

## Part 5

# Decapod Crustacea of Ashmore Reef and Cartier Island

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### Abstract

A total of 99 decapod crustaceans is recorded. Dominant groups are xanthoids (39 species) and paguroids (25 species).

### Background and discussion

Decapod crustaceans were collected by SCUBA and snorkel diving, by hand on reef flats and by dredge. Ninety-nine decapod crustacean species were collected and identified from Ashmore Reef and Cartier Island.

This total compares with the 56 species recorded from Scott and Seringapatam Reefs, 230 kms to the south, on a previous survey (Berry and Morgan 1986). For the present study, several species of caridean shrimps and non-paguroid anomurans were identified which were excluded from the earlier work. Broad comparisons can be made for some groups however, and species collected from Scott and Seringapatam Reefs are asterisked in the present list and indicated in parentheses below.

Xanthoid crabs (families Xanthidae, Trapeziidae, Carpiliidae, Menippidae, Goneplacidae) were dominant in terms of species diversity in both studies with 39 (30) species. Hermit crabs were also diverse with 25 (14) species recorded. In all, only 24 species were recorded from both localities. This apparently low level of specific overlap should be interpreted with some caution, however, because of the relatively low intensity of sampling in the studies.

Some results require comment. Only one species of Trapeziidae, *Trapezia guttata*, is recorded from the Ashmore Reef survey. It is highly likely that other species were present but not collected by the expedition. Similarly, the family Majidae must be regarded as very under-represented in the Scott Reef survey (Berry and Morgan 1986) with only two species collected.

A list of collected crustaceans was not produced for the Rowley Shoals survey, first of the three museum studies of Western Australian offshore reefs, and comparison with the later two surveys is therefore impossible.

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## List of Decapod Crustacea

## Key to Symbols

Numbers = sampling stations (See Part 1, Figures 2 and 3 and Table 1)

C = Cartier Island; (N) = north side,  
(S) = south side

+ = Species also recorded from Scott/Seringapatam Reefs (Berry and Morgan 1986)

	Ashmore Reef/ Cartier I.	Scott/ Seringapa- tam Reefs
<b>Stenopodidea</b>		
<i>Stenopus hispidus</i> (Olivier, 1811)	13	-
<b>Caridea</b>		
<b>ALPHEIDAE</b>		
<i>Alpheus frontalis</i> H. Milne Edwards, 1837	16,C2(N),C2(S)	-
<i>Alpheus pacificus</i> Dana, 1852	12	-
<i>Alpheus strenuus strenuus</i> Dana, 1852	1,C2(S)	-
<b>HIPPOLYTIDAE</b>		
<i>Saron</i> sp.	20	-
<b>ANOMURA</b>		
<b>DIOGENIDAE</b>		
<i>Aniculus ursus</i> (Olivier, 1811)	16	-
<i>Calcinus gaimardii</i> (H. Milne Edwards, 1848)	3,9,13,16,20,C1, C2(S)	+
<i>Calcinus guamensis</i> Wooster, 1984	16	+
<i>Calcinus laevimanus</i> (Randall, 1839)	14,C2(N)	+
<i>Calcinus latens</i> (Randall, 1839)	3,12,14,16,C2(S)	+
<i>Calcinus minutus</i> Buitendijk, 1937	10,13,20,C1	-
<i>Calcinus pulcher</i> Forest, 1958	9,19	-
<i>Calcinus</i> sp. A	8,C1	-
<i>Calcinus</i> sp. B	16,20	-
<i>Clibanarius corallinus</i> (H. Milne Edwards, 1848)	14,C2(N)	+
<i>Clibanarius striolatus</i> Dana, 1852	14	-
<i>Clibanarius virescens</i> (Krauss, 1843)	14	-
<i>Dardanus crassimanus</i> (H. Milne Edwards, 1848)	3,4,9,10,13,16	+
<i>Dardanus deformis</i> (H. Milne Edwards, 1836)	1,3,12,C2(S)	+
<i>Dardanus gemmatus</i> (H. Milne Edwards, 1848)	4,16	-
<i>Dardanus guttatus</i> (Olivier, 1811)	1,3,16	+
<i>Dardanus lagopodes</i> (Forskål, 1775)	3,8,9,10,13,16, 20,C2(N),C2(S)	+
<i>Dardanus megistos</i> (Herbst, 1804)	1,3,14	+
<i>Dardanus scutellatus</i> (H. Milne Edwards, 1848)	1,3,12,14	+
<i>Dardanus</i> sp.	16	-
<i>Trizopagurus strigatus</i> (Herbst, 1804)	13,20	-
<b>PAGURIDAE</b>		
<i>Pagurus hirtimanus</i> Miers, 1880	1,3,16,20	-
<i>Pagurus</i> sp.	C2(S)	-

