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Distribution and Abundance of Yellowtail Flounder (*Limanda ferruginea*) on the Grand Bank, NAFO Divisions 3LNO, from Canadian Bottom Trawl Survey Estimates from 1984-2006

by

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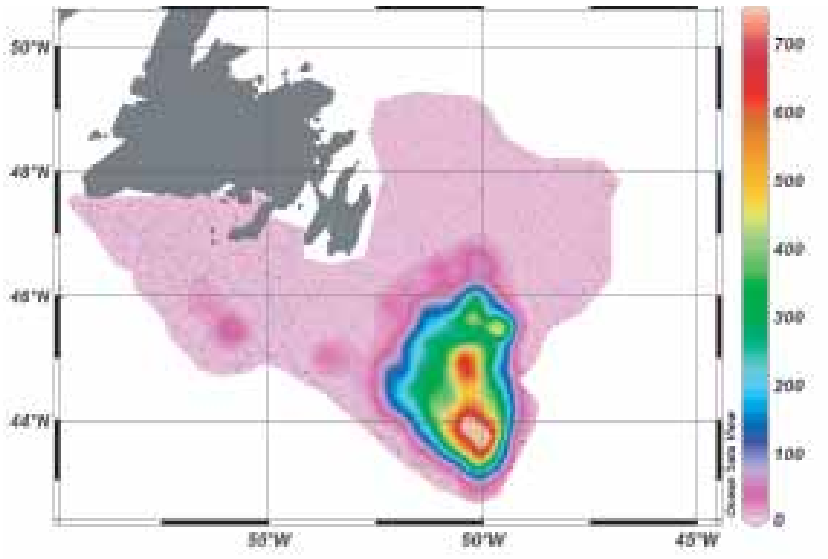
Abstract

Abundance and biomass indices of Grand Bank yellowtail flounder in NAFO Divisions 3LNO were derived from annual multi-species, random-stratified bottom trawl surveys conducted by Canada during the spring of 1984-2005 and during the fall from 1990 to 2005. The majority of the stock is found in depths less than 93 m and in Div. 3NO. After declining in stock size and geographical range from the mid-1980s to the mid-1990s, recent surveys have indicated that the stock size has increased dramatically and has again expanded its northward range to re-occupy habitats on the northern Grand Bank. The 2005 spring estimate of biomass is the highest in the time series and the fall estimate is the 4th highest point; both average 366 000 t (1.3 billion fish).



Distribution of yellowtail flounder on the Grand Bank from 1996-2003 spring surveys (Kulka *et al.*, 2005).

Introduction

Annual multi-species, stratified-random bottom trawl surveys have been conducted by the Newfoundland region of the Canadian Dept of Fisheries and Oceans on the Grand Bank, in Div. 3LNO, during the spring (April-June) of each year since 1971. Since 1990, a second series of surveys has been carried out on the Grand Bank during the fall period, from October to December. However, since 1971 there have been two changes in survey gears and only one set of conversion factors has been developed for the 1984-1995 time series. Consequently only data from 1984 to 2005 will be presented here.

From both the spring and fall surveys, swept area abundance and biomass estimates are derived for yellowtail flounder (*Limanda ferruginea*) and serve as fishery-independent indices of stock size. Because catchability of the standard survey trawl is unknown and assumed to be <=1.0 (Walsh, 1996), the indices are considered to be relative estimates of stock size.

The purpose of this paper is to update the results of these annual surveys. The last review of the survey results in any detail took place in 2004 (Walsh *et al.*, 2004) and because this stock is on a two year cycle for full assessment, attention will focused on monitoring annual changes in stock size and recent changes in stock size and temporal and spatial patterns of distribution since 2004 in relation to historical patterns.

Materials and Methods

Survey design: The stratification scheme is based on depth and shown in Fig. 1 (see Doubleday, 1981, for a review of procedures). The timing of the spring surveys, the frequency of fishing sets in the inshore strata (beginning in 1997) and the range of depths surveyed are shown below in Summary Table 1.

Summary table 1

SUMMARY TABLE ON CHANGES IN TIMING AND DEPTHS FISHED

Number of successful sets, spring surveys 1996-2005 (Campelen time-series)
All surveys conducted by *RV Wilfred Templeman*
Range of dates (earliest to latest day each year) shown in lower panel.

	3L	No. of inshore sets included	3N	3O	Total	Timing of Surveys: earliest	latest
1996	188	0	82	86	356	7-May	27-Jun
1997	158	0	71	81	310	30-Apr	26-Jun
1998	163	8	88	93	352	12-May	30-Jun
1999	177	32	82	86	377	11-May	29-Jun
2000	134	0	81	83	298	11-May	29-Jun
2001	154	12	79	79	324	29-Apr	24-Jun
2002	146	4	79	79	308	27-Apr	22-Jun
2003	155	14	79	79	327	8-May	26-Jun
2004	151	12	79	79	321	12-May	26-Jun
2005	133	0	78	79	290	9-May	29-Jun
mean	*155.9*		*79.8*	*82.4*	*318.1*		

Depth range (m), Campelen spring surveys 1996-2005.

	3L min	3L max	3N min	3N max	3O min	3O max
1996	66	664	42	665	65	685
1997	60	681	35	689	62	669
1998	53	721	38	682	64	657
1999	41	692	40	659	62	679
2000	61	681	45	664	61	694
2001	34	695	40	650	74	699
2002	42	710	40	641	63	628
2003	62	698	39	681	63	726
2004	47	710	44	675	61	636
2005	64	672	45	691	66	719

The 1984-2005 spring and the 1990-1994 fall surveys both covered depths from 45 to 731 m. Beginning in the fall of 1995 with the use of the new Campelen survey trawl, the coverage of the fall surveys extended to 1 500 m (see below). Mechanical problems with the CCG *Teleost* survey vessel permitted only sets in the deepwater strata of Div. 3L to be fished in 1995 (see table below). Since the fall of 1996, there has been relatively good success at fishing these deep water sets in most years with the exception of 1999 (see summary table below). However, the deep water fishing sets in the fall surveys have negligible effect on estimation of the relative abundance and biomass of yellowtail flounder because the stock is found almost exclusively in depths less than 93 m. Nevertheless, the

inclusion of these deepwater sets does lower the overall mean catch per tow by Division in those years. In addition, in years, 1995, 2002-2005, some northern portions of the surveys have overlapped into January of the following calendar year due to mechanical problems with the survey vessels. However, these delays are not expected to affect yellowtail flounder estimates because of its shallow water distribution in the southern section of the survey area.

Summary table 2:

Summary of sets in Campelen fall surveys in SA 3 in 1995 - 2005.
Depth range is given in meters, numbers of sets appear in parentheses. Only successful survey sets are shown here.

Year	Division	Ship				Year	Division	Ship			
		Teleost	*W. Templeman*	*A.Needler*	***Total***			*Teleost*	*W.Templeman*	*A.Needler*	***Total***
1995	3L	733-1210 (5)	63-640 (161)		166	2000	3L	152-1430 (74)	42-447 (102)		176
	3N		40-650 (90)		90		3N	747-1419 (24)	46-642 (70)		94
	3O		63-730 (81)		81		3O	752-1424 (24)	62-654 (76)		100
					337						**370**
1996	3L	805 - 1433 (31)	51 - 671 (180)		211	2001	3L	146-1457 (34)	38-702 (169)	187-203 (2)	205
	3N	390 - 1147 (13)		37 - 309 (54)	67		3N	739-1410 (24)	45-660 (70)		94
	3O	68 - 690 (24)	65 - 139 (19)	63 - 304 (15)	58		3O	803-1391 (22)	67-703 (75)		97
					336						**396**
1997	3L	161-1436 (71)	35-714 (134)		205	2002	3L	763-1431 (30)	35-670 (176)		206
	3N		41-769 (74)		74		3N	811-1429 (24)	44-675 (70)		94
	3O		62-611 (73)		73		3O	775-1504 (24)	65-696 (75)		99
					352						**399**
1998	3L	691-1437 (32)	34-675 (172)		204	2003	3L	753-1446 (30)	32-702 (175)		205
	3N	834-1447 (12)	37-1079 (78)		90		3N		43-727 (70)		70
	3O		82-1076 (87)		87		3O	761-1382 (8)	63-650 (75)		83
					381						**358**
1999											
						2004	3L	151-522 (4)	44-653 (143)		147
	3L	1366(1)	63-1407 (169)		170		3N		40-659 (69)		69
	3N		39-664(68)		68		3O		63-634 (76)		76
	3O		58-692(75)		75						**292**
					313						
						2005	3L	803-1351 (7)	50-706 (120)	121-667 (57)	184
							3N	776-1445 (17)	42-633 (69)		86
							3O	754-1410 (24)	69-649 (75)		99
											369

Notes
1995 fall survey extended into January 1996 (66 sets)
2002 fall survey extended into January 2003 (128 sets)
2003 fall survey extended into January 2004 (210 sets)
2004 fall survey extended into February 2005 (36 sets)
2005 fall survey extended into January 2006 (86 sets)

Survey gears and vessels: From 1971 to 1982 the surveys of the Grand Bank were conducted by the 54 m side trawler, the FRV *A. T. Cameron* (ATC) using a two bridle Yankee 41.5 otter trawl rigged with rubber disk footgear. In 1983, this trawl was replaced by the three bridle Engel 145 Hi-Lift otter trawl rigged with large steel bobbin footgear and, at the same time, the *A.T. Cameron* was replaced by the 50 m stern trawler, the CCGS *Wilfred Templeman* (WT). Occasionally the *W. Templeman's* sister ship, the CCGS *Alfred Needler* (AN) took part in the surveys. In 1995, the old standard Engel trawl was replaced by a three bridle Campelen 1800 shrimp trawl rigged with 35 cm diameter rockhopper footgear (see Fig. 2-4; Table 1). The Yankee and the Engel trawls were both towed at 3.5 kts, while the Campelen is towed at 3.0 kts (see McCallum and Walsh, 1996, for details). The Campelen trawl surveys of the Grand Bank began in the fall of 1995 aboard the CCGS *Wilfred Templeman*. The Campelen trawl also replaced the Yankee 41 shrimp trawl used in the annual fall juvenile groundfish surveys from 1985-94 (McCallum and Walsh, 1996). Beginning in the fall of 1996, the 63 m stern trawler, CCGS *Teleost*, began fishing mostly the deepwater survey sets of the annual fall surveys beyond 731 m in Div. 3LNO; however, shallower sets have also been fished when necessary (see Summary Table above). In addition, the CCGS *Alfred Needler* has taken part in the fall surveys in 1996 and 2001. The Campelen trawl onboard the 2 other survey vessels is identical in construction and rigging as the one on the *Wilfred Templeman*. Since 1993, the geometry and performance of all bottom trawl surveys have been monitored by Scanmar trawl mounted acoustic instrumentation (Walsh and McCallum, 1995; McCallum and Walsh, 2001).

Time series: Conversion factors have been derived from comparative fishing trials to convert the 1984-95 spring and 1990-94 fall Engel trawl survey data into Campelen trawl units and were presented in Walsh *et al.* (1998a, 1998b). Survey data from 1971-82 time period has not been converted to Campelen trawl units and the unconverted time

series can be found in the 1997 assessment paper (see Walsh *et al.*, 1997). Conversion factors into Campelen trawl units for yellowtail flounder have also been derived for the 1985-94 late summer-early fall juvenile groundfish series and the abundance and biomass data are found in a 2005 NAFO SCR paper (see Walsh, 2005). However, additional conversions of the database will be needed and consequently only annual spring and fall survey data from 1984 onward will be reported here.

Fishing and catch protocols: The Campelen carries out 15 minute tows using a towing speed of 3.0 kts and covers an average tow distance of 0.75 nautical miles (see Table 1). The catches are standardized to distance towed. The average wingspread used in estimating swept area abundance indices is 16.84 m and the average swept area is estimated to be 24 950 m^2. After each set, all species in the catch are separated, counted and weighed. From each haul, the total catch or a sub-sample is taken to collect biological data on size, age, maturity and feeding for all commercial species.

Results

A) Spring Groundfish Surveys 1984-2005

Abundance and biomass trends:

Tables 2 to 7 give the survey catch rates by division in the form of stratified mean number and weight-per-tow by stratum. Tables 8-15 show abundance and biomass per stratum, along with confidence limits, for stock size in Div. 3L, 3N, and 3O, respectively, and for a combined Div. 3LNO estimate for the time period 1984-2005. Figures 5 and 6 show plots of the abundance and biomass estimates from surveys during the 1984-2005 period. The high 1999 survey estimates point to a 'year effec' (Walsh *et al.*, 2000; STACFIS, 2000). The Summary Table 3 below identifies large fishing sets that may contribute to variation seen around some of the estimates of stock size in a given year.

Summary table 3:

Identification of large fishing sets in 1999-2005 by Divison and Stratum
Selection critteria was sets with greater than 900-1000 fish or sets >400 Kg.

SPRING

1999				2000							
Division	Stratum	Number	Weight (kg)	Div.	Stratum	Number	Weight (kg)				
3N	360	2131	666.5	**3N**	362	1274	400				
	360	1621	452.7		373	1147	450.6				
	361	1140	145.8								
	362	1315	244.4								
	362	1045	573.2								
	375	1029	130.4								
	376	1540	267.0								
	376	1023	182.4								
	376	1295	148.5								

2001				2002				2003			
Div.	Stratum	Number	Weight (kg)	Div.	Stratum	Number	Weight (kg)	Div.	Stratum	Number	Weight (kg)
3N	360	1404	303.5	**3N**	360	1474	432.5	**3N**	360	922	288.5
	360	1043	225.8		360	1096	268.8		360	1105	290.7
	360	1008	280.4		360	1200	376.4		373	906	319.1
	361	998	243.5		360	1118	332.4		376	1976	393.6
	362	1657	345.6						376	1004	305.1
	362	1388	242.4						376	1677	377.3
	373	4824	1653.8								
	376	1080	305.9								
	376	1370	293.2								
	376	2384	493.5								

2004				2005			
Div.	Stratum	Number	Weight (kg)	Div.	Stratum	Number	Weight (kg)
3N	360	1088	321.2	**3N**	360	1193	419.1
	360	952	480.8		361	1014	266.5
	361	990	219.8		362	964	328.4
	376	1226	315.9		373	934	376.1
					376	1669	481.3
				3O	351	859	320.83

FALL

1999				2000			
Division	Stratum	Number	Weight (kg)	Div.	Stratum	Number	Weight (kg)
3N	362	938	197.7	**3N**	360	1060	238.0
	362	1772	240.5		375	1020	232.5
					376	2193	419.6
					376	3994	1149.5
					376	1392	682.4
				3O	352	924	235.2

2001				2002				2003			
Div.	Stratum	Number	Weight (kg)	Div.	Stratum	Number	Weight (kg)	Div.	Stratum	Number	Weight (kg)
3N	361	1275	376.0	**3N**	360	1642	741.98	**3N**	360	1360	492.5
	362	1433	424.2		360	1190	315.23		361	1355	338.5
	376	4243	889.1		361	990	284.53		361	972	240.08
	376	2081	516.6		361	987	248.97		375	899	227.2
	376	3178	831.1		362	1289	295.7		376	1627	474.97
3O	338	1192	463.4		375	1103	295.5				
					376	1365	297.69				
					376	1367	258.55				
								3O	351	1345	255.0
									353	993	340.31

2004				2005			
Div.	Stratum	Number	Weight (kg)	Div.	Stratum	Number	Weight (kg)
3N	360	1151	286.4	**3N**	375	1515	292.8
	360	901	396.8		376	2218	494.9
	362	1492	224.6		376	2450	432.6
	373	943	384.9		376	4473	844.4
	375	2118	444.8		376	3614	602.9
	375	2151	518.5				
	375	1452	240.6				
	376	1170	348.1				
	376	1764	254.9				
3O	351	929	233.0	**3O**	352	1001	388.31

In Div. 3L, there was a continuous decline in abundance and biomass from 1985 to "0.0 t" in 1995 (Tables 8 and 12; Fig. 5 and 6). From 1996 to 1998, the stock has shown a marginal increase to stabilize at an average biomass level of 500 t and then increased (by 5550%) to a level of 28 000 t in 1999 (Table 12; Fig. 6). From 2000-2002 the abundance and biomass decline dramatically and by 2002 the biomass was 600 t (1.6 million fish). From 2002-2005

the abundance and biomass have been variable but showed an overall increase to the highest estimates in the time series in 2005 at 115.6 million fish and 43.6 t biomass. When the estimates are high most of the yellowtail flounder are generally found in stratum 363 and stratum 372.

In Div. 3N, in general, the majority of the stock was distributed in and around the Southeast Shoal area (strata 375, 376, 360 and 361 in Fig. 1), although in recent surveys, the abundance and biomass has been increasing in strata to the north of the Shoal, in particular strata 362 and 373 (Tables 9 and 13). The biomass index declined gradually from 168 000 t (435 million fish) in 1984 to 46 000 t (135 million fish) by 1994, a decline of 73% (Fig. 5 and 6). For the same period, the high abundance estimate of 478 million fish in 1989, was mainly due to the strong 1985 and 1986 year-classes which was not reflected in the biomass estimate for that survey. After a slight increase from 1994 to 1995, the survey biomass in 1996 jumped by 80% to 104 000 t (475 million fish) followed by a continued increase to a high of 238 000 t (965 million fish) in 1999 (Fig. 5 and 6). Since 1999, the survey abundance and biomass has varied without trend with the biomass in 2001 being the highest estimate in the time series at 298 000 t (1.3 billion fish): The 2005 biomass estimate was 264 000 t (822 million fish).

The high variability around the 2001 estimate of abundance and biomass in Fi. 5 and 6, both the highest estimates in their respective time series, was quite high. Some of this variation may be due to the several high catches. Over ½ of the estimate comes from sets in strata 360, 376, and 373. Similar to the 1999 survey where large catches were prevalent in strata 360, 361 362, 375 and 376, ten sets in 2001 had catches greater than 1 000 fish (5 in excess of 300 kg), in which one set caught 2400 (476 kg) in stratum 376 and another in stratum 373 caught 4800 (1.6 t) yellowtail flounder (see Summary Table 3 above). The biomass in stratum 373 contribute 79 000 t to the overall estimate of 298 000 t (Table 13). In 2003, there was also a few large catches (6> 900 fish; >200 kg) in strata 360, 373 and 376. In the 2000 and 2002 when the biomass was lower than in 1999, 2001 and 2003, there were a smaller number of incidences of large catches (2 and 4 >900 fish [>200 kg], respectively). In 2004 there were a few high catches in strata 360, 361 and 376 (4 >200 kg and >900 fish) and in 2005 strata 360, 361, 362, and 376 there were 4 sets greater than 200 kg.

In Div. 3O, the abundance and biomass have shown a somewhat stable but slightly declining trend from 1984 to 1992 with an upward jump in 1993 before again declining (Tables 10 and 14; Fig. 5 and 6). The biomass index showed moderate fluctuations around an average value of 27 000 t (675 million fish) for the period 1984-92, increasing to 42 000 t (101 million fish) in 1993 and then declining to an average of 11 000 t during the 1994-95 period. The anomalous high estimate in 1993 may have been produced by the high catch rates in stratum 352 and is reflected in the high variability around the estimate (see Fig. 5C). Since 1996 the population levels have shown a variable but upward trending increase reaching a survey high in 1999. In 1996, the survey biomass dramatically increased by 492 % from 12 000 t (29 million fish) in 1995 to 71 000 t (162 million fish). With the exception of the 1999 estimate of 99, 000 t (269 million fish), the biomass has fluctuated around an average level of 63 000 t (177 million fish) since 1996. In this Division, most of the biomass is generally found in the two strata, 351 and 352 (see Fig.1 for location) which borders Div. 3N. Whether some of the annual fluctuations are related to movement between Div. 3N and 3O is unknown.

From 2000-2005 abundance and biomass has shown a slightly increasing trend (Fig. 5 & 6). Since 2003 the abundance and biomass have remained fairly stabled at 236 million fish and 76 000 t, respectively.

In 2005, the survey biomass estimate reached 82 000 t (227 million fish) of which 83% came from strata 351 and 352, similar to other surveys (Table 14). There are no incidence of large catches (greater than 400 kg or 900 fish) in this division during the 1999-2004 time period but the 2005 survey had one large catch (see Summary Table 3 above).

In the spring surveys of Div. 3LNO because the majority of the survey abundance and biomass was found in Div. 3N and then total stock trends mimic that of Div. 3N. From 1989-1998 there have been negligible amounts in Div. 3L until the 1999 survey (Tables 11 and 15: Fig. 5 and 6).

Biomass in Div. 3LNO increased rapidly in the late 1990s from the lowest levels in the mid-1990s (Table 15). Between 1999 and 2005, the abundance and biomass has shown an annual up and down pattern (Fig. 5 and 6). The 2001 survey estimate of abundance and biomass was the most variable, and like the 1999 estimate it had many sets with large catches, including one with 1.6 t (4 824 fish) in Div. 3N. These large catches probably contributed to the

high variability around the estimate. Thus it is unlikely that this is a year effect as was seen in 1999 since the 2001 biomass was very low in Div. 3L and even showed a small decline in Div. 3O.

In 2005 the biomass reached its highest estimate in the time series at 389 000 t (1.2 billion fish) (Table 15). The upward trend was seen in all three divisions, in particular Div. 3L where the highest estimate in the time series was seen. Similar to 1999 survey, more yellowtail were caught in the northern area of Div. 3N and in the southern area of Div. 3L in 2004 and 2005 when compared to 2002. In 2004 and 2005, the majority of the biomass was located in and around strata 351 and 352 of Div. 3O and in strata 360, 361, 375 and 376, the Southeast Shoal area in Div. 3N and a few large catches (>400 kg) were taken in strata 360 and 376 (see Summary Table 3 above). It is more probable to say that 2002 was a negative anomaly as reflected in the lack of fish in the northern areas.

B) **Fall Groundfish Surveys, 1990-2005**

Abundance and biomass trends:

Tables 16-21 show the survey catch rates in the form of stratified mean number and weight-per -tow by stratum and division for the fall surveys, 1990-2005. Tables 22-29 show abundance and biomass per stratum, along with confidence intervals for all divisions. Figures 7 and 8 shows plots of the abundance and biomass estimates by division from 1990-2005 and a combined Div. 3LNO estimate for the same time period.

In Div. 3L, abundance and biomass was very low and variable without trend from 1990-1995, reaching an estimate close to zero in 1994 (Fig. 7 and 8). Noteworthy is that a "0.0" t biomass was also estimated for the 1995 spring series. From 1990 to 95 the abundance varied around an average level of 2 million fish and then tripled to 6 million fish in 1995 and 1996. The biomass varied around an average level of 1 000 t from 1990-1997 before beginning an upward trend to the highest level of 26 000 t estimated in the time series in 2001 (Table 26). Similarly the abundance rose from 6 million fish in 1996 to 75 million fish in 2001. Both the abundance and biomass dropped dramatically in 2002, 56% and 46%, respectively.

Since 2002 the abundance and biomass has showed a slightly increasing trend to 2004 before dropping off in 2005. Average abundance and biomass from 2003 to 2005 was 53.7 million fish and 18 300 t, respectively. Most of the fish in recent years were found in two strata, 363 and 372 (Tables 22 and 26) which border Div. 3N. These increases in biomass in Div. 3L are thought to be the result of an extension of the range of yellowtail flounder with increasing stock size (see spatial section below). There are obvious within year differences in the amount of yellowtail flounder caught in this Division and this is reflected in the high variability around the estimates for 1999-2001 and 2003-2005.

In Div. 3N, the stock size, from 1990-92, fluctuated around an average value of 47 000 t before doubling in size in 1993 to 94 000 t (Table 27). Since then the stock has shown an upward increasing trend to a high of 369 000 t in 2001 followed by a decrease to 252 000 t in 2003 (Table 27; Fig. 8). Similarly, the survey abundance from 1990-94 fluctuated around an average size of 222 million fish before showing a strong upward trend in 1995 to 509 million fish and reaching a high level of 1.3 billion fish in 2001, representing an overall increase of 160% (Table 23; Fig 7). From 2001 the abundance has decreased to a level of 900 million fish. The large jump in stock biomass seen in the 2003 spring survey was not evident in the fall survey (81% *vs.* 10%, respectively) because the fall 2002 survey did not show a decline as was seen in the spring 2002. Since 2001 both the abundance and biomass have been stabilized at a level of 1.0 billion fish and 269 400 t biomass, respectively (Fig. 7 and 8). In 2005, the abundance and biomass were estimated at 1.1 billion fish and 261 500 t, respectively.

