

Stygofauna in South Australia



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Government
of South Australia



South
Australian
Museum

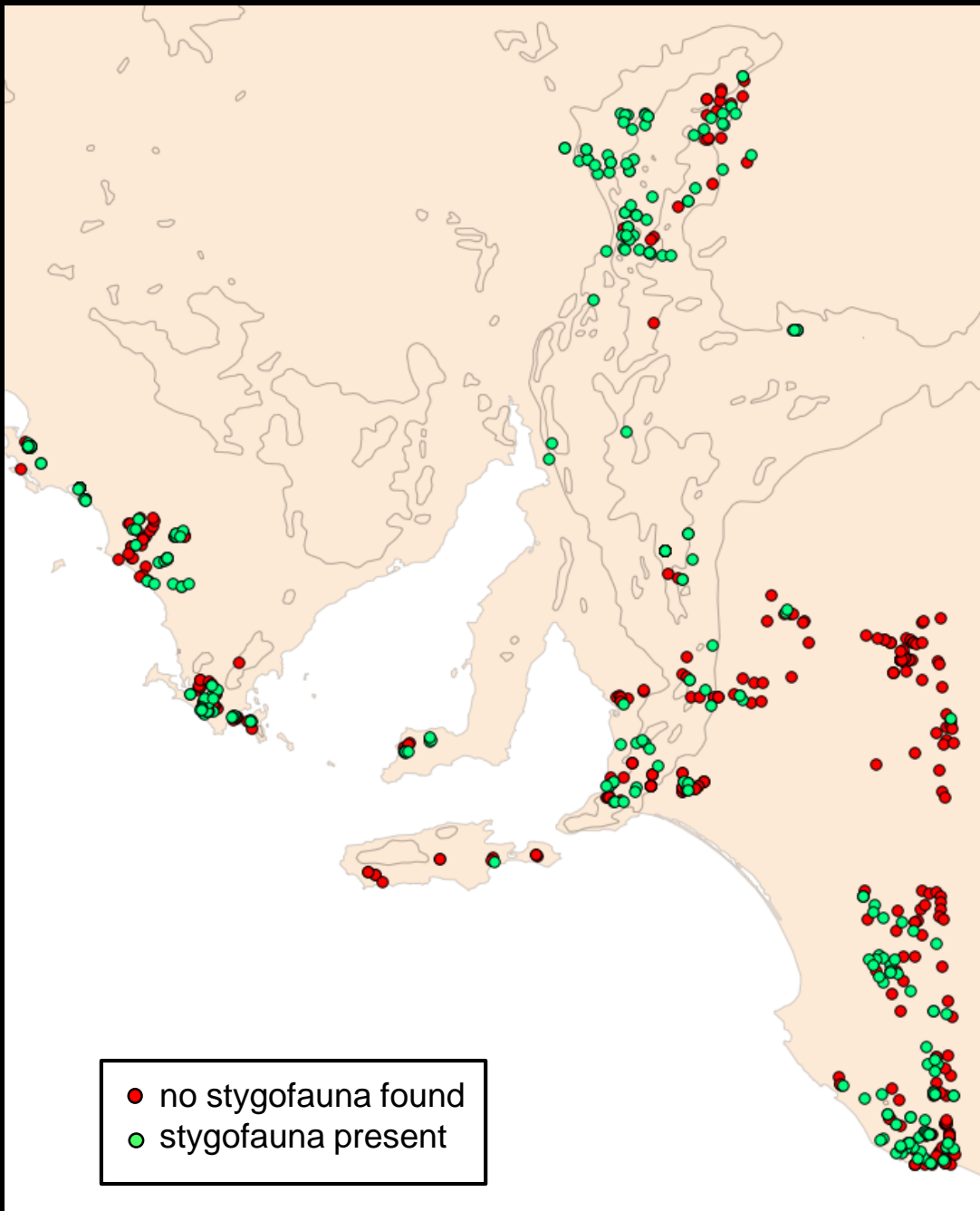


Flinders
UNIVERSITY

Stygofauna in South Australia

661 sites (2007-2013)
253 with stygofauna (38%)

- widely distributed
- not everywhere
- large parts not surveyed
- 3 species previously known
- **140+ species new to science**
- only 12 recently described
- 15 different animal orders:
 - crustaceans
 - snails
 - worms
 - insects



