

APPENDIX C - INVERTEBRATE POPULATION ATTRIBUTES

- C1. Taxonomic list of megabenthic invertebrate species collected
- C2. Percent area of megabenthic invertebrate species by subpopulation
- C3. Abundance of megabenthic invertebrate species by subpopulation
- C4. Biomass of megabenthic invertebrate species by subpopulation

C1. Taxonomic list of megabenthic invertebrate species collected on the southern California shelf and upper slope at depths of 2-476m, July-October 2003.

Taxon/Species	Author	Common Name
PORIFERA		
CALCEREA		
--SCYCETTIDA		
Amphoriscidae		
<i>Leucilla nuttingi</i>	(Urban 1902)	urn sponge
HEXACTINELLIDA		
--HEXACTINOSA		
Aphrocallistidae		
<i>Aphrocallistes vastus</i>	Schulze 1887	cloud sponge
DEMOSPONGIAE		
Porifera sp SD2		"sponge"
Porifera sp SD4		"sponge"
Porifera sp SD5		"sponge"
Porifera sp SD15		"sponge"
Porifera sp SD16		"sponge"
--SPIROPHORIDA		
Tetillidae		
<i>Tetilla arb</i>	de Laubenfels 1930	gray puffball sponge
--HADROMERIDA		
Suberitidae		
<i>Suberites suberea</i>	(Johnson 1842)	hermitcrab sponge
Tethyidae		
<i>Tethya californiana</i> (= <i>aurantium</i>)	de Laubenfels 1932	orange ball sponge
CNIDARIA		
HYDROZOA		
--ATHECATAE		
Tubulariidae		
<i>Tubularia crocea</i>	(L. Agassiz 1862)	pink-mouth hydroid
--THECATAE		
Aglaopheniidae		
<i>Aglaophenia</i> sp		"hydroid"
Plumulariidae		
<i>Plumularia</i> sp		"seabristle"
Sertulariidae		
<i>Abietinaria</i> sp		"hydroid"
--SIPHONOPHORA		
Rhodaliidae		
<i>Dromalia alexandri</i>	Bigelow 1911	sea dandelion
ANTHOZOA		
--ALCYONACEA		
Clavulariidae		
<i>Telesto californica</i>	Kükenthal 1913	"soft coral"
<i>Telesto nuttingi</i>	Kükenthal 1913	"anemone"
Gorgoniidae		
<i>Adelogorgia phyllosclera</i>	Bayer 1958	orange gorgonian
<i>Eugorgia rubens</i>	Verrill 1868	purple gorgonian
<i>Heterogorgia</i> sp		"sea fan"
<i>Lophogorgia chilensis</i>	(Verrill 1868)	pink sea whip
Plexauridae		
<i>Euplexaura</i> sp		"gorgonian"
Muriceidae		
<i>Thesea</i> sp B	Ljubenkov 1986 §	yellow sea twig

C1. (continued)

Taxon/Species	Author	Common Name
--PENNATULACEA		
Renillidae		
<i>Renilla koellikeri</i>	Pfeffer 1886	purple sea pansy
Stachyptilidae		
<i>Stachyptilum superbum</i>	Studer 1894	"sea pen"
Anthoptilidae		
<i>Anthoptilum grandiflorum</i>	(Verrill 1879)	feather boa sea pen
Halopteridae		
<i>Halopteris californica</i>	(Moroff 1902)	"sea pen"
Virgulariidae		
<i>Acanthoptilum</i> sp		trailtip sea pen
<i>Stylatula elongata</i>	(Gabb 1862)	slender sea pen
<i>Virgularia agassizi</i>	Studer 1894	"sea pen"
<i>Virgularia californica</i>	Pfeffer 1886	California sea pen
Pennatulidae		
<i>Pennatula californica</i>	Kükenthal 1913	"sea pen"
<i>Ptilosarcus gurneyi</i>	(Gray 1860)	fleshy sea pen
--SCLERACTINIA		
Caryophylliidae		
<i>Coenocyathus bowersi</i>	Vaughn 1906	colonial cup coral
<i>Paracyathus stearnsii</i>	Verrill 1869	brown cup coral
--ACTINIARIA		
Liponematidae		
<i>Liponema brevicornis</i>	(McMurrich 1893)	tentacle-shedding anemone
Actinostolidae		
<i>Actinostola</i> sp A	Ljubenkov 1998 §	"anemone"
<i>Stomphia vinosa</i>	(McMurrich 1893)	"anemone"
Hormathiidae		
<i>Stephanauge annularis</i>	Carlgren 1936	signet ring anemone
Metridiidae		
<i>Metridium farcimen</i>	(Brandt 1835)	gigantic anemone
Corallimorphidae		
<i>Corynactis californica</i>	Carlgren 1936	strawberry corallimorpharian
--ZOANTHIDEA		
<i>Zooanthidae</i> sp A	Ljubenkov 2003 §	"zoanthid"
<i>Zooanthidae</i> sp B	Ljubenkov 2003 §	"zoanthid"
Epizoanthidae		
<i>Epizoanthus induratus</i>	Cutress & Pequegnat 1960	luminescent zoanthid
MOLLUSCA		
POLYPLACOPHORA		
--NEOLORICATA		
Ischnochitonidae		
<i>Lepidozona sinudentata</i>	(Carpenter in Pilsbry 1892)	whitestripe chiton
GASTROPODA		
--VETIGASTROPODA		
Trochidae		
<i>Calliostoma gloriosum</i>	Dall 1871	glorious topsnail
<i>Calliostoma platinum</i>	Dall 1890	silvery topsnail
<i>Calliostoma supragranosum</i>	Carpenter 1864	granulose topsnail
<i>Calliostoma tricolor</i>	Gabb 1865	tricolor topsnail
<i>Calliostoma turbinum</i>	Dall 1896	spindle topsnail
<i>Calliostoma variegatum</i>	Carpenter 1864	variegate topsnail
<i>Cidarina cidaris</i>	(Carpenter 1864)	spiny margarite

C1. (continued)

Taxon/Species	Author	Common Name
Trochidae (continued)		
<i>Tegula aureotincta</i>	Forbes 1850	gilded turban
<i>Turcica caffee</i>	(Gabb 1865)	two-tooth topsnail
--NEOTAENIOGLOSSA		
Calyptraeidae		
<i>Crepidula onyx</i>	G. B. Sowerby I 1824	onyx slippersnail
<i>Crepidatella dorsata</i>	(Broderip 1834)	Pacific half-slippersnail
<i>Crucibulum spinosum</i>	(G. B. Sowerby I 1824)	spiny cup-and-saucer
Ovulidae		
<i>Neosimnia barbarensis</i>	(Dall 1892)	seapen spindlesnail
<i>Neosimnia loebbeckeana</i>	(Weinkauff 1881)	Loebbeck's simnia
Triviidae		
<i>Erato vitellina</i>	Hinds 1844	appleseed erato
<i>Trivia ritteri</i>	Raymond 1903	"gastropod"
Lamellariidae		
<i>Lamellaria diegoensis</i>	Dall in Orcutt 1885	San Diego lamellaria
Naticidae		
<i>Calinaticina oldroydii</i>	(Dall 1897)	delicate moonsnail
<i>Euspira draconis</i>	(Dall 1903)	Drake moonsnail
<i>Euspira lewisii</i>	(Gould 1847)	Lewis moonsnail
Bursidae		
<i>Crossata californica</i>	(Hinds 1843)	California frogsnail
--NEOGASTROPODA		
Muricidae		
<i>Austrotrophon catalinensis</i>	(I. Oldroyd 1927)	Catalina forreria
<i>Boreotrophon bentleyi</i>	Dall 1908	"trophon"
<i>Forreria belcheri</i>	(Hinds 1844)	giant chorus snail
<i>Pteropurpura festiva</i>	(Hinds 1844)	festive murex
<i>Pteropurpura vokesae</i>	Emerson 1964	wrinkle-wing murex
<i>Scabrotrophon grovesi</i>	McLean 1996	"trophon"
Coralliophilidae		
<i>Babelomurex oldroydi</i>	(I. Oldroyd 1929)	Olyroyd coralsnail
Columbellidae		
<i>Amphissa bicolor</i>	Dall 1892	two-tone amphissa
Buccinidae		
<i>Kelletia kelletii</i>	(Forbes 1850)	Kellet whelk
Nassariidae		
<i>Nassarius fossatus</i>	(Gould 1850)	channeled nassa
<i>Nassarius insculptus</i>	(Carpenter 1864)	smooth western nassa
<i>Nassarius perpinguis</i>	(Hinds 1844)	fat western nassa
<i>Nassarius tiarula</i>	(Kiener 1841)	western mud nassa
Fasciolaridae		
<i>Fusinus barbarensis</i>	(Trask 1855)	Santa Barbara spindle
Mitridae		
<i>Mitra idae</i>	Melvill 1893	half-pitted miter
Cancellariidae		
<i>Cancellaria cooperii</i>	Gabb 1865	Cooper nutmeg
<i>Cancellaria crawfordiana</i>	Dall 1891	Crawford nutmeg
Conidae		
<i>Conus californicus</i>	Hinds 1844	California cone
Turridae		
<i>Antiplanes catalinae</i>	(Raymond 1904)	Catalina turrid
<i>Antiplanes thalea</i>	(Dall 1902)	"turrid"

C1. (continued)

Taxon/Species	Author	Common Name
Turridae (continued)		
<i>Crassispira semiinflata</i>	(Grant & Gale 1931)	California drillia
<i>Megasurcula carpenteriana</i>	(Gabb 1865)	tower snail
<i>Megasurcula stearnsiana</i>	(Raymond 1904)	Stearns turrid
--LOWER HETEROBRANCHIA		
Acteonidae		
<i>Rictaxis painei</i>	(Dall 1903)	barrel snail
--ANASPIDEA		
Aplysiidae		
<i>Aplysia californica</i>	J. G. Cooper 1863	purple sea hare
--CEPHALASPIDEA		
Bullidae		
<i>Bulla gouldiana</i>	Pilsbry 1895	California bubble
Aglajidae		
<i>Navanax inermis</i>	(J. G. Cooper 1863)	California aglaja
Philinidae		
<i>Philine alba</i>	Mattox 1958	white paperbubble
<i>Philine auriformis</i>	Suter 1909	New Zealand papperbubble
--NOTASPIDEA		
Pleurobranchidae		
<i>Berthella californica</i>	(Dall 1900)	California sidegill slug
Pleurobranchaeidae		
<i>Pleurobranchaea californica</i>	MacFarland 1966	California sea slug
--NUDIBRANCHIA		
Dorididae		
<i>Doris (=Archidoris) montereyensis</i>	J. G. Cooper 1863	Monterey doris
Discodorididae		
<i>Peltodoris nobilis</i>	(MacFarland 1905)	"nudibranch"
<i>Diaulula sandiegensis</i>	(J. G. Cooper 1863)	ringed doris
Platydorididae		
<i>Platydoris</i> sp		
Onchidorididae		
<i>Acanthodoris brunnea</i>	MacFarland 1905	brown spiny doris
<i>Acanthodoris hudsoni</i>	MacFarland 1905	Hudson spiny doris
Polyceratidae		
<i>Triopha catalinae</i>	(J. G. Cooper 1863)	sea-clown triopha
<i>Triopha maculata</i>	MacFarland 1905	maculated triopha
Tethyidae		
<i>Melibe leonina</i>	(Gould 1852)	lion nudibranch
Dendrodorididae		
<i>Doriopsilla albopunctata</i>	(J. G. Cooper 1863)	salted yellow doris
Tritoniidae		
<i>Tochuina tetraquetra</i>	(Pallas 1788)	giant orange tochui
<i>Tritonia diomedea</i>	Bergh 1894	rosy tritonia
Dendronotidae		
<i>Dendronotus iris</i>	J. G. Cooper 1863	giant frond-aeolis
Arminidae		
<i>Armina californica</i>	(J. G. Cooper 1863)	California armina
Flabellinidae		
<i>Flabellina iodinea</i>	J. G. Cooper 1863	Spanish shawl
Aeolidiidae		
<i>Aeolidia papillosa</i>	(Linnaeus 1761)	shag-rug aeolis

C1. (continued)

Taxon/Species	Author	Common Name
BIVALVIA		
--MYTILOIDA		
Mytilidae		
<i>Musculista senhousia</i>	(Benson in Cantor 1842)	mat mussel
<i>Mytilus</i> sp		"mussel"
--PTEROIDA		
Pteriidae		
<i>Pteria sterna</i>	(Gould 1851)	Pacific wing-oyster
--LIMOIDA		
Limidae		
<i>Limaria hemphilli</i>	(Hertlein & Strong 1946)	Hemphill fileclam
--OSTREOIDA		
Ostreidae		
<i>Ostrea</i> sp		"oyster"
Pectinidae		
<i>Argopecten ventricosus</i>	(G. B. Sowerby II 1842)	Pacific calico scallop
<i>Chlamys hastata</i>	(G. B. Sowerby II 1842)	spiny scallop
<i>Crassadoma gigantea</i>	(J. E. Gray 1825)	giant rock scallop
<i>Euvola diegensis</i>	(Dall 1898)	San Diego scallop
<i>Leptopecten latiauratus</i>	(Conrad 1837)	kelp scallop
Anomiidae		
<i>Pododesmus macrochisma</i>	(Deshayes 1839)	rock oyster or jingle shell
--VENEROIDA		
Chamidae		
<i>Chama arcana</i>	Bernard 1976	secret jewelbox
<i>Pseudochama exogyra</i>	(Conrad 1837)	reversed chama
CEPHALOPODA		
--SEPIOIDEA		
Sepiolidae		
<i>Rossia pacifica</i>	Berry 1911	eastern Pacific bobtail
--TEUTHOIDEA		
Loliginiidae		
<i>Loligo opalescens</i>	Berry 1911	California market squid
Gonatidae		
<i>Gonatopsis borealis</i>	Sasaki 1923	Boreopacific armhook squid
--OCTOPODA		
Opisthoteuthidae		
<i>Opisthoteuthis</i> sp A	Hochberg 1976 §	"squid"
Octopodidae		
<i>Octopus californicus</i>	(Berry 1911)	orange bigeye octopus
<i>Octopus rubescens</i>	Berry 1953	red octopus
ECHIURA		
ECHIURIDEA		
--BONELLOINEA		
Bonelliidae		
<i>Nellobia eusoma</i>	Fisher 1946	"echiuran"
--ECHIUROINEA		
Thalassematidae		
<i>Arhynchite californicus</i>	Fisher 1947	"echiuran"

C1. (continued)

Taxon/Species	Author	Common Name
ANNELIDA		
POLYCHAETA		
--PHYLLODOCIDA		
Aphroditidae		
<i>Aphrodita armifera</i>	Moore 1910	copper sea mouse
<i>Aphrodita castanea</i>	Moore 1910	chestnut sea mouse
<i>Aphrodita refulgida</i>	Moore 1910	green sea mouse
--SABELLIDA		
Serpulidae		
<i>Protula superba</i>	Moore 1909	chalktube worm
ARTHROPODA		
PYCNOGONIDA		
--PEGMATA		
Nymphonidae		
<i>Nymphon pixellae</i>	Scott 1913	"pycnogonid"
CIRRIPIEDIA		
--THORACICA		
Scalpellidae		
<i>Hamatoscalpellum californicum</i>	(Pilsbry 1907)	California blade barnacle
Balanidae		
<i>Paraconcaus (= Balanus) pacificus</i>	(Pilsbry 1916)	Pacific acorn barnacle
MALACOSTRACA		
--STOMATOPODA		
Hemisquillidae		
<i>Hemisquilla californiensis</i>	Stephenson 1967	blueleg mantis shrimp
Squillidae		
<i>Schmittius politus</i>	(Bigelow 1891)	polished mantis shrimp
--ISOPODA		
Aegidae		
<i>Aega lecontii</i>	(Dana 1853)	"isopod"
<i>Rocinela angustata</i>	Richardson 1904	"isopod"
Idoteidae		
<i>Pentidotea resecata</i>	(Stimpson 1857)	kelp isopod
--DECAPODA		
Sicyoniidae		
<i>Sicyonia ingentis</i>	(Burkenroad 1938)	ridgeback rock shrimp
Pandalidae		
<i>Pandalus danae</i>	Stimpson 1857	dock shrimp
<i>Pandalus jordani</i>	Rathbun 1902	ocean shrimp
<i>Pandalus platyceros</i>	Brandt 1851	spot shrimp
Alpheidae		
<i>Alpheus bellimanus</i>	Lockington 1877	olive snapping shrimp
Hippolytidae		
<i>Heptacarpus brevirostris</i>	(Dana 1852)	stout coastal shrimp
<i>Heptacarpus palpator</i>	(Owen 1839)	intertidal coastal shrimp
<i>Heptacarpus stimpsoni</i>	Holthuis 1947	Stimpson coastal shrimp
<i>Heptacarpus taylori</i>	(Stimpson 1857)	Taylor coastal shrimp
<i>Heptacarpus tenuissimus</i>	Holmes 1900	slender coastal shrimp
<i>Spirontocaris holmesii</i>	Holthuis 1947	slender blade shrimp
<i>Spirontocaris sica</i>	Rathbun 1902	offshore blade shrimp
Crangonidae		
<i>Crangon alaskensis</i>	Lockington 1877	Alaska bay shrimp
<i>Crangon alba</i>	Holmes 1900	stout crangon