Much of the large increases seen in the 2001 survey was attributed to large catches in stratum 376 ranging with 5 sets from 420 to 1150 kg (2 000 to 4 000 fish; 2 sets >800 kg) contributing 33%, to the divisional total estimate and to the large confidence interval around both estimates of abundance and biomass for 2001 (see Summary table 3 above). Since 2001, stock size shows a slight downward trend in biomass while abundance appears relatively stable. Catches larger than 400 kg have been less numerous with the exception of 2005 where 4 catches were above 400 kg (1 515-4 473 fish) (Summary table 3 above). In 2004 and 2005 all of these large catches were on the Southeast Shoal, strata 375 and 376.

Similar to the spring surveys strata 360, 361, 362, 373 and 376 account for most of the biomass in this Division.

In Div. 3O, both the abundance and biomass index showed no obvious trend from 1990-96, with abundance fluctuating around an average value of 55 million fish and biomass fluctuating around an average level of 20 000 t (Tables 24 and 28: Fig. 7 and 8). Then in 1997, the biomass level jumped by 205% to 26 000 t (159 million fish). From 1997-99 the biomass showed a slight decreasing trend before turning upward to 98 000 t by 2003. Since 1997 the abundance has been somewhat variable but with an upward trend moving from 159 million fish in 1997 to 334 million fish in 2003. Both the 2001 and 2003 estimates of abundance and biomass were highly variable, but the 2003 estimates of biomass and abundance, which are the highest in the time series, are not as variable as 2001 (Tables 24 and 28). Although slightly lower than 2003, the abundance and biomass in 2004 and 2005 was stabilized at an average level of 200 million and 64 000 t, respectively.

A large catch of 1200 fish (463 kg) in the western stratum, 338, may have contributed to the large variability around the 2001 fall estimate. Even though the estimate of stock size was low in 2002 there were 3 large catches taken on the Southeast shoal strata. In 2003-2005, there were a few large catches (>1 000 fish (see Summary table 3 above) taken in the surveys (weight range of 200-400 kg). Similar to the spring surveys, most of the biomass in this division was found in strata 351 and 352 which borders Div. 3N.

In the fall survey of Div. 3LNO, similar to the spring surveys, the majority of the stock was found in Div. 3N. The abundance and biomass in this division has shown a general upward trend since the start of the surveys (Table 25 and 29 and Fig. 7and 8). Since 1993, when the survey biomass was estimated to be 113 000 t (372 million fish), there has been an increasing upward trend to a high of 476 000 t (1.2 billion fish) in 2001, representing a 321% increase in stock biomass. The 2001 survey biomass estimate of 476 000 t showed a 42% increase in size over the 2000 estimate. In recent years the biomass in the Southeast Shoal's strata, 375 and 376, contribute significantly to the overall biomass: 34 % in 2000 and 55% in 2001 and the large catches in these strata contribute to the high variability around these two survey estimates. Since 2001 the biomass has decreased to 368 000 t (1.3 billion fish) in 2003 putting the 2002 and 2003 more in line with the 2000 estimates. The annual up and down pattern in the biomass and abundance from 1998 to 2003 evident in the spring surveys is not apparent in the fall surveys (Tables 15 and 27). From 2002 to 2005, the abundance and biomass were stable around an average level of 1.3 billion fish and 356 400 t, respectively.

In 2005 abundance and biomass were estimated to be 1.4 billion fish and 342 700 t, respectively, compared with 1.2 billion fish and 388 800 t for the spring survey.

Spatial and temperature analysis of the 2004-2005 survey data.

The distribution of yellowtail flounder is mainly concentrated in Div. 3N and the bordering areas of Div. 3O and to a lesser extent the border of Div. 3LN (Fig. 9), similar to most years in the time series. Figures 9 and 10 show the standard number and weight from the catches of individual fishing sets plotted as SURFER expanding point estimates using the spring and fall Campelen trawl data for 2004-2005 and overlaid onto a contour of survey bottom temperatures collected by a headline mounted CTD instrument during the surveys (see Colbourne and Walsh, 2006 for details).

In the 2004-2005 surveys, yellowtail flounder were most abundant on the Southeast Shoal and the strata immediate to the west in Div. 3N (Fig. 9 and 10) most of which straddle the Canadian 200 mile (360 km) limit and extend into the Regulatory Area. This confirms earlier descriptions of distribution (Walsh, 1992; Brodie *et al.*, 1998; Walsh *et al.*, 1999; 2000; 2001a, c; Simpson and Walsh, 2003; Walsh *et al.*, 2004). Yellowtail flounder also appear to be more abundant in the Regulatory Area of Division 3N in the 1999-2005 surveys than in previous years and the northward distribution of the stock has extended to Div. 3L, similar to mid-1980s when the stock size was high (Simpson and Walsh 2003). Brodie *et al.* (1998) noted that the northward range extension of yellowtail flounder on the Grand Bank contracted with decreasing stock size during the mid to late 1980s and early 1990s so that the bulk of the stock was south of 45°N. Simpson and Walsh (2003) have shown that the observed range contraction of yellowtail flounder at low population levels represents selection for preferred habitats in the southern area of the Bank where depth and temperature are important covariates affecting the spatial pattern. Whereas during periods of large increases in stock size, the range of yellowtail flounder expands into less favourable habitats to north, depth but not temperature plays an influential role, and to a lesser extent westward in support of MacCall's Basin hypothesis. Recent tag returns from the 1998-2000 fishery have also confirmed the northward extension of the stock in recent years (Walsh *et al.*, 2001b; Walsh *et al.*, 2006).

Figure 11 shows a plot of the proportion of biomass north of 45° longitude from 1973 to 2003 and it is obvious that the range of the stock has extended northward since 1995. When the stock size was high during the 1970-80s over 30% of the biomass was found north of 45° and when the stock declined in the early 1990s less than 10% was found in that area (exception was 1993 at 30%). From 1996-2001, and in 2003 and 2005, the proportion of biomass north 45° is higher in the spring than in the fall. The one obvious exception is the spring of 2002, when the proportion of biomass is much lower than in fall 2002, and is close to the low values in the early 1990s. The surrounding data suggest that the 2002 spring point is anomalous. Six of the last seven values were around 22-30%, although spring 2005 was higher at 45%.

Colbourne and Walsh (2006) noted that in 1990-2005 surveys the centroid of the biomass of yellowtail flounder located within Div. 3NO was found over the Southeast Shoal of the Grand Bank. This area corresponds to some of the warmest bottom temperatures found anywhere on the Grand Banks. The authors reported that spring bottom temperatures in this region range from a minimum of 1-2°C during cold years (1990) to 3-4°C during warm years (1998 and 1999). Fall bottom temperatures are in general warmer than spring values ranging from 2-3oC in most years to maximum values of between 7-8°C during extreme years (1999). Since 1999, with the exception of 2002, survey catch rates of yellowtail have remained significantly higher than those before 1995. With the exception of 2003 spring bottom temperatures have also been higher than they were in the early 1990s. The cold temperature values observed in the spring of 2003 were anomalous and lasted from April to June and were above average during the remainder of the year (Colbourne *et al.*, 2004). However there is no indication that the temperature had a limiting factor in the northward distribution of yellowtail flounder in the 2002 spring survey (See Fig. 12); and 2004 fall survey (Fig. 12 and 13; Colbourne and Walsh, 2006).

In summary, there was a steady increase in the abundance of yellowtail flounder coinciding with a northward expansion of the stock from 1995 up to 2005 that also coincided with an increasing trend in bottom temperatures. Colbourne and Walsh (2006) noted that these results indicate a temperature preference for yellowtail towards the warm water habitat of the Grand Banks. The 2004-2005 surveys showed increasing frequency of catches in the northern areas, especially Div. 3L in the spring with some catches being taken in less than 0°C in the fall of 2004.

Spatial analysis and depth distribution

Simpson and Walsh (2003) used GAM to investigate the effect of habitat correlates on the distribution of yellowtail and concluded that yellowtail are more frequently found in shallow warmer waters and sand and gravelly sand substrates. Nevertheless, occasionally small catches have been taken in deeper waters on the shelf edge and slope. Tables 2-4 and 16-18 give the average number of fish caught per tow in the spring and fall surveys on a divisional basis.

In Div. 3L, occasional small catches were taken in the spring surveys in depth range of 93-183 m on the northern slope of the bank in each year except 1992, 1995, 2001 and 2002 (Table 2). Only one catch exceeded 10 fish per tow and that was in stratum 364 where an average catch of 18 fish was taken in 1999; most average catches were less than 1 fish per tow, and none were found deeper than 183 m. In the fall surveys, fewer catches of yellowtail were taken in each year except 1990-1991, 1993-1995, 1997, and 2001. All average catches had less than 2 fish per tow (Table 16). The deepest was found in the depth range of 184-366 in stratum 791, an inshore stratum in this division in 2002.

In Div. 3N, small catches were taken in the spring surveys of 1988, 1993, and 2000-2002 and 2005 mainly in the depth range of 93-183 m (Table 3). These catches ranged from 0 to 6.5 fish per tow. From 2000-2002 and 2004, a few catches were taken in the depth range of 184-366 m with catches ranged from 0.4 to 7.0 fish per tow. In the fall surveys beginning in 1997, fewer catches were taken and all of them in the depth range of 93-183 m where average catches ranged from 0 to 11.5 (Table 17).

In Div. 3O, small catches were taken in every spring survey from 1984-2005 in the strata along the southwest slope of the bank in the depth range of 93-183 m (Table 4). Here average catches range from 0 to 30.4 fish per tow. With the exception of 1993, small catches have been taken in those strata in a depth range from 184 to 731 m in the 1992-1998 surveys, with 1995 and 1997 having the most frequent occurrences. Average catches ranged from 0 to 6.5 fish per tow. Since 1998, no catches have been taken deeper than 183 m. In the fall surveys, many strata in the 93-183 m

depth range along the southwest slope of the bank yield small average catches of yellowtail ranging from 0.1 to 23.0 fish per tow (Table 18). However, with the exception of 1994 when small catches (average of 0.5 to 3.0 fish per tow) were taken in two strata near the western end of the southwest slope of the bank in the depth range 275-549 m there were no catches in waters deeper than 183 m.

In summary, the majority of the stock is found shallower than 93 m and these small catches in deepwater contribute little to the abundance and biomass estimates for the stock. Small catches of yellowtail in waters deeper than 93 m are more prevalent during the spring surveys than during the fall surveys. Most of these catches were taken in strata in the 93 to 183 m depth range and the most numerous catches were taken in Div 3O along the southwest slope of the bank. This reduction in the frequency of small catches in deep water from spring to fall could either indicate seasonal movements, but there is no annual pattern to the data, or it could indicate fringe areas of the stock.

Conclusions

Since 1995, the surveys have shown that the stock has been increasing in size after the decline in the late 1980s and early 1990s. In the 1999 spring survey, but not the fall survey, a huge increase in abundance and biomass was evident and this survey is regarded as an estimate with 'year' effects (STACFIS 2000). In the 2000 surveys, both the spring and fall abundance estimates were lower than that estimated from the 1999 surveys, being more in line with the 1998 surveys. However, both the 2001 spring and fall estimates showed large increases since the 2000 survey. The 2001 fall estimate of 476 000 t was 30% higher than the spring estimate of 367 000 t. The trend in the stock component in Div 3N is upward in both 2001 spring and fall from the 2000 estimates, but remained almost the same size in Div 3O in both years and showed a declining trend in the spring survey and an increasing trend in the fall surveys in Div. 3L. Between 2001 and 2002, the stock biomass declined both in the spring (46%) and fall (29%), followed in 2003 by a 93 % increase in the spring survey and a 8% increase in the fall survey. In the 2004 report on distribution and abundance (Walsh *et al*., 2004) there was some discussion that 2003 was an anomalous year however, with the 2004-2005 data to compare with, there is no apparent difference in the amount of variability around the 2003-2005 estimates of abundance and biomass to support this '2003 year effect' hypothesis.

In the 2004-2005 surveys, the spring abundance and biomass estimates showed a continuation of the annual fluctuation in pattern which began in 1998, while the fall, with the exception of 2001, has been fairly stable since 2000. In 2004-05 surveys there were several large catches taken on the Southeast Shoal nursery area in the fall surveys when compared to the spring surveys.

In 2002, the spatial structure of the stock was such that, uncharacteristically in recent years, very few were being caught north of 45° in Div. 3N and the biomass had decreased by 166 000 t from 2001 to 2002. It is possible that 2002 spring was the result of a 'year effect' which was characterized by a decrease in availability or vulnerability. Such a change would occur if the fish were less accessible to the trawl. Temperature doesn't appear to be a limiting factor for that survey. Since there were no reports of large catches of yellowtail in deeper waters in Div. 3NO then one possible explanation was some fish may have been off bottom as seen in the archival data from returned data storage tags (Walsh and Morgan, 2004; Walsh *et al.*, 2006). Since the fall of 2002 the spatial structure had shown the northward expansion into Div. 3L.

In recent years, abundance and biomass in the spring surveys showed an annual variation whereas the fall surveys showed that the stock is relatively stable since 2002.

In 2005 the spring abundance and biomass were estimated 1.2 billion fish and 388 800 t compared with the fall survey to be 1.4 billion fish and 342 700 t, respectively.

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Table 1. Trawl design, rigging and geometry of Campelen 1800 shrimp trawl used in annual bottom trawl surveys (Adopted from McCallum and Walsh 1996)

Parameter	**Measurement**
Rigging	
Doors	4.3m/1400 kg
Sweeps (m)	6.1
Bridles (m)	40
Buoyancy (kg)	226.5
Headline (m)	29.5
Fishing line (m)	19.5
Footgear	
Length (m)	35.6
Material	102 rubber disks (rockhopper)
Weight in air (kg)	501.3
Size (diameter cm)	35
Mesh Size (mm)	
Wings/square	80/60
Bellies	60/44
Codend	44
Liner	12.7
Material	Polyethelylene
Geometry	
Doorspread (m)	45 to 55
Wingspread (m)	15 to 17
Opening (m)	4 to 5
Towing speed (knots)	3.0
Swept Area Abundance Model	
Tow duration (min)	15
Tow distance (nm)	0.8
Average wingspread (m)	18.23
Catchability coefficient	1.0
Swept area (nm2)	0.00727

Table 2. Mean Number per set of Yellowtail Flounder by stratum, Div 3L - Spring

Depth Range (m)	Stratum	No. of trawlable Units	1984 AN 28	1985 WT 28-30	1986 WT 48	1987 WT 58-60	1988 WT 70, 71	1989 WT 82,83	1990 WT 96	1991 WT 106,107	1992 WT 120-122	1993 WT 137,138	1994 WT 152-154	1995 WT 169,170	1996 WT 189-191	1997 WT 205-208	1998 WT221-24	1999 WT240-41	2000 WT317,318	2001 WT368-70	2002 WT 423-24	2003 WT 481-82	2004 WT 548-49	2005 WT 621
30-56	784	36,866.4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0	0.0	.	0.0	0.0		0.0	
57-92	350	284,889.0	3.2	7.4	4.4	1.3	2.8	1.4	0.3	1.5	0.1	0.0	0.1	0.0	1.6	0.0	0.0	33.2	21.5	4.5	0.3	8.4	11.9	22.2
	363	244,858.7	45.6	27.6	14.5	13.1	9.9	3.4	7.6	1.3	0.2	0.0	0.0	0.0	4.4	1.0	0.0	94.8	97.9	13.7	0.7	207.7	55.7	209.8
	371	154,206.0	.	0.7	0.7	0.0	0.8	0.2	0.0	0.4	0.0	0.0	0.0	0.0	0.4	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.8	56.0
	372	338,400.3	96.6	117.1	62.0	24.4	13.9	19.5	8.0	4.0	0.6	0.7	0.1	0.0	2.5	2.4	5.1	47.3	28.2	19.1	3.8	113.8	63.1	142.5
	384	154,068.4		7.7	2.5	1.9	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.5	0.8	0.3	0.3	0.3	0.0
	785	63,965.9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0	0.0	.	0.0	1.0		1.5	
93-183	328	208,955.3	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	341	216,521.2	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.2	0.2	1.3
	342	80,473.2	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	343	72,219.6		0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	348	291,629.5		0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	349	290,804.1	0.2	0.1	2.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	18.0	2.6	0.0	0.0	0.4	0.0	0.3
	364	387,509.6	1.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.5	0.0	0.0	0.0	0.0	1.9
	365	143,201.1	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	370	181,580.6	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	385	324,093.9	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	390	203,728.0	.	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	786	11,555.1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0	0.0	.	0.0	0.0		0.0	
	787	84,325.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0	.	0.0	0.0		0.0	
	794	29,713.2																				0.0		
	797	13,481.0																				0.0	0.0	
184-274	344	205,516.3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	347	135,222.6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	366	191,760.2	.	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	369	132,196.2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	386	135,222.6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	389	112,937.7		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	391	38,792.2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	795	22,560.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.6		
275-366	345	196,987.5	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	346	118,990.3	.	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	368	45,945.4	.	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	387	98,768.9	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	388	49,659.6	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	392	19,946.4		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	796	24,073.2	.																			0.0		
	798	13,756.1																				0.0		
367-549	729	25,586.4		0.0						0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	731	29,713.2	.	0.0	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	733	64,378.6		0.0						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	735	37,416.6		0.0							0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	792	6,878.1															0.0			0.0	0.0	0.0		
550-731	730	23,385.4		0.0						0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	732	31,776.6	.	0.0	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	734	31,363.9		0.0						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	736	24,073.2	.	0.0							0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
732-914	737	31,226.4											0.0											
	741	30,676.1											0.0											
	745	47,871.3	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.			
	748	21,872.2											0.0											
Mean No. (sets)			**22.1(37)**	**9.4(221)**	**5.3(211)**	**2.4(181)**	**1.6(154)**	**1.6(205)**	**0.9(156)**	**0.4(143)**	**0.1(178)**	**0.1(181)**	**0.0(160)**	**0(151)**	**0.5(188)**	**0.2(158)**	**0.3(155)**	**9.6(175)**	**7.6(134)**	**2.1(153)**	**0.3(146)**	**16.9(155)**	**6.9(151)**	**21.7(133)**
Upper C.I.			**39.3**	**14.6**	**7.8**	**3.6**	**2.4**	**2.6**	**1.6**	**0.7**	**0.1**	**0.1**	**0.0**	**0.0**	**0.7**	**0.4**	**0.8**	**15.6**	**11.3**	**4.2**	**0.6**	**30.2**	**12.9**	**37.5**
Lower C.I.			**5.0**	**4.2**	**2.8**	**1.2**	**0.9**	**0.5**	**0.2**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.2**	**0.1**	**-0.2**	**3.6**	**3.9**	**0.0**	**0.0**	**3.6**	**1.0**	**5.8**

Table 3. Mean Number per set of Yellowtail Flounder by stratum, Div 3N - Spring

Depth	Stratum	No. of	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Range		trawlable	*AN 27*	*AN 43*	*WT 47*	*WT 58,59*	*WT 70*	*WT 82*	*WT 95,96*	*WT 106*	*WT 119,120*	*WT 136,137*	*WT 152,153*	*WT 168,169*	*WT 189*	*WT 205,206*	*WT 221-24*	WT 238-40	WT 316,317	WT 367-69	WT 421-24	WT 480-81	WT 547-48	WT 619-21
(m)		Units		*WT 29*																				
<=56	375	219,134.8	373.6	165.6	409.6	208.3	118.5	82.3	259.5	21.5	340.3	135.7	29.0	139.7	603.3	487.2	411.6	476.4	359.0	301.6	213.4	395.0	286.2	240.0
	376	206,204.1	91.5	220.3	162.3	719.6	125.7	977.0	521.3	764.1	183.7	35.0	2.3	10.8	67.8	1,029.8	524.8	911.0	349.5	1145.8	243.8	1092.6	768.7	830.8
57-92	360	411,582.8	289.7	155.3	32.3	33.0	7.0	480.3	91.7	50.1	140.2	41.9	6.8	133.2	364.7	126.2	374.4	680.3	215.7	549.4	730.8	600.1	470.3	465.8
	361	254,900.7	338.6	171.0	101.4	130.1	166.6	142.3	293.3	242.9	63.6	237.9	451.0	276.7	453.6	477.2	455.7	586.7	544.0	639.2	375.3	526.2	472.4	415.1
	362	346,653.9	227.1	74.4	159.9	103.3	73.3	50.9	79.4	53.7	7.5	86.8	2.3	0.6	169.3	210.5	300.0	507.7	519.1	522.6	55.6	263.2	307.9	456.0
	373	346,653.9	122.0	58.1	28.2	38.7	34.6	20.8	2.5	13.4	0.1	0.1	3.0	0.0	7.8	1.9	11.1	103.1	311.8	680.9	32.9	273.6	55.4	315.6
	374	128,069.4	59.7	38.5	14.8	7.6	4.2	0.2	1.8	0.4	1.0	0.0	0.0	3.3	15.3	10.7	5.8	248.7	225.5	88.3	31.3	279.7	225.3	254.0
	383	92,716.2	3.7	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
93-183	359	57,913.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0
	377	13,756.1	0.0	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	4.0
	382	89,002.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
184-274	358	30,951.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
	378	19,121.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0
	381	25,036.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
275-366	357	22,560.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	379	14,581.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
	380	15,957.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367-549	723	21,322.0								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	725	14,443.9	.	.	.	.	.	.	.	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	727	22,009.8								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550-731	724	17,057.6	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	726	9,904.4								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0
	728	21,459.5	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
732-914	752	18,493.2	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.			
	756	14,581.5	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.			
	760	21,184.4	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.			
Mean No. (sets)			**189.7(61)**	**104.6(85)**	**100.0(101)**	**128.1(91)**	**58.9(77)**	**208.4(94)**	**133.1(85)**	**111.7(93)**	**79.3(94)**	**60.4(85)**	**51.5(76)**	**66.1(89)**	**198.0(82)**	**233.2(71)**	**240.4(88)**	**402.1(82)**	**289.5(81)**	**466.4(79)**	**61.4(79)**	**381.0(79)**	**287.4(79)**	**342.4(78)**
Upper C.I.			**251.2**	**135.1**	**141.7**	**202.3**	**86.3**	**335.7**	**205.4**	**165.4**	**127.0**	**103.6**	**89.1**	**101.0**	**254.8**	**349.9**	**324.1**	**499.8**	**356.3**	**660.0**	**80.0**	**467.6**	**357.7**	**421.9**
Lower C.I.			**128.2**	**74.1**	**58.3**	**53.9**	**31.6**	**81.2**	**59.9**	**57.9**	**31.6**	**17.1**	**13.8**	**31.3**	**141.1**	**116.5**	**156.8**	**304.4**	**222.8**	**272.8**	**42.7**	**294.5**	**217.2**	**262.9**

