

DEMERSAL OTTER/BEAM TRAWL DATA SHEET RESEARCH VESSEL _____ (1/20/13 Version*)
 CLASS _____; DATE _____; NAME: _____; DEVICE DETAILS _____
 LOCATION (OVERBOARD): LAT _____; LONG _____
 LOCATION (AT DEPTH): LAT _____; LONG _____; DEPTH _____
 LOCATION (START UP): LAT _____; LONG _____; DEPTH _____
 LOCATION (ONBOARD): LAT _____; LONG _____
 TIME: IN _____ AT DEPTH _____ START UP _____ SURFACE _____ DURATION OF TRAWL _____;
 SHIP SPEED _____; WEATHER _____; SEA STATE _____; AIR TEMP _____
 SURFACE TEMP _____; PHYS. OCE. NOTES _____; NOTES _____

INVERTEBRATES

Phylum Porifera

Class Calcarea _____
 Class Demospongiae (Vase sponge) _____
 Class Hexactinellida (Hyalospongia- glass sponge)
 Subclass Hexasterophora
 Order Hexactinosida
 Family Aphrocallistidae
Aphrocallistes vastus _____
 Other _____

Phylum Cnidaria (Coelenterata)

Class Anthozoa
 Subclass Hexacorallia (Zoantharia)
 Order Actiniaria
 Suborder Nyantheae
 Infraorder Thenaria
 Superfamily Endomyaria
 Family Actiniidae
Tealia sp. _____
 Superfamily Mesomyaria
 Family Actinostolidae
Actinostola sp. _____
Paractinostola faeulentata _____
Stomphia didemon _____
 Superfamily Actiniaria incertae sedis
 Family Metridiidae
Metridium senile (smaller than a few in.) _____
Metridium farcimen (larger than a few in.) _____
 Subclass Octocorallia (Alcyonaria)
 Order Alcyonacea
 Suborder Alcyoniina
 Family Alcyoniidae
Anthomastus ritteri _____
 Suborder Stolonifera
 Family Clavulariidae
Telesto sp. _____
 Suborder Scleraxonia
 Family Paragogiidae
Paragorgia arborea _____
 Order Gorgonacea
 Family Corallidae
Corallium sp. _____
 Suborder Calcaxonia
 Family Isididae
Isidella sp. _____
Keratoisis sp. _____
 Suborder Holaxonia
 Family Plexauridae
Swiftia kofoidi _____
Swiftia simplex _____
Euplexaura marki _____
Psammogorgia sp. _____
 Unidentified _____

Order Pennatulacea (sea pens)
 Family Stachyptilidae
Stachyptilum superbum _____
 Suborder Subsessiliflorae
 Family Pennatulidae
Ptilosarcus gurneyi _____
 Family Virgulariidae
Acanthoptilum sp. _____
Stylatula elongata _____
Virgularia sp. _____
 Other _____
 Suborder Sessiliflorae
 Family Umbellulidae
Umbellula lindahli _____
 Class Hydrozoa
 Subclass Trachylinae
 Order Trachymedusae
 Family Rhopalonematidae
Benthocodon hyalinus _____
Benthocodon pedunculata _____
Voragonema sp. _____
 Class Scyphozoa
 Subclass Discomedusae
 Order Semaestomeae
 Family Ulmaridae
Aurelia aurita _____
Poralia rufescens _____
 Family Pelagiidae
Chrysaora melanaster _____
Chrysaora fuscescens _____
Chrysaora colorata _____
 Class Staurozoa
 Order Stauromedusae (stalked jellies) _____

Phylum Ctenophora

Class Tentaculata
 Subclass Typhlocoela
 Order Platyctenida
 Family Tjalfiellidae
Tjalfiella tristoma _____

