

# **Appendix F**

## **Partial Humboldt Bay Species Listing**

The following species lists are provided as a general background for the Management Plan. The entries in the following lists have not been independently reviewed for consistency with currently accepted taxonomic categories, and should not be considered as descriptive of the biological diversity present in the Humboldt Bay region or the nearshore Pacific Ocean.

These lists should not be considered as representing a portrayal of the habitats, ecosystem elements, complexity, or functions that occur within Humboldt Bay. The degree of "completeness" of the sampled biodiversity in the Humboldt Bay region is uncertain, although it is statistically unlikely that adequate sampling has occurred to identify all of the species that occur in the region at the present time. The following lists must be considered as incomplete and transitional, since it is unlikely that all of the species present in the Bay at the present time have been detected; further, it is inevitable that some species that are present in the Bay at the present time will not be present in the future and that species that are not currently known to occur in Humboldt Bay will colonize the Bay in the future.

### **F.1 Aquatic Invertebrate Species Found in Humboldt Bay**

Table F-1 presents a listing of invertebrate species currently expected to be present in Humboldt Bay.

**Table F-1: Aquatic Invertebrate Taxa Identified in Humboldt Bay.**

	<b>Taxa</b>	<b>Year Reported</b>
<b>Porifera</b>		
Sponges		

<b>Taxa</b>	<b>Year Reported</b>
<i>Cliona celata</i>	2001
<i>Cliona</i> sp.	1992
<i>Halichondria bowerbanki</i>	2001
<i>Haliclona Permollis</i>	1992
<i>Haliclona</i> sp.	1992
<i>Microciona prolifera</i>	2001

#### **Cnidarians**

Jellyfishes, Corals, etc.

<i>Aequorea</i> sp.	1992
<i>Anthopleura artemisia</i>	1992
<i>Anthopleura elegantissima</i>	1992
<i>Anthopleura xanthogrammica</i>	1992
<i>Aurelia aurita</i>	2001
<i>Aurelia</i> spp.	1992
<i>Campanularia integra</i>	1992
<i>Cerianthus</i> sp.	1992
<i>Chrysaora</i> sp	1992
<i>Diadumene leucolena</i>	2001
<i>Diadumene lineata</i>	2001
<i>Diadumene</i> spp.	1992
<i>Epiactis</i> <i>prolifera</i>	1992
<i>Gersemia rubriformalis</i>	1992
<i>Haliplanella luciae</i>	1992
<i>Metridium senile</i>	1992
<i>Nematostella vectensis</i>	1992
<i>Obelia borealis</i>	1992
<i>Obelia dichotoma</i>	2001
<i>Obelia longissima</i>	1992
<i>Pelagia</i> sp	1992
<i>Pleurobrachia bachei</i>	1992
<i>Plumularia setacea</i>	2004
<i>Plumularia</i> spp.	1992
<i>Sertularia</i> spp.	1992
<i>Tealia crassicornis</i>	1992
<i>Thuiaria similis</i>	1992
<i>Tubularia crocea</i>	1992
<i>Tubularia marina</i>	1992
<i>Velella velella</i>	1992

#### **Nemertea**

<b>Taxa</b>	<b>Year Reported</b>
Ribbon worms	
<i>Amphiporus imparispinosus</i>	1992
<i>Carinoma mutabilis</i>	1992
<i>Carinoma lactea</i>	1992
<i>Cerebratulus californiensis</i>	1992
<i>Emplectonema</i> sp.	1992
<i>Paranemertes californica</i>	1992
<i>Tubulanus pellucidus</i>	1992
<i>Tubulanus polymorphus</i>	1992
 <b>Annelida</b>	
Segmented worms	
Polychaeta	
Bristle worms, Fan worms, Clam worms, etc.	
<i>Abarenico la antebranchia</i>	1992
<i>Abarenicola humboldtensis</i>	1992
<i>Abarenicola pacifica</i>	1992
<i>Amaena occidentalis</i>	1992
<i>Ampharete arctica</i>	1992
<i>Ampharetidae</i> sp.	2004
<i>Anaitides groenlandica</i>	1992
<i>Anaitides williamsi</i>	1992
<i>Aphelochaeta</i> sp.	2004
<i>Arabellidae</i> sp.	2004
<i>Arenicolidae</i> sp.	2004
<i>Aricidea suecica</i>	1992
<i>Armandia brevis</i>	1992
<i>Autolytus cornutus</i>	2001
<i>Autolytus</i> sp.	1992
<i>Boccardia berkeleyorum</i>	1992
<i>Boccardiella hamata</i>	2001
<i>Brania brevipharyngea</i>	2004
<i>Brania</i> sp.	1992
<i>Capitella capitata</i>	1992
<i>Capitella capitata Complex</i>	2001
<i>Capitella</i> sp.	2004
<i>Caprella acanthogaster</i>	2001
<i>Caprella californica</i>	2001
<i>Caprella drepanochir</i>	2001

<b>Taxa</b>	<b>Year Reported</b>
<i>Caulieriella alata</i>	1992
<i>Caulieriella hamata</i>	1992
<i>Caulieriella sp.</i>	1992
<i>Chaetozone acuta</i>	2004
<i>Chaetozone setosa</i>	1992
<i>Chaetozone sp.</i>	1992
<i>Cheilonereis cylurus</i>	1992
<i>Chone gracilis</i>	1992
<i>Chone sp</i>	1992
<i>Chone/Euchone sp.</i>	2004
<i>Cirratulidae sp.</i>	2004
<i>Cirratulus cirratus</i>	1992
<i>Cistenides brevicoma</i>	1992
<i>Cossura pygodactylata</i>	1992
<i>Dipolydora bidentata</i>	2001
<i>Dipolydora socialis</i>	2001
<i>Dodecaceria concharum</i>	1992
<i>Dorvillea rudolfi</i>	2004
<i>Drilonereis falcata</i>	1992
<i>Eteone californica</i>	1992
<i>Eteone dilatae</i>	1992
<i>Eteone pacifica</i>	1992
<i>Eteone sp.</i>	2004
<i>Euchone analis</i>	2004
<i>Euchone limnicola</i>	2001
<i>Euclymene delineata</i>	1992
<i>Eudistylia vancouveri</i>	2004
<i>Eulalia aviculiseta</i>	1992
<i>Eumidia bifoliata</i>	1992
<i>Eumidia sanguinea</i>	1992
<i>Eunereis sp.</i>	1992
<i>Eupolymnia crescentis</i>	1992
<i>Eusyllis assimilis</i>	1992
<i>Euzonus mucronata</i>	1992
<i>Exogone lourei</i>	1992
<i>Exogone sp.</i>	1992
<i>Fabricia sabella</i>	2001
<i>Glycera acapitata</i>	1992
<i>Glycera americana</i>	1992
<i>Glycera oxycephala</i>	1992
<i>Glycera robusta</i>	2004
<i>Glycera sp.</i>	2004

