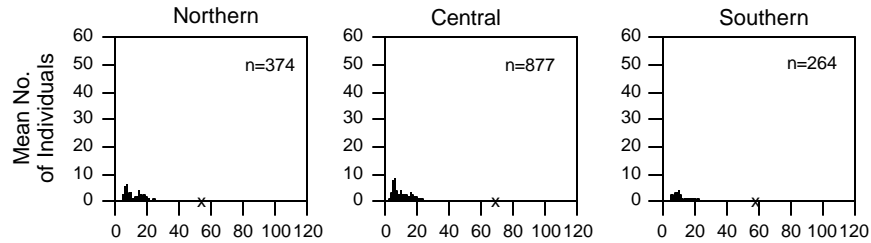
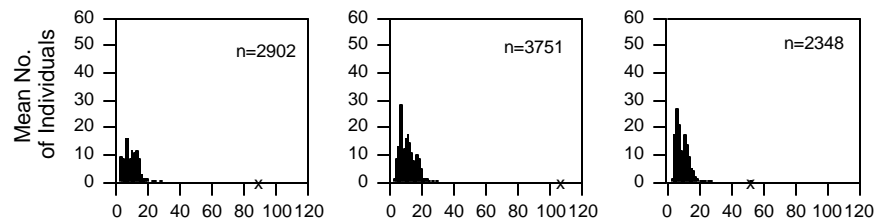


C1. Fish abundance per haul by subpopulation for the mainland shelf of southern California, July-August, 1994: a) median and b) percent of area above Bight median

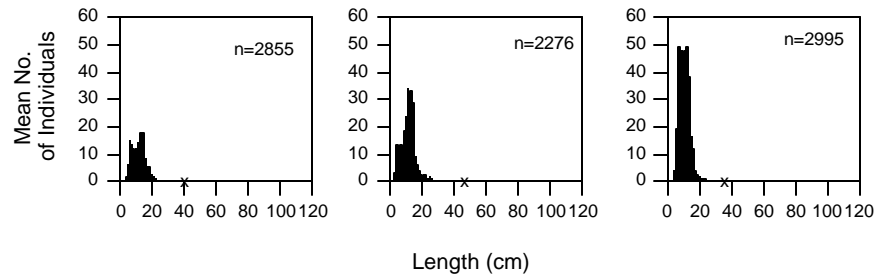
a) Inner Shelf (10-25 m)



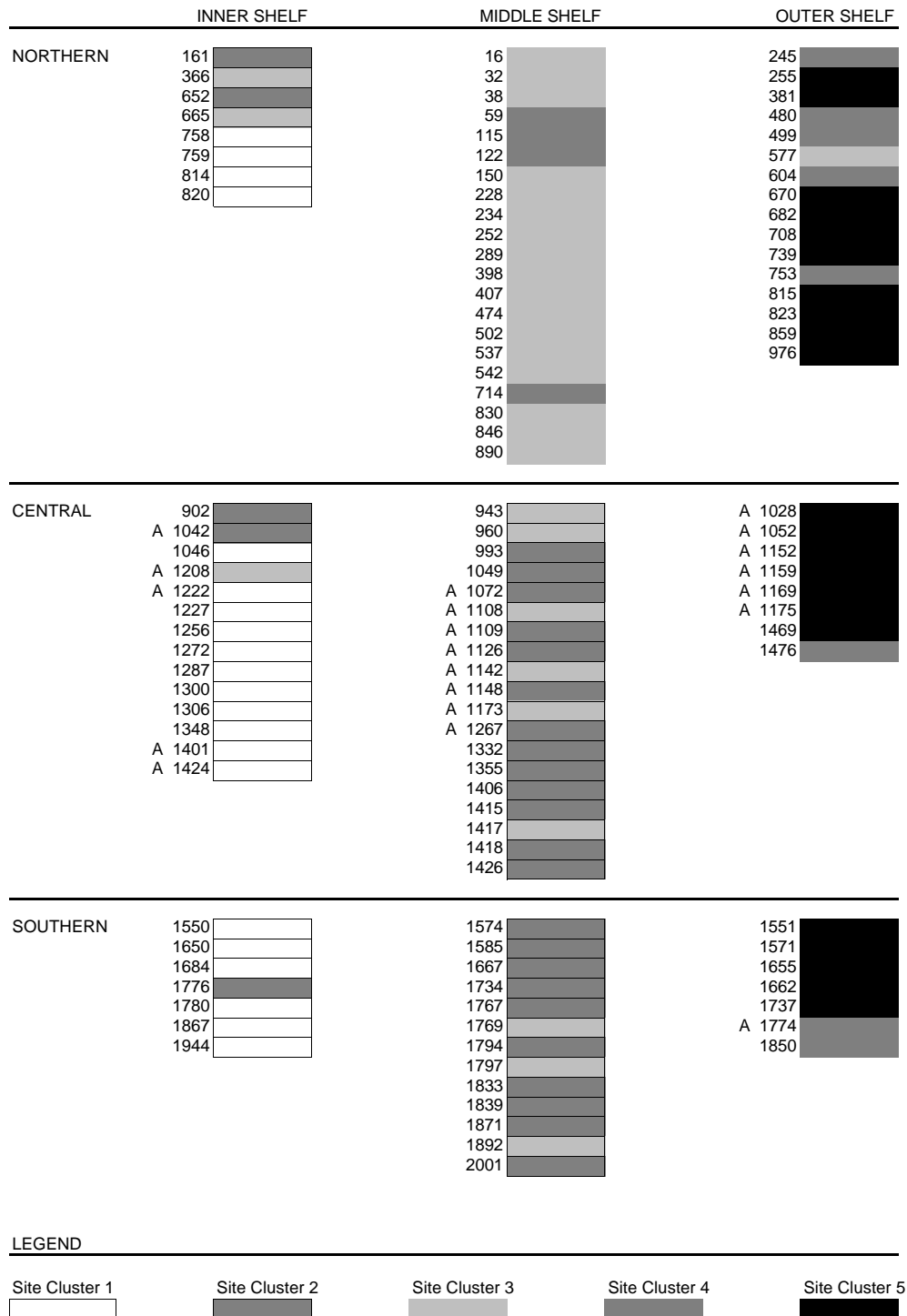
b) Middle Shelf (26-100 m)



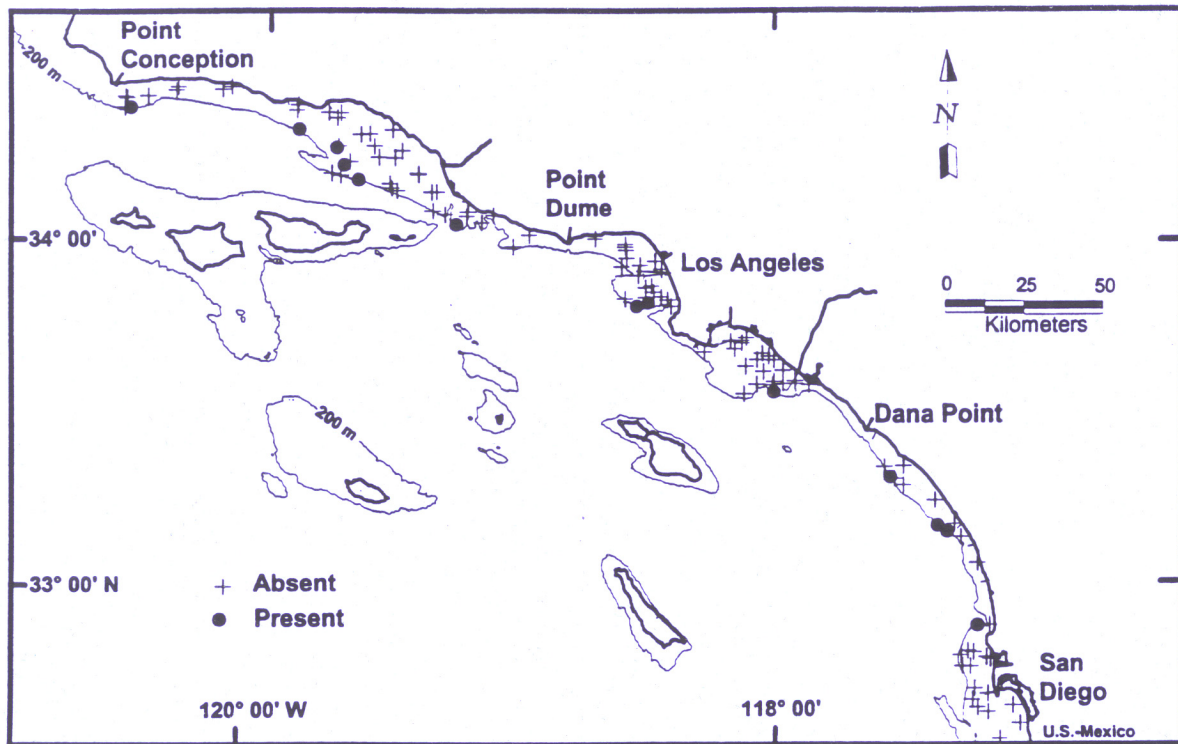
c) Outer Shelf (101-200 m)



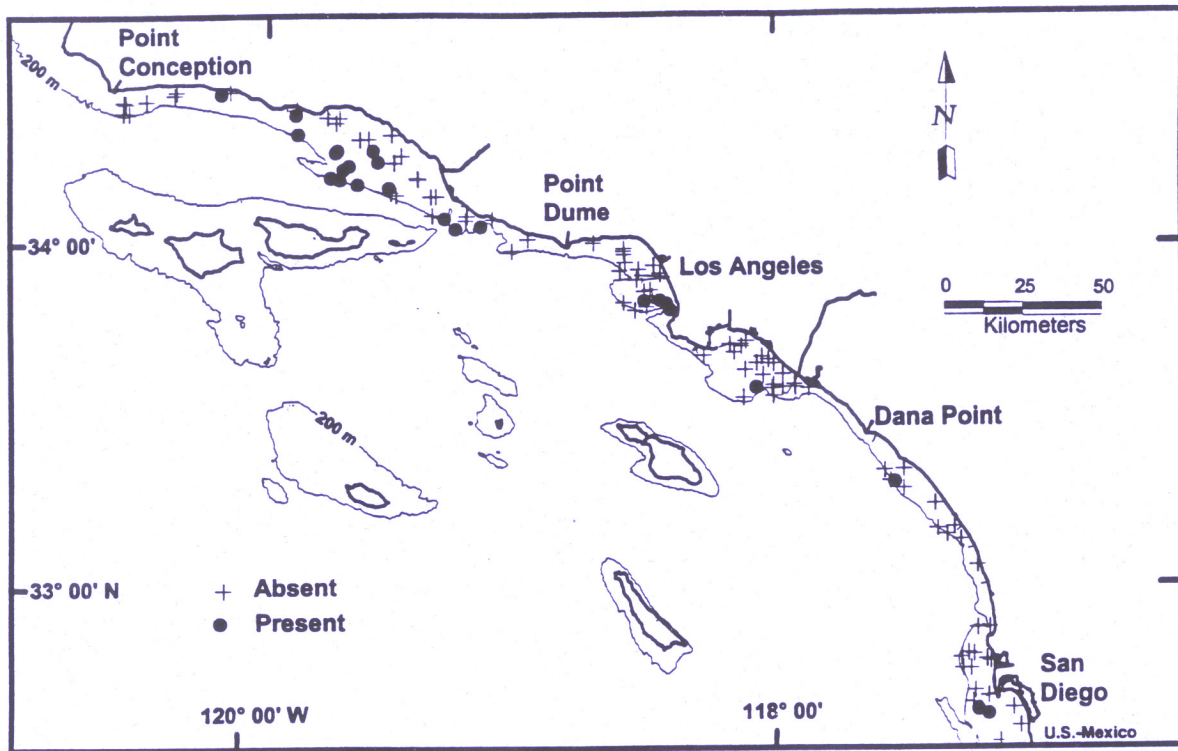
C2. Cumulative distribution functions (CDFs) for fish abundance, biomass, number of species, and diversity per haul by subpopulation in the regional survey of the mainland shelf of southern California, July-August 1994



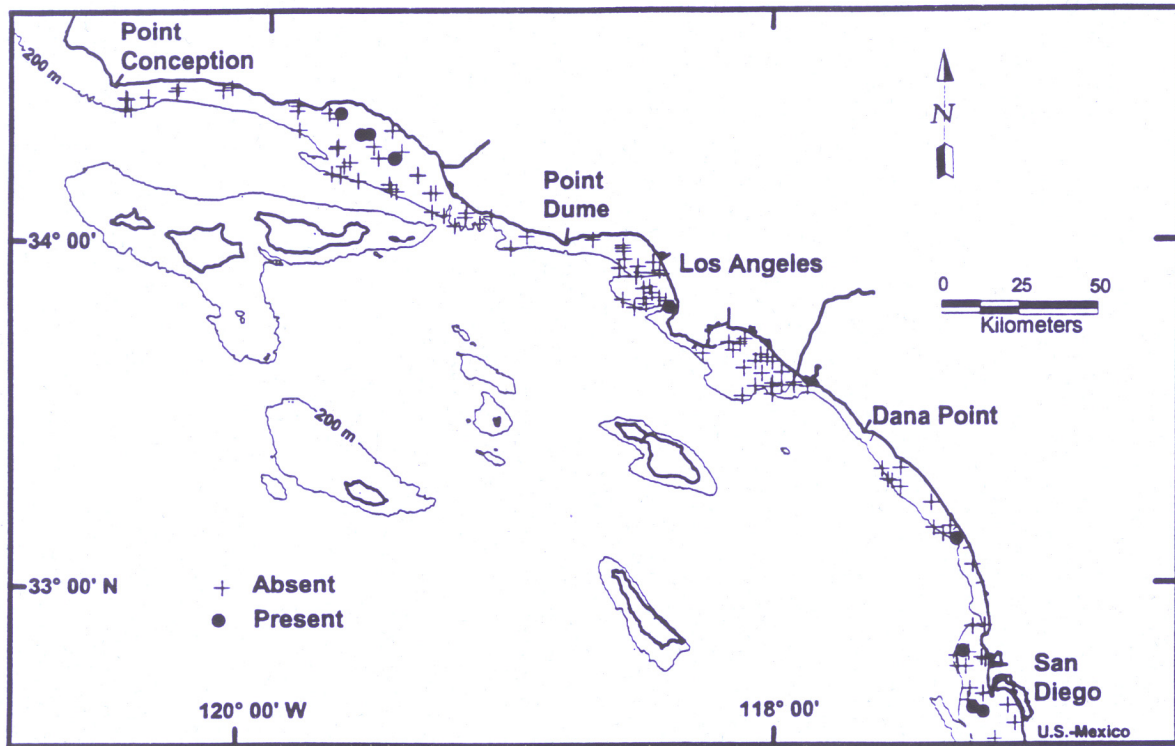
Appendix C41. Relationship of demersal fish site clusters on the mainland shelf of southern California to depth and regional subpopulation categories, July-August 1994. A = Near potentially anthropogenic inputs. Numbers next to boxes represent station numbers.



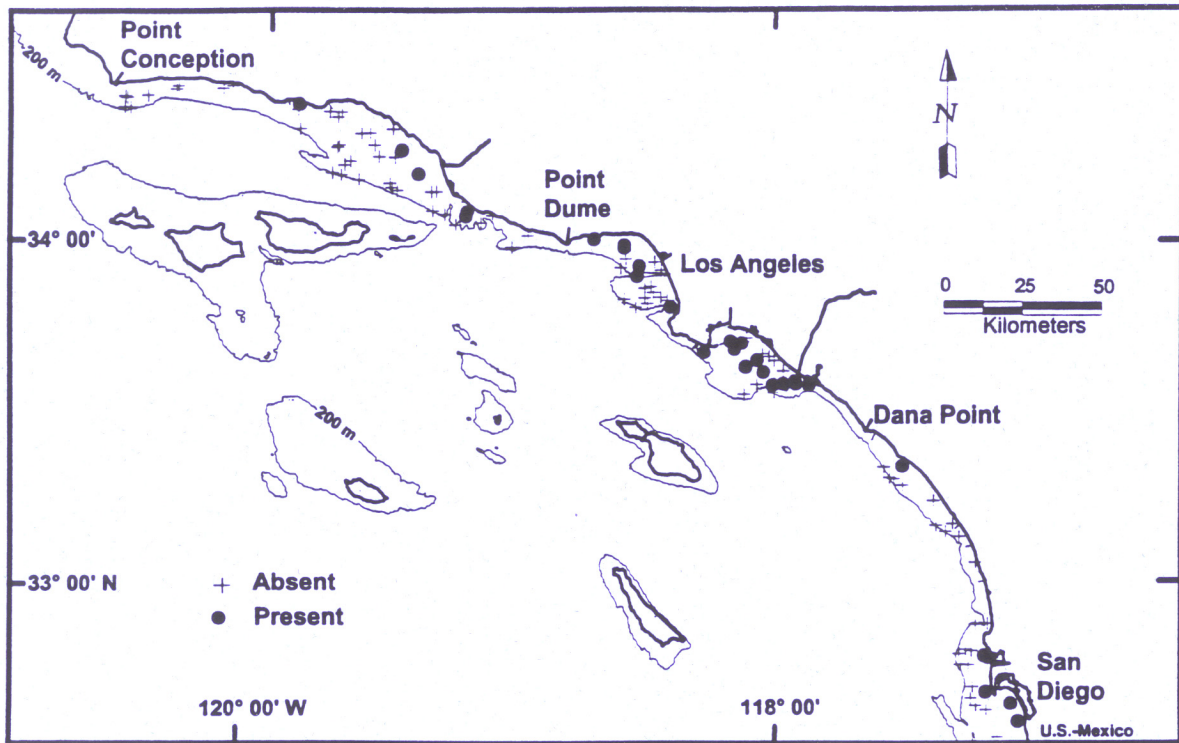
Appendix C39. Distribution of Outer Shelf Recurrent Group (Group 4) of demersal fishes on the mainland shelf of southern California at depths of 10-200 m, July-August 1994.



Appendix C38. Distribution of Middle/Outer Shelf Recurrent Group (Group 3) of demersal fishes on the mainland shelf of southern California at depths of 10-200 m, July-August 1994.

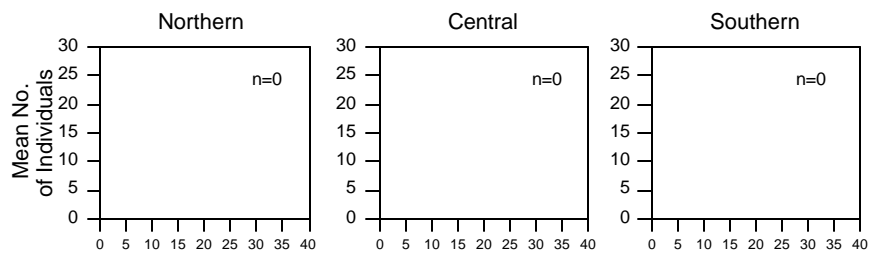


Appendix C37. Distribution of Middle Shelf Recurrent Group (Group 2) of demersal fishes on the mainland shelf of southern California at depths of 10-200 m, July-August 1994.

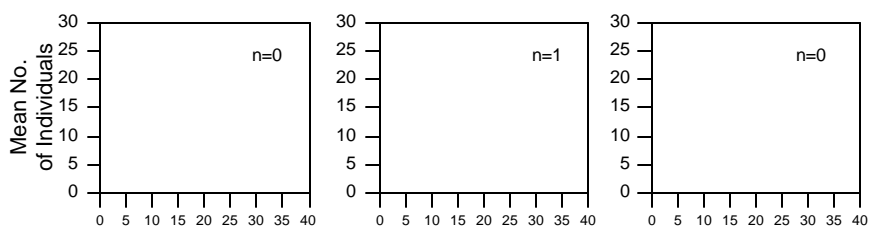


Appendix C36. Distribution of Inner/Middle Shelf Recurrent Group (Group 1) of demersal fishes on the mainland shelf of southern California at depths of 10-200 m, July-August 1994.

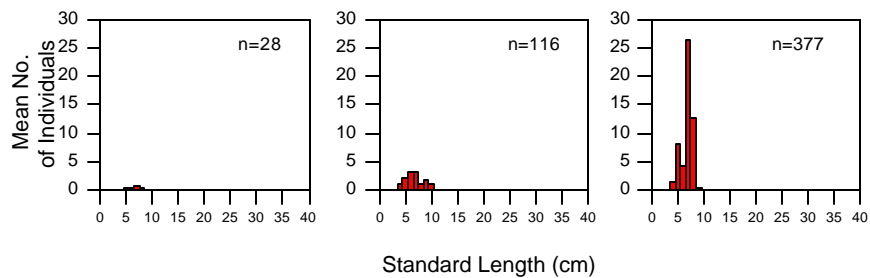
a) Inner Shelf (10-25 m)



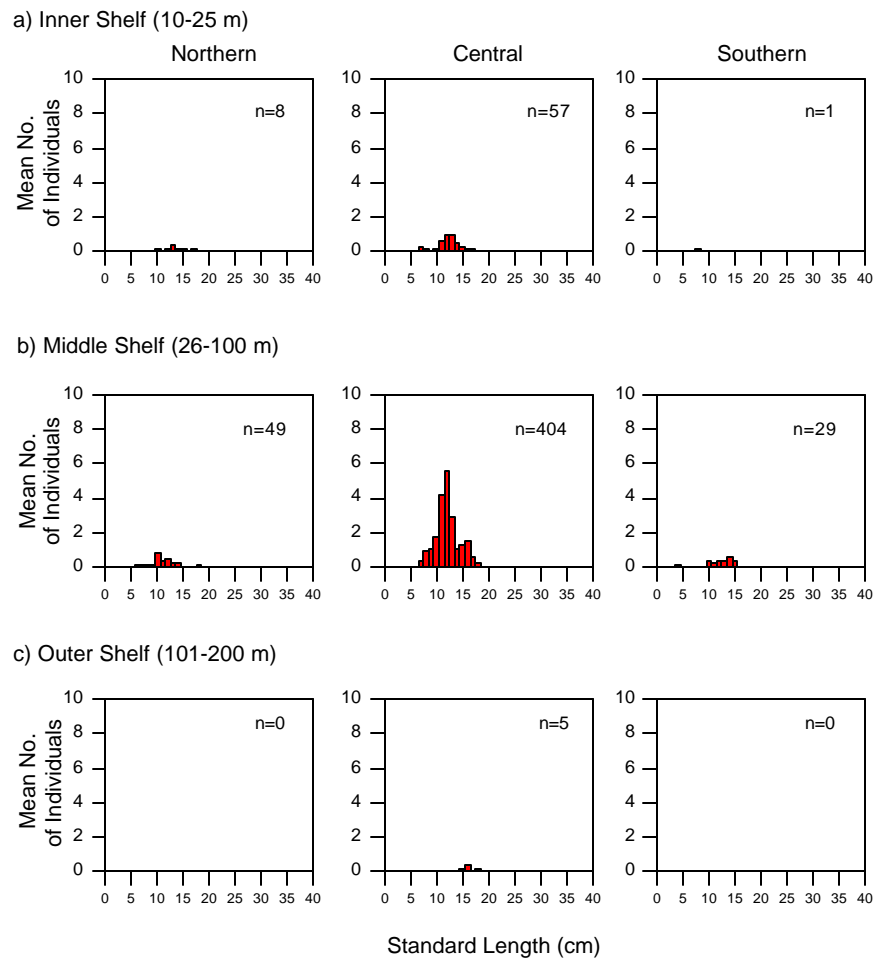
b) Middle Shelf (26-100 m)



c) Outer Shelf (101-200 m)

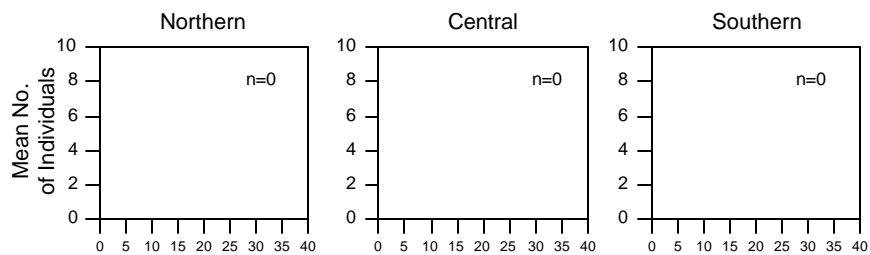


Appendix C35. Length-frequency distribution of splitnose rockfish (*Sebastes diploproa*) collected by trawl on the mainland shelf of southern California by depth and regional subpopulation, July-August 1994. n = Number of fish measured.

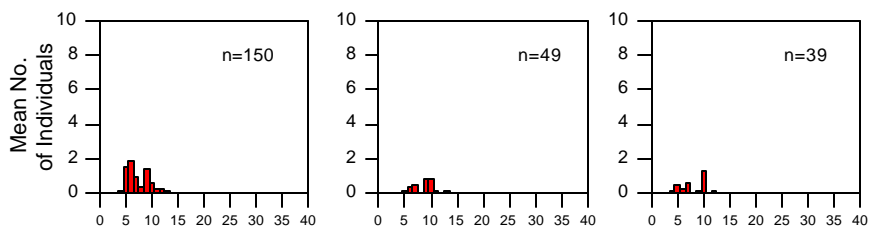


Appendix C34. Length-frequency distribution of California tonguefish (*Symphurus atricauda*) collected by trawl on the mainland shelf of southern California by depth and regional subpopulation, July-August 1994. n = Number of fish measured.

