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APPENDIX A

Number of individuals of each species at each station for the collections not included in the main body of the text.

February 1977

	STATION							
	3	4	5	6	7	8	9	10
Donax faba	19	4						
Mesodesma altenae	9	128	376	2775				
Latona cuneata	1							
Pisione oerstedii		27						
Other Nereids		20						
Perinereis vallata		10	1					
Saccocirrus		4						
Patinapta cf. ooplax		3						
Megalops larva		2						
Mactra dissimilis		1			4			
Goniadopsis		1						
Tellina (Cadella) semen		1						
Polinices conicus			1	18				
Diogenes avarus				15	1			
Arachnoides placenta				5	4			
Polinices didymus				2				
Tellina (Maccomona) australis				1	1			

Lumbrinereis	1	
Edwardsia elegans	1	
Diopatra		1
Solidula cf. sulcata		1
Albunea symmysta		1
Atylus		1

March 1977

	STATION							
	3	4	5	6	7	8	9	10
Donax faba	18	66						
Pseudolana brevimargine	6							
Mesodesma altenae	3	8	3	1				
Perinereis vallata	1	3						
Saccocirrus	1							
Pisione oerstedii		15						
Other Nereids		2						
Cumacea		1						
Polinices conicus			4	5				
Tellina (Macomona) australis			1	4	3			
Diogenes avarus				4	9			
Albunea symmysta				3	2			
Nemerteans (Carinoma)				1				
Arachnoides placenta					4			
cf. Pseudopolydora kempi					1			
Mactra dissimilis					1			
Phylyra					1			

April 1977

	STATION							
	3	4	5	6	7	8	9	10
Donax faba	1	56						
Saccocirrus	1	15						
Megalops larva	1	2						
Pisione oerstedii		29						
Perinereis vallata		14						
Other Nereids		9						
Platyischnopus		4						
Diogenes avarus		3	3	3	5			
Pseudolana brevimargine		2						
Mesodesma altenae		1		2				
Matuta			4					
Glycera A			2	1				
Polinices conicus			1		1			
Ceratonereis erythraeensis			1					
Dosinia kaspiewi			1					
Mactra dissimilis				5	2			
Albunea symmysta				3				
Diopatra				2				
Tellina (Macomona) australis				1	3			
Scoloplos (Leodamus)				1				
Glycera B				1				
Strigilla tomlini				1				
Gastrosaccus cf. dakini				1				
"Onuphis sp 4"					1			

June 1977

	STATION									
	3	4	5	6	7	8	9	10		
<i>Pseudolana brevimargine</i>	8									
<i>Saccocirrus</i>	4	10								
<i>Donax faba</i>	2	99	3							
<i>Mesodesma altenae</i>	2									
<i>Pisione oerstedii</i>		37								
<i>Perinereis vallata</i>		10								
Other Nereids		4								
<i>Diogenes avarus</i>		1		4	2	3				
Opheliid (n.g. n.sp.)			5							
<i>Urohaustorius</i>			5							
<i>Syllis</i> (Langerhansia)			3					1		
<i>Glycera</i> A			2	3						
<i>Mactra dissimilis</i>			1	1		5	4	1		
<i>Platyischnopus</i>			1	1						
<i>Ceratonereis erythraeensis</i>			1							
Ostracod b			1							
<i>Arachnoides placenta</i>			1							
<i>Scolecopsis</i> B				3						
Nemertean (Carinoma)				1	1	2				
<i>Solidula</i> cf. <i>sulcata</i>					4	3	2	3		
<i>Glycera</i> B					2	5	1	2		
<i>Tellina</i> (<i>Macomona</i>) <i>australis</i>					2	2				
<i>Dosinia kaspiewi</i>					1	1	1			
<i>Dispio</i> A					1	1				
<i>Magelona</i>					1					
<i>Strigilla tomlini</i>						2				
<i>Diopatra</i>						1	3	1		
<i>Amphictene</i>						1				
<i>Isanda coronata</i>						1				
<i>Enteropneust</i>						1				
<i>Albunea symmysta</i>								2		

Polinices didymus	1	
Matuta	1	
Edwardsia elegans	1	
Sthenelais		1
Sigalion		1
Polinices conicus		1
Eulimid		1
Gastrosaccus cf. dakini		1
Goby		1

