

MIDWATER TRAWL DATA SHEET RESEARCH VESSEL _____ (1/20/2013Version*)
 CLASS _____; DATE _____; NAME: _____; DEVICE DETAILS _____
 LOCATION (OVERBOARD): LAT _____; LONG _____
 LOCATION (AT DEPTH): LAT _____; LONG _____
 LOCATION (START UP): LAT _____; LONG _____
 LOCATION (ONBOARD): LAT _____; LONG _____
 BOTTOM DEPTH _____; DEPTH OF SAMPLE: _____; DURATION OF TRAWL _____;
 TIME: IN _____ AT DEPTH _____ START UP _____ SURFACE _____
 SHIP SPEED _____; WEATHER _____; SEA STATE _____; AIR TEMP _____
 SURFACE TEMP _____; PHYS. OCE. NOTES _____; NOTES _____

INVERTEBRATES

PHYLUM RADIOLARIA

Family Tuscaroridae "Round yellow ones" _____

PHYLUM CTENOPHORA

Class Nuda

Order Beroida

Family Beroidae

Beroe abyssicola _____

Beroe forskalii _____

Beroe cucumis _____

Class Tentaculata

Subclass Cyclocoela

Order Cestida

Family Cestidae

Cestum veneris _____

Velamen parallelum _____

Order Lobata

Family Bathocyroidae

Bathocyroe sp. _____

Family Bolinopsidae

Bolinopsis infundibulum _____

Family Eurhamphaeidae

Kiyohimea usagi _____

Deiopea sp. _____

Family Lampoctenidae

Lamopocteis cruentiventer _____

Family Leucotheidae

Leucothea pulchra _____

Order Thalassocalycida

Family Thalassocalycidae

Thalassocalyce inconstans _____

Subclass Typhlocoela

Order Cydippida

Family Euplokamidae

Euplokamis dunlapae _____

Euplokamis californiensis? _____

Family Pleurobranchiidae

Hormiphora californiensis _____

Pleurobrachia pileus (bachei?) _____

PHYLUM CNIDARIA

(COELENTERATA)

Class Hydrozoa

Subclass Hydroidolina

Order Siphonophorae

Suborder Calycophora (siph /w swimming bells

only)

Family Clausophyidae

Chuniphyes moserae _____

Chuniphyes multidentata _____

Family Diphyidae

Subfamily Diphyinae

Lensia conoidea _____

Lensia hostile _____

Lensia havock _____

Family Hippopodiidae

Vogtia sp. _____

Family Prayidae

Subfamily Nectopyramidinae

"Pointed siphonophores" _____

Nectadamas sp. _____

Nectopyramis sp. _____

Family Prayidae

Subfamily Prayinae

Craseoa lathetica _____

Desmophyes annectens _____

Desmophyes haematogaster _____

Gymnopraia lapislazula _____

Lilyopsis fluoracantha _____

Praya dubia _____

Family Sphaeronectidae

Sphaeronectes sp. _____

Suborder Physonectae

Family Agalmatidae

Cordagalma sp. _____

Frillagalma vityazi _____

Lychnagalma sp. _____

Marrus sp. _____

Nanomia bijuga _____

Family Apolemidae

Apolemia uvaria _____

Family Agalmatidae

Erenna sp. _____

Resomia sp. _____

Family Physophoridae

Physophora sp. _____

Family Pyrostephidae

Bargmannia amoena _____

Bargmannia elongate _____

Bargmannia lata _____

Family Forskaliidae

Forskalia sp. _____

Order Cystonecta (siph /w float only) _____

Order Physonecta (siph /w float & swimming

bells)