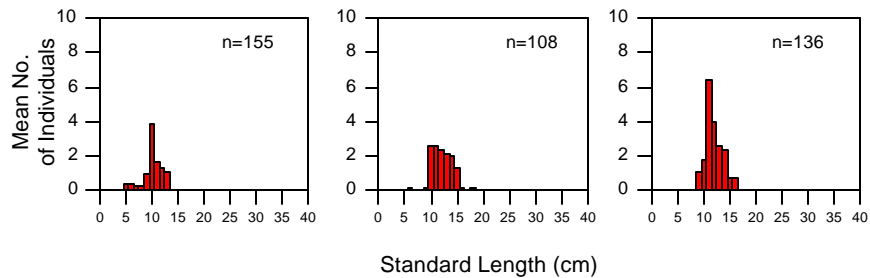
a) Inner Shelf (10-25 m)



b) Middle Shelf (26-100 m)

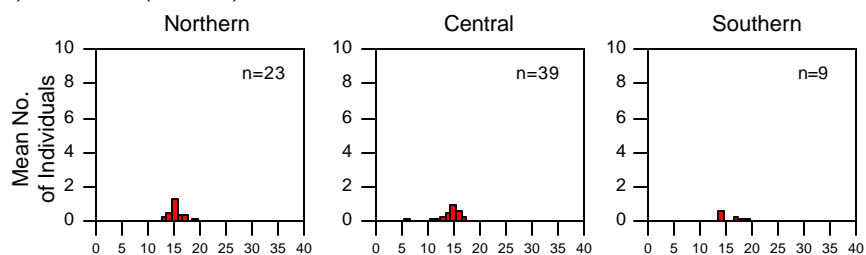


c) Outer Shelf (101-200 m)

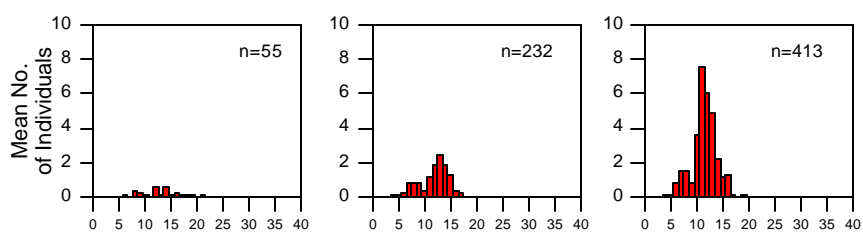


Appendix C33. Length-frequency distribution of stripetail rockfish (*Sebastes saxicola*) collected by trawl on the mainland shelf of southern California by depth and regional subpopulation, July-August 1994. n = Number of fish measured.

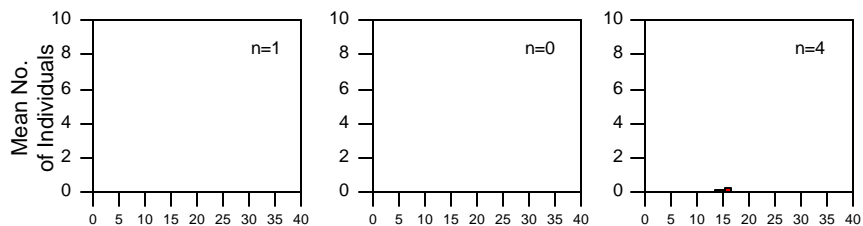
a) Inner Shelf (10-25 m)



b) Middle Shelf (26-100 m)



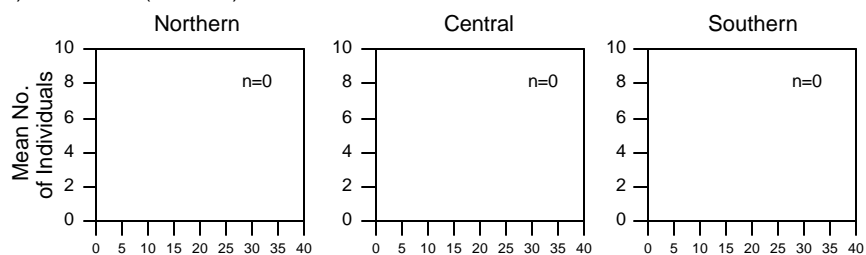
c) Outer Shelf (101-200 m)



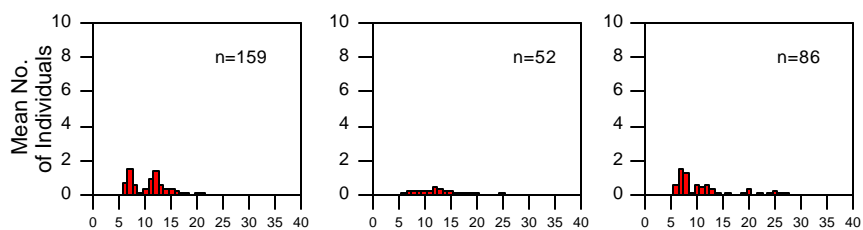
Standard Length (cm)

Appendix C32. Length-frequency distribution of Longfin sanddab (*Citharichthys xanhostigma*) collected by trawl on the mainland shelf of southern California by depth and regional subpopulation, July-August 1994. n = Number of fish measured.

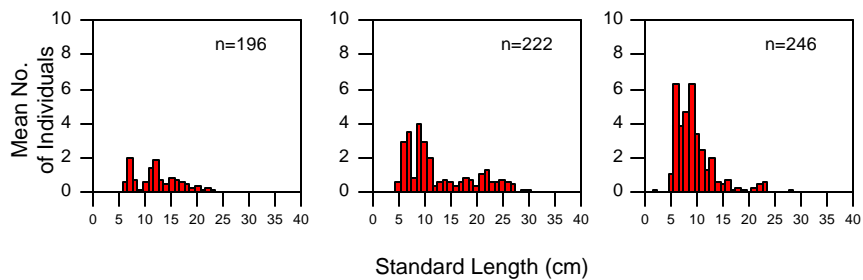
a) Inner Shelf (10-25 m)



b) Middle Shelf (26-100 m)

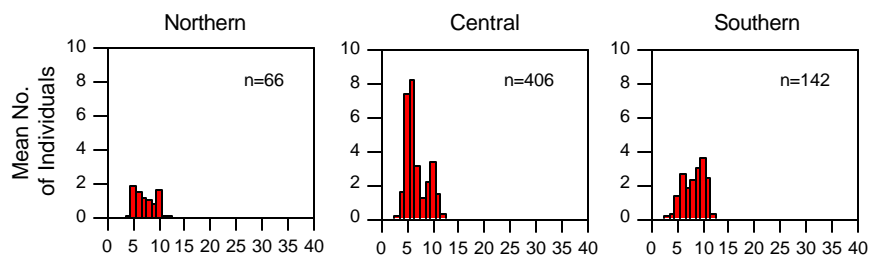


c) Outer Shelf (101-200 m)

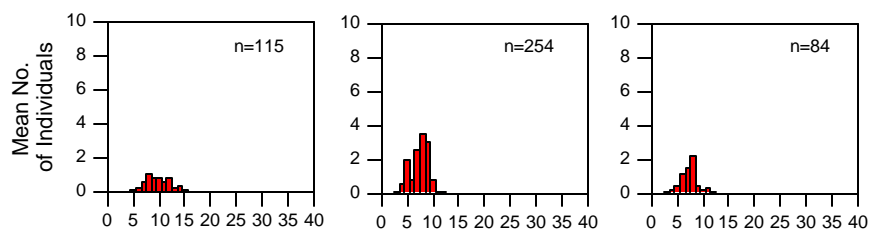


Appendix C31. Length-frequency distribution of Dover sole (*Microstomus pacificus*) collected by trawl on the mainland shelf of southern California by depth and regional subpopulation, July-August 1994. n = Number of fish measured.

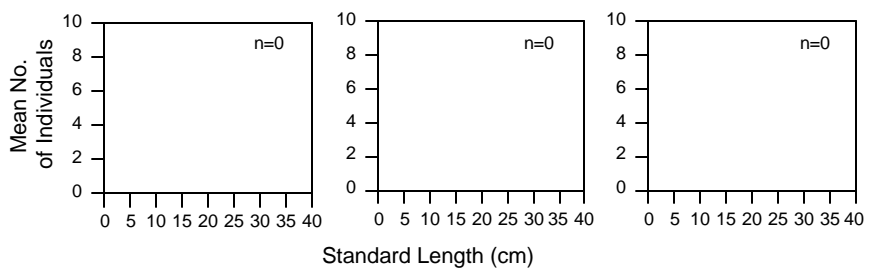
a) Inner Shelf (10-25 m)



b) Middle Shelf (26-100 m)

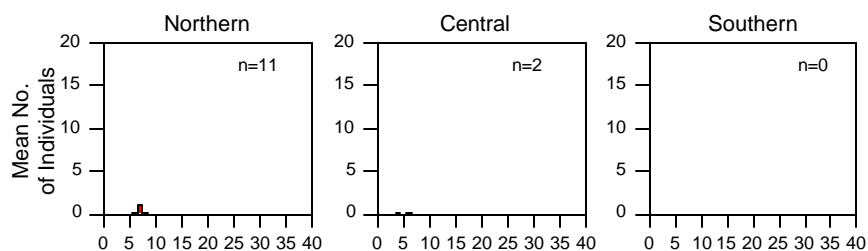


c) Outer Shelf (101-200 m)

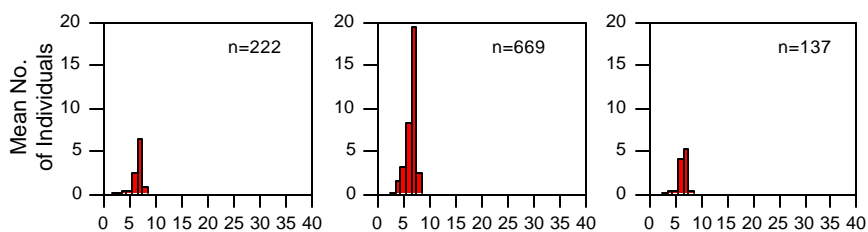


Appendix C30. Length-frequency distribution of speckled sandab (*Citharichthys stigmaeus*) collected by trawl on the mainland shelf of southern California by depth and regional subpopulation, July-August 1994. n = Number of fish measured.

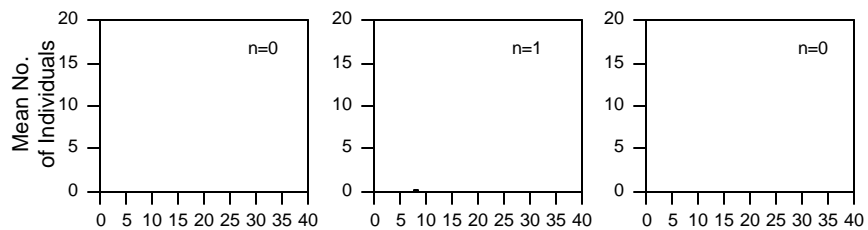
a) Inner Shelf (10-25 m)



b) Middle Shelf (26-100 m)



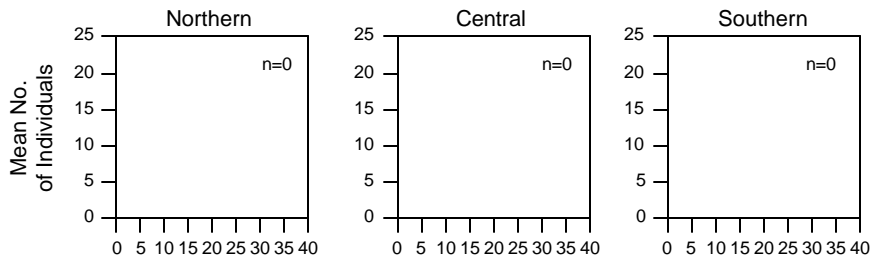
c) Outer Shelf (101-200 m)



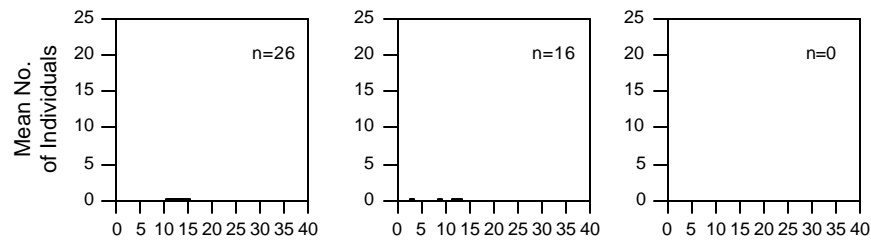
Standard Length (cm)

Appendix C29. Length-frequency distribution of yellowchin sculpin (*Icelinus quadriseriatus*) collected by trawl on the mainland shelf of southern California by depth and regional subpopulation, July-August 1994. n = Number of fish measured.

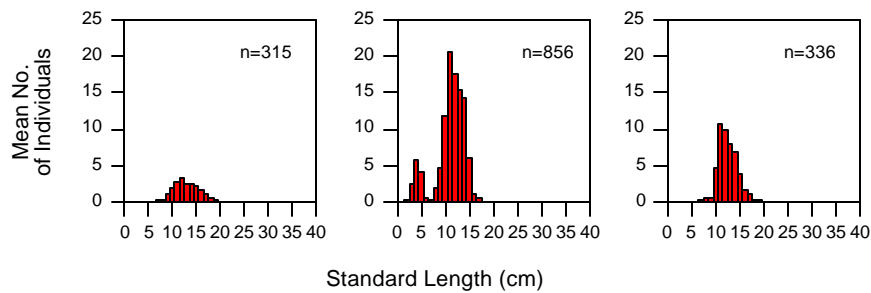
a) Inner Shelf (10-25 m)



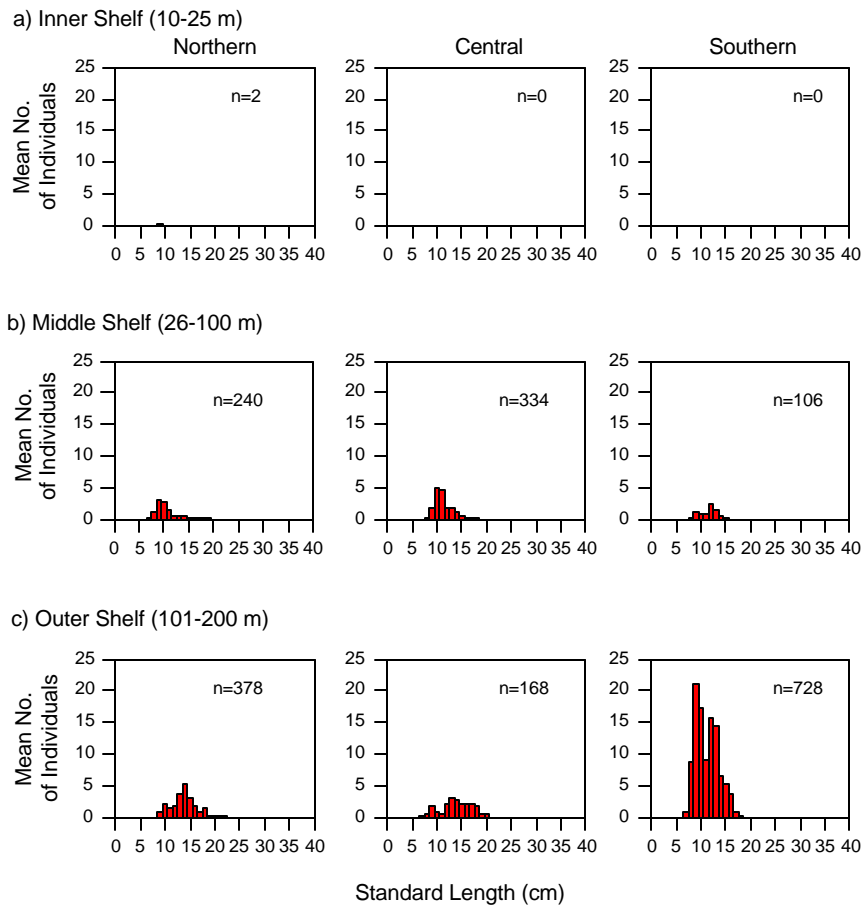
b) Middle Shelf (26-100 m)



c) Outer Shelf (101-200 m)

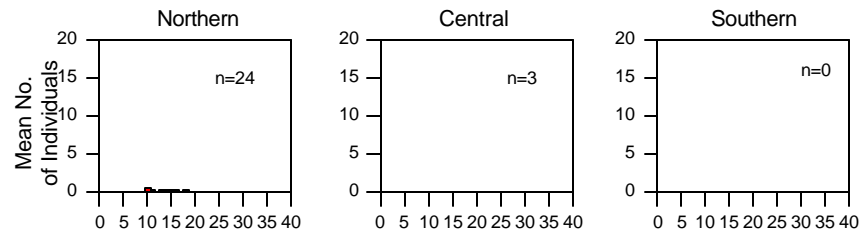


Appendix C28. Length-frequency distribution of slender sole (*Eopsetta exilis*) collected by trawl on the mainland shelf of southern California by depth and regional subpopulation, July-August 1994. n = Number of fish measured.

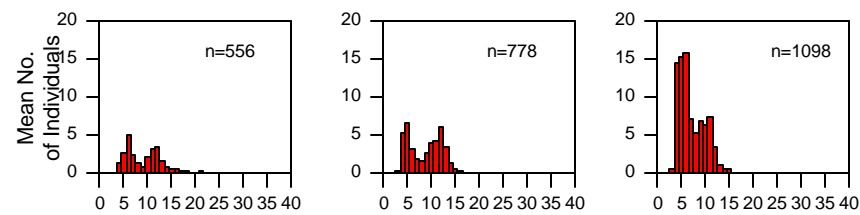


Appendix C27. Length-frequency distribution of plainfin midshipman (*Porichthys notatus*) collected by trawl on the mainland shelf of southern California by depth and regional subpopulation, July-August 1994. n = Number of fish measured.

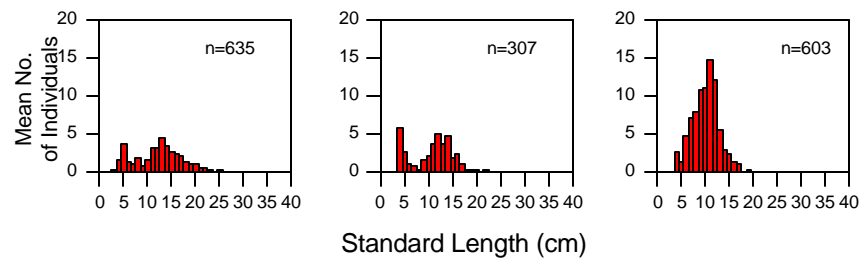
a) Inner Shelf (10-25 m)



b) Middle Shelf (26-100 m)

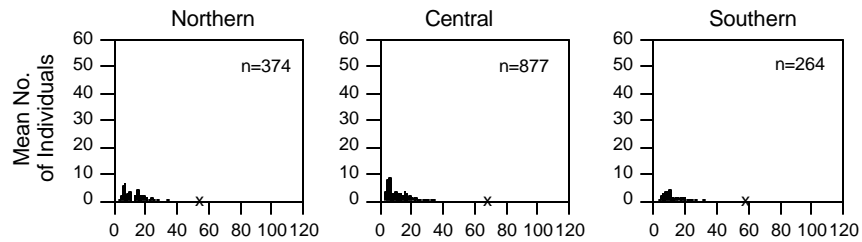


c) Outer Shelf (101-200 m)

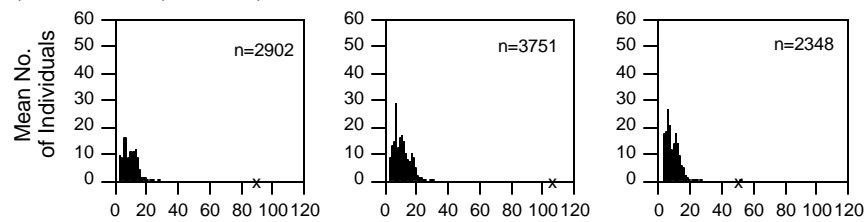


Appendix C26. Length-frequency distribution of Pacific sanddab (*Citharichthys sordidus*) collected by trawl on the mainland shelf of southern California by depth and regional subpopulation, July-August 1994. n = Number of fish measured.

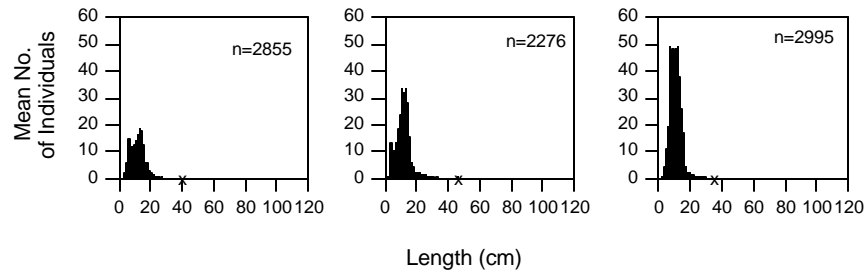
a) Inner Shelf (10-25 m)



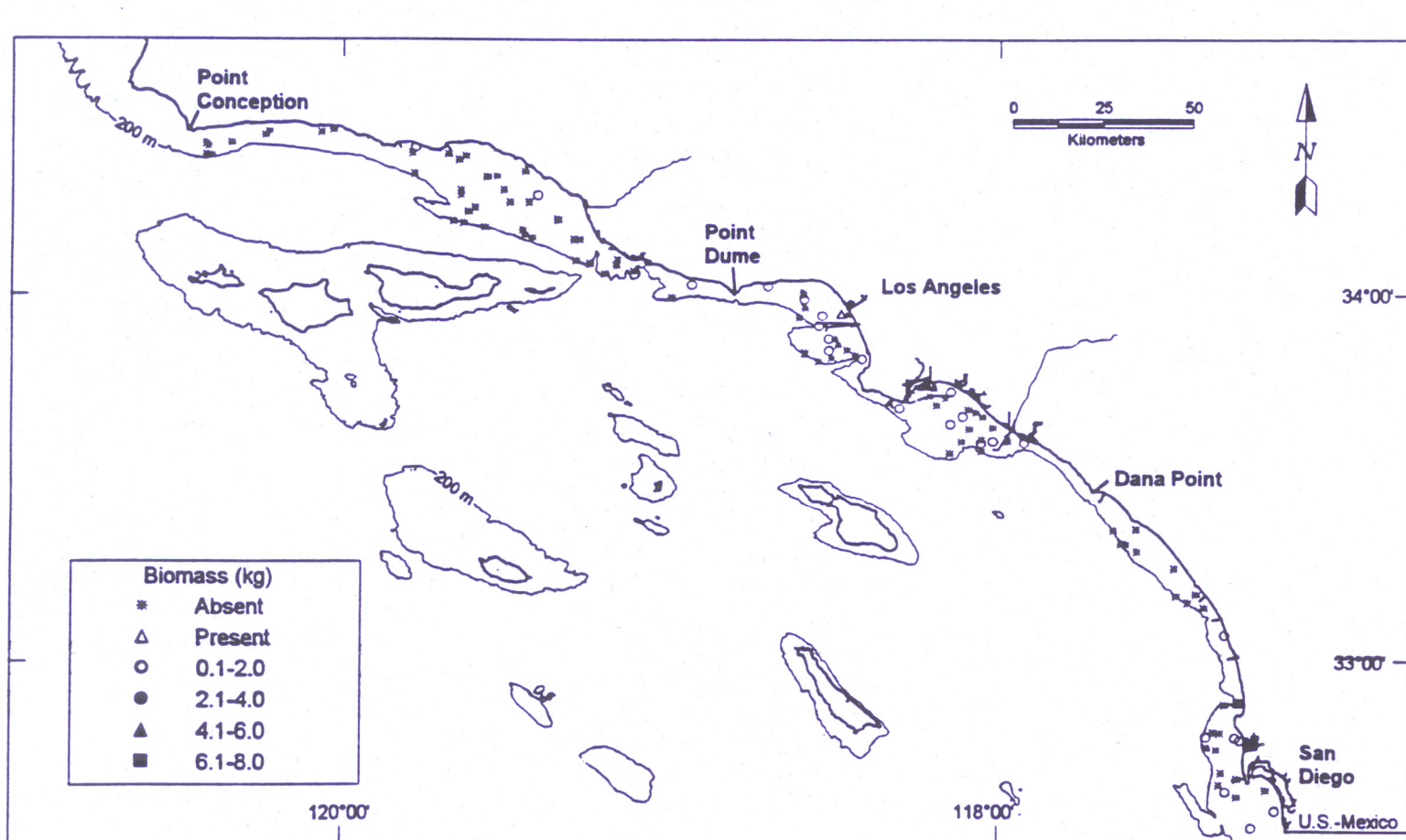
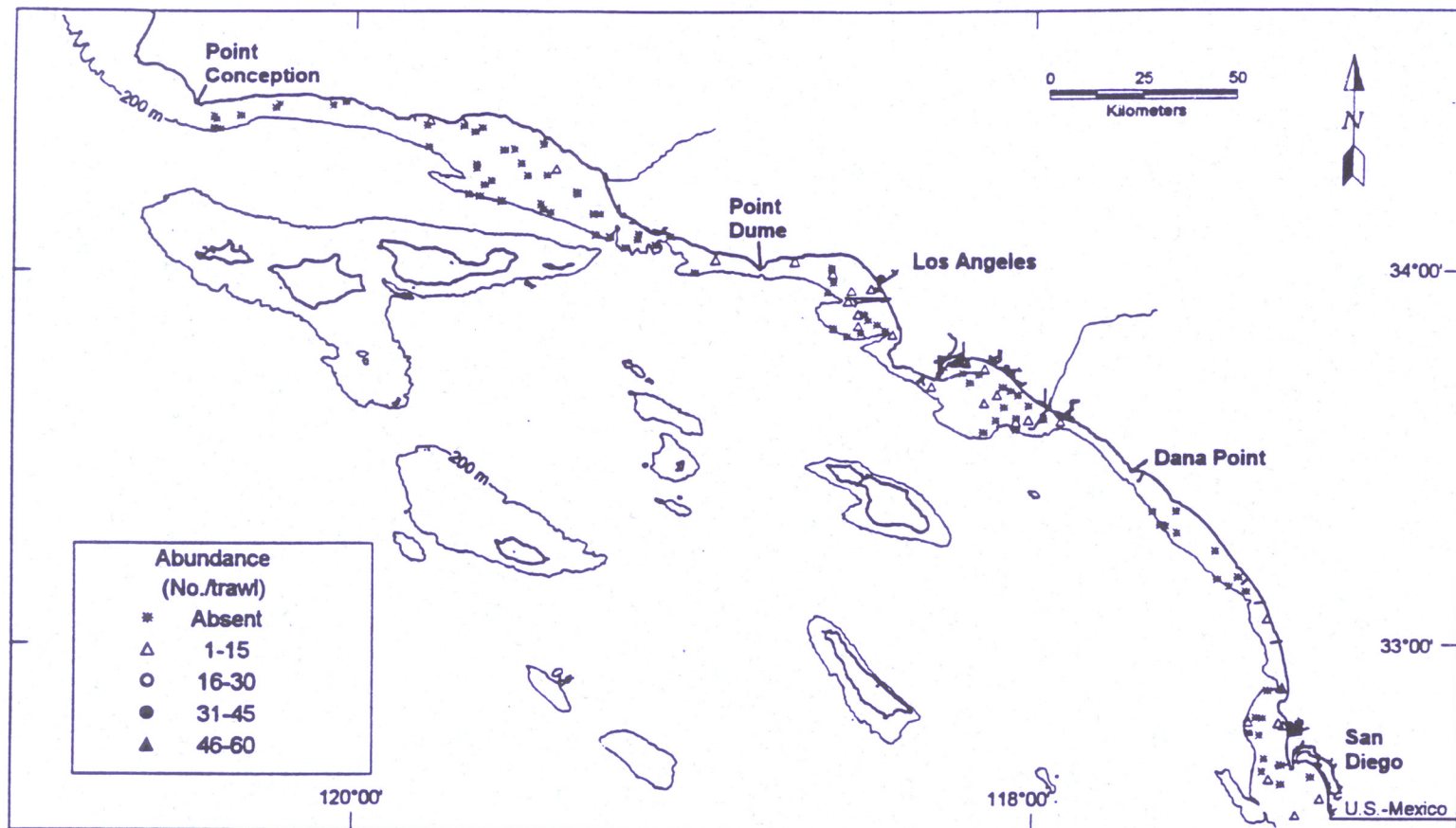
b) Middle Shelf (26-100 m)