Phylum Platyhelminthes

Class Turbellaria
 Order Polycladida _____

Phylum Nemertea

Class Enopla
 Subclass Hoplonemertea _____
 Aplacophoran-like form? _____

1 Phylum Nemata (Nematoda) _____

Phylum Arthropoda

Subphylum Crustacea
 Class Malacostraca
 Subclass Eumalacostraca

Superorder Eucarida
 Order Decapoda
 Suborder Dendrobranchiata
 Superfamily Penaeoidea
 Family Penaeidae
 Penaeus sp. _____
 Suborder Pleocyemata
 Infraorder Anomura
 Superfamily Galatheoidea
 Family Munididae
 Munida quadrispina _____
 Pleuroncodes planipes _____
 Family Muniopsidae
 Munidopsis spp. _____
 Superfamily Paguroidea
 Family Diogenidae
 Isocheles pilosus _____
 Superfamily Lithodoidea
 Family Lithodidae
 Lopholithodes foraminatus _____
 Paguristes sp. _____
 Pagurus armatus _____
 Pagurus ochotensis _____
 Pagurus quaylei _____
 Paralithodes rathbuni _____
 Paralomis sp. _____
 Infraorder Brachyura
 Section Eubrachyura
 Subsection Heterotremata
 Superfamily Calappoidea
 Family Calappidae
 Mursia gaudichaudii _____
 Superfamily Cancroidea
 Family Cancridae
 Cancer antennarius _____
 Cancer anthonyi _____
 Cancer branneri _____
 Cancer gracilis _____
 Cancer jordani _____
 Cancer magister _____
 Cancer oregonensis _____
 Cancer productus _____
 Cancer sp. _____
 Superfamily Leucosioidea
 Family Leucosiidae
 Subfamily Ebaliinae
 Randallia sp. _____
 Superfamily Majoidea
 Family Oregoniidae
 Chionoecetes tanneri _____
 Family Epialtidae
 Subfamily Pisinae
 Loxorhynchus crispatus _____
 Loxorhynchus grandis _____
 Chorilia longipes _____
 Subfamily Epialtinae
 Mimulus foliatus _____
 Pugettia producta _____
 Other _____

Infraorder Caridea
 Superfamily Crangonoidea
 Family Crangonidae
 Crangon nigricauda _____
 Crangon nigromaculata _____
 Crangon sp. _____
 Superfamily Alpheoidea
 Family Hippolytidae _____
 Spirontocaris sp. _____
 Superfamily Palaemonoidea
 Family Palaemonidae _____
 Superfamily Pandaloidea
 Family Pandalidae
 Pandalus jordani _____
 Pandalus platyceros _____
 Pandalus tridens _____
 Pandalopsis ampla _____
 Infraorder Thalassinidea
 Callinassa platinum _____
 Superorder Peracarida
 Order Amphipoda
 Suborder Gammaridea
 Infraorder Gammarida
 Superfamily Lysianassoidea
 Family Scopelocheiridae
 Paracallisoma coecum _____
 Order Isopoda
 Suborder Asellota
 Superfamily Janiroidea
 Family Ischnomesidae _____
 Family Munnopsidae
 Munnopsis sp. _____
 Subfamily Eurycopinae
 Eurycope sp. _____
 Subfamily Storhyngurinae
 Storhyngura sp. _____
 Order Mysida
 "Golden Eyes" _____
 Order Tanaidacea _____
 Class Maxillopoda
 Subclass Copepoda
 Infraclass Neocopepoda
 Superorder Podoplea
 Order Cyclopoida _____
 Order Harpacticoida _____
 Class Ostracoda
 Subclass Myodocopa
 Order Halocyprida
 Suborder Halocypridina
 Superfamily Halocypridoidea
 Family Halocyprididae
 Conchoecia sp. _____
Phylum Annelida
 Class Polychaeta
 Subclass Aciculata
 Order Amphinomida
 Family Amphinomidae _____
 Order Eunicida
 Family Eunicidae