Table 4. Mean Number per set of Yellowtail Flounder by stratum, Div 3O -Spring

Depth	Stratum	No. of	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Range		trawlable	*AN 27*	*AN43*	*WT 47*	*WT 58*	*WT 70*	*WT 82*	*WT 94,95*	*WT 105*	*WT 119,120*	*WT 136*	*WT 152*	*WT 168*	*WT 188,189*	*WT 204,205*	*WT221-24*	*WT238,39*	*WT315-17*	*WT365-67*	*WT419-21*	*WT479*	*WT546-47*	*WT618-19*
(m)		Units																						
57-92	330	287,365.1	1.0	14.8	5.0	1.5	1.1	2.0	1.2	9.2	0.0	0.1	0.0	0.0	1.8	0.6	0.5	0.6	47.2	1.6	6.0	10.3	8.9	8.4
	331	627,727.9	50.0	62.3	5.3	26.5	9.0	25.0		1.0	0.0	2.0	5.5	0.5	1.5	5.3	1.0	69.8	43.5	30.0	17.0	86.5	36.5	45.5
	338	261,090.9	30.0	22.2	10.6	4.1	48.9	13.2	11.3	17.1	18.0	13.0	5.0	10.0	66.0	68.1	54.3	63.7	43.2	148.8	28.7	30.2	15.6	21.0
	340	236,054.8	6.0	13.6	16.3	40.8	10.0	6.4	17.7	5.4	3.2	2.8	0.0	0.2	0.0	9.0	1.6	8.8	44.0	11.4	13.6	82.2	7.8	34.4
	351	346,653.9	80.0	85.6	80.7	39.5	75.2	43.5	52.4	24.5	7.2	5.8	0.3	0.8	28.5	65.3	50.7	324.2	105.3	147.5	70.8	105.9	199.7	297.9
	352	354,907.6	63.7	55.6	73.0	103.4	47.2	50.7	77.9	78.4	50.8	226.1	55.6	36.0	312.6	177.4	246.3	279.7	268.4	217.9	294.0	458.8	331.0	247.6
	353	17,683.3	2.0	98.5	32.1	148.5	3.0	9.6	20.7	26.7	10.0	66.5	1.8	70.2	122.2	175.0	190.6	188.2	92.4	124.9	80.6	36.0	228.7	83.8
93-183	329	236,742.6	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.4	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0
	332	144,026.5	0.0	0.6	14.2	9.2	0.3	30.4	1.8	1.3	1.0	13.3	0.3	1.5	6.5	1.3	7.5	4.8	0.0	4.3	22.0	5.7	0.0	1.7
	337	130,407.9	0.0	0.0	1.0	1.2	2.3	2.8	0.0	0.0	1.0	7.0	0.3	0.5	3.0	15.9	0.5	0.9	2.0	0.0	8.7	0.0	0.0	4.4
	339	80,473.2	1.0	0.3	0.3	0.3	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.0	27.0	1.0	11.0	0.0	6.5
	354	65,204.0	0.0	1.0	0.0	0.0	0.0	0.5	0.0	3.0	0.0	0.0	0.0	0.7	2.0	0.5	0.0	0.4	1.0	0.0	0.0	0.0	1.0	0.0
184-274	333	20,771.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	336	16,644.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
	355	14,168.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275-366	334	12,655.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	335	7,978.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	356	8,391.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367-549	717	12,793.2	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	719	10,454.6								0.0	0.0	0.0	0.0	0.0	0.8	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	721	10,454.6	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550-731	718	15,269.3	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	720	14,443.9	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	722	12,793.2	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	6.5	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
732-914	764	14,443.9	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.			
	772	18,570.8											0.0											
Mean No. (sets)			**27.9(52)**	**34.2(93)**	**28.5(95)**	**36.9(91)**	**59.7(77)**	**18.9(101)**	**23.9(84)**	**19.7(107)**	**11.0(91)**	**39.8(75)**	**8.6(76)**	**11.2(80)**	**70.6(70)**	**54.6(75)**	**60.9(93)**	**105.4(86)**	**73.1(83)**	**77.3(79)**	**63.1(79)**	**95.3(79)**	**93.2(79)**	**89.1(79)**
Upper C.I.			**45.8**	**46.2**	**39.5**	**52.6**	**85.2**	**26.1**	**36.5**	**30.0**	**15.9**	**80.5**	**17.6**	**19.2**	**96.3**	**89.1**	**83.4**	**141.2**	**95.8**	**113.3**	**102.9**	**122.6**	**130.1**	**121.3**
Lower C.I.			**9.9**	**22.1**	**17.5**	**21.2**	**34.2**	**11.8**	**11.2**	**9.3**	**6.1**	**-0.9**	**-0.4**	**3.1**	**44.9**	**20.1**	**38.3**	**69.7**	**49.4**	**41.2**	**23.3**	**68.0**	**56.3**	**57.7**

Table 5. Mean Weight (Kg) per set of Yellowtail Flounder by stratum, Div 3L - Spring

Depth Range (m)	Stratum	No. of trawlable Units	1984 *AN 2 8*	1985 *WT 28-30*	1986 *WT 48*	1987 *WT 58-60*	1988 *WT 70,71*	1989 *WT 82,83*	1990 *WT 96*	1991 *WT 106,107*	1992 *WT 120-122*	1993 *WT 137,138*	1994 *WT 152-154*	1995 *WT 169,170*	1996 *WT 189-191*	1997 *WT 205-208*	1998 *WT221-224*	1999 *WT240-41*	2000 *WT317,318*	2001 *WT368-70*	2002 *WT422-24*	2003 *WT481-82*	2004 *WT548-49*	2005 *WT621*
30-56	784	36,866.4															0.0	0.0		0.0	0.0		0.0	
57-92	350	284,889.0	1.4	3.5	2.0	0.6	1.4	0.6	0.2	0.7	0.1	0.0	0.1	0.0	0.7	0.0	0.0	16.3	8.4	2.1	0.1	2.6	4.6	7.9
	363	244,858.7	2.2.2	12.6	6.9	6.3	4.5	1.6	3.4	0.6	0.1	0.0	0.0	0.0	2.2	0.5	0.0	51.6	43.6	5.3	0.1	77.6	23.7	84.0
	371	154,206.0		0.4	0.3	0.0	0.4	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.3	20.9
	372	338,400.3	4.6.5	4.8.2	28.7	11.2	6.2	9.9	4.0	2.0	0.3	0.4	0.1	0.0	1.1	0.7	1.4	24.2	12.0	7.0	1.5	43.0	23.8	50.9
	384	154,068.4	.	3.7	1.5	1.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.2	0.3	0.3	0.0	0.2	0.0
	785	63,965.9															0.0	0.0		0.0	0.2		0.8	
93-183	328	208,955.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	341	216,521.2	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.1	0.3
	342	80,473.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	343	72,219.6		0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	348	29,162.9.5		0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	349	290,804.1	0.1	0.0	1.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	7.9	1.0	0.0	0.0	0.1	0.0	0.1
	364	387,509.6	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.2	0.0	0.0	0.0	0.0	0.7
	365	143,201.1		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	370	181,580.6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	385	324,093.9	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	390	203,728.0		0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	786	11,555.1															0.0	0.0		0.0	0.0		0.0	
	787	84,325.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0	.	0.0	0.0	.	0.0	
	794	29,713.2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0		
	797	13,481.0																				0.0		
184-274	344	205,516.3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	347	135,222.6	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	366	191,760.2	.	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	369	132,196.2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	386	135,222.6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	389	112,937.7	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	391	38,792.2		0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	795	22,560.0																				0.3		
275-366	345	196,987.5	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	346	118,990.3	.	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	368	45,945.4		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	387	98,768.9		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	388	49,659.6	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	392	19,946.4	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	796	24,073.2																				0.0		
	798	13,756.1																				0.0		
367-549	729	25,586.4	.	0.0	.	.	.	.	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	731	29,713.2		0.0						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	733	64,378.6		0.0						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	735	37,416.6	.	0.0	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	792	6,878.1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0	0.0	.	0.0	0.0	0.0		
550-731	730	23,385.4		0.0						0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	732	31,776.6		0.0						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	734	31,356.9	.	0.0	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	736	24,073.2	.	0.0	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
732-914	737	31,226.4											0.0											
	741	30,676.1											0.0											
	745	47,871.3	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.			
	748	21,872.2											0.0											
Mean Wt (No sets)			**10.7(37)**	**4.0(221)**	**2.5(211)**	**1.1(181)**	**0.7(154)**	**0.8(205)**	**0.4(156)**	**0.2(143)**	**0.0(178)**	**0.0(181)**	**0.0(160)**	**0.0(151)**	**0.2(188)**	**0.1(158)**	**0.1(155)**	**4.9(175)**	**3.2(134)**	**0.8(153)**	**0.1(146)**	**6.3(155)**	**2.8(151)**	**8.2(135)**
Upper C.I.			**19.0**	**6.0**	**3.6**	**1.7**	**1.1**	**1.3**	**0.8**	**0.4**	**0.1**	**0.1**	**0.0**	**0.0**	**0.3**	**0.1**	**0.2**	**8.0**	**4.8**	**1.6**	**0.2**	**10.9**	**5.2**	**13.9**
Lower C.I.			**2.3**	**1.9**	**1.4**	**0.6**	**0.4**	**0.2**	**0.1**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**-0.1**	**1.9**	**1.7**	**0.0**	**0.0**	**1.7**	**0.3**	**2.4**

Table 6. Mean Weight (Kg) per set of Yellowtail Flounder by stratum, Div. 3N - Spring

Depth Range (m)	Stratum	No. of trawlable Units	1984 AN 27	1985 AN, 43 WT 29	1986 WT 47	1987 WT 58,59	1988 WT 70	1989 WT 82	1990 WT 95,96	1991 WT 106	1992 WT 119,120	1993 WT 136,137	1994 WT 152,153	1995 WT 168,169	1996 WT 189	1997 WT 205,206	1998 WT221-24	1999 WT238-40	2000 WT316,317	2001 WT367-69	2002 WT421-24	2003 WT480-81	2004 WT 547-48	2005 WT619-21
<=56	375	219,134.8	150.0	78.2	181.6	103.8	50.6	21.2	84.3	11.7	118.4	49.5	12.1	59.7	78.7	87.5	90.8	100.2	70.1	84.6	65.6	133.9	94.2	81.4
	376	206,204.1	30.0	66.8	66.8	78.7	12.6	121.7	70.9	143.7	22.4	5.1	0.6	2.8	5.4	123.6	99.6	150.2	72.8	253.6	50.4	266.0	209.3	245.7
57-92	360	411,582.8	106.6	46.3	11.2	7.4	2.5	61.0	12.2	12.1	25.3	8.8	2.5	39.6	68.1	39.1	77.8	186.0	63.5	146.3	213.5	191.2	178.4	152.2
	361	254,900.7	126.7	59.9	38.3	58.1	70.2	43.5	105.0	82.3	29.6	82.5	16.39	108.5	106.1	102.5	122.4	123.3	129.2	164.5	102.8	163.7	131.9	102.6
	362	346,653.9	86.8	32.1	61.2	40.3	35.1	24.6	30.3	24.4	2.9	40.9	1.3	0.3	83.5	97.1	111.8	166.3	162.4	123.6	12.5	84.3	78.6	138.3
	373	346,653.9	52.9	26.4	13.9	17.8	18.2	11.1	0.9	7.1	0.0	0.0	0.9	0.0	1.9	1.0	3.2	32.0	121.1	228.0	8.1	95.6	17.1	125.2
	374	128,066.4	30.1	21.1	8.9	4.3	2.3	0.1	0.6	0.2	0.6	0.0	0.0	1.1	7.1	3.0	1.2	69.0	74.3	23.9	10.3	103.4	99.2	115.1
	383	92,716.2	2.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
93-183	359	57,913.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0
	377	13,756.1	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	1.7
	382	89,000.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
184-274	358	30,951.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0
	378	19,121.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0
	381	25,036.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
275-366	357	22,560.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	379	14,581.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	380	15,957.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367-549	723	21,322.0	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	725	14,443.9								0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	727	22,009.8	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550-731	724	17,057.6								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	726	9,904.4								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	728	21,459.5	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
732-914	752	18,433.2											0.0											
	756	14,581.5	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.	.	.	.
	760	21,184.4											0.0											
Mean wt (No.sets)			**73.1(61)**	**38.4(85)**	**41.5(101)**	**34.1(91)**	**22.4(77)**	**34.1(94)**	**33.0(85)**	**28.8(93)**	**20.8(94)**	**21.1(85)**	**18.9(76)**	**24.1(89)**	**43.3(82)**	**51.0(71)**	**59.8(88)**	**99.3(82)**	**82.2(81)**	**124.1(79)**	**61.4(79)**	**116.7(79)**	**90.3(79)**	**109.8(78)**
Upper C.I.			**97.3**	**48.7**	**58.9**	**47.8**	**31.1**	**50.3**	**47.1**	**39.7**	**33.2**	**36.0**	**33.2**	**36.3**	**54.0**	**72.2**	**80.2**	**127.4**	**103.5**	**186.4**	**80.0**	**138.4**	**115.1**	**136.4**
Lower C.I.			**48.9**	**28.1**	**24.0**	**20.5**	**13.7**	**18.0**	**18.9**	**17.9**	**8.4**	**6.2**	**4.6**	**11.9**	**32.6**	**29.8**	**39.5**	**71.3**	**60.9**	**61.8**	**42.7**	**95.0**	**65.5**	**83.2**

Table 7. Mean Weight (Kg) per set of Yellowtail Flounder by stratum, Div. 3O - Spring

Depth Range (m)	Stratum	No. of trawlable Units	1984 AN 27	1985 AN, 43	1986 WT 47	1987 WT 58	1988 WT 70	1989 WT 82	1990 WT 94,95	1991 WT 105	1992 WT 119,120	1993 WT 136	1994 WT 152	1995 WT 168	1996 WT 188,189	1997 WT 204,205	1998 WT221-24	1999 WT238-339	2000 WT315-317	2001 WT365-67	2002 WT419-21	2003 WT479	2004 WT546-47	2005 WT618-19
57-92	330	287,365.1	0.6	6.7	2.6	0.7	0.6	1.1	0.7	4.0	0.0	0.1	0.0	0.0	0.9	0.2	0.2	0.3	23.7	2.3	1.9	2.0	3.0	3.0
	331	62,727.9	21.7	29.5	2.8	13.2	4.6	14.8		0.6	0.0	1.4	2.8	0.2	0.5	1.6	0.0	27.3	19.1	10.0	6.5	38.7	12.3	19.5
	338	261,090.9	12.7	10.6	5.4	1.9	19.6	6.4	5.6	5.1	8.1	5.3	2.7	4.9	30.8	24.8	21.2	27.6	18.1	53.9	12.6	11.5	5.9	9.1
	340	236,054.8	2.9	6.6	7.5	18.3	4.7	3.2	8.5	2.7	1.6	1.5	0.0	0.0	0.0	3.4	0.8	4.2	17.8	4.4	3.1	20.3	2.3	16.4
	351	346,653.9	35.8	37.5	33.8	17.3	32.4	20.0	24.2	11.6	3.2	2.4	0.1	0.3	13.6	26.6	18.0	89.7	34.9	44.3	13.7	28.1	60.8	100.9
	352	354,907.6	28.1	24.5	30.0	42.9	21.3	22.7	31.5	38.3	19.9	93.0	22.7	15.4	129.7	72.0	83.5	110.1	100.0	75.3	93.6	136.5	97.5	89.1
	353	17,635,331	1.1	43.2	15.9	75.7	1.6	4.9	9.9	13.0	4.6	29.8	1.1	31.8	60.5	56.3	90.8	103.2	41.8	24.9	37.7	14.0	92.7	33.9
93-183	329	236,742.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
	332	144,026.5	0.0	0.3	7.7	5.0	0.1	11.9	0.8	0.7	0.5	6.2	0.2	0.9	3.5	0.5	2.3	1.8	0.0	2.2	10.0	2.4	0.0	0.8
	337	130,407.9	0.0	0.0	0.6	0.6	1.0	1.7	0.0	0.0	0.4	4.4	0.2	0.2	2.0	6.4	0.2	0.5	1.0	0.0	4.2	0.0	0.0	1.9
	339	80,473.2	0.6	0.2	0.1	0.2	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.7	11.7	0.4	2.9	0.0	2.6
	354	65,204.0	0.0	0.6	0.0	0.0	0.0	0.1	0.0	1.6	0.0	0.0	0.0	0.3	0.9	0.4	0.0	0.1	0.6	0.0	0.0	0.0	0.7	0.0
184-274	333	20,771.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	336	16,644.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
	355	14,168.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275-366	334	12,655.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	335	7,978.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	356	8,391.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367-549	717	12,793.2								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	719	10,454.6	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	721	10,454.6	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550-731	718	15,269.3								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	720	14,443.9	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
732-914	722	12,793.2								0.0	0.0	0.0	0.0	3.9	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	764	14,443.9											0.0											
	772	18,570.8	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.	.	.	.
Mean wt (No. sets)			**11.4(52)**	**15.2(52)**	**12.4(95)**	**16.7(91)**	**10.5(77)**	**8.7(101)**	**10.5(84)**	**9.1(107)**	**4.6(86)**	**16.7(75)**	**3.7(76)**	**4.9(80)**	**30.5(80)**	**20.8(75)**	**22.9(93)**	**38.7(86)**	**28.3(83)**	**24.9(79)**	**20.2(79)**	**28.2(79)**	**29.7(79)**	**31.9(79)**
Upper C.I.			**18.5**	**20.6**	**16.8**	**23.9**	**14.7**	**11.6**	**15.8**	**14.3**	**6.7**	**33.3**	**7.1**	**8.7**	**41.6**	**32.5**	**31.6**	**51.3**	**36.8**	**36.0**	**32.8**	**35.6**	**39.5**	**44.8**
Lower C.I.			**4.4**	**9.9**	**7.9**	**9.5**	**6.3**	**5.9**	**5.2**	**4.1**	**2.4**	**0.1**	**0.2**	**1.3**	**19.4**	**9.2**	**14.1**	**26.1**	**19.7**	**13.9**	**7.7**	**20.9**	**19.9**	**19.0**

Table 8. Abundance (millions) of Yellowtail Flounder by stratum, Div 3L - Spring

Depth Range (m)	Stratum	No. of trawlable Units	1984 *AN 28*	1985 *WT 28-30*	1986 *WT 4-8*	1987 *WT 58-60*	1988 *WT 70-71*	1989 *WT 82-83*	1990 *WT 96*	1991 *WT 106-107*	1992 *WT 120-122*	1993 *WT 137-138*	1994 *WT 152-154*	1995 *WT 169-170*	1996 *WT 189-191*	1997 *WT 205-208*	1998 *WT 221-224*	1999 *WT 240-241*	2000 *WT 317-318*	2001 *WT 368-370*	2002 *WT 422-424*	2003 *WT 481-482*	2004 *WT 548-549*	2005 *WT 621*
30-56	784	36 866.37	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0	0.0	.	0.0	0.0		0.0	
57-92	350	2 848.89 0	0.9	2.1	1.2	0.4	0.8	0.4	0.1	0.4	0.0	0.0	0.0	0.0	0.4	0.0	0.0	9.4	6.1	1.3	0.1	2.4	3.4	6.3
	363	2 44.8 58.7	1.1 2	6.8	3.6	3.2	2.4	0.8	1.9	0.3	0.1	0.0	0.0	0.0	1.1	0.2	0.0	23.2	24.0	3.3	0.2	5.0 8	13.6	51.4
	371	1 54.2 06.0		0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.1	8.6
	372	3 38.4 00.3	3.2 7	39.6	21.0	8.3	4.7	6.6	2.7	1.4	0.2	0.2	0.0	0.0	0.8	0.8	1.5	16.0	9.6	6.5	1.3	3.8 5	21.4	48.2
	384	1 54.0 68.4		1.2	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
	785	6 3.9 65.9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0	0.0	.	0.0	0.1		0.1	
93-183	328	2 08.9 55.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	341	2 16.5 21.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3
	342	8 0.4 73.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	343	7 2.2 19.6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	348	2 91.6 29.5		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	349	2 90.8 04.1	0.0	0.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.8	0.0	0.0	0.1	0.0	0.1
	364	3 87.5 09.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.2	0.0	0.0	0.0	0.0	0.7
	365	1 43.2 01.1	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	370	1 81.5 80.6	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	385	3 24.0 93.9		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	390	2 03.7 28.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	786	1 1.5 55.1															0.0	0.0		0.0	0.0		0.0	
	787	8 4.3 25.0															0.0	0.0	0.0	0.0	0.0		0.0	
	794	2 9.7 13.2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0		
	797	1 3.4 81.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0		
184-274	344	2 05.5 16.3	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	347	1 35.2 22.6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	366	1 91.7 60.2		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	369	1 32.1 96.2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	386	1 35.2 22.6	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	389	1 12.9 37.7	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	391	3 8.7 92.2	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	795	2 2.5 60.0																				0.0		
275-366	345	1 96.9 87.5		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	346	1 18.9 90.3		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	368	4 5.9 45.4		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	387	9 8.7 68.9		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	388	4 9.6 59.6	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	392	1 9.9 46.4	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	796	2 4.0 73.2																				0.0		
	798	1 3.7 56.1																				0.0		
367-549	729	2 5.5 86.4		0.0						0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	731	2 9.7 19.2		0.0						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	733	6 4.3 78.6		0.0						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	735	3 7.4 16.6	.	0.0	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	792	6 87.8 1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0	.	0.0	0.0	0.0	.	
550-731	730	2 3.3 85.4	.	0.0	.	.	.	.	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	732	3 1.7 76.6		0.0						0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	734	3 1.3 63.9		0.0						0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	736	2 4.0 73.2		0.0							0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
732-914	737	3 1.2 26.4											0.0											
	741	3 0.6 76.1											0.0											
	745	4 7.8 71.3	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.			
	748	2 1.8 72.2	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.			
Abundance (millions)			**45.4**	**49.9**	**26.9**	**12.3**	**8.1**	**7.9**	**4.7**	**2.2**	**0.3**	**0.2**	**0.1**	**0.0**	**2.5**	**1.2**	**1.6**	**55.4**	**40.7**	**11.5**	**1.6**	**92.0**	**35.7**	**115.6**
Upper C.I.			**80.7**	**77.5**	**39.7**	**18.4**	**11.9**	**13.2**	**8.3**	**3.6**	**0.7**	**0.7**	**0.3**	**0.0**	**3.8**	**2.0**	**4.3**	**89.9**	**60.3**	**23.1**	**3.1**	**164.3**	**72.0**	**200.1**
Lower C.I.			**10.2**	**22.3**	**14.2**	**6.2**	**4.3**	**2.7**	**1.1**	**0.8**	**-0.1**	**-0.2**	**0.0**	**0.0**	**1.2**	**0.4**	**-1.1**	**20.9**	**21.0**	**-0.1**	**0.1**	**19.6**	**5.4**	**31.2**

Table 9. Abundance (millions) of Yellowtail Flounder by stratum, Div 3N - Spring

Depth Range (m)	Stratum	No. of trawlable Units	1984 AN 27	1985 AN 43 WT 29	1986 WT 47	1987 WT 58,59	1988 WT 70	1989 WT 82	1990 WT 95,96	1991 WT 106	1992 WT 119,120	1993 WT 136,137	1994 WT 152,153	1995 WT 168,169	1996 WT 189	1997 WT 205,206	1998 WT221-24	1999 WT238-40	2000 WT316,317	2001 WT367-69	2002 WT421-24	2003 WT480-81	2004 WT 547-48	2005 WT619-21
<=56	375	219,134.8	81.9	36.3	89.8	45.6	26.0	18.0	56.9	4.7	74.6	29.7	6.4	30.6	132.2	106.8	90.2	104.4	78.7	66.1	46.8	86.6	62.7	52.6
	376	206,204.1	18.9	45.4	33.5	148.4	25.9	201.5	107.5	157.6	37.9	7.2	0.5	2.2	14.0	212.3	108.2	187.9	72.1	236.3	50.3	225.3	158.5	171.3
57-92	360	411,582.8	119.2	63.9	133	13.6	2.9	197.7	37.7	20.6	57.7	17.2	2.8	54.8	150.1	51.9	154.1	280.0	88.8	226.1	300.8	247.0	193.6	191.7
	361	254,900.7	86.3	43.6	25.8	33.2	42.5	36.3	74.8	61.9	16.2	60.6	115.0	70.5	115.6	108.9	116.2	149.5	138.7	162.9	95.7	134.1	120.4	105.8
	362	346,653.9	78.7	25.8	55.4	35.8	25.4	17.7	27.5	18.6	2.6	30.1	0.8	0.2	58.7	73.0	104.0	176.1	180.0	181.1	19.3	91.2	106.7	158.1
	373	346,653.9	42.3	20.1	9.8	13.4	12.0	7.2	0.9	4.6	0.0	0.0	1.0	0.0	2.7	0.6	3.8	35.7	108.1	236.0	11.4	94.8	19.2	109.4
	374	128,069.4	7.6	4.9	1.9	1.0	0.5	0.0	0.2	0.1	0.1	0.0	0.0	0.4	2.0	1.4	0.7	31.8	28.9	113	4.0	35.8	0.0	32.5
	383	92,716.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
93-183	359	57,913.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
	377	13,756.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	382	89,002.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
184-274	358	30,951.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
	378	19,121.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
	381	25,036.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275-366	357	22,560.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	379	14,581.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	380	15,957.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367-549	723	21,322.0	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	725	14,443.9	.	.	.	.	.	.	.	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	727	22,009.8	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550-731	724	17,057.6								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	726	9,904.4	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	728	21,459.5								0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
732-914	752	18,433.2	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.	.		
	756	14,581.5	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.	.		
	760	21,184.4	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.	.		
Abundance (millions)			**435.3**	**240.1**	**229.5**	**291.0**	**135.3**	**478.3**	**305.5**	**268.1**	**189.2**	**145.0**	**126.4**	**158.8**	**475.3**	**554.9**	**577.2**	**965.4**	**695.3**	**1,119.9**	**528.3**	**914.9**	**690.1**	**822.0**
Upper C.I.			**576.5**	**310.0**	**325.1**	**459.6**	**198.0**	**770.4**	**473.6**	**397.2**	**303.0**	**248.8**	**218.8**	**282.5**	**611.8**	**832.5**	**778.1**	**1,200.0**	**855.6**	**1,584.8**	**690.4**	**1,122.6**	**858.8**	**1,012.9**
Lower C.I.			**294.1**	**170.1**	**133.9**	**122.5**	**72.5**	**186.2**	**137.4**	**139.0**	**75.3**	**41.1**	**34.0**	**75.1**	**338.8**	**277.3**	**376.4**	**730.9**	**535.0**	**655.1**	**366.3**	**707.1**	**521.4**	**631.1**