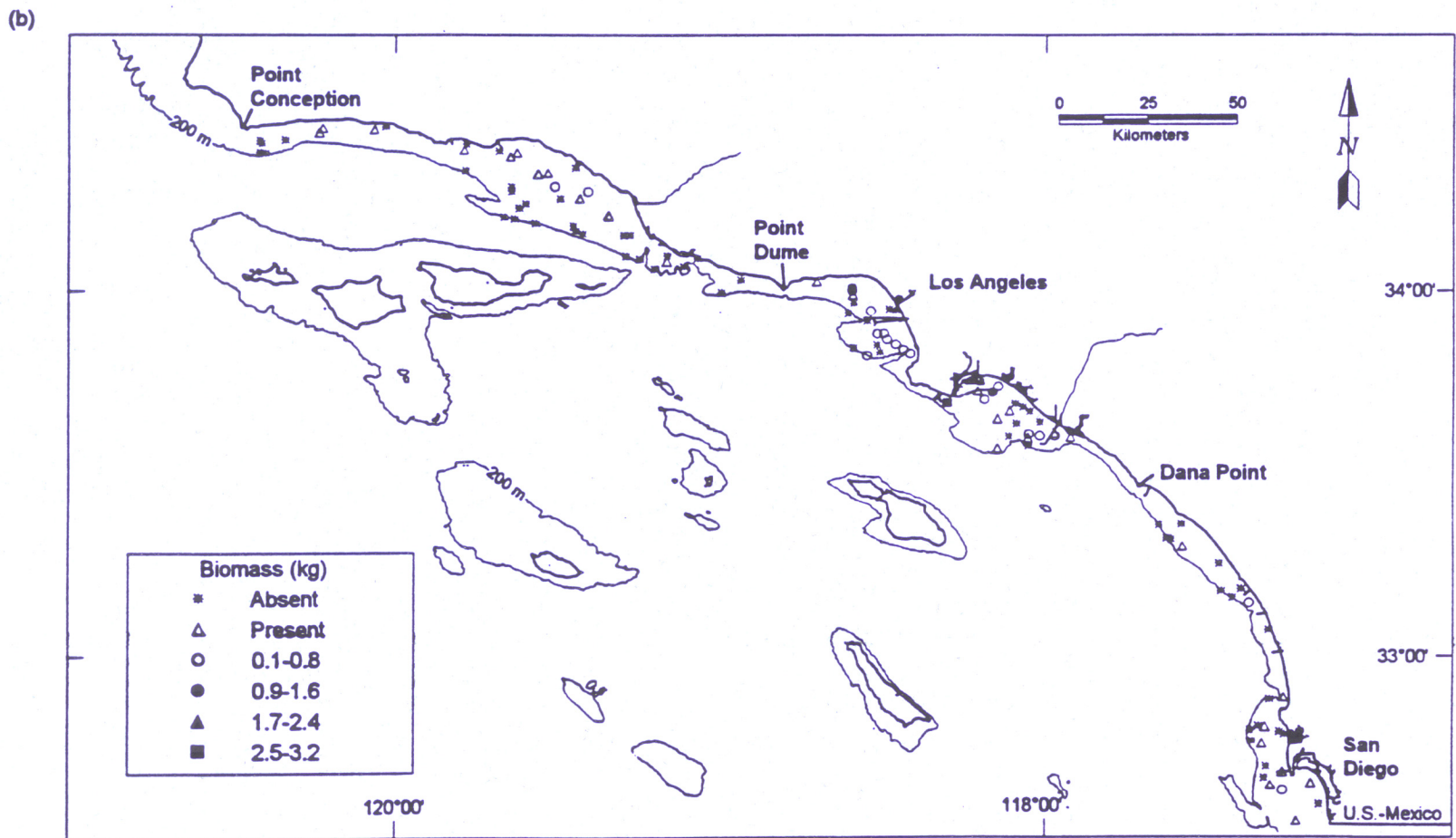
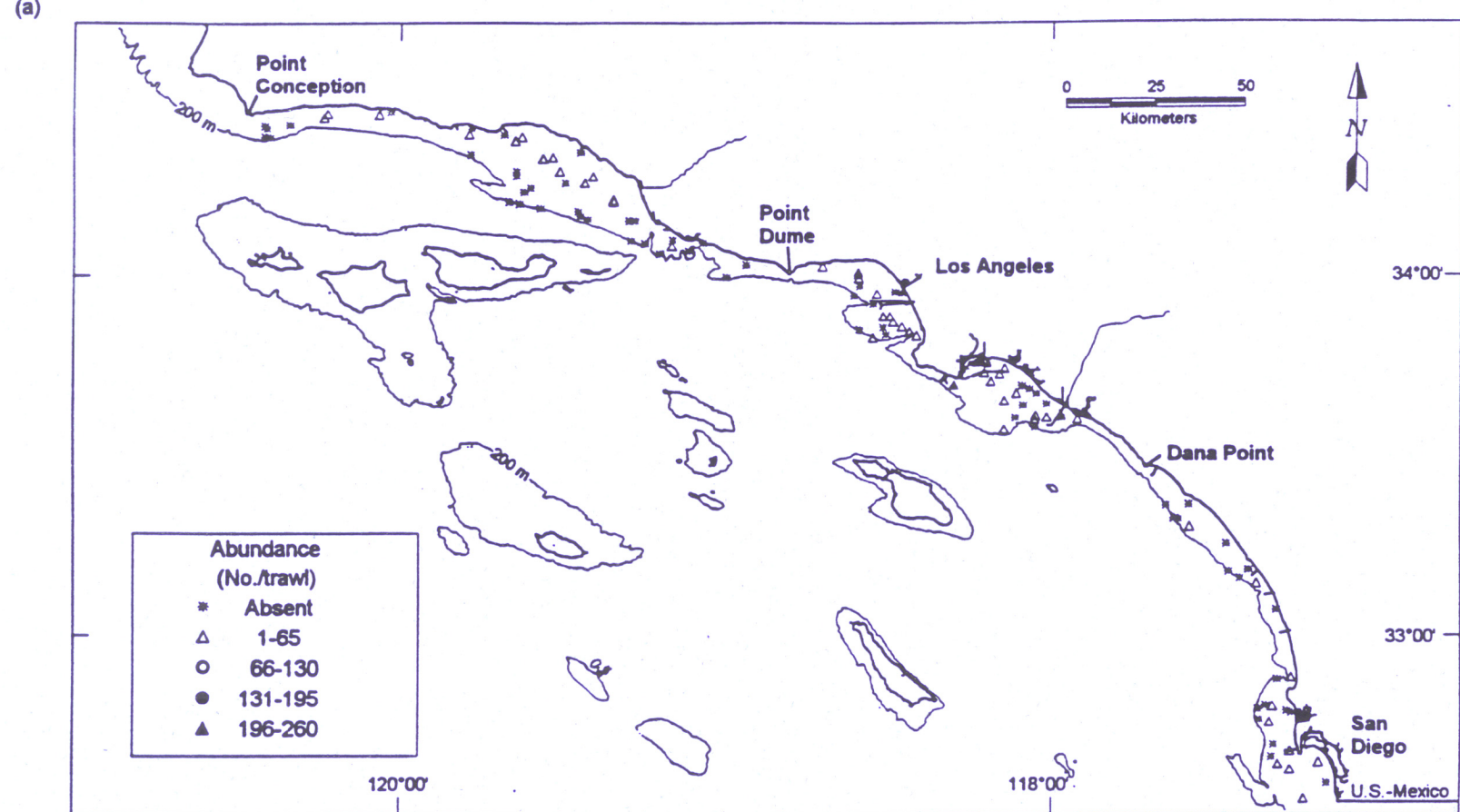
c) Outer Shelf (101-200 m)



Appendix C25. Length-frequency distribution of all fish collected by trawl on the mainland shelf of southern California by depth and regional subpopulation, July-August 1994.
n = Number of fish measured; x = Largest fish.

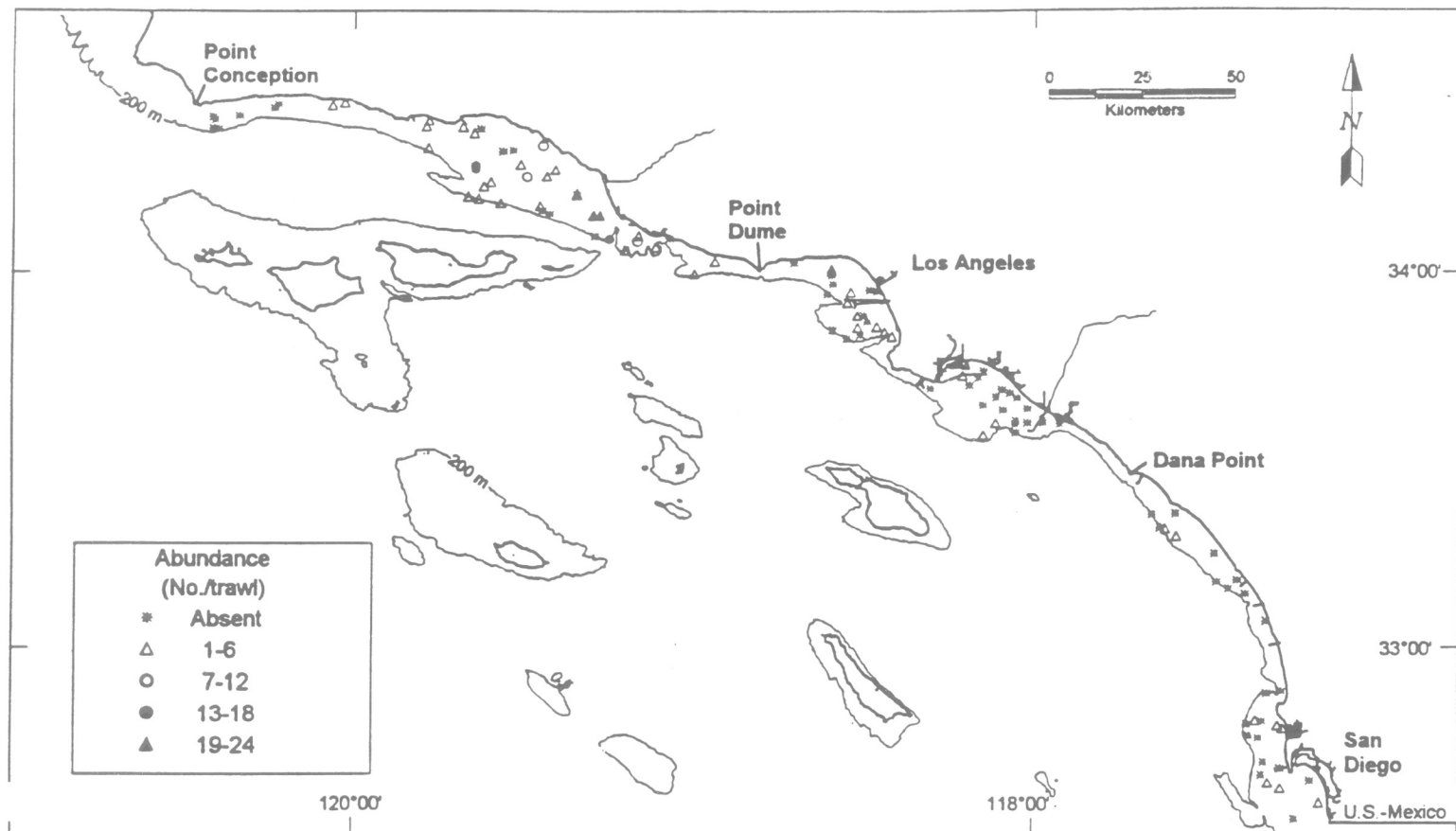


Appendix C24. Distribution of California scorpionfish (*Scorpaena guttata*) on the mainland shelf of southern California at depths of 10-200 m, July-August 1994: a) number of individuals per trawl and b) biomass per trawl (kg).

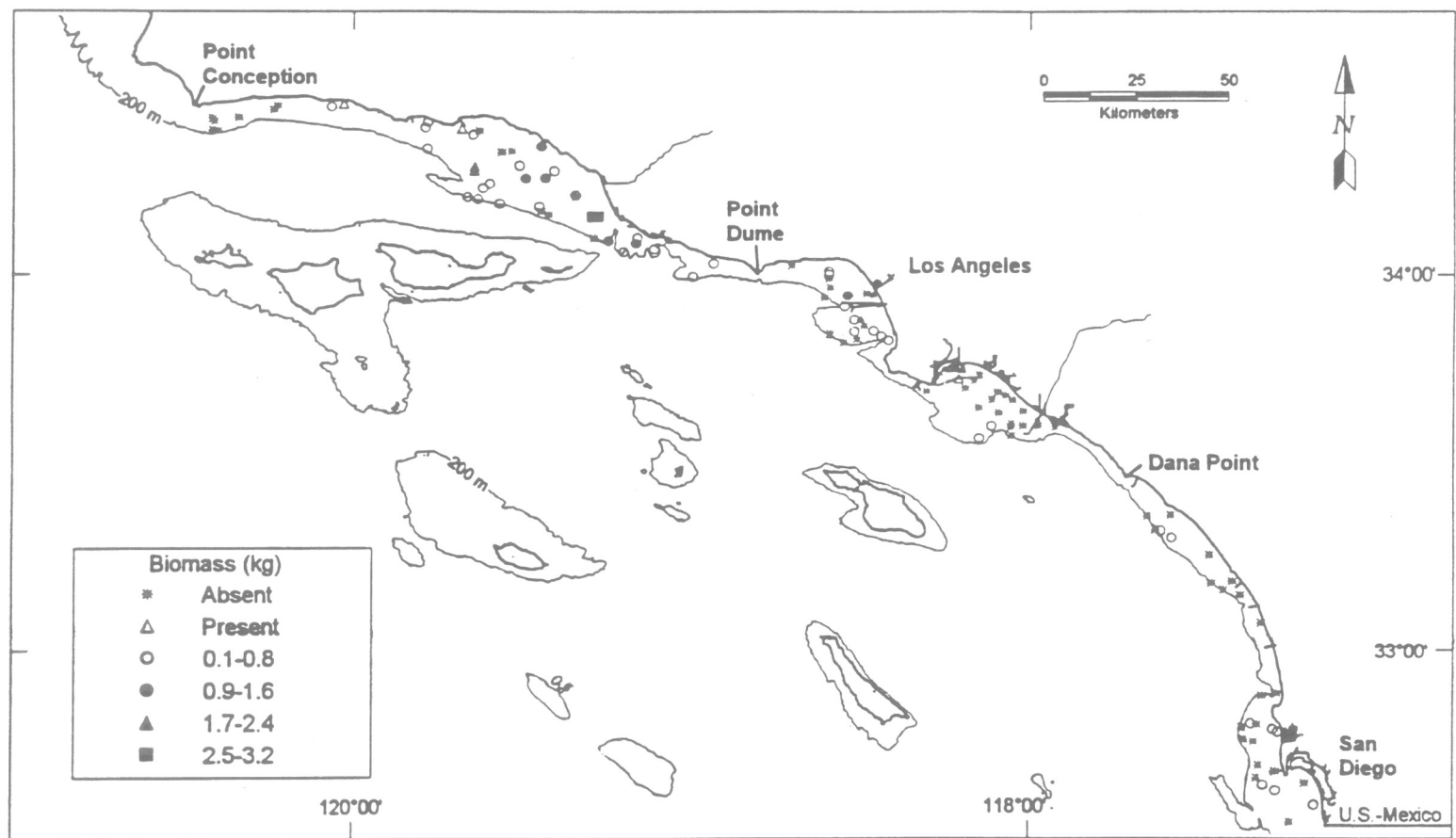


Appendix C23. Distribution of California tonguefish (*Symphurus atricauda*) on the mainland shelf of southern California at depths of 10-200 m, July-August 1994: a) number of individuals per trawl and b) biomass per trawl (kg).

(a)

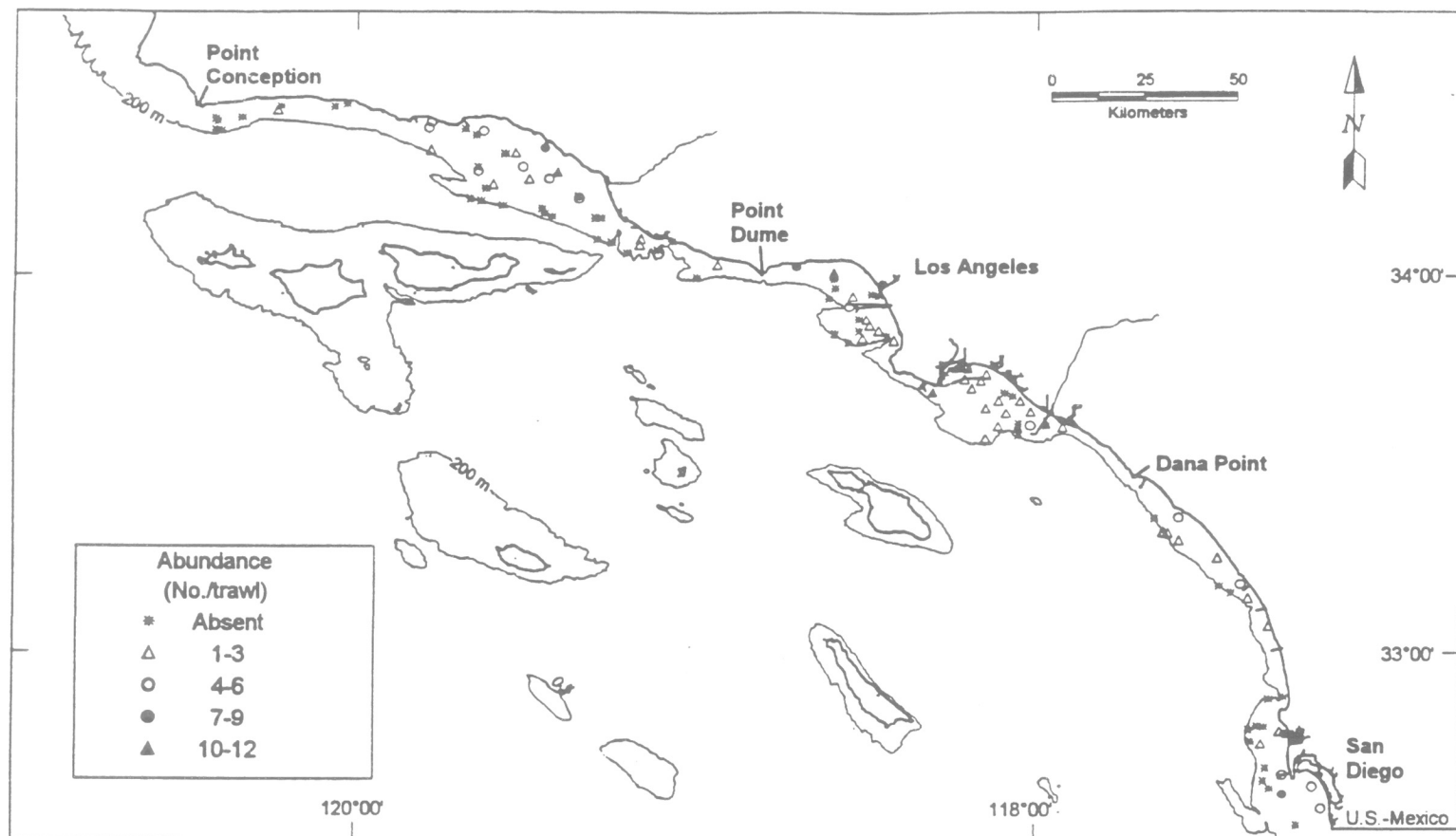


(b)

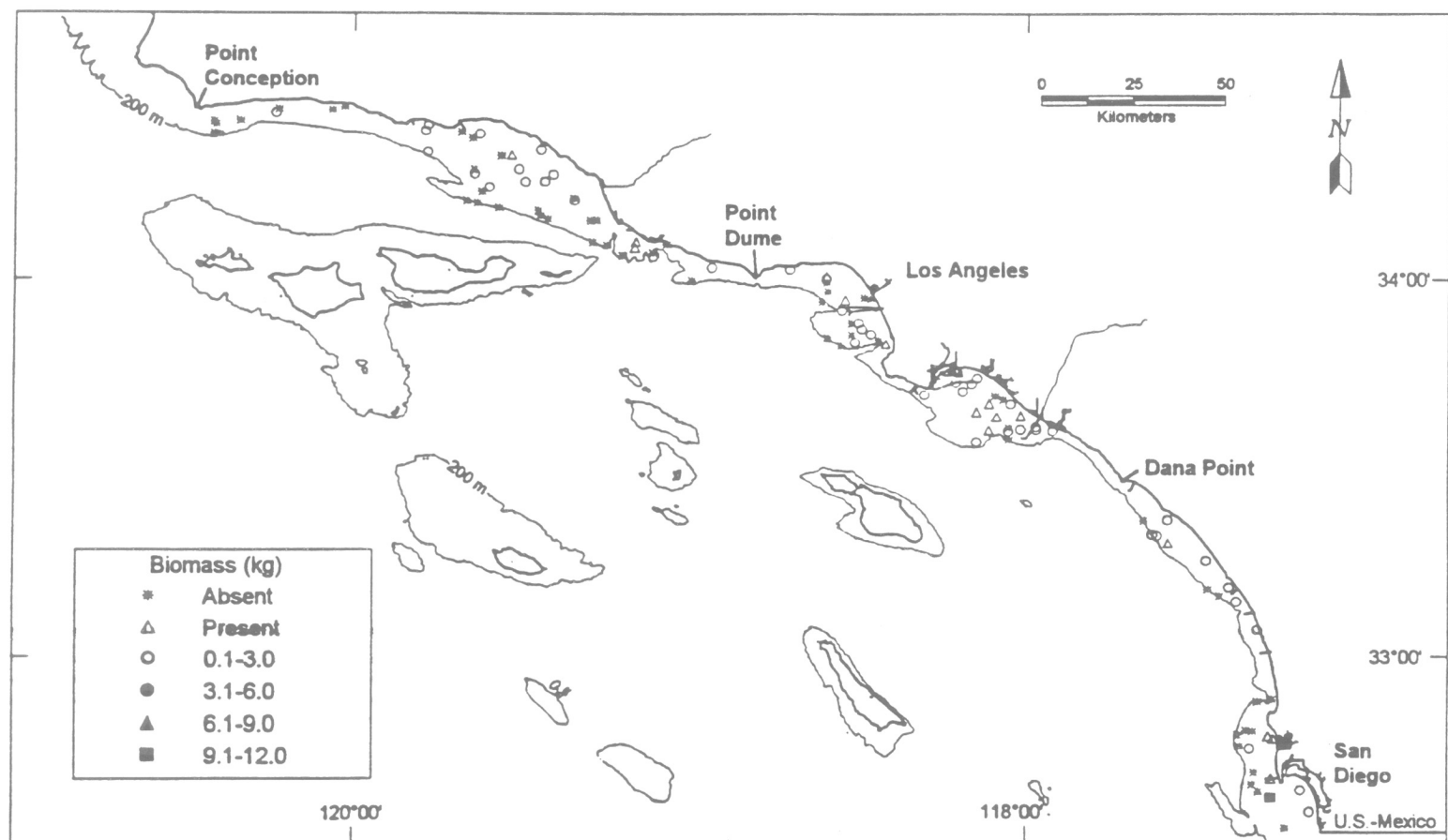


Appendix C22. Distribution of English sole (*Pleuronectes vetulus*) on the mainland shelf of southern California at depths of 10-200 m, July-August 1994: a) number of individuals per trawl and b) biomass per trawl (kg).

