

APPENDIX 1

List of species of Decapoda and Stomatopoda collected in Golfo Dulce and deposited in the collection of the Museum of Zoology (MZUCR), University of Costa Rica: E = endosymbiont in a clam, I = intertidal, CR = coral rock, GD = Golfo Dulce, S = sediment, SC = soft coral, M = mangrove, PT = polychaete tubes, R = rocks, WR = worm reef. No data =?

	Species	Catalog code, station, depth, substrate, year of collection
DECAPODA		
01.	<i>Acantholobulus mirafloresensis</i> Abele & Kim, 1989	1455-01 / 3 / 0 m / ? / 1990
02.	<i>Achelous asper</i> (A. Milne-Edwards, 1861)	2104-06 / F / 70 m / S / 1994 207-01 / 14 / 18 m / S / 1969
03.	<i>Achelous iridescens</i> (Rathbun, 1894)	2005-06 / I / 160-200 m / S / 1993
04.	<i>Ala cornuta</i> (Stimpson, 1860)	3162-17 / 12 / 1-2 m / CR / 2013 3483-01 / 12 / ? / CR / 2013
05.	<i>Alpheus bellimanus</i> Lockington, 1877	3204-01 / 10 / 27 m / CR / 2012
06.	<i>Alpheus floridanus</i> Kingsley, 1878	2006-02 / G / 200 m / S / 1994
07.	<i>Alpheus hebes</i> W. Kim & Abele, 1988	2929-02 / 10 / 0 m / I / 2012
08.	<i>Alpheus pacificus</i> Dana, 1852	2929-03 / 10 / 0 m / I / 2012
09.	<i>Alpheus panamensis</i> Kingsley, 1878	3162-03 / 12 / 1-2 m / CR / 2013
10.	<i>Alpheus rostratus</i> W. Kim & Abele, 1988	3405-06 / 6 / 8-10 m / CR / 2013 3185-08 / 8 / 1-2 m / CR / 2013 3162-04 / 12 / 1-2 m / CR / 2013
11.	<i>Aratus pacificus</i> Thiercelin & Schubart, 2014	499-01 / 7 / 0 m / M / 1969
12.	<i>Calcinus obscurus</i> Stimpson, 1859	1370-06 / 3 / 0 m / I, R, M / 1990 1368-06 / 9 / 0 m / M / 1990
13.	<i>Callianidea mariamartae</i> Hernaez & Vargas, 2013	2928-01-02 / 10 / 0 m / I, R / 2012 2929-01 / 10 / 0 m / I, R / 2012 2957-01 / 10 / 0 m / I, R / 2012
14.	<i>Callinectes arcuatus</i> Ordway, 1863	2104-05 / F / 70 m / S / 1994 502-01 / 7 / ? / ? / 1969
15.	<i>Cancer johngarthi</i> Carvacho, 1984	2005-00 / I / 160-200 m / S / 1993

16.	<i>Cardisoma crassum</i> Smith, 1870	434-01 / 7 / 0 m / ? / 1969 515-01 / 7 / 0 m / ? / 1969 1365-02 / 7 / 0 m / M / 1990
17.	<i>Chasmocarcinus latipes</i> Rathbun, 1898	1995-04 / F / 70 m / S / 1993 2006-03 / G / 200 m / 1994
18.	<i>Clibanarius albidigitus</i> Nobili, 1901	1370-05 / 3 / 0 m / I, R, M / 1990
19.	<i>Clibanarius lineatus</i> (H. Milne Edwards, 1848)	870-01 / 7 / 0 m / ? / 1969 1370-04 / 3 / 0 m / I, R, M / 1990 1368-07 / 9 / 0 m / M / 1990
20.	<i>Cronius ruber</i> Lamarck, 1818	2846-02 / 6 / ? / ? / 2011
21.	<i>Cyrtoplax schmitti</i> Rathbun, 1935	1446-01 / 9 / 0 m / ? / 1990 1447-01 / 9 / 0 m / ? / 1990 1454-01 / 11 / 0 m / M / 1990 1456-02 / 11 / 0 m / ? / 1990
22.	<i>Dardanus nudus</i> Ayón-Parente & Hendrickx, 2009	1995-05 / F / 70 m / S / 1993
23.	<i>Dardanus sinistripes</i> (Stimpson, 1858)	2007-03 / H / 15-20 m / S / 1993
24.	<i>Emerita rathbunae</i> Schmitt, 1935	2794-01 / GD / 0 m / ? / 1995
25.	<i>Epixanthus tenuidactylus</i> (Lockington, 1877)	1370-02 / 3 / 0 m / I, R, M / 1990
26.	<i>Eurypanopeus canalensis</i> Abele & Kim, 1989	1453-02 / 9 / 0 m / ? / 1990 1466-04 / 9 / 0 m / ? / 1990
27.	<i>Eurypanopeus transversus</i> (Stimpson, 1860)	448-01 / 7 / 0 m / M / 1969 1452-02 / 3 / 0 m / ? / 1990
28.	<i>Eurytium tristani</i> Rathbun, 1906	501-01 / 7 / 0 m / ? / 1969 1369-02 / 7 / 0 m / M / 1990
29.	<i>Gnathophyllum panamense</i> (Faxon, 1893)	3162-06 / 12 / 1-2 m / CR / 2013
30.	<i>Goniopsis pulchra</i> Lockington, 1877	498-01 / 7 / 0 m / M / 1969 1362-05 / 7 / 0 m / M / 1990 1366-02 / 9 / 0 m / M / 1990