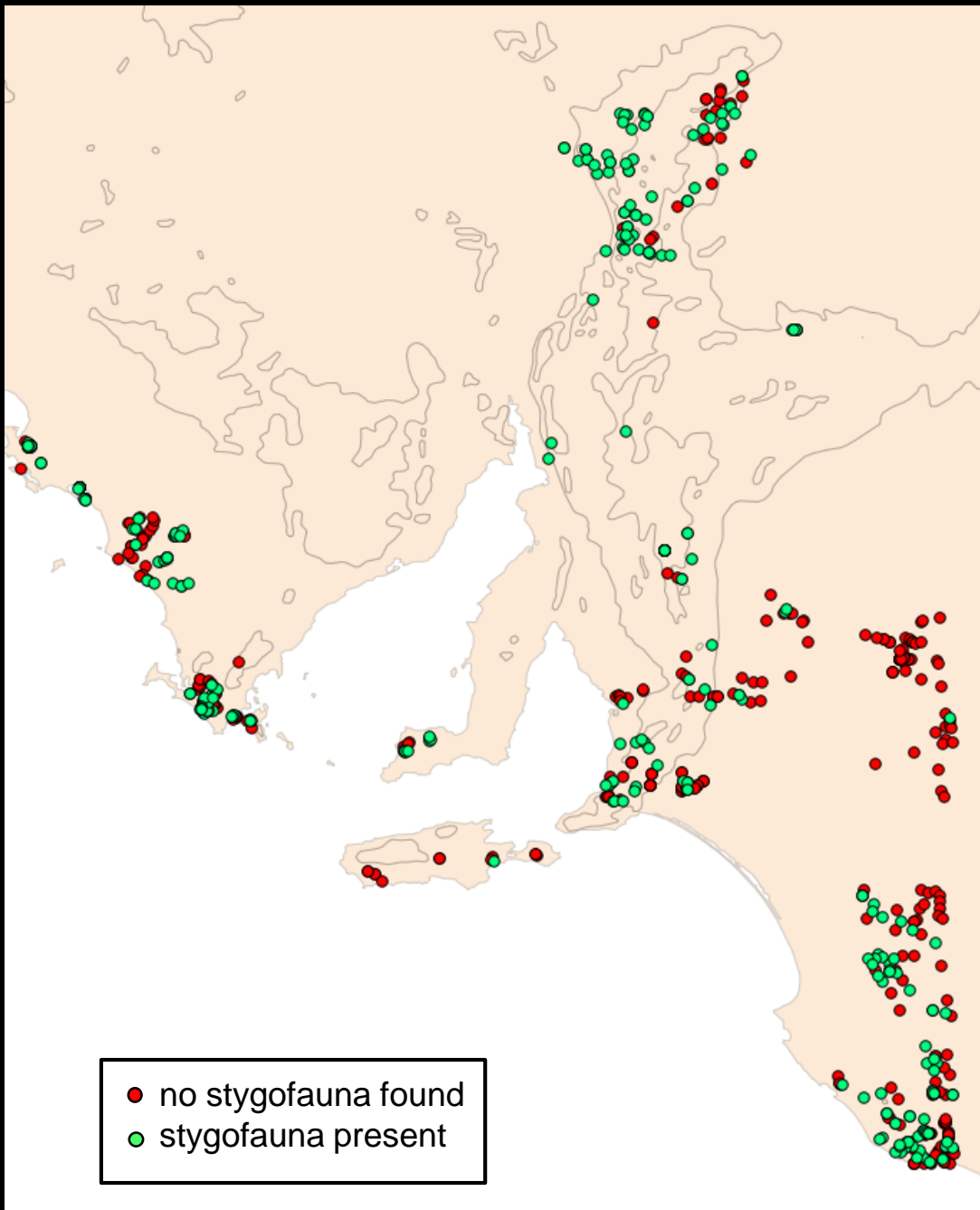
Stygofauna in South Australia

Areas

- South East SA
- Eyre Peninsula - West coast
- Mount Lofty Ranges
- Flinders Ranges

Habitats

- Karst
- Alluvial sediments
- Fractured Rocks
- Permanent Springs



Data SA

- 12 Species descriptions (7 publications)
- Unpublished DNA barcode data set, identifying many new species and genera
- Unpublished sample locality and species occurrence data
- Manuscript in prep.