(a)

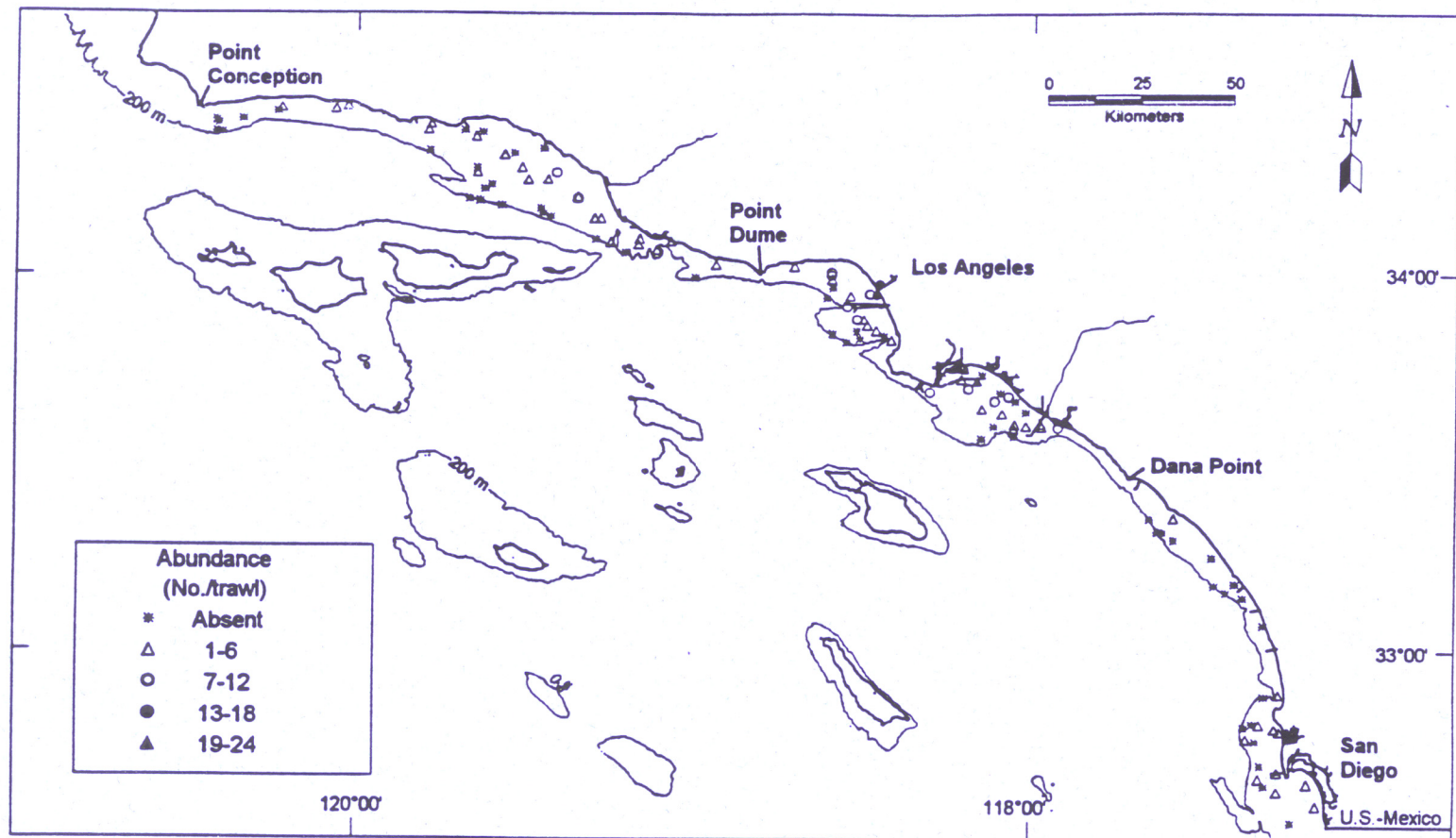


b)

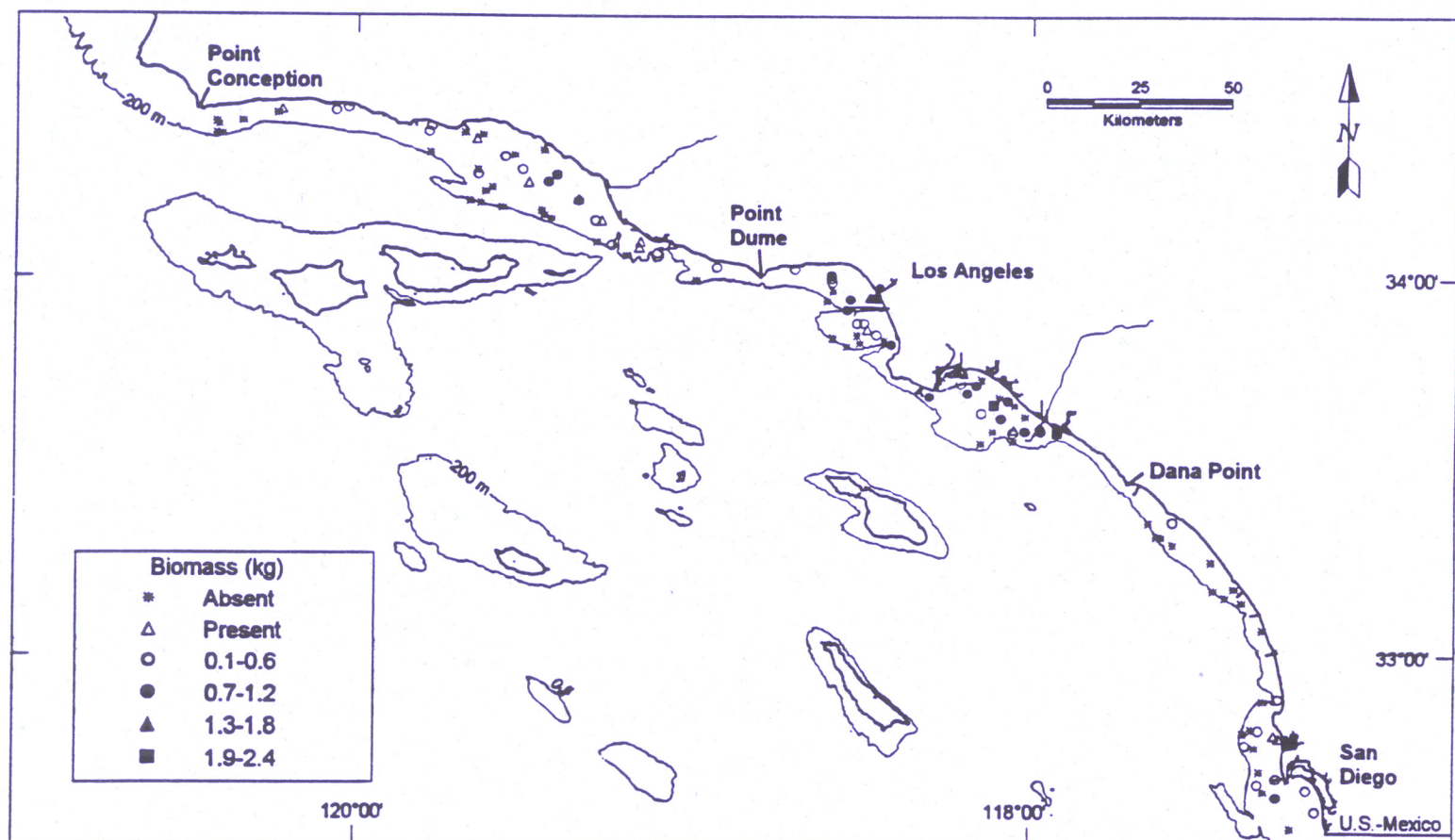


Appendix C21. Distribution of California lizardfish (*Synodus lucioceps*) on the mainland shelf of southern California at depths of 10-200 m, July-August 1994: a) number of individuals per trawl and b) biomass per trawl (kg).

(a)

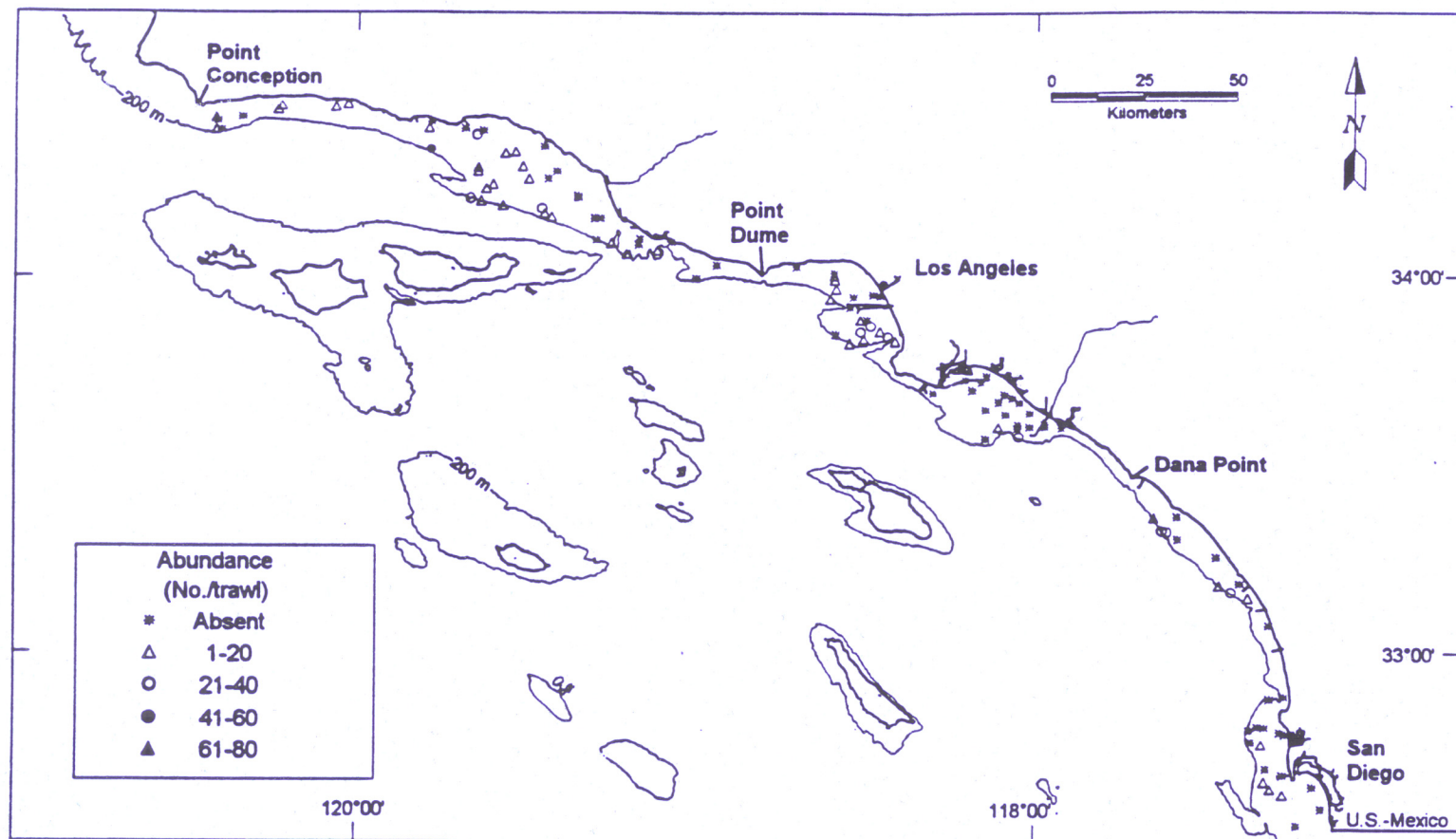


(b)

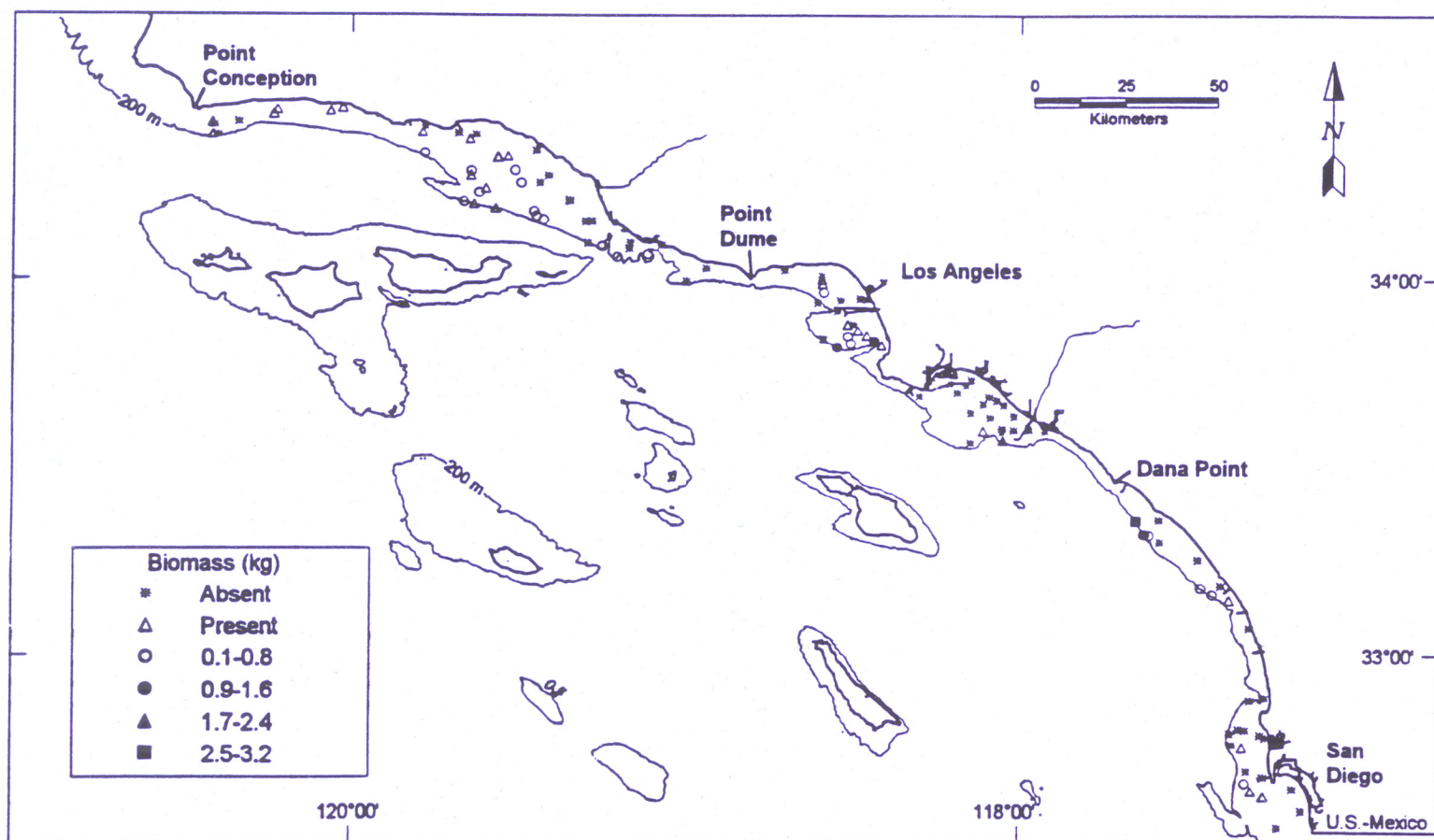


Appendix C20. Distribution of hornyhead turbot (*Pleuronichthys verticalis*) on the mainland shelf of southern California at depths of 10-200 m, July-August 1994: a) number of individuals per trawl and b) biomass per trawl (kg).

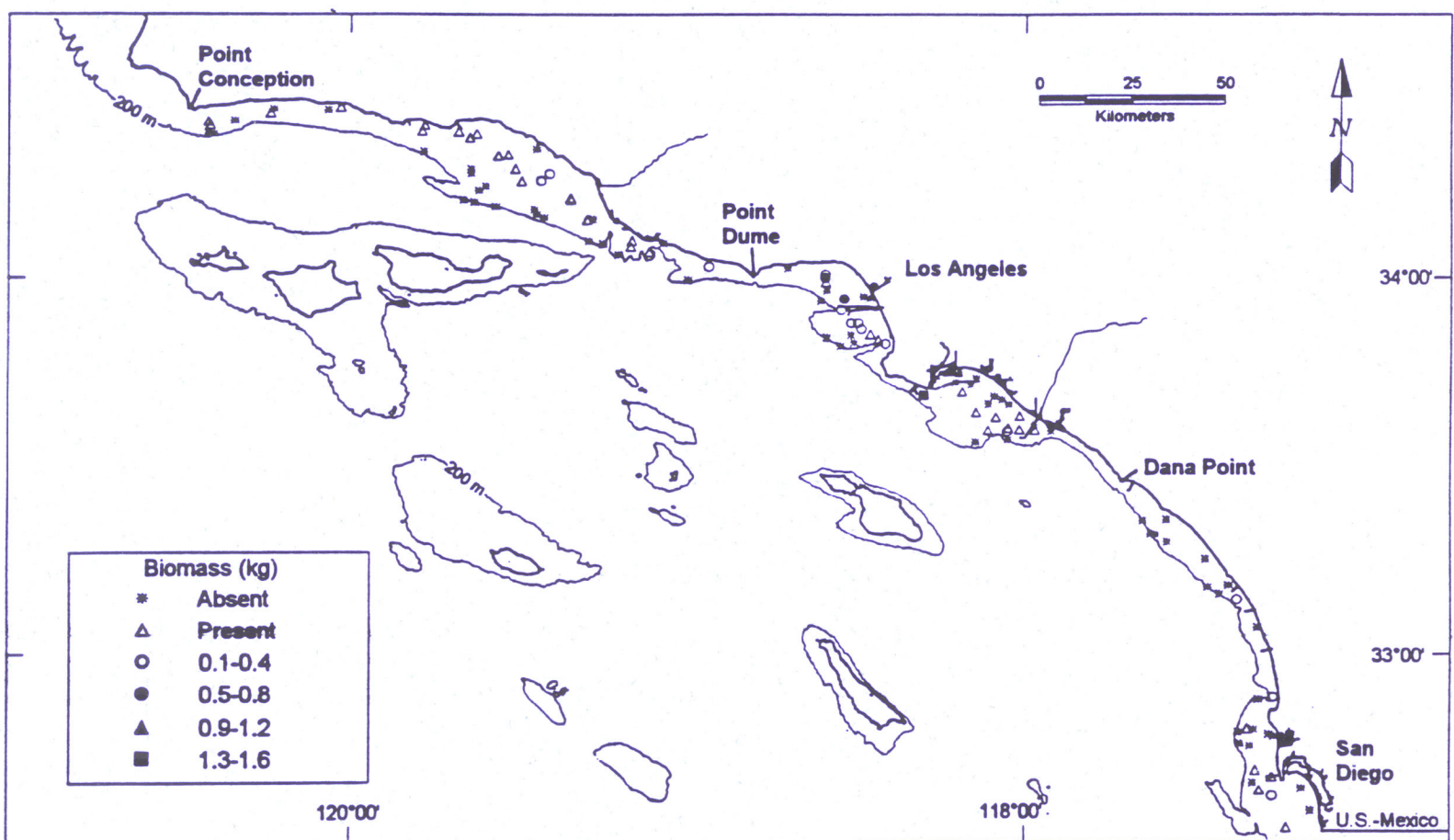
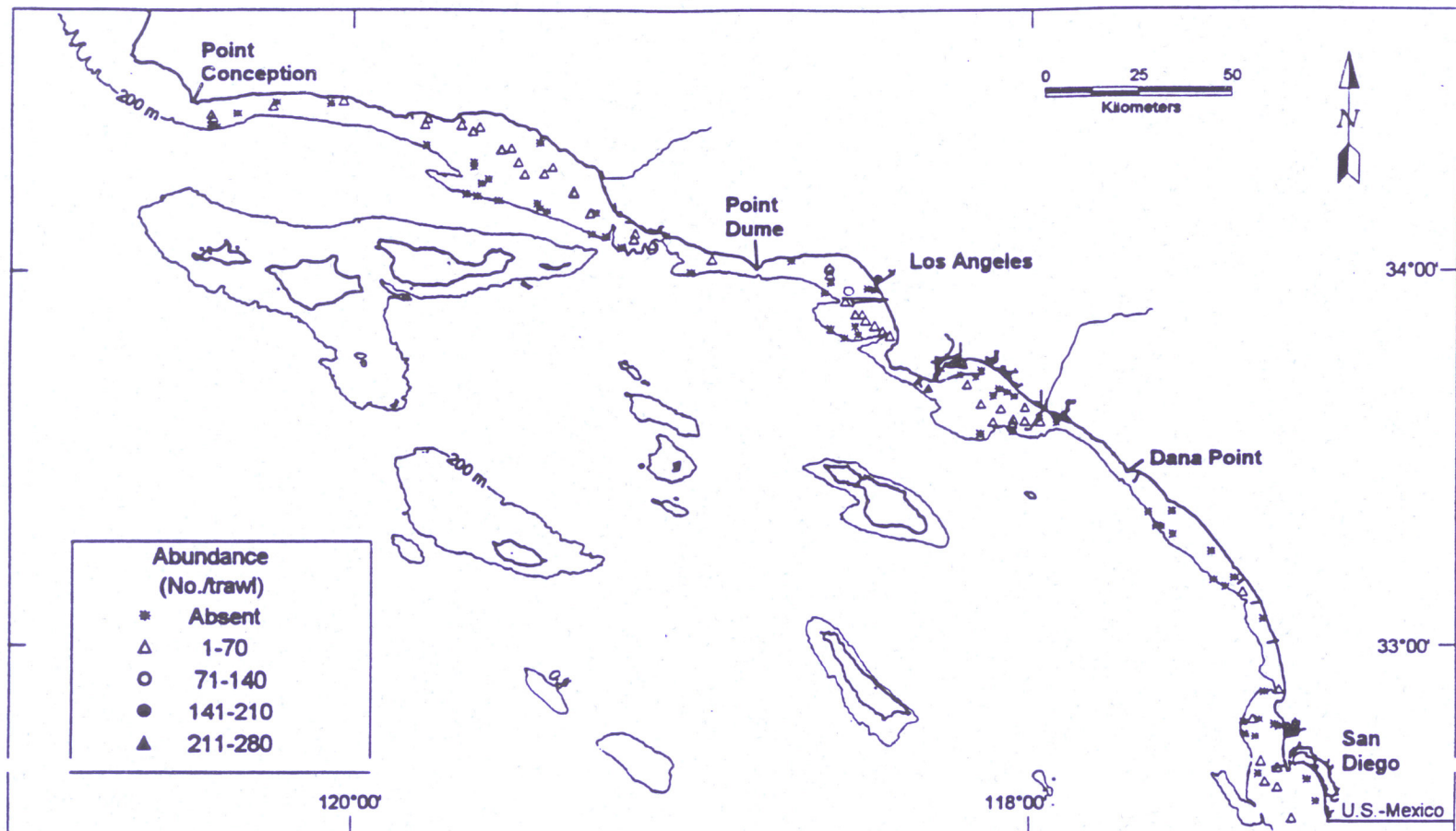
(a)



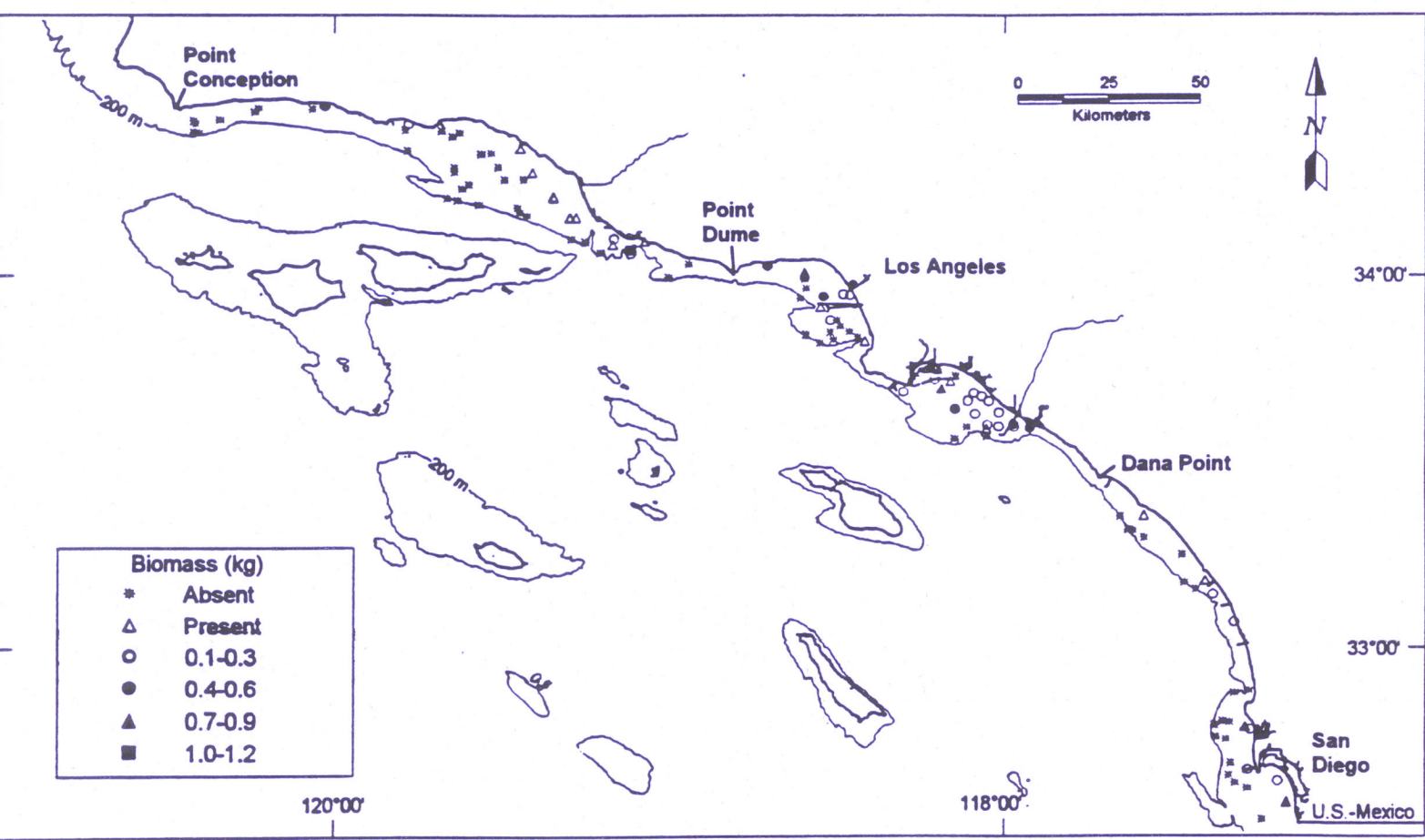
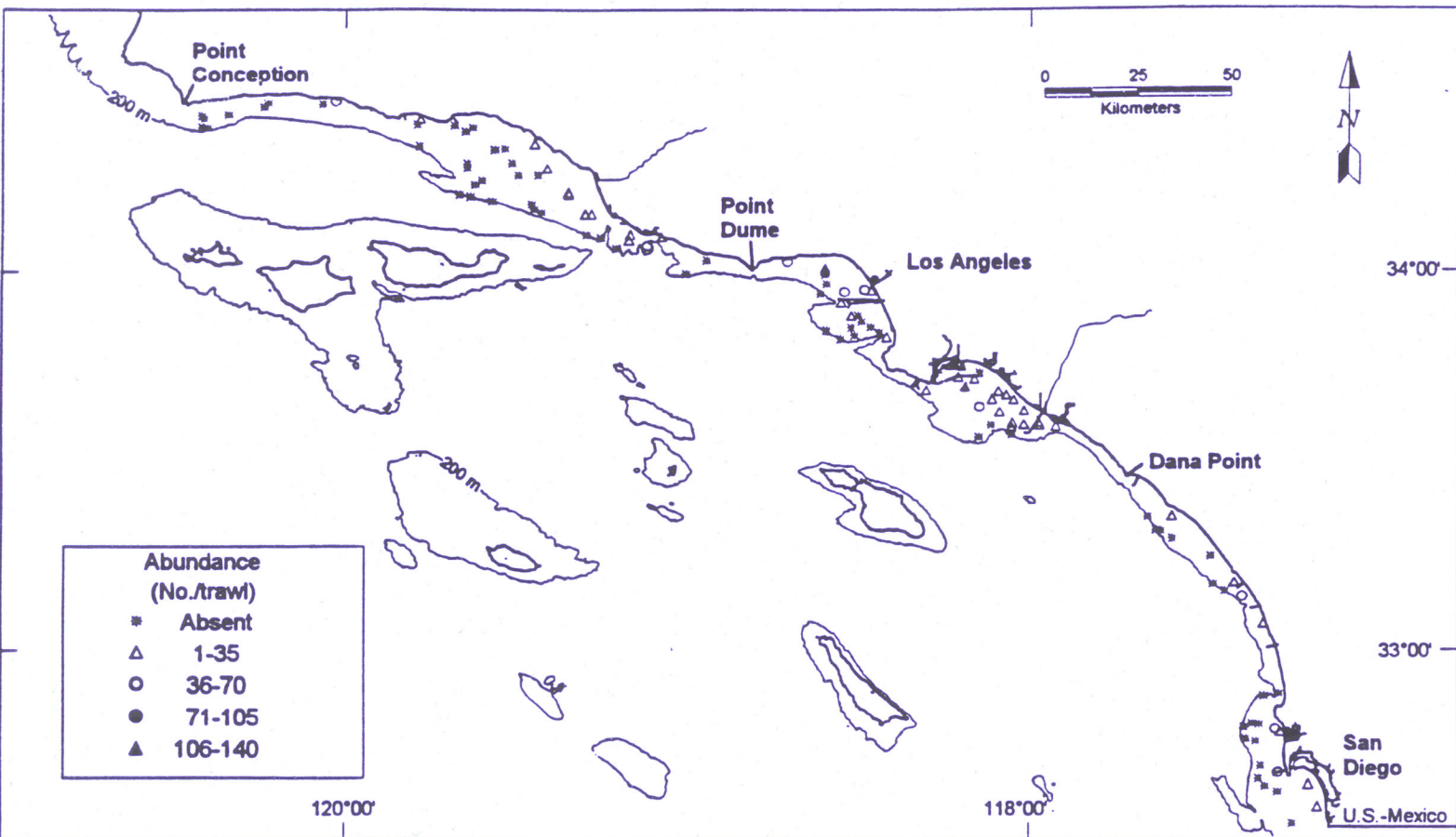
(b)



