

UNIT 5: Competition

Outline

Introduction

Population model with competition

- Balanced competition

- Unbalanced competition

Population-level interactions

- Invasion theory

- Colonization and co-existence

Niches and coexistence

- The competitive exclusion principle

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Competition

images/larches.jpg

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images/leaf_cutters.jpg

images/tapir.jpg

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images/mussels_algae.jpg

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images/confusum.jpg

The confused flour beetle

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Subsection 1

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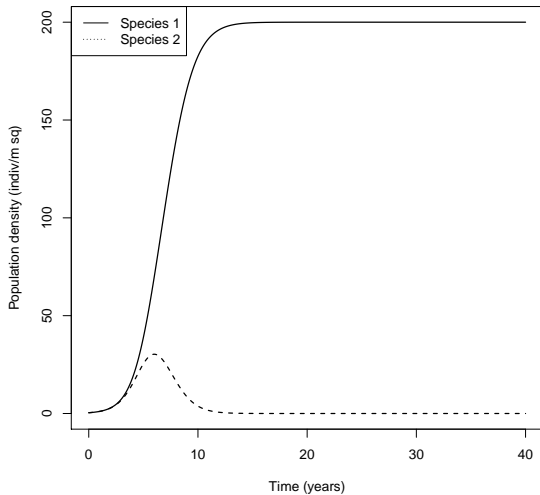
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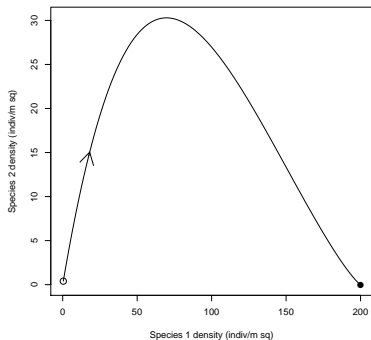
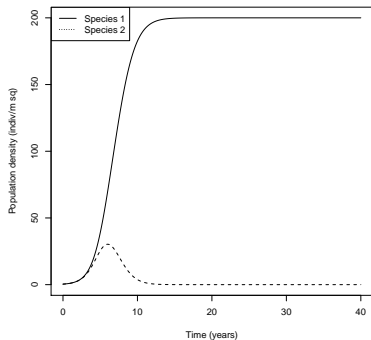
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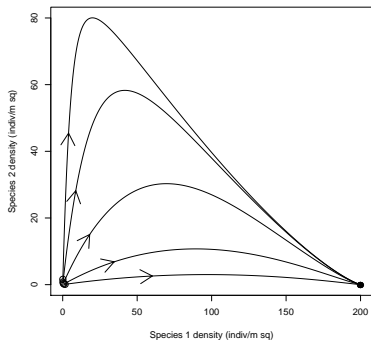
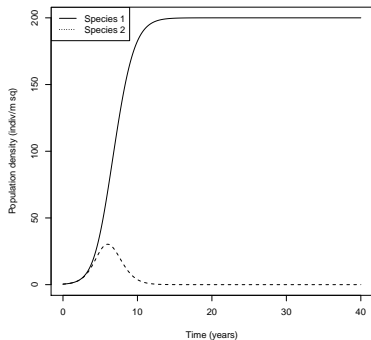
Dominance time plot



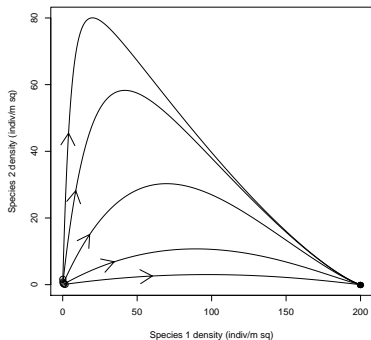
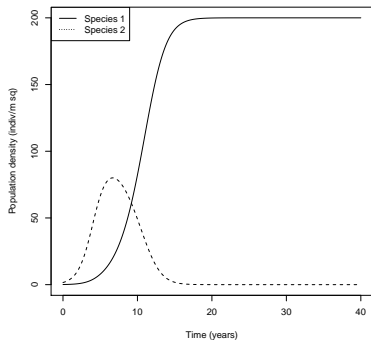
Dominance phase plot