Table 10. Abundance (millions) of Yellowtail Flounder by stratum, Div 3O - Spring

Depth Range (m)	Stratum	No. of trawlable Units	1984 AN 27	1985 AN 43	1986 WT 47	1987 WT 58	1988 WT 70	1989 WT 82	1990 WT 94,95	1991 WT 105	1992 WT 119,120	1993 WT 136	1994 WT 152	1995 WT 168	1996 WT 188,189	1997 WT 204,205	1998 WT 221-224	1999 WT 238-239	2000 WT 315-317	2001 WT 365-67	2002 WT419-21	2003 WT479	2004 WT 546-47	2005 WT618-19
57-92	330	287,365.1	0.3	4.3	1.4	0.4	0.3	0.6	0.3	2.6	0.0	0.0	0.0	0.0	0.5	0.2	0.1	0.2	13.6	1.6	1.7	3.0	2.6	2.4
	331	62,727.9	3.1	3.9	0.3	1.7	0.6	1.6		0.1	0.0	0.1	0.3	0.0	0.1	0.3	0.1	4.4	2.7	1.9	1.1	5.4	2.3	2.9
	338	261,090.9	7.8	5.8	2.8	1.1	12.8	3.4	2.9	4.5	4.7	3.4	1.3	2.6	17.2	17.8	14.2	16.6	11.3	38.9	7.5	7.9	4.1	5.5
	340	236,054.8	1.4	3.2	3.8	9.6	2.4	1.5	4.2	1.3	0.8	0.7	0.0	0.0	0.0	2.1	0.4	2.1	10.4	2.7	3.2	19.4	1.8	9.3
	351	346,653.9	27.7	29.7	28.0	13.7	26.1	15.1	18.2	8.5	2.5	2.0	0.1	0.3	9.9	22.7	17.6	112.4	36.5	51.1	24.5	36.7	69.2	103.3
	352	354,907.6	22.6	19.7	25.9	36.7	16.7	18.0	27.7	27.8	18.0	80.3	19.7	12.8	110.9	63.0	87.4	99.3	95.3	77.3	104.3	162.8	117.5	87.9
	353	17,635.31	0.4	17.4	5.7	26.2	0.5	1.7	3.6	4.7	1.8	11.7	0.3	12.4	21.6	30.9	33.6	33.2	16.3	22.0	14.2	6.3	40.3	14.6
93-183	329	236,742.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
	332	144,026.5	0.0	0.1	2.0	1.3	0.0	4.4	0.3	0.2	0.1	1.9	0.0	0.2	0.9	0.2	1.1	0.7	0.0	0.6	3.2	0.8	0.0	0.2
	337	130,407.9	0.0	0.0	0.1	0.2	0.3	0.4	0.0	0.0	0.1	0.9	0.0	0.1	0.4	2.1	0.1	0.1	0.3	0.0	1.1	0.0	0.0	0.6
	339	80,473.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	2.2	0.1	0.9	0.0	0.5
	354	65,204.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0
184-274	333	207,771.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	336	166,449.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	355	141,688.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275-366	334	126,555.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	335	79,978.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	356	83,991.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367-549	717	127,993.2								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	719	104,554.6	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	721	104,554.6	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550-731	718	152,693.3								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	720	144,343.9	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	722	127,993.2	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
732-914	764	144,343.9											0.0											
	772	185,708.8	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.	.		
Abundance (millions)			**63.5**	**84.1**	**70.1**	**90.9**	**57.3**	**46.7**	**57.3**	**50.0**	**28.0**	**101.1**	**21.9**	**28.5**	**161.7**	**139.4**	**154.5**	**269.1**	**186.5**	**197.2**	**161.0**	**243.2**	**237.9**	**227.1**
Upper C.I.			**103.4**	**113.8**	**97.2**	**129.5**	**82.7**	**64.2**	**87.6**	**76.3**	**40.4**	**204.4**	**44.7**	**49.1**	**222.7**	**227.5**	**211.7**	**360.3**	**247.1**	**289.1**	**262.5**	**312.8**	**332.0**	**317.1**
Lower C.I.			**23.5**	**54.5**	**43.0**	**52.3**	**31.9**	**29.2**	**26.9**	**23.6**	**15.6**	**-2.2**	**-1.0**	**8.0**	**100.6**	**51.4**	**97.3**	**177.9**	**126.0**	**105.2**	**59.4**	**173.6**	**143.8**	**137.1**

Table 11. Abundance (millions) of Yellowtail Flounder by stratum, Div 3LN0 - Spring

Depth Range (m)	Stratum	No. of trawlable Units	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
			AN,27,28	AN,43 WT,28,30	WT,47,48	WT,58,60	WT,70,71	WT,82,83	WT,94,95	WT,105,107	WT,119,122	WT,136,138	WT,152,154	WT,168,170	WT,188,191	WT,204,208	WT,221,224	WT,238,241	WT,315,18	WT,367,70	WT,419,24	WT,479,82	WT,546,549	WT,618,19
<=5.6	375	21,9,134.8	81.9	36.3	89.8	45.6	26.0	18.0	56.9	4.7	74.6	29.7	6.4	30.6	1.32.2	106.8	90.2	104.4	78.7	66.1	4.6.8	86.6	62.7	52.6
	376	20,6,204.1	18.9	45.4	33.5	148.4	25.9	201.5	107.5	1.57.6	37.9	7.2	0.5	2.2	14.0	212.3	10.8.2	187.9	72.1	236.3	5.0.3	225.3	158.5	171.3
	784	3,6,866.4																		0.0	0.0			
TOTAL			100.7	81.7	123.2	194.0	51.9	219.5	164.4	1.62.3	112.5	36.9	6.8	32.8	1.46.2	319.1	19.8.4	292.2	150.8	302.4	9.7.0	311.9	221.2	223.9
57,92	330	28,7,365.1	0.3	4.3	1.4	0.4	0.3	0.6	0.3	2.6	0.0	0.0	0.0	0.0	0.5	0.2	0.1	0.2	13.6	1.6	1.7	3.0	2.6	2.4
	331	6,2,727.9	3.1	3.9	0.3	1.7	0.6	1.6		0.1	0.0	0.1	0.3	0.0	0.1	0.3	0.1	4.4	2.7	1.9	1.1	5.4	2.3	2.9
	338	26,1,090.9	7.8	5.8	2.8	1.1	12.8	3.4	2.9	4.5	4.7	3.4	1.3	2.6	17.2	17.8	14.2	16.6	11.3	38.9	7.5	7.9	4.1	5.5
	340	23,6,054.8	1.4	3.2	3.8	9.6	2.4	1.5	4.2	1.3	0.8	0.7	0.0	0.0	0.0	2.1	0.4	2.1	10.4	2.7	3.2	19.4	1.8	9.3
	350	28,4,889.0	0.9	2.1	1.2	0.4	0.8	0.4	0.1	0.4	0.0	0.0	0.0	0.0	0.4	0.0	0.0	9.4	6.1	1.3	0.1	2.4	3.4	6.3
	351	34,6,653.9	27.7	29.7	28.0	13.7	26.1	15.1	18.2	8.5	2.5	2.0	0.1	0.3	9.9	22.7	17.6	112.4	36.5	51.1	2.4.5	36.7	69.2	103.3
	352	35,4,907.6	22.6	19.7	25.9	96.7	16.7	18.0	27.7	2.7.8	18.0	90.3	19.7	12.8	1.10.9	63.0	67.4	99.3	96.3	77.3	1.04.3	162.8	117.5	87.9
	353	17,6353.31	0.4	17.4	5.7	26.2	0.5	1.7	3.6	4.7	1.8	11.7	0.3	12.4	21.6	30.9	33.6	33.2	16.3	22.0	1.4.2	6.3	40.3	14.6
	360	41,1,582.8	119.2	63.9	13.3	13.6	2.9	197.7	37.7	2.0.6	57.7	17.2	2.8	54.8	1.50.1	51.9	15.4.1	280.0	88.8	226.1	3.0.0.8	247.0	193.6	191.7
	361	25,4,900.7	86.3	43.6	25.8	33.2	42.5	36.3	74.8	6.1.9	16.2	60.6	115.0	70.5	1.15.6	108.9	11.6.2	149.5	138.7	162.9	9.5.7	134.1	120.4	105.8
	362	34,6,653.9	78.7	25.8	55.4	35.8	25.4	17.7	27.5	1.8.6	2.6	30.1	0.8	0.2	58.7	73.0	10.4.0	176.1	180.0	181.1	1.9.3	91.2	106.7	158.1
	363	24,4,858.7	11.2	6.8	3.6	3.2	2.4	0.8	1.9	0.3	0.1	0.0	0.0	0.0	1.1	0.2	0.0	23.2	24.0	3.3	0.2	50.8	13.6	51.4
	371	15,4,206.0		0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0		0.4	0.0	0.0	0.0	0.0	0.1	8.6
	372	33,8,400.3	32.7	39.6	21.0	8.3	4.7	6.6	2.7	1.4	0.2	0.2	0.0	0.0	0.8	0.8	1.7	16.0	9.6	6.5	1.3	38.5	21.4	48.2
	373	34,6,653.9	42.3	20.1	9.8	13.4	12.0	7.2	0.9	4.6	0.0	0.0	1.0	0.0	2.7	0.6	3.8	35.7	108.1	236.0	1.1.4	94.8	19.2	109.4
	374	12,8,069.4	7.6	4.9	1.9	1.0	0.5	0.0	0.2	0.1	0.1	0.0	0.0	0.4	2.0	1.4	0.7	31.8	28.9	11.3	4.0	35.8	0.0	32.5
	383	9,2,716.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
	384	15,4,068.4		1.2	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
	785	6,3,965.9																		0.0	0.1			
TOTAL			442.7	292.1	200.4	198.5	150.7	308.6	202.7	1.57.4	104.7	206.5	141.5	154.1	4.91.7	373.9	53.3.9	990.3	770.1	1.02.4.3	5.89.3	936.3	716.3	938.1
93,183	328	20,8,955.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	329	23,6,742.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
	332	14,4,026.5	0.0	0.1	2.0	1.3	0.0	4.4	0.3	0.2	0.1	1.9	0.0	0.2	0.9	0.2	1.1	0.7	0.0	0.6	3.2	0.8	0.0	0.2
	337	13,0,407.9	0.0	0.0	0.1	0.2	0.3	0.4	0.0	0.0	0.1	0.9	0.0	0.1	0.4	2.1	0.1	0.1	0.3	0.0	1.1	0.0	0.0	0.6
	339	8,0,473.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	2.2	0.1	0.9	0.0	0.5
	341	21,6,521.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3
	342	8,0,473.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	343	7,2,219.6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	348	29,1,629.5		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	349	29,0,804.1	0.0	0.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.7	0.0	0.0	0.1	0.0	0.1
	354	6,5,204.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
	359	5,7,913.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
	364	38,7,509.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.2	0.0	0.0	0.0	0.0	0.7
	365	14,3,201.1		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	370	18,1,580.6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	377	1,3,756.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	382	8,9,002.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
	385	32,4,093.9	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	390	20,3,728.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	786	1,1,555.1																		0.0			0.0	
	787	8,4,325.0																		0.0			0.0	
	794	2,9,713.2																				0.0		
	797	1,3,481.0																				0.0		
TOTAL			0.7	0.3	2.9	1.7	0.5	4.8	0.4	0.5	0.3	2.9	0.1	0.3	1.5	2.3	1.2	7.3	1.6	3.1	4.4	1.9	0.0	2.8

Table 11 Con'd

Depth	Stratum	No. of	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Range		trawlable	AN 27,28	AN 43	WT 47,48	WT 58-60	WT 70,71	WT 82-83	WT 94-96	WT 105-107	WT 119-122	WT 136-138	WT 152-154	WT 168-170	WT 188-191	WT 204-208	WT 221-224	WT 238-41	WT 315-18	WT 367-70	W T 419-24	WT 479-82	WT 546-549	W T6 18-19
(m)		Units		WT 28-30																				
184-274	333	207,771.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	336	166,444.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	344	205,516.3	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	347	135,222.6	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	355	141,168.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	358	309,151.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	366	191,760.2	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	369	132,196.2	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	378	191,121.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
	381	250,036.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	386	135,222.6	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	389	112,937.7	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	391	38,792.2	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	795	225,600.0																				0.0		
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**
275-366	334	126,555.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	335	7,978.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	345	196,987.5	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	346	118,990.3	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	356	83,912.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	357	225,600.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	368	45,945.4	.	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	379	145,815.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	380	159,571.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	387	98,788.9	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	388	49,659.6	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	392	198,946.4	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	796	240,723.2																				0.0		
	798	137,561.1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0		
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
367-549	717	127,932.2	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	719	104,541.6	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	721	104,541.6	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	723	219,222.0	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	725	144,143.9	.	.	.	.	.	.	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	727	220,109.8	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	729	255,586.4	.	0.0	.	.	.	.	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	731	292,719.2	.	0.0	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	733	643,786.6	.	0.0	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	735	374,166.6	.	0.0	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Table 11 Con'd

Depth	Stratum	No. of	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Range		trawlable	AN 27,28	AN 43	WT 47,48	WT 58-60	WT 70,71	WT 82-83	WT 94-96	WT 105-107	WT 119-122	WT 136-138	WT 152-154	WT 168-170	WT 188-191	WT 204-208	WT 221-224	WT 238-41	WT 315-18	WT 367-70	W T 419-24	WT 479-82	WT 546-549	W T6 18-19
(m)		Units		WT 28-30																				
550-731	718	152,689.3								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	720	144,143.9								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	722	127,932.2	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	724	170,576.6	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	726	99,044.4								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	728	214,595.5								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	730	233,985.4	.	0.0	.	.	.	.	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	732	317,766.6	.	0.0	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	734	313,663.9		0.0						0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	736	240,723.2		0.0							0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
732-914	737	312,264.4	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.	.		
	741	306,765.1	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.	.		
	745	478,713.3											0.0											
	748	218,722.2											0.0											
	752	184,333.2	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.	.		
	756	145,815.5	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.	.		
	760	211,184.4											0.0											
	764	144,143.9											0.0											
	772	185,708.8	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.	.		
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**		
Abundance (millions)			**544.2**	**374.1**	**326.5**	**394.2**	**203.1**	**532.9**	**367.4**	**320.3**	**217.4**	**246.3**	**148.4**	**187.4**	**639.4**	**695.5**	**733.6**	**1,289.9**	**922.5**	**1,328.5**	**690.9**	**1,250.1**	**966.7**	**1,164.8**
Upper C.I.			**691.2**	**453.2**	**425.8**	**565.7**	**269.6**	**825.6**	**536.9**	**450.5**	**331.5**	**380.8**	**244.7**	**272.7**	**785.8**	**974.8**	**940.9**	**1,540.0**	**1,092.8**	**1,800.2**	**873.9**	**1,472.2**	**1,156.9**	**1,383.3**
Lower C.I.			**397.2**	**295.0**	**227.3**	**222.7**	**136.5**	**240.3**	**198.0**	**190.0**	**103.4**	**111.8**	**52.2**	**102.1**	**493.1**	**416.3**	**526.2**	**1,039.7**	**752.2**	**856.9**	**507.9**	**1,027.5**	**776.4**	**945.2**

Table 12. Biomass estimates ('000t) of Yellowtail Flounder by stratum, Div 3L - Spring

Depth Range (m)	Stratum	No. of trawlable Units	1984 *AN 28*	1985 *WT 28-30*	1986 *WT 48*	1987 *WT 58-60*	1988 *WT 70-71*	1989 *WT 82-83*	1990 *WT 96*	1991 *WT 106-107*	1992 *WT 120-122*	1993 *WT 137-138*	1994 *WT 152-154*	1995 *WT 169-170*	1996 *WT 189-191*	1997 *WT 205-208*	1998 *WT 221-24*	1999 *WT 240-41*	2000 *WT 317-318*	2001 *WT368-70*	2002 *WT 422-24*	2003 *WT 481-82*	2004 *WT 548-49*	2005 *WT 621*
3.0-5.6	784	36,866.37																		0.0	0.0		0.0	
5.7-9.2	350	284,889.0	0.4	1.0	0.6	0.2	0.4	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	4.6	2.4	0.6	0.0	0.7	1.3	2.3
	363	244,858.7	5.4	3.1	1.7	1.6	1.1	0.4	0.8	0.1	0.0	0.0	0.0	0.0	0.5	0.1	0.0	12.6	10.7	1.3	0.0	19.0	5.8	20.6
	371	154,206.0		0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	3.2
	372	338,400.3	15.7	16.3	9.7	3.8	2.1	3.4	1.3	0.7	0.1	0.1	0.0	0.0	0.4	0.2	0.5	8.2	4.1	2.4	0.5	14.5	8.0	17.2
	384	154,068.4		0.6	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	785	63,965.9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0	0.0		0.0	
9.3-183	328	208,955.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	341	216,521.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
	342	80,473.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	343	72,219.6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	348	291,629.5		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	349	290,804.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.3	0.0	0.0	0.0	0.0	0.0
	364	387,509.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.3
	365	143,201.1	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	370	181,580.6	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	385	324,093.9	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	390	203,728.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	786	11,555.1																		0.0	0.0		0.0	
	787	84,325.0																		0.0	0.0		0.0	
	794	29,713.2																				0.0		
	797	13,481.0																				0.0		
184-274	344	205,516.3	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	347	135,222.6	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	366	191,760.2	.	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	369	132,196.2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	386	135,222.6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	389	112,607.7		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	391	38,792.2		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	795	22,560.0																				0.0		
275-366	345	196,987.5	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
	346	118,990.3	.	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	368	45,945.4	.	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	387	98,768.9		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	388	49,659.6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	392	19,946.4		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	796	24,073.2																				0.0		
	798	13,756.1																				0.0		
367-549	729	25,586.4	.	0.0	.	.	.	.	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	731	29,713.2	.	0.0	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	733	64,378.6	.	0.0	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	735	37,416.6		0.0							0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	792	6,878.1																		0.0	0.0	0.0		
55-073	730	23,385.4		0.0						0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	732	31,776.6		0.0						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	734	31,363.9		0.0						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	736	24,073.2	.	0.0	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
732-914	737	31,226.4	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.			
	741	30,676.1	.	.	.	.	.	.	.	.	.	.	0.0											
	745	47,871.3											0.0											
	748	21,872.2											0.0											
Biomass ('000t)			**21.9**	**21.1**	**12.6**	**5.8**	**3.7**	**4.0**	**2.2**	**1.1**	**0.2**	**0.1**	**0.0**	**0.0**	**1.1**	**0.5**	**0.5**	**28.5**	**17.5**	**4.4**	**0.6**	**34.3**	**15.3**	**43.6**
Upper C.I.			**38.9**	**32.0**	**18.3**	**8.5**	**5.4**	**6.8**	**4.0**	**1.8**	**0.4**	**0.3**	**0.1**	**0.0**	**1.7**	**0.8**	**1.3**	**46.2**	**25.8**	**8.9**	**1.2**	**59.2**	**29.1**	**74.3**
Lower C.I.			**4.8**	**10.2**	**6.8**	**3.1**	**2.1**	**1.2**	**0.5**	**0.4**	**-0.1**	**-0.1**	**0.0**	**0.0**	**0.5**	**0.1**	**-0.3**	**10.8**	**9.3**	**0.0**	**-0.1**	**9.5**	**1.5**	**12.9**

Table 13. Biomass estimates ('000t) of Yellowtail Flounder by stratum, Div 3N - Spring

Depth	Stratum	No. of	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Range		trawlable	*AN 27*	*AN 43*	*WT 47*	*WT 58,59*	*WT 70*	*WT 82*	*WT 95,96*	*WT 106*	*WT 119,120*	*WT 136,137*	*WT 152,153*	*WT 168,169*	*WT 189*	*WT 205,206*	WT 221-24	WT 239-40	WT 316,317	WT 367-69	WT 421-24	WT 480-81	WT 547-48	WT 619-21
(m)		Units		*WT 29*																				
<=56	375	219,134.8	32.9	17.1	39.8	22.8	11.1	4.6	18.5	2.6	25.9	10.8	2.7	1.31	17.3	1.92	19.9	21.9	15.4	18.5	14.4	29.3	20.6	17.8
	376	206,204.1	6.2	13.8	13.8	16.2	2.6	25.1	14.6	29.6	4.6	1.1	0.1	0.6	1.1	25.5	20.5	31.0	15.0	52.3	10.4	54.8	43.2	50.7
57-92	360	411,582.8	43.9	19.0	4.6	3.1	1.0	25.1	5.0	5.0	10.4	3.6	1.0	1.63	28.0	1.61	32.0	7.65	26.2	6.02	87.9	78.7	73.4	62.6
	361	254,900.7	32.3	15.3	9.8	14.8	17.9	11.1	26.8	21.0	7.5	21.0	41.8	27.7	27.1	26.1	31.2	31.4	32.9	41.9	26.1	41.7	33.6	26.1
	362	346,653.9	30.1	11.1	21.2	14.0	12.2	8.5	10.5	8.5	1.0	14.2	0.5	0.1	28.9	3.37	38.8	57.6	56.3	42.9	4.3	29.2	27.2	47.9
	373	346,653.9	18.3	9.1	4.8	6.2	6.3	3.8	0.3	2.5	0.0	0.0	0.3	0.0	0.6	0.3	1.1	11.1	42.0	79.0	2.8	33.1	5.9	43.4
	374	128,069.4	3.9	2.7	1.1	0.6	0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.9	0.4	0.1	8.8	9.5	3.1	1.3	13.2	12.7	14.7
	383	92,716.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
93-183	359	57,913.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
	377	13,756.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	382	89,002.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
184-274	358	30,951.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	378	19,121.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	381	25,036.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275-366	357	22,560.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	379	14,581.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	380	15,957.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367-549	723	21,322.0								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	725	14,443.9	.	.	.	.	.	.	.	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	727	22,009.8								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550-731	724	17,057.6	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	726	9,904.4								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	728	21,459.5	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
732-914	752	18,433.2											0.0											
	756	14,581.5	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.			
	760	21,184.4	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.			
Biomass ('000t)			**167.7**	**88.2**	**95.1**	**77.5**	**51.4**	**78.3**	**75.7**	**69.1**	**49.6**	**50.8**	**46.3**	**57.9**	**103.9**	**121.3**	**143.7**	**238.5**	**197.3**	**297.9**	**147.3**	**280.2**	**216.7**	**263.7**
Upper C.I.			**223.2**	**111.9**	**135.2**	**108.5**	**71.4**	**115.4**	**108.1**	**95.3**	**79.1**	**86.5**	**81.5**	**87.2**	**129.7**	**171.7**	**192.6**	**305.8**	**248.4**	**447.6**	**192.1**	**332.2**	**276.3**	**327.5**
Lower C.I.			**112.1**	**64.5**	**55.1**	**46.6**	**31.4**	**41.2**	**43.3**	**42.9**	**20.1**	**15.0**	**11.2**	**28.6**	**78.2**	**70.9**	**94.8**	**171.1**	**146.2**	**148.3**	**102.5**	**228.2**	**157.2**	**199.8**

Table 14. Biomass estimates ('000t) of Yellowtail Flounder by stratum, Div 3O - Spring