<b>Taxa</b>	<b>Year Reported</b>
<i>Glycera tenuis</i>	1992
<i>Glycinde armigera</i>	2004
<i>Glycinde polygnatha</i>	1992
<i>Glycinde sp.</i>	1992
<i>Gyptis brevipalpa</i>	1992
<i>Halosydna brevisetosa</i>	1992
<i>Halosydna latior</i>	1992
<i>Haploscoloplos elongatus</i>	1992
<i>Harmothoe imbricata</i>	1992
<i>Harmothoe imbricata</i>	2001
<i>Harmothoe lunulata</i>	1992
<i>Harmothoe priops</i>	1992
<i>Harmothoe sp.</i>	2004
<i>Hemipodus borealis</i>	1992
<i>Hemipodus imbricata</i>	1992
<i>Hesperone adventor</i>	1992
<i>Heteromastus filiformis</i>	2001
<i>Heteromastus filobranchus</i>	1992
<i>Heteropodarke heteromorpha</i>	2001
<i>Laetmonice pellucida</i>	2004
<i>Leitoscoloplos pugettensis</i>	2004
<i>Lepidonotus squamatus</i>	2004
<i>Lumbrineridae sp.</i>	2004
<i>Lumbrineris californiensis</i>	1992
<i>Lumbrineris japonica</i>	1992
<i>Lumbrineris tetraura</i>	1992
<i>Lumbrineris zonata</i>	1992
<i>Lysilla labiata</i>	1992
<i>Magelona pacifica</i>	1992
<i>Magelona pitelkai</i>	1992
<i>Magelona sacculata</i>	1992
<i>Maldanidae sp.</i>	2004
<i>Marphysa sanguinea</i>	2001
<i>Marphysa sp.</i>	2004
<i>Mediomastus californiensis</i>	1992
<i>Mediomastus sp.</i>	2004
<i>Mellina oculata</i>	1992
<i>Mesochaetopterus taylori</i>	1992
<i>Myxicola infundibulum</i>	2001
<i>Nainereis sp.</i>	1992
<i>Neanthes sp.</i>	1992
<i>Nephtys caecoides</i>	1992

<b>Taxa</b>	<b>Year Reported</b>
<i>Nephtys californiensis</i>	1992
<i>Nephtys ferruginea</i>	1992
<i>Nephtys parva</i>	1992
<i>Nephtys sp.</i>	2004
<i>Nereidae sp.</i>	2004
<i>Nereis pelagica</i>	2001
<i>Nereis procera</i>	1992
<i>Nereis s p.</i>	1992
<i>Nothria sp.</i>	1992
<i>Notomastus tenuis</i>	1992
<i>Ophelia assimilis</i>	1992
<i>Ophelia magna</i>	1992
<i>Ophelina sp.</i>	2004
<i>Orbiinidae sp.</i>	2004
<i>Owenia collaris</i>	1992
<i>Paleonotus bellis</i>	1992
<i>Paranis gracilis</i>	1992
<i>Phloe glabra</i>	1992
<i>Phloe tuberculata</i>	1992
<i>Pholoe minuta</i>	2001
<i>Pholoe sp.</i>	2004
<i>Pholoides aspera</i>	1992
<i>Phragmatopoma californica</i>	1992
<i>Phyllodoce williamsi</i>	2004
<i>Pilargis maculata</i>	1992
<i>Pistone remota</i>	1992
<i>Pista cristata</i>	1992
<i>Pista pacifica</i>	1992
<i>Platynereis agassizi</i>	1992
<i>Platynereis bicanaliculata</i>	1992
<i>Polycirrus sp.</i>	2004
<i>Polydora brachycephala</i>	1992
<i>Polydora cornuta</i>	2001
<i>Polydora ligni</i>	1992
<i>Polydora limicola</i>	2001
<i>Polydora pygidialis</i>	1992
<i>Polydora socialis</i>	1992
<i>Polydora sp.</i>	2004
<i>Polydora websteri</i>	1992
<i>Polynoidae sp.</i>	2004
<i>Prionospio cirrifera</i>	1992
<i>Protodorvillea gracilis</i>	1992

<b>Taxa</b>	<b>Year Reported</b>
<i>Pseudopolydora kempfi</i>	1992
<i>Pseudopolydora paucibranchiata</i>	2001
<i>Pygospio elegans</i>	2001
<i>Sabellaria cementarium</i>	1992
<i>Sabellaria gracilis</i>	1992
<i>Sabellidae</i> sp.	2004
<i>Scalibregma inflatum</i>	1992
<i>Schistomerings longicornis</i>	1992
<i>Schizobranchia insignis</i>	2004
<i>Scolelepis</i> sp.	1992
<i>Scoloplos</i> sp.	1992
<i>Serpula vermicularis</i>	1992
<i>Sphaerosullis californiensis</i>	1992
<i>Spio filicornis</i>	1992
<i>Spionidae</i> sp.	2004
<i>Spiophanes anoculata</i>	1992
<i>Spiophanes berkeleyorum</i>	1992
<i>Spiophanes bombyx</i>	1992
<i>Spiophanes kroyeri</i>	2004
<i>Spiophanes wigleyi</i>	2001
<i>Spirorbidae</i> sp.	2004
<i>Sternapsis fessor</i>	1992
<i>Sthenelais berkeleyi</i>	1992
<i>Sthenella tertiaglabrata</i>	1992
<i>Streblosoma crassibranchia</i>	1992
<i>Streblospio benedicti</i>	1992
<i>Syllidae</i> sp.	2004
<i>Tenonia kitsapensis</i>	1992
<i>Terebellidae</i> sp.	2004
<i>Tharyx monilaris</i>	1992
<i>Tharyx multifilis</i>	1992
<i>Thelepus</i> sp.	2004
<i>Trochochaeta franciscanum</i>	1992
<i>Typosyllis fasciata</i>	1992
<i>Typosyllis hyalina</i>	1992
<i>Typosyllis</i> sp.	2001