July (early) 1977

	STATION							
	3	4	5	6	7	8	9	10
Perinereis vallata	13	25						
Donax faba	8	38						
Pseudolana brevimargine	3							
Nemerteans (Carinoma)	1				1	1		
Other Nereids		27						
Pisione oerstedii		4						
Goniadopsis		4						
Ceratonereis erythraeensis		3	1	1				
Saccocirrus		1						
Callianassa australiensis			4	5		1		
Glycera A			3					
Scolecopsis B			2	3				
Platyischnopus			1	1				
Opheliid (n.g. n.sp.)			1					
Syllis (Langerhansia)			1					
Urohaustorius			1					
cf. Exoidiceros			1					
Diogenes avarus				5		3		1
Glycera B				1	1	2	3	
Cumacea				1		1		
Dispio A				1				
Arachnoides placenta					4	1	1	2
Strigilla tomlini					1	1	1	
Dosinia kaspiewi					1		1	3
Tellina (Macomona) australis					1		1	1
Mactra dissimilis					1		1	
Choncholestes						7		1
Gastrosaccus cf. dakini						3	3	2
Solidula cf. sulcata						2		1
Ostracods (Leuroleberis)						1	1	7
Albunea symmysta						1	1	

spiophanes	1
Scoloplos (Leodamus)	1
Magelona	1
Euchone	1
Tellina (Cadella) semen	1
Megalops larva	1
Sthenelais	

July (late) 1977

	STATION							
	3	4	5	6	7	8	9	10
Pseudolana brevimargine	13							
Donax faba	12	10						
Other Nereids	3	25						
Mesodesma altenae		6						
Perinereis vallata		5						
Pisione oerstedii		3						
Urohaustorius		2	4					
Ceratonereis erythraeensis		2	2					
Goniadopsis		2						
Glycera A		1	6	2				
Solidula cf. sulcata		1			2	1	7	
cf. Gondogeneia		1						
Diogenes avarus			8			5	1	
Opheliid (n.g. n.sp.)			8					
Arachnoides placenta			7	2	2	7	9	19
Strigilla tomlini			6				3	
Callianassa australiensis			5					
Scoelelepis B			4					
Nemertean (Carinoma)			1	1		5		1
Glycera B				3	3	11	2	4
Tellina (Macomona) australis				1	3	5	2	
Hastula plumbea				1	1	1	2	1
Dosinia kaspiewi				1		3	3	6
Choncholestes					1	5	2	1
Mactra dissimilis					1	3	3	20
Albunea symmysta					1	1	2	3
Gastrosaccus cf. dakini					1		2	3
Taneid A					1			
Sthenelais						4	4	1
Scoloplos (Leodamus)						2		
Magelona						2		

Terebrid A	2		
cf. Flosmaris	2		
Tellina (Cadella) semen	1	1	1
Saccocirrus	1		
Naineris cf. grubei	1		
Polinices conicus	1		
Parapanaeopsis	1		
Orbinia		1	
Siliqua		1	
Tellina (Angulus) lanceolata		1	
Polinices didymus		1	
Ogyrides			3
Amphipod E			3
Nassarius luridus			2
Megalops larva			2
Diopatra			1
Sigalion			1
Ostracods (Leuroleberis)			1
Branchiostoma			1

September 1977

	STATION							
	3	4	5	6	7	8	9	10
Donax faba	32	44	4					
Mesodesma altenae	18	94	1201	4				
Pseudolana brevimargine	9							
Other Nereids	2	41						
Arachnoides placenta	1		1	44	18	14		
Excirolana orientalis	1							
Perinereis vallata		26						
Pisione oerstedii		20						
Callianassa australiensis		11	6	4				
Urohaustorius		9	4	2				
Glycera A		2	10	7				
Ceratonereis erythraeensis		1	5	4				
Nemertean (Carinoma)		1	5	3	1	2		
Scoelelepis C		1						
Amphipod E		1						
Mictyris longicarpus		1						
Goby		1						
Scoelelepis B			4	4				
Amphipod C			4	2				
Opheliid (n.g. n.sp.)			3					
Platyischnopus			2	5	1	2		
Dosinia kaspiewi			1	2	3	6		
Goniadopsis			1	1				
Polinices A		1		2				
Terebrid A			1					
Glycera B				17	9	10		
Diogenes avarus				6				
Magelona				2		1		
Solidula cf. sulcata				1	2	6		
Ostracods (Leuroleberis)				1	2	1		
Dispia A				1	2			

Choncholestes	1	1	3
Isanda coronata	1	1	1
Scoloplos (Leodamus)	1	1	
Nothria holobranchiata	1	1	
Tellina (Macomona) australis		4	1
Strigilla tomlini		3	
Polinices conicus		2	
Mactra dissimilis		1	4
Diopatra		1	1
Sphaeromidae		1	
Magelona		1	
"Onuphis sp 4"		1	
Gastrosaccus cf. dakini		1	
Ogyrides			1
Sthenelais			1
Tellina (Cadella) semen			1
Mactra obesa			1
Hastula plumbea			1
Matuta			1
cf. Flosmaris			1