Order Anthoathecata

Suborder Filifera

Family Pandeidae

Leuckartiara sp. _____

Neoturris sp. _____

Pandea rubra _____

Suborder Capitata

Family Polyorchidae

Polyorchis sp. _____

Family Corynidae

Scrippsia pacifica _____

1 Order Leptothecata

Suborder Conica

Family Aequoreidae
Aequorea sp. _____
 Family Dipleurosomatidae
Dipleurosoma pacificum _____
 Family Eirenidae
Eutonina indicans _____
 Family Laodiceidae
Ptychogena lactea _____
 Family Mitrocomidae
Mitrocoma cellularia _____
Earleria purpurea _____
Earleria sp. _____
 Family Tiarannidae
Modeeria rotunda _____
Chromatonema rubrum _____
 Family Tiaropsidae
Tiaropsidium kelseyi _____
 Suborder Proboscoida
 Family Campanulariidae
Phalidium sp. _____
 Subclass Trachylinae
 Order Narcomedusae
 Family Tetraplatidae
Tetraplatia volitans _____
 Family Aeginidae
Aegina sp. _____
Aegina citrea _____
Aeginura grimaldii _____
Solmundella bitentaculata _____
 Family Cuninidae
Cunina sp. _____
Solmissus-incisa _____
Solmissus marshalli _____
 Order Trachymedusae
 Family Geryoniidae
Liriope tetraphylla _____
 Family Halicreatidae
Halitrepes sp. _____
Halicreas sp. _____
Haliscera bigelowi _____
Haliscera conica _____
 Family Ptychogastridae
Ptychogastria sp. _____
 Family Rhopalonematidae
Arctapodema sp. _____
Benthocodon sp. _____
Colobonema sericeum _____
Crossota rufobrunnea _____
Crossota millsae _____
Pantachogon sp. _____
Rhopalonema sp. _____
Tetrorchis erythrogaster _____
Tetrorchis sp. _____
Voragonema sp. _____
 Class Scyphozoa
 Order Coronatae
 Family Atollidae
Atolla vanhoeffeni _____
Atolla wyvillei _____
Atolla sp. _____
 Family Nausithoidae
Nausithoe sp. _____
 Family Paraphyllinidae
Paraphyllina sp. _____
 Family Periphyllidae
Periphylla periphylla _____

Periphyllopsis sp.
 Class Scyphozoa
 Subclass Discomedusae
 Order Semaestomeae
 Family Pelagiidae
Chrysaora fuscescens _____
Chrysaora colorata _____
 Family Ulmaridae
Aurelia aurita _____
Aurelia labiata _____
Phacellophora camtschatica _____
Poralia rufescens _____
 Unidentified _____

PHYLUM NEMERTEA

Class Enopla
 Subclass Hoplonemertea
 Order Polystilifera
 Suborder Pelagica
 Family Nectonemertidae
Nectonemertes mirabilis (orange pelagic form) _____
 Family Phallonemertidae
Phallonemertes sp. _____
 Other _____

PHYLUM ANNELIDA

Class Polychaeta
 Subclass Aciculata
 Order Phyllodocida
 Suborder Phyllodociformia
 Family Alciopidae
Alciopina sp. _____
Naiades sp. _____
Rhynchonerella sp. _____
Torrea sp. _____
Vanadis sp. _____
 Family Lopadorrhynchidae
Lopadorhynchus sp. _____
Pelagobia sp. _____
 Family Pontodoridae
Pontodora sp. _____
 Suborder Phyllodocida incertae sedis
 Family Tomopteridae
Tomopteris spp. _____
 Family Typhloscolecidae
Sagitella kowaleskii _____
Typhloscolex sp. _____
Travistopsis lobifera _____
 Subclass Canalipalpata
 Order Terebellida
 Suborder Cirratuliformia
 Family Poeobiidae
Poeobius meseres _____
 Family Flabelligeridae
Flota vitjasi _____

PHYLUM ARTHROPODA

Subphylum Crustacea
 Class Malacostraca
 Subclass Phyllocarida
 Superorder Leptostraca
 Order Nebaliacea
 Family Nebaliopsidae
Nebaliopsis typica _____
 Subclass Eumalacostraca