C1. (continued)

Taxon/Species	Author	Common Name
Crangonidae (continued)		
<i>Crangon nigromaculata</i>	Lockington 1877	blackspotted bay shrimp
<i>Metacrangon spinosissima</i>	(Rathbun 1902)	southern spinyhead
<i>Neocrangon communis</i>	(Rathbun 1899)	gray shrimp
<i>Neocrangon resima</i>	(Rathbun 1902)	flagnose bay shrimp
<i>Neocrangon zaca</i>	(Chace 1937)	moustache bay shrimp
<i>Neocrangon</i> sp MEC1	Ljubenkova 2003 §	"shrimp"
Palinuridae		
<i>Panulirus interruptus</i>	Randall 1839	California spiny lobster
Axiidae		
<i>Calocarides quinqueseriatum</i>	(Rathbun 1902)	"lobster shrimp"
Diogenidae		
<i>Paguristes bakeri</i>	Holmes 1900	digger hermit
<i>Paguristes turgidus</i>	(Stimpson 1857)	slenderclaw hermit
<i>Paguristes ulreyi</i>	Schmitt 1921	furry hermit
<i>Paguristes</i> sp HYP1	Roney 2000 §	"hermit"
Paguridae		
<i>Enallopaguroopsis guatemoci</i>	(Glassell 1937)	"right-handed hermit"
<i>Pagurus spilocarpus</i>	Haig 1977	spotwrist hermit
<i>Parapagurodes laurentae</i>	McLaughlin & Haig 1973	spiny palm hermit
<i>Parapagurodes makarovi</i>	McLaughlin & Haig 1973	smooth palm hermit
<i>Phimochirus californiensis</i>	(Benedict 1892)	porcelain claw hermit
<i>Pylopagurus holmesi</i>	Schmitt 1921	"right-handed hermit"
Lithodidae		
<i>Lopholithodes foraminatus</i>	(Stimpson 1859)	brown box crab
<i>Paralithodes californiensis</i>	(Benedict 1894)	California king crab
<i>Paralithodes rathbuni</i>	(Benedict 1894)	forknose king crab
Galatheididae		
<i>Galathea californiensis</i>	Benedict 1902	California squat lobster
<i>Munida quadrispina</i>	Benedict 1902	northern squat lobster
<i>Munidopsis depressa</i>	Faxon 1893	"squat lobster"
<i>Pleuroncodes planipes</i>	Stimpson 1860	pelagic red crab
Calappidae		
<i>Platymera gaudichaudii</i>	H. Milne Edwards 1837	armed box crab
Leucosiidae		
<i>Randallia ornata</i>	(Randall 1839)	globose sand crab
Majidae		
<i>Chorilia longipes</i>	Dana 1851	longhorn decorator crab
<i>Erileptus spinosus</i>	Rathbun 1893	shortneck pear crab
<i>Loxorhynchus crispatus</i>	Stimpson 1857	moss crab
<i>Loxorhynchus grandis</i>	Stimpson 1857	sheep crab
<i>Mimulus foliatus</i>	Stimpson 1860	foliate kelp crab
<i>Podocheila hemphillii</i>	(Lockington 1877)	Hemphill kelp crab
<i>Podocheila lobifrons</i>	Rathbun 1893	thinbeak neck crab
<i>Pugettia dalli</i>	Rathbun 1893	spined kelp crab
<i>Pugettia producta</i>	(Randall 1839)	northern kelp crab
<i>Pugettia richii</i>	Dana 1851	cryptic kelp crab
<i>Pyromaia tuberculata</i>	(Lockington 1877)	tuberculate pear crab
<i>Scyra acutifrons</i>	Dana 1851	sharpnose crab
<i>Taliepus nuttallii</i>	(Randall 1839)	globose kelp crab
Parthenopidae		
<i>Heterocrypta occidentalis</i>	(Dana 1854)	sandflat elbow crab

C1. (continued)

Taxon/Species	Author	Common Name
Cancridae		
<i>Cancer antennarius</i>	Stimpson 1856	Pacific rock crab
<i>Cancer anthonyi</i>	Rathbun 1879	yellow rock crab
<i>Cancer branneri</i>	Rathbun 1926	furrowed rock crab
<i>Cancer gracilis</i>	Dana 1852	graceful rock crab
<i>Cancer jordani</i>	Rathbun 1900	hairy rock crab
<i>Cancer productus</i>	Randall 1839	red rock crab
Portunidae		
<i>Portunus xantusii</i>	(Stimpson 1860)	Xantus swimming crab
Xanthidae		
<i>Lophopanopeus bellus</i>	(Stimpson 1860)	blackclaw crestleg crab
<i>Lophopanopeus frontalis</i>	(Rathbun 1893)	molarless crestleg crab
<i>Lophopanopeus leucomanus</i>	(Lockington 1877)	knobknee crestleg crab
<i>Paraxanthias taylori</i>	(Stimpson 1861)	lumpy rubble crab
Grapsidae		
<i>Hemigrapsus oregonensis</i>	(Dana 1851)	yellow shore crab
<i>Pachygrapsus crassipes</i>	Randall 1839	striped shore crab
Pinnotheridae		
<i>Pinnixa franciscana</i>	Rathbun 1918	innkeeper pea crab
ECHINODERMATA		
CRINOIDEA		
--COMATULIDA		
Antedonidae		
<i>Florumetra serratissima</i>	(A. H. Clark 1907)	feather star
ASTEROIDEA		
--PAXILLOSIDA		
Luidiidae		
<i>Luidia armata</i>	Ludwig 1905	mosaic sand star
<i>Luidia asthenosoma</i>	Fisher 1906	fringed sand star
<i>Luidia foliolata</i>	Grube 1866	gray sand star
Astropectinidae		
<i>Astropecten armatus</i>	Gray 1840	spiny sand star
<i>Astropecten ornatissimus</i>	Fisher 1906	orange sand star
<i>Astropecten verrilli</i>	de Loriol 1899	California sand star
<i>Thrissacanthias penicillatus</i>	(Fisher 1905)	"sea star"
--VALVATIDA		
Odontasteridae		
<i>Odontaster crassus</i>	Fisher 1905	"sea star"
Goniasteridae		
<i>Hippasteria spinosa</i>	Verrill 1909	spiny red star
<i>Mediaster aequalis</i>	Stimpson 1857	red sea star
<i>Pseudarchaster pusillus</i>	Fisher 1905	"sea star"
Asterinidae		
<i>Asterina miniata</i>	(Brandt 1835)	bat star
--SPINULOSIDA		
Echinasteridae		
<i>Henricia aspera</i>	Fisher 1906	"sea star"
<i>Henricia leviuscula</i>	(Stimpson 1857)	blood star
--FORCIPULATIDA		
Asteriidae		
<i>Leptasterias hexactis</i>	(Stimpson 1853)	six-arm sea star
<i>Pisaster brevispinus</i>	(Stimpson 1857)	shortspined sea star
<i>Pycnopodia helianthoides</i>	(Brandt 1835)	sunflower star

C1. (continued)

Taxon/Species	Author	Common Name
Asteriidae (continued)		
<i>Rathbunaster californicus</i>	Fisher 1906	California sun star
<i>Sclerasterias heteropaes</i>	Fisher 1924	banded sea star
<i>Stylasterias forreri</i>	(de Loriol 1887)	fish-eating star
--ZOROCALLIDA		
Zoroasteridae		
<i>Myxoderma platyacanthum</i>	(H. L. Clark 1913)	"sea star"
OPHIUROIDEA		
--PHRYNOPHIURIDA		
Gorgonocephalidae		
<i>Gorgonocephalus eucnemis</i>	(J. Müller & Troschel 1842)	basket star
Asteronychidae		
<i>Asteronyx longifissus</i>	Döderlein 1927	"ophiuroid"
--OPHIURIDA		
Ophiacanthidae		
<i>Ophiacantha diplasia</i>	H. L. Clark 1911	"ophiuroid"
Ophiactidae		
<i>Ophiopholis bakeri</i>	McClendon 1909	roughspine brittlestar
<i>Ophiopholis longispina</i>	H. L. Clark 1911	"ophiuroid"
Amphiuridae		
<i>Amphichondrius granulatus</i>	(Lütken & Mortensen 1899)	roughdisk brittlestar
<i>Amphiodia psara</i>	H. L. Clark 1935	"brittlestar"
<i>Amphiodia urtica</i>	(Lyman 1860)	red brittlestar
<i>Amphipholis squamata</i>	(Delle Chiaje 1828)	holdfast brittlestar
<i>Amphiura arcystata</i>	H. L. Clark 1911	"brittlestar"
<i>Dougaloplus amphacanthus</i>	(McClendon 1909)	"brittlestar"
Ophiotricidae		
<i>Ophiotrix spiculata</i>	Le Conte 1851	Pacific spiny brittlestar
Ophiocomidae		
<i>Ophiopteris papillosa</i>	(Lyman 1875)	flatspine brittlestar
Ophionereidae		
<i>Ophionereis eurybrachioplax</i>	H. L. Clark 1911	"brittlestar"
Ophiuridae		
<i>Ophiosphalma jolliense</i>	(McClendon 1909)	"ophiuroid"
<i>Ophiura luetkenii</i>	(Lyman 1860)	brokenspine brittlestar
ECHINOIDEA		
--TEMNOPLEUROIDA		
Toxopneustidae		
<i>Lytechinus pictus</i>	(Verrill 1867)	white sea urchin
--ECHINOIDA		
Strongylocentrotidae		
<i>Allocentrotus fragilis</i>	(Jackson 1912)	fragile sea urchin
<i>Strongylocentrotus franciscanus</i>	(A. Agassiz 1863)	red sea urchin
<i>Strongylocentrotus purpuratus</i>	(Stimpson 1857)	Pacific purple urchin
--SPATANGOIDA		
Schizasteridae		
<i>Brisaster latifrons</i>	(A. Agassiz 1898)	northern heart urchin
Brissidae		
<i>Brissopsis pacifica</i>	(A. Agassiz 1898)	Pacific heart urchin
Spatangidae		
<i>Nacospatangus laevis</i>	(H. L. Clark 1917)	"heart urchin"
<i>Spatangus californicus</i>	H. L. Clark 1917	California heart urchin

C1. (continued)

Taxon/Species	Author	Common Name
Loveniidae		
<i>Lovenia cordiformis</i>	A. Agassiz 1872	sea porcupine
HOLOTHUROIDEA		
--DENDROCHIROTIDA		
Psolidae		
<i>Psolidium</i> sp SD1	Lilly 2004 §	"sea cucumber"
Phyllophoridae		
<i>Havelockia benti</i>	(Deichmann 1937)	"sea cucumber"
Cucumariidae		
<i>Pseudocnus lubricus</i>	(H. L. Clark 1901)	"sea cucumber"
<i>Cucumaria miniata</i>	(Brandt 1835)	orange sea cucumber
<i>Cucumaria piperata</i>	(Stimpson 1864)	"sea cucumber"
<i>Cucumaria</i> sp C11	Haney 2004 §	"sea cucumber"
--ASPIDOCHIROTIDA		
Stichopodidae		
<i>Parastichopus californicus</i>	(Stimpson 1857)	California sea cucumber
<i>Parastichopus parvimensis</i>	(H. L. Clark 1913)	warty sea cucumber
<i>Parastichopus</i> sp A	SCAMIT 1998 §	"sea cucumber"
--ELASIPODIDA		
Laetmogonidae		
<i>Pannychia moseleyi</i>	Théel 1882	sea cucumber
BRACHIOPODA		
ARTICULATA		
--TEREBRATULIDA		
Cancellothyrididae		
<i>Terebratulina crossei</i>	Davidson 1882	white lamp shell
<i>Terebratulina unguicula</i>	(Carpenter 1864)	"lamp shell"
Laqueidae		
<i>Laqueus californianus</i>	Koch 1847	California lamp shell
<i>Terebratalia transversa</i>	(G.B. Sowerby II 1846)	red lamp shell
ECTOPROCTA		
STENOLAEMATA		
--CYCLOSTOMATA		
Annectocymidae		
<i>Diaperoforma californica</i>	(d'Orbigny 1852)	coralline bryozoan
Crisiidae		
<i>Filicrisia</i> sp		"bryozoan"
GYMNOLAEMATA		
--CTENOSTOMATA		
Vesiculariidae		
<i>Zoobotryon verticillatum</i>	(delle Chiaje 1828)	spaghetti moss-animal
--CHEILOSTOMATA		
Thalamoporellidae		
<i>Thalamoporella californica</i>	Levinsen 1909	chambered bryozoan
Cellariidae		
<i>Cellaria mandibulata</i>	Hincks 1882	"bryozoan"
Bugulidae		
<i>Bugula neritina</i>	(Linnaeus 1758)	seaweed bryozoan
Petraliidae		
<i>Hippopodina californica</i>	Osburn 1952	"bryozoan"
Schizoporellidae		
<i>Hippodiplosia insculpta</i>	(Hincks 1882)	fluted bryozoan
<i>Schizoporella inarmata</i>	(Hincks 1884)	"bryozoan"

C1. (continued)

Taxon/Species	Author	Common Name
Phidoloporidae		
<i>Phidolopora labiata</i>	Gabb and Horn 1862	lacy bryozoan
CHORDATA		
ASCIDIACEA		
Ascidacea sp SD2		"tunicate"
Ascidacea sp SD3		"tunicate"
Ascidacea sp SD4		"tunicate"
Ascidacea sp SD5		"tunicate"
Ascidacea sp SD6		"tunicate"
Ascidacea sp SD7		"tunicate"
--APLOUSOBRANCHIATA		
Polycitoridae		
<i>Cystodytes lobatus</i>	(Ritter 1900)	lobed tunicate
Polyclinidae		
<i>Polyclinum planum</i>	(Ritter & Forsyth 1917)	elephant ear tunicate
--PHLEBOBRANCHIATA		
Cionidae		
<i>Ciona intestinalis</i>	(Linnaeus 1767)	yellow-green sea squirt
Corellidae		
<i>Corella willmeriana</i>	Herdman 1898	icy tunicate
--STOLIDOBRANCHIATA		
Styelidae		
<i>Styela clava</i>	Herdman 1881	tuberculate sea squirt
<i>Styela coriacea</i>	(Alder & Hancock 1848)	pimpled sea squirt
<i>Styela montereyensis</i>	(Dall 1872)	longstalk sea squirt
<i>Styela plicata</i>	(Lesueur 1823)	cobblestone sea squirt
Pyuridae		
<i>Bathypera feminalba</i>	Young & Vazquez 1995	"sea squirt"
<i>Boltenia villosa</i>	(Stimpson 1864)	spiny-headed tunicate
<i>Microcosmus squamiger</i>	Hartmeyer & Michaelsen 1926	scaly tunicate
Molgulidae		
<i>Molgula pugetiensis</i>	Herdman 1898	"tunicate"
<i>Molgula regularis</i>	Ritter 1907	"tunicate"
<i>Molgula verrucifera</i>	Ritter & Forsythe 1917	warty tunicate

Taxonomic arrangement and scientific names from (SCAMIT 2001). Common names from Turgeon et al. (1988), Williams et al. (1989), and Cairns et al. (1991) if possible. Otherwise, names are from miscellaneous sources.

(...=.....) means 'current valid name (= Bight '98 regional survey name)'

C2. Percent of area of megabenthic invertebrate species by subpopulation on the southern California shelf and upper slope at depths of 2-476 m, July-October 2003.