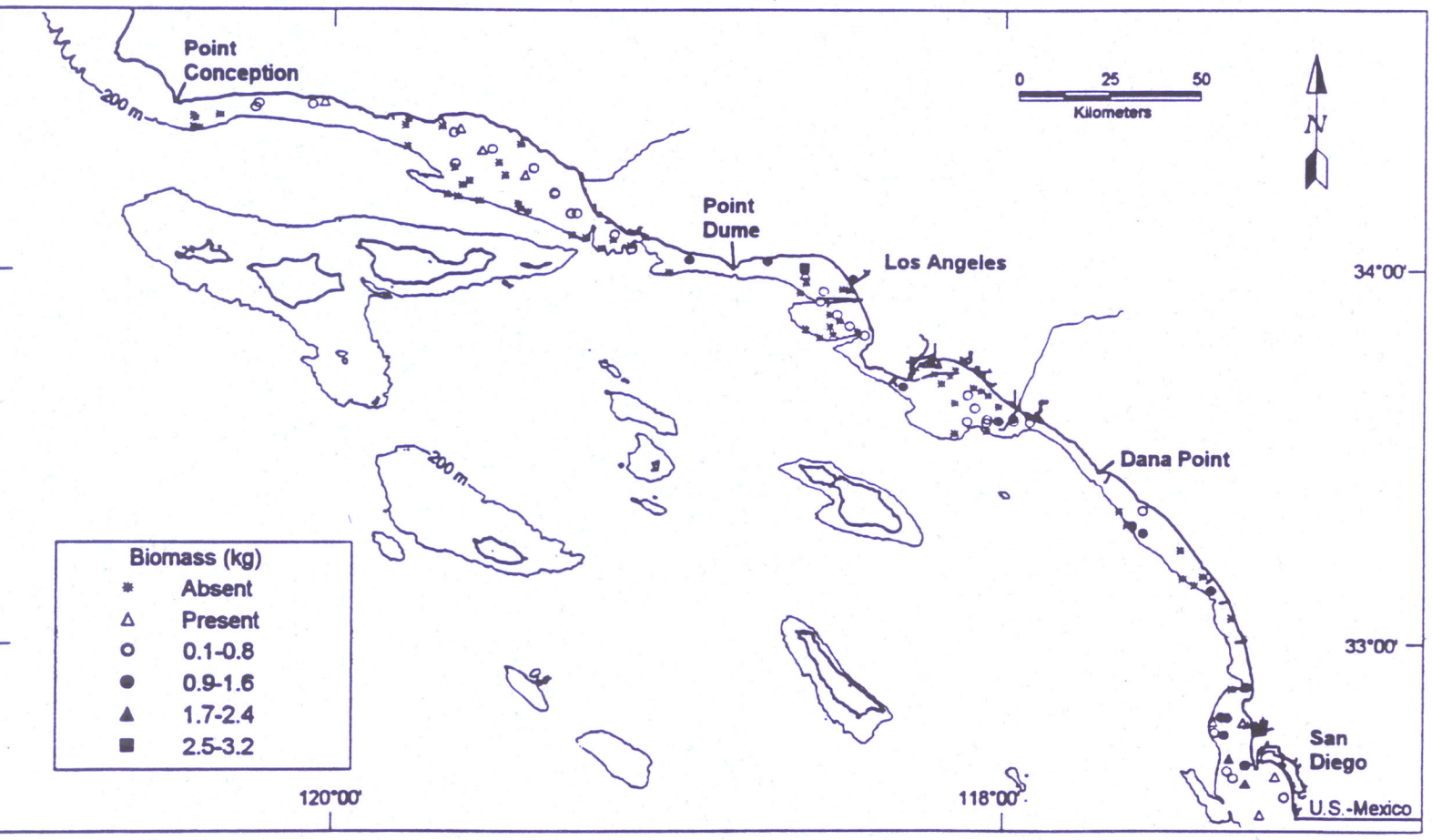
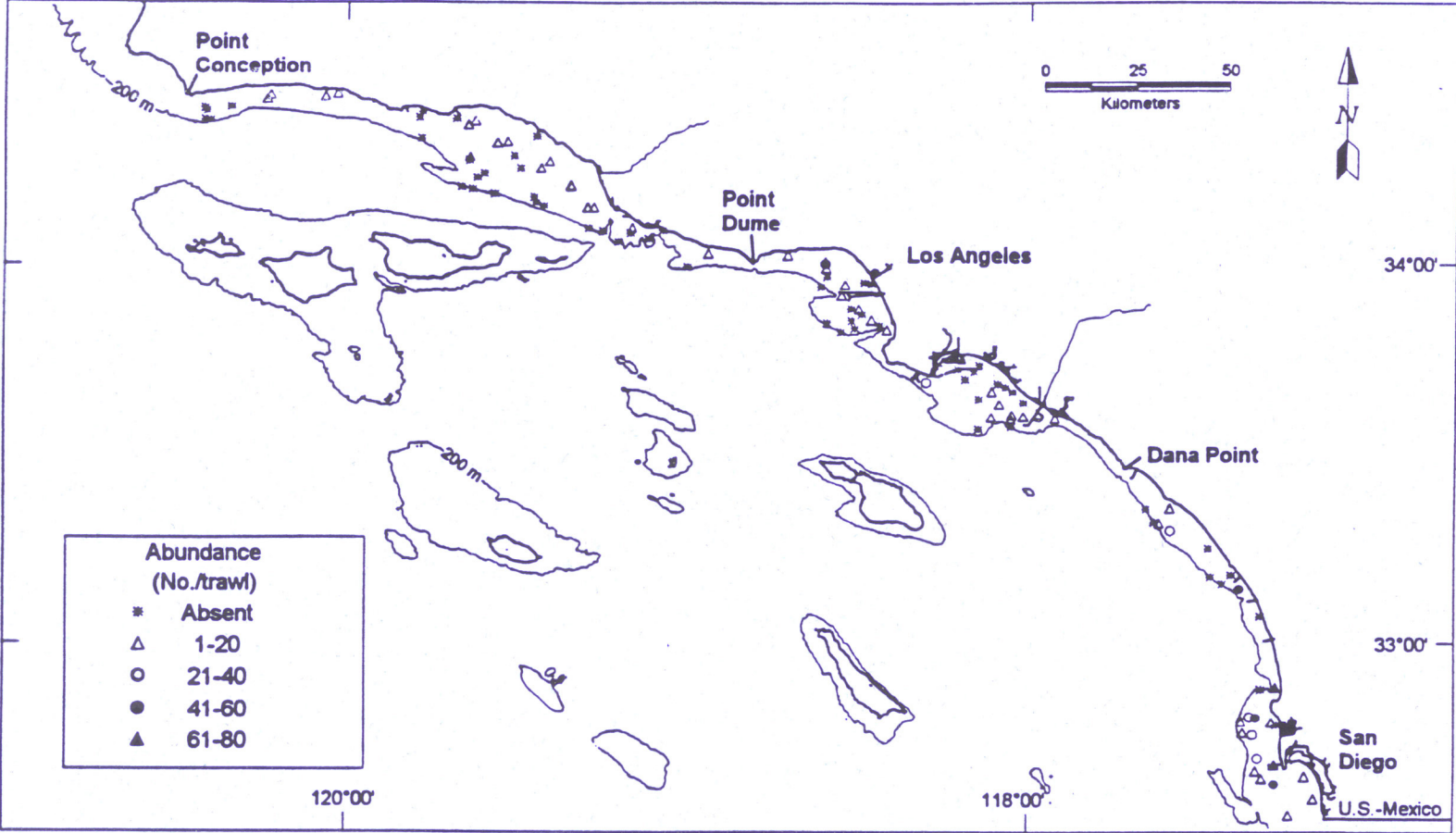
Appendix C19. Distribution of stripetail rockfish (*Sebastes saxicola*) on the mainland shelf of southern California at depths of 10-200 m, July-August 1994: a) number of individuals per trawl and b) biomass per trawl (kg).



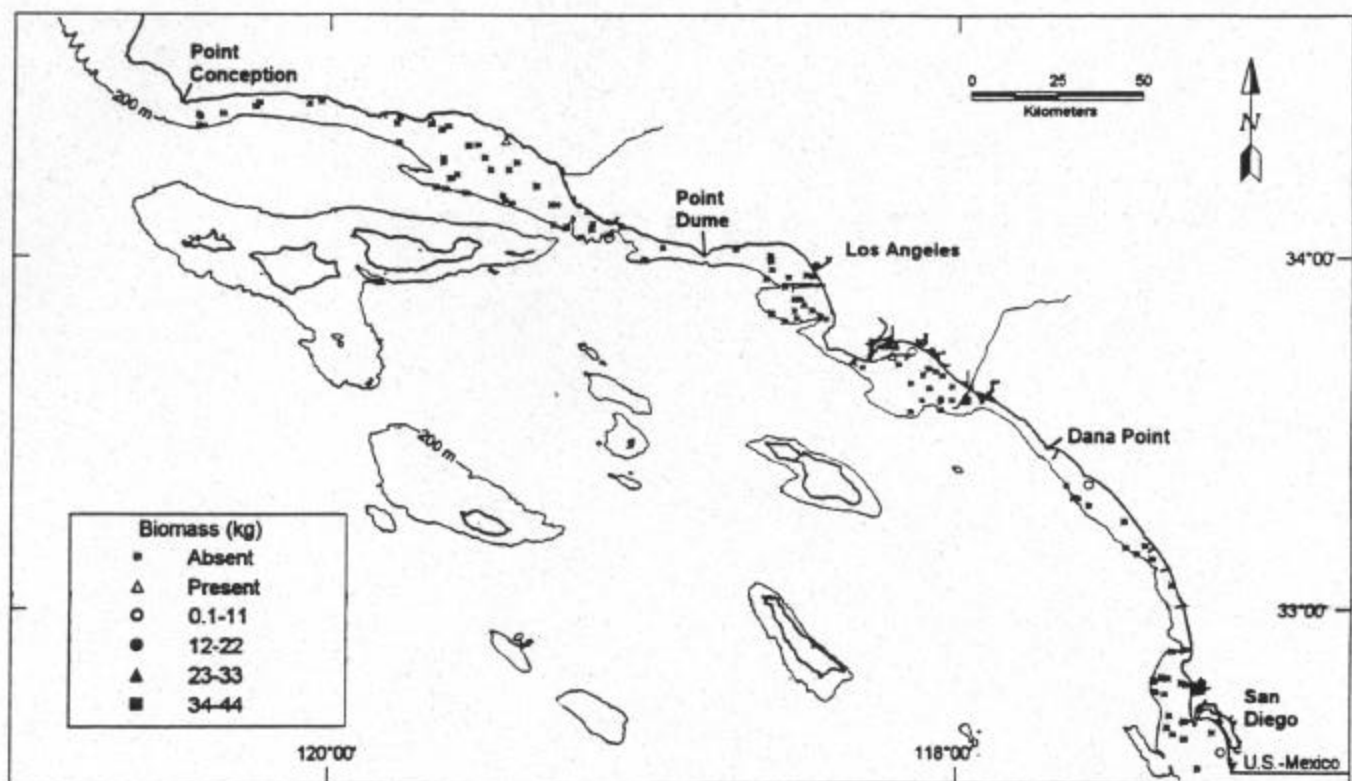
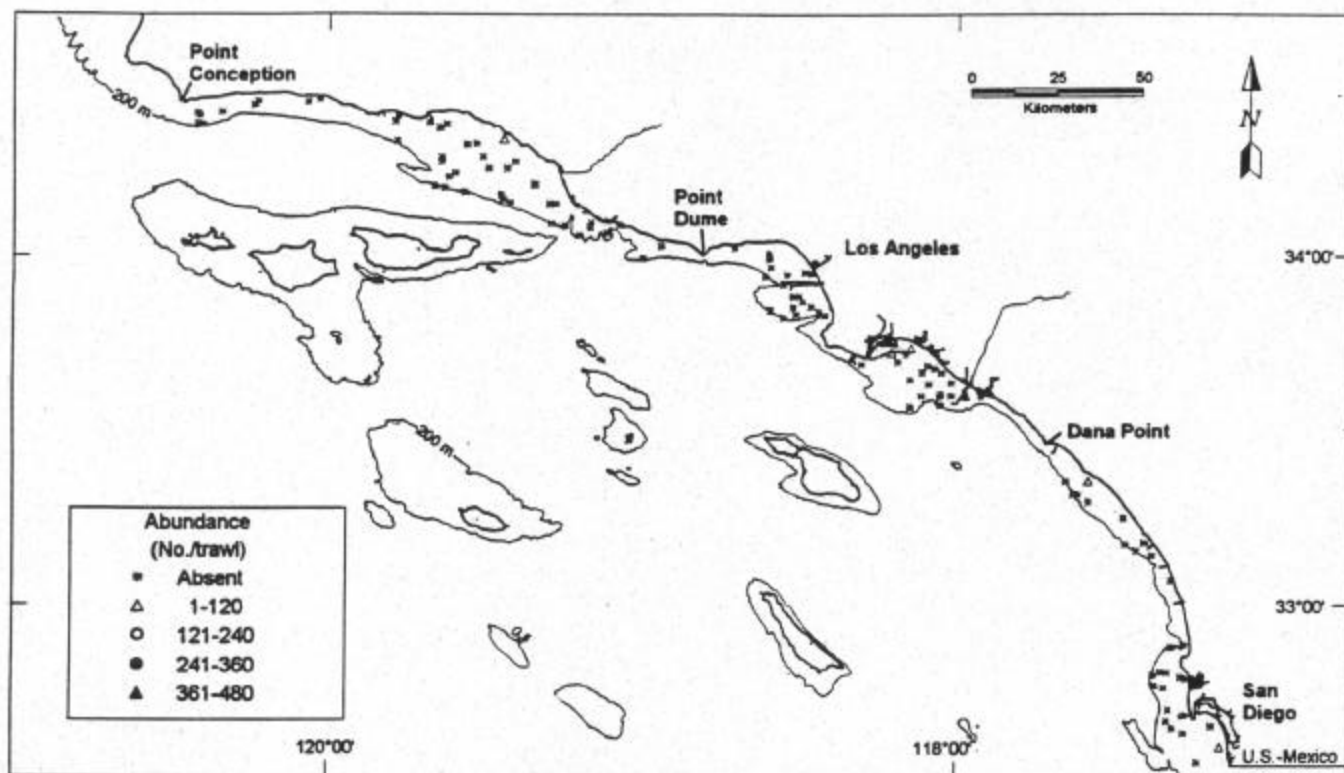
Appendix C18. Distribution of yellowchin sculpin (*Scellnus quadriseriatus*) on the mainland shelf of southern California at depths of 10-200 m, July-August 1994: a) number of individuals per trawl and b) biomass per trawl (kg).



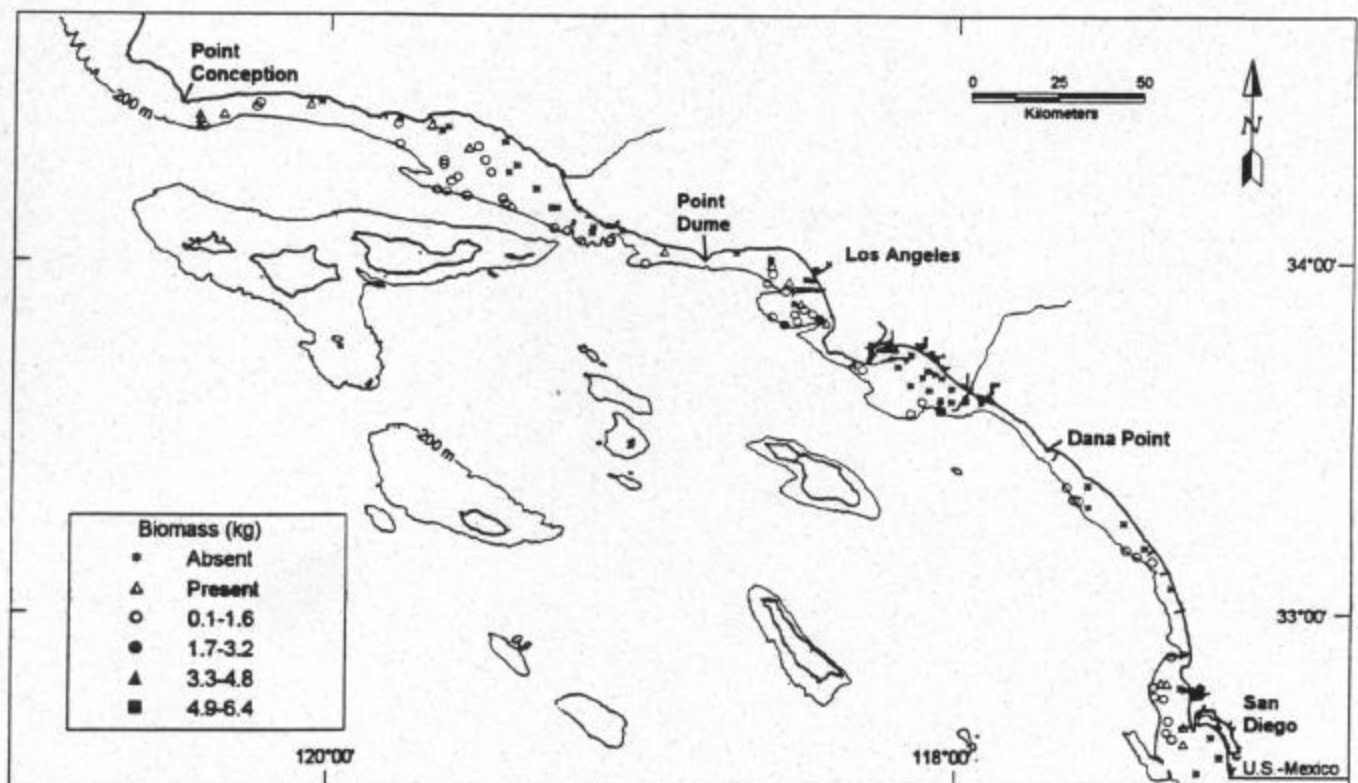
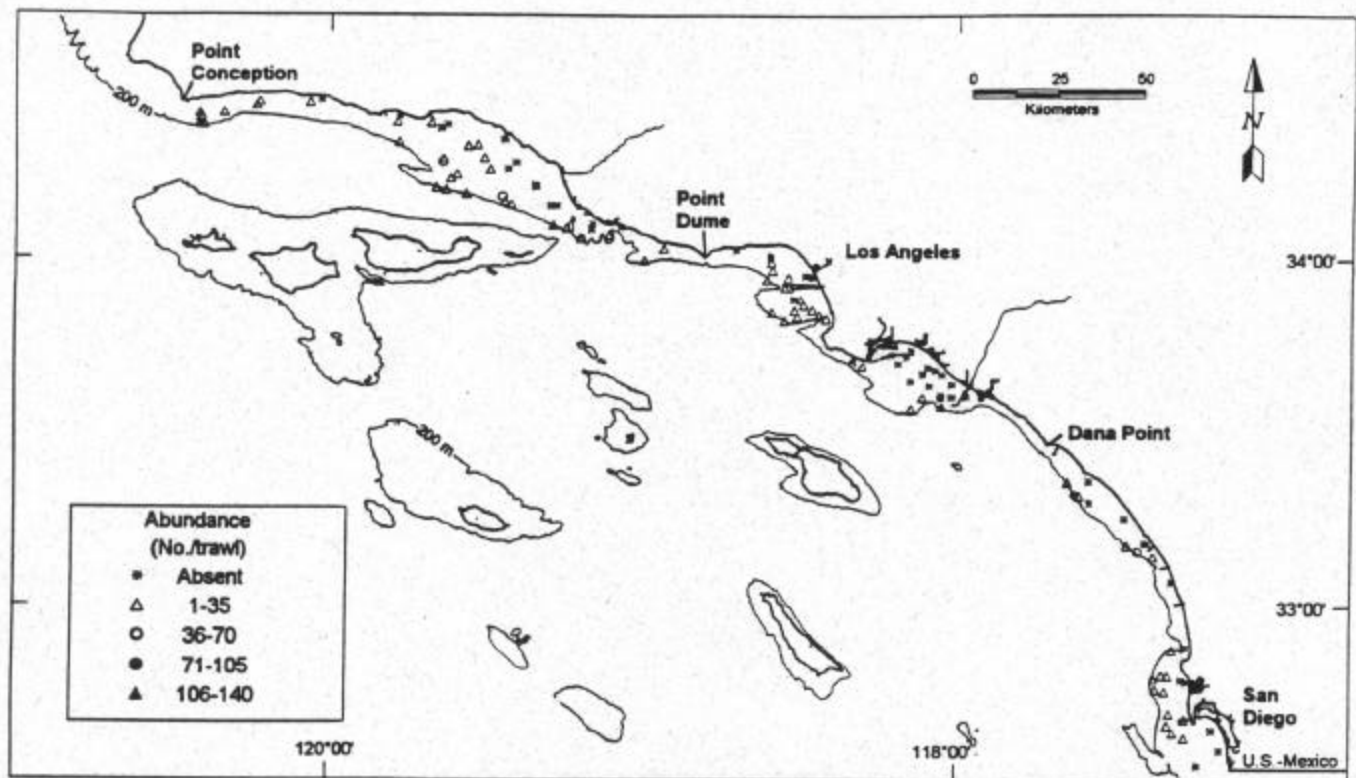
Appendix C17. Distribution of speckled sanddab (*Citharichthys stigmaeus*) on the mainland shelf of southern California at depths of 10-200 m, July-August 1994: a) number of individuals per trawl and b) biomass per trawl (kg).