Amphipoda

order	family	genus	species	estimated number of species							
				Eyre Pen.	Yorke Pen.	Flinders Rgs.	Lofty Rgs.	Murray/Mallee	SE	other regions	all regions
Amphipoda total				6	1	37	9		8	3	63
	Bogidiellidae	<i>Bogidiella</i>	<i>veneris</i>	1	-	-	-	-	-	-	1
	Chiltoniidae	<i>Phreatochiltonia</i>	<i>anophthalma</i>	-	-	-	-	-	-	1	1
		<i>Kartachiltonia</i>	<i>moodyi</i>	-	-	-	-	-	-	1	1
		new genus 1	undescribed	-	-	15	-	-	-	-	15
		new genus 2	undescribed	2	-	-	-	-	-	-	2
		new genus 3	undescribed	2	-	-	-	-	-	-	2
		new genus 4	undescribed	-	-	-	1	-	-	-	1
	Melitidae	<i>Brachina</i>	<i>invasa</i>	-	-	1	-	-	-	-	1
		<i>Brachina</i>	undescribed	1	1	21	-	-	-	-	24
	Paramelitidae	<i>Austrogammarus</i>	undescribed	-	-	-	-	-	1	-	1
		<i>Uronyctus</i>	<i>longicaudus</i>	-	-	-	-	-	1	-	1
		<i>Uronyctus</i>	undescribed	-	-	-	-	-	2	-	2
	Neoniphargidae	new genus 1 SE	undescribed	-	-	-	-	-	3	-	3
		new genus 2 E Lofty	undescribed	-	-	-	3	-	-	-	3
		new genus 3 W Lofty	undescribed	-	-	-	5	-	-	-	5

Syncarida

order	family	genus	species	estimated number of species							
				Eyre Pen.	Yorke Pen.	Flinders Rgs.	Lofty Rgs.	Murray/Mallee	SE	other regions	all regions
Syncarida			total	3		11	7	1	7		29
	Anaspidaceae	<i>Koonunga</i>	<i>crenarum</i>	-	-	-	-	-	1	-	1
		<i>Koonunga</i>	<i>hornei</i>	-	-	-	-	-	1	-	1
		<i>Koonunga</i>	<i>tatiaraensis</i>	-	-	-	-	-	1	-	1
		<i>Koonunga</i>	<i>allambiensis</i>	-	-	-	-	-	1	-	1
	Psammaspidae?	undescribed	undescribed	-	-	-	1	-	2	-	3
	Bathynellidae	undescribed	sp. 1	-	-	1	-	-	-	-	1
		undescribed	sp. 2	-	-	1	-	-	-	-	1
		undescribed	undescribed	-	-	4	5	1	1	-	11
	Parabathynellidae	<i>Arkaroolabathynella</i>	<i>bispinosa</i>	-	-	1	-	-	-	-	1
		<i>Arkaroolabathynella</i>	<i>remkoi</i>	-	-	1	-	-	-	-	1
		<i>Arkaroolabathynella</i>	<i>robusta</i>	-	-	1	-	-	-	-	1
		<i>Arkaroolabathynella</i>	<i>spriggi</i>	-	-	1	-	-	-	-	1
		<i>Arkaroolabathynella</i>	'crocker well'	-	-	1	-	-	-	-	1
		'Hexabathynella'	sp. 1 (RL920, Port Kenny)	1	-	-	-	-	-	-	1
		'Atopobathynella'	sp. 1 (RL933, ULE 178)	1	-	-	-	-	-	-	1
		'Lineage A'	sp. WNL065	1	-	-	-	-	-	-	1
		undescribed		-	-	-	1	-	-	-	1

Data WA & other states

- WA- Pilbarra survey (Stuart Halse) 2001-2006?
- Fauna and locality data for Yilgarn and Pilbarra sites (>100) in several publications (PhD's)
- Fauna and locality data from EIS studies (some data protected)
- Huge faunal diversity by DNA sequencing (most species not described)
- (extreme) short range endemics