Depth Range (m)	Stratum	No. of tawlable Units	1984 *AN27*	1985 *AN43*	1986 *WT47*	1987 *WT58*	1988 *WT70*	1989 *WT82*	1990 *WT94,95*	1991 *WT105*	1992 *WT119,120*	1993 *WT136*	1994 *WT152*	1995 *WT168*	1996 *WT188,189*	1997 *WT204,205*	1998 *WT221-24*	1999 *WT238-39*	2000 *WT315-317*	2001 *WT365-67*	2002 *WT419-21*	2003 *WT479*	2004 *WT546-47*	2005 *WT618-19*
57-92	330	287,365.1	0.2	1.9	0.7	0.2	0.2	0.3	0.2	1.1	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.1	6.8	0.7	0.5	0.6	0.9	0.9
	331	62,727.9	1.4	1.9	0.2	0.8	0.3	0.9	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.1	0.0	1.7	1.2	0.6	0.4	2.4	0.8	1.2
	338	261,090.9	3.3	2.8	1.4	0.5	5.1	1.7	1.4	1.3	2.1	1.4	0.7	1.3	8.0	6.5	5.5	7.2	4.7	14.1	3.3	3.0	1.6	2.4
	340	236,054.8	0.7	1.5	1.8	4.3	1.1	0.8	2.0	0.6	0.4	0.4	0.0	0.0	0.0	0.8	0.2	1.0	4.2	1.0	0.7	4.8	0.5	3.9
	351	346,653.9	12.4	13.0	11.7	6.0	11.2	6.9	8.4	4.0	1.1	0.8	0.0	0.1	4.7	9.2	6.2	31.1	12.1	15.4	4.8	9.7	21.1	35.0
	352	354,907.6	10.0	8.7	10.7	15.2	7.5	8.0	11.2	13.6	7.1	33.0	8.1	5.5	46.0	25.6	29.7	39.1	35.5	26.7	33.2	48.4	34.6	31.6
	353	17,635,331	0.2	7.6	2.8	1.34	0.3	0.9	1.7	2.3	0.8	5.3	0.2	5.6	10.7	9.9	16.0	18.2	7.4	4.4	6.6	2.5	16.4	6.0
93-183	329	236,742.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	332	144,026.5	0.0	0.0	1.1	0.7	0.0	1.7	0.1	0.1	0.1	0.9	0.0	0.1	0.5	0.1	0.3	0.3	0.0	0.3	1.4	0.3	0.0	0.1
	337	130,407.9	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.0	0.1	0.6	0.0	0.0	0.3	0.8	0.0	0.1	0.1	0.0	0.5	0.0	0.0	0.2
	339	80,473.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9	0.0	0.2	0.0	0.2
	354	65,204.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
184-274	333	20,771.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	336	16,644.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	355	1,416.8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275-366	334	12,655.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	335	7,978.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	356	8,391.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367-549	717	12,793.2	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	719	10,454.6	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	721	10,454.6	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550-731	718	15,269.3	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	720	14,443.9	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	722	12,793.2	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
732-914	764	14,443.9	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.	.	.	.
	772	18,570.8	.	.	.	.	.	.	.	.	.	.	0.0	.	.	.	.	.	.	.	.	.	.	.
Biomass ('000t)			**28.2**	**37.5**	**30.5**	**41.2**	**25.8**	**21.5**	**25.1**	**23.3**	**11.6**	**42.4**	**9.2**	**12.7**	**70.6**	**53.2**	**58.0**	**98.7**	**72.1**	**63.6**	**51.6**	**72.0**	**75.8**	**81.5**
Upper C.I.			**45.6**	**50.7**	**41.4**	**59.0**	**36.2**	**28.5**	**37.8**	**36.3**	**17.0**	**84.5**	**18.0**	**22.2**	**96.3**	**82.9**	**80.2**	**130.8**	**93.9**	**91.9**	**83.7**	**90.7**	**100.8**	**114.4**
Lower C.I.			**10.1**	**24.3**	**19.5**	**23.5**	**15.5**	**14.4**	**12.4**	**10.3**	**6.2**	**0.3**	**0.5**	**3.3**	**44.9**	**23.5**	**35.9**	**66.6**	**50.4**	**35.4**	**19.5**	**53.2**	**50.8**	**48.5**

Table 15. Biomass estimates ('000t) of Yellowtail Flounder by stratum, Div 3LN0 - Spring

Depth Range (m)	Stratum	No. of trawlable Units	1984 *AN 27,28*	1985 *AN 43 WT 28-30*	1986 *WT 47,48*	1987 *WT 58-60*	1988 *WT 70,71*	1989 *WT 82-83*	1990 *WT 94-96*	1991 *WT 105-107*	1992 *WT 119-122*	1993 *WT 136-138*	1994 *WT 152-154*	1995 *WT 168-170*	1996 *WT 188-191*	1997 *WT 204-208*	1998 *WT 221-224*	1999 *WT 238-241*	2000 *WT 315-318*	2001 *WT 367-370*	2002 *WT 419-424*	2003 *WT 479-482*	2004 *WT 546-549*	2005 *WT 618-619*
<=56	375	219,134.8	32.9	17.1	39.8	22.8	11.1	4.6	18.5	2.6	25.9	10.8	2.7	13.1	17.3	19.2	19.9	21.9	15.4	18.5		29.3	20.6	17.8
	376	206,204.1	6.2	13.8	13.8	16.2	2.6	25.1	14.6	29.6	4.6	1.1	0.1	0.6	1.1	25.5	20.5	31.0	15.0	52.3		54.8	43.2	50.7
	784	3,686.64																		0.0				
TOTAL			**39.1**	**30.9**	**53.6**	**39.0**	**13.7**	**29.7**	**33.1**	**32.2**	**30.6**	**11.9**	**2.8**	**13.7**	**18.4**	**44.7**	**40.4**	**52.9**	**30.4**	**70.8**		**84.2**	**63.8**	**68.5**
579 2	330	287,365.1	0.2	1.9	0.7	0.2	0.2	0.3	0.2	1.1	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.1	6.8	0.7	0.5	0.6	0.9	0.9
	331	62,727.9	1.4	1.9	0.2	0.8	0.3	0.9	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.1	0.0	1.7	1.2	0.6	0.4	2.4	0.8	1.2
	338	261,090.9	3.3	2.8	1.4	0.5	5.1	1.7	1.4	1.3	2.1	1.4	0.7	1.3	8.0	6.5	5.5	7.2	4.7	14.1	3.3	3.0	1.6	2.4
	340	236,054.8	0.7	1.5	1.8	4.3	1.1	0.8	2.0	0.6	0.4	0.4	0.0	0.0	0.0	0.8	0.2	1.0	4.2	1.0	0.7	4.8	0.5	3.9
	350	284,889.0	0.4	1.0	0.6	0.2	0.4	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	4.6	2.4	0.6	0.0	0.7	1.3	2.3
	351	346,653.9	12.4	13.0	11.7	6.0	11.2	6.9	8.4	4.0	1.1	0.8	0.0	0.1	4.7	9.2	6.2	31.1	12.1	15.4	4.8	9.7	21.1	35.0
	352	354,907.6	10.0	8.7	10.7	15.2	7.5	8.0	11.2	13.6	7.1	33.0	8.1	5.5	46.0	25.6	29.7	39.1	35.5	26.7	33.2	48.4	34.6	31.6
	353	17,635,331	0.2	7.6	2.8	13.4	0.3	0.9	1.7	2.3	0.8	5.3	0.2	5.6	10.7	9.9	16.0	18.2	7.4	4.4	6.6	2.5	16.4	6.0
	360	411,582.8	43.9	19.0	4.6	3.1	1.0	25.1	5.0	5.0	10.4	3.6	1.0	16.3	28.0	16.1	32.0	76.5	26.2	60.2	87.9	78.7	73.4	62.6
	361	254,900.7	32.3	15.3	9.8	14.8	17.9	11.1	26.8	21.0	7.5	21.0	41.8	27.7	27.1	26.1	31.2	31.4	32.9	41.9	26.2	41.7	33.6	26.1
	362	346,653.9	30.1	11.1	21.2	14.0	12.2	8.5	10.5	8.5	1.0	14.2	0.5	0.1	28.9	33.7	38.8	57.6	56.3	42.9	4.3	29.2	27.2	47.9
	363	244,854.7	5.4	3.1	1.7	1.6	1.1	0.4	0.8	0.1	0.0	0.0	0.0	0.0	0.5	0.1	0.0	12.6	49.0	1.3	0.0	19.0	5.8	20.6
	371	154,206.0		0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.2	0.0	0.0	0.0	0.0	0.0	3.2
	372	338,403.0	15.7	16.3	9.7	3.8	2.1	3.4	1.3	0.7	0.1	0.1	0.0	0.0	0.4	0.2	0.5	8.2	4.1	2.4	0.5	14.5	8.0	17.2
	373	346,653.9	18.3	9.1	4.8	6.2	6.3	3.8	0.3	2.5	0.0	0.0	0.3	0.0	0.6	0.3	1.1	11.1	42.0	79.0	2.8	33.1	5.9	43.4
	374	128,069.4	3.9	2.7	1.1	0.6	0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.9	0.4	0.1	8.8	9.5	3.1	1.3	13.2	12.7	14.7
	383	92,716.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
	384	154,066.4		0.6	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	785	63,965.9																		0.0	0.0		0.0	
TOTAL			**178.3**	**115.7**	**83.1**	**84.7**	**67.1**	**72.1**	**69.8**	**61.0**	**30.7**	**79.9**	**52.8**	**56.7**	**156.4**	**129.2**	**161.4**	**309.5**	**294.3**	**294.3**	**172.7**	**301.7**	**244.0**	**319.2**
931 83	328	208,955.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	329	236,742.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	332	144,026.5	0.0	0.0	1.1	0.7	0.0	1.7	0.1	0.1	0.1	0.9	0.0	0.1	0.5	0.1	0.3	0.3	0.0	0.3	1.4	0.3	0.0	0.1
	337	130,407.9	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.0	0.1	0.6	0.0	0.0	0.3	0.8	0.0	0.1	0.1	0.0	0.5	0.0	0.0	0.2
	339	80,473.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9	0.0	0.2	0.0	0.2
	341	216,522.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
	342	80,473.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	343	72,219.6	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	348	291,629.5	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	349	290,804.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.3	0.0	0.0	0.0	0.0	0.0
	354	65,204.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	359	57,913.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
	364	387,509.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.3
	365	143,201.1	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	370	181,580.6	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	377	13,756.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	382	89,002.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	385	324,093.9		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	390	203,722.8		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	786	11,555.1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0	.		0.0	
	787	84,325.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0	.		0.0	
	794	29,713.2																				0.0		
	797	13,481.0																				0.0		
TOTAL			**0.3**	**0.2**	**1.5**	**0.9**	**0.2**	**2.0**	**0.2**	**0.3**	**0.1**	**1.5**	**0.1**	**0.2**	**0.9**	**0.9**	**0.4**	**3.2**	**0.7**	**1.4**	**2.0**	**0.6**	**0.0**	**1.0**

Table 15 Con'd

Depth Range	Stratum	No. of trawlable Units	1984 AN 27,28	1985 AN 43 WT 28-30	1986 WT 47,48	1987 WT 58-60	1988 WT 70, 71	1989 WT 82-83	1990 WT 94-96	1991 WT 105-107	1992 WT 119-122	1993 WT 136-138	1994 WT 152-154	1995 WT 168-170	1996 WT 188-191	1997 WT 204-208	1998 WT221-224	1999 WT 238-41	2000	2001	2002 WT419-24	2003 WT 479-82	2004 WT 546-549	2005 WT618-19
(m)		Units		WT 28-30																				
18.4-27.4	33.3	2,077.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	33.6	1,664.49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	34.4	20,551.63		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	34.7	13,522.26		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	35.5	1,416.88	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	35.8	3,095.12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	36.6	191,760.2	.	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	36.9	132,196.2	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	37.8	1,912.10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	38.1	2,503.61	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	38.6	13,522.26		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	38.9	11,293.77		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	39.1	3,879.22	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	79.5	2,256.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0.0		
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5-36.6	33.4	1,265.56	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	33.5	7,497.85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	34.5	196,987.5	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	34.6	118,990.3	.	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	35.6	8,391.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	35.7	2,256.00	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	36.8	45,945.4		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	37.9	14,581.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	38.0	15,957.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	38.7	98,768.9		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	38.8	49,659.6	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	39.2	19,946.4	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	79.6	2,407.32																				0.0		
	79.8	1,375.61																				0.0		
TOTAL																					0.0	0.0	0.0	0.0
36.7-5.49	71.7	1,279.32								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	71.9	1,045.46								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.1	1,045.46								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.3	2,132.20								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.5	1,444.39								0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.7	2,200.98								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.9	25,586.4	.	0.0	.	.	.	.	.	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	73.1	29,713.2	.	0.0	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	73.3	64,378.6	.	0.0	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	73.5	37,416.6		0.0							0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 15 Con'd

Depth Range	Stratum	No. of trawlable Units	1984 AN 27, 28	1985 AN 43 WT 28-30	1986 WT 47,48	1987 WT 58-60	1988 WT 70,71	1989 WT 82-83	1990 WT 94-96	1991 WT 105-107	1992 WT 119-122	1993 WT 136-138	1994 WT 152-154	1995 WT 168-170	1996 WT 188-191	1997 WT 204-208	1998 WT22 1-224	1999 WT 238-41	2000 WT 315-18	2001 WT367-70	2002 WT419-24	2003 WT 479-82	2004 WT 546-549	2005 WT618-19
(m)		Units		WT 28-30																				
55.0-73.1	71.8	1,526.93								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.0	1,444.39								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.2	1,279.32								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.4	1,705.76								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.6	990.44								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.8	2,145.95								0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	73.0	23,385.4	.	0.0	.	.	.	.	.	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	73.2	31,776.6	.	0.0	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	73.4	31,363.9	.	0.0	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	73.6	2,407.32		0.0							0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 16. Mean Number of yellowtail by stratum, Div 3L - Fall

Depth	Stratum	No. of	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Range		trawlable	*WT 101*	*WT 114,115*	*WT 128-130*	*WT 145,146*	*WT 161,162*	*WT 176-179,181*	*WT 196-198*	*WT 213-217*	*WT230-33*	*WT 246-48*	*WT321-23*	*WT373-76TEL*	*WT428-31*	*WT487-89,511*	*WT559*	*WT629-630,632*
(m)		Units			*GA 226*			*TEL 22,23*	*TEL 41*	*TEL 57,58*	*TEL75,76*		*TEL 339-343*	*357-61 AN399*	*TEL412-15*	*TEL 513*	*WT587-589*	*TEL662 AN657-58*
30 - 56	784	36,866.4	.	.	.	.	.	.	0.5	0.0	0.0	.	4.15	1.0	0.0	0.5	0.0	1.5
57 - 92	350	284,889.0	5.9	0.7	0.5	0.0	0.1	0.4	0.3	0.0	0.4	1.3	3.1	12.4	18.4	29.3	17.3	2.9
57 - 92	363	244,858.7	5.5	1.1	2.0	0.0	0.3	5.2	3.5	1.2	38.4	73.8	119.5	114.2	34.7	95.5	101.7	99.7
57 - 92	371	154,206.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.3	0.3	0.3	0.3
57 - 92	372	338,400.3	3.9	4.8	3.8	7.7	0.0	6.4	16.9	17.2	10.2	6.5	18.0	125.8	55.8	79.9	98.4	29.0
57 - 92	384	154,068.4	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.3	0.0	0.0	2.2.0
57 - 92	785	63,965.9	.	.	.	.	.	.	0.0	0.0	0.0	.	1.5	3.5	1.5	1.0	0.0	0.0
93 - 183	328	208,955.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93 - 183	341	216,521.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
93 - 183	342	80,473.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93 - 183	343	72,219.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93 - 183	348	291,629.5	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93 - 183	349	290,804.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
93 - 183	364	387,509.6	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.6
93 - 183	365	143,201.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0
93 - 183	370	181,580.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
93 - 183	385	324,093.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
93 - 183	390	203,728.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93 - 183	786	11,555.1	.	.	.	.	.	.	0.5	0.0	0.5	.	5.5	0.0	0.0	0.0	0.0	0.5
93 - 183	787	84,325.0	.	.	.	.	.	.	0.0	0.0	1.0	.	0.0	0.0	0.0	0.0	0.0	0.0
93 - 183	788	34,665.4	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
93 - 183	790	12,242.9	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	1.0		0.0
93 - 183	793	9,904.4	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	1.1	0.0
93 - 183	794	29,713.2	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
93 - 183	797	13,481.0	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
93 - 183	799	9,904.4	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	1.5	0.0
184 - 274	344	217,621.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
184 - 274	347	135,222.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
184 - 274	366	191,760.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
184 - 274	369	132,196.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
184 - 274	386	135,222.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
184 - 274	389	112,937.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
184 - 274	391	38,792.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
184 - 274	795	22,560.0	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
184 - 366	789	11,142.5	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.5	0.4	0.0	0.0	0.0
184 - 366	791	42,368.8	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
184 - 366	798	13,756.1	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
275 - 366	345	196,987.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 - 366	346	118,990.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 - 366	368	45,945.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
275 - 366	387	98,768.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
275 - 366	388	49,659.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 - 366	392	19,946.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 - 366	796	24,073.2	.	.	.	.	.	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
367 - 549	729	25,586.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367 - 549	731	29,713.2	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367 - 549	733	64,378.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367 - 549	735	37,416.6	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
367 - 549	792	6,878.1	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0		0.0
550 - 731	730	23,385.4	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550 - 731	732	31,776.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550 - 731	734	31,363.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
550 - 731	736	24,073.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
732 - 914	737	31,226.4	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
732 - 914	741	30,676.1	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
732 - 914	745	47,871.3	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
732 - 914	748	21,872.2	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
915 - 1097	738	30,401.0	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
915 - 1097	742	28,337.6							0.0	0.0	0.0	0.0	0.0	0.0	0.0			
915 - 1097	746	53,924.0	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
915 - 1097	749	17,332.7	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0			
1098 - 1280	739	34,940.5	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
1098 - 1280	743	29,025.4	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
1098 - 1280	747	99,594.2	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
1098 - 1280	750	76,484.0	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
1281 - 1463	740	36,316.1	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
1281 - 1463	744	38,517.1	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
1281 - 1463	751	31,501.5	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0			
Mean No. (sets)			**0.8 (161)**	**0.4 (219)**	**0.4 (215)**	**0.5 (153)**	**0.0 (200)**	**0.7 (161)**	**1.1 (211)**	**1.0 (203)**	**2.1 (204)**	**3.5(170)**	**6.1(176)**	**11.7(203)**	**5.2(204)**	**9.2(205)**	**13.4(143)**	**6.6(184)**
Upper C.I.			**1.6**	**0.6**	**0.6**	**1.3**	**0.1**	**1.3**	**2.2**	**2.7**	**5.0**	**8.6**	**11.2**	**18.4**	**8.0**	**16.2**	**21.4**	**12.4**
Lower C.I.			**0.0**	**0.2**	**0.2**	**-0.3**	**0.0**	**0.1**	**-0.1**	**-0.7**	**-0.8**	**-1.6**	**1.0**	**5.0**	**2.4**	**2.3**	**5.4**	**0.8**

Table 17. Mean Number of yellowtail by stratum, Div 3N - Fall

Depth Range (m)	Stratum	No. of trawlable Units	1990 *WT 102*	1991 *WT 113,114*	1992 *WT 128,129*	1993 *WT 144,145*	1994 *WT 160,161*	1995 *WT 176,177*	1996 *TEL 41,42 AN 253*	1997 *WT 212-214*	1998 *WT 229,30,33 TEL 76*	1999 *WT 245-47*	2000 *WT320-323 TEL338,339*	2001 *WT372-73 TEL 357*	2002 *WT427-28 TEL411-12*	2003 *WT 486-87*	2004 *WT 557-558*	2005 *WT627,628,630 TEL608,609;AN657*
<=56	375	219,134.8	40.7	58.0	.	76.5	329.8	398.5	216.7	212.6	310.9	372.8	460.5	643.3	545.5	488.5	1552.0	847.8
<=56	376	206,204.1	323.3	342.8	323.0	674.8	206.3	711.6	831.3	873.3	782.2	722.5	2047.0	2539.0	1001.9	993.9	1099.3	3188.8
57 - 92	360	411,582.8	83.3	92.8	49.5	219.7	100.8	171.3	392.1	406.2	498.8	490.6	458.3	319.4	578.3	546.3	513.3	253.3
57 - 92	361	254,900.7	85.4	269.5	269.8	316.6	385.2	450.0	415.8	397.3	528.5	262.0	146.8	737.6	692.0	617.3	359.2	124.3
57 - 92	362	346,653.9	47.6	60.7	6.7	1.9	6.8	245.0	75.6	307.3	139.4	572.0	202.7	571.4	434.7	339.1	536.3	250.3
57 - 92	373	346,653.9	1.2	2.5	0.0	0.0	7.1	13.8	0.0	35.3	35.4	54.4	69.9	307.9	189.0	142.9	221.7	156.2
57 - 92	374	128,069.4	0.0	1.0	.	0.0	0.0	0.0	30.0	18.0	15.7	182.3	130.3	202.3	108.3	64.7	192.3	155.0
57 - 92	383	927,162	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0
93 - 183	359	57,913.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	0.5	10.5	1.0
93 - 183	377	137,561	0.0	.	0.0	0.0	0.0	0.0	0.0	3.0	2.0	3.5	4.5	0.0	0.0	0.0	38.0	467.7
93 - 183	382	890,020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
184 - 274	358	309,512	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
184 - 274	378	191,210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	0.0
184 - 274	381	250,361	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 - 366	357	225,600	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
275 - 366	379	145,815	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 - 366	380	159,571	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367 - 549	723	213,220	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367 - 549	725	144,439	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367 - 549	727	220,098	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550 - 731	724	170,576	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0
550 - 731	726	9,904.4	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550 - 731	728	21,459.5	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean No.(sets)			**65.9(80)**	**92.1 (67)**	**86.4 (34)**	**137.7 (70)**	**108.0 (73)**	**212.0 (90)**	**215.0 (82)**	**256.7(100)**	**241.2(119)**	**308.2(70)**	**320.3(94)**	**489.5(94)**	**361.7(94)**	**364.8(70)**	**485.5(69)**	**442.8(103)**
Upper C.I.			**108.2**	**151.7**	**198.7**	**227.0**	**179.3**	**294.2**	**302.9**	**321.4**	**313.7**	**417.7**	**494.3**	**673.2**	**462.3**	**464.7**	**611.3**	**571.0**
Lower C.I.			**23.6**	**32.5**	**-25.8**	**48.4**	**36.7**	**129.8**	**127.2**	**191.9**	**168.7**	**198.6**	**146.4**	**305.9**	**261.1**	**264.9**	**359.6**	**314.7**