#### **Archannelida**

<i>Polygordius</i> sp.	1992
<i>Saccocirrus</i> sp.	1992

<b>Taxa</b>	<b>Year Reported</b>
<b>Sipuncula</b>	
Sipunculans, or Peanut worms	
<i>Goldfinfia hespera</i>	1992
<b>Echiura</b>	
Echiuran worms	
<i>Listriolobus pelodes</i>	1992
<i>Urechis caupo</i>	1992
<b>Phoronida</b>	
<i>Phoronopsis viridis</i>	1992
<i>Phoronis pallida</i>	1992
<b>Anthropoda</b>	
<b>Crustacea</b>	
Barnacles, Beach hoppers, Shrimps, Lobsters, Crabs, etc.	
 Amphipoda	
Beach hoppers, Sand fleas, Skeleton shrimps, etc.	
<i>Allorchestes angusta</i>	1992
<i>Amphithoe lacertosa</i>	2001
<i>Amphithoe valida</i>	2001
<i>Ampithoe sp.</i>	2004
<i>Anisogammarus conferviculus</i>	1992
<i>Anisogammarus pugettensis</i>	1992
<i>Aorides intermedius</i>	2004
<i>Aoroides columbiae</i>	1992
<i>Atylus tridens</i>	1992
<i>Caprella acanthogaster</i>	2001
<i>Caprella angusta</i>	1992
<i>Caprella californica</i>	1992
<i>Caprella drepanochir</i>	2001
<i>Caprella equilibra</i>	1992
<i>Caprella gracilior</i>	1992
<i>Caprella laeviuscula</i>	1992

<b>Taxa</b>	<b>Year Reported</b>
<i>Caprella mutica</i>	2001
<i>Chaetocorophium lucasi</i>	2001
<i>Chelura terebrans</i>	2001
<i>Corophium acherusicum</i>	1992
<i>Corophium insidiosum</i>	2001
<i>Corophium sp.</i>	2004
<i>Corophium spinicorne</i>	1992
<i>Corophium stimpsoni</i>	1992
<i>Corophium uenoi</i>	2001
<i>Cymadusa sp.</i>	1992
<i>Eohaustorius sp.</i>	1992
<i>Grandidierella japonica</i>	2001
<i>Hyale plumulosa</i>	2001
<i>Incisocalliope nipponensis</i>	2001
<i>Ischyrocerus anguipes</i>	1992
<i>Jassa falcata</i>	1992
<i>Jassa marmorata</i>	2001
<i>Jassa staudei</i>	2001
<i>Jassa slatteryi</i>	2001
<i>Jassa sp.</i>	2004
<i>Leptochelia dubia</i>	2001
<i>Megamphopus martesia</i>	1992
<i>Melita dentata</i>	1992
<i>Melita nitida</i>	2001
<i>Metacaprella kennerlyi</i>	1992
<i>Microdeutopus gryllotalpa</i>	2001
<i>Microjassa litotes</i>	2001
<i>Monocorophium acherusicum</i>	2001
<i>Monocorophium sp.</i>	2001
<i>Oithona similis</i>	2001
<i>Orchestia traskiana</i>	1992
<i>Orchoptoidea benedicti</i>	1992
<i>Orchoptoidea californicana</i>	1992
<i>Palaemon macrodactylus</i>	2001
<i>Paracorophium sp.</i>	2001
<i>Paramicrodeutopus schmitti</i>	2004
<i>Paraphoxus spp.</i>	1992
<i>Photis brevipes</i>	1992
<i>Photis pachydactyla</i>	2001
<i>Photis sp.</i>	2004
<i>Podocerus cristatus</i>	1992
<i>Podocerus fulanus</i>	2001

<b>Taxa</b>	<b>Year Reported</b>
<i>Pontogeneia rostrata</i>	2004
<i>Protomedieia</i> sp.	2004
<i>Protomedia articulata</i>	1992
<i>Sinelobus</i> sp.	2001
<i>Stenothoe valida</i>	2001
<i>Synchelidium rectipalmum</i>	1992
<i>Synchelidium shoemakeri</i>	1992
<i>Tritella pilimana</i>	1992
<b>Cirripedia</b>	
Barnacles	
<i>Balanus crenatus</i>	1992
<i>Balanus glandula</i>	1992
<i>Balanus nubilus</i>	1992
<i>Chthamalus dalli</i>	1992
<i>Pollicipes polymerus</i>	1992
<i>Semibalanus cariosus</i>	1992
<b>Copepoda</b>	
<i>Acartia clausi</i>	1992
<i>Acartia logiremis</i>	1992
<i>Acartia tonsa</i>	1992
<i>Calanus finmarchicus</i>	1992
<i>Claudium vancouverense</i>	1992
<i>Coryceaus affinis</i>	1992
<i>Eucalanus bungii</i>	1992
<i>Eurytemora affinis</i>	1992
<i>Mytilicola orientalis</i>	1992
<i>Oithona spinirostris</i>	1992
<i>Paracalanus parva</i>	1992
<i>Pseudocalanus minutus</i>	1992
<i>Tortanus discaudatis</i>	1992
<b>Peracarida</b>	
<b>Cumacea</b>	
<i>Cumacea</i> sp.	1992
<i>Cumella vulgaris</i>	1992
<i>Diastylis</i> sp.	1992
<i>Diastylopsis dawnsoni</i>	1992

<b>Taxa</b>	<b>Year Reported</b>
Eudorella pacifica	1992
Lamprops sp.	1992
<b>Decapoda</b>	
Shrimps, Lobsters, Crabs, etc.	
Callianassa californiensis	1992
Callianassa gigas	1992
Cancer antennarius	1992
Cancer anthonyi	1992
Cancer gracilis	1992
Cancer magister	1992
Cancer productus	1992
Carcinus maenas	2001
Crangon franciscorum	1992
Crangon nigricauda	1992
Crangon nigromaculata	1992
Crangon sp.	2004
Crangon stylirostris	1992
Emerita analoga	1992
Hemigrapsus nudus	1992
Hemigrapsus oregonensis	1992
Heptacarpus brevirostris	1992
Heptacarpus sitchensis	2004
Hippolyte californiensis	1992
Hippolyte clarki	2004
Hippolytidae sp.	2004
Lophopanopeus bellus	1992
Pachycheles rufus	1992
Pachygrapsus crassipes	1992
Paguridae sp.	2004
Pagurus spp.	1992
Pandalus danae	1992
Panulirus interruptus	2004
Petrolisthes cinctipes	1992
Pinnixia franciscana	1992
Pugettia producta	1992
shrimp juv.	2004
Upogebia pugettensis	1992
<b>Isopoda</b>	
Pillbugs, Sowbugs, etc.	