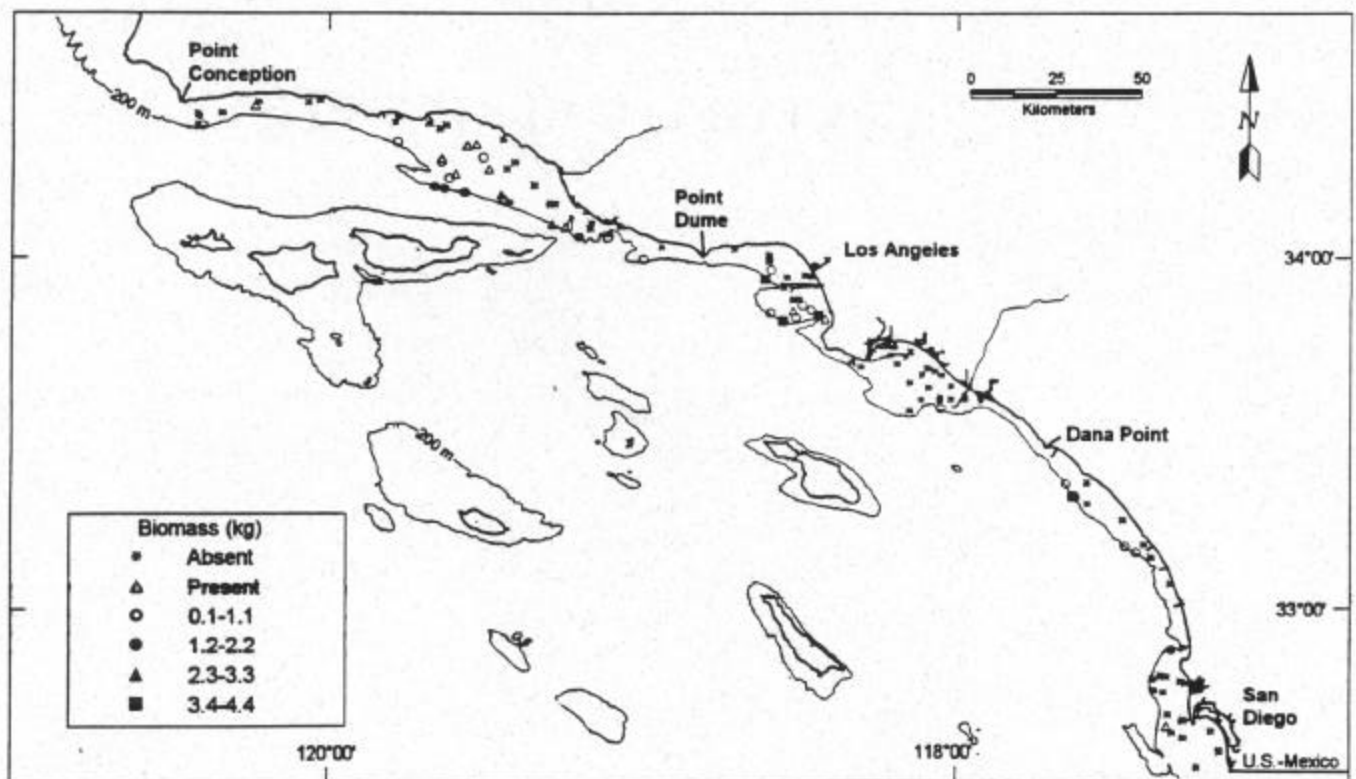
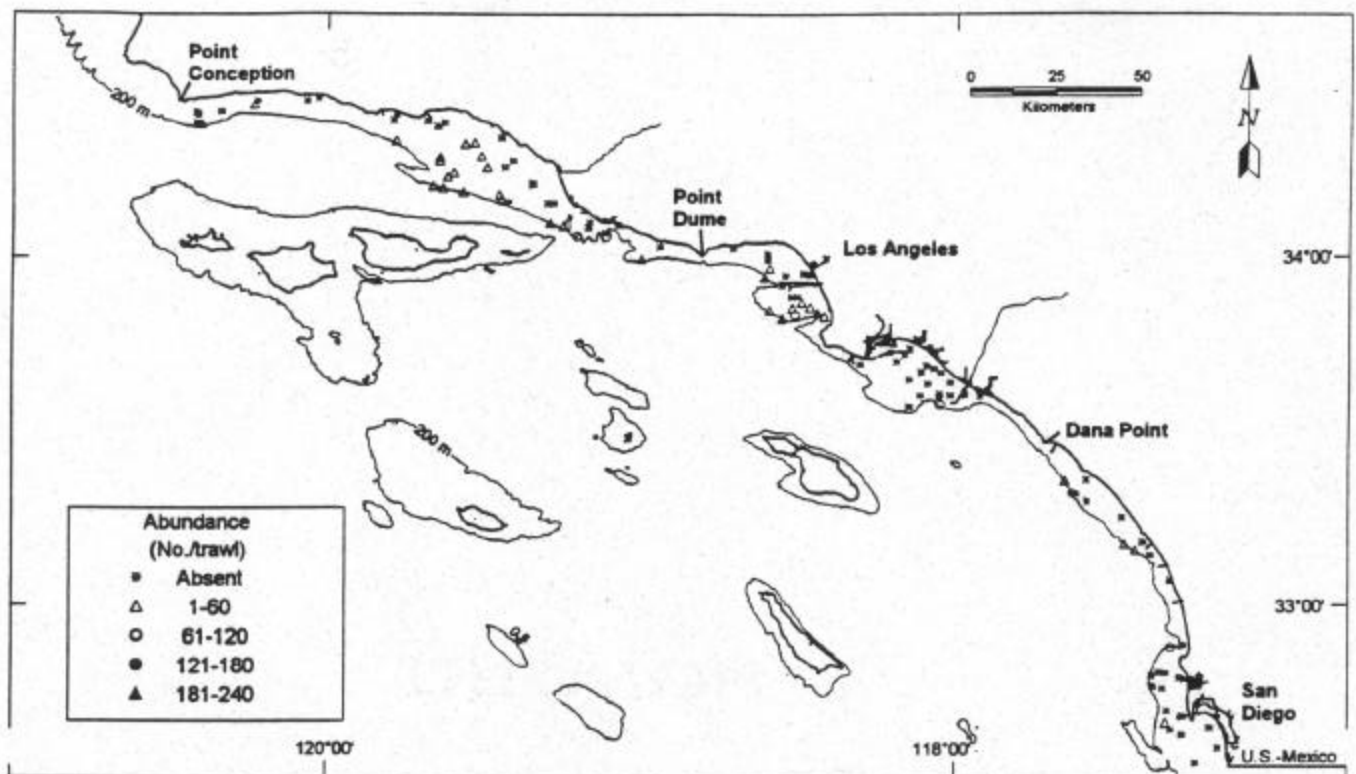
Appendix C16. Distribution of longfin sanddab (*Citharichthys xanhostigma*) on the mainland shelf of southern California at depths of 10-200 m, July-August 1994: a) number of individuals per trawl and b) biomass per trawl (kg).



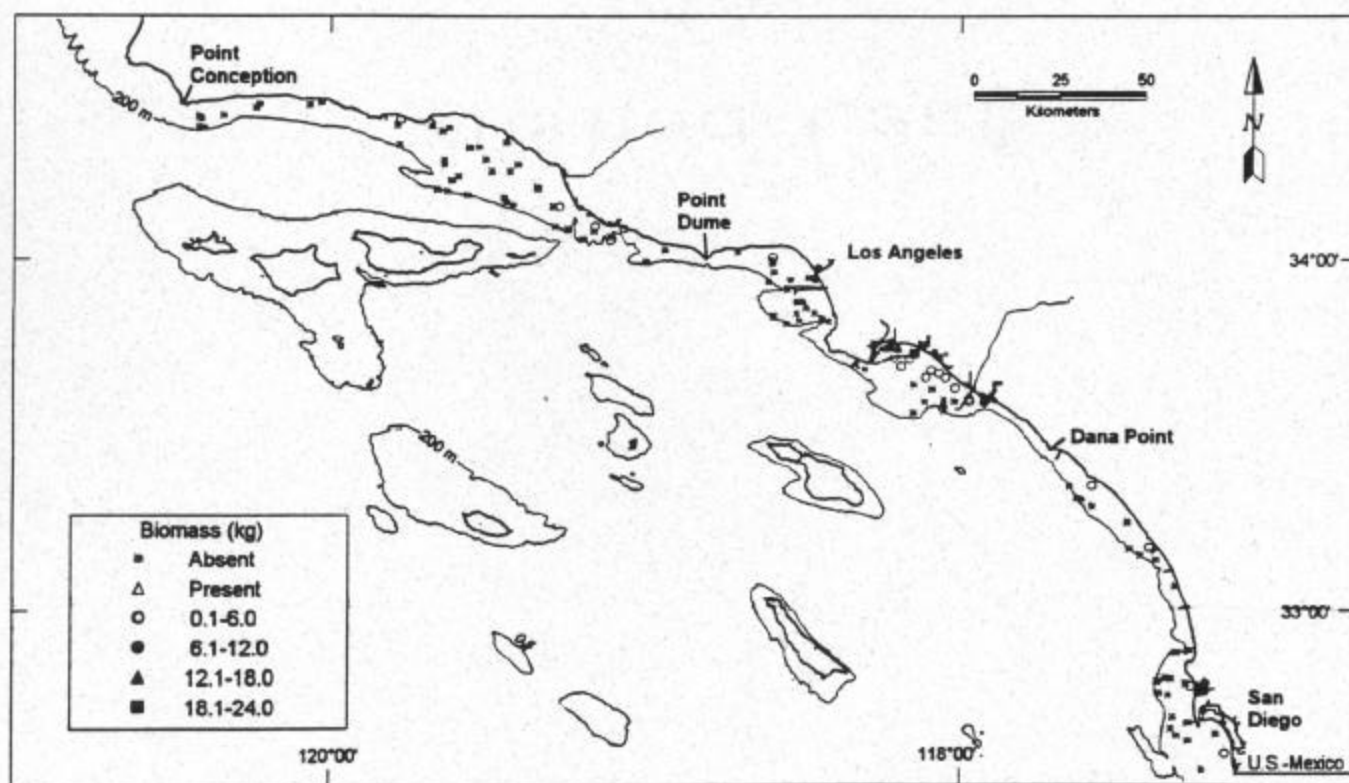
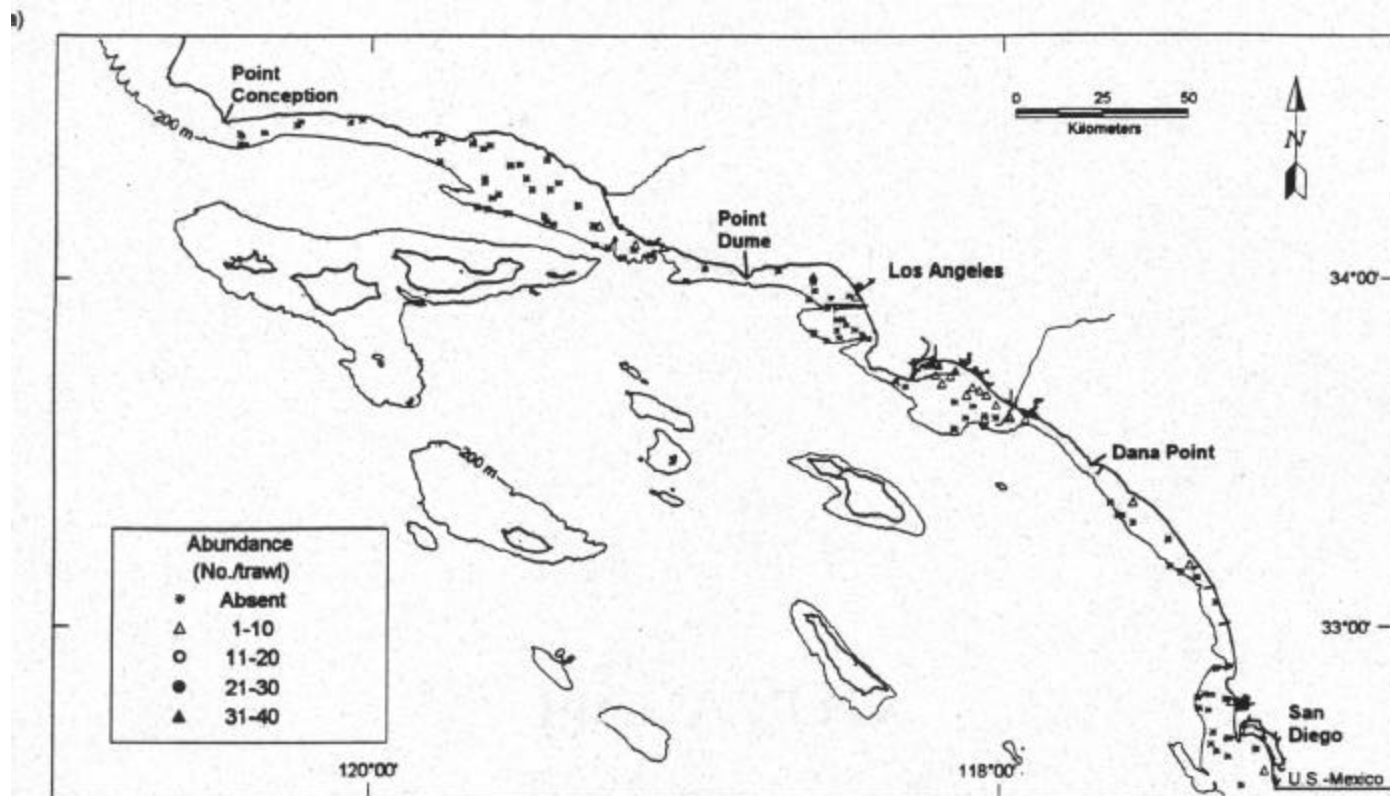
Appendix C15. Distribution of white croaker (*Genyonemus lineatus*) on the mainland shelf of southern California at depths of 10-200 m, July-August 1994: a) number of individuals per trawl and b) biomass per trawl (kg).



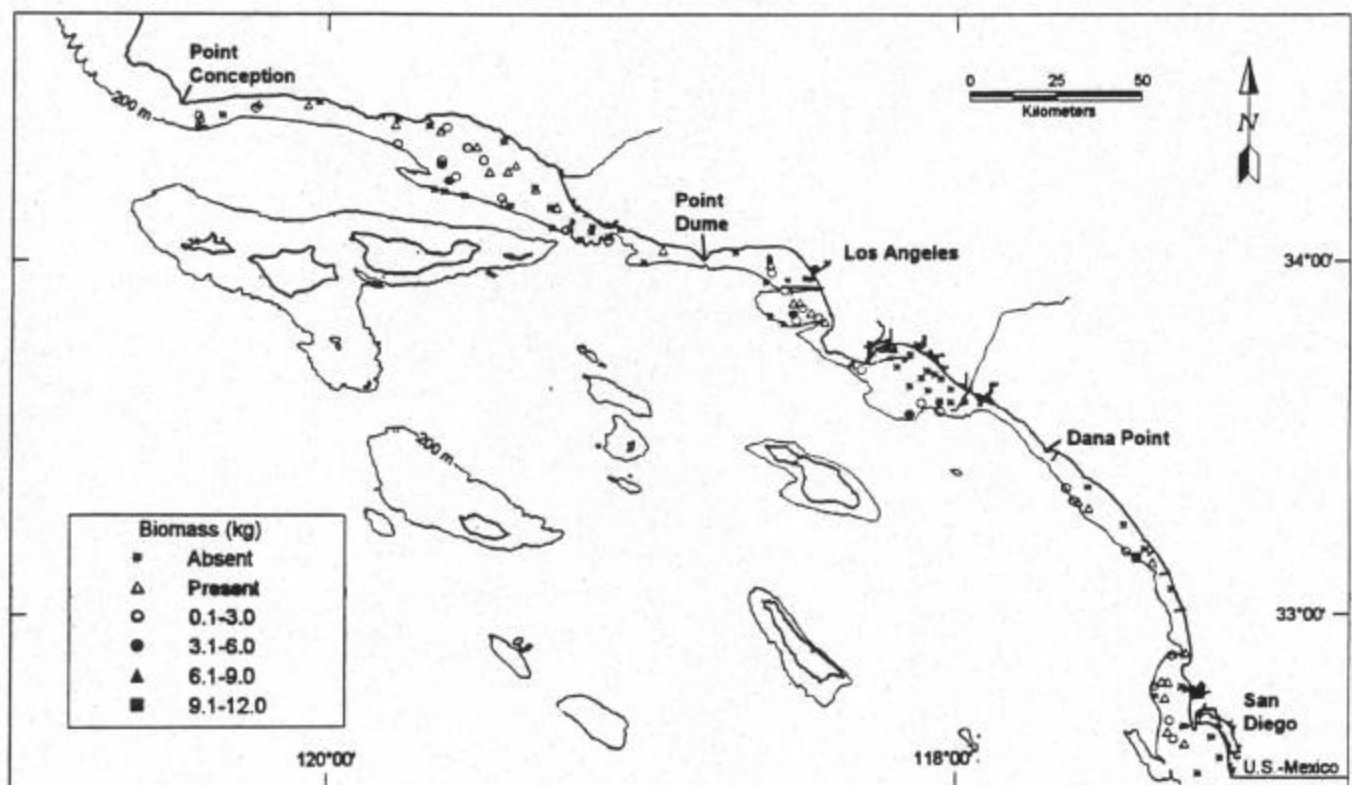
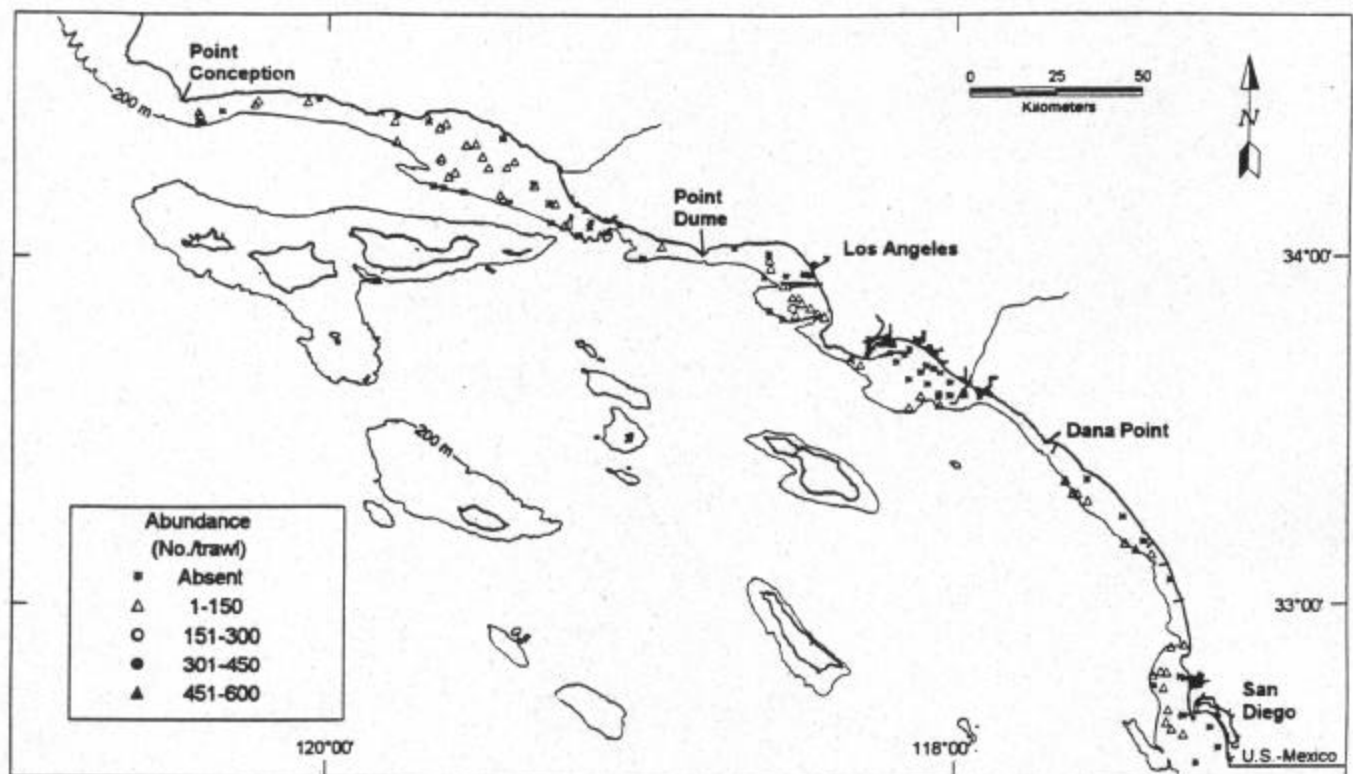
Appendix C14. Distribution of Dover sole (*Microstomus pacificus*) on the mainland shelf of southern California at depths of 10-200 m, July-August 1994: a) number of individuals per trawl and b) biomass per trawl (kg).



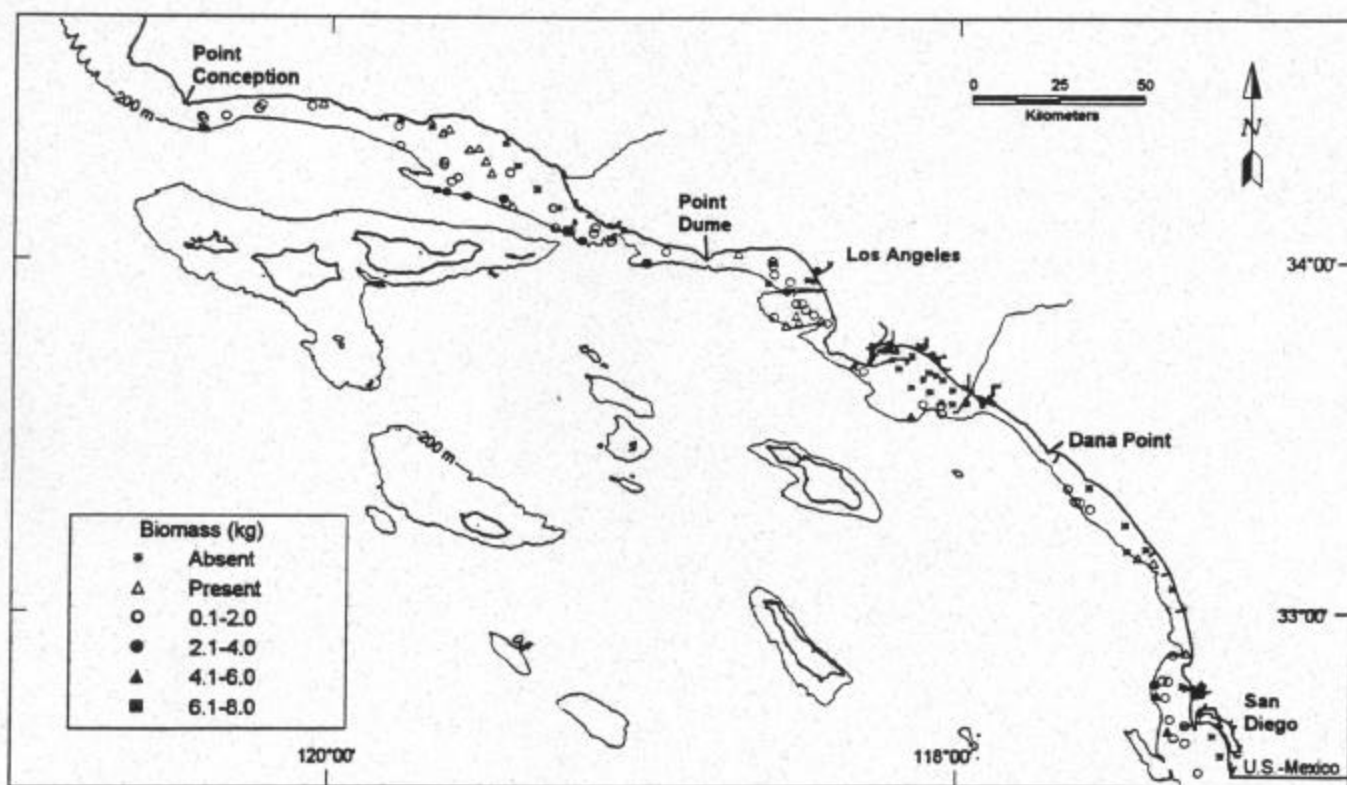
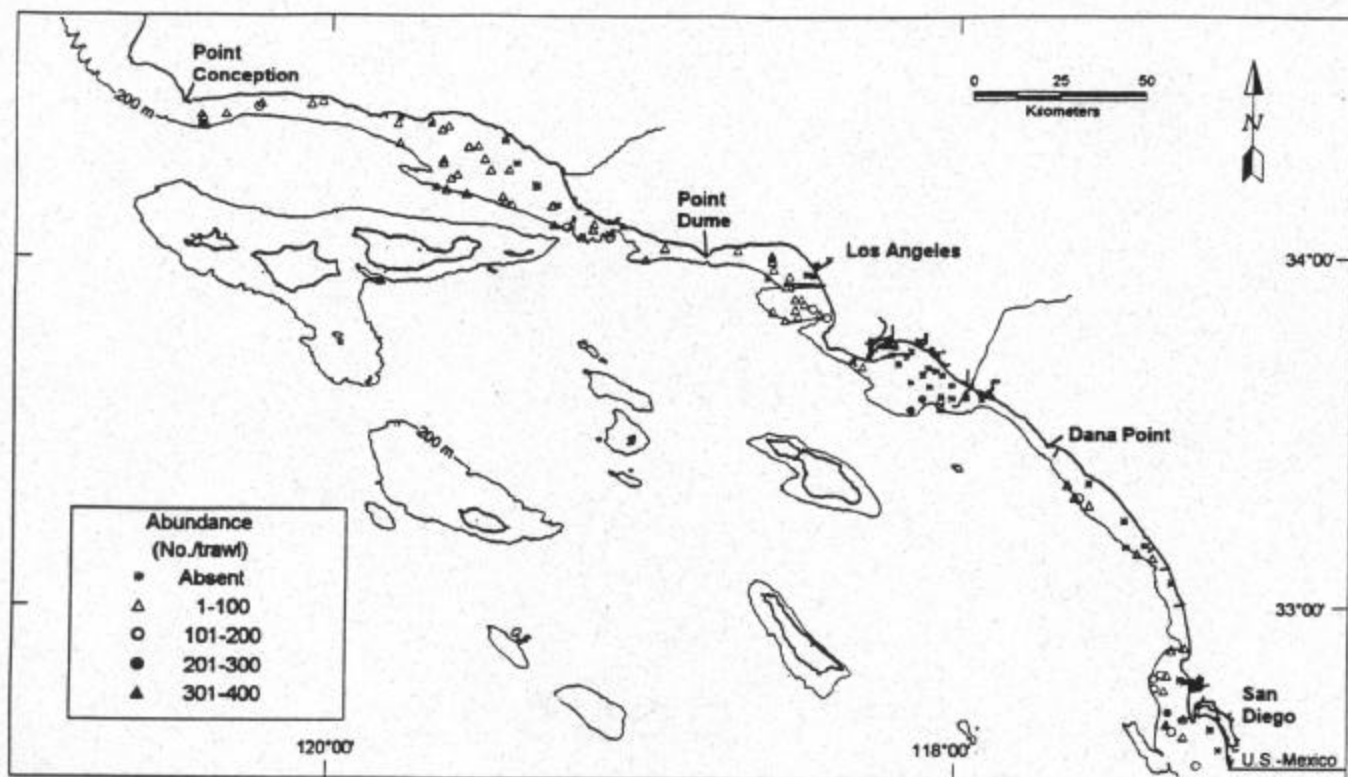
Appendix C13. Distribution of slender sole (*Eopsetta exilis*) on the mainland shelf of southern California at depths of 10-200 m, July-August 1994: a) number of individuals per trawl and b) biomass per trawl (kg).