October 1977

	STATION							
	3	4	5	6	7	8	9	10
<i>Pseudolana brevimargine</i>	22							
Amphipod C	21	1	9	4				
<i>Mesodesma altenae</i>	14	570	1532	1				
<i>Donax faba</i>	13	66	16					
<i>Platyischnopus</i>	5		4	10	7	5		
<i>Scolelepis B</i>	3		2	6	2			
Cumacea	2		2		6	10		
<i>Perinereis vallata</i>	1	32						
Other Nereids	1	15	1					
<i>Patinapta cf. ooplax</i>	1							
<i>Pisione oerstedii</i>		5	1					
<i>Callianassa australiensis</i>		3	5					
<i>Urohaustorius</i>		3	2					
<i>Scolelepis C</i>		2						
<i>Glycera B</i>		1		11	23	20		
Taneid A		1						
<i>Goniadopsis</i>		1						
<i>Gastrosaccus cf. dakini</i>			6	3	2	2		
Nemerteans (Carinoma)			6	3	1	3		
<i>Glycera A</i>			5	16	1			
<i>Ceratonereis erythraeensis</i>			2	3				
<i>Excirolana orientalis</i>			1					
<i>Arachnoides placenta</i>				108	19	19		
<i>Isanda coronata</i>				4				
<i>Polinices a</i>				3	5	7		
<i>Solidula cf. sulcata</i>				2	4	7		
<i>Megalops larva</i>				2				
<i>Armandia intermedia</i>				1	1	1		
<i>Ogyrides</i>				1		1		
<i>Diogenes avarus</i>				1		1		
<i>Polinices didymus</i>				1				

Strigilla tomlini	6	6
Ostracods (Leuroleberis)	3	1
Tellina (Macomona) australis	2	5
Choncholestes	2	2
Albunea symmysta	1	2
Spionid C	1	1
Magelona	1	1
Matuta	1	
Lumbrinereis	1	
Epicodakia	1	
Mactra dissimilis	1	
Goby	1	
Dosinia kaspiewi		3
Tellina (Cadella) semen		2
Microprotopus		2
Scoloplos (Leodamus)		1
Sphaeromidae		1
Glycera cf. americana		1
Paraonid		1
Sigalion		1
cf. Gondogeneia		1
cf. Flosmaris		1

December 1977

	STATION							
	3	4	5	6	7	8	9	10
<i>Pseudolana brevimargine</i>	6	104	3	2	1			
<i>Mesodesma altenae</i>	4	37	17					
<i>Perinereis vallata</i>	3	15						
<i>Donax faba</i>	1	58	1					
<i>Gastrosaccus cf. dakini</i>	1							
<i>Polygordius</i>		30						
Other Nereids		17						
<i>Saccocirrus</i>		1	7					
<i>Callianassa australiensis</i>		1	2					
Taneid A		1	1					
<i>Dosinia kaspiewi</i>					2	2	4	1
<i>Patinapta cf. ooplax</i>		1						
<i>Glycera A</i>			21	6				
<i>Pisione oerstedii</i>			14					
<i>Platyischnopus</i>			6	16				
Amphipod C			5		3			
<i>Goniadopsis</i>			2					
<i>Scoelelepis C</i>			2					
<i>Arachnoides placenta</i>			1	109	44	27	6	3
<i>Glycera B</i>			1	5	8	18	19	6
<i>Solidula cf. sulcata</i>			1		2	3	2	
<i>Microprotopus</i>			1			4	1	
<i>Scoelelepis B</i>			1					
<i>Glycera cf. americana</i>			1					
<i>cf. Gondogeneia</i>			1					
Nemerteans (Carinoma)				4	1	4	5	4
<i>Tellina (Macomona) australis</i>				3	9	9	6	
Matuta				3	3		1	2
<i>Strigilla tomlini</i>				2	8	2	5	
Ogyrides				2	1		1	
<i>Diogenes avarus</i>				2				1

Polinices A	1	1	3	5	3
Mactra dissimilis	1	1	3	1	2
Lumbrinereis	1	1		1	
Dispio A	1		3	3	
Ostracods (Leuroleberis)	1		3	1	
Isanda coronata	1				
cf. Flosmaris		2	2		1
Tellina (Cadella) semen		2	1	2	2
Albunea symmysta		2		1	2
Branchiostoma		1			
Edwardsia elegans			3	1	1
Spionid C			3	1	
Hastula plumbea			2	1	
Choncholestes			2		12
Diopatra			1	1	
Naineris cf. grubei			1		2
Amphictene			1		
Pitar			1		
Ascidian			1		
Tellina (Angulus) lanceolata				2	2
Scoloplos (Leodamus)				1	1
Prionospio				1	
Orbinia				1	
Paraonid				1	
Pista typha				1	
Pilargus					3
Sigalion					2
Anemone B					2