Eunice sp. _____
 Family Onuphidae _____
 Subfamily Onuphinae _____
 Onuphis sp. _____
 Order Phyllodocida _____
 Suborder Aphroditiformia _____
 Subfamily Aphroditoidea _____
 Family Aphroditidae _____
 Aphrodite sp. _____
 Laetmonice _____
 Family Polynoidae _____
 Subfamily Polynoinae _____
 Harmothoe sp. _____
 Suborder Chrysopetalacea _____
 Family Chrysopetalidae _____
 Suborder Glyceriformia _____
 Family Goniadidae _____
 Family Glyceridae _____
 Family Nephtyidae _____
 Suborder Nereidiformia _____
 Family Nereididae _____
 Family Syllidae _____
 Suborder Phyllodociformia _____
 Family Phyllodocidae _____
 Subclass Canalipalpata _____
 Order Sabellida _____
 Family Sabellidae _____
 Family Serpulidae _____
 Order Spionida _____
 Family Chaetopteridae _____
 Suborder Spioniformia _____
 Family Spionidae _____
 Order Terebellida _____
 Suborder Terebellomorpha _____
 Family Ampharetidae _____
 Family Pectinariidae _____
 Family Terebellidae _____
 Artacama sp. _____
 Suborder Cirratuliformia _____
 Family Flabelligeridae _____
 Family Sternaspidae _____
 Sternapsis sp. _____
 Unidentified polychaete tubes _____
 Subclass Scolecida _____
 Family Capitellidae _____
 Family Maldanidae _____

Phylum Echiura

Family Echiuridae _____
 Subfamily Thalassematinae _____
 Listriolobus sp. _____

Phylum Sipuncula

Phylum Brachiopoda

Subphylum Rhynchonelliformea _____
 Class Rhynchonellata _____
 Order Terebratulida _____
 Suborder Terebratulidina _____
 Superfamily Cancellothyroidea _____
 Family Cancellothyrididae _____

Subfamily Cancellothyridinae _____
 Terebratulina unguicula _____
 Family Laqueidae _____
 Laqueus californianus _____

Phylum Mollusca

Class Aplacophora _____
 Class Bivalvia _____
 Subclass Heterodonta _____
 Infraclass Euheterodonta _____
 Order Veneroidea _____
 Superfamily Tellinoidea _____
 Family Tellinidae _____
 Tellina sp. _____
 Superfamily Chamoidea _____
 Family Chamidae _____
 Chama sp. _____
 Superfamily Glossoidea _____
 Family Vesicomidae _____
 Archivesica gigas _____
 Subclass Protobranchia _____
 Order Nuculanoida _____
 Superfamily Nuculanoidea _____
 Family Nuculanidae _____
 Nuculana sp. _____
 Family Yoldiidae _____
 Megayoldia montereyensis _____
 Yoldia sp. _____
 Yoldiella sp. _____
 Class Cephalopoda _____
 Subclass Coleoidea _____
 Infraclass Decapodiformes _____
 Order Myopsida _____
 Family Loliginidae _____
 Doryteuthis opalescens _____
 Order Octopoda _____
 Suborder Incirrata _____
 Superfamily Octopodoidea _____
 Family Octopodidae _____
 Octopus bimaculatus _____
 Octopus rubescens _____
 Enteroctopus dofleini _____
 Order Sepiolida _____
 Family Sepiolidae _____
 Rossia pacifica _____
 Infraclass Octopodiformes _____
 Order Octopoda _____
 Suborder Cirrata _____
 Family Grimptoteuthidae _____
 Grimptoteuthis sp. _____
 Family Opistoteuthidae _____
 Opistoteuthis sp. _____
 Class Gastropoda _____
 Subclass Heterobranchia _____
 Infraclass Opisthobranchia _____
 Order Cephalaspidea _____
 Superfamily Philinoidea _____
 Family Philinidae _____
 Philine auriformis (Introd'd N.Z.) _____

Order Pleurobranchomorpha
 Superfamily Pleurobrancoidea
 Family Pleurobranchaeidae
Pleurobranchaea californica _____
 Order Nudibranchia
 Suborder Dexiarchia
 Infraorder Euarminida
 Superfamily Arminoidea
 Family Arminidae
Armina californica _____
 Infraorder Aeolidida
 Superfamily Aeolidioidea
 Family Facelinidae
Hermisenda crassicornis _____
 Infraorder Dendronotida
 Superfamily Tritonioidea
 Family Tritoniidae
Tochuina tetraquetra _____
Tritonia diomedea _____
Tritonia exsulans _____
 Subclass Caenogastropoda
 Order Littorinomorpha
 Superfamily Naticoidea
 Family Naticidae
 Subfamily Naticinae
Cryptonatica affinis _____
 Subfamily Polinicinae
Polinices lewisii _____
Polinices sp. _____
 Superfamily Pterotracheoidea
 Family Pterotracheidae
Pterotrachea scutata _____
 Family Carinariidae
Carinaria japonica _____
 Order Neogastropoda
 Superfamily Buccinoidea
 Family Buccinidae
Colus sp. _____
Neptunea amianta _____
Neptunea ithia _____
 Family Nassariidae
Nassarius perpinguis _____
 Superfamily Cancellarioidea
 Family Cancellariidae
Cancellaria cooperi _____
 Superfamily Conoidea
 Family Pseudomelatomidae
Carinoturris fortis _____
Antiplanes sp. _____
Megasurcula carpenteriana _____
 Subclass Vetigastropoda
 Order Archaeogastropoda
 Superfamily Fissurelloidea
 Family Fissurellidae
 Subfamily Emarginulinae
Puncturella (rothi?) _____
 Superfamily Trochoidea
 Family Turbinidae
 Subfamily Margaritinae