Table 18. Mean Number of yellowtail by stratum, Div 3O - Fall

Depth Range (m)	Stratum	No. of trawlable Units	1990 *WT 102*	1991 *WT 114*	1992 *WT 128*	1993 *WT 144*	1994 *WT 160,161*	1995 *WT 176, 177*	1996 *WT 200 AN 253, TEL 42*	1997 *WT 212,213*	1998 *WT 229-30, 33 TEL 76*	1999 *WT 244-46*	2000 *WT319-322 TEL 338*	2001 *WT 372 TEL 357*	2002 *WT427 TEL411*	2003 *WT 485-86 TEL 469*	2004 *WT 557*	2005 *WT627,628 TEL608*
57 - 92	330	287,365.1	1.3	0.1	1.3	3.3	0.1	8.2	0.2	7.3	1.7	23.8	3.3	20.0	8.3	22.2	18.0	15.2
57 - 92	331	62,727.9	6.7	29.0	8.0	16.0	0.0	2.0	0.0	1.0	3.5	14.0	3.4	29.1	41.0	3.0	50.5	41.0
57 - 92	338	261,090.9	8.5	20.0	2.0	8.8	0.3	97.0	0.5	38.2	31.2	35.8	78.0	260.0	6.4	72.2	2.7	10.1
57 - 92	340	236,054.8	5.6	36.0	0.3	5.0	1.6	4.8	0.0	28.2	23.2	37.3	4.8	47.6	94.6	31.0	74.1	107.2
57 - 92	351	346,653.9	36.9	15.9	1.8	35.3	7.0	15.8	11.6	107.3	207.4	135.3	272.6	171.1	170.8	446.1	247.7	114.9
57 - 92	352	354,907.6	47.9	172.4	150.5	56.7	69.7	121.9	134.3	249.0	269.9	255.0	369.7	288.0	192.3	283.3	255.5	296.9
57 - 92	353	176,353.3	28.0	0.0	0.0	8.7	0.0	8.7	7.0	82.8	0.5	73.5	30.0	70.0	53.0	253.0	23.8	46.8
93 - 183	329	236,742.6	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.2	0.2	0.0	0.2
93 - 183	332	144,026.5	0.8	0.3	2.3	15.7	5.0	3.3	3.0	0.0	0.3	1.7	1.0	10.0	19.0	0.0	9.0	1.0
93 - 183	337	130,407.9	0.0	1.0	0.0	0.0	0.0	0.0	19.0	1.3	5.3	0.3	0.9	0.0	0.0	0.0	3.4	16.0
93 - 183	339	80,473.2	1.0	2.5	0.0	0.0	1.0	0.0	0.3	0.5	0.0	.	1.5	9.0	23.0	18.5	1.1	3.0
93 - 183	354	65,204.0	1.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
184 - 274	333	20,221.5	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
184 - 274	336	16,644.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
184 - 274	355	14,168.8		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 - 366	334	13,205.9	0.0	0.0	0.0	0.0	0.5	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 - 366	335	7,978.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 - 366	356	8,391.2	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367 - 549	717	22,835.1	0.0		.	0.0	3.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367 - 549	719	10,454.6	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367 - 549	721	10,454.6	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550 - 731	718	18,433.2		.	.	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550 - 731	720			.	.	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550 - 731	722	12,793.2		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean No. (sets)			**16.1 (91)**	**33.1 (84)**	**22.7 (54)**	**16.4 (75)**	**11.3 (75)**	**31.2 (81)**	**22.7 (60)**	**62.7 (81)**	**69.0 (96)**	**71.4(75)**	**91.5(100)**	**95.3(97)**	**61.4(99)**	**130.9(75)**	**81.9(76)**	**68.7(123)**
Upper C.I.			**24.0**	**52.3**	**51.5**	**27.3**	**21.5**	**50.5**	**37.7**	**84.4**	**98.8**	**97.2**	**131.3**	**156.2**	**86.7**	**197.6**	**128.8**	**109.8**
Lower C.I.			**8.1**	**14.0**	**-6.2**	**5.5**	**1.0**	**11.9**	**7.6**	**41.0**	**39.2**	**45.6**	**51.8**	**34.4**	**36.1**	**64.2**	**35.1**	**27.7**

Table 19. Mean Weight of yellowtail by stratum, Div 3L-Fall

Depth Range (m)	Stratum	No. of trawlable Units	1990 WT 101	1991 WT 114,115	1992 WT 128-130 GA 226	1993 WT 145,146	1994 WT 161,162	1995 WT 176-179,181 TEL 22,23	1996 WT 196-198 TEL 41	1997 WT 213-217 TEL 57,58	1998 WT2230-33 TEL7576	1999 WT 246-48	2000 WT321-23 TEL339-343	2001 WT373-76TEL 357-61 AN399	2002 WT428-31 TEL412-15	2003 WT487-89,511 TEL 513	2004 WT559 WT587-589	2005 WT629-630,632 TEL662AN657-58
30- 56	784	36,866.4	.	.	.	.	.	.	0.0	0.0	0.0	0.0	4.0	0.1	0.0	0.1	0.0	0.1
57- 92	350	284,889.0	2.6	0.3	0.3	0.0	0.1	0.2	0.2	0.0	0.3	0.3	1.1	4.1	5.8	9.1	5.8	1.2
57- 92	363	244,858.7	2.7	0.5	0.9	0.0	0.1	2.3	1.5	0.6	15.9	15.9	41.8	41.1	12.7	35.1	35.9	32.3
57- 92	371	154,206.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.1	0.1
57- 92	372	338,400.3	1.9	2.3	1.7	3.3	0.0	1.9	5.4	3.3	3.6	0.0	5.3	41.9	25.5	21.8	34.6	12.0
57- 92	384	154,068.4	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	10.8
57- 92	785	63,965.9	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.4	0.2	0.2	0.4	0.0	0.0
93 - 183	328	208,955.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93 - 183	341	216,521.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
93 - 183	342	80,473.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93 - 183	343	72,219.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93 - 183	348	291,629.5	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93 - 183	349	290,804.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0
93 - 183	364	387,509.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3
93 - 183	365	143,201.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0
93 - 183	370	181,580.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
93 - 183	385	324,093.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
93 - 183	390	203,728.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93 - 183	786	11,555.1	.	.	.	.	.	.	0.0	0.0	0.2	0.2	0.3	0.0	0.0	0.0	0.0	0.1
93 - 183	787	84,325.0	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93 - 183	788	35,903.4	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93 - 183	790	12,242.9	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1		0.0
93 - 183	793	9,904.4	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93 - 183	794	29,713.2	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93 - 183	797	13,481.0	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93 - 183	799	9,904.4	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
184 - 274	344	217,621.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
184 - 274	347	135,222.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
184 - 274	366	191,760.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
184 - 274	369	132,196.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
184 - 274	386	135,222.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
184 - 274	389	112,937.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
184 - 274	391	38,792.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
184 - 274	795	22,560.0	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
184 - 366	789	9,904.4	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
184 - 366	791	31,226.4	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
184 - 366	798	13,756.1	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 - 366	345	196,987.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 - 366	346	118,990.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 - 366	368	45,945.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
275 - 366	387	98,768.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
275 - 366	388	49,659.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 - 366	392	19,946.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 - 366	796	24,073.2	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
367 - 549	729	25,586.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367 - 549	731	29,713.2	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367 - 549	733	64,378.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367 - 549	735	37,416.6	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
367 - 549	792	6,878.1	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
550 - 731	730	23,385.4	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550 - 731	732	31,776.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550 - 731	734	31,363.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
550 - 731	736	24,073.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
732 - 914	737	31,226.4	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
732 - 914	741	30,676.1	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
732 - 914	745	47,871.3	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
732 - 914	748	21,872.2	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
915-1097	738	30,401.0	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
915-1097	742	28,337.6	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
915-1097	746	53,924.0	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
915-1097	749	17,332.7	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
1098 -1280	739	34,940.5	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
1098 -1280	743	29,025.4	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
1098 -1280	747	99,594.2	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
1098 -1280	750	76,484.0	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
1281 -1463	740	36,316.1	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
1281 -1463	744	38,517.1	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
1281 -1463	751	31,501.5	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Mean Wt (sets)			**0.4 (161)**	**0.2 (219)**	**0.2 (215)**	**0.2 (153)**	**0.0 (200)**	**0.2 (161)**	**0.4 (211)**	**0.2 (203)**	**0.8 (204)**	**1.6(170)**	**2.0(176)**	**4.0(203)**	**2.1(204)**	**2.9(205)**	**4.7(143)**	**2.4(184)**
Upper C.I.			**0.8**	**0.3**	**0.3**	**0.5**	**0.0**	**0.4**	**0.8**	**0.5**	**2.0**	**4.0**	**3.8**	**6.2**	**3.4**	**5.4**	**7.5**	**4.2**
Lower C.I.			**0.0**	**0.1**	**0.1**	**-0.1**	**0.0**	**0.0**	**-0.1**	**0.1**	**-0.8**	**-0.7**	**0.3**	**1.8**	**0.8**	**0.5**	**1.9**	**0.6**

Table 20. Mean Weight of yellowtail by stratum, Div 3N - Fall

Depth Range (m)	Stratum	No. of trawlable Units	1990 *WT 102*	1991 *WT 113,114*	1992 *WT 128,129*	1993 *WT 144,145*	1994 *WT 160,161*	1995 *WT 176,177*	1996 *TEL 41,42 AN 253*	1997 *WT 212-214*	1998 *WT 229,30,33 TEL 76*	1999 *WT 245-47*	2000 *WT320-323 TEL338,339*	2001 *WT372-73 TEL 357*	2002 *WT427-28 TEL411-12*	2003 *WT 486-87*	2004 *WT 557-558*	2005 *WT627, 628, 630 TEL608,609;AN657*
<=56	375	219,134	8.8	14.6	23.0	.	36.4	14	20	67.7	54.8	70.1	87.1	112.2	115.8	177.8	149.1	142.0	347.5	195.8
<=56	376	206,204	1.1	97.2	53.0	52.3	151.7	49.4	118	6	117.2	157.4	174.3	182.9	607.1	597.5	229.7	278.9	242.0	593.7
57 - 92	360	411,582	8.8	16.4	20.1	19.5	60.3	27.3	39.6	89.4	114.8	136.4	147.5	148.2	102.6	203.7	174.0	168.3	91.8	
57 - 92	361	254,900	0.7	37.3	77.0	95.3	116.9	161	0	133.7	122.5	142.9	146.3	69.6	40.7	234.5	185.3	153.4	83.3	30.7
57 - 92	362	346,653	3.9	19.5	18.6	3.0	1.0	3.0	35.0	23.0	79.7	54.1	101.3	50.6	157.9	97.8	91.5	104.4	63.7	
57 - 92	373	346,653	3.9	0.6	1.4	0.0	0.0	2.5	2.8	0.0	12.2	15.6	17.5	23.4	119.2	66.4	51.2	79.2	42.8	
57 - 92	374	128,069	4.0	0.0	0.9	.	0.0	0.0	0.0	8.2	6.2	7.9	78.1	40.6	67.4	34.1	24.6	84.2	84.4	
57 - 92	383	92,716	2.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0
93 - 183	359	57,913	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.2	4.5	0.3
93 - 183	377	13,756	1.1	0.0	.	0.0	0.0	0.0	0.0	0.0	1.4	0.4	1.0	0.0	0.0	0.0	0.0	0.0	14.7	19.6
93 - 183	382	89,002	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
184 - 274	358	30,951	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
184 - 274	378	19,121	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0
184 - 274	381	25,036	1.1	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 - 366	357	22,560	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
275 - 366	379	14,581	1.5	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 - 366	380	15,957	1.1	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367 - 549	723	21,322	2.0	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367 - 549	725	14,443	9.9	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367 - 549	727	22,009	9.8	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550 - 731	724	17,057	7.6	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0
550 - 731	726	9,904	4.4	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550 - 731	728	21,459	9.5	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Wt (sets)				**20.6(80)**	**22.1 (67)**	**24.1 (34)**	**39.6 (70)**	**39.8 (73)**	**42.8 (90)**	**47.1 (82)**	**68.4 (100)**	**66.3(119)**	**79.9(70)**	**94.1(94)**	**137.3(94)**	**101.5(94)**	**105.7 (70)**	**122.2(69)**	**101.0(103)**	
Upper C.I.				**35.6**	**36.6**	**43.7**	**62.6**	**66.4**	**56.5**	**65.0**	**87.1**	**85.0**	**100.3**	**143.9**	**177.0**	**136.0**	**135.7**	**152.3**	**124.6**	
Lower C.I.				**5.6**	**7.6**	**4.6**	**16.6**	**13.1**	**29.1**	**29.3**	**49.6**	**47.5**	**59.6**	**44.3**	**97.7**	**67.1**	**75.7**	**92.1**	**77.4**	

Table 21. Mean Weight of yellowtail by stratum, Div 30 - Fall

Depth Range (m)	Stratum	No. of trawlable Units	1990 *WT 102*	1991 *WT 114*	1992 *WT 128*	1993 *WT 144*	1994 *WT 160,161*	1995 *WT 176,177*	1996 *WT 200 AN 253, TEL 42*	1997 *WT 212,213*	1998 *WT 229-30,33 TEL 76*	1999 *WT 244-46*	2000 *WT319-322 TEL 338*	2001 *WT 372 TEL 357*	2002 *WT427 TEL411*	2003 *WT 485-86 TEL 469*	2004 *WT 557*	2005 *WT627,628 TEL 608*
57 - 92	330	287,365	1.1	0.7	0.1	0.7	1.6	0.1	3.7	0.0	2.6	0.6	12.5	1.1	9.7	3.4	7.8	6.5	8.1	
57 - 92	331	62,727	9.9	3.8	14.9	4.6	8.8	0.0	0.6	0.0	0.3	1.2	1.9	1.1	6.9	12.7	1.5	20.0	14.9	
57 - 92	338	261,090	9.3	3.7	7.8	0.9	4.3	0.2	27.7	0.2	21.7	10.9	10.8	24.7	99.0	2.3	24.9	1.0	3.5	
57 - 92	340	236,054	8.8	2.7	16.8	0.2	1.3	0.8	2.0	0.0	10.9	9.2	11.0	2.1	13.8	38.8	9.0	28.5	33.7	
57 - 92	351	346,653	3.9	16.0	6.7	0.8	14.4	2.8	6.4	3.7	42.0	54.2	34.2	69.2	50.4	44.0	93.6	64.2	39.5	
57 - 92	352	354,907	7.6	19.7	59.2	51.3	23.5	26.1	38.6	42.8	74.6	80.2	66.1	102.8	76.4	62.6	108.8	75.4	107.3	
57 - 92	353	176,353	3.3	13.9	0.0	0.0	3.6	0.0	4.8	4.2	41.4	0.2	21.7	10.0	21.5	16.6	86.6	6.4	13.7	
93 - 183	329	236,742	6.6	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.1	0.0	0.1	
93 - 183	332	144,026	5.5	0.4	0.2	1.0	7.3	2.6	0.9	1.7	0.0	0.0	0.5	0.4	3.4	6.2	0.0	2.9	0.4	
93 - 183	337	130,407	9.9	0.0	0.6	0.0	0.0	0.0	0.0	10.2	0.9	1.6	0.2	0.2	0.0	0.0	0.0	1.2	5.1	
93 - 183	339	80,473	2.2	0.5	1.1	0.0	0.0	0.5	0.0	0.1	0.3	0.0	.	0.6	2.6	8.2	4.9	0.4	0.7	
93 - 183	354	65,204	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	
184 - 274	333	20,221	5.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
184 - 274	336	16,644	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
184 - 274	355	14,168	8.8	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 - 366	334	13,205	9.9	0.0	0.0	0.0	0.0	0.2	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 - 366	335	7,978	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 - 366	356	8,391	1.2	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
367 - 549	717	22,835	1.1	0.0	.	.	0.0	1.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
367 - 549	719	10,454	6.6	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
367 - 549	721	10,454	6.6	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
550 - 731	718	18,433	2.2	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
550 - 731	720	.	.	.	.	.	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
550 - 731	722	12,793	2.2	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Mean Wt (sets)				**7.0 (91)**	**12.2 (84)**	**7.9 (54)**	**6.9 (75)**	**4.3 (75)**	**10.1 (81)**	**7.6 (60)**	**22.7 (81)**	**19.9 (96)**	**19.6(75)**	**25.1 (100)**	**29.5(97)**	**19.3(99)**	**38.3(75)**	**23.9(76)**	**24.2(123)**	
Upper C.I.				**10.5**	**18.1**	**17.5**	**11.1**	**8.2**	**15.0**	**12.7**	**31.7**	**28.2**	**26.1**	**35.5**	**54.7**	**27.5**	**57.1**	**36.3**	**40.3**	
Lower C.I.				**3.5**	**6.3**	**-1.7**	**2.7**	**0.5**	**5.1**	**2.5**	**13.6**	**11.6**	**13.1**	**14.7**	**4.4**	**11.0**	**19.5**	**11.4**	**8.1**	

Table 22. Abundance (millions) of yellowtail by stratum, Div 3L - Fall

Depth Range (m)	Strat	No. of trawlable Units	1990 WT 10.1	1991 WT 1.14-1.15	1992 WT 128-130 GA 226	1993 WT 145, 146	1994 WT 161, 162	1995 WT 176-179,181 TEL 22, 23	1996 WT 196-198 TEL 41	1997 WT 213-217 TEL 57,58	1998 WT 230-233 TEL 75, 76	1999 WT 246-48	2000 WT321-2,3 TEL3 39, 343	2001 WT373-76TEL 35,76,1 AN399	2002 WT428-31 TEL 412-15	2003 WT487-89, 511 TEL 513	2004 WT557-9 WT 587,589	2005 WT629,630,632 TEL 662 AN657,58
30 - 56	784	36,866.4							0.0	0.0	0.0		1.5	0.0	0.0	0.0	0.0	0.1
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.1
57 - 92	350	2,84,889.0	1.7	0.2	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.4	0.9	3.5	5.3	8.3	4.9	0.8
	363	2,44,858.7	1.3	0.3	0.5	0.0	0.1	1.3	0.9	0.3	9.4	18.1	29.3	28.0	8.5	23.4	24.9	24.4
	371	1,54,206.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.4	0.0
	372	3,38,400.3	1.3	1.6	1.3	2.6	0.0	2.2	5.7	5.8	3.4	2.2	6.1	42.6	18.9	27.0	33.3	9.8
	384	1,54,068.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
	785	63,965.9							0.0	0.0	0.0		0.1	0.2	0.1	0.1	0.0	0.0
TOTAL			4.3	2.1	1.9	2.6	0.1	3.6	6.7	6.1	12.9	20.6	36.3	74.4	32.9	58.9	63.5	38.5
93 - 183	328	2,08,955.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	341	2,16,521.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	342	80,473.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	343	72,219.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	348	2,91,629.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	349	2,90,804.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	364	3,87,509.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.2
	365	1,43,201.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
	370	1,81,580.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	385	3,24,093.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	390	2,03,728.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	786	11,555.1							0.0	0.0	0.0		0.1	0.0	0.0	0.0	0.0	0.0
	787	84,325.0							0.0	0.0	0.1		0.0	0.0	0.0	0.0	0.0	0.0
	788	35,903.4							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	790	12,242.9							0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
	793	9,904.4							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	794	29,713.2	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
	797	13,481.0	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
	799	9,904.4							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.2	0.0	0.2	0.3
184 - 274	344	2,17,621.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	347	1,35,222.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	366	1,91,760.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	369	1,32,196.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	386	1,35,222.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	389	1,12,937.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	391	38,792.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	795	22,560.0	.						0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	798	9,904.4							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	791	31,226.4							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	798	13,756.1							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 - 366	345	1,96,987.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	346	1,18,990.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	368	45,945.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	387	98,768.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
	388	49,659.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	392	19,946.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	796	24,073.2							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367 - 549	729	25,586.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	731	29,713.2	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	733	64,378.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	735	37,416.6	.	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	.	0.0	0.0		0.0
	792	6,878.1	.	.	.	.	.	.	.	0.0	0.0	.	0.0	0.0	0.0	0.0		0.0
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550 - 731	730	23,385.4	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	732	31,776.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	734	31,363.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	736	24,073.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
732 - 914	737	31,226.4							0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	741	30,676.1								0.0	0.0	0.0	0.0	0.0	0.0			
	745	47,871.3								0.0	0.0	0.0	0.0	0.0	0.0			
	748	21,872.2	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0			
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
915 - 1097	738	30,401.0							0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	742	28,337.6	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0			
	746	53,924.0	.	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0			
	749	17,332.7								0.0	0.0	0.0		0.0	0.0			
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
1098 -1280	739	34,940.5								0.0	0.0	0.0	0.0	0.0	0.0			
	743	29,025.4								0.0	0.0	0.0	0.0	0.0	0.0			
	747	99,594.2								0.0	0.0	0.0	0.0	0.0	0.0			
	750	76,484.0								0.0	0.0	0.0	0.0	0.0	0.0			
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
1281 -1460	740	36,316.1								0.0	0.0	0.0	0.0	0.0	0.0			
	744	38,517.1								0.0	0.0	0.0	0.0	0.0	0.0			
	751	31,501.5								0.0	0.0		0.0	0.0	0.0			
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Abundance (millions)			4.4	2.1	2.0	2.6	0.1	3.6	6.7	6.1	13.1	20.6	37.9	74.5	33.1	58.9	63.4	38.8
Upper C.I.			8.7	3.3	3.1	6.6	0.3	6.8	14.1	16.9	31.6	50.5	69.4	117.2	51.2	103.0	101.2	72.8
Lower C.I.			0.1	1.0	0.9	-1.4	-0.1	0.3	-0.7	-4.7	-5.4	-9.2	6.5	31.8	15.0	14.8	25.6	4.7

Table 23. Abundance (millions) of yellowtail by stratum, Div 3N - Fall

Depth Range (m)	Strat	No. of trawlable Units	1990 WT 1-102	1991 WT 1-13,1-14	1992 WT 12-8,1-29	1993 WT 144-145	1994 WT 160-161	1995 WT 176-177	1996 TEI 41-42 4N 253	1997 WT 212-214	1998 WT 2-29,3-03 TEI 76	1999 WT 2-45-47	2000 WT 320-32-3 TEI 3-38,3-39	2001 WT 372-73 TEI 35-7	2002 WT 427-28 TEI 411-12	2003 WT 486-87	2004 WT 557-558	2005 WT 627-628 TEI 608-609-A
<= 56	37.5	21,913,4.8	8.9	1.2.7		16.8	72.3	8.7.3	47.5	46.6	68.1	81.7	1.00.9	141.0	119.5	107.1	34.0.1	1.85.8
	37.6	20,620,4.1	6.6.7	7.0.7	66.6	139.1	42.5	1.46.7	171.4	1.80.1	161.3	149.0	4.22.1	523.6	206.6	204.9	22.6.7	6.57.5
TOTAL			**7.5.6**	**8.3.4**	**66.6**	**155.9**	**114.8**	**2.34.0**	**218.9**	**2.26.7**	**229.4**	**23.0.7**	**5.23.0**	**664.5**	**326.1**	**312.0**	**56.6.8**	**8.43.3**
57 - 92	36.0	41,158,2.8	3.4.3	3.8.2	20.4	90.4	41.5	7.0.5	161.4	1.67.2	205.3	20.1.9	1.88.6	131.4	238.0	224.9	21.1.2	1.04.2
	36.1	25,490,0.7	2.1.8	6.8.7	68.8	80.7	98.2	1.14.7	106.0	1.01.3	134.7	66.8	3.7.4	188.0	176.4	157.4	91.6	31.7
	36.2	34,665,3.9	1.6.5	2.1.0	2.3	0.6	2.3	8.4.9	26.2	1.06.5	48.3	19.8.3	7.0.3	198.1	150.7	117.6	18.5.9	86.8
	37.3	34,665,3.9	0.4	0.9	0.0	0.0	2.5	4.8	0.0	12.2	12.2	18.9	2.4.2	106.7	65.5	49.6	76.8	54.1
	37.4	12,806,9.4	0.0	0.1		0.0	0.0	0.0	3.8	2.3	2.0	23.4	1.6.7	25.9	13.9	8.3	24.6	19.9
	38.3	9,271,6.2	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
TOTAL			**7.3.0**	**1.2.8.9**	**91.5**	**171.7**	**144.5**	**2.74.9**	**297.4**	**3.89.5**	**402.5**	**50.9.2**	**3.37.2**	**650.2**	**644.5**	**557.6**	**59.0.5**	**2.96.7**
93 - 1.83	35.9	5,791,3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.6	0.1
	37.7	1,375,6.1	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.5	6.4
	38.2	8,900,2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.7**	**0.0**	**1.1**	**6.5**
18.4 - 27.4	35.8	3,095,1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	37.8	1,912,1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
	38.1	2,503,6.1		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**
27.5 - 36.6	35.7	2,256,0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
	37.9	1,458,1.5	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	38.0	1,595,7.1		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.2**
36.7 - 54.9	72.3	2,132,2.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.5	1,444,3.9			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	72.7	2,200,9.8				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
55.0 - 73.1	72.4	1,705,7.6		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
	72.6	9,904,4				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.8	2,145,9.5					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Abundance (millions)			**148.5**	**212.3**	**158.0**	**327.7**	**259.3**	**509.0**	**516.3**	**616.2**	**632.1**	**739.9**	**860.3**	**1314.7**	**971.3**	**869.6**	**1158.6**	**1146.7**
Upper C.I.			**243.8**	**349.7**	**363.3**	**540.0**	**430.5**	**706.4**	**727.2**	**771.6**	**822.2**	**1003.0**	**1327.5**	**1808.0**	**1241.5**	**1107.7**	**1458.9**	**1478.6**
Lower C.I.			**53.3**	**74.9**	**-47.2**	**115.3**	**88.2**	**311.5**	**305.4**	**460.8**	**442.0**	**476.9**	**393.1**	**821.4**	**701.1**	**631.5**	**858.3**	**814.9**