Species	Percent of Area										
	Region					Shelf Zone					
	Mainland			Island							SCB
	N	C	S	NWC	SEC	B&H	IS	MS	OS	US	
<i>Octopus rubescens</i>	23	43	22	81	77	-	41	64	62	5	37
<i>Allocentrotus fragilis</i>	39	35	37	38	23	-	-	9	77	69	36
<i>Pleurobranchaea californica</i>	47	32	9	56	38	-	-	41	18	49	36
<i>Brisaster latifrons</i>	55	19	32	13	8	-	-	1	23	83	35
<i>Astropecten verrilli</i>	8	58	52	31	54	-	48	71	6	-	34
<i>Lytechinus pictus</i>	4	43	42	56	92	4	9	76	23	-	32
<i>Acanthoptilum</i> sp	20	23	25	69	92	12	16	63	41	4	31
<i>Octopus californicus</i>	58	14	18	-	-	-	-	2	15	71	30
<i>Mediaster aequalis</i>	31	18	6	81	62	-	-	41	17	31	29
<i>Luidia foliolata</i>	12	42	12	75	62	4	4	57	35	9	28
<i>Rossia pacifica</i>	25	30	34	31	15	-	-	31	39	34	28
<i>Ophiura luetkenii</i>	9	30	31	63	77	-	-	65	40	-	28
<i>Spirontocaris sica</i>	52	12	15	-	-	-	-	-	6	67	27
<i>Spatangus californicus</i>	41	14	24	6	-	-	-	4	24	56	25
<i>Sicyonia ingentis</i>	18	20	26	31	31	-	4	35	62	8	22
<i>Brissopsis pacifica</i>	17	26	33	19	8	-	-	8	21	44	22
<i>Parastichopus californicus</i>	7	37	22	19	38	8	0	49	28	-	21
Porifera	31	5	5	19	38	19	0	15	7	31	19
<i>Pannychia moseleyi</i>	31	6	23	-	-	-	-	-	-	47	18
<i>Dromalia alexandri</i>	24	14	27	-	-	-	-	-	15	43	18
<i>Thesea</i> sp B	-	25	28	13	69	-	4	42	15	-	18
<i>Philine auriformis</i>	3	48	11	19	8	23	4	37	15	4	17
<i>Spirontocaris holmesi</i>	24	16	15	6	-	-	-	-	22	39	17
<i>Myxoderma platyacanthum</i>	35	-	15	-	-	-	-	-	-	43	17
<i>Neocrangon zaca</i>	13	15	26	25	8	-	-	8	45	26	17
<i>Ophiothrix spiculata</i>	6	24	14	19	46	4	1	32	7	8	16
<i>Ophiopholis bakeri</i>	16	15	6	13	46	-	-	13	38	19	16
<i>Aphrodita</i> sp	31	6	0	13	-	-	-	3	3	35	15
<i>Pandalus platyceros</i>	12	11	19	19	23	4	-	17	19	16	14
<i>Asteronyx longifissus</i>	31	-	8	-	-	-	-	-	-	35	14
<i>Tritonia diomedea</i>	7	12	0	44	31	-	-	30	3	-	12
<i>Luidia asthenosoma</i>	0	13	18	19	38	-	4	20	22	4	11
<i>Crangon nigromaculata</i>	16	10	11	-	-	23	71	2	-	-	11
<i>Philine alba</i>	2	10	9	31	46	-	-	25	-	4	11
<i>Loligo opalescens</i>	5	12	28	-	8	4	16	19	16	1	11
<i>Pseudarchaster pusillus</i>	15	6	15	-	-	-	-	-	-	27	11
<i>Platymera gaudichaudii</i>	7	12	3	19	38	4	16	12	20	5	11
<i>Hamatoscalpellum californicum</i>	-	28	5	19	15	4	5	26	-	-	11
<i>Neocrangon resima</i>	9	7	12	19	8	-	-	3	33	16	10
<i>Crangon alaskensis</i>	7	19	6	13	-	-	-	26	-	-	10
<i>Halipteris californica</i>	17	-	8	-	15	-	4	1	7	19	9

C2. (continued)

Species	Percent of Area										
	Region					Shelf Zone					
	Mainland			Island							SCB
	N	C	S	NWC	SEC	B&H	IS	MS	OS	US	
<i>Actinostola</i> sp A	15	6	8	-	-	-	-	-	-	23	9
<i>Stephanauge annularis</i>	8	-	23	-	8	-	-	1	-	19	8
<i>Metridium farcimen</i>	-	14	9	19	15	-	-	7	32	8	8
<i>Stylatula elongata</i>	4	9	11	13	-	4	1	18	-	-	7
<i>Arhynchite californicus</i>	15	-	-	-	-	-	-	-	-	16	6
<i>Luidia armata</i>	1	9	13	-	8	-	4	14	-	-	6
<i>Pycnopodia helianthoides</i>	-	-	-	56	8	-	-	14	-	-	5
<i>Metacrangon spinosissima</i>	4	3	10	13	-	-	-	5	19	5	5
<i>Cancer gracilis</i>	8	6	3	-	-	4	31	2	-	-	5
<i>Neocrangon communis</i>	5	6	9	-	-	-	-	-	3	13	5
<i>Acanthodoris brunnea</i>	0	14	3	6	8	4	4	10	-	1	5
<i>Stylasterias forreri</i>	4	1	-	25	15	-	-	6	18	4	5
<i>Calliostoma turbinum</i>	-	11	9	6	-	-	-	13	-	-	5
<i>Chorilia longipes</i>	8	-	8	-	-	-	-	-	3	12	5
<i>Astropecten ornatissimus</i>	-	1	3	25	23	-	-	9	19	-	5
<i>Amphissa bicolor</i>	12	-	-	-	-	-	-	-	-	12	5
<i>Gonatopsis borealis</i>	12	-	-	-	-	-	-	-	-	12	5
<i>Liponema brevicornis</i>	-	6	15	-	-	-	-	-	-	12	5
<i>Nellobia eusoma</i>	12	-	-	-	-	-	-	-	-	12	5
<i>Stachyptilum superbum</i>	12	-	-	-	-	-	-	-	-	12	5
<i>Nymphon pixellae</i>	-	-	5	19	23	-	-	5	26	1	4
<i>Virgularia californica</i>	1	8	3	13	8	-	4	9	-	1	4
<i>Paralithodes californiensis</i>	4	6	-	6	8	-	-	-	14	8	4
<i>Armina californica</i>	-	12	5	-	-	-	1	10	-	-	4
<i>Florometra serratissima</i>	1	2	6	6	23	-	-	6	23	-	4
<i>Paracyathus stearnsii</i>	-	-	9	19	8	-	-	10	-	-	4
<i>Pisaster brevispinus</i>	6	6	0	-	-	8	20	2	-	-	4
<i>Flabellina iodinea</i>	-	10	7	-	-	4	8	7	-	-	4
<i>Corella willmeriana</i>	-	-	-	25	23	-	-	10	-	-	4
<i>Amphichondrius granulatus</i>	-	-	5	25	8	-	-	8	12	-	4
<i>Antiplanes thalea</i>	4	-	8	6	-	-	-	-	-	9	4
<i>Lophogorgia chilensis</i>	-	11	5	-	-	-	-	9	-	-	4
<i>Paguristes turgidus</i>	1	9	-	6	8	-	-	8	9	-	4
<i>Heterocrypta occidentalis</i>	-	7	6	6	-	4	20	2	-	-	3
<i>Leucilla nuttingi</i>	-	10	4	-	-	-	4	7	-	-	3
<i>Sclerasterias heteropaes</i>	-	-	-	13	31	-	-	7	7	-	3
<i>Loxorhynchus crispatus</i>	1	6	4	-	8	4	4	6	3	-	3

C2. (continued)

Species	Percent of Area											
	Region						Shelf Zone					SCB
	Mainland			Island								
	N	C	S	NWC	SEC	B&H	IS	MS	OS	US		
<i>Pyromaia tuberculata</i>	0	10	3	-	-	42	12	3	-	-	3	
<i>Henricia leviuscula</i>	-	4	-	19	8	-	-	8	-	-	3	
<i>Boreotrophon bentleyi</i>	-	6	8	-	-	-	-	-	-	8	3	
<i>Ophiosphalma jolliense</i>	-	6	8	-	-	-	-	-	-	8	3	
<i>Opisthoteuthis</i> sp A	8	-	-	-	-	-	-	-	-	8	3	
<i>Pennatula californica</i>	8	-	-	-	-	-	-	-	-	8	3	
<i>Cancellaria crawfordiana</i>	1	0	14	-	-	-	-	0	17	4	3	
<i>Paguristes ulreyi</i>	-	4	4	13	-	-	-	8	-	-	3	
<i>Megasurcula carpenteriana</i>	-	4	6	6	-	-	-	6	7	-	3	
<i>Virgularia agassizi</i>	4	4	0	-	-	-	-	7	-	-	3	
<i>Lopholithodes foraminatus</i>	2	1	-	13	8	-	-	-	36	-	3	
<i>Fusinus barbarensis</i>	-	4	0	6	15	-	-	5	3	1	3	
<i>Crangon alba</i>	-	-	13	-	-	-	-	7	-	-	3	
<i>Amphiura arcystata</i>	-	-	5	13	8	-	0	7	-	-	3	
<i>Asterina miniata</i>	-	4	-	6	15	-	-	7	-	-	3	
<i>Cucumaria piperata</i>	-	4	-	6	15	-	-	7	-	-	3	
<i>Suberites suberea</i>	4	1	-	6	-	-	-	1	6	4	3	
<i>Phimochirus californiensis</i>	-	-	12	-	-	-	-	2	-	4	2	
<i>Astropecten armatus</i>	1	7	-	-	-	12	16	-	-	-	2	
<i>Coenocyathus bowersi</i>	-	4	4	-	8	-	-	6	-	-	2	
<i>Parastichopus</i> sp A	-	7	-	-	8	-	-	1	3	4	2	
<i>Kelletia kelletii</i>	-	1	4	-	15	4	1	5	-	-	2	
<i>Styela</i> sp	-	0	-	13	15	4	-	6	-	-	2	
<i>Aglaophenia</i> sp	-	4	-	6	8	-	8	3	-	-	2	
Anthozoa	-	-	-	6	23	-	-	6	-	-	2	
<i>Nacospatangus laevis</i>	-	-	-	6	23	-	-	6	-	-	2	
<i>Cancer anthonyi</i>	4	0	3	-	-	-	8	3	-	-	2	
<i>Cidarina cidaris</i>	1	1	-	6	15	-	-	1	13	1	2	
<i>Pandalus jordani</i>	1	-	-	19	-	-	-	-	17	2	2	
<i>Antiplanes catalinae</i>	4	-	-	6	-	-	-	1	-	4	2	
<i>Gorgonocephalus eucnemis</i>	1	1	2	6	8	-	-	-	26	-	2	
<i>Leptasterias hexactis</i>	-	4	0	-	15	-	-	5	-	-	2	
<i>Eugorgia rubens</i>	-	-	5	-	15	-	0	4	7	-	2	
<i>Crossata californica</i>	-	0	10	-	-	-	1	5	-	-	2	
<i>Diaperoforma californica</i>	-	-	4	13	-	-	-	5	-	-	2	
<i>Lovenia cordiformis</i>	-	7	-	-	-	-	-	5	-	-	2	
Virgulariidae	-	7	-	-	-	-	-	5	-	-	2	

C2. (continued)

Species	Percent of Area										
	Region					Shelf Zone					
	Mainland			Island							SCB
	N	C	S	NWC	SEC	B&H	IS	MS	OS	US	
<i>Heptacarpus stimpsoni</i>	2	0	4	-	-	4	-	5	-	-	2
<i>Conus californicus</i>	2	0	5	-	-	4	-	5	-	-	2
<i>Pagurus spilocarpus</i>	-	3	5	-	-	8	4	3	-	-	2
<i>Adelogorgia phyllosclera</i>	-	4	5	-	-	-	0	5	-	-	2
<i>Doriopsilla albopunctata</i>	-	-	9	-	-	-	-	5	-	-	2
<i>Pteropurpura vokesae</i>	-	4	4	-	-	-	-	5	-	-	2
<i>Telesto californica</i>	-	-	9	-	-	-	-	5	-	-	2
<i>Triopha maculata</i>	-	0	-	19	-	8	0	4	-	-	2
<i>Ophiacantha diplasia</i>	-	6	1	-	-	-	-	-	3	4	2
<i>Paralithodes rathbuni</i>	1	-	8	-	-	-	-	-	3	4	2
<i>Ophionereis eurybrachioplax</i>	1	4	-	-	8	-	-	4	3	-	2
<i>Cancer branneri</i>	-	-	-	13	8	-	-	4	-	-	2
<i>Strongylocentrotus franciscanus</i>	-	-	-	13	8	-	-	4	-	-	2
<i>Telesto nuttingi</i>	-	-	-	-	23	-	-	4	-	-	2
<i>Nassarius insculptus</i>	1	1	3	6	-	-	-	0	12	1	2
<i>Styela clava</i>	-	0	4	-	8	12	-	4	-	-	2
<i>Anthoptilum grandiflorum</i>	-	6	-	-	-	-	-	-	-	4	2
<i>Calocarides quinqueseriatus</i>	4	-	-	-	-	-	-	-	-	4	2
<i>Dougaloplus amphacanthus</i>	4	-	-	-	-	-	-	-	-	4	2
<i>Heptacarpus</i> sp	4	-	-	-	-	-	-	-	-	4	2
<i>Hippasteria spinosa</i>	-	6	-	-	-	-	-	-	-	4	2
<i>Munida quadrispina</i>	4	-	-	-	-	-	-	-	-	4	2
<i>Munidopsis depressa</i>	-	-	8	-	-	-	-	-	-	4	2
<i>Neocrangon</i> sp MEC1	-	-	8	-	-	-	-	-	-	4	2
<i>Ophiopholis longispina</i>	4	-	-	-	-	-	-	-	-	4	2
<i>Parapagurodes makarovi</i>	4	-	-	-	-	-	-	-	-	4	2
<i>Rocinela angustata</i>	4	-	-	-	-	-	-	-	-	4	2
<i>Thrissacanthias penicillatus</i>	-	-	8	-	-	-	-	-	-	4	2
<i>Schmittius politus</i>	-	4	0	6	-	-	-	3	-	1	2
<i>Euvola diegensis</i>	-	4	-	6	-	-	-	4	-	-	2
<i>Neosimnia barbarensis</i>	-	4	-	6	-	-	-	4	-	-	2
Ascidacea	-	4	0	6	-	-	0	4	-	-	1
<i>Corynactis californica</i>	-	4	-	6	-	4	-	4	-	-	1
<i>Strongylocentrotus purpuratus</i>	4	0	-	-	-	-	4	2	-	-	1
<i>Podochela lobifrons</i>	-	-	5	-	8	-	-	4	-	-	1
Paguroidea	-	-	7	-	-	-	4	-	12	-	1
<i>Boltenia villosa</i>	-	4	-	6	-	-	-	4	-	-	1

C2. (continued)

Species	Percent of Area										
	Region					Shelf Zone					
	Mainland			Island							
	N	C	S	NWC	SEC	B&H	IS	MS	OS	US	SCB
<i>Cancer productus</i>	2	-	-	6	-	-	-	4	-	-	1
<i>Protula superba</i>	-	-	4	6	-	-	-	1	12	-	1
<i>Scyra acutifrons</i>	-	4	-	6	-	-	-	4	-	-	1
<i>Paraconchavus pacificus</i>	-	6	-	-	-	8	8	1	-	-	1
<i>Armina</i> sp A	1	-	-	6	8	-	-	3	3	-	1
<i>Pugettia producta</i>	1	0	3	-	-	15	8	0	-	-	1
<i>Virgularia</i> sp	-	5	-	-	-	-	-	3	-	-	1
<i>Randallia ornata</i>	-	3	3	-	-	-	8	0	-	-	1
<i>Thalamoporella californica</i>	-	2	0	6	-	8	4	1	-	-	1
<i>Phidolopora labiata</i>	-	0	-	13	-	-	-	3	-	-	1
<i>Paguristes bakeri</i>	-	0	5	-	-	-	-	3	-	-	1
<i>Nassarius perpinguis</i>	0	2	3	-	-	-	8	-	-	-	1
<i>Dendronotus iris</i>	-	0	-	13	-	4	-	3	-	-	1
<i>Neosimnia loebbeckeana</i>	-	4	0	-	-	-	-	3	-	-	1
<i>Renilla koellikeri</i>	0	-	6	-	-	-	8	-	-	-	1
<i>Laqueus californianus</i>	1	4	-	-	-	-	-	2	3	-	1
<i>Melibe leonina</i>	3	-	-	-	-	-	8	-	-	-	1
<i>Calliostoma variegatum</i>	-	-	-	6	8	-	-	3	-	-	1
<i>Cucumaria miniata</i>	-	-	-	13	-	-	-	3	-	-	1
<i>Havelockia bentii</i>	-	-	-	13	-	-	-	3	-	-	1
<i>Parapagurodes laurentae</i>	-	-	-	6	8	-	-	3	-	-	1
<i>Pseudocnus lubricus</i>	-	-	-	13	-	-	-	3	-	-	1
<i>Loxorhynchus grandis</i>	-	1	4	-	-	-	1	3	-	-	1
<i>Neosimnia</i> sp	-	4	-	-	-	-	-	3	-	-	1
<i>Calinaticina oldroydii</i>	1	1	-	-	8	-	-	1	3	1	1
<i>Crepidatella dorsata</i>	-	4	-	-	-	4	-	3	-	-	1
<i>Crassispira semiinflata</i>	-	0	4	-	-	-	1	2	-	-	1
<i>Pandalus danae</i>	-	-	5	-	-	-	-	2	-	-	1
<i>Polyclinum planum</i>	-	4	0	-	-	-	0	2	-	-	1
<i>Alpheus bellimanus</i>	-	-	4	-	-	-	-	2	-	-	1
<i>Amphipholis squamata</i>	2	-	-	-	-	-	-	2	-	-	1
<i>Babelomurex oldroydi</i>	-	-	4	-	-	-	-	2	-	-	1
<i>Berthella californica</i>	2	-	-	-	-	-	-	2	-	-	1
<i>Chama arcana</i>	-	4	-	-	-	-	-	2	-	-	1
<i>Euplexaura</i> sp	-	-	4	-	-	-	-	2	-	-	1
<i>Filicrisia</i> sp	-	-	4	-	-	-	-	2	-	-	1
<i>Lepidozона sinudentata</i>	-	-	4	-	-	-	-	2	-	-	1