Margarites sp. _____
 Superfamily Seguenzioidea
 Family Calliotropidae
Bathybembix sp. _____
 Class Polyplacophora (chitons)
 Unidentified chitons _____
 Subclass Neoloricata
 Order Chitonida
 Suborder Acanthochitonina
 Superfamily Mopalioidae
 Family Mopaliidae
 Subfamily Placiphorella
Placiphorella pacifica _____
 Class Scaphopoda
 Order Dentaliida
 Family Dentaliidae
Dentalium sp. _____
 Other _____
 Egg cases _____
Phylum Echinodermata
 Subphylum Asterozoa
 Class Asteroidea
 Order Velatida
 Family Pterasteridae
Hymenaster perissonotus _____
Hymenaster quadrispinosus _____
Pteraster coscinopeplus _____
Pteraster jordani _____
Pteraster tessellatus _____
 Superorder Forcipulatacea
 Order Forcipulatida
 Family Asteroidea
Pisaster brevispinus _____
Pisaster giganteus _____
Pisaster ochraceus _____
Rathbunaster californicus _____
Stylasterias forreri _____
 Family Zoroasteridae
Myxoderma platyacanthum _____
 Order Brisingida
 Family Brisingidae
Hymenodiscus sp. _____
 Superorder Valvatacea
 Order Paxillosida
 Family Astropectinidae
Astropecten verrilli _____
Dipsacaster eximius _____
Thrissacanthias penicillatus _____
Leptychaster pacificus? _____
 Family Luidiidae
Luidia foliolata _____
 Order Valvatida
 Family Goniasteridae
Ceramaster patagonicus _____
Hippasteria sp. _____
Mediaster aequalis _____
 Family Odontasteridae
Odontaster sp. _____
 Family Poraniidae

Poraniopsis inflata _____
 Family Solasteridae
Lophaster furcilliger _____
Solaster borealis _____
Solaster dawsoni ? _____
Solaster endeca _____
 Family Asteropseidae
Dermasterias sp. _____
 Order Notomyotida
 Family Benthopectinidae
Benthopecten sp. _____
 Superorder Spinulosacea
 Order Spinulosida
 Family Echinasteridae
Henricia aspera aspera _____
 Other _____
 Class Crinoidea
 Order Comatulida
 Family Antedonidae
Florometra serratissima _____
 Class Ophiuroidea
 Order Ophiurida
 Suborder Ophiurina
 Infraorder Gnathopiurina
 Family Amphiuridae
Amphiodia sp. _____
Amphipholis sp. _____
Amphipholis pugetana _____
Amphipholis stronglyoplax _____
Amphiura sp. _____
 Family Ophiacanthidae
 Subfamily Ophiacanthinae
Ophiacantha sp. _____
 Family Ophiactidae
Ophiopholis sp. _____
Ophiopholis aculeate _____
Ophiopholis bakeri _____
Ophiopholis longispina (in sponges) _____
 Infraorder Ophiolepidina
 Family Ophiolepididae
Ophiomusium glabrum (>800m) _____
Ophiomusium jolliensis _____
 Infraorder Chilophiurina
 Family Ophiuridae
 Subfamily Ophiurinae
Ophiura sarsii _____
Stegophiura (ponderosa?) _____
 Order Euryalida
 Family Asteronychidae
Asteronyx loveni _____
 Family Gorgonocephalidae
Gorgonocephalus eucnemis _____
 Subphylum Echinozoa
 Class Echinoidea
 Subclass Euechinoidea
 Infraclass Irregularia
 Superorder Neognathostomata
 Order Clypeasteroidea
 Suborder Scutellina