Appendix C12. Distribution of California halibut (*Paralichthys californicus*) on the mainland shelf of southern California at depths of 10-200 m, July-August 1994: a) number of individuals per trawl and b) biomass per trawl (kg).



Appendix C11. Distribution of plainfin midshipman (*Porichthys notatus*) on the mainland shelf of southern California at depths of 10-200 m, July-August 1994: a) number of individuals per trawl and b) biomass per trawl (kg).



Appendix C10. Distribution of Pacific sanddab (*Citharichthys sordidus*) on the mainland shelf of southern California at depths of 10-200 m, July-August 1994: a) number of individuals per trawl and b) biomass per trawl (kg).

Appendix C9. Biomass (kg) by subpopulation for demersal fish species in the regional survey of the mainland shelf of southern California, July-August 1994.

Scientific Name	Common Name	Region			Depth Zone			Middle Shelf POTW Status		Total
		N	C	S	IS	MS	OS	P	NP	
<i>Paralichthys californicus</i>	California halibut	7.2	69.1	5.3	61.8	19.8	-	19.8	-	81.6
<i>Citharichthys sordidus</i>	Pacific sanddab	35.0	17.3	23.8	1.1	32.0	43.0	18.7	13.3	76.1
<i>Genyonemus lineatus</i>	white croaker	-	45.4	1.1	3.0	43.5	-	43.5	-	46.5
<i>Porichthys notatus</i>	plainfin midshipman	15.0	12.8	15.0	-	11.6	31.2	8.1	3.5	42.8
<i>Microstomus pacificus</i>	Dover sole	10.0	13.7	8.2	-	8.1	23.8	3.2	4.9	31.9
<i>Eopsetta exilis</i>	slender sole	8.2	14.8	6.6	-	0.6	29.0	0.5	0.1	29.6
<i>Citharichthys xanthostigma</i>	longfin sanddab	4.2	11.5	13.8	5.1	24.1	0.3	15.2	8.9	29.5
<i>Synodus lucioceps</i>	California lizardfish	5.1	8.2	13.8	5.5	18.3	3.3	4.5	13.8	27.1
<i>Pleuronichthys verticalis</i>	hornyhead turbot	3.9	19.6	2.8	13.1	12.7	0.5	7.8	4.9	26.3
<i>Pleuronectes vetulus</i>	English sole	18.3	5.1	2.2	8.1	10.7	6.8	4.7	6.0	25.6
<i>Scorpaena guttata</i>	California scorpionfish	0.6	6.8	11.9	4.8	14.3	0.2	4.9	9.4	19.3
<i>Sebastes saxicola</i>	stripetail rockfish	4.3	5.4	6.3	-	2.3	13.7	0.7	1.6	16.0
<i>Hippoglossina stomata</i>	bigmouth sole	2.2	8.5	4.4	1.9	10.6	2.6	6.5	4.1	15.1
<i>Raja inornata</i>	California skate	1.3	6.4	4.0	4.2	7.0	0.5	3.4	3.6	11.7
<i>Zaniolepis latipinnis</i>	longspine combfish	8.5	2.2	0.5	0.9	9.4	0.9	2.2	7.2	11.2
<i>Xystreurus liolepis</i>	fantail sole	2.4	6.7	1.7	7.1	3.7	-	2.1	1.6	10.8
<i>Sebastes rosenblatti</i>	greenblotched rockfish	0.1	5.8	3.4	-	0.7	8.6	-	0.7	9.3
<i>Symphurus atricauda</i>	California tonguefish	0.3	8.5	0.4	1.2	7.8	0.2	7.1	0.7	9.2
<i>Zaniolepis frenata</i>	shortspine combfish	4.5	1.7	2.3	-	0.2	8.3	0.2	-	8.5
<i>Citharichthys stigmaeus</i>	speckled sanddab	1.9	4.4	2.1	4.7	3.7	-	1.3	2.4	8.4
<i>Squatina californica</i>	Pacific angel shark	5.8	-	-	-	5.8	-	-	5.8	5.8
<i>Zalembius rosaceus</i>	pink seaperch	4.9	-	0.7	1.0	4.3	0.3	0.3	4.0	5.6
<i>Errex zachirus</i>	rex sole	0.3	3.4	1.7	-	0.1	5.3	-	0.1	5.4
<i>Pleuronichthys ritteri</i>	spotted turbot	-	4.1	0.8	4.5	0.4	-	-	0.4	4.9
<i>Sebastes semicinctus</i>	halfbanded rockfish	2.1	1.5	1.0	-	1.6	3.0	-	1.6	4.6
<i>Icelinus quadriseriatus</i>	yellowchin sculpin	0.5	2.9	0.5	-	3.9	-	2.9	1.0	3.9
<i>Eopsetta jordani</i>	petrale sole	1.4	2.2	-	-	-	3.6	-	-	3.6
<i>Sebastes diploproa</i>	splitnose rockfish	0.1	0.8	2.7	-	-	3.6	-	-	3.6
<i>Lycodopsis pacifica</i>	blackbelly eelpout	0.2	1.6	1.3	-	-	3.1	-	-	3.1
<i>Myliobatis californica</i>	bat ray	3.0	-	-	-	3.0	-	-	3.0	3.0
<i>Merluccius productus</i>	Pacific hake	2.2	0.3	0.3	-	-	2.8	-	-	2.8
<i>Porichthys myriaster</i>	specklefin midshipman	2.0	0.5	-	0.8	1.7	-	0.3	1.4	2.5
<i>Platyrrhinoidis triseriata</i>	thornback	-	1.3	1.0	2.3	-	-	-	-	2.3
<i>Paralabrax nebulifer</i>	barred sand bass	-	-	2.0	2.0	-	-	-	-	2.0
<i>Sebastolobus alascanus</i>	shortspine thornyhead	-	0.6	0.9	-	-	1.5	-	-	1.5
<i>Sebastes elongatus</i>	greenstriped rockfish	0.7	-	0.7	-	-	1.4	-	-	1.4
<i>Xeneretmus latifrons</i>	blacktip poacher	1.0	0.2	0.1	-	-	1.3	-	-	1.3
<i>Sebastes dallii</i>	calico rockfish	-	0.9	0.1	-	1.0	-	1.0	-	1.0
<i>Sebastes miniatus</i>	vermillion rockfish	1.0	-	-	-	1.0	-	-	1.0	1.0
<i>Kathetostoma averruncus</i>	smooth stargazer	0.6	-	-	-	0.2	0.4	0.2	-	0.6
<i>Citharichthys fragilis</i>	gulf sanddab	-	0.6	-	-	-	0.6	-	-	0.6
<i>Rhacochilus toxotes</i>	rubberlip seaperch	-	-	0.6	0.6	-	-	-	-	0.6

Appendix C9 (Continued)

[illegible]

Appendix C9 (Continued)

Scientific Name	Common Name	Region			Depth Zone			Middle Shelf POTW Status		Total
		N	C	S	IS	MS	OS	P	NP	
<i>Syngnathus exilis</i>	barcheek pipefish	-	-	-	-	-	-	-	-	0.0
<i>Trachurus symmetricus</i>	jack mackerel	-	-	-	-	-	-	-	-	0.0
<i>Xeneretmus triacanthus</i>	bluespotted poacher	-	-	-	-	-	-	-	-	0.0
Total		161.1	297.4	145.7	135.2	266.4	202.6	160.5	105.9	604.2 ^a

POTW = Publicly owned treatment work monitoring areas.

N = Northern; C = Central; S = Southern; IS = Inner shelf; MS = Middle shelf; OS = Outer shelf;

P = POTW; NP = Non-POTW.

sp. = Species.

^a Composite weight of 17.6 kg not included in total.

Appendix C8. Abundance (number of individuals) by subpopulation for demersal fish species collected in the regional survey of the mainland shelf of southern California, July-August 1994.

Scientific Name	Common Name	Region			Depth Zone			Middle Shelf POTW Status		Total
		N	C	S	IS	MS	OS	P	NP	
<i>Citharichthys sordidus</i>	Pacific sanddab	1,215	1,099	1,811	27	2,553	1,545	1,341	1,212	4,125
<i>Porichthys notatus</i>	plainfin midshipman	620	542	834	2	720	1,274	446	274	1,996
<i>Eopsetta exilis</i>	slender sole	341	892	336	-	62	1,507	36	26	1,569
<i>Icelinus quadriseriatus</i>	yellowchin sculpin	233	709	137	13	1,065	1	731	334	1,079
<i>Citharichthys stigmaeus</i>	speckled sanddab	181	660	226	614	453	-	216	237	1,067
<i>Microstomus pacificus</i>	Dover sole	355	274	332	-	297	664	106	191	961
<i>Citharichthys xanthostigma</i>	longfin sanddab	79	271	426	71	700	5	446	254	776
<i>Sebastes saxicola</i>	stripetail rockfish	305	178	175	-	259	399	72	187	658
<i>Symphurus atricauda</i>	California tonguefish	57	497	30	66	513	5	439	74	584
<i>Sebastes diploproa</i>	splitnose rockfish	28	117	377	-	1	521	-	1	522
<i>Genyonemus lineatus</i>	white croaker	9	489	12	61	449	-	449	-	510
<i>Lepidogobius lepidus</i>	bay goby	412	46	51	5	502	2	41	461	509
<i>Zaniolepis latipinnis</i>	longspine combfish	388	67	26	23	411	47	79	332	481
<i>Zalembeus rosaceus</i>	pink seaperch	363	26	77	91	344	31	72	272	466
<i>Merluccius productus</i>	Pacific hake	216	73	109	-	-	398	-	-	398
<i>Zaniolepis frenata</i>	shortspine combfish	188	67	61	-	11	305	5	6	316
<i>Engraulis mordax</i>	northern anchovy	280	25	3	25	1	282	-	1	308
<i>Lycodopsis pacifica</i>	blackbelly eelpout	15	158	131	-	3	301	1	2	304
<i>Pleuronichthys verticalis</i>	hornyhead turbot	48	153	20	109	109	3	68	41	221
<i>Hippoglossina stomata</i>	bigmouth sole	49	111	43	17	172	14	99	73	203
<i>Xeneretmus latifrons</i>	blacktip poacher	144	27	20	-	-	191	-	-	191
<i>Pleuronectes vetulus</i>	English sole	146	29	11	63	66	57	23	43	186
<i>Sebastes semicinctus</i>	halfbanded rockfish	98	41	33	-	81	91	4	77	172
<i>Synodus lucioceps</i>	California lizardfish	57	67	47	66	93	12	47	46	171
<i>Errex zachirus</i>	rex sole	23	18	102	-	7	136	-	7	143
<i>Argentina sialis</i>	Pacific argentine	72	15	49	-	84	52	31	53	136
<i>Scorpaena guttata</i>	California scorpionfish	3	30	71	22	81	1	17	64	104
<i>Paralichthys californicus</i>	California halibut	6	86	10	99	3	-	3	-	102
<i>Xystreus liolepis</i>	fantail sole	6	44	14	53	11	-	6	5	64
<i>Sebastes rosenblatti</i>	greenblotched rockfish	16	30	12	-	13	45	6	7	58
<i>Pleuronichthys ritteri</i>	spotted turbot	-	36	7	41	2	-	-	2	43
<i>Chitonotus pugetensis</i>	roughback sculpin	-	26	12	1	37	-	20	17	38
<i>Citharichthys fragilis</i>	gulf sanddab	25	13	-	-	8	30	2	6	38
<i>Chilara taylori</i>	spotted cusk-eel	19	9	9	-	13	24	10	3	37
<i>Raja inornata</i>	California skate	14	13	6	7	24	2	11	13	33
<i>Sebastes elongatus</i>	greenstriped rockfish	10	12	8	-	3	27	2	1	30
<i>Sebastes chlorostictus</i>	greenspotted rockfish	4	-	24	-	6	22	5	1	28
<i>Lyconema barbatum</i>	bearded eelpout	9	16	-	-	-	25	-	-	25
<i>Sebastes dallii</i>	calico rockfish	7	13	2	-	22	-	15	7	22
<i>Porichthys myriaster</i>	specklefin midshipman	16	5	-	6	15	-	2	13	21
<i>Plectobranthus evides</i>	bluebarred prickleback	1	8	10	-	-	19	-	-	19
<i>Icelinus tenuis</i>	spotfin sculpin	-	3	11	-	-	14	-	-	14

Appendix C8 (Continued)

Scientific Name	Common Name	Region			Depth Zone			Middle Shelf POTW Status		Total
		N	C	S	IS	MS	OS	P	NP	
<i>Sebastolobus alascanus</i>	shortspine thornyhead	-	5	8	-	-	13	-	-	13
<i>Sebastes miniatus</i>	vermillion rockfish	12	-	-	-	12	-	-	12	12
<i>Odontopyxis trispinosa</i>	pygmy poacher	-	10	1	-	11	-	9	2	11
<i>Sebastes jordani</i>	shortbelly rockfish	11	-	-	-	-	11	-	-	11
<i>Lycodes cortezianus</i>	bigfin eelpout	-	8	1	-	-	9	-	-	9
<i>Sebastes levis</i>	cowcod	8	1	-	-	7	2	-	7	9
<i>Coryphopterus nicholsii</i>	blackeye goby	-	6	2	-	8	-	6	2	8
<i>Sebastes eos</i>	pink rockfish	3	4	1	-	2	6	2	-	8
<i>Sebastes</i> sp.	rockfish sp., unid.	-	3	5	-	3	5	-	3	8
<i>Paralabrax nebulifer</i>	barred sand bass	-	-	7	7	-	-	-	-	7
<i>Seriphus politus</i>	queenfish	-	7	-	7	-	-	-	-	7
<i>Sardinops sagax</i>	Pacific sardine	6	-	-	-	-	6	-	-	6
<i>Sebastes umbrosus</i>	honeycomb rockfish	-	6	-	-	6	-	6	-	6
<i>Ophiodon elongatus</i>	lingcod	5	-	-	-	5	-	-	5	5
<i>Platyrrhinoidis triseriata</i>	thornback	-	3	2	5	-	-	-	-	5
<i>Xeneretmus triacanthus</i>	bluespotted poacher	4	1	-	-	-	5	-	-	5
<i>Icelinus filamentosus</i>	threadfin sculpin	4	-	-	-	-	4	-	-	4
<i>Kathetostoma avaruncus</i>	smooth stargazer	-	4	-	-	1	3	1	-	4
<i>Phanerodon furcatus</i>	white seaperch	3	1	-	4	-	-	-	-	4
<i>Rathbunella hypoplecta</i>	stripedfin ronquil	-	2	2	-	3	1	3	-	4
<i>Sebastes rubrivinctus</i>	flag rockfish	1	3	-	-	3	1	3	-	4
<i>Eopsetta jordani</i>	petrale sole	2	1	-	-	-	3	-	-	3
<i>Pleuronichthys decurrens</i>	curlfin sole	3	-	-	-	3	-	-	3	3
<i>Sebastes caurinus</i>	copper rockfish	3	-	-	-	3	-	-	3	3
<i>Cephaloscyllium ventriosum</i>	swell shark	2	-	-	-	2	-	-	2	2
<i>Eptatretus stoutii</i>	Pacific hagfish	-	-	2	-	-	2	-	-	2
<i>Raja stellulata</i>	starry skate	-	-	2	-	2	-	2	-	2
<i>Rhacochilus toxotes</i>	rubberlip seaperch	-	-	2	2	-	-	-	-	2
<i>Sebastes constellatus</i>	starry rockfish	2	-	-	1	-	1	-	-	2
<i>Brosmophycis marginata</i>	red brotula	-	-	1	-	-	1	-	-	1
<i>Halichoeres semicinctus</i>	rock wrasse	-	-	1	1	-	-	-	-	1
<i>Hypsopsetta guttulata</i>	diamond turbot	-	-	1	1	-	-	-	-	1
<i>Icelinus fimbriatus</i>	fringed sculpin	-	-	1	-	-	1	-	-	1
<i>Myliobatis californica</i>	bat ray	1	-	-	-	1	-	-	1	1
<i>Oxylebius pictus</i>	painted greenling	-	-	1	-	1	-	1	-	1
<i>Paralabrax clathratus</i>	kelp bass	-	-	1	1	-	-	-	-	1
<i>Peprilus simillimus</i>	Pacific pompano	-	-	1	1	-	-	-	-	1
<i>Prionotus stephanophrys</i>	lumptail searobin	-	1	-	1	-	-	-	-	1
<i>Rathbunella alleni</i>	rough ronquil	-	1	-	-	1	-	1	-	1
<i>Sebastes auriculatus</i>	brown rockfish	1	-	-	-	1	-	-	1	1
<i>Sebastes hopkinsi</i>	squarespot rockfish	-	1	-	-	1	-	1	-	1
<i>Sebastes pinniger</i>	canary rockfish	1	-	-	-	1	-	-	1	1
<i>Sebastes rosaceus</i>	rosy rockfish	-	1	-	-	1	-	1	-	1

Appendix C8 (Continued)

Scientific Name	Common Name	Region			Depth Zone			Middle Shelf POTW Status		Total
		N	C	S	IS	MS	OS	P	NP	
<i>Squatina californica</i>	Pacific angel shark	1	-	-	-	1	-	-	1	1
<i>Syngnathus exilis</i>	barcheek pipefish	1	-	-	1	-	-	-	-	1
<i>Trachurus symmetricus</i>	jack mackerel	1	-	-	1	-	-	-	-	1
Total		6,131	7,064	5,717	1,515	9,271	8,126	4,887	4,384	18,912

POTW = Publicly owned treatment work monitoring areas.

N = Northern; C = Central; S = Southern; IS = Inner shelf; MS = Middle shelf; OS = Outer shelf;

P = POTW; NP = Non-POTW.

sp. = Species.

Appendix C7. Percent of area by subpopulation for demersal fish species collected in the regional survey of the mainland shelf of southern California, July-August 1994.

Scientific Name	Common Name	Region			Depth Zone			Middle Shelf POTW Status		Overall
		N	C	S	IS	MS	OS	P	NP	
<i>Citharichthys sordidus</i>	Pacific sanddab	78.8	44.8	72.5	10.5	83.9	86.3	87.0	83.3	68.3
<i>Microstomus pacificus</i>	Dover sole	68.2	38.7	55.5	-	64.4	96.6	69.6	63.3	57.4
<i>Porichthys notatus</i>	plainfin midshipman	62.1	30.0	65.5	7.0	71.2	58.8	60.9	73.3	54.3
<i>Synodus lucioceps</i>	California lizardfish	40.9	67.7	58.4	72.0	57.4	19.0	60.9	56.7	51.6
<i>Pleuronichthys verticalis</i>	hornyhead turbot	53.0	62.1	34.8	72.0	60.3	8.7	78.3	56.7	51.3
<i>Icelinus quadriseriatus</i>	yellowchin sculpin	59.1	49.0	34.5	24.5	80.4	3.4	82.6	80.0	50.9
<i>Hippoglossina stomata</i>	bigmouth sole	39.4	53.7	63.9	17.7	68.8	29.3	95.7	63.3	48.7
<i>Citharichthys xanthostigma</i>	longfin sanddab	42.4	41.7	70.9	42.2	67.3	8.7	87.0	63.3	48.7
<i>Pleuronectes vetulus</i>	English sole	65.2	26.7	31.1	31.7	54.4	44.6	43.5	56.7	47.2
<i>Sebastes saxicola</i>	stripetail rockfish	59.1	26.9	39.5	-	53.7	72.5	39.1	56.7	46.9
<i>Zaniolepis latipinnis</i>	longspine combfish	66.7	16.5	34.8	10.5	70.5	20.6	56.5	73.3	46.1
<i>Symphurus atricauda</i>	California tonguefish	39.4	57.7	44.8	36.8	63.1	10.3	78.3	60.0	45.1
<i>Zalemnius rosaceus</i>	pink seaperch	66.7	12.3	31.6	7.0	66.4	25.9	65.2	66.7	43.8
<i>Lepidogobius lepidus</i>	bay goby	39.4	29.6	38.2	10.5	59.4	5.3	56.5	60.0	36.5
<i>Citharichthys stigmaeus</i>	speckled sanddab	24.2	64.6	29.3	93.0	28.2	-	52.2	23.3	36.2
<i>Eopsetta exilis</i>	slender sole	39.4	22.3	18.9	-	19.6	86.3	17.4	20.0	30.2
<i>Zaniolepis frenata</i>	shortspine combfish	30.3	17.7	20.7	-	9.8	86.3	8.7	10.0	24.8
<i>Raja inornata</i>	California skate	24.2	22.3	22.3	22.8	30.1	6.9	30.4	30.0	23.3
<i>Xystreurus liolepis</i>	fantail sole	13.6	41.0	15.5	59.7	14.8	-	21.7	13.3	21.3
<i>Scorpaena guttata</i>	California scorpionfish	7.6	34.0	29.3	31.7	21.2	3.4	43.5	16.7	19.5
<i>Argentina sialis</i>	Pacific argentine	18.2	10.4	27.7	-	23.8	22.4	26.1	23.3	18.3
<i>Paralichthys californicus</i>	California halibut	6.1	37.9	12.0	66.7	2.2	-	13.0	-	15.9
<i>Errex zachirus</i>	rex sole	16.7	10.4	17.0	-	2.8	60.4	-	3.3	15.1
<i>Xeneretmus latifrons</i>	blacktip poacher	18.2	8.8	13.6	-	-	65.4	-	-	14.7
<i>Porichthys myriaster</i>	specklefin midshipman	24.2	8.8	-	14.0	20.8	-	8.7	23.3	14.7
<i>Sebastes rosenblatti</i>	greenblotched rockfish	15.2	12.1	12.0	-	10.5	34.8	13.0	10.0	13.6
<i>Sebastes semicinctus</i>	halfbanded rockfish	19.7	2.9	10.7	-	13.3	25.9	13.0	13.3	13.2
<i>Lycodopsis pacifica</i>	blackbelly eelpout	12.1	10.4	13.6	-	6.3	38.0	4.3	6.7	12.0
<i>Chilara taylori</i>	spotted cusk-eel	10.6	13.5	12.3	-	7.2	34.6	26.1	3.3	11.7
<i>Merluccius productus</i>	Pacific hake	13.6	6.0	13.6	-	-	51.7	-	-	11.6
<i>Pleuronichthys ritteri</i>	spotted turbot	-	39.0	5.2	45.7	2.8	-	-	3.3	11.6
<i>Sebastes elongatus</i>	greenstriped rockfish	7.6	10.4	20.7	-	4.2	39.8	8.7	3.3	10.5
<i>Chitonotus pugetensis</i>	roughback sculpin	-	28.1	10.5	1.9	17.0	-	34.8	13.3	9.8
<i>Sebastes diploproa</i>	splitnose rockfish	4.5	13.1	20.5	-	2.8	39.6	-	3.3	9.6
<i>Sebastes dallii</i>	calico rockfish	15.2	1.5	3.6	-	16.1	-	13.0	16.7	8.9
<i>Sebastes chlorostictus</i>	greenspotted rockfish	6.1	-	13.9	-	4.2	17.2	8.7	3.3	7.0
<i>Sebastes</i> sp.	rockfish sp., unid.	-	7.3	20.5	-	8.3	8.7	-	10.0	6.6
<i>Citharichthys fragilis</i>	gulf sanddab	7.6	8.8	-	-	7.0	10.3	8.7	6.7	6.2
<i>Sebastes levis</i>	cowcod	10.6	2.9	-	-	8.3	6.9	-	10.0	6.2
<i>Ophiodon elongatus</i>	lingcod	12.1	-	-	-	11.1	-	-	13.3	6.2
<i>Engraulis mordax</i>	northern anchovy	4.5	8.7	3.4	10.5	2.8	6.9	-	3.3	5.4
<i>Plectobanchus evides</i>	bluebarred prickleback	1.5	7.3	10.2	-	-	22.4	-	-	5.0

Appendix C7 (Continued)

Scientific Name	Common Name	Region			Depth Zone			Middle Shelf POTW Status		Overall
		N	C	S	IS	MS	OS	P	NP	
<i>Odontopyxis trispinosa</i>	pygmy poacher	-	11.9	6.8	-	8.5	-	17.4	6.7	4.7
<i>Pleuronichthys decurrens</i>	curlfin sole	9.1	-	-	-	8.3	-	-	10.0	4.6
<i>Sebastes miniatus</i>	vermillion rockfish	9.1	-	-	-	8.3	-	-	10.0	4.6
<i>Genyonemus lineatus</i>	white croaker	1.5	7.3	6.8	17.5	0.7	-	4.3	-	4.3
<i>Sebastes eos</i>	pink rockfish	4.5	4.6	1.8	-	1.5	14.0	8.7	-	3.9
<i>Platyrrhinoideis triseriata</i>	thornback	-	8.7	5.2	15.9	-	-	-	-	3.5
<i>Paralabrax nebulifer</i>	barred sand bass	-	-	15.5	15.9	-	-	-	-	3.5
<i>Sebastes caurinus</i>	copper rockfish	6.1	-	-	-	5.5	-	-	6.7	3.1
<i>Xeneretmus triacanthus</i>	bluespotted poacher	4.5	2.9	-	-	-	13.7	-	-	3.1
<i>Sebastolobus alascanus</i>	shortspine thornyhead	-	4.4	6.8	-	-	12.1	-	-	2.7
<i>Eopsetta jordani</i>	petrale sole	3.0	2.9	-	-	-	10.3	-	-	2.3
<i>Icelinus filamentosus</i>	threadfin sculpin	4.5	-	-	-	-	10.3	-	-	2.3
<i>Lyconema barbatum</i>	bearded eelpout	3.0	2.9	-	-	-	10.3	-	-	2.3
<i>Phanerodon furcatus</i>	white seaperch	3.0	2.9	-	10.5	-	-	-	-	2.3
<i>Coryphopterus nicholsii</i>	blackeye goby	-	1.5	6.8	-	3.5	-	4.3	3.3	1.9
<i>Kathetostoma avarruncus</i>	smooth stargazer	-	6.0	-	-	0.7	5.3	4.3	-	1.6
<i>Rathbunella hypoplecta</i>	stripedfin ronquil	-	1.5	5.2	-	1.5	3.4	8.7	-	1.6
<i>Cephaloscyllium ventriosum</i>	swell shark	3.0	-	-	-	2.8	-	-	3.3	1.5
<i>Icelinus tenuis</i>	spotfin sculpin	-	2.9	3.4	-	-	6.9	-	-	1.5
<i>Lycodes cortezianus</i>	bigfin eelpout	-	2.9	3.4	-	-	6.9	-	-	1.5
<i>Myliobatis californica</i>	bat ray	3.0	-	-	-	2.8	-	-	3.3	1.5
<i>Sardinops sagax</i>	Pacific sardine	3.0	-	-	-	-	6.9	-	-	1.5
<i>Sebastes auriculatus</i>	brown rockfish	3.0	-	-	-	2.8	-	-	3.3	1.5
<i>Sebastes constellatus</i>	starry rockfish	3.0	-	-	3.5	-	3.4	-	-	1.5
<i>Sebastes jordani</i>	shortbelly rockfish	3.0	-	-	-	-	6.9	-	-	1.5
<i>Sebastes pinniger</i>	canary rockfish	3.0	-	-	-	2.8	-	-	3.3	1.5
<i>Seriphys politus</i>	queenfish	-	7.3	-	7.0	0.7	-	4.3	-	1.5
<i>Squatina californica</i>	Pacific angel shark	3.0	-	-	-	2.8	-	-	3.3	1.5
<i>Sebastes rubrivinctus</i>	flag rockfish	1.5	1.5	-	-	0.7	3.4	4.3	-	1.2
<i>Halichoeres semicinctus</i>	rock wrasse	-	-	3.4	3.5	-	-	-	-	0.8
<i>Icelinus fimbriatus</i>	fringed sculpin	-	-	3.4	-	-	3.4	-	-	0.8
<i>Paralabrax clathratus</i>	kelp bass	-	-	3.4	3.5	-	-	-	-	0.8
<i>Peprilus simillimus</i>	Pacific pompano	-	-	3.4	3.5	-	-	-	-	0.8
<i>Prionotus stephanophrys</i>	lumptail searobin	-	2.9	-	3.5	-	-	-	-	0.8
<i>Rhacochilus toxotes</i>	rubberlip seaperch	-	-	3.4	3.5	-	-	-	-	0.8
<i>Syngnathus exilis</i>	barcheek pipefish	1.5	-	-	3.5	-	-	-	-	0.8
<i>Trachurus symmetricus</i>	jack mackerel	1.5	-	-	3.5	-	-	-	-	0.8
<i>Brosmophycis marginata</i>	red brotula	-	-	1.8	-	-	1.8	-	-	0.4
<i>Eptatretus stoutii</i>	Pacific hagfish	-	-	1.8	-	-	1.8	-	-	0.4
<i>Hypsopsetta guttulata</i>	diamond turbot	-	-	1.8	1.9	-	-	-	-	0.4
<i>Oxylebius pictus</i>	painted greenling	-	-	1.8	-	0.7	-	4.3	-	0.4
<i>Raja stellulata</i>	starry skate	-	-	1.8	-	0.7	-	4.3	-	0.4
<i>Rathbunella alleni</i>	rough ronquil	-	1.5	-	-	0.7	-	4.3	-	0.4

Appendix C7 (Continued)

Scientific Name	Common Name	Region			Depth Zone			Middle Shelf POTW Status		Overall
		N	C	S	IS	MS	OS	P	NP	
<i>Sebastes hopkinsi</i>	squarespot rockfish	-	1.5	-	-	0.7	-	4.3	-	0.4
<i>Sebastes rosaceus</i>	rosy rockfish	-	1.5	-	-	0.7	-	4.3	-	0.4
<i>Sebastes umbrosus</i>	honeycomb rockfish	-	1.5	-	-	0.7	-	4.3	-	0.4

POTW = Publicly owned treatment work monitoring areas.