Table 24. Abundance (millions) of yellowtail by stratum, Div 30 - Fall

Depth Range (m)	Strat	No. of trawlable Units	1990 WT 102	1991 WT 11-3,11-4	1992 WT 1-28	1993 WT 1-44	1994 WT 160-161	1995 WT 176-177	1996 WT 200 4N 253 TEI 4-2	1997 WT 212-213	1998 WT 229-30-33 TEI 76	1999 WT 244-46	2000 WT 319-32-2 TEI 3-38	2001 WT 372 TEI 357	2002 WT 427 TEI 4-11	2003 WT 485-86 TEI 4-69	2004 WT 557	2005 WT 626-27-628 TEI 60-8
57 - 92	33.0	2,873,65.0	0.4	0.0	0.4	1.0	0.0	2.4	0.0	2.1	0.5	6.8	1.0	5.7	2.4	6.4	5.2	4.4
	33.1	697,29.0	0.4	1.8	0.5	1.0	0.0	0.1	0.0	0.1	0.2	0.9	0.2	1.8	2.6	0.2	3.2	2.6
	33.8	2,610,91.0	2.2	5.2	0.5	2.3	0.1	25.3	0.1	10.0	8.1	9.3	2.0.4	6.7.9	1.7	18.9	0.7	2.6
	34.0	2,360,55.0	1.3	8.5	0.1	1.2	0.4	1.1	0.0	6.7	5.5	8.8	1.1	1.1.2	2.2.3	7.3	17.5	25.3
	35.1	3,466,54.0	12.8	5.5	0.6	1.2.2	2.4	5.5	4.0	37.2	71.9	46.9	9.4.5	5.9.3	5.9.2	1.54.7	85.9	39.8
	35.2	3,549,08.0	17.0	6.1.2	5.3.4	2.0.1	24.7	43.3	47.7	88.4	95.8	90.5	1.31.2	10.2.2	6.8.2	1.00.5	90.7	105.4
	35.3	1,763,53.0	4.9	0.0	0.0	1.5	0.0	1.5	1.2	14.6	0.1	13.0	5.3	1.2.3	9.3	44.6	4.2	8.2
TOTAL			**39.0**	**8.2.2**	**5.5.5**	**3.9.3**	**27.6**	**79.2**	**53.0**	**159.1**	**182.1**	**176.2**	**2.53.6**	**26.0.6**	**1.65.8**	**3.32.6**	**207.3**	**188.3**
93 - 1.83	32.9	2,367,43.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	33.2	1,440,26.0	0.1	0.0	0.3	2.3	0.7	0.5	0.4	0.0	0.1	0.2	0.1	1.4	2.7	0.0	1.3	0.1
	33.7	1,304,08.0	0.0	0.1	0.0	0.0	0.0	0.0	2.5	0.2	0.7	0.0	0.1	0.0	0.0	0.0	0.4	2.1
	33.9	804,73.0	0.1	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.7	1.9	1.5	0.1	0.2
	35.4	65,204.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.5**	**0.3**	**0.3**	**2.3**	**0.8**	**0.5**	**3.0**	**0.2**	**0.8**	**0.3**	**0.4**	**2.2**	**4.6**	**1.5**	**1.8**	**2.5**
18.4 - 27.4	33.3	202,21.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	33.6	166,45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	35.5	14,169.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
27.5 - 36.6	33.4	13,206.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	33.5	7,979.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	35.6	8,391.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
36.7 - 54.9	71.7	22,835.0	0.0			0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	71.9	10,455.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.1	10,455.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
55.0 - 73.1	71.8	18,433.0					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.0	14,443.9					0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.2	12,793.0		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Abundance (millions)			**39.6**	**82.7**	**55.8**	**41.6**	**28.5**	**79.7**	**56.2**	**159.2**	**183.0**	**176.5**	**254.1**	**262.7**	**170.4**	**334.1**	**209.1**	**190.8**
Upper C.I.			**59.0**	**130.4**	**126.9**	**69.3**	**54.5**	**128.9**	**93.5**	**214.2**	**262.0**	**240.3**	**364.3**	**430.5**	**240.6**	**504.4**	**328.6**	**304.7**
Lower C.I.			**20.1**	**34.9**	**-15.3**	**13.9**	**2.4**	**30.4**	**18.8**	**104.1**	**103.9**	**112.8**	**143.8**	**95.0**	**100.2**	**163.8**	**89.6**	**76.9**

Table 25. Abundance (millions) of Yellowtail Flounder by stratum, Div 3LN0 - Fall

Depth Range (m)	Stratum	No. of trawlable Units	1990 WT 101,102	1991 WT 113-115	1992 WT 128-130 GA 226	1993 WT 144-146	1994 WT 160-162	1995 WT 176-179,181 TEL 22,23	1996 WT 196-98,200 TEL 41,42 AN 253	1997 WT 212-216 TEL 57, 58	1998 WT 229-33 TEL 75, 76	1999 WT 244-48	2000 WT 319-23 TEL 38-43	2001 WT 372-76 TEL 357-61 AN 399	2002 WT 427-31 TEL 411-15	2003 WT 495-99 5,11 T2 146 9,51,3	2004 WT 557-559 WT 587	2005 WT62 7,6 30,6 32 TEL 628, 609, 662 AN 65,7,65,8
30 - 56	784	36,866,4	.	.	.	.	.	.	0.0	0.0	0.0	.	1.5	0.0	0.0	0.0	0.0	0.1
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**1.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**
<=56	375	2,191,134,8	8.9	1.2.7		16.8	72.3	8.7.3	4.7.5	46.6	68.1	81.7	100.9	14.1.0	11.9.5	1.07.1	3.40.1	185.8
	376	2,062,041	66.7	7.0.7	66.6	139.1	42.5	14.6.7	1.71.4	180.1	161.3	149.0	422.1	52.3.6	20.6.6	2.04.9	2.26.7	657.5
TOTAL			**75.6**	**83.4**	**66.6**	**155.9**	**114.8**	**23.4.0**	**2.18.9**	**226.7**	**229.4**	**230.7**	**523.0**	**66.4.5**	**32.6.1**	**3.12.0**	**5.66.8**	**843.3**
57 - 92	330	2,873,651	0.4	0.0	0.4	1.0	0.0	2.4	0.0	2.1	0.5	6.8	1.0	5.7	2.4	6.4	5.2	4.4
	331	6,272,729	0.4	1.8	0.5	1.0	0.0	0.1	0.0	0.1	0.2	0.9	0.2	1.8	2.6	0.2	3.2	2.6
	338	2,610,909	2.2	5.2	0.5	2.3	0.1	25.3	0.1	10.0	8.1	9.3	20.4	67.9	1.7	1.8.9	0.7	2.6
	340	2,360,548	1.3	8.5	0.1	1.2	0.4	1.1	0.0	6.7	5.5	8.8	1.1	11.2	2.2.3	7.3	17.5	25.3
	350	2,848,898	1.7	0.2	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.4	0.9	3.5	5.3	8.3	24.9	0.8
	351	3,466,539	12.8	5.5	0.6	12.2	2.4	5.5	4.0	37.2	71.9	46.9	94.5	59.3	5.9.2	1.54.7	85.9	39.8
	352	3,549,076	17.0	6.1.2	53.4	20.1	24.7	4.3.3	4.7.7	88.4	95.8	90.5	131.2	10.2.2	6.8.2	1.00.5	90.7	105.4
	353	1,763,533	4.9	0.0	0.0	1.5	0.0	1.5	1.2	14.6	0.1	13.0	5.3	12.3	9.3	4.4.6	4.2	8.2
	360	4,115,828	34.3	3.8.2	20.4	90.4	41.5	7.0.5	1.61.4	167.2	205.3	201.9	188.6	13.1.4	23.8.0	2.24.9	2.11.2	104.2
	361	2,549,007	21.8	6.8.7	68.8	80.7	98.2	11.4.7	1.06.0	101.3	134.7	66.8	37.4	18.8.0	17.6.4	1.57.4	91.6	31.7
	362	3,466,539	16.5	2.1.0	2.3	0.6	2.3	8.4.9	2.6.2	106.5	48.3	198.3	70.3	19.8.1	15.0.7	1.17.6	1.85.9	86.8
	363	2,448,587	1.3	0.3	0.5	0.0	0.1	1.3	0.9	0.3	9.4	18.1	29.3	28.0	8.5	2.3.4	24.9	24.4
	371	1,542,060	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
	372	3,384,003	1.3	1.6	1.3	2.6	0.0	2.2	5.7	5.8	3.5	2.2	6.1	42.6	1.8.9	2.7.0	33.3	9.8
	373	3,466,539	0.4	0.9	0.0	0.0	2.5	4.8	0.0	12.2	12.3	18.9	24.2	10.6.7	6.5.5	4.9.6	76.8	54.1
	374	1,280,694	0.0	0.1		0.0	0.0	0.0	3.8	2.3	2.0	23.4	16.7	25.9	1.3.9	8.3	24.6	19.9
	383	9,271,626	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
	384	1,540,684	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
	785	6,396,559							0.0	0.0	0.0		0.1	0.2	0.1	0.1	0.0	0.0
TOTAL			**116.3**	**213.2**	**148.9**	**213.6**	**172.2**	**357.7**	**357.1**	**554.7**	**597.8**	**706.1**	**627.2**	**985.1**	**843.2**	**949.0**	**880.9**	**523.4**
93 - 183	328	2,089,553	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	329	2,367,426	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	332	1,440,265	0.1	0.0	0.3	2.3	0.7	0.5	0.4	0.0	0.0	0.2	0.1	1.4	2.7	0.0	1.3	0.1
	337	1,304,079	0.0	0.1	0.0	0.0	0.0	0.0	2.5	0.2	0.7	0.0	0.1	0.0	0.0	0.0	0.4	2.1
	339	8,047,332	0.1	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0		0.1	0.7	1.9	1.5	0.1	0.2
	341	2,165,212	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	342	8,047,332	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	343	7,221,966	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	348	2,916,295	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	349	2,908,041	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
	354	6,520,400	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	359	5,791,332	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.6	0.1
	364	3,875,096	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
	365	1,432,011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	370	1,815,806	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	377	1,375,661	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.5	6.4
	382	8,900,220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	385	3,240,939	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	390	2,097,280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	786	1,155,451	.	.	.	.	.	.	0.0	0.0	0.0	.	0.1	0.0	0.0	0.0	0.0	0.0
	787	8,432,450	.	.	.	.	.	.	0.0	0.0	0.1	.	0.0	0.0	0.0	0.0	0.0	0.0
	788	3,590,234							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	790	1,224,290							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	793	9,904,454							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	794	2,971,332							0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
	797	1,348,100							0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
	799	9,904,454							0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
TOTAL			**0.5**	**0.3**	**0.4**	**2.3**	**0.8**	**0.5**	**3.0**	**0.2**	**1.0**	**0.3**	**0.5**	**2.2**	**5.5**	**1.6**	**3.2**	**9.3**
184 - 274	333	2,022,152	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	336	1,664,449	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	344	2,176,216	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	347	1,352,226	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	355	1,416,884	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	358	3,095,120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	366	1,917,602	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	369	1,321,962	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	378	1,912,210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
	381	2,503,661		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	386	1,352,226	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	389	1,129,737	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	391	3,879,222	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	795	2,256,000							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**

Table 25 Con'd

Depth Range (m)	Stratum	No. of trawlable Units	1990 WT 101,102	1991 WT 113-115	1992 WT 128-130 GA 226	1993 WT 144-146	1994 WT 160-162	1995 WT 176-179,181 TEL 22,23	1996 WT 188-191	1997 WT 204-208	1998 WT 229-33 TEL 75,76	1999 WT 244-48	2000 WT 319-23 TEL 38-43	2001 WT 372-76 TEL 352-61 AN 399	2002 WT 427-31 TEL 411-15	2003 WT 485-89,511 T2 146,951,3	2004 WT 557-559	2005 WT 627-630,632 TEL 608,609,662 AN 657,658
184 - 366	789	9,904.4							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	791	31,226.4	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
	798	13,756.1	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
275 - 366	334	13,205.9	0.0	0.0	0.0	0.0	0.1	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	335	7,978.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	345	1,969,875	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	346	1,189,903	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	356	8,391.2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	357	2,256,00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
	368	45,945.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0
	379	14,581.5	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	380	15,957.1		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	387	9,876,89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	388	4,965,96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	392	1,994,64	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	796	24,073.2							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.2**
367 - 549	717	22,835.1	0.0			0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	719	10,454.6	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	721	10,454.6		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	723	21,322.0	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	725	14,443.9	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0
	727	22,009.8				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	729	25,586.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	731	29,713.2	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	733	64,378.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	735	37,416.6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	792	6,878.1	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	.	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
550 - 731	718	18,433.2				0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	720	14,443.9	.	.	.	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	722	12,793.2	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	724	17,057.6		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
	726	9,904.4				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	728	21,459.5					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	730	23,385.4		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	732	31,776.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	734	31,363.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	736	24,073.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
732 - 914	737	31,226.4						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	741	30,676.1	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	745	47,871.3	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	748	21,872.2							0.0	0.0	0.0	0.0	0.0	0.0	0.0			
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**			
915 -1097	738	30,401.0	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	742	28,337.6							0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	746	53,924.0							0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	749	17,332.7							0.0	0.0	0.0		0.0	0.0	0.0			
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**			
1098 -1280	739	34,940.5							0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	743	29,025.4							0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	747	99,594.2							0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	750	76,483.4							0.0	0.0	0.0	0.0	0.0	0.0	0.0			
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**			
1281 -1463	740	36,316.1							0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	744	38,517.1							0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	751	31,501.5	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0			
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**			
Abundance (millions)			**192.5**	**297.1**	**215.9**	**371.9**	**287.9**	**592.2**	**579.1**	**781.5**	**828.2**	**937.1**	**1,152.3**	**1,651.9**	**1,174.8**	**1,262.6**	**1,431.0**	**1,376.3**
Upper C.I.			**289.0**	**438.7**	**410.7**	**581.1**	**460.5**	**793.3**	**791.7**	**945.3**	**1,115.7**	**1,205.0**	**1,604.0**	**2,120.4**	**1,452.5**	**1,545.4**	**1,749.1**	**1,706.3**
Lower C.I.			**95.9**	**155.5**	**21.0**	**157.6**	**115.3**	**391.0**	**366.6**	**617.8**	**540.6**	**669.2**	**700.6**	**1,183.4**	**897.1**	**979.9**	**1,113.0**	**1,046.3**

Table 26. Biomass ('000t) of yellowtail by stratum, Div 3L - Fall

Depth Range (m)	Stratum	No. of trawlable Units	1990 WT 1-01	1991 WT 114-115	1992 WT 128-130 GA 226	1993 WT 145-146	1994 WT 161-162	1995 WT 176-179 181 TEL 22-23	1996 WT 196-198 TEL 41	1997 WT 213-217 TEL 57-58	1998 WT 230-233 TEL 75-76	1999 WT 246-248	2000 WT 321-323 TEL 339-343	2001 WT373-376 TEL 357-61 AN399	2002 WT428-431 TEL 412-15	2003 WT487-89 511 TEL 513	2004 WT559 WT587-589	2005 WT626-630 632 TEL662-AN657-58
30 - 56	784	36,866.4							0.0	0.0	0.0		0.1	0.0	0.0	0.0	0.0	0.0
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57 - 92	350	284,889.0	0.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	1.2	1.7	2.6	1.6	0.3
	363	244,858.7	0.7	0.1	0.2	0.0	0.0	0.6	0.4	0.2	3.9	8.9	10.2	10.1	3.1	8.6	8.8	7.9
	371	154,206.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	372	338,400.3	0.6	0.8	0.6	1.1	0.0	0.6	1.8	1.1	1.2	0.5	1.8	14.2	8.6	7.4	1.17	4.1
	384	154,068.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
	785	63,965.9							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			2.1	1.0	0.9	1.1	0.0	1.2	2.2	1.3	5.2	9.6	12.4	25.5	13.5	18.6	22.2	14.0
93 - 183	328	208,955.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	341	216,521.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	342	80,473.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	343	72,219.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	348	291,629.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	349	290,804.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
	364	387,509.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
	365	143,201.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0		0.0
	370	181,580.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	385	324,093.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	390	203,728.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	786	11,555.1							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	787	84,325.0							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	788	35,903.4							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	790	12,242.9							0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
	793	9,904.4	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
	794	29,713.2	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
	797	13,481.0							0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
	799	9,904.4							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1
184 - 274	344	217,621.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	347	135,222.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	366	191,760.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	369	132,196.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
	386	135,222.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
	389	112,937.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	391	38,792.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	795	22,560.0							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
184 - 366	789	9,904.4							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	791	31,226.4							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	798	13,756.1							0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 - 366	345	196,987.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	346	118,990.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	368	45,945.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	387	98,768.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
	388	49,659.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	392	19,946.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	796	24,073.2	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367 - 549	729	25,586.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	731	29,713.2	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	733	64,378.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	735	37,416.6	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	792	6,878.1	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0		0.0
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
550 - 731	730	23,385.4		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	732	31,776.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	734	31,363.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	736	24,073.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 26. Cont'd

Depth Range (m)	Stratum	No. of trawlable Units	1990 WT 1-01	1991 WT 114-115	1992 WT 128-130 GA 226	1993 WT 145-146	1994 WT 161-162	1995 WT 176-179 181 TEL 22-23	1996 WT 196-198 TEL 41	1997 WT 213-217 TEL 57-58	1998 WT 230-233 TEL 75-76	1999 WT 246-248	2000 WT 321-323 TEL 339-343	2001 WT373-376 TEL 357-61 AN399	2002 WT428-431 TEL 412-15	2003 WT487-89 511 TEL 513	2004 WT559 WT587-589	2005 WT626-630 632 TEL662-AN657-58
732 - 914	737	31,226.4						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	741	30,676.1	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	
	745	47,871.3	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	
	748	21,872.2							0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
915 - 1097	738	30,401.0						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	742	28,337.6	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	
	746	53,924.0	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	
	749	17,332.7							0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	.	
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
1098 - 1280	739	34,940.5							0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	743	29,025.4	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	
	747	99,594.2	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	
	750	76,484.0	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
1281 - 1463	740	36,316.1							0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	744	38,517.1	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	
	751	31,501.5	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	.	
TOTAL			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Biomass ('000t)			2.1	1.0	0.9	1.1	0.0	1.2	2.2	1.3	5.2	9.6	12.5	25.5	13.6	18.6	22.2	14.1
Upper C.I.			4.1	1.6	1.5	2.7	0.1	2.2	5.3	3.1	12.8	23.6	23.4	39.7	21.7	34.2	35.5	24.7
Lower C.I.			0.0	0.4	0.4	-0.5	0.0	0.3	-0.8	-0.5	-2.4	-4.4	1.6	11.3	5.4	3.0	9.0	3.5

Table 27. Biomass ('000t) of yellowtail by stratum, Div 3N - Fall

Depth Range (m)	Stratum	No. of trawlable Units	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
			WT 10-2	WT 1-13,1-14	WT 12-8,12-9	WT 14-4,14-5	WT 1-60,1-61	WT 176-177	TEL 4-1,4-2 AN 2-53	WT 2-12-2-14	WT 229-30,3-3 TEL 76	WT 24-5,4-7	WT 320-3,23 TEL 338-339	WT 372-73 TEL 357	WT 427-28 TEL 411-1-2	WT 486-87	WT 557-558	WT6,27-6,2 TEL 608-609
<= 56	375	21,913,4.8	3.2	5.1		8.0	3.1.1	14.8	12.0	1.5.4	19.1	24.6	25.4	39.0	32.7	31.1	76.2	42.9
	376	20,620,4.1	20.1	1.0.9	10.8	31.3	1.0.2	24.4	24.2	3.2.5	35.9	37.7	125.2	1.23.2	47.4	57.5	49.9	122.4
TOTAL			**23.3**	**1.6.0**	**10.8**	**39.3**	**4.1.3**	**39.2**	**36.2**	**4.7.9**	**55.0**	**62.3**	**150.6**	**1.62.2**	**80.0**	**88.6**	**1.26.1**	**165.3**
57 - 92	360	41,158,2.8	6.7	8.3	8.0	24.8	1.1.2	16.3	36.8	4.7.2	56.1	60.6	61.0	4.2.2	83.8	71.6	69.3	37.8
	361	25,490,0.7	9.5	1.9.6	24.3	29.8	4.1.0	34.1	31.2	3.6.4	37.3	17.7	10.4	5.9.8	47.2	39.1	21.2	7.8
	362	34,665,3.9	6.8	6.4	1.0	0.3	1.0	12.1	8.0	2.7.6	18.8	35.1	17.5	5.4.8	33.9	31.7	36.2	22.1
	373	34,665,3.9	0.2	0.5	0.0	0.0	0.9	1.0	0.0	4.2	5.4	6.1	8.1	4.1.3	23.0	17.8	24.4	14.8
	374	12,806,9.4	0.0	0.1		0.0	0.0	0.0	1.1	0.8	1.0	10.0	5.2	8.6	4.4	3.2	10.8	10.8
	383	92,716.2	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
TOTAL			**23.2**	**34.9**	**33.3**	**54.9**	**5.4.1**	**63.5**	**77.1**	**1.16.2**	**11.8.6**	**129.5**	**102.2**	**2.06.7**	**19.2.3**	**163.3**	**1.62.0**	**93.3**
93 - 1.83	359	57,913.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0
	377	13,756.1	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.7
	382	89,002.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.3**	**0.0**	**0.5**	**2.7**
184 - 274	358	30,951.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	378	19,121.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
	381	25,036.1		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**
27.5 - 366	357	22,560.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	379	14,581.5	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	380	15,957.1		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**
367 - 549	723	21,322.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	725	14,443.9			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	727	22,009.8				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
55.0 - 731	724	17,057.6		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
	726	9,904.4			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	728	21,459.5					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Biomass ('000t)			**46.5**	**50.9**	**44.1**	**94.2**	**95.5**	**102.8**	**113.2**	**164.2**	**173.6**	**191.9**	**252.8**	**368.9**	**272.7**	**252.0**	**291.6**	**261.5**
Upper C.I.			**80.3**	**84.4**	**79.9**	**148.9**	**159.5**	**135.7**	**156.1**	**209.2**	**222.7**	**240.9**	**386.5**	**475.3**	**365.1**	**323.5**	**363.4**	**322.6**
Lower C.I.			**12.6**	**17.4**	**8.4**	**39.5**	**31.5**	**69.9**	**70.3**	**119.1**	**124.5**	**143.0**	**119.1**	**262.5**	**180.2**	**180.5**	**219.7**	**200.3**