Infraorder Scutelliformes
 Family Dendrasteridae
Dendraster excentricus _____
 Superorder Atelostomata
 Order Spatangoida
 Suborder Paleopneustina
 Family Schizasteridae
Brisaster latifrons _____
Brisaster townsendi _____
 Infraclass Carinacea
 Superorder Echinacea
 Order Camarodonta
 Infraorder Echinidea
 Superfamily Odontophora
 Family Strongylocentrotidae
Strongylocentrotus fragilis _____
Strongylocentrotus sp. _____
 Family Toxopneustidae
Lytechinus pictus (<300m) _____
 Other _____
 Class Holothuroidea
 Order Elasipodida
 Suborder Psychropotina
 Family Elpidiidae
Peniagone sp. _____
Scotoplanes sp. _____
 Suborder Deimatina
 Family Laetmogonidae
Laetmogone violacea _____
Pannychia moseleyi _____
 Order Aspidochirotida
 Family Stichopodidae
Parastichopus sp. _____
 Subclass Dendrochirotea
 Order Dendrochirotida
 Family Psolida
Psolus chitinoides _____
Psolus squamatis _____
Phylum Ectoprocta (Bryozoa) _____
Phylum Chaetognatha
 Class Sagittoidea
 Order Aphragmomophora
 Family Pterosagittidae
Pterosagitta draco _____
Phylum Hemichordata
 Class Enteropneusta _____
 Order Enteropneusta
 Family Torquaratoridae _____
Phylum Chordata
 Subphylum Tunicata
 Class Ascidiacea
 Superorder Phlebobranchia
 Family Octacnemidae
Megalodicopia hians _____
 Superorder Aplousobranchia
 Family Didemnidae
Diplosoma sp. _____
 Superorder Stolidobranchia