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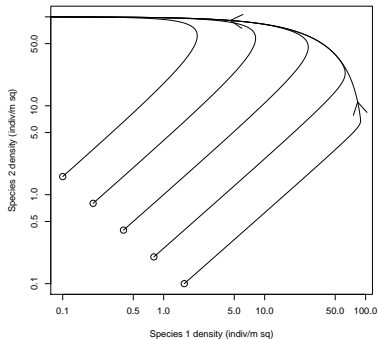
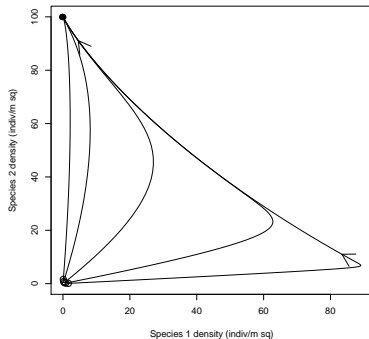
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images/water_compete.jpg

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Subsection 2

Unbalanced competition

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images/toe_balance.jpg

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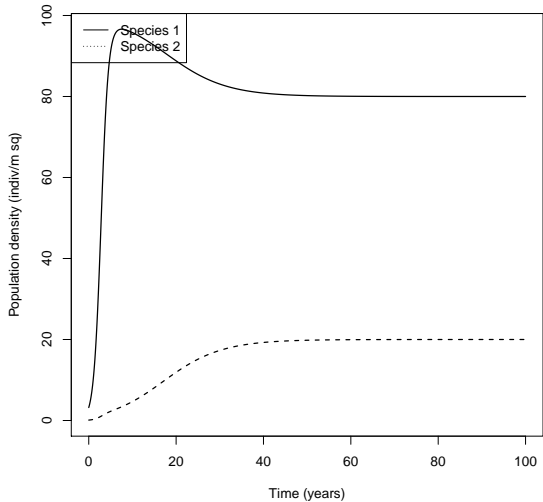
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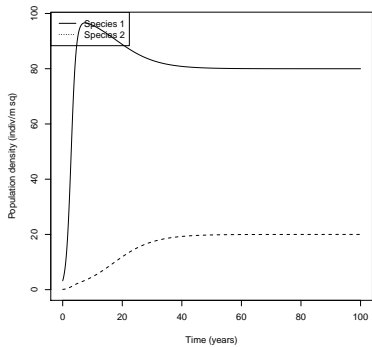
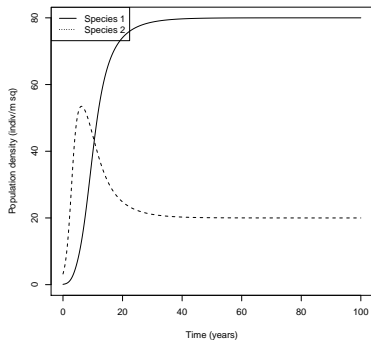
Coexistence