		1368-04 / 9 / 0 m / M / 1990
		1452-01 / 3 / 0 m / ? / 1990
31.	<i>Hemus finneganæ</i> Garth, 1958	3077-03 / 10 / 27 m / R / 2012 3162-18 / 12 / 1-2 m / CR / 2013 3405-08 / 6 / 8-10 m / CR / 2013
32.	<i>Hepatus kossmanni</i> Neumann, 1878	266-01 / 14 / 18 m / S / 1969
33.	<i>Heterocarpus vicarius</i> Faxon, 1893	2005-02 / 1 / 160-200 m / S / 1993
34.	<i>Hirsutodynamene ursula</i> (Stimpson, 1860)	1995-02 / F / 70 m / S / 1993
35.	<i>Leptuca oerstedii</i> (Ratbun, 1904)	1362-04 / 7 / 0 m / 1990
36.	<i>Leptuca terpsichores</i> (Crane, 1941)	1463-01 / 3 / 0 m / S / 1990
37.	<i>Leucosilia jurinii</i> (de Saussure, 1853)	500-01 / 7 / 0 m / M / 1969
38.	<i>Lysmata californica</i> (Stimpson, 1856)	2007-02 / H / 15-20 m / S / 1993
39.	<i>Megalobrachium erosum</i> (Glassell, 1936)	3162-14 / 12 / 1-2 m / CR / 2013
40.	<i>Megalobrachium pacificum</i> (Gore & Abele, 1974)	1966-01 / 3 / ? / ? / 1990 2402-01 / 10 / ? / WR / 1997
41.	<i>Microcassiope xantusii</i> Stimpson, 1871	3405-09 / 6 / 8-10 m / CR / 2013
42.	<i>Munida gracilipes</i> Faxon, 1893	2005-03 / 1 / 160-200 m / S / 1993 2006-01 / G / 200 m / S / 1994 3578-01 / 01 / ? / S / 2004
43.	<i>Ocypode gaudichaudii</i> H. Milne Edwards & Lucas, 1843	1370-03 / 3 / 0 m / I, R, M / 1990
44.	<i>Orthochela pumila</i> Glassell, 1936	3312-01 / 2 / 11,3 m / SC / 2013
45.	<i>Ozius perlatus</i> Stimpson, 1860	2402-03 / 10 / ? / WR / 1997
46.	<i>Ozius verreauxii</i> Saussure, 1853	1368-05 / 9 / 0 m / M / 1990 2131-01 / 9 / 0 m / ? / 1990 1367-01 / 10 / 0 m / R / 1990
47.	<i>Pachygrapsus transversus</i> (Gibbes, 1850)	1368-02 / 9 / 0 m / M / 1990 1362-06 / 7 / 0 m / M / 1990
48.	<i>Paguristes holmesi</i> Glassell, 1937	1970-01 / G / 200 m / S / 1994