January 1978

	STATION							
	3	4	5	6	7	8	9	10
<i>Pseudolana brevimargine</i>	12	5						
<i>Perinereis vallata</i>	2	28						
<i>Donax faba</i>	1	60	2					
Other Nereids	1	3						
Cumacea	1							
<i>Pisione oerstedii</i>		11	17					
<i>Patinapta cf. ooplax</i>		6						
<i>Scopimera inflata</i>		3	2					
<i>Goniadopsis</i>		3						
<i>Scolecopsis C</i>		2	4	1				
<i>Saccocirrus</i>		2	2					
<i>Mesodesma altenae</i>		1	5					
Sphaeromidae		1	2					
Nemertean (Carinoma)		1		7	2		3	2
Amphipod E		1						1
<i>Scolecopsis A</i>		1						
<i>Urohaustorius</i>		1						
<i>Glycera A</i>			4	6	2			
<i>Tellina A</i>			1		1		1	1
<i>Ceratonereis erythraeensis</i>			1					
<i>Scolecopsis B</i>			1					
<i>Syllis (Langerhansia)</i>			1					
<i>Arachnoides placenta</i>				26	29	38	20	20
<i>Tellina (Macomona) australis</i>				9	14	10	27	1
<i>Gastrosaccus cf. dakini</i>				4	2			
<i>Diogenes avarus</i>				3	1	1		4
<i>Strigilla tomlini</i>				2	3	1		
<i>Mactra dissimilis</i>				2	2		1	
<i>Dosinia kaspiewi</i>				2	1	1	1	
<i>Polinices conicus</i>				2	1			
Ogyrides				2		1		

Platyischnopus	2				
Albunea symmysta	1			1	1
Matuta	1				1
Glycera B		4	10	6	6
Solidula cf. sulcata		2	1		
Magelona		2			1
Dispio A		1	4	3	
paracondylactis dawydoffi		1			
Microprotopus			4		3
Choncholestes			2		4
Opheliid (n.g. n.sp.)			1		
Scoloplos (Leodamus)			1		
Glycera cf. americana			1		
Tellina (Cadella) semen			1		
Hastula plumbea			1		
Taneid A			1		
Edwardsia elegans				3	
Polinices A			1	1	
cf. Flosmaris				1	1
Orbinia				1	
Epicodakia				1	
Amphictene					2
Sigalion					1
Pilargus					1
"Onuphis sp 4"					1
Taneid B					1
Amphipod C					1

APPENDIX B

A list of floral species from the Pallarenda intertidal was compiled, but no attempt was made to record the seasonal changes in their distribution. At the top of the beach (landward of station 1), the beach dune was consolidated by the creeping vines, Ipomea pes-caprae and Canavalia rosea. Entwined within these vines was the wirelike creeper, Cassytha, and interspersed between runners of the vines was Tribulus. No floral species were present in the upper beach region, but several species of algae and seagrass were noted on the lower beach. The algae included Chondria tenuisima, Solieria, Caulerpa taxifolia, Acetabularia caliculus, Ceramium, and Udotea (near Udotea argentea). The seagrasses present were Halodule uninervis and Halodule pinifolia, Halophila ovalis and Halophila ovata, and Halophila spinulosa.

APPENDIX C

Nearest neighbours from classification analysis of the 91 seasonal species.

Site	Nearest Neighbour							
	First		Second		Third		Fourth	
Aug 3	0.328	Nov 3	0.535	Feb 4	0.681	Feb 3	0.705	Nov 4
Aug 4	0.324	May 4	0.610	Feb 4	0.654	Nov 4	0.754	Aug 3
Aug 5	0.657	Feb 6	0.690	May 6	0.704	May 5	0.738	Feb 7
Aug 6	0.435	Aug 7	0.488	Aug 8	0.500	Feb 8	0.505	Feb 6
Aug 7	0.404	Feb 8	0.417	May 8	0.419	Aug 9	0.435	Aug 6
Aug 8	0.450	Aug 9	0.485	Aug 10	0.488	Aug 6	0.489	Aug 7
Aug 9	0.419	Aug 7	0.450	Aug 8	0.527	Aug 10	0.591	May 8
Aug 10	0.436	May 8	0.476	Aug 7	0.485	Aug 8	0.488	Feb 9