Superorder Eucarida
 Order Amphionidacea
 Family Amphionididae
 Amphionides reynaudii _____
 Order Euphausiacea
 Family Euphausiidae
 Euphausia pacifica _____
 Nematoscelis difficilis _____
 Thysanoessa spinifera _____
 Order Decapoda
 Suborder Dendrobranchiata
 Superfamily Penaeoidea
 Family Benthesicymidae
 Gennadas propinquus _____
 Superfamily Sergestoidea
 Family Sergestidae
 Sergestes similis _____
 Suborder Pleocyemata
 Infraorder Anomura
 Superfamily Galatheoidea
 Family Munididae
 Pleuroncodes planipes _____
 Family Munidopsidae
 Munidopsis spp. _____
 Other Galatheidae _____
 Infraorder Caridea
 Superfamily Pandaloides
 Family Pandalidae
 Plesionika sp. _____
 Superfamily Pasiphaeidea
 Family Pasiphaeidae
 Pasiphaea pacifica _____
 Pasiphaea emarginata _____
 Pasiphaea chacei _____
 Parapasiphaea sulcatifrons _____
 Pasiphaea cortezianus _____
 Superorder Peracarida
 Order Isopoda
 Suborder Cymothoidea
 Superfamily Cymothooidea
 Family Cymothoidae
 Lironeca vulgaris _____
 Suborder Asellota
 Superfamily Janiroidea
 Family Munnopsidae
 Munneurycope murrayi _____
 Paramunnopsis spp. _____
 Munnopsis spp. _____
 Subfamily Munnopsinae
 Acanthamunnopsis milleri _____
 Order Lophogastrida
 Family Gnathophausiidae
 Gnathophausia ingens _____
 Family Eucopiidae
 Eucopia sp. _____
 Eucopia kincaidii _____
 Eucopia mucronata _____
 Order Mysida
 Family Mysidae
 Subfamily Boreomysinae
 Boreomysis spp. _____
 Other Mysidae
 Order Amphipoda
 Suborder Gammaridea
 Infraorder Gammarida
 Stilipes distincta _____

Paracallisoma coecum _____
 Streetsia pronoides _____
 Superfamily Lysianassoidea
 Family Lysianassidae
 Subfamily Tryphosinae
 Orchomenella spp. _____
 Orchomene obtusa _____
 Family Cyphocarididae
 Cyphocaris anonyx _____
 Suborder Hyperiidea
 Infraorder Physocephalata
 Superfamily Lanceoloidea
 Family Lanceolidae
 Lanceola sp. _____
 Superfamily Cystisomatoidea
 Family Cystisomatidae
 Cystisoma fabricii _____
 Cystisoma pellucida _____
 Cystisoma magna _____
 Superfamily Phronimoidea
 Family Hyperiidae
 Hyperia galba _____
 Hyperia spp. _____
 Family Phronimidae
 Phronima sedentaria _____
 Family Phrosinidae
 Primno macropa _____
 Superfamily Vibilioidea
 Family Paraphronimidae
 Paraphronima crassipes _____
 Family Vibiliidae
 Vibilia spp. _____
 Superfamily Scinoidea
 Family Scinidae
 Scina spp. _____
 Superfamily Platysceloidea
 Family Pronoidae
 Eupronoe sp. _____
 Other _____
 Class Maxillopoda
 Subclass Copepoda
 Infraclass Neocopepoda
 Superorder Gymnoplea
 Order Calanoida
 Family Metridinidae
 "Big red copepods" _____
 "Little red copepods" _____
 Gaussia princeps _____
 Family Euchaetidae
 Paraeuchaeta sp. _____
 Family Pontellidae
 Labidocera sp. _____
 Class Ostracoda
 Subclass Myodocopa
 Order Myodocopida
 Suborder Myodocopina
 Superfamily Cypridinoidea
 Family Cyprididae
 Subfamily Cypridininae
 Gigantocypris agassizi _____

PHYLUM CHAETOGNATHA

Class Sagittoidea
 Order Aphragmophora
 Family Sagittidae
 *Caecosagitta macrocephala** _____

Ferosagitta robusta _____
Ferosagitta ferox _____
Flaccisagitta enflata _____
*Flaccisagitta hexaptera** _____
Mesosagitta minima _____
Mesosagitta decipiens _____
*Parasagitta euneritica** _____
*Pseudosagitta lyra** _____
*Pseudosagitta maxima** _____
Sagitta bipunctata _____
Serratosagitta bierii _____
*Solidosagitta zetesios** _____
 Family Krohnittidae
Krohnitta subtilis _____
Krohnitta pacifica _____
 Family Pterosagittidae
Pterosagitta draco _____
 Order Phragmophora
 Family Eukrohniidae
Eukrohnia hamata _____
Eukrohnia fowleri _____