<b>Taxa</b>	<b>Year Reported</b>
<i>Alloniscus perconvexus</i>	1992
<i>Armadillioniscus coronacapitalis</i>	1992
<i>Cirolana harfordi</i>	1992
<i>Gnorimosphaeroma oregonensis</i>	1992
<i>Gnorimosphaeroma</i> sp.	2004
<i>Iais californica</i>	2001
<i>Ianiropsis tridens</i>	2001
<i>Idotea fewkesi</i>	2004
<i>Idotea resecata</i>	2004
<i>Idotea rufescens</i>	2004
<i>Idotea</i> sp.	2004
<i>Idotea stenops</i>	1992
<i>Idotea urotoma</i>	2004
<i>Idotea wosnesenskii</i>	1992
<i>Limnoria lignorum</i>	2001
<i>Limnoria quadripunctata</i>	1992
<i>Limnoria tripunctata</i>	1992
<i>Littorophiloscia richardsonae</i>	1992
<i>Munna</i> sp.	1992
<i>Paracerceis cordata</i>	2004
<i>Porcellio</i> sp.	1992
<i>Sphaeroma quoyanum</i>	2001
<i>Synidotea</i> sp	1992

#### **Mysidacea**

<i>Archaeomysis grebnitzkii</i>	1992
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#### **Tenaidacea**

Chelifera

<i>Leptocheha dubia</i>	1992
<i>Tenais</i> sp.	1992

#### **Pycnogonida**

Sea spiders

<i>Achelia chelata</i>	1992
<i>Achelia nudiuscula</i>	1992
<i>Halosoma viridintestinale</i>	1992

<b>Taxa</b>	<b>Year Reported</b>
<b>Mollusca</b>	
<b>Bivalvia</b>	
<b>Pelecypoda</b>	
Clams, Cockles, Mussels, Oysters, Shipworms	
<i>Adula diegensis</i>	1992
<i>Axinopsida serricata</i>	1992
<i>Bankia setacea</i>	1992
<i>Clinocardium nuttallii</i>	1992
<i>Crassadoma giganteus</i>	1992
<i>Crassostrea gigas</i>	1992
<i>Cryptomya californica</i>	2004
<i>Entodesma navicula</i>	2004
<i>Gemma gemma</i>	1992
<i>Laternula marilina</i>	2001
<i>Lyonsia californica</i>	1992
<i>Macoma balthica</i>	1992
<i>Macoma identata</i>	1992
<i>Macoma inquinata</i>	1992
<i>Macoma nasuta</i>	1992
<i>Macoma sp.</i>	2004
<i>Mercenaria mercenaria</i>	1992
<i>Musculista senhousia</i>	2001
<i>Mya arenaria</i>	1992
<i>Mytilidae sp.</i>	2004
<i>Mytilus californianus</i>	1992
<i>Mytilus edulis</i>	1992
<i>Mytilus trossulus</i>	2004
<i>Nutricola tantilla</i>	1992
<i>Nuttallia nuttallii</i>	2004
<i>Ostrea conchaphila</i>	1992
<i>Ostrea edulis</i>	1992
<i>Panopea abrupta</i>	1992
<i>Penitella penita</i>	1992
<i>Petricola carditoides</i>	1992
<i>Pododesmus macrochisma</i>	1992
<i>Protothaca staminea</i>	1992
<i>Protothaca tenerima</i>	1992
<i>Rochefortia tumida</i>	1992
<i>Saxidomus giganteus</i>	1992
<i>Saxidomus nuttalli</i>	1992
<i>Siliqua patula</i>	1992

<b>Taxa</b>	<b>Year Reported</b>
<i>Solen sicarius</i>	1992
<i>Tagelus californianus</i>	1992
<i>Tellina bodegensis</i>	1992
<i>Tellina modesta</i>	1992
<i>Tellina nuculoides</i>	1992
<i>Tresus allomyax</i>	2002
<i>Tresus capax</i>	1992
<i>Tresus nuttallii</i>	1992
<i>Venerupis philippinarum</i>	1992
<i>Zirfaea pilsbryi</i>	1992

#### **Gastropoda**

Snails, Limpets, Sea hares, Nudibranchs, etc.

<i>Acmaea mitra</i>	1992
<i>Alia carinata</i>	2002
<i>Alvinia compacta</i>	1992
<i>Anisodoris nobilis</i>	1992
<i>Archidoris montereyensis</i>	2004
<i>Assiminea californica</i>	1992
<i>Astyris gausapata</i>	1992
<i>Calliostoma canaliculatum</i>	1992
<i>Calliostoma ligatum</i>	2002
<i>Crepidula fornicata</i>	2004
<i>Crepidula sp.</i>	2001
<i>Cryptochiton stelleri</i>	2004
<i>Cyclostremella sp.</i>	1992
<i>Cylichna alba</i>	1992
<i>Dendronotus giganteus</i>	1992
<i>Dialula sandiegensis</i>	1992
<i>Diaphorodoris lirulatocauda</i>	2004
<i>Diodora aspera</i>	1992
<i>Dirona albolineata</i>	1992
<i>Dirona picta</i>	2004
<i>Euspira lewisii</i>	1992
<i>Fartulum occidentale</i>	1992
<i>Haminoea vesicula</i>	1992
<i>Hermissenda crassicornis</i>	1992
<i>Ilyanassa obsoleta</i>	2001
<i>Lacuna sp.</i>	1992
<i>Lirabuccinum dira</i>	1992
<i>Littorina keenae</i>	1992