images/cliff_swallows.jpg

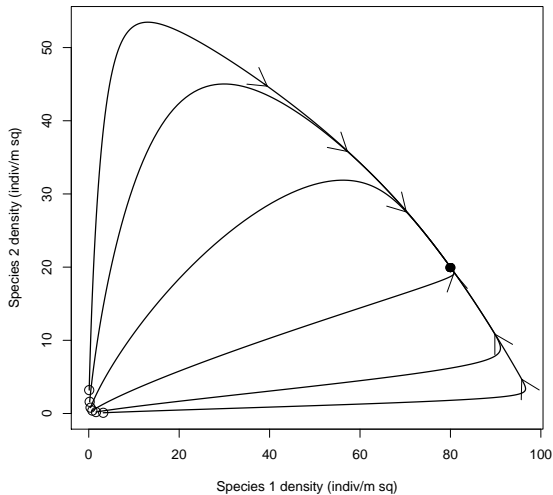
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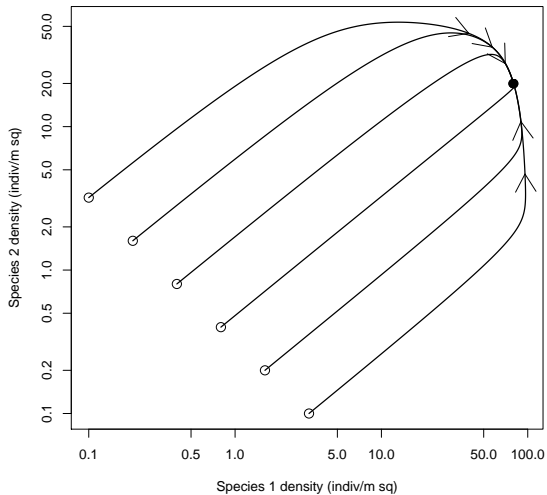
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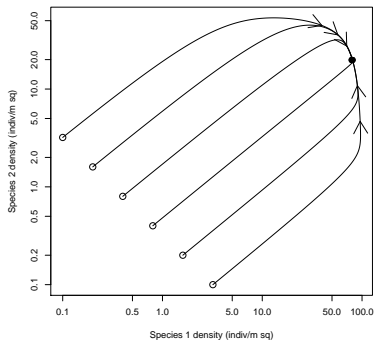
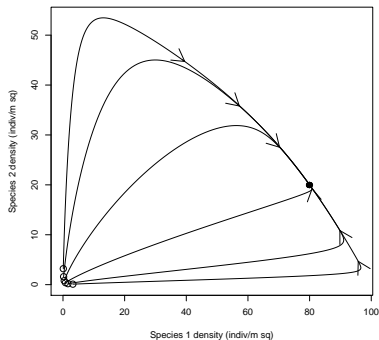
Coexistence phase plot



Coexistence phase plot (log scale)