	Ashmore Reef/ Cartier I.	Scott/ Serinapa- tam Reefs
<b>COENOBITIDAE</b>		
<i>Coenobita perlatus</i> H. Milne Edwards, 1837	C2	-
<i>Coenobita rugosus</i> H. Milne Edwards, 1837	14,C2	-
<b>PORCELLANIDAE</b>		
<i>Petrolisthes ohshimai</i> (Miyake, 1937)	16,20	-
<i>Petrolisthes asiaticus</i> (Leach, 1820)	1,20	-
<i>Petrolisthes haswelli</i> Miers, 1884	C2(N),C2(S)	-
<b>GALATHEIDAE</b>		
<i>Galathea</i> sp.	15	-
<b>HIPPIDAE</b>		
<i>Hippa pacifica</i> Dana, 1852	12	-
<b>BRACHYURA</b>		
<b>Dromiacea</b>		
<b>DROMIIDAE</b>		
<i>Petalomera lateralis</i> (Gray, 1831)	20	-
<b>OXYSTOMATA</b>		
<b>CALAPPIDAE</b>		
<i>Calappa calappa</i> (Linnaeus, 1758)	16	-
<i>Calappa gallus</i> (Herbst, 1803)	16	-
<i>Calappa hepatica</i> (Linnaeus, 1758)	3,14,C2	+
<b>OXYRHYNCHA</b>		
<b>MAJIDAE</b>		
<b>INACHINAE</b> MacLeay, 1838		
<i>Camposcia retusa</i> Latreille, 1829	3	-
<b>EPIALTINAE</b> MacLeay, 1838		
<i>Menaethius orientalis</i> (Sakai, 1969)	11,13	-
<i>+enocarcinus depressus</i> Miers, 1874	88	-
<b>PISINAE</b> Alcock, 1895		
<i>Hoplophrys oatesii</i> Henderson, 1893	11	-
<i>Tylocarcinus styx</i> (Herbst, 1803)	13,20	-
<b>MAJINAE</b> Balss, 1929		
<i>Cyclax suborbicularis</i> (Stimpson, 1907)	20	-
<i>Schizophrys aspera</i> (H. Milne Edwards, 1834)	20	+
<b>MITHRACINAE</b> Balss, 1929		
<i>Micippa cristata</i> (Linnaeus, 1758)	3,14	-
<i>Tiarinia angusta</i> Dana, 1852	3,C2(N)	-