<b>Taxa</b>	<b>Year Reported</b>
<i>Littorina newcombiana</i>	1992
<i>Littorina scutulata</i>	1992
<i>Lottia asmi</i>	1992
<i>Lottia digitalis</i>	1992
<i>Lottia pelta</i>	1992
<i>Lottia scabra</i>	1992
<i>Melanochlamys diomedea</i>	1992
<i>Nassarius fossatus</i>	1992
<i>Nassarius mendicus</i>	1992
<i>Nitidiscala sawinae</i>	1992
<i>Nucella lamellosa</i>	1992
<i>Nucella ostrina</i>	1992
<i>Odostomia sp</i>	1992
<i>Olivella biplicata</i>	1992
<i>Olivella pycna</i>	1992
<i>Onchidoris bilamellata</i>	2004
<i>Ovatella myosotis</i>	1992
<i>Philine sp.</i>	2004
<i>Phyllaplysia taylori</i>	1992
<i>Rictaxis punctocaelatus</i>	1992
<i>Tegula brunnea</i>	1992
<i>Tegula funebralis</i>	1992
<i>Triopha catalinae</i>	2004
<i>Triopha maculata</i>	2004
<i>Turbanilla sp.</i>	1992
<i>Urosalpinx cinerea</i>	2001

#### **Cephalopoda**

Octopods, Squids, Nautilus

<i>Octopus dolfleini</i>	1992
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#### **Polyplacophora**

Chitons, or Sea cradles

<i>Cryptochiton stelleri</i>	2004
<i>Ischnochiton regularis</i>	1992
<i>Katharina tunicata</i>	1992
<i>Mopalia ciliata</i>	1992
<i>Mopalia lignosa</i>	1992

#### **Echinodermata**

<b>Taxa</b>	<b>Year Reported</b>
<i>Amphiodia occidentalis</i>	1992
<i>Amphipholis</i> sp	1992
<i>Amphipholis squamata</i>	2004
<i>Dendraster excentricus</i>	1992
<i>Eupentacta quinquesemita</i>	1992
<i>Leptasterias pusilla</i>	1992
<i>Leptosynapta albicans</i>	1992
<i>Ophiuroidea</i> sp.	2004
<i>Pisaster brevispinus</i>	1992
<i>Pisaster ochraceous</i>	1992
<i>Pycnopodia helianthoides</i>	1992
<i>Strongylocentrotus purpuratus</i>	1992
 <b>Ectoprocta</b>	
<b>Bryozoa</b>	
<i>Alcyonidium polyoum</i>	2001
<i>Bowerbankia gracilis</i>	1992
<i>Bugula californica</i>	2004
<i>Bugula neritina</i>	2001
<i>Bugula pacifica</i>	1992
<i>Bugula stolonifera</i>	2004
<i>Celleporella hyalina</i>	2001
<i>Conopeum</i> sp.	2001
<i>Crisia occidentalis</i>	1992
<i>Cryptosula pallasiana</i>	2001
<i>Membranipora membranacea</i>	1992
<i>Schizoporella unicornis</i>	1992
<i>Scrupocellaria diagensis</i>	2004
<i>Tricellaria occidentalis</i>	1992
<i>Watersipora subtorquata</i>	2001
 <b>Chordata</b>	
<b>Urochordata (Tunicata)</b>	
Sea squirts, Compound ascidians, Tunicates	
<i>Botrylloides perspicuum</i>	2001
<i>Botrylloides</i> sp.	2001
<i>Botryllus schlosseri</i>	2001
<i>Botryllus</i> sp.	2001
<i>Botryllus tuberatus</i>	2001

Taxa	Year Reported
<i>Ciona intestinalis</i>	2001
<i>Ciona savignyi</i>	2001
<i>Didemnum lahillei</i>	2004
<i>Diplosoma macdonaldi</i>	2004
<i>Displosoma listerianum</i>	2001
<i>Distaplia occidentalis</i>	2004
<i>Molgula manhattensis</i>	2001
<i>Pyura haustor</i>	2004
<i>Styela clava</i>	2001

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## F.2 Bird Species Identified in the Humboldt Bay Vicinity

**LOONS - Order Gaviiformes**

Red-throated loon  
Pacific loon  
Common loon  
Yellow-billed loon

**GREBES - Order Podicipediformes**

Pied-billed grebe  
Horned grebe  
Red-necked grebe  
Eared grebe  
Western grebe  
Clark's grebe

**TUBENOSES – Order Procellariiformes**

Northern fulmar  
Fork-tailed storm-petrel  
Leach's storm-petrel

**PELICANS & CORMORANTS – Order Pelicaniformes**

American white pelican  
Brown pelican  
Brandt's cormorant  
Double-crested cormorant  
Pelagic cormorant  
Magnificent frigatebird

**HERONS, IBIS & NEW WORLD VULTURES - Order Ciconiiformes**

American bittern  
Great blue heron  
Great egret  
Snowy egret  
Cattle egret  
Green heron  
Black-crowned night-heron  
White-faced ibis

**SWANS, GEESE & DUCKS - Order Anseriformes**

White-fronted goose  
Ross's goose  
Snow goose  
Emperor goose  
Brant

Canada goose  
Wood duck  
Green-winged teal  
Mallard  
Northern pintail  
Cinnamon teal  
Northern shoveler  
Gadwall  
Eurasian wigeon  
American wigeon  
Canvasback  
Redhead  
Ring-necked duck  
Tufted duck  
Greater scaup  
Lesser scaup  
King eider  
Steller's eider  
Harlequin duck  
Black scoter  
Surf scoter  
Common goldeneye  
White-winged scoter  
Barrow's goldeneye  
Bufflehead  
Hooded merganser  
Common merganser  
Red-breasted merganser  
Ruddy duck

#### **EAGLES, KITES, FALCONS & HAWKS - Order Falconiformes**

Osprey  
Northern harrier  
Sharp-shinned hawk  
Cooper's hawk  
Red-shouldered hawk  
Red-tailed hawk  
Rough-legged hawk  
American kestrel  
Merlin  
Peregrine falcon  
Prairie falcon

**GROUSE, TURKEY & QUAIL - Order Galliformes**  
California quail

**RAILS, LIMPKIN & CRANES - Order Gruiformes**  
Virginia rail  
Sora  
American coot

**SHOREBIRDS, AUKS, GULLS, & TERNS - Order Charadriiformes**

Black-bellied plover  
American golden-plover  
Snowy plover  
Semipalmated plover  
Killdeer  
Black oystercatcher  
Black-necked stilt  
American avocet  
Greater yellowlegs  
Lesser yellowlegs  
Solitary sandpiper  
Willet  
Wandering tattler  
Spotted sandpiper  
Whimbrel  
Long-billed curlew  
Hudsonian godwit  
Bar-tailed godwit  
Marbled godwit  
Ruddy turnstone  
Black turnstone  
Surfbird  
Red knot  
Sanderling  
Semipalmated sandpiper  
Western sandpiper  
Least sandpiper  
Baird's sandpiper  
Pectoral sandpiper  
Rock sandpiper  
Dunlin  
Stilt sandpiper  
Ruff  
Short-billed dowitcher