Coexistence phase plots



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images/wild_dogs.jpg

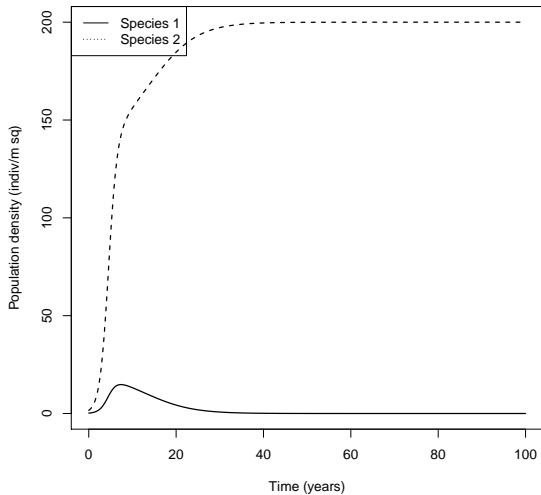
Co-operation

Founder control

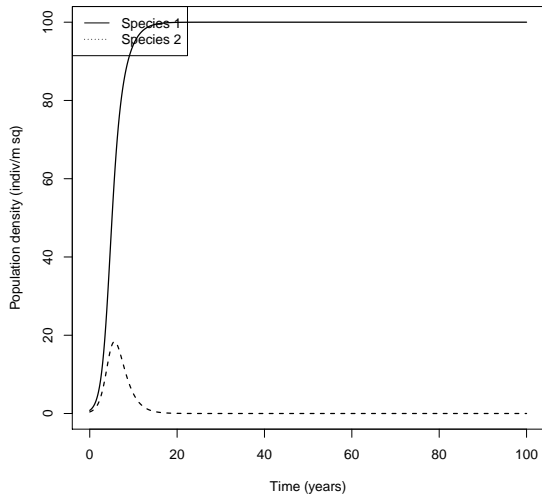
images/savanna_burn.jpg

Changing the environment

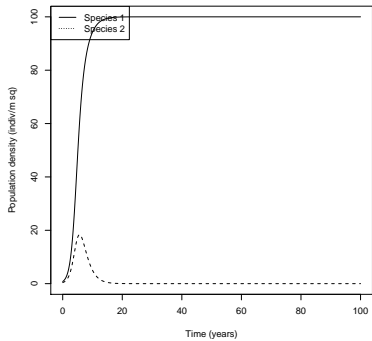
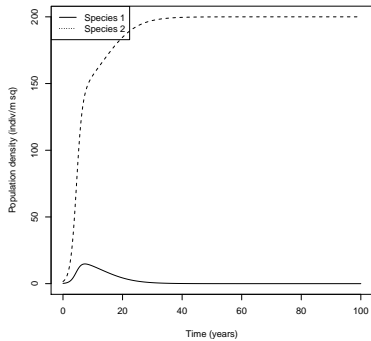
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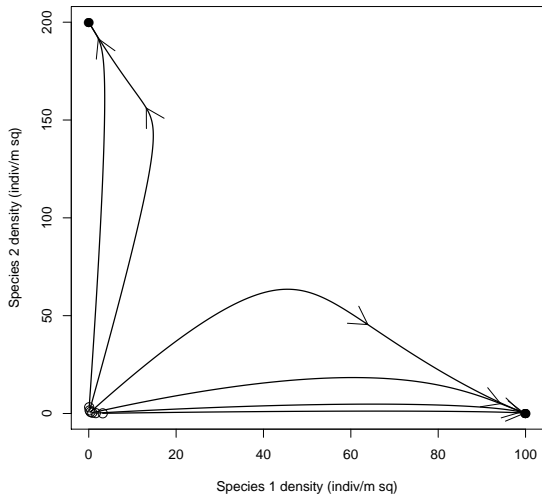
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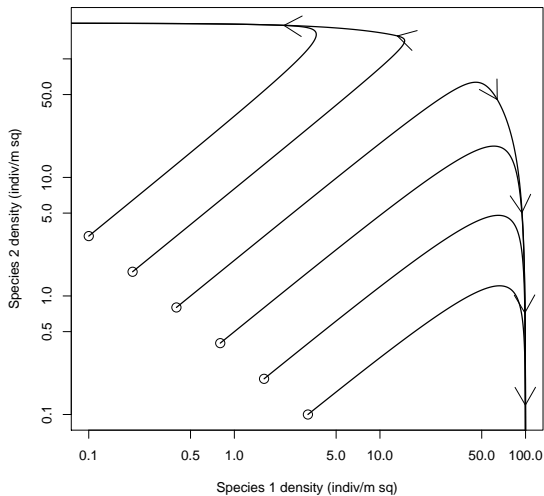
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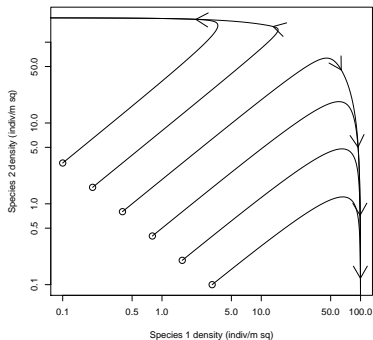
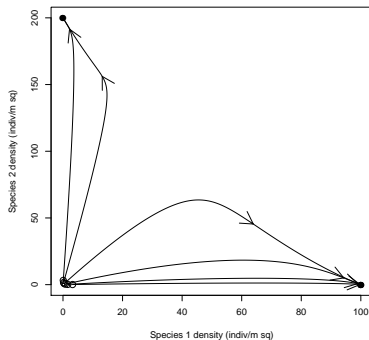
Founder control phase plot



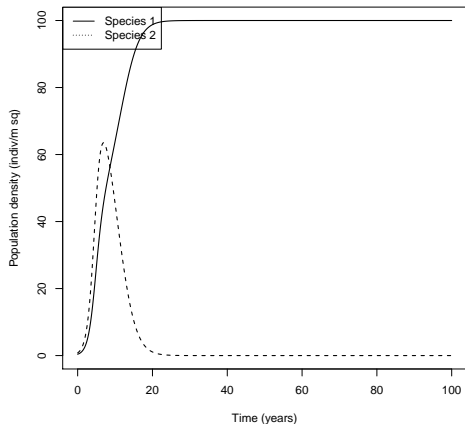
Founder control phase plot (log scale)



