

TABLE 4. Fish Abundance (no./transect) at Station WW, Waianae Ocean Outfall, O'ahu, Hawai'i, for 1994 Through 1999

	1994		1995		1996		1997		1998		1999	
Taxon	Transect		Transect		Transect		Transect		Transect		Transect	
	Alpha	Beta	Alpha	Beta	Alpha	Beta	Alpha	Beta	Alpha	Beta	Alpha	Beta
FAMILY ACANTHURIDAE												
<i>Acanthurus olivaceus</i>	3	16	0	8	1	13	0	5	0	5	0	2
<i>Acanthurus blochii</i>	0	121	0	3	0	0	0	0	0	0	0	0
<i>Acanthurus nigroris</i>	0	10	0	3	0	5	0	1	0	0	0	1
<i>Acanthurus triostegus</i>	0	0	0	3	0	1	0	0	0	3	0	2
<i>Ctenochaetus strigosus</i>	0	33	0	35	0	18	0	13	0	16	0	35
<i>Zanclus cornutus</i>	0	0	0	3	0	2	0	1	1	0	0	0
<i>Zebrasoma flavescens</i>	0	0	0	5	0	1	0	2	0	12	0	7
FAMILY BALISTIDAE												
<i>Sufflamen bursa</i>	5	0	5	0	1	2	4	2	4	0	1	3
<i>Melichthys vidua</i>	2	0	0	0	0	0	0	4	0	1	0	0
<i>Rhinecanthus rectangulus</i>	1	0	0	1	0	0	2	0	0	0	0	0
FAMILY CHAETODONTIDAE												
<i>Chaetodon miliaris</i>	0	5	0	8	0	30	0	18	0	6	0	3
<i>Chaetodon multicinctus</i>	0	0	0	6	0	1	0	4	0	6	0	9
<i>Chaetodon fremblii</i>	0	0	0	2	0	1	0	2	0	1	0	0
<i>Forcipiger longirostris</i>	0	2	0	2	0	1	0	0	0	0	0	0
FAMILY CIRRHITIDAE												
<i>Paracirrhites forsteri</i>	0	2	0	1	0	0	0	0	1	0	0	0
FAMILY LABRIDAE												
<i>Thalassoma duperrey</i>	3	35	6	8	1	5	5	3	5	5	3	15
<i>Bodianus bilunulatus</i>	2	1	0	2	0	0	0	0	0	1	0	1
<i>Coris gaimard</i>	0	0	0	1	0	0	0	0	0	0	0	0
<i>Anampses chrysocephalus</i>	0	0	0	2	0	0	0	2	0	2	0	0
FAMILY LETHRINIDAE												
<i>Monotaxis grandoculis</i>	0	2	0	0	0	0	0	0	0	0	0	0
FAMILY LUTJANIDAE												
<i>Lutjanus kasmira</i>	0	200	0	60	0	15	0	12	0	25	0	110
FAMILY MONACANTHIDAE												
<i>Pervagor spilosoma</i>	0	0	1	0	0	0	0	0	0	0	0	0
FAMILY MULLIDAE												
<i>Parupeneus multifasciatus</i>	2	6	10	6	0	3	0	2	0	0	0	0
<i>Parupeneus porphyreus</i>	0	2	0	8	0	10	0	3	2	6	1	4
<i>Mulloidichthys flavolineatus</i>	0	5	0	1	0	50	0	31	0	30	0	8
<i>Mulloidichthys vanicolensis</i>	0	0	0	6	0	5	0	12	0	8	0	6
FAMILY HOLOCENTRIDAE												
<i>Myripristis berndti</i>	0	12	0	9	0	20	0	12	0	30	0	18
<i>Sargocentron</i> sp.	0	0	0	12	0	4	0	2	0	1	0	2

TABLE 4—Continued

	1994		1995		1996		1997		1998		1999	
Taxon	Transect		Transect		Transect		Transect		Transect		Transect	
	Alpha	Beta	Alpha	Beta	Alpha	Beta	Alpha	Beta	Alpha	Beta	Alpha	Beta
FAMILY POMACENTRIDAE												
<i>Dascyllus albisella</i>	0	45	5	19	0	46	0	10	0	18	0	27
<i>Chromis agilis</i>	0	10	2	2	0	0	0	1	3	11	0	15
<i>Chromis hanui</i>	0	12	0	6	0	3	0	2	0	8	0	3
<i>Chromis ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	15
<i>Chromis verator</i>	0	2	0	2	0	6	0	3	0	4	0	0
<i>Chromis vanderbilti</i>	0	0	0	5	0	11	0	0	0	0	0	0
<i>Abudefduf sordidus</i>	0	2	0	1	0	5	0	3	0	2	0	0
<i>Abudefduf abdominalis</i>	0	0	0	65	0	45	0	28	0	37	0	44
FAMILY TETRAODONTIDAE												
<i>Arothron hispidus</i>	2	0	1	0	1	0	1	1	0	1	0	0
FAMILY SERRANIDAE												
<i>Epinephelus quernus</i>	0	0	0	1	0	0	0	0	0	0	0	0
FAMILY FISTULARIIDAE												
<i>Fistularia commersonii</i>	0	0	0	1	0	0	0	1	0	1	0	1
Total No. of Individuals	20	523	30	297	4	303	12	180	16	240	5	331
Total No. of Species	8	20	7	33	4	25	4	27	6	25	3	22