Long-billed dowitcher  
Common snipe  
Wilson's phalarope  
Red-necked phalarope  
Red phalarope  
Pomarine jaeger  
Parasitic jaeger  
Laughing gull  
Franklin's gull  
Little gull  
Black-headed gull  
Bonaparte's gull  
Heerman's gull  
Mew gull  
Ring-billed gull  
California gull  
Herring gull  
Thayer's gull  
Western gull  
Glaucous-winged gull  
Glaucous gull  
Black-legged kittiwake  
Sabine's gull  
Caspian tern  
Elegant tern  
Common tern  
Forster's tern  
Least tern  
Black tern  
Common murre  
Pigeon guillemot  
Marbled murrelet

### **DOVES - Order Columbiformes**

Rock dove  
Mourning dove

### **OWLS - Order Strigiformes**

Barn Owl  
Great horned owl  
Short-eared owl

### **SWIFTS & HUMMINGBIRDS - Order Apodiformes**

Vaux's swift  
Anna's hummingbird  
Allen's hummingbird

### **KINGFISHERS - Order Coraciiformes**

Belted kingfisher

### **WOODPECKERS - Order Piciformes**

Red-breasted sapsucker  
Downy woodpecker  
Hairy woodpecker  
Northern flicker

### **PERCHING BIRDS - Order Passeriformes**

Willow flycatcher  
Black Phoebe  
Ash-throated flycatcher  
Horned lark  
Purple martin  
Tree swallow  
Violet-green swallow  
Northern rough-winged swallow  
Bank swallow  
Cliff swallow  
Barn swallow  
American crow  
Common raven  
Chestnut-backed chickadee  
Bushtit  
Red-breasted nuthatch  
Brown creeper  
Bewick's wren  
Winter wren  
House wren  
Marsh wren  
Ruby-crowned kinglet  
Golden-crowned kinglet  
Hermit thrush  
Swainson's thrush  
American robin  
Wrentit  
Cedar waxwing  
Tennessee warbler

Orange-crowned warbler  
Nashville warbler  
Yellow warbler  
Cape may warbler  
Yellow-rumped warbler  
Black-throated gray warbler  
Townsend's warbler  
MacGillivray's warbler  
Common yellowthroat  
Wilson's warbler  
Western tanager  
Black-headed grosbeak  
Spotted towhee  
Chipping sparrow  
Clay-colored sparrow  
Vesper sparrow  
Lark sparrow  
Savannah sparrow  
Fox sparrow  
Song sparrow  
Lincoln's sparrow  
Swamp sparrow  
White-throated sparrow  
Golden-crowned sparrow  
White-crowned sparrow  
Dark-eyed junco  
Lapland longspur  
Snow bunting  
Bobolink  
Red-winged blackbird  
Western meadowlark  
Brewer's blackbird  
Rusty blackbird  
Brown-headed cowbird  
Northern oriole  
Purple finch  
House finch  
Pine siskin  
Lesser goldfinch  
American goldfinch  
Red crossbill  
House sparrow

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## F.3 Fishes of Humboldt Bay

### CARTILAGINOUS FISHES

**Family Petromyzontidae**  
Lampetra tridentata

**Lampreys**  
Pacific lamprey

**Family Hexanchidae**  
Notorynchus maculatus

**Cow sharks**  
Sevengill shark

**Family Triakidae**  
Galeorhinus zyopterus  
Mustelus henlei  
Triakis semifasciata

**Hound sharks**  
Soupfin shark  
Brown smoothhound  
Leopard shark

**Family Squalidae**  
Squalus acanthias

**Dogfish sharks**  
Spiny dogfish

**Family Rajidae**  
Raja binoculata

**Skates**  
Big skate

**Family Urolophidae**  
Urolophus halleri

**Round stingrays**  
Round stingray

**Family Myliobatidae**  
Myliobatis californica

**Eagle rays**  
Bat ray

**Family Chimaeridae**  
Hydrolagus colliei

**Chimaeras**  
Spotted ratfish

### BONY FISHES

**Family Acipenseridae**

*Acipenser medirostris*  
*Acipenser transmontanus*

**Sturgeons**

Green sturgeon  
White Sturgeon

**Family Ophichthidae**

*Ophichthus zaphocir*

**Snake eels**

Yellow snake eel

**Family Clupeida**

*Alosa sapidissima*  
*Clupea harengus pallasi*  
*Dorosoma petenense*  
*Sardinops sagax*

**Herrings**

American shad  
Pacific herring  
Threadfin shad  
Pacific sardine

**Family Engraulidae**

*Engraulis mordax*

**Anchovies**

Northern anchovy

**Family Salmonidae**

*Oncorhynchus clarkii*  
*Oncorhynchus kisutch*  
*Oncorhynchus mykiss*  
*Oncorhynchus tshawytscha*

**Trouts and Salmon**

Cutthroat trout  
Coho salmon  
Rainbow trout  
Chinook salmon

**Family Osmeridae**

*Allosmerus elongatus*  
*Hypomesus pretiosus*  
*Spirinchus starksii*  
*Spirinchus thaleichthys*  
*Thaleichthys pacificus*