PHYLUM MOLLUSCA

Class Gastropoda
Firoloida demarestia _____
 Subclass Caenogastropoda
 Order Littorinimorpha
 Superfamily Pterotracheoidea
 Family Carinariidae
Carinaria cristata _____
Carinaria japonica _____
 Family Pterotracheidae
Pterotrachea scutata _____
 Family Atlantidae
Atlanta sp. _____
 Subclass Heterobranchia
 Infraclass Opisthobranchia
 Order Cephalaspidea
 Superfamily Philinoidea
 Family Gastropteridae
Gastropteron pacificum _____
 Order Gymnosomata
 Superfamily Clionoidea
 Family Clionidae
Clione limacina _____
Thliptodon sp. _____
 Order Thecosomata
 Suborder Euthecosomata
 Superfamily Cavoliniodea
 Family Cavoliniidae
Clio pyramidata _____
Cavolinia tridentata _____
Creseis virgula _____
 Superfamily Limacinoidea
 Family Limacinidae
Limacina helicina _____
 Suborder Pseudothecosomata
 Superfamily Cymbulioidea
 Family Cymbuliidae
Corolla spectabilis _____
 Class Cephalopoda
 Subclass Coleoidea
 Infraclass Decapodiformes
 Order Myopsida
 Family Loliginidae
Doryteuthis opalescens _____

Order Oegopsida
 Family Chiroteuthidae
Chiroteuthis calyx _____
Planctoteuthis danae _____
 Family Cranchiidae
Galiteuthis phyllura _____
 Family Enoploteuthidae
Abraliopsis felis _____
 Family Gonatidae
Berryteuthis anonychus _____
Gonatus californiensis _____
Gonatus berryi _____
Gonatus onyx _____
Gonatus pyros _____
Gonatopsis borealis _____
 Family Histoteuthidae
Histoteuthis heteropsis _____
 Family Octopoteuthidae
Octopoteuthis deletron _____
 Family Ommastrephidae
Dosidicus gigas _____
 Family Onychoteuthidae
Moroteuthis robusta _____
Onychoteuthis borealijaponicus _____
 Order Sepioidea
 Family Sepiolidae
Rossia pacifica _____
 Infraclass Octopodiformes
 Order Octopoda
 Suborder Incirrata
 Superfamily Octopodoidea
 Family Octopodidae
Enteroctopus dofleini _____
Octopus rubescens _____
Octopus juveniles _____
 Superfamily Bolitaenoidea
 Family Bolitaenidae
Japetella diaphana _____
Japetella heathi _____
 Suborder Cirrata
 Family Grimpoteuthidae
Grimpoteuthis sp. _____
 Family Opisthoteuthidae
Opisthoteuthis californiana _____
 Order Vampyromorpha
 Family Vampyroteuthidae
Vampyroteuthis infernalis _____
 Larval Cephalopoda _____

PHYLUM CHORDATA

Subphylum Tunicata
 Class Larvacea (Appendicularia)
 Order Copelata
 Family Oikopleuridae
 Subfamily Oikopleurinae
 Tribe Labiata
Oikopleura spp. _____
Bathychordaeus sp. _____
 Subfamily Bathochordaeinae
Mesochordaeus erythrocephalus _____
 Family Fritillariidae
 Subfamily Fritillariinae
Fritillaria sp. _____
 Class Thaliacea
 Order Doliolida
 Family Doliolidae

Doliolum gegenbauri _____
Doliolinetta intermedia (deep) _____
 Order Pyrosomatida _____
 Order Salpa _____
 Family Salpidae _____
 Cyclosalpa affinis _____
 Cyclosalpa bakeri _____
 Pegea confederata _____

Pegea social _____
Salpa fusiformis _____
Salpa aspera _____
Thetys vagina _____
Salpa maxima _____
Thalia democratica _____