C2. (continued)

Species	Percent of Area										
	Region					Shelf Zone					
	Mainland			Island							
	N	C	S	NWC	SEC	B&H	IS	MS	OS	US	SCB
<i>Mimulus foliatus</i>	2	-	-	-	-	-	-	2	-	-	1
<i>Platydoris</i> sp	-	-	4	-	-	-	-	2	-	-	1
<i>Pododesmus macrochisma</i>	-	-	4	-	-	-	-	2	-	-	1
<i>Pseudochama exogyra</i>	-	4	-	-	-	-	-	2	-	-	1
<i>Psolidium</i> sp SD1	-	-	4	-	-	-	-	2	-	-	1
<i>Pteria sterna</i>	-	4	-	-	-	-	-	2	-	-	1
<i>Pteropurpura festiva</i>	2	-	-	-	-	-	-	2	-	-	1
<i>Pylopagurus holmesi</i>	-	-	4	-	-	-	-	-	12	-	1
<i>Rictaxis painei</i>	-	4	-	-	-	-	-	2	-	-	1
<i>Scabrotrophon grovesi</i>	-	4	-	-	-	-	-	2	-	-	1
<i>Terebratalia transversa</i>	-	4	-	-	-	-	-	2	-	-	1
<i>Tethya californiana</i>	-	4	-	-	-	-	-	2	-	-	1
<i>Tetilla arb</i>	-	-	4	-	-	-	-	2	-	-	1
<i>Turcica caffeea</i>	-	-	4	-	-	-	-	2	-	-	1
<i>Zooanthidae</i> sp B	-	-	4	-	-	-	-	2	-	-	1
<i>Hemisquilla californiensis</i>	-	0	1	6	-	-	1	2	-	-	1
<i>Astropecten</i> sp	1	-	-	6	-	-	-	1	3	-	1
<i>Aphrodita refulgida</i>	-	0	-	6	-	4	-	2	-	-	1
<i>Enallopaguropsis guatemoci</i>	-	0	-	-	8	-	-	2	-	-	1
<i>Lophopanopeus bellus</i>	-	0	-	6	-	-	-	2	-	-	1
<i>Cancer antennarius</i>	-	0	-	-	8	4	0	1	-	-	1
<i>Portunus xantusii</i>	-	2	0	-	-	4	4	-	-	-	1
<i>Amphiodia</i> sp	-	0	-	6	-	4	-	1	-	-	1
<i>Molgula</i> sp	-	0	-	6	-	4	-	1	-	-	1
<i>Cancer</i> sp	-	0	3	-	-	-	4	0	-	-	1
<i>Crangon</i> sp	-	2	-	-	-	-	4	-	-	-	1
<i>Heptacarpus brevirostris</i>	-	-	3	-	-	-	4	-	-	-	1
<i>Heptacarpus taylori</i>	1	-	-	-	-	-	4	-	-	-	1
<i>Paguristes</i> sp HYP1	-	2	-	-	-	-	4	-	-	-	1
<i>Pentidotea resecata</i>	1	-	-	-	-	-	4	-	-	-	1
<i>Pinnixa franciscana</i>	-	2	-	-	-	-	4	-	-	-	1
<i>Plumularia</i> sp	-	2	-	-	-	-	4	-	-	-	1
<i>Podochela hemphillii</i>	-	2	-	-	-	-	4	-	-	-	1
<i>Thalamoporella</i> sp	-	2	-	-	-	-	4	-	-	-	1
<i>Abietinaria</i> sp	-	-	-	-	8	-	-	1	-	-	1
<i>Acanthodoris hudsoni</i>	-	-	-	6	-	-	-	1	-	-	1
<i>Aega lecontii</i>	-	-	-	6	-	-	-	-	7	-	1

C2. (continued)

Species	Percent of Area										
	Region						Shelf Zone				
	Mainland			Island							
	N	C	S	NWC	SEC		B&H	IS	MS	OS	US
<i>Amphiodia urtica</i>	-	-	-	6	-		-	-	1	-	-
<i>Austrotrophon catalinensis</i>	-	-	-	-	8		-	-	1	-	-
<i>Bathypera feminalba</i>	-	-	-	-	8		-	-	1	-	-
<i>Cancellaria cooperii</i>	-	-	-	-	8		-	-	-	7	-
<i>Cellaria mandibulata</i>	-	-	-	6	-		-	-	1	-	-
<i>Chlamys hastata</i>	-	-	-	6	-		-	-	1	-	-
<i>Cucumaria</i> sp C11	-	-	-	-	8		-	-	1	-	-
<i>Cystodytes lobatus</i>	-	-	-	6	-		-	-	1	-	-
<i>Dendrodorididae</i>	-	-	-	6	-		-	-	1	-	-
<i>Epizoanthus induratus</i>	-	-	-	-	8		-	-	-	7	-
<i>Erato vitellina</i>	-	-	-	6	-		-	-	1	-	-
<i>Henricia aspera</i>	-	-	-	-	8		-	-	1	-	-
<i>Hippodiplosia insculpta</i>	-	-	-	6	-		-	-	1	-	-
<i>Hippopodina californica</i>	-	-	-	6	-		-	-	1	-	-
<i>Megasurcula stearnsiana</i>	-	-	-	6	-		-	-	1	-	-
<i>Mitra idae</i>	-	-	-	6	-		-	-	-	7	-
<i>Molgula regularis</i>	-	-	-	-	8		-	-	1	-	-
<i>Ophiopteris papillosa</i>	-	-	-	6	-		-	-	1	-	-
<i>Parastichopus</i> sp	-	-	-	6	-		-	-	1	-	-
<i>Psolidium</i> sp	-	-	-	-	8		-	-	1	-	-
<i>Ptilosarcus gurneyi</i>	-	-	-	-	8		-	-	1	-	-
<i>Rathbunaster californicus</i>	-	-	-	6	-		-	-	1	-	-
<i>Schizoporella inarmata</i>	-	-	-	-	8		-	-	1	-	-
<i>Stomphia vinosa</i>	-	-	-	6	-		-	-	1	-	-
<i>Terebratulina unguicula</i>	-	-	-	6	-		-	-	1	-	-
<i>Tochuina tetraquetra</i>	-	-	-	-	8		-	-	1	-	-
<i>Trivia ritteri</i>	-	-	-	6	-		-	-	1	-	-
<i>Navanax inermis</i>	-	1	1	-	-		50	-	-	-	-
<i>Heptacarpus tenuissimus</i>	-	1	0	-	-		-	-	0	3	-
<i>Leptopecten latiauratus</i>	-	1	0	-	-		31	-	-	-	-
<i>Argopecten ventricosus</i>	-	1	-	-	-		27	-	-	-	-
<i>Musculista senhousia</i>	-	1	0	-	-		27	-	-	-	-
<i>Styela plicata</i>	-	1	0	-	-		27	-	-	-	-
<i>Aphrocallistes vastus</i>	-	1	-	-	-		-	-	-	3	-
<i>Calliostoma platinum</i>	1	-	-	-	-		-	-	-	3	-
<i>Cucumaria</i> sp	1	-	-	-	-		-	-	-	3	-
<i>Doris montereyensis</i>	-	1	-	-	-		-	-	-	3	-

C2. (continued)

Species	Percent of Area										
	Region										
	Mainland			Island		Shelf Zone					SCB
	N	C	S	NWC	SEC	B&H	IS	MS	OS	US	
<i>Galathea californiensis</i>	1	-	-	-	-	-	-	-	3	-	0
<i>Neocrangon</i> sp	1	-	-	-	-	-	-	-	3	-	0
<i>Odontaster crassus</i>	1	-	-	-	-	-	-	-	3	-	0
<i>Ophiacantha</i> sp	-	1	-	-	-	-	-	-	3	-	0
<i>Pleuroncodes planipes</i>	-	-	1	-	-	-	-	-	-	1	0
<i>Porifera</i> sp SD16	-	-	1	-	-	-	-	-	3	-	0
<i>Pugettia richii</i>	-	-	1	-	-	-	-	-	3	-	0
<i>Terebratulina crossei</i>	1	-	-	-	-	-	-	-	3	-	0
<i>Mytilus</i> sp	-	1	-	-	-	23	-	-	-	-	0
<i>Ciona intestinalis</i>	-	-	1	-	-	19	-	-	-	-	0
<i>Molgula verrucifera</i>	-	0	1	-	-	19	-	-	-	-	0
<i>Styela montereyensis</i>	-	1	0	-	-	12	1	-	-	-	0
<i>Aphrodita armifera</i>	-	1	-	-	-	4	1	-	-	-	0
<i>Microcosmus squamiger</i>	-	0	0	-	-	15	-	-	-	-	0
<i>Euspira draconis</i>	-	1	-	-	-	-	-	0	-	-	0
<i>Heterogorgia</i> sp	-	1	-	-	-	-	-	0	-	-	0
<i>Luidia</i> sp	-	1	-	-	-	-	-	0	-	-	0
<i>Peltodoris nobilis</i>	-	1	-	-	-	-	-	0	-	-	0
<i>Bulla gouldiana</i>	-	0	0	-	-	12	-	-	-	-	0
<i>Limaria hemphilli</i>	-	0	0	-	-	12	-	-	-	-	0
<i>Porifera</i> sp SD4	-	-	1	-	-	12	-	-	-	-	0
<i>Porifera</i> sp SD5	-	-	1	-	-	12	-	-	-	-	0
<i>Euspira lewisii</i>	-	0	-	-	-	4	1	-	-	-	0
<i>Parastichopus parvimensis</i>	-	0	0	-	-	8	-	0	-	-	0
<i>Triopha catalinae</i>	-	0	0	-	-	-	-	0	-	-	0
<i>Ascidacea</i> sp SD3	-	-	0	-	-	8	-	-	-	-	0
<i>Ciona</i> sp	-	0	0	-	-	8	-	-	-	-	0
<i>Hemigrapsus oregonensis</i>	-	0	-	-	-	8	-	-	-	-	0
<i>Nassarius fossatus</i>	-	0	-	-	-	8	-	-	-	-	0
<i>Nassarius tiarula</i>	-	-	0	-	-	8	-	-	-	-	0
<i>Ostrea</i> sp	-	0	0	-	-	8	-	-	-	-	0
<i>Panulirus interruptus</i>	-	-	0	-	-	8	-	-	-	-	0
<i>Aphrodita castanea</i>	-	0	-	-	-	-	-	-	1	-	0
<i>Calliostoma gloriosum</i>	-	0	-	-	-	-	-	0	-	-	0
<i>Crassadoma gigantea</i>	-	0	-	-	-	-	-	0	-	-	0
<i>Diaulula sandiegensis</i>	-	0	-	-	-	-	-	0	-	-	0
<i>Styela coriacea</i>	-	-	0	-	-	-	-	0	-	-	0

C2. (continued)

Species	Percent of Area											
	Region						Shelf Zone					SCB
	Mainland			Island								
	N	C	S	NWC	SEC	B&H	IS	MS	OS	US		
<i>Octopus</i> sp	-	0	-	-	-	4	-	0	-	-	0	
<i>Heptacarpus palpator</i>	-	0	0	-	-	-	0	0	-	-	0	
<i>Aeolidia papillosa</i>	-	0	-	-	-	4	-	-	-	-	0	
<i>Ascidacea</i> sp SD2	-	-	0	-	-	4	-	-	-	-	0	
<i>Ascidacea</i> sp SD4	-	-	0	-	-	4	-	-	-	-	0	
<i>Ascidacea</i> sp SD5	-	-	0	-	-	4	-	-	-	-	0	
<i>Ascidacea</i> sp SD6	-	-	0	-	-	4	-	-	-	-	0	
<i>Ascidacea</i> sp SD7	-	-	0	-	-	4	-	-	-	-	0	
<i>Bugula neritina</i>	-	0	-	-	-	4	-	-	-	-	0	
<i>Crepidula onyx</i>	-	0	-	-	-	4	-	-	-	-	0	
<i>Crucibulum spinosum</i>	-	-	0	-	-	4	-	-	-	-	0	
<i>Erileptus spinosus</i>	-	0	-	-	-	4	-	-	-	-	0	
<i>Forreria belcheri</i>	-	0	-	-	-	4	-	-	-	-	0	
<i>Lophopanopeus leucomanus</i>	-	0	-	-	-	4	-	-	-	-	0	
<i>Molgula pugetiensis</i>	-	0	-	-	-	4	-	-	-	-	0	
<i>Pachygrapsus crassipes</i>	-	0	-	-	-	4	-	-	-	-	0	
<i>Porifera</i> sp SD15	-	-	0	-	-	4	-	-	-	-	0	
<i>Porifera</i> sp SD2	-	-	0	-	-	4	-	-	-	-	0	
<i>Tubularia crocea</i>	-	-	0	-	-	4	-	-	-	-	0	
<i>Zoobotryon verticillatum</i>	-	0	-	-	-	4	-	-	-	-	0	
<i>Pugettia dalli</i>	-	0	-	-	-	-	-	0	-	-	0	
<i>Amphiodia psara</i>	-	-	0	-	-	-	0	-	-	-	0	
<i>Aplysia californica</i>	-	0	-	-	-	-	0	-	-	-	0	
<i>Calliostoma supragranosum</i>	-	0	-	-	-	-	-	0	-	-	0	
<i>Calliostoma tricolor</i>	-	0	-	-	-	-	0	-	-	-	0	
<i>Cancer jordanii</i>	0	-	-	-	-	-	0	-	-	-	0	
<i>Lamellaria diegoensis</i>	-	-	0	-	-	-	-	0	-	-	0	
<i>Lophopanopeus frontalis</i>	-	0	-	-	-	-	0	-	-	-	0	
<i>Lophopanopeus</i> sp	-	0	-	-	-	-	-	0	-	-	0	
<i>Paraxanthias taylori</i>	-	-	0	-	-	-	-	0	-	-	0	
<i>Taliepus nuttallii</i>	-	0	-	-	-	-	-	0	-	-	0	
<i>Tegula aureotincta</i>	-	0	-	-	-	-	-	0	-	-	0	
<i>Zooanthidae</i> sp A	-	-	0	-	-	-	0	-	-	-	0	

* See Glossary G5 for scientific names of invertebrate species

C2. (continued)

N = Northern; C = Central; S = Southern; NWC = Northwest Channel Islands; SEC = Southeast Channel Islands; B&H = Bays and Harbors; IS = Inner Shelf; MS = Middle Shelf; OS= Outer Shelf; US= Upper Slope; SCB = Southern California Bight

Total area (km²) by subpopulation; N = 2,746; C = 1,710; S = 1,366; NWC = 604; SEC = 491; B&H = 65; IS = 982; MS = 2,635; OS = 529; US = 2,705; SCB = 6,916

sp = species

"0" = present in less than 0.5% of area

C3. Abundance (number of individuals) of megabenthic invertebrate species by subpopulation on the southern California shelf and upper slope at depths of 2-476 m, July-October 2003.