Founder control phase plots

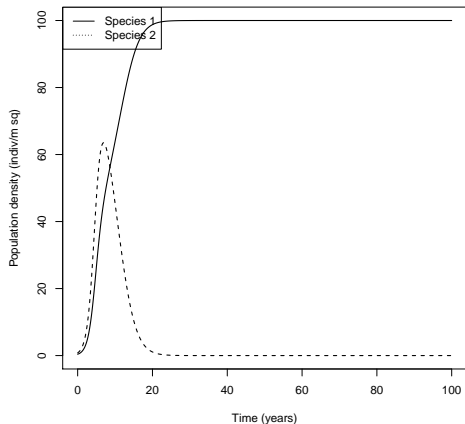


Founder control can be complicated



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Subsection 1

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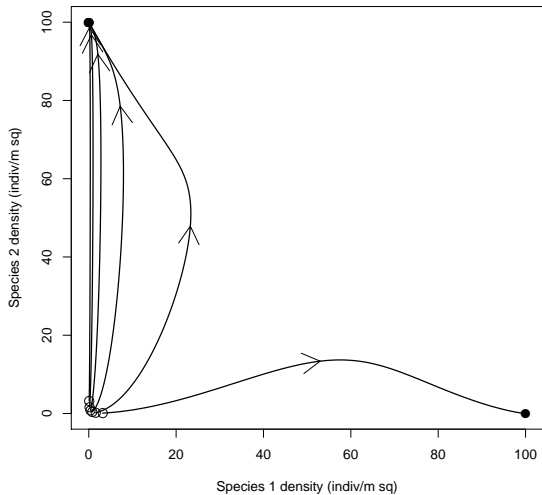
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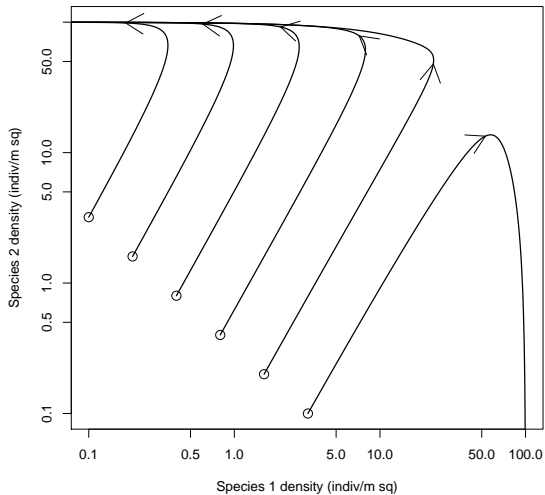
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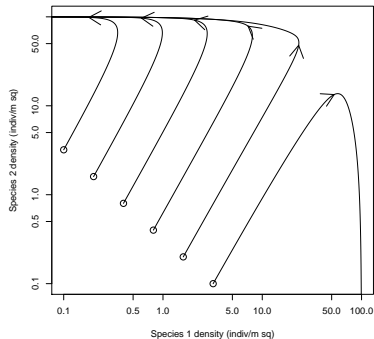
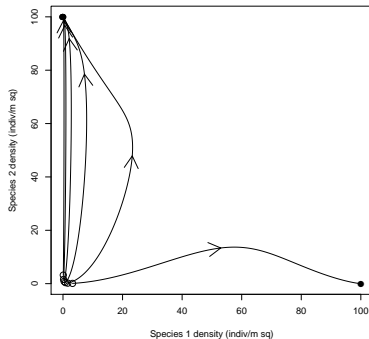
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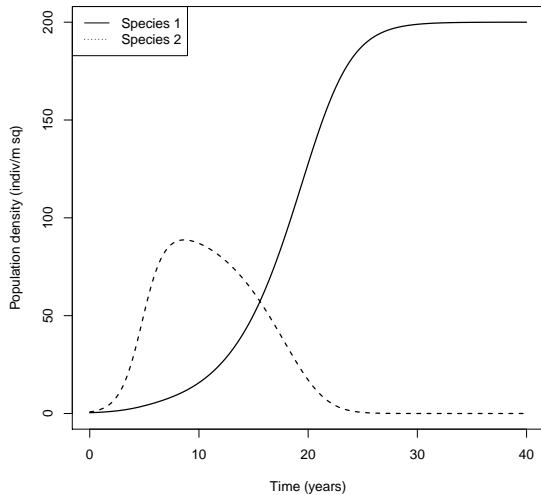
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Subsection 1

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