	Ashmore Reef/ Cartier I.	Scott/ Seringapa- tam Reefs
<b>ATELECYCLIDAE</b>		
<i>Kraussia integra</i> (De Haan, 1835)	12	-
<b>PORTUNIDAE</b>		
<b>CAPHYRINAE</b> Alcock, 1899		
<i>Caphyra laevis</i> (A. Milne Edwards, 1869)	6,16	-
<b>PORTUNINAE</b> Stephenson and Campbell, 1960		
<i>Portunus granulatus</i> (H. Milne Edwards, 1834)	12,14	-
<i>Thalamita admete</i> (Herbst, 1803)	1,3,12,14	-
<i>Thalamita cooperi</i> Borradaile, 1903	C1	-
<b>XANTHIDAE</b>		
<b>LIOMERINAE</b> Sakai, 1976		
<i>Liomera laevis</i> (A. Milne Edwards, 1873)	1	-
<i>Liomera monticulosa</i> (A. Milne Edwards, 1873)	15	-
<i>Liomera rubra</i> (A. Milne Edwards, 1865)	20	+
<i>Liomera rugata</i> (H. Milne Edwards, 1834)	C1	-
<i>Liomera tristis</i> (Dana, 1852)	1,3,16,C2	+
<b>EUXANTHINAE</b> Alcock, 1898		
<i>Euxanthus exsculptus</i> (Herbst, 1790)	3	+
<i>Hypocolpus abbotti</i> (Rathbun, 1894)	3	-
<b>ACTAEINAE</b> Alcock, 1898		
<i>Actaeodes consobrinus</i> (A. Milne Edwards, 1873)	6	-
<i>Actaeodes hirsutissimus</i> (R., 1852)	13	-
<b>ZOSIMINAE</b> Stimpson, 1907		
<i>Atergatis floridus</i> (Linnaeus, 1767)	3	-
<i>Platypodia</i> cf. <i>eydouxii</i> (A. Milne Edwards, 1865)	20	-
<i>Platypodia granulosa</i> (Rüppell, 1830)	1,3,16	-
<i>Zosimus aeneus</i> (Linnaeus, 1758)	3,8	-
<b>XANTHINAE</b> MacLeay, 1838		
<i>Lachnopus subacutus</i> (Stimpson, 1858)	20	-
<i>Leptodius exaratus</i> (H. Milne Edwards, 1834)	2,14,C1,C2(N)	+
<i>Neoxanthias impressus</i> (Lamarck, 1818)	20	+
<i>Paraxanthias notatus</i> (Dana, 1852)	16,20	-
<i>Xanthias</i> cf. <i>pachydactylus</i> A. Milne Edwards, 1873	3,20	-
<i>Xanthias</i> sp.	20	-
<i>Zozymodes cavipes</i> (Dana, 1852)	14,C2(N)	-
<b>CHLORODIINAE</b> Alcock, 1898		
<i>Chlorodiella laevisissima</i> (Dana, 1852)	1,13,15,18,20	-
<i>Pilodius melanospinis</i> (Rathbun, 1911)	13	-
<i>Phymodius granulatus</i> (De Man, 1888)	C1	-
<i>Phymodius unguilatus</i> (H. Milne Edwards, 1834)	14,18,C2(N), C2(S)	+

	Ashmore Reef/ Cartier I.	Scott/ Seringapa- tam Reefs
TRAPEZIIDAE		
<i>Trapezia guttata</i> Ral, 1775)	16	+
MENIPPIDAE		
<i>Eriphia sebana</i> (Shaw and Nodder, 1803)	14,C2	-
<i>Eriphia scabricula</i> Dana, 1852	3,20	+
INCERTAE SEDIS		
<i>Daira perlata</i> (Herbst, 1790)	3,16	+
<i>Pseudozius caystrus</i> (Adams and White, 1848)	14,C2	-
GONEPLACIDAE		
<i>Litocheira quadrispinosa</i> Zehntner, 1894	16	-
OCYPODIDAE		
<i>Ocypode ceratophthalma</i> (Pallas, 1772)	12,14	-
<i>Uca tetragonon</i> (Herbst, 1790)	14	-
GRAPSIDAE		
GRAPSINAE Dana, 1851		
<i>Grapsus tenuicrustatus</i> (Herbst, 1783)	14	-
<i>Pachygrapsus minutus</i> A. Milne Edwards, 1873	1	-
PLAGUSIINAE Dana, 1851		
<i>Percnon abbreviatum</i> (Dana, 1851)	3	-
<i>Percnon guinotae</i> Crosnier, 1965	3,18	-
CRYPTOCHIRIDAE		
<i>Hapalocarcinus marsupialis</i> Stimpson, 1859	6,18	+