Species*	Region					Shelf Zone					
	Mainland			Island		B&H	IS	MS	OS	US	SCB
	N	C	S	NWC	SEC						
<i>Brisaster latifrons</i>	35,470	515	83	5	1	-	-	3	4,124	31,947	36,074
<i>Lytechinus pictus</i>	7	7,399	6,972	1,611	17,039	4	228	32,697	99	-	33,028
<i>Allocentrotus fragilis</i>	5,028	12,558	2,994	158	179	-	-	19	11,114	9,784	20,917
<i>Myxoderma platyacanthum</i>	9,417	-	1,154	-	-	-	-	-	-	10,571	10,571
<i>Asteronyx longifissus</i>	9,171	-	1	-	-	-	-	-	-	9,172	9,172
<i>Brissopsis pacifica</i>	2,996	3,942	1,616	7	7	-	-	21	246	8,301	8,568
<i>Sicyonia ingentis</i>	2,282	1,421	191	80	201	-	1	476	3,626	72	4,175
<i>Acanthoptilum</i> sp	178	1,891	975	222	407	370	91	3,018	193	1	3,673
<i>Spatangus californicus</i>	3,464	131	19	3	-	-	-	4	687	2,926	3,617
<i>Crangon nigromaculata</i>	76	1,749	105	-	-	1,570	358	2	-	-	1,930
<i>Astropecten verrilli</i>	98	910	738	7	13	-	604	1,160	2	-	1,766
<i>Ophionereis eurybrachioplax</i>	3	1,650	-	-	3	-	-	1,653	3	-	1,656
Porifera	1,572	38	11	3	6	16	1	41	1	1,571	1,630
<i>Thesea</i> sp B	-	1,538	28	2	9	-	1	1,571	5	-	1,577
<i>Ophiothrix spiculata</i>	492	320	63	452	121	2	9	1,414	19	4	1,448
<i>Spirontocaris holmesi</i>	373	462	158	15	-	-	-	-	403	605	1,008
<i>Philine auriformis</i>	23	798	49	10	1	444	5	333	98	1	881
<i>Pandalus jordani</i>	803	-	-	7	-	-	-	-	10	800	810
<i>Stachyptilum superbum</i>	719	-	-	-	-	-	-	-	-	719	719
<i>Styela plicata</i>	-	198	400	-	-	598	-	-	-	-	598
<i>Neocrangon zaca</i>	64	280	55	177	20	-	-	158	361	77	596
<i>Bulla gouldiana</i>	-	582	2	-	-	584	-	-	-	-	584
<i>Parastichopus californicus</i>	22	390	70	9	79	4	3	550	13	-	570
<i>Pannychia moseleyi</i>	213	6	322	-	-	-	-	-	-	541	541
<i>Spirontocaris sica</i>	373	31	105	-	-	-	-	-	40	469	509
<i>Musculista senhousia</i>	-	108	400	-	-	508	-	-	-	-	508
<i>Ophiura luetkenii</i>	75	259	47	73	31	-	-	478	7	-	485
<i>Molgula verrucifera</i>	-	20	422	-	-	442	-	-	-	-	442
<i>Neocrangon communis</i>	201	1	231	-	-	-	-	-	51	382	433
<i>Octopus rubescens</i>	134	84	71	78	58	-	60	277	83	5	425
<i>Dromalia alexandri</i>	30	308	81	-	-	-	-	-	125	294	419
<i>Mediaster aequalis</i>	250	7	5	97	53	-	-	157	5	250	412
<i>Loligo opalescens</i>	14	20	350	-	1	8	14	357	5	1	385
<i>Ciona intestinalis</i>	-	-	370	-	-	370	-	-	-	-	370
<i>Luidia foliolata</i>	17	179	45	61	25	2	1	223	86	15	327
<i>Hamatoscalpellum californicum</i>	-	253	40	12	4	1	25	283	-	-	309
<i>Pandalus platyceros</i>	29	67	163	10	5	16	-	161	32	65	274
<i>Florometra serratissima</i>	2	2	10	1	209	-	-	218	6	-	224
Ascidacea sp SD3	-	-	202	-	-	202	-	-	-	-	202
Ascidacea sp SD2	-	-	200	-	-	200	-	-	-	-	200
Ascidacea sp SD4	-	-	200	-	-	200	-	-	-	-	200
Ascidacea sp SD5	-	-	200	-	-	200	-	-	-	-	200
Ascidacea sp SD6	-	-	200	-	-	200	-	-	-	-	200
<i>Philine alba</i>	1	7	4	63	113	-	-	185	-	3	188
<i>Rossia pacifica</i>	40	63	51	32	2	-	-	49	47	92	188
<i>Pyromaia tuberculata</i>	6	175	2	-	-	171	9	3	-	-	183
<i>Pseudarchaster pusillus</i>	149	3	2	-	-	-	-	-	-	154	154
<i>Ophiopholis bakeri</i>	15	30	8	31	48	-	-	94	25	13	132
<i>Ciona</i> sp	-	50	80	-	-	130	-	-	-	-	130
<i>Astropecten ornatissimus</i>	-	1	112	4	9	-	-	9	117	-	126
<i>Suberites suberea</i>	123	1	-	1	-	-	-	1	2	122	125
<i>Pleurobranchaea californica</i>	37	37	3	37	7	-	-	69	14	38	121
<i>Crangon alaskensis</i>	30	62	20	5	-	-	-	117	-	-	117

C3. (continued)

Species*	Region					Shelf Zone					
	Mainland			Island		B&H	IS	MS	OS	US	SCB
	N	C	S	NWC	SEC						
<i>Crangon alaskensis</i>	30	62	20	5	-	-	-	117	-	-	117
<i>Porifera</i> sp SD5	-	-	104	-	-	104	-	-	-	-	104
<i>Octopus californicus</i>	83	15	5	-	-	-	-	3	26	74	103
<i>Corynactis californica</i>	-	97	-	1	-	96	-	2	-	-	98
<i>Leptopecten latiauratus</i>	-	74	14	-	-	88	-	-	-	-	88
<i>Chlamys hastata</i>	-	-	-	80	-	-	-	80	-	-	80
<i>Argopecten ventricosus</i>	-	66	-	-	-	66	-	-	-	-	66
<i>Neocrangon resima</i>	29	17	9	10	1	-	-	3	43	20	66
<i>Microcosmus squamiger</i>	-	38	24	-	-	62	-	-	-	-	62
<i>Navanax inermis</i>	-	28	34	-	-	62	-	-	-	-	62
<i>Stephanauge annularis</i>	25	-	33	-	1	-	-	1	-	58	59
<i>Amphissa bicolor</i>	52	-	-	-	-	-	-	-	-	52	52
<i>Mytilus</i> sp	-	52	-	-	-	52	-	-	-	-	52
<i>Metridium farcimen</i>	-	36	8	3	3	-	-	7	41	2	50
<i>Platymera gaudichaudii</i>	8	11	3	5	22	2	7	18	19	3	49
<i>Tritonia diomedea</i>	7	20	1	15	6	-	-	48	1	-	49
<i>Paraconchoceros pacificus</i>	-	48	-	-	-	19	16	13	-	-	48
<i>Porifera</i> sp SD4	-	-	48	-	-	48	-	-	-	-	48
<i>Acanthodoris brunnea</i>	1	41	3	1	1	6	3	37	-	1	47
<i>Halipteris californica</i>	44	-	1	-	2	-	1	1	1	44	47
<i>Aphrodita</i> sp	41	2	1	2	-	-	-	4	1	41	46
<i>Pugettia producta</i>	7	36	3	-	-	12	33	1	-	-	46
<i>Virgularia californica</i>	2	35	1	6	1	-	3	41	-	1	45
<i>Cancer gracilis</i>	27	6	10	-	-	4	38	1	-	-	43
<i>Stylatula elongata</i>	3	14	22	2	-	2	2	37	-	-	41
<i>Neocrangon</i> sp MEC1	-	-	40	-	-	-	-	-	-	40	40
<i>Nymphon pixellae</i>	-	-	13	12	13	-	-	8	27	3	38
<i>Ostrea</i> sp	-	32	6	-	-	38	-	-	-	-	38
<i>Pseudocnus lubricus</i>	-	-	-	37	-	-	-	37	-	-	37
<i>Triopha maculata</i>	-	31	-	6	-	10	1	26	-	-	37
<i>Luidia armata</i>	1	27	5	-	2	-	2	33	-	-	35
<i>Astropecten armatus</i>	2	31	-	-	-	9	24	-	-	-	33
<i>Heptacarpus stimpsoni</i>	3	27	2	-	-	24	-	8	-	-	32
<i>Pennatula californica</i>	29	-	-	-	-	-	-	-	-	29	29
<i>Pleuroncodes planipes</i>	-	-	29	-	-	-	-	-	-	29	29
<i>Gorgonocephalus eucnemis</i>	12	1	5	1	9	-	-	-	28	-	28
<i>Leucilla nuttingi</i>	-	26	1	-	-	-	1	26	-	-	27
<i>Lopholithodes foraminatus</i>	4	1	-	21	1	-	-	-	27	-	27
<i>Luidia asthenosoma</i>	1	5	8	4	9	-	1	22	3	1	27
<i>Flabellina iodinea</i>	-	23	2	-	-	1	14	10	-	-	25
<i>Erileptus spinosus</i>	-	24	-	-	-	24	-	-	-	-	24
<i>Metacrangon spinosissima</i>	7	6	6	5	-	-	-	6	13	5	24
<i>Pycnopodia helianthoides</i>	-	-	-	23	1	-	-	24	-	-	24
<i>Amphichondrius granulatus</i>	-	-	4	18	1	-	-	22	1	-	23
<i>Cucumaria piperata</i>	-	12	-	9	2	-	-	23	-	-	23
<i>Liponema brevicornis</i>	-	4	19	-	-	-	-	-	-	23	23
<i>Ophiosphalma jollense</i>	-	13	10	-	-	-	-	-	-	23	23
<i>Parastichopus</i> sp	-	-	-	23	-	-	-	23	-	-	23
Ascidacea	-	19	2	1	-	-	2	20	-	-	22
<i>Paracyathus stearnsii</i>	-	-	9	9	4	-	-	22	-	-	22
<i>Styela clava</i>	-	20	1	-	1	20	-	2	-	-	22
<i>Armina californica</i>	-	14	7	-	-	-	2	19	-	-	21
<i>Heterocrypta occidentalis</i>	-	14	4	1	-	2	15	2	-	-	19

C3. (continued)

Species*	Region					Shelf Zone					
	Mainland			Island							SCB
	N	C	S	NWC	SEC	B&H	IS	MS	OS	US	
<i>Molgula</i> sp	-	16	-	1	-	16	-	1	-	-	17
<i>Pisaster brevispinus</i>	9	7	1	-	-	4	12	1	-	-	17
<i>Crossata californica</i>	-	1	15	-	-	-	1	15	-	-	16
<i>Heterogorgia</i> sp	-	16	-	-	-	-	-	16	-	-	16
<i>Nassarius insculptus</i>	4	2	5	5	-	-	-	4	7	5	16
<i>Sclerasterias heteropaes</i>	-	-	-	9	7	-	-	15	1	-	16
<i>Leptasterias hexactis</i>	-	6	1	-	8	-	-	15	-	-	15
<i>Styela montereyensis</i>	-	13	2	-	-	14	1	-	-	-	15
<i>Henricia leviuscula</i>	-	2	-	7	5	-	-	14	-	-	14
<i>Loxorhynchus crispatus</i>	1	9	3	-	1	2	2	9	1	-	14
<i>Megasurcula carpenteriana</i>	-	5	8	1	-	-	-	13	1	-	14
<i>Neosimnia</i> sp	-	14	-	-	-	-	-	14	-	-	14
<i>Pagurus spilocarpus</i>	-	12	2	-	-	7	3	4	-	-	14
<i>Parastichopus parvimensis</i>	-	13	1	-	-	13	-	1	-	-	14
<i>Calliostoma turbinum</i>	-	5	5	3	-	-	-	13	-	-	13
<i>Corella willmeriana</i>	-	-	-	6	7	-	-	13	-	-	13
<i>Nacospatangus laevis</i>	-	-	-	1	11	-	-	12	-	-	12
<i>Ophiopholis longispina</i>	12	-	-	-	-	-	-	-	-	12	12
<i>Paguristes ulreyi</i>	-	6	2	4	-	-	-	12	-	-	12
<i>Stylasterias forreri</i>	1	2	-	7	2	-	-	7	4	1	12
<i>Cidarina cidaris</i>	5	3	-	1	2	-	-	1	9	1	11
<i>Kelletia kelletii</i>	-	7	2	-	2	2	4	5	-	-	11
<i>Lophopanopeus bellus</i>	-	1	-	10	-	-	-	11	-	-	11
<i>Melibe leonina</i>	11	-	-	-	-	-	11	-	-	-	11
<i>Paguristes turgidus</i>	1	8	-	1	1	-	-	4	7	-	11
<i>Strongylocentrotus purpuratus</i>	10	1	-	-	-	-	2	9	-	-	11
Anthozoa	-	-	-	2	8	-	-	10	-	-	10
<i>Cancellaria crawfordiana</i>	1	1	8	-	-	-	-	4	3	3	10
<i>Filicrisia</i> sp	-	-	10	-	-	-	-	10	-	-	10
<i>Lophogorgia chilensis</i>	-	8	2	-	-	-	-	10	-	-	10
<i>Nassarius tiarula</i>	-	-	10	-	-	10	-	-	-	-	10
<i>Styela</i> sp	-	6	-	2	2	6	-	4	-	-	10
<i>Virgularia agassizi</i>	4	5	1	-	-	-	-	10	-	-	10
<i>Amphiura arcystata</i>	-	-	3	2	4	-	1	8	-	-	9
<i>Cancer antennarius</i>	-	8	-	-	1	2	6	1	-	-	9
<i>Cancer anthonyi</i>	4	2	3	-	-	-	3	6	-	-	9
<i>Hemisquilla californiensis</i>	-	2	6	1	-	-	2	7	-	-	9
<i>Octopus</i> sp	-	9	-	-	-	8	-	1	-	-	9
<i>Stomphia vinosa</i>	-	-	-	9	-	-	-	9	-	-	9
<i>Terebratalia transversa</i>	-	9	-	-	-	-	-	9	-	-	9
<i>Adelogorgia phyllosclera</i>	-	4	4	-	-	-	1	7	-	-	8
<i>Loxorhynchus grandis</i>	-	5	3	-	-	-	1	7	-	-	8
<i>Paralithodes californiensis</i>	2	1	-	2	3	-	-	-	5	3	8
<i>Polyclinum planum</i>	-	7	1	-	-	-	1	7	-	-	8
<i>Strongylocentrotus franciscanus</i>	-	-	-	5	3	-	-	8	-	-	8
<i>Virgularia</i> sp	-	8	-	-	-	-	-	8	-	-	8
<i>Actinostola</i> sp A	5	1	1	-	-	-	-	-	-	7	7
<i>Arhynchite californicus</i>	7	-	-	-	-	-	-	-	-	7	7
<i>Fusinus barbarensis</i>	-	2	1	1	3	-	-	5	1	1	7
<i>Nellobia eusoma</i>	7	-	-	-	-	-	-	-	-	7	7
<i>Paguristes bakeri</i>	-	2	5	-	-	-	-	7	-	-	7
<i>Podochela lobifrons</i>	-	-	4	-	3	-	-	7	-	-	7
<i>Portunus xantusii</i>	-	1	6	-	-	6	1	-	-	-	7

C3. (continued)

Species*	Region					Shelf Zone						SCB
	Mainland			Island		B&H	IS	MS	OS	US		
	N	C	S	NWC	SEC							
<i>Triopha catalinae</i>	-	4	3	-	-	-	-	7	-	-	7	
<i>Aeolidia papillosa</i>	-	6	-	-	-	6	-	-	-	-	6	
<i>Asterina miniata</i>	-	1	-	3	2	-	-	6	-	-	6	
<i>Astropecten</i> sp	4	-	-	2	-	-	-	2	4	-	6	
<i>Conus californicus</i>	2	2	2	-	-	2	-	4	-	-	6	
<i>Crassispira semiinflata</i>	-	5	1	-	-	-	5	1	-	-	6	
<i>Dendronotus iris</i>	-	2	-	4	-	2	-	4	-	-	6	
<i>Limaria hemphilli</i>	-	4	2	-	-	6	-	-	-	-	6	
<i>Neocrangon</i> sp	6	-	-	-	-	-	-	-	6	-	6	
<i>Thalamoporella californica</i>	-	3	2	1	-	4	1	1	-	-	6	
Virgulariidae	-	6	-	-	-	-	-	6	-	-	6	
<i>Calocarides quinqueseriatum</i>	5	-	-	-	-	-	-	-	-	5	5	
<i>Chorilia longipes</i>	3	-	2	-	-	-	-	-	1	4	5	
<i>Cucumaria miniata</i>	-	-	-	5	-	-	-	5	-	-	5	
<i>Euspira lewisii</i>	-	5	-	-	-	4	1	-	-	-	5	
<i>Gonatopsis borealis</i>	5	-	-	-	-	-	-	-	-	5	5	
<i>Laqueus californianus</i>	2	3	-	-	-	-	-	3	2	-	5	
<i>Nassarius perpinguis</i>	2	1	2	-	-	-	5	-	-	-	5	
<i>Neosimnia loebbeckeana</i>	-	4	1	-	-	-	-	5	-	-	5	
<i>Ophiopteris papillosa</i>	-	-	-	5	-	-	-	5	-	-	5	
<i>Randallia ornata</i>	-	4	1	-	-	-	2	3	-	-	5	
<i>Rocinela angustata</i>	5	-	-	-	-	-	-	-	-	5	5	
<i>Telesto californica</i>	-	-	5	-	-	-	-	5	-	-	5	
<i>Aglaophenia</i> sp	-	2	-	1	1	-	2	2	-	-	4	
<i>Antiplanes thalea</i>	1	-	2	1	-	-	-	-	-	4	4	
<i>Aphrodita armifera</i>	-	4	-	-	-	2	2	-	-	-	4	
<i>Aphrodita refulgida</i>	-	3	-	1	-	2	-	2	-	-	4	
<i>Boreotrophon bentleyi</i>	-	1	3	-	-	-	-	-	-	4	4	
<i>Cancer branneri</i>	-	-	-	3	1	-	-	4	-	-	4	
<i>Cancer</i> sp	-	2	2	-	-	-	2	2	-	-	4	
<i>Crepidula onyx</i>	-	4	-	-	-	4	-	-	-	-	4	
<i>Crepidatella dorsata</i>	-	4	-	-	-	2	-	2	-	-	4	
<i>Eugorgia rubens</i>	-	-	2	-	2	-	1	2	1	-	4	
<i>Euvola diegensis</i>	-	3	-	1	-	-	-	4	-	-	4	
<i>Hemigrapsus oregonensis</i>	-	4	-	-	-	4	-	-	-	-	4	
<i>Heptacarpus palpator</i>	-	3	1	-	-	-	2	2	-	-	4	
<i>Lovenia cordiformis</i>	-	4	-	-	-	-	-	4	-	-	4	
<i>Neosimnia barbarensis</i>	-	2	-	2	-	-	-	4	-	-	4	
<i>Pandalus danae</i>	-	-	4	-	-	-	-	4	-	-	4	
<i>Panulirus interruptus</i>	-	-	4	-	-	4	-	-	-	-	4	
<i>Parastichopus</i> sp A	-	3	-	-	1	-	-	1	1	2	4	
<i>Psolidium</i> sp SD1	-	-	4	-	-	-	-	4	-	-	4	
<i>Renilla koellikeri</i>	1	-	3	-	-	-	4	-	-	-	4	
<i>Schmittius politus</i>	-	2	1	1	-	-	-	3	-	1	4	
<i>Terebratulina unguicula</i>	-	-	-	4	-	-	-	4	-	-	4	
<i>Amphiodia</i> sp	-	2	-	1	-	2	-	1	-	-	3	
<i>Armina</i> sp A	1	-	-	1	1	-	-	2	1	-	3	
<i>Calinaticina oldroydii</i>	1	1	-	-	1	-	-	1	1	1	3	
<i>Coenocyathus bowersi</i>	-	1	1	-	1	-	-	3	-	-	3	
<i>Crangon alba</i>	-	-	3	-	-	-	-	3	-	-	3	
<i>Diaperoforma californica</i>	-	-	1	2	-	-	-	3	-	-	3	
<i>Dougaloplus amphacanthus</i>	3	-	-	-	-	-	-	-	-	3	3	
<i>Euspira draconis</i>	-	3	-	-	-	-	-	3	-	-	3	