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 Galeomorphi
 Order Carcharhiniformes
 Family Scyliorhinidae
 Parmaturus xaniurus _____
 Apristurus brunneus _____
 Apristurus kampa _____
 Class Actinopterygii
 Order Anguilliformes
 Family Nemichthyidae
 Nemichthys sp. _____
 Order Saccopharyngiformes
 Family Cyematidae
 Cyema atrum _____
 Order Osmeriformes
 Family Alepocephalidae
 Talismania bifurcata _____
 Alepocephalus tenebrosus _____
 Family Platyroctidae
 Holtbyrnia spp. _____
 Sagamichthys abei _____
 Order Argentiniformes
 Family Argentinidae
 Argentina sialis _____
 Family Bathylagidae
 Leuroglossus stilbicus _____
 Bathylagus wesethi _____
 Bathylagus ochotensis _____
 Bathylagus pacificus _____
 Pseudobathylagus milleri _____
 Family Opisthoproctidae
 Macropinna microstoma _____
 Dolichopteryx longipes _____
 Order Stomiiformes
 Family Sternoptychidae
 Danaphos oculus _____
 Argyropelecus sladeni _____
 Argyropelecus affinis _____
 Argyropelecus lychnus _____
 Argyropelecus hemigymnus _____
 Sternoptyx diaphana (obscura?) _____
 Family Gonostomatidae
 Cyclothone signata _____

Cyclothone acclinidens _____
Cyclothone pallida _____
 Family Stomiidae
 Aristostomias scintillans _____
 Idiacanthus antrostomus _____
 Bathophilus flemingi _____
 Chauliodus macouni _____
 Stomias atriventer _____
 Tactostoma macropus _____
 Order Aulopiformes
 Family Paralepididae
 Lestidiops ringens _____
 Order Myctophiformes
 Family Myctophidae
 Nannobranchium (Lampanyctus) ritteri _____
 Nannobranchium (Lampanyctus) regale _____
 Parvilux ingens _____
 Tarletonbeania crenularis _____
 Diaphus theta _____
 Symbolophorus californiensis _____
 Protomyctophum crockeri _____
 Triphoturus mexicanus _____
 Subfamily Lampanyctinae
 Stenobranchius leucopsarus _____
 Family Neoscopelidae
 Scopelogys tristis _____
 Order Lampriformes
 Family Trachipteridae
 Trachipterus altivelis _____
 Order Gadiformes
 Family Merlucciidae
 Subfamily Merlucciinae
 Merluccius productus (larvae) _____
 Order Ophidiiformes
 Family Bythitidae
 Cataetyx rubrirostris _____
 Order Lophiiformes
 Family Ceratiidae
 Cryptopsaras couesii _____
 Family Oneirodidae (see Pietsch and Kharin (2004)
 Copeia 2004 (1): 122-127 for a key)
 Oneirodes acanthias _____
 Order Stephanoberyciformes
 Family Melamphaidae
 Melamphaes lugubris _____
 Poromitra crassiceps _____
 Unidentified _____
 Order Beryciformes
 Family Anoplogastridae
 Anoplogaster cornuta _____
 Order Cetomimiformes
 Family Cetomimidae (whale fishes) _____
 Order Scorpaeniformes
 Family Liparidae

Nectoliparis pelagicus _____
Lipariscus nanus _____
 Family Sebastidae
 Subfamily Sebastinae
 Sebastes spp. (juveniles) _____
 Subfamily Sebastobinae
 Sebastobus spp. (juveniles) _____
 Order Perciformes
 Family Zoarcidae
 Lycodapus mandibularis _____
 Lycodapus fierasfer _____
 Microstomus pacificus _____
 Unidentified flatfish larva _____

Melanostigma pammelas _____
 Family Icosteidae
 Icosteus aenigmaticus _____
 Order Pleuronectiformes
 Family Paralichthyidae
 Citharichthys stigmaeus _____
 Citharichthys sordidus _____
 Family Pleuronectidae
 Glyptocephalus (Errex) zachirus _____

TOTALS:

Number of Invertebrate Taxa: _____;

Number of Invertebrate Specimens: _____

Number of Fish Taxa _____;

Number of Fish Specimens: _____