**Smelts**

Whitebait smelt  
Surf smelt  
Night smelt  
Longfin smelt  
Eulachon

**Family Gonostomatidae**

*Cyclothona acclinidens*

**Lightfishes**

Benttooth bristlemouth

**Family Myctophidae**

*Stenobrachius leucopsarus*  
*Tarletonbeania crenularis*

**Lanternfishes**

Northern lampfish  
Blue lanternfish

**Family Gadidae**

*Microgadus proximus*

**Cods**

Pacific tomcod

**Family Ophidiidae**

*Chilara taylori*

**Cusk-eels**

Spotted cusk-eel

**Family Atherinidae**

*Atherinops affinis*  
*Atherinops californiensis*

**Silversides**

Topsmelt  
Jacksmelt

**Family Trachipteridae**

*Trachipterus altivelis*

**Ribbonfishes**

King-of-the-salmon

**Family Gasterosteidae**

*Aulorhynchus flavidus*  
*Gasterosteus aculeatus*

**Sticklebacks**

Tube-snout  
Threespine stickleback

**Family Syngnathidae**

*Syngnathus leptorhynchus*  
*Cosmocampus arctus*

**Pipefish**

Bay pipefish  
Snubnose pipefish

**Family Percichthyidae**

*Morone saxatilis*

**Moronidae temperate basses**

Striped bass

**Family Acropomatidae**

*Stereolepis gigas*

**Temperate ocean- basses**

Giant sea bass

**Family Sciaenidae**

*Atractoscion nobilis*  
*Genyonemus lineatus*

**Croakers**

White seabass  
White croaker

**Family Embiotocidae**

*Amphistichus koelzi*  
*Amphistichus rhodoterus*  
*Cymatogaster aggregata*  
*Embiotoca lateralis*  
*Hyperprosopon anale*  
*Porichthys notatus*  
*Hyperprosopon argenteum*  
*Hyperprosopon ellipticum*  
*Phanerodon furcatus*  
*Damalichthys vacca*

**Surperches**

Calico surfperch  
Redtail surfperch  
Shiner perch  
Striped seaperch  
Spotfin surfperch  
Plainfin midshipman  
Walleye surfperch  
Silver surfperch  
White seaperch  
Pile perch

**Family Batracoidae**

*Porichthys notatus*

**Toadfishes**

Plainfin midshipman

**Family Trichodontidae**

*Trichodon trichodon*

**Sandfishes**

Pacific sandfish

**Family Stichaeidae**  
*Anoplarchus purpurescens*  
*Cebidichthys violaceus*  
*Chirolophis decoratus*  
*Lumpenus sagitta*

**Family Pholidae**  
*Apodichthys flavidus*  
*Pholis ornata*

**Family Anarhichadidae**  
*Anarrhichthys ocellatus*

**Family Cryptacanthodidae**  
*Delolepis gigantea*

**Family Ammodytidae**  
*Ammodytes hexapterus*

**Family Gobiidae**  
*Clevelandia ios*  
*Coryphopterus nicholsi*  
*Eucyclogobius newberryi*  
*Lepidogobius lepidus*

**Family Luvaridae**  
*Luvarus imperialis*

**Family Centrolophidae**  
*Icichthys lockingtoni*

**Family Scorpaenidae**  
*Sebastes auriculatus*  
*Sebastes caurinus*  
*Sebastes flavidus*  
*Sebastes melanops*  
*Sebastes miniatus*  
*Sebastes mystinus*  
*Sebastes paucispinis*  
*Sebastes rastrelliger*

**Family Hexagrammidae**

**Pricklebacks**  
High cockscomb  
Monkeyface prickleback  
Decorated warbonnet  
Snake prickleback

**Gunnels**  
Penpoint gunnel  
Saddleback gunnel

**Wolfishes**  
Wolf-eel

**Wrymouths**  
Giant wrymouth

**Sand lances**  
Pacific sand lance

**Gobies**  
Arrow goby  
Blackeye goby  
Tidewater goby  
Bay goby

**Louvar**  
Louvar

**Medusafish**  
Medusafish

**Scorpionfishes**  
Brown rockfish  
Copper rockfish  
Yellowtail rockfish  
Black rockfish  
Vermilion rockfish  
Blue rockfish  
Bocaccio  
Grass rockfish

**Greenlings**

<i>Hexagrammos decagrammus</i>	Kelp greenling
<i>Hexagrammos Superciliosus</i>	Rock greenling
<i>Ophiodon elongatus</i>	Lingcod
<i>Oxylebius pictus</i>	Painted greenling

### **Family Cottidae**

<i>Artedius fenestralis</i>
<i>Artedius harringtoni</i>
<i>Artedius notospilotus</i>
<i>Ascelichthys rhodorus</i>
<i>Clinocottus acuticeps</i>
<i>Cottus aleuticus</i>
<i>Enophrys bison</i>
<i>Cottus asper</i>
<i>Hemilepidotus hemilepidotus</i>
<i>Hemilepidotus spinosus</i>
<i>Leptocottus armatus</i>
<i>Oligocottus snyderi</i>
<i>Scorpaenichthys marmoratus</i>

### **Sculpins**

Padded sculpin
Scalyhead sculpin
Bonehead sculpin
Rosy lip sculpin
Sharpnose sculpin
Coastrange sculpin
Buffalo sculpin
Prickly sculpin
Red Irish lord
Brown Irish lord
Pacific staghorn sculpin
Fluffy sculpin
Cabezon

### **Family Hemiripteridae**

<i>Blepsias cirrhosus</i>
<i>Nautichthys oculofasciatus</i>

Silverspotted sculpin
Sailfin sculpin

### **Family Agonidae**

<i>Odontopyxis trispinosa</i>
<i>Pallasina barbata</i>
<i>Stellerina xyosterna</i>

### **Poachers**

Pygmy poacher
Tubenose poacher
Picklebreast poacher

### **Family Liparidae**

<i>Liparis fucensis</i>
<i>Liparis pulchellus</i>
<i>Liparis rutteri</i>
<i>Liparis mucosus</i>

### **Snailfishes**

Slipskin snailfish
Showy snailfish
Ringtail snailfish
Slimy snailfish

### **Family Paralichthyidae**

<i>Citharichthys sordidus</i>
<i>Citharichthys stigmaeus</i>
<i>Paralichthys californicus</i>

### **Sanddabs and Halibut**

Pacific sanddab
Speckled sanddab
California halibut

### **Family Pleuronectidae**

<i>Isopsetta isolepis</i>
<i>Microstomus pacificus</i>

### **Righteye flounders**

Butter sole
Dover sole

<i>Pleuronectes vetulus</i>	English sole
<i>Platichthys stellatus</i>	Starry flounder
<i>Pleuronichthys coenosus</i>	C-O Turbot
<i>Pleuronichthys decurrens</i>	Curlfin sole
<i>Psettichthys melanostictus</i>	Sand sole
<b>Family Cynoglossidae</b>	<b>Tonguefishes</b>
<i>Symphurus atricauda</i>	California tonguefish
<b>Family Molidae</b>	<b>Molas</b>
<i>Mola Mola</i>	Ocean sunfish
<b>Family Batracoididae</b>	<b>Toadfishes</b>
<i>Porichthys notatus</i>	Plainfin midshipman
<b>Family Stomateidae</b>	<b>Butterfishes</b>
<i>Peprilus simillimus</i>	Pacific butterfish