Nov 3	0.328	Aug 3	0.748	Feb 4	0.818	May 3	0.821	Nov 4
Nov 4	0.654	Aug 4	0.677	May 4	0.705	Aug 3	0.739	Nov 5
Nov 5	0.739	Nov 4	0.922	Aug 4	0.927	May 4	0.958	Aug 3
Nov 6	0.647	Nov 7	0.735	Nov 8	0.736	May 6	0.741	Feb 10
Nov 7	0.294	Nov 8	0.518	May 6	0.529	Feb 10	0.532	Feb 9
Nov 8	0.294	Nov 7	0.414	Nov 9	0.606	May 8	0.607	Feb 8
Nov 9	0.414	Nov 8	0.451	Nov 10	0.550	Nov 7	0.686	Aug 10
Nov 10	0.451	Nov 9	0.558	Aug 10	0.628	May 8	0.639	Aug 9
Feb 3	0.474	May 3	0.657	Feb 4	0.681	Aug 3	0.811	Aug 4
Feb 4	0.535	Aug 3	0.610	Aug 4	0.657	Feb 3	0.677	May 3
Feb 5	0.804	Feb 6	0.822	May 5	0.875	Feb 3	0.887	May 10
Feb 6	0.470	May 6	0.477	May 7	0.505	Aug 6	0.538	Feb 10
Feb 7	0.248	Feb 8	0.307	Feb 9	0.381	Feb 10	0.381	May 6
Feb 8	0.248	Feb 7	0.387	May 8	0.397	Feb 10	0.400	Feb 9
Feb 9	0.299	Feb 10	0.307	Feb 7	0.400	Feb 8	0.422	May 10
Feb 10	0.299	Feb 9	0.306	May 10	0.322	May 9	0.381	Feb 7
May 3	0.474	Feb 3	0.677	Feb 4	0.766	Aug 3	0.818	Nov 3
May 4	0.324	Aug 4	0.677	Nov 4	0.704	Feb 4	0.829	Aug 3

May 5	0.687	Feb 6	0.693	May 6	0.704	Aug 5	0.804	Nov 6
May 6	0.381	Feb 7	0.433	Feb 10	0.436	May 7	0.461	May 8
May 7	0.405	May 10	0.410	May 9	0.436	May 6	0.437	Feb 7
May 8	0.387	Feb 8	0.417	Aug 7	0.426	Feb 7	0.436	Aug 10
May 9	0.276	May 10	0.322	Feb 10	0.407	Feb 7	0.410	May 7
May 10	0.276	May 9	0.306	Feb 10	0.405	May 7	0.419	Feb 8

APPENDIX D

Some species were not easily recognizable as distinct species and were placed in polyspecific groups. There are three of these. They are nemerteans, ostracods, and other nereids.

Though the nemerteans were treated as a polyspecific group, one complete specimen was sent to Dr. Ray Gibson of Liverpool Polytechnic Institute. It was identified to the palaeonemertean genus, Carinoma, and is believed to be a new species.

The ostracod material examined was too limited to develop an impression of the species structure of ostracods at Pallarenda. Three individuals were submitted to Dr. Pat De Deckker of the University of Adelaide, and were identified by Dr. Louis Kornicker at the Smithsonian Institution. Each of the three individuals was a juvenile of the genus Leuroleberis.

The polyspecific group, "Other Nereids" consists of nereids other than those listed above and includes species of Neanthes and Ceratonereis.

The Opheliid (n.g. n.sp.) is similar to the genus, Euzonus.
Dr. Pat Hutchings of the Australian Museum has found a similar species
in New South Wales and believes them to be a new genus and new species.

"Onuphis sp. 4" is the designation of this polychaete given by
Hannelora Paxton of MacQuarie University.

Specific names for several of the amphipods (Urohaustorius,
Platyischnopus, and Amphipod C) may be available soon, as they have been
submitted to Margaret Drummond of the Ministry of Conservation in
Victoria for identification. She has also examined the Choncholestes
material, but was not certain that this was the correct genus. Though
it may be Choncholestes, it was similar to a Western Port Bay species,
Siphonoecetes. Drummond also "was inclined to think" that the species
designated as cf. Gondogeneia may be a new species of the genus
Tethygeneia, but was uncertain without viewing more material. She also
was confident that the species here recorded as cf. Exoediceros was not
that species, but may be a member of the genus Perioculodes, but was,
again, in need of more material before making a decision.

Dr. Janet Haig of the Allan Hancock Foundation confirmed the
identification of Albunea symmysta, and advised that, "although a number
of spelling variations occur in the literature, symmysta is correct."