Family Styelidae
Cnemidocarpa finmarkiensis _____

FISHES

Phylum Chordata

Superclass Agnatha

Class Myxini

Order Myxiniformes

Family Myxinidae

Eptatretus stoutii _____

Eptatretus deani _____

Subphylum Vertebrata

Superclass Gnathostomata /Pisces

Class Elasmobranchii

Subclass Neoselachii

Infraclass Selachii

Superorder Squalomorphi

Order Hexanchiformes

Family Hexanchidae

Hexanchus griseus _____

Notorynchus cepedianus _____

Order Squaliformes

Family Squalidae

Squalus suckleyi _____

Family Dalatiidae

Somniosus pacificus _____

Family Echinorhinidae

Echinorhinus cookei _____

Superorder Galeomorphi

Order Carcharhiniiformes

Family Scyliorhinidae

Parmaturus xaniurus _____

Apristurus brunneus _____

Apristurus kampae _____

Infraclass Batoidea

Order Rajiformes

Family Rajidae

Bathyraja trachura _____

Bathyraja kincaidii _____

Raja binoculara _____

Raja inornata _____

Raja rhina _____

Skate Egg Cases _____

Order Torpediniiformes

Family Torpedinidae

Torpedo californica _____

Class Holocephali

Order Chimaeriformes

Family Chimaeridae

Hydrolagus collieri _____

Class Actinopterygii

Order Osemeriformes

Family Argentinidae

Argentina sialis _____

Family Osmeridae

Spirinchus starksi _____

Order Myctophiformes

Family Myctophidae

Subfamily Lampanyctinae

Stenobranchius leucopsarus _____

Order Aulopiformes

Family Synodontidae

Synodus lucioceps _____

Order Clupeiformes

Family Engraulidae

Engraulis mordax _____

Family Clupeidae

Clupea pallasii _____

Sardinops sagax _____

Order Perciformes

Family Anarhichadidae

Anarrhichthys ocellatus _____

Family Centrolophidae

Icichthys lockingtoni _____

Family Embiotocidae

Cymatogaster aggregata _____

Hyperprosopon anale _____

Zalembius rosaceus _____

Phanerodon furcatus _____

Family Sciaenidae

Genyonemus lineatus _____

Family Stromateidae

Peprilus simillimus _____

Family Zoarcidae

Bothrocara brunneum _____

Bothrocara molle _____

Bothrocara sp. _____

Lycenchelys (=Embryx) crotalinus _____

Lycenchelys hippopotamus? _____

Lycenchelys spp. _____

Lycodapus fierasfer _____

Lycodes (=Aprodon) cortezianus _____

Lycodes diapterus _____

Lycodes (=Lycodopsis) pacificus _____

Pachycara spp. _____

Order Ophidiiformes

Family Ophidiidae

Chilara taylori _____

Family Bythitidae

Cataetx rubrirostris _____

Order Gadiformes

Family Gadidae

Microgadus proximus _____

Family Merlucciidae

Subfamily Merlucciinae

Merluccius productus _____

Family Macrouridae

*Coryphaenoides pectoralis*_(pending name change) _____

Coryphaenoides acrolepis _____
Coryphaenoides armatus _____
Coryphaenoides filifer _____
Coryphaenoides leptolepis _____
Coryphaenoides yaquinae _____
Nezumia stelgidolepis _____
 Family Moridae
Antimora microlepis _____
Physiculus rastrelliger _____
 Order Scorpaeniformes
 Family Liparidae (=Cyclopteridae)
Acantholiparis opercularis _____
Careproctus melanurus _____
Careproctus spp. _____
Lipariscus nanus _____
Paraliparis albescens _____
Paraliparis cephalus _____
Paraliparis rosaceus _____
 Suborder Hexagrammoidei
 Family Hexagrammidae
 Subfamily Ophiodontinae
Ophiodon elongatus _____
 Subfamily Zaniolepidinae
Zaniolepis latipinnis _____
Zaniolepis frenata _____
 Suborder Anoplopomatoidei
 Family Anoplopomatidae
Anoplopoma fimbria _____
 Family Sebastidae
 Subfamily Sebastobinae
Sebastolobus alascanus _____
Sebastolobus altivelis _____
 Subfamily Sebastinae
Sebastes caurinus _____
Sebastes crameri _____
Sebastes diploproa _____
Sebastes elongatus _____
Sebastes goodei _____
Sebastes paucispinis _____
Sebastes saxicola _____
Sebastes semicinctus _____
Sebastes chlorostictus _____
Sebastes spp. (juveniles) _____
Sebastes spp. (non-juveniles) _____
 Family Cottidae
Chitonotus pugetensis _____
Icelinus filamentosus _____

Icelinus cavifrons _____
Icelinus quadriseriatus _____
Radulinus asprellus _____
 Family Psychrolutidae
Psychrolutes phrictus _____
 Family Agonidae
Bathyagonus nigripinnis _____
Stellerina xyosterna _____
 Subfamily Agoninae
Agonopsis (=emmelane) vulsa _____
 Subfamily Bathyagoninae
Odontopyxis trispinosa _____
Xeneretmus latifrons _____
Xeneretmus triacanthus _____
 Order Batrachoidiformes
 Family Batrachoididae
Porichthys notatus _____
 Order Pleuronectiformes
 Family Paralichthyidae (=Bothidae)
Citharichthys stigmaeus _____
Citharichthys sordidus _____
Citharichthys xanthostigma _____
Paralichthys californicus _____
 Unidentified larvae _____
 Family Pleuronectidae
Glyptocephalus zachirus _____
Microstomus pacificus _____
Platichthys stellatus _____
 Subfamily Pleuronectinae
Embassichthys bathybius _____
Eopsetta jordani _____
Pleuronichthys decurrens _____
Pleuronichthys verticalis _____
Psettichthys melanostictus _____
Lepidopsetta bilineata _____
Lyopsetta exilis _____
 Tribe Pleuronectini
Parophrys (=Pleuronectes) vetulus _____
 Unidentified larvae _____
 Family Cynoglossidae
Symphurus atricaudus _____
 Other Species

TOTALS:

Number of Invertebrate Taxa: _____;

Number of Invertebrate Specimens: _____

Number of Fish Taxa _____;

Number of Fish Specimens: _____