C3. (continued)

Species*	Region					Shelf Zone						SCB
	Mainland			Island		B&H	IS	MS	OS	US		
	N	C	S	NWC	SEC							
<i>Heptacarpus tenuissimus</i>	-	2	1	-	-	-	-	2	1	-	3	
<i>Nassarius fossatus</i>	-	3	-	-	-	3	-	-	-	-	3	
<i>Ophiacantha</i> sp	-	3	-	-	-	-	-	-	3	-	3	
<i>Phidolopora labiata</i>	-	1	-	2	-	-	-	3	-	-	3	
<i>Phimochirus californiensis</i>	-	-	3	-	-	-	-	2	-	1	3	
<i>Pteropurpura vokesae</i>	-	1	2	-	-	-	-	3	-	-	3	
<i>Pugettia dalli</i>	-	3	-	-	-	-	-	3	-	-	3	
<i>Telesto nuttingi</i>	-	-	-	-	3	-	-	3	-	-	3	
<i>Terebratulina crosseii</i>	3	-	-	-	-	-	-	-	3	-	3	
<i>Thrissacanthias penicillatus</i>	-	-	3	-	-	-	-	-	-	3	3	
<i>Aega lecontii</i>	-	-	-	2	-	-	-	-	2	-	2	
<i>Amphiodia urtica</i>	-	-	-	2	-	-	-	2	-	-	2	
<i>Antiplanes catalinae</i>	1	-	-	1	-	-	-	1	-	1	2	
<i>Ascidacea</i> sp SD7	-	-	2	-	-	2	-	-	-	-	2	
<i>Babelomurex oldroydi</i>	-	-	2	-	-	-	-	2	-	-	2	
<i>Boltenia villosa</i>	-	1	-	1	-	-	-	2	-	-	2	
<i>Bugula neritina</i>	-	2	-	-	-	2	-	-	-	-	2	
<i>Calliostoma gloriosum</i>	-	2	-	-	-	-	-	2	-	-	2	
<i>Calliostoma variegatum</i>	-	-	-	1	1	-	-	2	-	-	2	
<i>Cancer productus</i>	1	-	-	1	-	-	-	2	-	-	2	
<i>Crassadoma gigantea</i>	-	2	-	-	-	-	-	2	-	-	2	
<i>Crucibulum spinosum</i>	-	-	2	-	-	2	-	-	-	-	2	
<i>Dendrodorididae</i>	-	-	-	2	-	-	-	2	-	-	2	
<i>Doriopsilla albopunctata</i>	-	-	2	-	-	-	-	2	-	-	2	
<i>Enallopaguropsis guatemoci</i>	-	1	-	-	1	-	-	2	-	-	2	
<i>Erato vitellina</i>	-	-	-	2	-	-	-	2	-	-	2	
<i>Forreria belcheri</i>	-	2	-	-	-	2	-	-	-	-	2	
<i>Havelockia benti</i>	-	-	-	2	-	-	-	2	-	-	2	
<i>Lamellaria diegoensis</i>	-	-	2	-	-	-	-	2	-	-	2	
<i>Lophopanopeus leucomanus</i>	-	2	-	-	-	2	-	-	-	-	2	
<i>Luidia</i> sp	-	2	-	-	-	-	-	2	-	-	2	
<i>Mimulus foliatus</i>	2	-	-	-	-	-	-	2	-	-	2	
<i>Molgula pugetiensis</i>	-	2	-	-	-	2	-	-	-	-	2	
<i>Ophiacantha diplasia</i>	-	1	1	-	-	-	-	-	1	1	2	
<i>Opisthoteuthis</i> sp A	2	-	-	-	-	-	-	-	-	2	2	
<i>Pachygrapsus crassipes</i>	-	2	-	-	-	2	-	-	-	-	2	
<i>Paguroidea</i>	-	-	2	-	-	-	1	-	1	-	2	
<i>Paralithodes rathbuni</i>	1	-	1	-	-	-	-	-	1	1	2	
<i>Parapagurodes laurentae</i>	-	-	-	1	1	-	-	2	-	-	2	
<i>Peltodoris nobilis</i>	-	2	-	-	-	-	-	2	-	-	2	
<i>Porifera</i> sp SD15	-	-	2	-	-	2	-	-	-	-	2	
<i>Porifera</i> sp SD16	-	-	2	-	-	-	-	-	2	-	2	
<i>Porifera</i> sp SD2	-	-	2	-	-	2	-	-	-	-	2	
<i>Protula superba</i>	-	-	1	1	-	-	-	1	1	-	2	
<i>Psolidium</i> sp	-	-	-	-	2	-	-	2	-	-	2	
<i>Scyra acutifrons</i>	-	1	-	1	-	-	-	2	-	-	2	
<i>Styela coriacea</i>	-	-	2	-	-	-	-	2	-	-	2	
<i>Taliepus nuttallii</i>	-	2	-	-	-	-	-	2	-	-	2	
<i>Trivia ritteri</i>	-	-	-	2	-	-	-	2	-	-	2	
<i>Tubularia crocea</i>	-	-	2	-	-	2	-	-	-	-	2	
<i>Abietinaria</i> sp	-	-	-	-	1	-	-	1	-	-	1	
<i>Acanthodoris hudsoni</i>	-	-	-	1	-	-	-	1	-	-	1	
<i>Alpheus bellimanus</i>	-	-	1	-	-	-	-	1	-	-	1	

C3. (continued)

Species*	Region					Shelf Zone					
	Mainland			Island							SCB
	N	C	S	NWC	SEC	B&H	IS	MS	OS	US	
<i>Amphiodia psara</i>	-	-	1	-	-	-	1	-	-	-	1
<i>Amphipholis squamata</i>	1	-	-	-	-	-	-	1	-	-	1
<i>Anthoptilum grandiflorum</i>	-	1	-	-	-	-	-	-	-	1	1
<i>Aphrocallistes vastus</i>	-	1	-	-	-	-	-	-	1	-	1
<i>Aphrodita castanea</i>	-	1	-	-	-	-	-	-	1	-	1
<i>Aplysia californica</i>	-	1	-	-	-	-	1	-	-	-	1
<i>Austrotrophon catalinensis</i>	-	-	-	-	1	-	-	1	-	-	1
<i>Bathypera feminalba</i>	-	-	-	-	1	-	-	1	-	-	1
<i>Berthella californica</i>	1	-	-	-	-	-	-	1	-	-	1
<i>Calliostoma platinum</i>	1	-	-	-	-	-	-	-	1	-	1
<i>Calliostoma supragranosum</i>	-	1	-	-	-	-	-	1	-	-	1
<i>Calliostoma tricolor</i>	-	1	-	-	-	-	1	-	-	-	1
<i>Cancellaria cooperii</i>	-	-	-	-	1	-	-	-	1	-	1
<i>Cancer jordanii</i>	1	-	-	-	-	-	1	-	-	-	1
<i>Cellaria mandibulata</i>	-	-	-	1	-	-	-	1	-	-	1
<i>Chama arcana</i>	-	1	-	-	-	-	-	1	-	-	1
<i>Crangon</i> sp	-	1	-	-	-	-	1	-	-	-	1
<i>Cucumaria</i> sp	1	-	-	-	-	-	-	-	1	-	1
<i>Cucumaria</i> sp C11	-	-	-	-	1	-	-	1	-	-	1
<i>Cystodytes lobatus</i>	-	-	-	1	-	-	-	1	-	-	1
<i>Diaulula sandiegensis</i>	-	1	-	-	-	-	-	1	-	-	1
<i>Doris montereyensis</i>	-	1	-	-	-	-	-	-	1	-	1
<i>Epizoanthus induratus</i>	-	-	-	-	1	-	-	-	1	-	1
<i>Euplexaura</i> sp	-	-	1	-	-	-	-	1	-	-	1
<i>Galathea californiensis</i>	1	-	-	-	-	-	-	-	1	-	1
<i>Henricia aspera</i>	-	-	-	-	1	-	-	1	-	-	1
<i>Heptacarpus brevirostris</i>	-	-	1	-	-	-	1	-	-	-	1
<i>Heptacarpus</i> sp	1	-	-	-	-	-	-	-	-	1	1
<i>Heptacarpus taylori</i>	1	-	-	-	-	-	1	-	-	-	1
<i>Hippasteria spinosa</i>	-	1	-	-	-	-	-	-	-	1	1
<i>Hippodiplosia insculpta</i>	-	-	-	1	-	-	-	1	-	-	1
<i>Hippopodina californica</i>	-	-	-	1	-	-	-	1	-	-	1
<i>Lepidozona sinudentata</i>	-	-	1	-	-	-	-	1	-	-	1
<i>Lophopanopeus frontalis</i>	-	1	-	-	-	-	1	-	-	-	1
<i>Lophopanopeus</i> sp	-	1	-	-	-	-	-	1	-	-	1
<i>Megasurcula stearnsiana</i>	-	-	-	1	-	-	-	1	-	-	1
<i>Mitra idae</i>	-	-	-	1	-	-	-	-	1	-	1
<i>Molgula regularis</i>	-	-	-	-	1	-	-	1	-	-	1
<i>Munida quadrispina</i>	1	-	-	-	-	-	-	-	-	1	1
<i>Munidopsis depressa</i>	-	-	1	-	-	-	-	-	-	1	1
<i>Odontaster crassus</i>	1	-	-	-	-	-	-	-	1	-	1
<i>Paguristes</i> sp HYP1	-	1	-	-	-	-	1	-	-	-	1
<i>Parapagurodes makarovi</i>	1	-	-	-	-	-	-	-	-	1	1
<i>Paraxanthias taylori</i>	-	-	1	-	-	-	-	1	-	-	1
<i>Pentidotea resecata</i>	1	-	-	-	-	-	1	-	-	-	1
<i>Pinnixa franciscana</i>	-	1	-	-	-	-	1	-	-	-	1
<i>Platydoris</i> sp	-	-	1	-	-	-	-	1	-	-	1
<i>Plumularia</i> sp	-	1	-	-	-	-	1	-	-	-	1
<i>Podochela hemphillii</i>	-	1	-	-	-	-	1	-	-	-	1
<i>Pododesmus macrochisma</i>	-	-	1	-	-	-	-	1	-	-	1
<i>Pseudochama exogyra</i>	-	1	-	-	-	-	-	1	-	-	1
<i>Pteria sterna</i>	-	1	-	-	-	-	-	1	-	-	1
<i>Pteropurpura festiva</i>	1	-	-	-	-	-	-	1	-	-	1

C3. (continued)

Species*	Region					Shelf Zone					
	Mainland			Island							SCB
	N	C	S	NWC	SEC	B&H	IS	MS	OS	US	
<i>Ptilosarcus gurneyi</i>	-	-	-	-	1	-	-	1	-	-	1
<i>Pugettia richii</i>	-	-	1	-	-	-	-	-	1	-	1
<i>Pylopagurus holmesi</i>	-	-	1	-	-	-	-	-	1	-	1
<i>Rathbunaster californicus</i>	-	-	-	1	-	-	-	1	-	-	1
<i>Rictaxis painei</i>	-	1	-	-	-	-	-	1	-	-	1
<i>Scabrotrophon grovesi</i>	-	1	-	-	-	-	-	1	-	-	1
<i>Schizoporella inarmata</i>	-	-	-	-	1	-	-	1	-	-	1
<i>Tegula aureotincta</i>	-	1	-	-	-	-	-	1	-	-	1
<i>Tethya californiana</i>	-	1	-	-	-	-	-	1	-	-	1
<i>Tetilla arb</i>	-	-	1	-	-	-	-	1	-	-	1
<i>Thalamoporella</i> sp	-	1	-	-	-	-	1	-	-	-	1
<i>Tochuina tetraquetra</i>	-	-	-	-	1	-	-	1	-	-	1
<i>Turcica caffeea</i>	-	-	1	-	-	-	-	1	-	-	1
Zooanthidae sp A	-	-	1	-	-	-	1	-	-	-	1
Zooanthidae sp B	-	-	1	-	-	-	-	1	-	-	1
<i>Zoobotryon verticillatum</i>	-	1	-	-	-	1	-	-	-	-	1
Total	74,533	39,902	20,343	3,715	18,833	7,151	1,670	47,002	21,963	79,540	157,326

* See Glossary G4 for common names of invertebrate species

N = Northern; C = Central; S = Southern; NWC = Northwest Channel Islands; SEC = Southeast Channel Islands; B&H = Bays and Harbors; IS = Inner Shelf; MS = Middle Shelf; OS= Outer Shelf; US= Upper Slope; SCB = Southern California Bight.

sp = species

C4. Biomass (kg) of megabenthic invertebrate species by subpopulation on the southern California shelf and upper slope at depths of 2-476 m, July-October 2003.