N = Northern; C = Central; S = Southern; IS = Inner shelf; MS = Middle shelf; OS = Outer shelf;

P = POTW; NP = Non-POTW.

sp. = Species.

Appendix C6. Taxonomic list of demersal fish species collected in the regional survey of the mainland shelf of southern California at depths of 10-200 m, July-August 1994.

Taxon/Species	Author	Common Name
MYXINI		HAGFISHES
-- MYXINIFORMES		
Myxinidae		HAGFISHES
<i>Eptatretus stoutii</i>	(Lockington 1878)	Pacific hagfish
CHONDRICHTHYES		CARTILAGINOUS FISHES
-- CARCHARHINIFORMES		
Scyliorhinidae		CAT SHARKS
<i>Cephaloscyllium ventriosum</i>	(Garman 1880)	swell shark
-- SQUATINIFORMES		
Squatinae		ANGEL SHARKS
<i>Squatina californica</i>	Ayres 1859	Pacific angel shark
-- RAJIFORMES		
Rhinobatidae		GUIARFISHES
<i>Platyrhinoidis triseriata</i>	(Jordan & Gilbert 1880)	thornback
Rajidae		SKATES
<i>Raja inornata</i>	Jordan & Gilbert 1881	California skate
<i>Raja stellulata</i>	(Jordan & Gilbert 1880)	starry skate
Myliobatidae		EAGLE RAYS
<i>Myliobatis californica</i>	Gill 1865	bat ray
ACTINOPTERYGII		RAY-FINNED FISHES
-- CLUPEIFORMES		
Engraulidae		ANCHOVIES
<i>Engraulis mordax</i>	Girard 1854	northern anchovy
Clupeidae		HERRINGS
<i>Sardinops sagax</i>	(Jenyns 1842)	Pacific sardine
-- OSMERIFORMES		
Argentinidae		ARGENTINES
<i>Argentina sialis</i>	Gilbert 1890	Pacific argentine
-- AULOPIIFORMES		
Synodontidae		LIZARDFISHES
<i>Synodus luciocephalus</i>	(Ayres 1855)	California lizardfish
-- OPHIDIIFORMES		
Ophidiidae		CUSK-EELS
<i>Chilara taylori</i>	(Girard 1858)	spotted cusk-eel
Bythitidae		VIVIPAROUS BROTLAS
<i>Brosmophycis marginata</i>	(Ayres 1854)	red brotula
-- GADIFORMES		
Merlucciidae		MERLUCCID HAKES
<i>Merluccius productus</i>	(Ayres 1855)	Pacific hake
-- BATRACHOIDIFORMES		
Batrachoididae		TOADFISHES
<i>Porichthys myriaster</i>	Hubbs & Schultz 1939	specklefin midshipman
<i>Porichthys notatus</i>	Girard 1854	plainfin midshipman

Appendix C6 (Continued)

Taxon/Species	Author	Common Name
-- GASTEROSTEIFORMES		
Syngnathidae		PIPEFISHES
<i>Syngnathus exilis</i>	(Osburn & Nichols 1916)	barcheek pipefish
-- SCORPAENIFORMES		
Scorpaenidae		SCORPIONFISHES
<i>Scorpaena guttata</i>	Girard 1854	California scorpionfish
<i>Sebastes auriculatus</i>	Girard 1854	brown rockfish
<i>Sebastes caurinus</i>	Richardson 1845	copper rockfish
<i>Sebastes chlorostictus</i>	(Jordan & Gilbert 1880)	greenspotted rockfish
<i>Sebastes constellatus</i>	(Jordan & Gilbert 1880)	starry rockfish
<i>Sebastes dallii</i>	(Eigenmann & Beeson 1894)	calico rockfish
<i>Sebastes diploproa</i>	(Gilbert 1890)	splitnose rockfish
<i>Sebastes elongatus</i>	Ayres 1859	greenstriped rockfish
<i>Sebastes eos</i>	(Eigenmann & Eigenmann 1890)	pink rockfish
<i>Sebastes hopkinsi</i>	(Cramer 1895)	squarespot rockfish
<i>Sebastes jordani</i>	(Gilbert 1896)	shortbelly rockfish
<i>Sebastes levis</i>	(Eigenmann & Eigenmann 1889)	cowcod
<i>Sebastes miniatus</i>	(Jordan & Gilbert 1880)	vermillion rockfish
<i>Sebastes pinniger</i>	(Gill 1864)	canary rockfish
<i>Sebastes rosaceus</i>	Girard 1854	rosy rockfish
<i>Sebastes rosenblatti</i>	Chen 1971	greenblotched rockfish
<i>Sebastes rubrivinctus</i>	(Jordan & Gilbert 1880)	flag rockfish
<i>Sebastes saxicola</i>	(Gilbert 1890)	stripetail rockfish
<i>Sebastes semicinctus</i>	(Gilbert 1897)	halfbanded rockfish
<i>Sebastes umbrosus</i>	(Jordan & Gilbert 1882)	honeycomb rockfish
<i>Sebastolobus alascanus</i>	Bean 1890	shortspine thornyhead
Triglidae		SEAROBINS
<i>Prionotus stephanophrys</i>	Lockington 1881	lumptail searobin
Hexagrammidae		GREENLINGS
<i>Ophiodon elongatus</i>	Girard 1854	lingcod
<i>Oxylebius pictus</i>	Gill 1862	painted greenling
<i>Zaniolepis frenata</i>	Eigenmann & Eigenmann 1889	shortspine combfish
<i>Zaniolepis latipinnis</i>	Girard 1857	longspine combfish
Cottidae		SCULPINS
<i>Chitonotus pugetensis</i>	(Steindachner 1876)	roughback sculpin
<i>Icelinus filamentosus</i>	Gilbert 1890	threadfin sculpin
<i>Icelinus fimbriatus</i>	Gilbert 1890	fringed sculpin
<i>Icelinus quadriseriatus</i>	(Lockington 1880)	yellowchin sculpin
<i>Icelinus tenuis</i>	Gilbert 1890	spotfin sculpin
Agonidae		POACHERS
<i>Odontopyxis trispinosa</i>	Lockington 1880	pygmy poacher
<i>Xeneretmus latifrons</i>	(Gilbert 1890)	blacktip poacher
<i>Xeneretmus triacanthus</i>	(Gilbert 1890)	bluespotted poacher
-- PERCIFORMES		
Serranidae		SEA BASSES
<i>Paralabrax clathratus</i>	(Girard 1854)	kelp bass
<i>Paralabrax nebulifer</i>	(Girard 1854)	barred sand bass

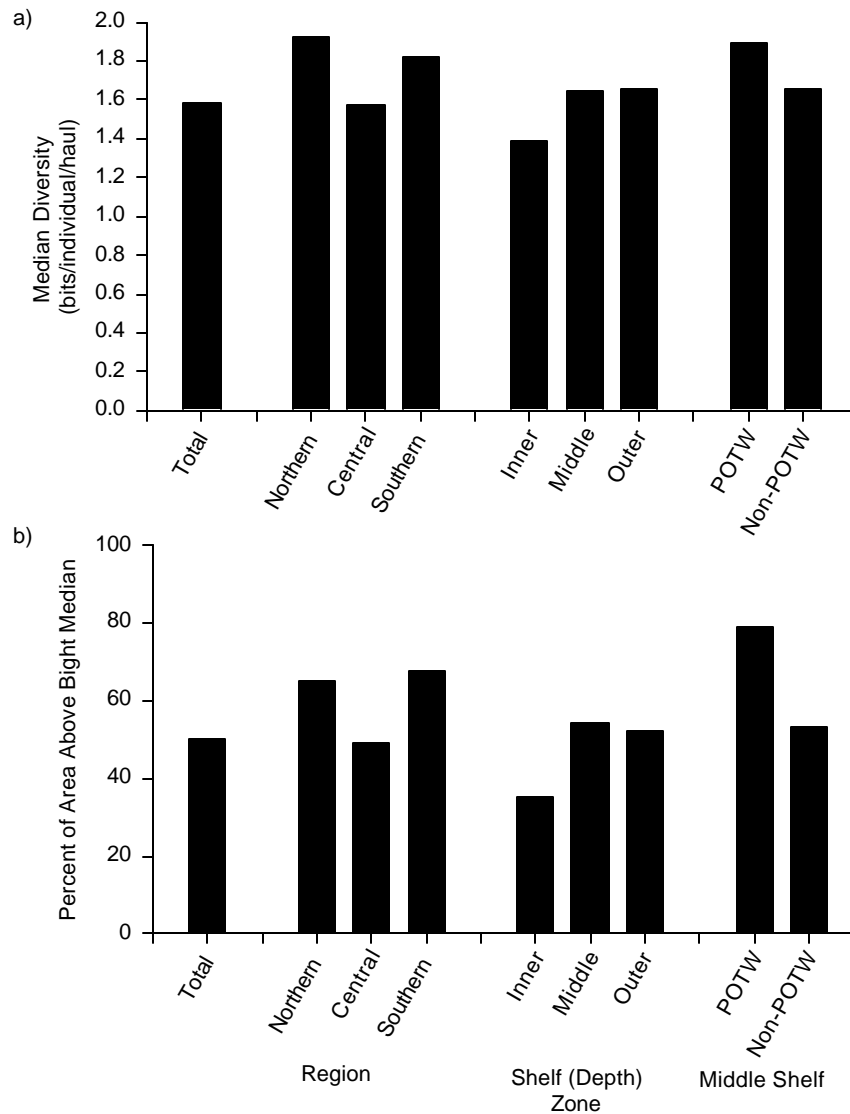
Appendix C6 (Continued)

Taxon/Species	Author	Common Name
Carangidae		JACKS
<i>Trachurus symmetricus</i>	(Ayres 1855)	jack mackerel
Sciaenidae		DRUMS
<i>Genyonemus lineatus</i>	(Ayres 1855)	white croaker
<i>Seriphus politus</i>	Ayres 1860	queenfish
Embiotocidae		SURFPERCHES
<i>Phanerodon furcatus</i>	Girard 1854	white seaperch
<i>Rhacochilus toxotes</i>	Agassiz 1854	rubberlip seaperch
<i>Zalemmbius rosaceus</i>	(Jordan & Gilbert 1880)	pink seaperch
Labridae		WRASSES
<i>Halichoeres semicinctus</i>	(Ayres 1859)	rock wrasse
Bathymasteridae		RONQUILS
<i>Rathbunella alleni</i>	Gilbert 1904	rough ronquil
<i>Rathbunella hypoplecta</i>	(Gilbert 1890)	stripedfin ronquil
Zoarcidae		EELPOUTS
<i>Lycodes cortezianus</i>	(Gilbert 1890)	bigfin eelpout
<i>Lycodopsis pacifica</i>	(Collett 1879)	blackbelly eelpout
<i>Lyconema barbatum</i>	Gilbert 1896	bearded eelpout
Stichaeidae		PRICKLEBACKS
<i>Plectobranchnus evides</i>	Gilbert 1890	bluebarred prickleback
Uranoscopidae		STARGAZERS
<i>Kathetostoma avertuncus</i>	Jordan & Bollman 1890	smooth stargazer
Gobiidae		GOBIES
<i>Coryphopterus nicholsii</i>	(Bean 1882)	blackeye goby
<i>Lepidogobius lepidus</i>	(Girard 1858)	bay goby
Stromateidae		BUTTERFISHES
<i>Peprilus simillimus</i>	(Ayres 1860)	Pacific pompano
-- PLEURONECTIFORMES		
Paralichthyidae		WHIFFS
<i>Citharichthys fragilis</i>	Gilbert 1890	gulf sanddab
<i>Citharichthys sordidus</i>	(Girard 1854)	Pacific sanddab
<i>Citharichthys stigmaeus</i>	Jordan & Gilbert 1882	speckled sanddab
<i>Citharichthys xanthostigma</i>	Gilbert 1890	longfin sanddab
<i>Hippoglossina stomata</i>	Eigenmann & Eigenmann 1890	bigmouth sole
<i>Paralichthys californicus</i>	(Ayres 1859)	California halibut
<i>Xystreureys liolepis</i>	Jordan & Gilbert 1880	fantail sole
Pleuronectidae		RIGHTEYE FLOUNDERS
<i>Eopsetta exilis</i>	(Jordan & Gilbert 1880)	slender sole
<i>Eopsetta jordani</i>	(Lockington 1879)	petrale sole
<i>Errex zachirus</i>	(Lockington 1879)	rex sole
<i>Hypsopsetta guttulata</i>	(Girard 1856)	diamond turbot
<i>Microstomus pacificus</i>	(Lockington 1879)	Dover sole
<i>Pleuronectes vetulus</i>	(Girard 1854)	English sole
<i>Pleuronichthys decurrens</i>	Jordan & Gilbert 1880	curlfin sole
<i>Pleuronichthys ritteri</i>	Starks & Morris 1907	spotted turbot
<i>Pleuronichthys verticalis</i>	Jordan & Gilbert 1880	hornyhead turbot

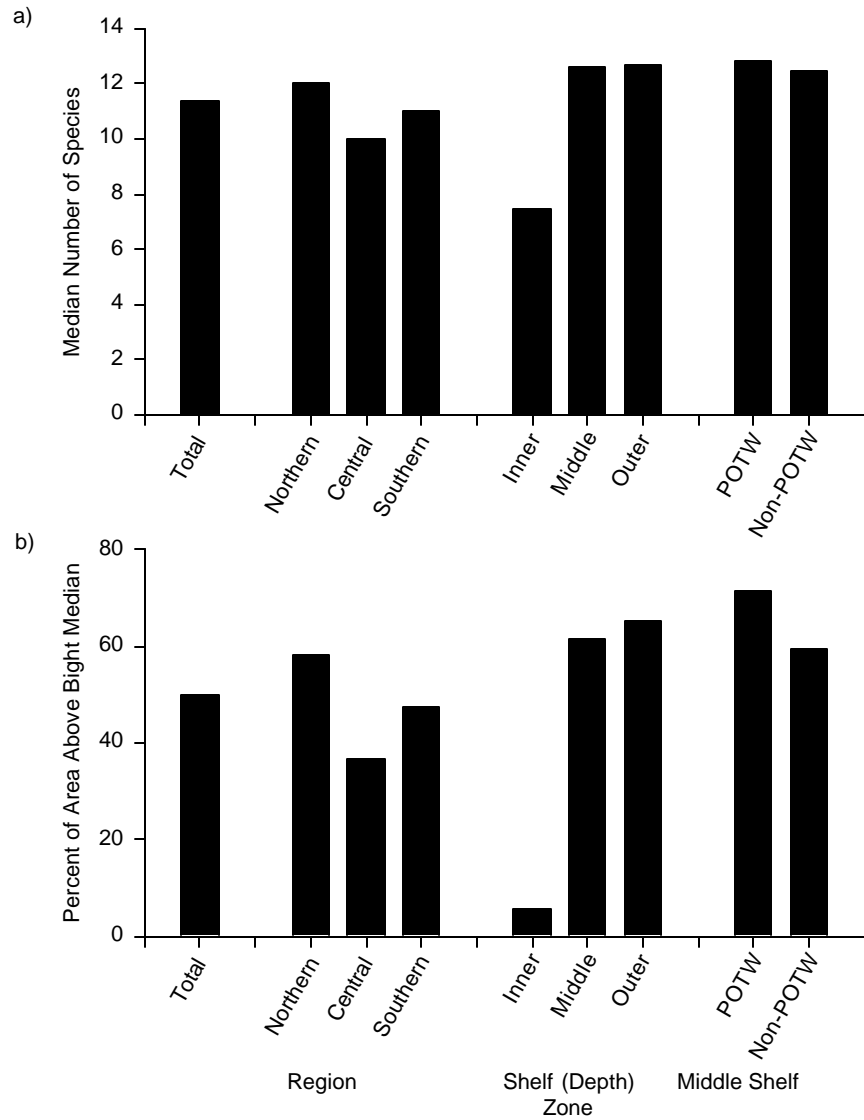
Appendix C6 (Continued)

Taxon/Species	Author	Common Name
Cynoglossidae <i>Symphurus atricauda</i>	(Jordan & Gilbert 1880)	TONGUEFISHES California tonguefish

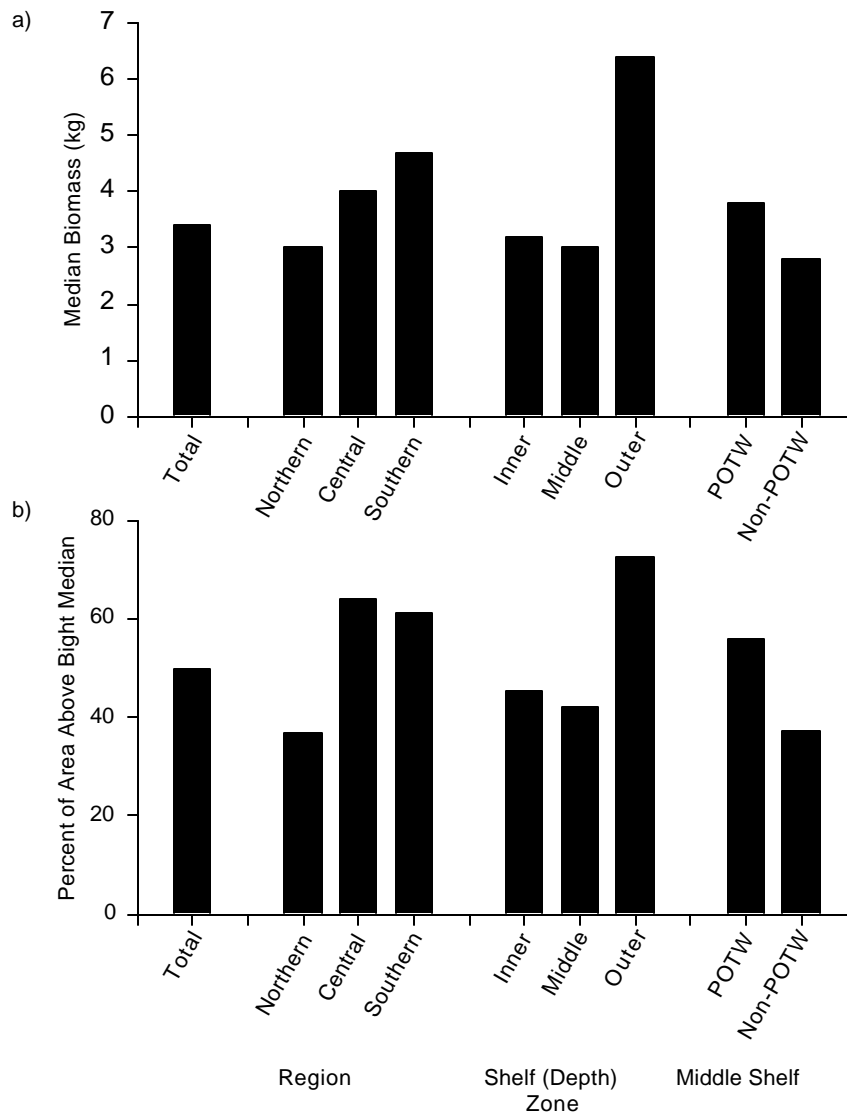
Taxonomic arrangement (Nelson 1994); scientific and common names generally from Robins *et al.* (1991).



C5. Fish diversity per haul by subpopulation for the mainland shelf of southern California, July-August, 1994: a) median and b) percent of area above Bight median



C4. Number of fish species per haul by subpopulation for the mainland shelf of southern California, July-August, 1994: a) median and b) percent of area above Bight median



C3. Fish biomass per haul by subpopulation for the mainland shelf of southern California, July-August, 1994: a) median and b) percent of area above Bight median

Appendix C42. Abundance of fish species occurring in 50% or more of the stations in site clusters on the mainland shelf of southern California, July-August 1994.

Scientific Name	Common Name	Number of Individuals in Site Clusters				
		Group 1 (n=21)	Group 2 (n=20)	Group 3 (n=29)	Group 4 (n=21)	Group 5 (n=22)
<i>Citharichthys stigmaeus</i>	speckled sanddab	389	528	-	-	-
<i>Paralichthys californicus</i>	California halibut	61	-	-	-	-
<i>Pleuronichthys verticalis</i>	hornyhead turbot	89	64	63	-	-
<i>Synodus lucioceps</i>	California lizardfish	39	53	60	-	-
<i>Pleuronichthys ritteri</i>	spotted turbot	39	-	-	-	-
<i>Xystreurys liolepis</i>	fantail sole	44	-	-	-	-
<i>Icelinus quadriseriatus</i>	yellowchin sculpin	-	558	471	-	-
<i>Zalembius rosaceus</i>	pink seaperch	-	-	307	47	-
<i>Citharichthys sordidus</i>	Pacific sanddab	-	704	792	2,035	570
<i>Hippoglossina stomata</i>	bigmouth sole	-	79	91	-	-
<i>Symphurus atricauda</i>	California tonguefish	-	308	198	-	-
<i>Zaniolepis latipinnis</i>	longspine combfish	-	-	326	66	-
<i>Citharichthys xanthostigma</i>	longfin sanddab	-	267	347	-	-
<i>Porichthys notatus</i>	plainfin midshipman	-	-	138	916	862
<i>Lepidogobius lepidus</i>	bay goby	-	-	423	-	-
<i>Pleuronectes vetulus</i>	English sole	-	-	53	44	-
<i>Microstomus pacificus</i>	Dover sole	-	-	118	278	527
<i>Sebastes saxicola</i>	stripetail rockfish	-	-	134	171	341
<i>Scorpaena guttata</i>	California scorpionfish	-	84	-	-	-
<i>Chitonotus pugetensis</i>	roughback sculpin	-	37	-	-	-
<i>Argentina sialis</i>	Pacific argentine	-	-	-	91	-
<i>Zaniolepis frenata</i>	shortspine combfish	-	-	-	91	224
<i>Sebastes semicinctus</i>	halfbanded rockfish	-	-	-	161	-
<i>Eopsetta exilis</i>	slender sole	-	-	-	-	1,477
<i>Xeneretmus latifrons</i>	blacktip poacher	-	-	-	-	187
<i>Errex zachirus</i>	rex sole	-	-	-	-	132
<i>Merluccius productus</i>	Pacific hake	-	-	-	-	396
<i>Sebastes elongatus</i>	greenstriped rockfish	-	-	-	-	25
<i>Sebastes diploproa</i>	splitnose rockfish	-	-	-	-	521
<i>Lycodopsis pacifica</i>	blackbelly eelpout	-	-	-	-	299

"-" = Absent of less than 50% occurrence.

n = Number of stations.