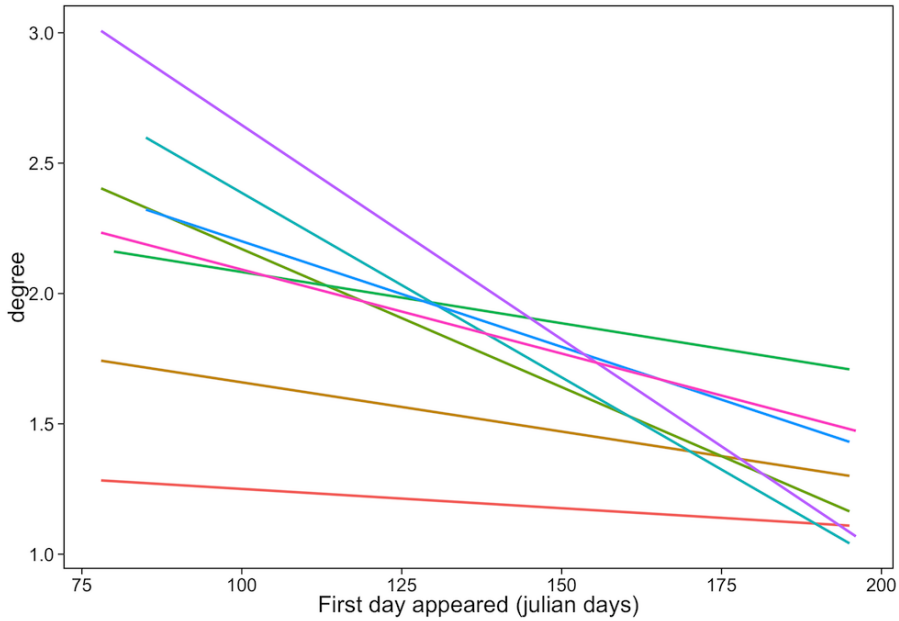
* =left


degree
10
5
0
20
40
60
Days observed


degree
3
2
1
0
30
60
90
Days observed

* =right


degree
10
5
75
100
125
150
175
First day appeared (julian days)


degree
3.0
2.5
2.0
1.5
1.0
75
100
125
150
175
200
First day appeared (julian days)

Conclusion

- Sociality in pollinators
- Mating systems, flower symmetry & growth form in plants
- Phylogenetic distance was associated with asymmetry and degree most strongly for pollinators, and specialization and among-module connectivity for plants.
- At network level, pollinator functional diversity w/ modularity & connectance
- Pollinator traits bigger drivers of network structure relative to plants
- Traits, phylogenetic history & phenology imprt

Thanks!

- Coauthors
- Elizabeth Elle
- Jana Vamosi
- Ralph Cartar
- Sarah Semmler
- Anne Worley

@recology_