Species*	Region					Shelf Zone					
	Mainland			Island		B&H	IS	MS	OS	US	SCB
	N	C	S	NWC	SEC						
<i>Allocentrotus fragilis</i>	191.6	428.9	77.6	19.8	26.6	-	-	0.7	502.4	241.4	744.5
<i>Brisaster latifrons</i>	386.8	6.5	0.4	0.0	0.0	-	-	0.0	57.4	336.3	393.7
<i>Parastichopus californicus</i>	12.4	157.5	39.3	2.8	28.4	0.7	1.3	233.2	5.2	-	240.4
<i>Spatangus californicus</i>	123.0	15.5	2.3	0.5	-	-	-	0.5	52.6	88.2	141.3
<i>Brissopsis pacifica</i>	24.8	46.6	58.9	0.0	0.0	-	-	0.0	4.5	125.8	130.3
<i>Lytechinus pictus</i>	0.0	23.1	13.6	2.1	47.0	0.0	0.4	84.8	0.6	-	85.8
Porifera	52.0	0.1	0.0	0.0	3.8	0.0	0.0	3.9	0.0	52.0	55.9
<i>Sicyonia ingentis</i>	12.7	31.7	3.0	2.6	4.7	-	0.0	9.9	44.2	0.6	54.7
Porifera sp SD4	-	-	33.8	-	-	33.8	-	-	-	-	33.8
<i>Metridium farcimen</i>	-	21.5	8.3	2.0	1.5	-	-	5.4	27.7	0.2	33.3
<i>Asteronyx longifissus</i>	24.9	-	0.0	-	-	-	-	-	-	24.9	24.9
<i>Myxoderma platyacanthum</i>	22.2	-	0.6	-	-	-	-	-	-	22.8	22.8
<i>Pycnopodia helianthoides</i>	-	-	-	16.8	1.7	-	-	18.5	-	-	18.5
<i>Dromalia alexandri</i>	1.4	10.0	5.4	-	-	-	-	-	3.5	13.3	16.8
<i>Luidia foliolata</i>	0.1	4.8	4.0	3.6	0.7	0.0	0.0	6.5	6.2	0.5	13.2
<i>Pisaster brevispinus</i>	3.4	7.8	1.1	-	-	6.3	5.3	0.7	-	-	12.3
<i>Loxorhynchus grandis</i>	-	8.2	4.0	-	-	-	1.8	10.4	-	-	12.2
<i>Pleurobranchaea californica</i>	2.1	2.3	0.2	5.5	0.0	-	-	7.6	0.5	2.0	10.1
<i>Lopholithodes foraminatus</i>	2.5	0.0	-	5.7	0.9	-	-	-	9.1	-	9.1
<i>Ophionereis eurybrachioplax</i>	0.0	8.3	-	-	0.0	-	-	8.3	0.0	-	8.3
<i>Octopus californicus</i>	5.9	0.9	0.9	-	-	-	-	0.0	1.4	6.3	7.7
<i>Pannychia moseleyi</i>	2.2	0.0	4.5	-	-	-	-	-	-	6.7	6.7
<i>Pandalus jordani</i>	6.6	-	-	0.0	-	-	-	-	0.0	6.6	6.6
<i>Gorgonocephalus eucnemis</i>	2.0	0.0	1.3	0.3	1.8	-	-	-	5.4	-	5.4
<i>Pandalus platyceros</i>	0.6	1.4	3.1	0.0	0.0	0.0	-	2.2	0.2	2.7	5.1
<i>Paralithodes californiensis</i>	1.5	0.3	-	1.2	2.0	-	-	-	3.2	1.8	5.0
<i>Octopus rubescens</i>	1.7	1.3	0.6	0.8	0.4	-	0.8	2.9	1.1	0.0	4.8
<i>Platymera gaudichaudii</i>	1.2	0.7	0.2	0.4	2.3	0.0	0.5	2.1	2.2	0.0	4.8
<i>Euplexaura</i> sp	-	-	3.8	-	-	-	-	3.8	-	-	3.8
<i>Bulla gouldiana</i>	-	3.6	0.0	-	-	3.6	-	-	-	-	3.6
<i>Philine alba</i>	0.0	0.0	0.1	1.4	1.9	-	-	3.4	-	0.0	3.4
<i>Panulirus interruptus</i>	-	-	3.2	-	-	3.2	-	-	-	-	3.2
<i>Cancer anthonyi</i>	2.2	0.2	0.6	-	-	-	1.0	2.0	-	-	3.0
<i>Mediaster aequalis</i>	0.4	0.0	0.0	1.2	1.4	-	-	2.6	0.0	0.4	3.0
<i>Diaperoforma californica</i>	-	-	1.2	1.2	-	-	-	2.4	-	-	2.4
<i>Loxorhynchus crispatus</i>	0.1	2.1	0.0	-	0.0	0.0	0.1	2.0	0.1	-	2.2
<i>Parastichopus parvimensis</i>	-	1.8	0.4	-	-	1.8	-	0.4	-	-	2.2
<i>Actinostola</i> sp A	1.6	0.3	0.0	-	-	-	-	-	-	1.9	1.9
<i>Cancer antennarius</i>	-	1.6	-	-	0.3	1.4	0.2	0.3	-	-	1.9
<i>Astropecten verrilli</i>	0.1	1.0	0.6	0.0	0.0	-	0.6	1.1	0.0	-	1.7
<i>Eugorgia rubens</i>	-	-	1.7	-	0.0	-	1.7	0.0	0.0	-	1.7
<i>Crossata californica</i>	-	0.0	1.6	-	-	-	0.0	1.6	-	-	1.6
<i>Crassadoma gigantea</i>	-	1.5	-	-	-	-	-	1.5	-	-	1.5
<i>Crangon nigromaculata</i>	0.4	0.9	0.1	-	-	0.8	0.6	0.0	-	-	1.4
<i>Stylasterias forreri</i>	0.0	0.7	-	0.7	0.0	-	-	0.4	1.0	0.0	1.4
<i>Thesea</i> sp B	-	1.2	0.0	0.0	0.2	-	0.0	1.4	0.0	-	1.4
<i>Polychinum planum</i>	-	1.3	0.0	-	-	-	0.0	1.3	-	-	1.3
<i>Cellaria mandibulata</i>	-	-	-	1.2	-	-	-	1.2	-	-	1.2
<i>Ophiothrix spiculata</i>	0.6	0.2	0.0	0.2	0.0	0.0	0.0	1.0	0.0	0.0	1.0
<i>Kelletia kelletii</i>	-	0.7	0.0	-	0.2	0.3	0.4	0.2	-	-	0.9
<i>Spirontocaris holmesi</i>	0.8	0.1	0.0	0.0	-	-	-	-	0.6	0.3	0.9

C4. (continued)

Species*	Region					Shelf Zone					SCB
	Mainland			Island		B&H	IS	MS	OS	US	
	N	C	S	NWC	SEC						
<i>Tritonia diomedea</i>	0.2	0.2	0.0	0.5	0.0	-	-	0.9	0.0	-	0.9
<i>Cancer gracilis</i>	0.8	0.0	0.0	-	-	0.0	0.8	0.0	-	-	0.8
<i>Florometra serratissima</i>	0.0	0.0	0.1	0.0	0.7	-	-	0.8	0.0	-	0.8
<i>Hemisquilla californiensis</i>	-	0.3	0.4	0.1	-	-	0.3	0.5	-	-	0.8
<i>Octopus</i> sp	-	0.8	-	-	-	0.8	-	0.0	-	-	0.8
<i>Rathbunaster californicus</i>	-	-	-	0.8	-	-	-	0.8	-	-	0.8
<i>Asterina miniata</i>	-	0.1	-	0.4	0.2	-	-	0.7	-	-	0.7
<i>Calinaticina oldroydii</i>	0.4	0.2	-	-	0.0	-	-	0.0	0.2	0.4	0.6
<i>Cancer productus</i>	0.3	-	-	0.3	-	-	-	0.6	-	-	0.6
<i>Phidolopora labiata</i>	-	0.6	-	0.0	-	-	-	0.6	-	-	0.6
<i>Acanthoptilum</i> sp	0.0	0.2	0.1	0.1	0.1	0.0	0.0	0.5	0.0	0.0	0.5
<i>Astropecten ornatissimus</i>	-	0.0	0.5	0.0	0.0	-	-	0.0	0.5	-	0.5
<i>Euspira lewisii</i>	-	0.5	-	-	-	0.1	0.4	-	-	-	0.5
<i>Hippodiplosia insculpta</i>	-	-	-	0.5	-	-	-	0.5	-	-	0.5
<i>Corynactis californica</i>	-	0.4	-	0.0	-	0.4	-	0.0	-	-	0.4
<i>Liponema brevicornis</i>	-	0.2	0.2	-	-	-	-	-	-	0.4	0.4
<i>Neocrangon communis</i>	0.4	0.0	0.0	-	-	-	-	-	0.0	0.4	0.4
<i>Ostrea</i> sp	-	0.4	0.0	-	-	0.4	-	-	-	-	0.4
<i>Pseudarchaster pusillus</i>	0.4	0.0	0.0	-	-	-	-	-	-	0.4	0.4
<i>Stachyptilum superbum</i>	0.4	-	-	-	-	-	-	-	-	0.4	0.4
<i>Luidia armata</i>	0.0	0.3	0.0	-	0.0	-	0.0	0.3	-	-	0.3
<i>Portunus xantusii</i>	-	0.1	0.2	-	-	0.2	0.1	-	-	-	0.3
Anthozoa	-	-	-	0.0	0.3	-	-	0.3	-	-	0.3
<i>Aplysia californica</i>	-	0.3	-	-	-	-	0.3	-	-	-	0.3
<i>Ciona intestinalis</i>	-	-	0.3	-	-	0.3	-	-	-	-	0.3
<i>Loligo opalescens</i>	0.0	0.0	0.3	-	0.0	0.0	0.0	0.3	0.0	0.0	0.3
<i>Opisthoteuthis</i> sp A	0.3	-	-	-	-	-	-	-	-	0.3	0.3
<i>Paraconchavus pacificus</i>	-	0.3	-	-	-	0.3	0.0	0.0	-	-	0.3
<i>Pleuroncodes planipes</i>	-	-	0.3	-	-	-	-	-	-	0.3	0.3
<i>Adelogorgia phyllosclera</i>	-	0.0	0.2	-	-	-	0.1	0.1	-	-	0.2
<i>Aphrodita refulgida</i>	-	0.0	-	0.2	-	0.0	-	0.2	-	-	0.2
<i>Astropecten armatus</i>	0.0	0.2	-	-	-	0.0	0.2	-	-	-	0.2
<i>Halipteris californica</i>	0.2	-	0.0	-	0.0	-	0.0	0.0	0.0	0.2	0.2
<i>Mytilus</i> sp	-	0.2	-	-	-	0.2	-	-	-	-	0.2
<i>Paguristes bakeri</i>	-	0.0	0.2	-	-	-	-	0.2	-	-	0.2
<i>Paralithodes rathbuni</i>	0.0	-	0.2	-	-	-	-	-	0.0	0.2	0.2
<i>Philine auriformis</i>	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2
<i>Rossia pacifica</i>	0.1	0.1	0.0	0.0	0.0	-	-	0.0	0.0	0.2	0.2
<i>Stomphia vinosa</i>	-	-	-	0.2	-	-	-	0.2	-	-	0.2
<i>Styela plicata</i>	-	0.2	0.0	-	-	0.2	-	-	-	-	0.2
<i>Thrissacanthias penicillatus</i>	-	-	0.2	-	-	-	-	-	-	0.2	0.2
<i>Zooanthidae</i> sp B	-	-	0.2	-	-	-	-	0.2	-	-	0.2
<i>Amphiodia psara</i>	-	-	0.1	-	-	-	0.1	-	-	-	0.1
<i>Aphrodita</i> sp	0.1	0.0	0.0	0.0	-	-	-	0.0	0.0	0.1	0.1
<i>Armina</i> sp A	0.1	-	-	0.0	0.0	-	-	0.0	0.1	-	0.1
<i>Heterocrypta occidentalis</i>	-	0.0	0.1	0.0	-	0.0	0.1	0.0	-	-	0.1
<i>Navanax inermis</i>	-	0.1	0.0	-	-	0.1	-	-	-	-	0.1
<i>Ophiosphalma jolliense</i>	-	0.0	0.1	-	-	-	-	-	-	0.1	0.1

C4. (continued)

Species*	Region					Shelf Zone						SCB
	Mainland			Island								
	N	C	S	NWC	SEC	B&H	IS	MS	OS	US		
<i>Pagurus spilocarpus</i>	-	0.0	0.1	-	-	0.0	0.0	0.1	-	-	0.1	
<i>Pugettia richii</i>	-	-	0.1	-	-	-	-	-	0.1	-	0.1	
<i>Pyromaia tuberculata</i>	0.0	0.1	0.0	-	-	0.1	0.0	0.0	-	-	0.1	
<i>Spirontocaris sica</i>	0.1	0.0	0.0	-	-	-	-	-	0.0	0.1	0.1	
<i>Stephanauge annularis</i>	0.0	-	0.1	-	0.0	-	-	0.0	-	0.1	0.1	
<i>Suberites suberea</i>	0.1	0.0	-	0.0	-	-	-	0.0	0.0	0.1	0.1	
<i>Zooanthidae</i> sp A	-	-	0.1	-	-	-	0.1	-	-	-	0.1	
<i>Abietinaria</i> sp	-	-	-	-	0.0	-	-	0.0	-	-	0.0	
<i>Acanthodoris brunnea</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	
<i>Acanthodoris hudsoni</i>	-	-	-	0.0	-	-	-	0.0	-	-	0.0	
<i>Aega lecontii</i>	-	-	-	0.0	-	-	-	-	0.0	-	0.0	
<i>Aeolidia papillosa</i>	-	0.0	-	-	-	0.0	-	-	-	-	0.0	
<i>Aglaophenia</i> sp	-	0.0	-	0.0	0.0	-	0.0	0.0	-	-	0.0	
<i>Alpheus bellimanus</i>	-	-	0.0	-	-	-	-	0.0	-	-	0.0	
<i>Amphichondrius granulatus</i>	-	-	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	
<i>Amphiodia</i> sp	-	0.0	-	0.0	-	0.0	-	0.0	-	-	0.0	
<i>Amphiodia urtica</i>	-	-	-	0.0	-	-	-	0.0	-	-	0.0	
<i>Amphipholis squamata</i>	0.0	-	-	-	-	-	-	0.0	-	-	0.0	
<i>Amphissa bicolor</i>	0.0	-	-	-	-	-	-	-	-	0.0	0.0	
<i>Amphiura arcystata</i>	-	-	0.0	0.0	0.0	-	0.0	0.0	-	-	0.0	
<i>Anthoptilum grandiflorum</i>	-	0.0	-	-	-	-	-	-	-	0.0	0.0	
<i>Antiplanes catalinae</i>	0.0	-	-	0.0	-	-	-	0.0	-	0.0	0.0	
<i>Antiplanes thalea</i>	0.0	-	0.0	0.0	-	-	-	-	-	0.0	0.0	
<i>Aphrocallistes vastus</i>	-	0.0	-	-	-	-	-	-	0.0	-	0.0	
<i>Aphrodita armifera</i>	-	0.0	-	-	-	0.0	0.0	-	-	-	0.0	
<i>Aphrodita castanea</i>	-	0.0	-	-	-	-	-	-	0.0	-	0.0	
<i>Argopecten ventricosus</i>	-	0.0	-	-	-	0.0	-	-	-	-	0.0	
<i>Arhynchite californicus</i>	0.0	-	-	-	-	-	-	-	-	0.0	0.0	
<i>Armina californica</i>	-	0.0	0.0	-	-	-	0.0	0.0	-	-	0.0	
Asciidiacea	-	0.0	0.0	0.0	-	-	0.0	0.0	-	-	0.0	
Asciidiacea sp SD2	-	-	0.0	-	-	0.0	-	-	-	-	0.0	
Asciidiacea sp SD3	-	-	0.0	-	-	0.0	-	-	-	-	0.0	
Asciidiacea sp SD4	-	-	0.0	-	-	0.0	-	-	-	-	0.0	
Asciidiacea sp SD5	-	-	0.0	-	-	0.0	-	-	-	-	0.0	
Asciidiacea sp SD6	-	-	0.0	-	-	0.0	-	-	-	-	0.0	
Asciidiacea sp SD7	-	-	0.0	-	-	0.0	-	-	-	-	0.0	
<i>Astropecten</i> sp	0.0	-	-	0.0	-	-	-	0.0	0.0	-	0.0	
<i>Austrotrophon catalinensis</i>	-	-	-	-	0.0	-	-	0.0	-	-	0.0	
<i>Babelomurex oldroydi</i>	-	-	0.0	-	-	-	-	0.0	-	-	0.0	
<i>Bathypera feminalba</i>	-	-	-	-	0.0	-	-	0.0	-	-	0.0	
<i>Berthella californica</i>	0.0	-	-	-	-	-	-	0.0	-	-	0.0	
<i>Boltenia villosa</i>	-	0.0	-	0.0	-	-	-	0.0	-	-	0.0	
<i>Boreotrophon bentleyi</i>	-	0.0	0.0	-	-	-	-	-	-	0.0	0.0	
<i>Bugula neritina</i>	-	0.0	-	-	-	0.0	-	-	-	-	0.0	
<i>Calliostoma gloriosum</i>	-	0.0	-	-	-	-	-	0.0	-	-	0.0	
<i>Calliostoma platinum</i>	0.0	-	-	-	-	-	-	-	0.0	-	0.0	
<i>Calliostoma supragranosum</i>	-	0.0	-	-	-	-	-	0.0	-	-	0.0	
<i>Calliostoma tricolor</i>	-	0.0	-	-	-	-	0.0	-	-	-	0.0	

C4. (continued)