49.	<i>Pagurus virgulatus</i> (Haig & Harvey, 1991)	3185-11 / 8 / 1-2 m / CR / 2013
50.	<i>Palaemon gracilis</i> (Smith, 1871)	1145-01 / 11 / 0.5 m / S / 1979
51.	<i>Palaemonella holmesi</i> (Nobili, 1907)	3077-06 / 10 / 27 m / R / 2012 2846-01 / 6 / ? / ? / 2011 3405-07 / 6 / 8-10 m / CR / 2013 3185-02 / 8 / 1-2 m / CR / 2013
52.	<i>Panopeus purpureus</i> Lockington, 1877	503-01 / 7 / 0 m / ? / 1969 1368-03 / 9 / 0 m / M / 1990 1369-01 / 7 / 0 m / M / 1990
53.	<i>Pantomus affinis</i> Chace, 1937	2005-01 / I / 200 m / S / 1993 2009-01 / I / 160-200 m / S / 1993
54.	<i>Penaeus brevisrostris</i> Kingsley, 1878	2008-01 / M / 80-110 m / S / 1993
55.	<i>Penaeus californiensis</i> Holmes, 1900	2008-01 / M / 110 m / S / 1993
56.	<i>Periclimenaeus spinosus</i> Holthuis, 1951	3405-05 / 6 / 8-10 m / CR / 2013
57.	<i>Periclimenes infraspinis</i> (Rathbun, 1902)	2243-1-2-3 / 10 / 9.5 m / SC / 1997 3187-03 / 10 / ? / SC / 1997
58.	<i>Persephona subovata</i> (Rathbun, 1894)	262-01 / GD / 90 m / ? / 1969
59.	<i>Petramithrax pygmaeus</i> Bell, 1835	3162-01 / 12 / 1-2 m / CR / 2013 3478-01 / 12 / ? / CR / 2013
60.	<i>Petrolisthes agassizii</i> Faxon, 1895	3162-13 / 12 / 1-2 m / CR / 2013
61.	<i>Petrolisthes armatus</i> (Gibbes, 1850)	1465-01 / 9 / 0 m / ? / 1990 1466-05 / 9 / 0 m / ? / 1990 1817-01 / 3 / 0 m / S / 1990 2194-02 / 3 / 0 m / ? / 1997
62.	<i>Petrolisthes glasselli</i> Haig, 1957	3162-16 / 12 / 1-2 m / CR / 2013
63.	<i>Petrolisthes robsonae</i> Glassell, 1945	2194-03 / 3 / 0 m / ? / 1997
64.	<i>Petrolisthes tonsorius</i> Haig, 1960	1466-01 / 9 / 0 m / ? / 1990
65.	<i>Petrolisthes tridentatus</i> Stimpson, 1859	1466-02 / 9 / 0 m / ? / 1990

66.	<i>Petrolisthes zaca</i> Haig, 1968	2227-01 / 7 / 0 m / M / 1990 2232-01 / 7 / 0 m / M / 1990
67.	<i>Pilumnus limosus</i> Smith, 1869	3162-21 / 12 / 1-2 m / CR / 2013 3185-05 / 8 / 1-2 m / CR / 2013
68.	<i>Pilumnus townsendi</i> Rathbun, 1923	3077-02 / 10 / 27 m / R / 2012 3108-01 / 4 / 12-22 m / CR / 2012
69.	<i>Pinnixa longipes</i> (Lockington, 1876)	3413-01 / 10 / 10 m / PT / 2014
70.	<i>Pisidia magdalenensis</i> (Glassell, 1936)	3162-15 / 12 / 1-2 m / CR / 2013
71.	<i>Pitho quinqueidentata</i> Bell, 1835	3162-11 / 12 / 1-2 m / CR / 2013
72.	<i>Platyactaea dovii</i> (Stimpson, 1871)	3162-08 / 12 / 1-2 m / CR / 2013
73.	<i>Platypodiella rotundata</i> (Stimpson, 1860)	3405-03 / 6 / 8-10 m / CR / 2013 3162-09 / 12 / 1-2 m / CR / 2013 3185-06 / 8 / 1-2 m / CR / 2013
74.	<i>Pleuroncodes monodon</i> (A. Milne Edwards, 1837)	2005-07 / 1 / 160-200 m / S / 1993
75.	<i>Polyonyx nitidus</i> Lockington, 1878	3108-05 / 4 / 12-22 m / CR / 2012
76.	<i>Polyonyx quadriungulatus</i> Chace, 1956	3413-02 / 10 / 10 m / PT / 2014
77.	<i>Pomatogebia rugosa</i> (Lockington, 1878)	2200-01 / 6 / ? / ? / 1996 3162-23 / 12 / 1-2 m / CR / 2013 3405-04 / 6 / 8-10 m / CR / 2013 3185-03 / 8 / 1-2 m / CR / 2013
78.	<i>Pontonia margarita</i> Verrill, 1869	3186-01 / 8 / 1-2 / E / 2013 3188-01 / 8 / 1-2 / E / 2013
79.	<i>Portunus xantusii</i> (Faxon, 1893)	2104-02 / F / 70 m / S / 1994
80.	<i>Processa peruviana</i> Wicksten, 1983	2005-06 / 1 / 160-200 m / 1993 3162-05 / 12 / 1-2 m / CR / 2013 3185-04 / 8 / 1-2 m / CR / 2013
81.	<i>Pseudoveleronia laevifrons</i> (Holthuis, 1951)	3434-03 / 2 / 11. m / SC / 2013
82.	<i>Rimapenaeus pacificus</i> Burkenroad, 1934	2008-02 / M / 80-110 m / 1993