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## F.4 Algae and Salt Marsh Plant Species of Humboldt Bay

### ALGAE

#### **Chlorophyta**

<i>Bryopsis hypnoides</i>	Moss alga
<i>Enteromorpha intestinalis</i>	Green alga
<i>Spongomerpha coalita</i>	Sponge alga
<i>Ulva lactuca</i>	Sea lettuce

#### **Phaeophyta**

<i>Alaria marginata</i>	Wing kelp
<i>Egregia menziesii</i>	Feather boa kelp
<i>Fucus gardneri</i>	Rock weed
<i>Fucus distichus</i>	Rock weed
<i>Fucus spiralis</i>	Rock weed
<i>Pelvetiopsis limitata</i>	Rock weed
<i>Sargassum muticum</i>	Grape kelp

#### **Rhodophyta**

<i>Botryoglossum farlowianum</i>	Grape tongue alga
<i>Botryoglossum ruprechtianum</i>	Grape tongue alga
<i>Chandracanthus teedi</i>	Red alga
<i>Corallina spp.</i>	Coralline alga
<i>Endocladia muricata</i>	Red alga
<i>Gigartina papillata</i>	Gapestone alga
<i>Gracilaria verrucosa</i>	Slender red alga
<i>Iridaea cordata</i>	Iridescent red alga
<i>Lomentria hakodatenis</i>	Red alga
<i>Microcladia borealis</i>	Red alga
<i>Microcladia coulteri</i>	Red alga
<i>Polysiphonia paniculata</i>	Red alga
<i>Polysiphonia pacifica</i>	Red alga
<i>Porphyra lanceolata</i>	Laver, nori
<i>Porphyra perforata</i>	Laver, nori
<i>Porphyra sanjuanensis</i>	Laver, nori
<i>Rhodomela larix</i>	Red alga
<i>Rhodymenia oweniae</i>	Red alga

## **Chrysophyta**

*Vaucheria longicaulis*

Yellow-brown alga

## **COASTAL SALT MARSH PLANTS**

### **Flowering plants (Anthophyta)**

<i>Amisinchia spectabilis</i> var. <i>spectabilis</i>	Seaside fiddleneck
<i>Astragalus pycnostachyus</i>	Loco Weed
<i>Atriplex patula</i> var. <i>hastata</i>	Fat hen
<i>Baccharis douglasii</i>	Douglas' baccharis
<i>Calystegia sepium</i>	Hedge bindweed
<i>Carex lyngbyei</i>	Lyngbye's sedge
<i>Castilleja ambigua</i> ssp. <i>humboldtiensis</i>	Humboldt Bay owl's clover
<i>Centaurium trichanthum</i>	Alkali centaury
<i>Cordylanthus maritimus</i> ssp. <i>palustris</i>	Point Reyes bird's beak
<i>Cotula coronopifolia</i>	Common brassbuttons
<i>Cuscuta salina</i>	Dodder
<i>Deschampsia caespitosa</i>	California Hairgrass
<i>Distichlis spicata</i>	Saltgrass
<i>Eleocharis pachycarpa</i>	Black sand spikerush
<i>Eleocharis parvula</i>	Dwarf spikerush
<i>Eryngium aristulatum</i>	California eryngo
<i>Euthamia occidentalis</i>	Western flat-topped goldenrod
<i>Glaux maritima</i>	Sea milk-wort
<i>Grindelia stricta</i> ssp. <i>Blakei</i>	Humboldt bay gumplant
<i>Hypericum anagalloides</i>	Creeping St. John's wort
<i>Iva axillaris</i> ssp. <i>Robustior</i>	Poverty weed
<i>Jaumea carnosa</i>	Fleshy Jaumea
<i>Juncus effusus</i>	Bog Rush
<i>Juncus breweri</i>	Salt Rush
<i>Lilaeopsis occidentalis</i>	Lilaeopsis
<i>Limonium californicum</i>	California sealavender
<i>Parapholis incurva</i>	Curved sicklegrass
<i>Parapholis strigosa</i>	sicklegrass
<i>Plantago coronopus</i>	Buckhorn plantain
<i>Plantago maritima</i>	Pacific Seaside Plantain
<i>Plantago subnuda</i>	Mexican Plantain
<i>Potentilla anserina</i> ssp. <i>pacifica</i>	Pacific potentilla
<i>Puccinellia grandis</i>	Alaska alkali grass
<i>Puccinellia nutkaensis</i>	Alaska alkali grass
<i>Puccinellia pumila</i>	Dwarf alkali grass
<i>Pyrrocoma racemosa</i>	Clustered goldenweed

<i>Ruppia maritima</i>	Ditchgrass
<i>Salicornia bigelovii</i>	Pickleweed
<i>Salicornia virginica</i>	Pickleweed
<i>Scirpus americanus</i>	American threesquare
<i>Scirpus cernuus</i>	Annual tule
<i>Scirpus maritimus</i>	Saltmarsh bulrush
<i>Scirpus robustus</i>	Bull tule
<i>Sidalcea calycosa</i>	Pt. Reyes Sidalcea
<i>Spartina densiflora</i>	Cordgrass
<i>Spartina foliosa</i>	California cordgrass
<i>Spergularia canadensis</i> var. <i>occidentalis</i>	Northern sandspurry
<i>Spergularia villosa</i>	Spurry
<i>Triglochin concinna</i>	Utah arrowgrass
<i>Triglochin maritimum</i>	Arrowgrass
<i>Zostera japonica</i>	Dwarf eelgrass
<i>Zostera marina</i>	Eelgrass

#### E-4 References

- ✉ The Ecology of Humboldt Bay, CA: An Estuarine Profile, 1992, Roger A. Barnhart, Milton J. Boyd, and John E. Pequegnat
- ✉ Humboldt Bay Wetlands Review & Baylands Analysis, 1980, Shapiro and Associates, Inc.
- ✉ The Natural Resources of Humboldt Bay, 1973, Gary W. Monroe, Stanley J. Thompson, Phillip G. Swartzell, Bruce M. Browning, and John W. Speth
- ✉ California Native Plant Society, 2004, <http://www.cnps.org>