Species*	Region					Shelf Zone					SCB
	Mainland			Island							
	N	C	S	NWC	SEC	B&H	IS	MS	OS	US	
<i>Calliostoma turbinum</i>	-	0.0	0.0	0.0	-	-	-	0.0	-	-	0.0
<i>Calliostoma variegatum</i>	-	-	-	0.0	0.0	-	-	0.0	-	-	0.0
<i>Calocarides quinqueseriatum</i>	0.0	-	-	-	-	-	-	-	-	0.0	0.0
<i>Cancellaria cooperii</i>	-	-	-	-	0.0	-	-	-	0.0	-	0.0
<i>Cancellaria crawfordiana</i>	0.0	0.0	0.0	-	-	-	-	0.0	0.0	0.0	0.0
<i>Cancer branneri</i>	-	-	-	0.0	0.0	-	-	0.0	-	-	0.0
<i>Cancer jordani</i>	0.0	-	-	-	-	-	0.0	-	-	-	0.0
<i>Cancer</i> sp	-	0.0	0.0	-	-	-	0.0	0.0	-	-	0.0
<i>Chama arcana</i>	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Chlamys hastata</i>	-	-	-	0.0	-	-	-	0.0	-	-	0.0
<i>Chorilia longipes</i>	0.0	-	0.0	-	-	-	-	-	0.0	0.0	0.0
<i>Cidarina cidaris</i>	0.0	0.0	-	0.0	0.0	-	-	0.0	0.0	0.0	0.0
<i>Ciona</i> sp	-	0.0	0.0	-	-	0.0	-	-	-	-	0.0
<i>Coenocyathus bowersi</i>	-	0.0	0.0	-	0.0	-	-	0.0	-	-	0.0
<i>Conus californicus</i>	0.0	0.0	0.0	-	-	0.0	-	0.0	-	-	0.0
<i>Corella willmeriana</i>	-	-	-	0.0	0.0	-	-	0.0	-	-	0.0
<i>Crangon alaskensis</i>	0.0	0.0	0.0	0.0	-	-	-	0.0	-	-	0.0
<i>Crangon alba</i>	-	-	0.0	-	-	-	-	0.0	-	-	0.0
<i>Crangon</i> sp	-	0.0	-	-	-	-	0.0	-	-	-	0.0
<i>Crassispira semiinflata</i>	-	0.0	0.0	-	-	-	0.0	0.0	-	-	0.0
<i>Crepidula onyx</i>	-	0.0	-	-	-	0.0	-	-	-	-	0.0
<i>Crepidatella dorsata</i>	-	0.0	-	-	-	0.0	-	0.0	-	-	0.0
<i>Crucibulum spinosum</i>	-	-	0.0	-	-	0.0	-	-	-	-	0.0
<i>Cucumaria miniata</i>	-	-	-	0.0	-	-	-	0.0	-	-	0.0
<i>Cucumaria piperata</i>	-	0.0	-	0.0	0.0	-	-	0.0	-	-	0.0
<i>Cucumaria</i> sp	0.0	-	-	-	-	-	-	-	0.0	-	0.0
<i>Cucumaria</i> sp C11	-	-	-	-	0.0	-	-	0.0	-	-	0.0
<i>Cystodytes lobatus</i>	-	-	-	0.0	-	-	-	0.0	-	-	0.0
<i>Dendrodorididae</i>	-	-	-	0.0	-	-	-	0.0	-	-	0.0
<i>Dendronotus iris</i>	-	0.0	-	0.0	-	0.0	-	0.0	-	-	0.0
<i>Diaulula sandiegensis</i>	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Doriopsilla albopunctata</i>	-	-	0.0	-	-	-	-	0.0	-	-	0.0
<i>Doris montereyensis</i>	-	0.0	-	-	-	-	-	-	0.0	-	0.0
<i>Dougaloplus amphacanthus</i>	0.0	-	-	-	-	-	-	-	-	0.0	0.0
<i>Enallopaguropsis guatemoci</i>	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0
<i>Epizoanthus induratus</i>	-	-	-	-	0.0	-	-	-	0.0	-	0.0
<i>Erato vitellina</i>	-	-	-	0.0	-	-	-	0.0	-	-	0.0
<i>Erileptus spinosus</i>	-	0.0	-	-	-	0.0	-	-	-	-	0.0
<i>Euspira draconis</i>	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Euvola diegensis</i>	-	0.0	-	0.0	-	-	-	0.0	-	-	0.0
<i>Filicrisia</i> sp	-	-	0.0	-	-	-	-	0.0	-	-	0.0
<i>Flabellina iodinea</i>	-	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0
<i>Forreria belcheri</i>	-	0.0	-	-	-	0.0	-	-	-	-	0.0
<i>Fusinus barbarensis</i>	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0
<i>Galathea californiensis</i>	0.0	-	-	-	-	-	-	-	0.0	-	0.0
<i>Gonatopsis borealis</i>	0.0	-	-	-	-	-	-	-	-	0.0	0.0
<i>Hamatoscalpellum californicum</i>	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	0.0
<i>Havelockia benti</i>	-	-	-	0.0	-	-	-	0.0	-	-	0.0

C4. (continued)

Species*	Region					Shelf Zone					SCB
	Mainland			Island							
	N	C	S	NWC	SEC	B&H	IS	MS	OS	US	
<i>Hemigrapsus oregonensis</i>	-	0.0	-	-	-	0.0	-	-	-	-	0.0
<i>Henricia aspera</i>	-	-	-	-	0.0	-	-	0.0	-	-	0.0
<i>Henricia leviuscula</i>	-	0.0	-	0.0	0.0	-	-	0.0	-	-	0.0
<i>Heptacarpus brevirostris</i>	-	-	0.0	-	-	-	0.0	-	-	-	0.0
<i>Heptacarpus palpator</i>	-	0.0	0.0	-	-	-	0.0	0.0	-	-	0.0
<i>Heptacarpus</i> sp	0.0	-	-	-	-	-	-	-	-	0.0	0.0
<i>Heptacarpus stimpsoni</i>	0.0	0.0	0.0	-	-	0.0	-	0.0	-	-	0.0
<i>Heptacarpus taylori</i>	0.0	-	-	-	-	-	0.0	-	-	-	0.0
<i>Heptacarpus tenuissimus</i>	-	0.0	0.0	-	-	-	-	0.0	0.0	-	0.0
<i>Heterogorgia</i> sp	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Hippasteria spinosa</i>	-	0.0	-	-	-	-	-	-	-	0.0	0.0
<i>Hippopodina californica</i>	-	-	-	0.0	-	-	-	0.0	-	-	0.0
<i>Lamellaria diegoensis</i>	-	-	0.0	-	-	-	-	0.0	-	-	0.0
<i>Laqueus californianus</i>	0.0	0.0	-	-	-	-	-	0.0	0.0	-	0.0
<i>Lepidozона sinudentata</i>	-	-	0.0	-	-	-	-	0.0	-	-	0.0
<i>Leptasterias hexactis</i>	-	0.0	0.0	-	0.0	-	-	0.0	-	-	0.0
<i>Leptopecten latiauratus</i>	-	0.0	0.0	-	-	0.0	-	-	-	-	0.0
<i>Leucilla nuttingi</i>	-	0.0	0.0	-	-	-	0.0	0.0	-	-	0.0
<i>Limaria hemphilli</i>	-	0.0	0.0	-	-	0.0	-	-	-	-	0.0
<i>Lophogorgia chilensis</i>	-	0.0	0.0	-	-	-	-	0.0	-	-	0.0
<i>Lophopanopeus bellus</i>	-	0.0	-	0.0	-	-	-	0.0	-	-	0.0
<i>Lophopanopeus frontalis</i>	-	-	-	-	-	-	0.0	-	-	-	0.0
<i>Lophopanopeus leucomanus</i>	-	0.0	-	-	-	0.0	-	-	-	-	0.0
<i>Lophopanopeus</i> sp	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Lovenia cordiformis</i>	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Luidia asthenosoma</i>	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
<i>Luidia</i> sp	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Megasurcula carpenteriana</i>	-	0.0	0.0	0.0	-	-	-	0.0	0.0	-	0.0
<i>Megasurcula stearnsiana</i>	-	-	-	0.0	-	-	-	0.0	-	-	0.0
<i>Melibe leonina</i>	0.0	-	-	-	-	-	0.0	-	-	-	0.0
<i>Metacrangon spinosissima</i>	0.0	0.0	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0
<i>Microcosmus squamiger</i>	-	0.0	0.0	-	-	0.0	-	-	-	-	0.0
<i>Mimulus foliatus</i>	0.0	-	-	-	-	-	-	0.0	-	-	0.0
<i>Mitra idae</i>	-	-	-	0.0	-	-	-	-	0.0	-	0.0
<i>Molgula pugetiensis</i>	-	0.0	-	-	-	0.0	-	-	-	-	0.0
<i>Molgula regularis</i>	-	-	-	-	0.0	-	-	0.0	-	-	0.0
<i>Molgula</i> sp	-	0.0	-	0.0	-	0.0	-	0.0	-	-	0.0
<i>Molgula verrucifera</i>	-	0.0	0.0	-	-	0.0	-	-	-	-	0.0
<i>Munida quadrispina</i>	0.0	-	-	-	-	-	-	-	-	0.0	0.0
<i>Munidopsis depressa</i>	-	-	0.0	-	-	-	-	-	-	0.0	0.0
<i>Musculista senhousia</i>	-	0.0	0.0	-	-	0.0	-	-	-	-	0.0
<i>Nacospatangus laevis</i>	-	-	-	0.0	0.0	-	-	0.0	-	-	0.0
<i>Nassarius fossatus</i>	-	0.0	-	-	-	0.0	-	-	-	-	0.0
<i>Nassarius insculptus</i>	0.0	0.0	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0
<i>Nassarius perpinguis</i>	0.0	0.0	0.0	-	-	-	0.0	-	-	-	0.0
<i>Nassarius tiarula</i>	-	-	0.0	-	-	0.0	-	-	-	-	0.0
<i>Nellobia eusoma</i>	0.0	-	-	-	-	-	-	-	-	0.0	0.0
<i>Neocrangon resima</i>	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0

C4. (continued)

Species*	Region					Shelf Zone					SCB
	Mainland			Island							
	N	C	S	NWC	SEC	B&H	IS	MS	OS	US	
<i>Neocrangon</i> sp	0.0	-	-	-	-	-	-	-	0.0	-	0.0
<i>Neocrangon</i> sp MEC1	-	-	0.0	-	-	-	-	-	-	0.0	0.0
<i>Neocrangon</i> zacae	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0
<i>Neosimnia barbarensis</i>	-	0.0	-	0.0	-	-	-	0.0	-	-	0.0
<i>Neosimnia loebbeckeana</i>	-	0.0	0.0	-	-	-	-	0.0	-	-	0.0
<i>Neosimnia</i> sp	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Nymphon pixellae</i>	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0
<i>Odontaster crassus</i>	0.0	-	-	-	-	-	-	-	0.0	-	0.0
<i>Ophiacantha diplasia</i>	-	0.0	0.0	-	-	-	-	-	0.0	0.0	0.0
<i>Ophiacantha</i> sp	-	0.0	-	-	-	-	-	-	0.0	-	0.0
<i>Ophiopholis bakeri</i>	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0
<i>Ophiopholis longispina</i>	0.0	-	-	-	-	-	-	-	-	0.0	0.0
<i>Ophiopteris papillosa</i>	-	-	-	0.0	-	-	-	0.0	-	-	0.0
<i>Ophiura luetkenii</i>	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0
<i>Pachygrapsus crassipes</i>	-	0.0	-	-	-	0.0	-	-	-	-	0.0
<i>Paguristes</i> sp HYP1	-	0.0	-	-	-	-	0.0	-	-	-	0.0
<i>Paguristes turgidus</i>	0.0	0.0	-	0.0	0.0	-	-	0.0	0.0	-	0.0
<i>Paguristes ulreyi</i>	-	0.0	0.0	0.0	-	-	-	0.0	-	-	0.0
<i>Paguroidea</i>	-	-	0.0	-	-	-	0.0	-	0.0	-	0.0
<i>Pandalus danae</i>	-	-	0.0	-	-	-	-	0.0	-	-	0.0
<i>Paracyathus stearnsii</i>	-	-	0.0	0.0	0.0	-	-	0.0	-	-	0.0
<i>Parapagurodes laurentae</i>	-	-	-	0.0	0.0	-	-	0.0	-	-	0.0
<i>Parapagurodes makarovi</i>	0.0	-	-	-	-	-	-	-	-	0.0	0.0
<i>Parastichopus</i> sp	-	-	-	0.0	-	-	-	0.0	-	-	0.0
<i>Parastichopus</i> sp A	-	0.0	-	-	0.0	-	-	0.0	0.0	0.0	0.0
<i>Paraxanthias taylori</i>	-	-	0.0	-	-	-	-	0.0	-	-	0.0
<i>Peltodoris nobilis</i>	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Pennatula californica</i>	0.0	-	-	-	-	-	-	-	-	0.0	0.0
<i>Pentidotea resecata</i>	0.0	-	-	-	-	-	0.0	-	-	-	0.0
<i>Phimochirus californiensis</i>	-	-	0.0	-	-	-	-	0.0	-	0.0	0.0
<i>Pinnixa franciscana</i>	-	0.0	-	-	-	-	0.0	-	-	-	0.0
<i>Platydoris</i> sp	-	-	0.0	-	-	-	-	0.0	-	-	0.0
<i>Plumularia</i> sp	-	0.0	-	-	-	-	0.0	-	-	-	0.0
<i>Podochela hemphillii</i>	-	0.0	-	-	-	-	0.0	-	-	-	0.0
<i>Podochela lobifrons</i>	-	-	0.0	-	0.0	-	-	0.0	-	-	0.0
<i>Pododesmus macrochisma</i>	-	-	0.0	-	-	-	-	0.0	-	-	0.0
<i>Porifera</i> sp SD15	-	-	0.0	-	-	0.0	-	-	-	-	0.0
<i>Porifera</i> sp SD16	-	-	0.0	-	-	-	-	-	0.0	-	0.0
<i>Porifera</i> sp SD2	-	-	0.0	-	-	0.0	-	-	-	-	0.0
<i>Porifera</i> sp SD5	-	-	0.0	-	-	0.0	-	-	-	-	0.0
<i>Protula superba</i>	-	-	0.0	0.0	-	-	-	0.0	0.0	-	0.0
<i>Pseudochama exogyra</i>	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Pseudocnus lubricus</i>	-	-	-	0.0	-	-	-	0.0	-	-	0.0
<i>Psolidium</i> sp	-	-	-	-	0.0	-	-	0.0	-	-	0.0
<i>Psolidium</i> sp SD1	-	-	0.0	-	-	-	-	0.0	-	-	0.0
<i>Pteria sterna</i>	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Pteropurpura festiva</i>	0.0	-	-	-	-	-	-	0.0	-	-	0.0
<i>Pteropurpura vokesae</i>	-	0.0	0.0	-	-	-	-	0.0	-	-	0.0

C4. (continued)

Species*	Region					Shelf Zone					SCB
	Mainland			Island							
	N	C	S	NWC	SEC	B&H	IS	MS	OS	US	
<i>Ptilosarcus gurneyi</i>	-	-	-	-	0.0	-	-	0.0	-	-	0.0
<i>Pugettia dalli</i>	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Pugettia producta</i>	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0
<i>Pylopagurus holmesi</i>	-	-	0.0	-	-	-	-	-	0.0	-	0.0
<i>Randallia ornata</i>	-	0.0	0.0	-	-	-	0.0	0.0	-	-	0.0
<i>Renilla koellikeri</i>	0.0	-	0.0	-	-	-	0.0	-	-	-	0.0
<i>Rictaxis painei</i>	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Rocinela angustata</i>	0.0	-	-	-	-	-	-	-	-	0.0	0.0
<i>Scabrotrophon grovesi</i>	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Schizoporella inarmata</i>	-	-	-	-	0.0	-	-	0.0	-	-	0.0
<i>Schmittius politus</i>	-	0.0	0.0	0.0	-	-	-	0.0	-	0.0	0.0
<i>Sclerasterias heteropaes</i>	-	-	-	0.0	0.0	-	-	0.0	0.0	-	0.0
<i>Scyra acutifrons</i>	-	0.0	-	0.0	-	-	-	0.0	-	-	0.0
<i>Strongylocentrotus franciscanus</i>	-	-	-	0.0	0.0	-	-	0.0	-	-	0.0
<i>Strongylocentrotus purpuratus</i>	0.0	0.0	-	-	-	-	0.0	0.0	-	-	0.0
<i>Styela clava</i>	-	0.0	0.0	-	0.0	0.0	-	0.0	-	-	0.0
<i>Styela coriacea</i>	-	-	0.0	-	-	-	-	0.0	-	-	0.0
<i>Styela montereyensis</i>	-	0.0	0.0	-	-	0.0	0.0	-	-	-	0.0
<i>Styela sp</i>	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	0.0
<i>Stylatula elongata</i>	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0
<i>Taliepus nuttallii</i>	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Tegula aureotincta</i>	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Telesto californica</i>	-	-	0.0	-	-	-	-	0.0	-	-	0.0
<i>Telesto nuttingi</i>	-	-	-	-	0.0	-	-	0.0	-	-	0.0
<i>Terebratalia transversa</i>	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Terebratulina crossei</i>	0.0	-	-	-	-	-	-	-	0.0	-	0.0
<i>Terebratulina unguicula</i>	-	-	-	0.0	-	-	-	0.0	-	-	0.0
<i>Tethya californiana</i>	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Tetilla arb</i>	-	-	0.0	-	-	-	-	0.0	-	-	0.0
<i>Thalamoporella californica</i>	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0
<i>Thalamoporella sp</i>	-	0.0	-	-	-	-	0.0	-	-	-	0.0
<i>Tochuina tetraquetra</i>	-	-	-	-	0.0	-	-	0.0	-	-	0.0
<i>Triopha catalinae</i>	-	0.0	0.0	-	-	-	-	0.0	-	-	0.0
<i>Triopha maculata</i>	-	0.0	-	0.0	-	0.0	0.0	0.0	-	-	0.0
<i>Trivia ritteri</i>	-	-	-	0.0	-	-	-	0.0	-	-	0.0
<i>Tubularia crocea</i>	-	-	0.0	-	-	0.0	-	-	-	-	0.0
<i>Turcica caffeea</i>	-	-	0.0	-	-	-	-	0.0	-	-	0.0
<i>Virgularia agassizi</i>	0.0	0.0	0.0	-	-	-	-	0.0	-	-	0.0
<i>Virgularia californica</i>	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-	0.0	0.0
<i>Virgularia sp</i>	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Virgulariidae</i>	-	0.0	-	-	-	-	-	0.0	-	-	0.0
<i>Zoobotryon verticillatum</i>	-	0.0	-	-	-	0.0	-	-	-	-	0.0
Total	897.5	823.7	288.1	75.3	129.7	62.3	20.6	448.9	741.2	941.3	2214.3

* See Glossary G4 for common names of invertebrate species

C4. (continued)

N = Northern; C = Central; S = Southern; NWC = Northwest Channel Islands; SEC = Southeast Channel Islands; B&H = Bays and Harbors; IS = Inner Shelf; MS = Middle Shelf; OS= Outer Shelf; US= Upper Slope; SCB = Southern California Bight.

sp = species

"0.0" = less than 0.05 kg