83.	<i>Sesarma rhizophorae</i> Rathbun, 1906	1368-01 / 9 / 0 m / M / 1990 1366-03 / 7 / 0 m / M / 1990 1365-06 / 7 / 0 m / M / 1990
84.	<i>Sesarma rubinofforum</i> Abele, 1973	1365-08 / 7 / 0 m / M / 1990
85.	<i>Sesarma sulcatum</i> Smith, 1870	1365-01 / 7 / 0 m / M / 1990
86.	<i>Sicyonia disedwardsi</i> (Burkenroad, 1934)	1995-01 / F / 70 m / S / 1993
87.	<i>Sicyonia picta</i> Faxon, 1893	2005-04 / I / 160-200 m / S / 1993
88.	<i>Solenocera agassizii</i> (Faxon, 1893)	2006-04 / G / 200 m / S / 1994 2007-01 / H / 15-20 m / S / 1994
89.	<i>Solenocera mutator</i> Burkenroad, 1934	2105-01 / L / 200 m / S / 1993
90.	<i>Teleophrys cristulipes</i> Stimpson, 1860	3162-22 / 12 / 1-2 m / CR / 2013 3478-02 / 12 / ? / CR / 2013
91.	<i>Tomopagurus merimaculosus</i> (Glassell, 1937)	2104-03 / F / 70 m / S / 1994
92.	<i>Tomopagurus purpuratus</i> (Benedict, 1892)	1995-03 / F / 70 m / S / 1993 2104-04 / F / 70 m / S / 1994
93.	<i>Trachycaris restricta</i> (A. Milne-Edwards, 1878)	3108-03 / 4 / 12-22 m / CR / 2012
94.	<i>Uca heteropleura</i> (Smith, 1870)	1445-01 / 9 / 0 m / ? / 1990
95.	<i>Uca princeps</i> (Smith, 1870)	1362-03 / 7 / 0 m / S / 1990
96.	<i>Uca stylifera</i> (H. Milne Edwards, 1852)	1364-01 / 9 / 0 m / M / 1990
97.	<i>Ucides occidentalis</i> (Ortmann, 1897)	413-01 / 7 / 0 m / ? / 1969 1399-01 / 7 / 0 m / M / 1990
98.	<i>Uhlias ellipticus</i> Stimpson, 1871	3162-10 / 12 / 1-2 m / CR / 2013 3077-07 / 10 / 27 m / R / 2012
99.	<i>Upogebia longipollex</i> (Street, 1851)	3112-01 / 10 / 0 m / I / 2012 2402-02 / 10 / ? / WR / 1997 3210-01 / 10 / 0 m / I / 2012
100.	<i>Upogebia spinigera</i> (Smith, 1871)	1727-01 / 9 / 0 m / ? / 1990 2194-01 / 3 / 0 m / ? / 1997

101.	<i>Williamstimpsonia stimpsoni</i> (A. Milne-Edwards, 1879)	3162-19 / 12 / 1-2 m / CR / 2013
102.	<i>Xanthodius sternberghii</i> (Stimpson, 1859)	1370-01 / 3 / 0 m / I, R, M / 1990
STOMATOPODA		
103.	<i>Neogonodactylus zaca</i> (Manning, 1972)	3077-10 / 10 / 27 m / R / 2012 3162-12 / 12 / 1-2 m / CR / 2013 3185-07 / 8 / 1-2 m / CR / 2013 3405-11 / 6 / 8-10 m / CR / 2013
104.	<i>Squilla biformis</i> Bigelow, 1891	2006-05 / G / 200 m / S / 1994
105.	<i>Squilla hancocki</i> Schmitt, 1940	195-02 / GD / 101 m / ? / 1969
106.	<i>Squilla panamensis</i> Bigelow, 1891	2104-01 / F / 70 m / S / 1994