Table 28. Biomass ('000t) of yellowtail by stratum, Div 3O - Fall

Depth Range (m)	Stratum	No. of trawlable Units	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
			WT 10-2	WT 1-14	WT 1-28	WT 1-44	WT 1-60,1-61	WT 176-177	WT 2-00 AN 2-53, TEL 4-2	WT 2-12-2-13	WT 229-30,3-3 TEL 76	WT 24-4,4-6	WT 319-322 TEL 338	WT 372 TEL 357	WT 427 TEL 411	WT 485-86 TEL 469	WT 5-57	WT6, 7-6,2 TEL 608
57 - 92	330	28,736,5.1	0.2	0.0	0.3	0.5	0.0	1.1	0.0	0.8	0.2	3.6	0.3	2.8	1.0	2.2	1.9	2.3
	331	6,227,27.9	0.2	0.9	0.1	0.5	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.4	0.8	0.1	1.3	0.9
	338	26,109,0.9	1.0	2.0	0.3	1.1	0.1	7.2	0.0	5.7	2.8	2.8	6.4	25.9	0.6	6.5	0.3	0.9
	340	23,605,4.8	0.6	4.0	0.2	0.3	0.2	0.5	0.0	2.6	2.2	2.6	0.5	3.3	9.2	2.1	6.7	8.0
	351	34,665,3.9	5.5	2.3	0.3	5.0	1.0	2.2	1.3	1.4.5	1.8.8	11.9	24.0	17.5	15.2	32.5	2.2.3	1.3.7
	352	35,490,7.6	7.0	2.1.0	0.4	8.3	9.3	13.7	1.5.2	2.6.5	2.8.5	23.5	36.5	27.1	22.2	38.6	2.6.8	3.3.1
	353	17,635,3.3	2.4	0.0	0.2	0.6	0.0	0.8	0.7	7.3	0.0	3.8	1.8	3.8	2.9	15.3	1.1	2.4
TOTAL			**16.9**	**30.2**	**1.8**	**16.3**	**10.6**	**25.5**	**17.2**	**57.4**	**52.6**	**48.3**	**69.5**	**80.7**	**51.9**	**97.3**	**60.3**	**6.3.3**
93 - 183	329	23,676,42.6	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	332	14,402,6.5	0.1	0.0	0.1	1.0	0.4	0.1	0.2	0.0	0.0	0.1	0.1	0.5	0.9	0.0	0.4	0.1
	337	13,040,7.9	0.0	0.1	0.1	0.0	0.0	0.0	1.3	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.7
	339	8,047,3.2	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.2	0.7	0.4	0.0	0.1
	354	6,520,4.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.2**	**0.2**	**0.6**	**1.0**	**0.4**	**0.1**	**1.5**	**0.1**	**0.3**	**0.1**	**0.1**	**0.7**	**1.6**	**0.4**	**0.6**	**0.8**
184 - 274	333	2,022,21.5	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	336	1,666,44.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	355	1,416,8.8	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
27.5 - 366	334	1,320,5.9	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	335	7,978.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	356	8,391.2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
367 - 549	717	2,283,5.1	0.0	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	719	1,045,4.6	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	721	1,045,4.6	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
55.0 - 731	718	1,845,33.2				0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	720	1,445,43.9	.	.	.	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	722	1,279,3.2	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Biomass ('000t)			**17.3**	**30.5**	**19.4**	**17.5**	**10.9**	**25.7**	**18.9**	**57.5**	**52.8**	**48.4**	**69.7**	**81.4**	**53.5**	**97.7**	**60.9**	**6.1**
Upper C.I.			**25.9**	**45.2**	**43.1**	**28.1**	**20.7**	**38.4**	**31.5**	**80.5**	**74.8**	**64.4**	**98.6**	**150.9**	**76.4**	**145.6**	**92.7**	**111.8**
Lower C.I.			**8.6**	**15.8**	**-4.3**	**6.8**	**1.2**	**13.1**	**6.2**	**34.5**	**30.8**	**32.3**	**40.8**	**12.0**	**30.6**	**49.8**	**29.0**	**2.4**

Table 29. Biomass ('000 t) of Yellowtail Flounder by stratum, Div 3LN0-Fall

Depth Range (m)	Stratum	No. of trawlable Units	1990 WT 101,102	1991 WT 113-115	1992 WT 128-130 GA 226	1993 WT 144-146	1994 WT 160-162	1995 WT 176-179,181 TEL 22, 23	1996 WT 196 -98 ,200 TEL 41,42 ,AN ,253	1997 WT 212 -216 TEL 57,58	1998 WT 229-33 TEL 75,76	1999 WT 244-48	2000 WT 319-23 TEL 38-43	2001 WT 372-7,67TEL 357 -61 ,AN 399	2002 WT 427-31 TEL 411-15	2003 WT 485 -89 ,511 T 2L4 69,5 13	2004 WT 557 -65 9 WT 58 7	2005 WT62 7-6 30,6 32 TEL608 ,609 ,662 AN 65 7,65 8
30 - 56	784	36,866.4							0.0	0.0	0.0		0.1	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
<=56	375	219,134.8	3.2	5.1	.	8.0	31.1	14.8	12.0	15.4	19.1	24.6	25.4	39.0	32.7	31.1	76.2	42.9
	376	206,204.1	20.1	10.9	1.08	31.3	10.2	24.4	24.2	32.5	35.9	37.7	125.2	123.2	47.4	57.5	49.9	122.4
TOTAL			**23.3**	**16.0**	**1.08**	**39.3**	**41.3**	**39.2**	**36.2**	**47.9**	**55.0**	**62.3**	**150.6**	**162.2**	**80.0**	**88.6**	**126.1**	**165.3**
57 - 92	330	287,365.1	0.2	0.0	0.2	0.5	0.0	1.1	0.0	0.8	0.2	3.6	0.3	2.8	1.0	2.2	1.9	2.3
	331	62,727.9	0.2	0.9	0.3	0.5	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.4	0.8	0.1	1.3	0.9
	338	261,090.9	1.0	2.0	0.2	1.1	0.1	7.2	0.0	5.7	2.8	2.8	6.4	25.9	0.6	6.5	0.3	0.9
	340	236,054.8	0.6	4.0	0.0	0.3	0.2	0.5	0.0	2.6	2.2	2.6	0.5	3.3	9.2	2.1	6.7	8.0
	350	284,889.0	0.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	1.2	1.7	2.6	1.6	0.3
	351	346,653.9	5.5	2.3	0.3	5.0	1.0	2.2	1.3	14.5	18.8	11.9	24.0	17.5	15.2	32.5	22.3	13.7
	352	354,907.6	7.0	21.0	1.82	8.3	9.3	13.7	15.2	26.5	28.5	23.5	36.5	27.1	22.2	38.6	26.8	38.1
	353	176,353.3	2.4	0.0	0.0	0.6	0.0	0.8	0.7	7.3	0.0	3.9	1.8	3.8	2.9	15.9	1.1	2.4
	360	411,582.8	6.7	8.3	8.0	24.8	11.2	16.3	36.8	47.2	56.1	60.7	61.0	42.2	83.8	71.6	69.3	37.8
	361	254,900.7	9.5	19.6	24.3	29.8	41.0	34.1	31.2	36.4	37.3	17.7	10.4	59.8	47.2	39.1	21.2	7.8
	362	346,653.9	6.8	6.4	1.0	0.3	1.0	12.1	8.0	27.6	18.8	35.1	17.5	54.8	33.9	31.7	36.2	22.1
	363	244,868.7	0.7	0.1	0.2	0.0	0.0	0.6	0.4	0.2	3.9	8.9	10.2	10.1	9.1	8.6	8.8	7.9
	371	154,206.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	372	338,400.3	0.6	0.8	0.6	1.1	0.0	0.6	1.8	1.1	1.2	0.5	1.8	1.42	8.6	7.4	11.7	4.1
	373	346,653.9	0.2	0.5	0.0	0.0	0.9	1.0	0.0	4.2	5.4	6.1	8.1	41.3	23.0	17.8	24.4	14.8
	374	128,069.4	0.0	0.1		0.0	0.0	0.0	1.1	0.8	1.0	10.0	5.2	8.6	4.4	3.2	10.8	10.8
	383	92,716.2	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
	384	154,068.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
	785	63,965.9	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**42.2**	**66.1**	**53.4**	**72.3**	**64.7**	**90.2**	**96.5**	**174.9**	**176.3**	**187.5**	**184.1**	**312.9**	**257.7**	**279.2**	**244.4**	**173.6**
93 - 183	328	208,955.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	329	236,742.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	332	144,026.5	0.1	0.0	0.1	1.0	0.4	0.1	0.2	0.0	0.0	0.1	0.1	0.5	0.9	0.0	0.4	0.1
	337	130,407.9	0.0	0.1	0.0	0.0	0.0	0.0	1.3	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.7
	339	80,473.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.2	0.7	0.4	0.0	0.1
	341	216,521.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	342	80,473.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	343	72,219.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	348	291,629.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	349	290,804.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
	354	65,204.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	359	57,913.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0
	364	387,509.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
	365	143,201.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
	370	181,580.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	377	13,756.1	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.7
	382	89,002.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	385	324,093.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	390	203,728.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	786	11,555.1	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
	787	84,325.0							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	788	35,903.4							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	790	12,242.9							0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
	793	9,904.4							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	794	29,713.2							0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
	797	13,481.0	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
	799	9,904.4	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.2**	**0.2**	**0.2**	**1.0**	**0.4**	**0.1**	**1.5**	**0.1**	**0.3**	**0.1**	**0.2**	**0.7**	**2.0**	**0.4**	**1.2**	**3.7**
184 - 274	333	20,221.5	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	336	16,644.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	344	217,621.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	347	135,222.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	355	14,168.8		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	358	30,951.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	366	191,760.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	369	132,196.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	378	19,121.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
	381	25,036.1		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	386	135,222.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	389	112,937.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	391	38,792.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	795	22,560.0							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**

Table 29 Con'd

Depth Range (m)	Stratum	No. of trawlable Units	1990 WT101,102	1991 WT 113-115	1992 WT 128-130 GA 226	1993 WT 144-146	1994 WT160-162	1995 WT 176-179,181 TEL 22, 23	1996 WT196-98,200 TEL 41, 42 AN 253	1997 WT 212-17 TEL 57,58	1998 WT229-33 3EL 75, 76	1999 WT 244-48 TEL 88	2000 WT319-23 TEL 338-43	2001 WT372-76TEL	2002 WT427-31 357-61 AN399 TEL411-15	2003 WT485-89,511 T2,46,9,51,3	2004 WT 557-55,9 WT 587	2005 WT627,630,632 TEL 608,609,662 AN 657,658
18.4 - 366	78.9	9,904.4							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	79.1	31,226.4							0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	79.8	13,756.1							0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
27.5 - 366	33.4	13,205.9	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	33.5	7,978.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	34.5	19,698.75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	34.6	11,899.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	35.6	8,391.2	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	35.7	22,560.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	36.8	45,945.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	37.9	14,581.5	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	38.0	15,957.1		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	38.7	98,768.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
	38.8	49,659.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
	39.2	19,946.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	79.6	24,073.2	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
36.7 - 549	71.7	22,835.1	0.0			0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	71.9	10,454.6	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.1	10,454.6	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.3	21,322.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.5	14,443.9			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
	72.7	22,009.8				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.9	25,586.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	73.1	29,713.2	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	73.3	64,378.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	73.5	37,416.6	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0
	79.2	6,878.1	.	.	.	.	.	.	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	.	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
55.0 - 731	71.8	18,433.2				0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.0	14,443.9	.	.	.	0.0	0.0	0.0	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.2	12,793.2	.	0.0	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.4	17,057.6		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
	72.6	9,904.4				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	72.8	21,459.5					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	73.0	23,385.4		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	73.2	31,776.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	73.4	31,363.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0
	73.6	24,073.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.	0.0
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
73.2 - 914	73.7	31,226.4							0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	74.1	30,676.1							0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	74.5	47,871.3	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	74.8	21,872.2	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**		
91.5 - 109.7	73.8	30,401.0							0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	74.2	28,337.6	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	74.6	53,924.0	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	74.9	17,332.7							0.0	0.0	0.0		0.0	0.0	0.0	0.0		
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**		
1098 -1280	73.9	34,940.5	.	.	.	.	.	.	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0		
	74.3	29,025.4	.	.	.	.	.	.	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0		
	74.7	99,594.2							0.0	0.0	0	0.0	0.0	0.0	0.0	0.0		
	75.0	76,484.0							0.0	0.0	0	0.0	0.0	0.0	0.0	0.0		
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**		
1281 -1463	74.0	36,316.1	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	74.4	38,517.1	.	.	.	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	75.1	31,501.5							0.0	0.0	0.0	.	0.0	0.0	0.0	0.0		
TOTAL			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**		
Biomass ('000t)			**65.8**	**82.4**	**64.5**	**112.8**	**106.4**	**129.8**	**134.3**	**222.9**	**231.6**	**249.9**	**335.0**	**475.8**	**339.7**	**368.3**	**374.7**	**342.7**
Upper C.I.			**99.8**	**117.5**	**103.8**	**168.0**	**171.0**	**164.3**	**178.3**	**272.5**	**285.2**	**301.8**	**463.5**	**588.5**	**434.2**	**452.1**	**452.2**	**413.4**
Lower C.I.			**31.8**	**47.3**	**25.2**	**57.6**	**41.9**	**95.2**	**90.3**	**173.4**	**178.1**	**198.0**	**206.5**	**363.1**	**245.2**	**284.6**	**297.2**	**271.9**

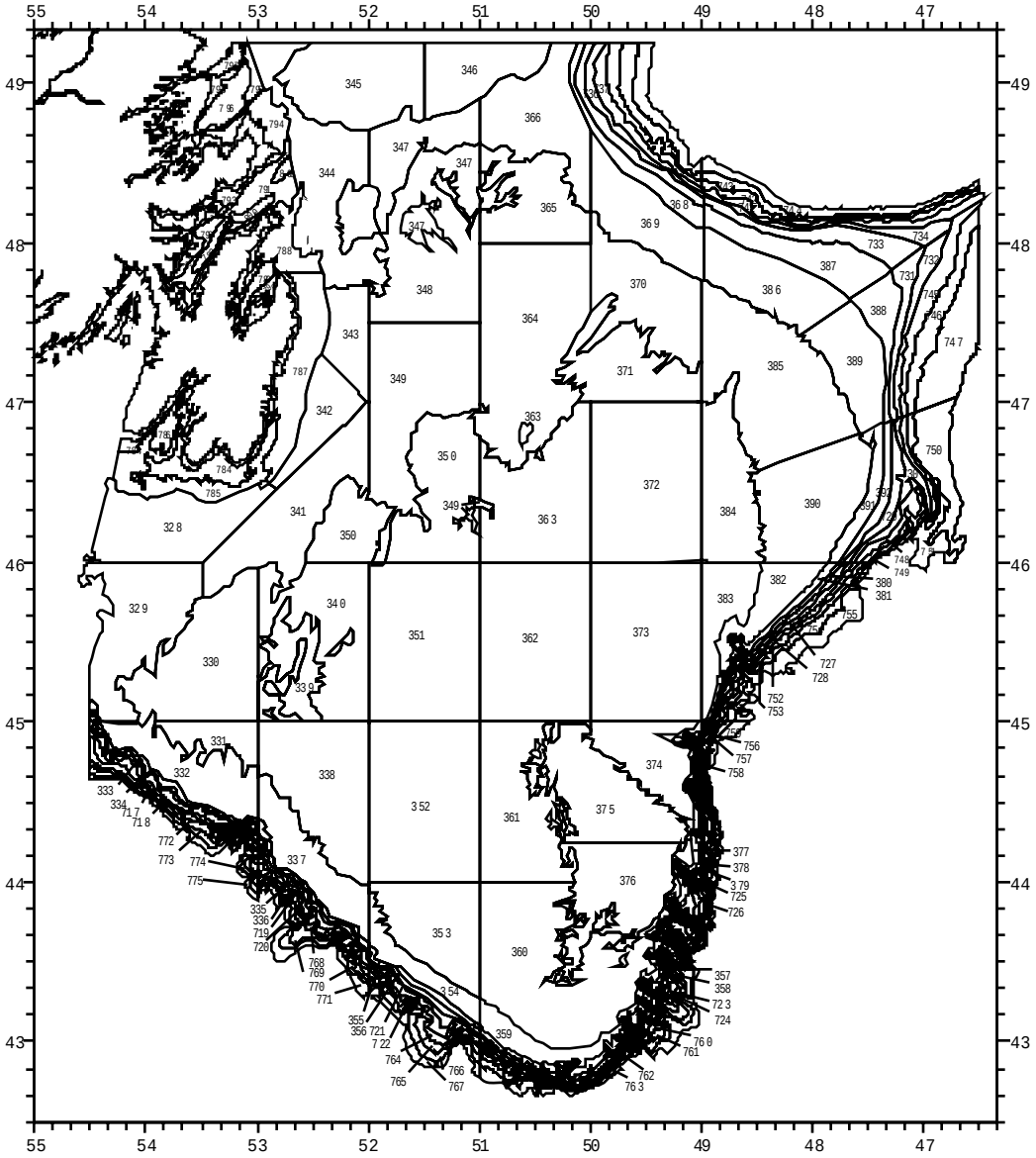
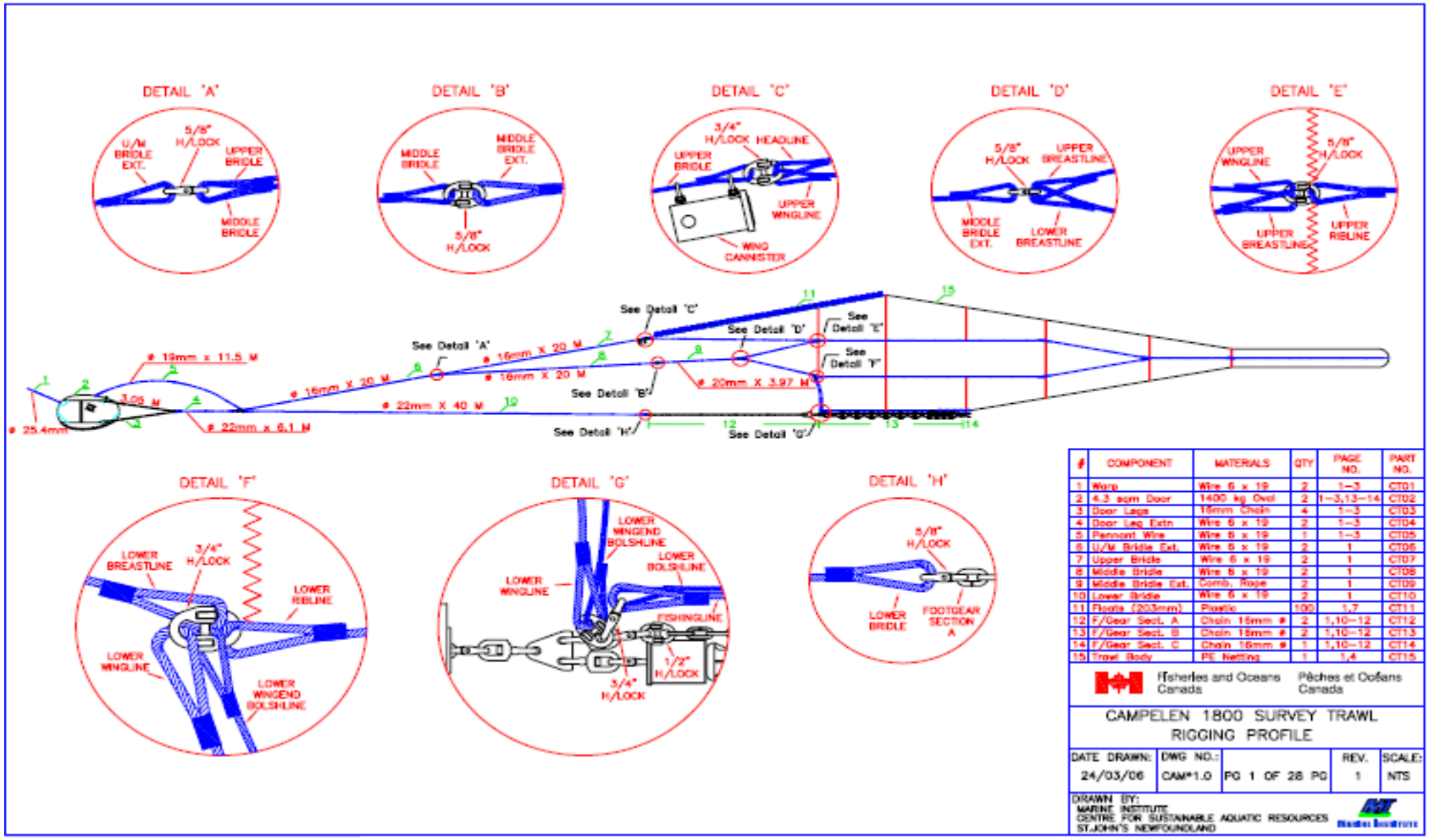
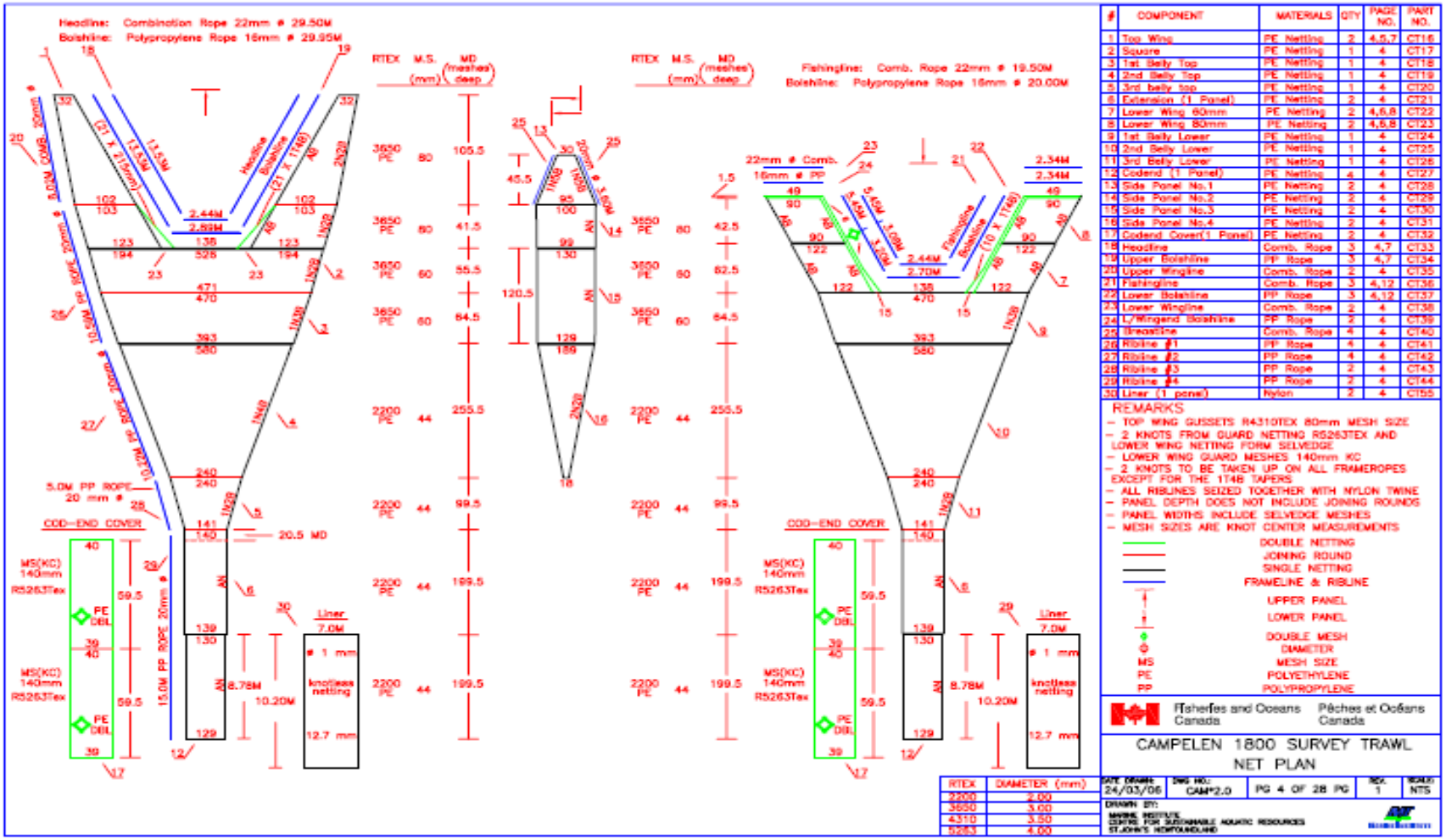


Fig. 1. Stratification chart of the Grand Bank, Div. 3LNO.



#	COMPONENT	MATERIALS	QTY	PAGE NO.	PART NO.
1	Warp	Wire 6 x 19	2	1–3	CT01
2	4.3 sqm Door	1400 kg Oval	2	1–3,13–14	CT02
3	Door Legs	16mm Chain	4	1–3	CT03
4	Door Leg Extn	Wire 6 x 19	2	1–3	CT04
5	Pennant Wire	Wire 6 x 19	1	1–3	CT05
6	U/M Bridle Ext.	Wire 6 x 19	2	1	CT06
7	Upper Bridle	Wire 6 x 19	2	1	CT07
8	Middle Bridle	Wire 6 x 19	2	1	CT08
9	Middle Bridle Ext.	Comb. Rope	2	1	CT09
10	Lower Bridle	Wire 6 x 19	2	1	CT10
11	Floats (203mm)	Plastic	100	1,7	CT11
12	F/Gear Sect. A	Chain 16mm ø	2	1,10–12	CT12
13	F/Gear Sect. B	Chain 16mm ø	2	1,10–12	CT13
14	F/Gear Sect. C	Chain 16mm ø	1	1,10–12	CT14
15	Trawl Body	PE Netting	1	1,4	CT15

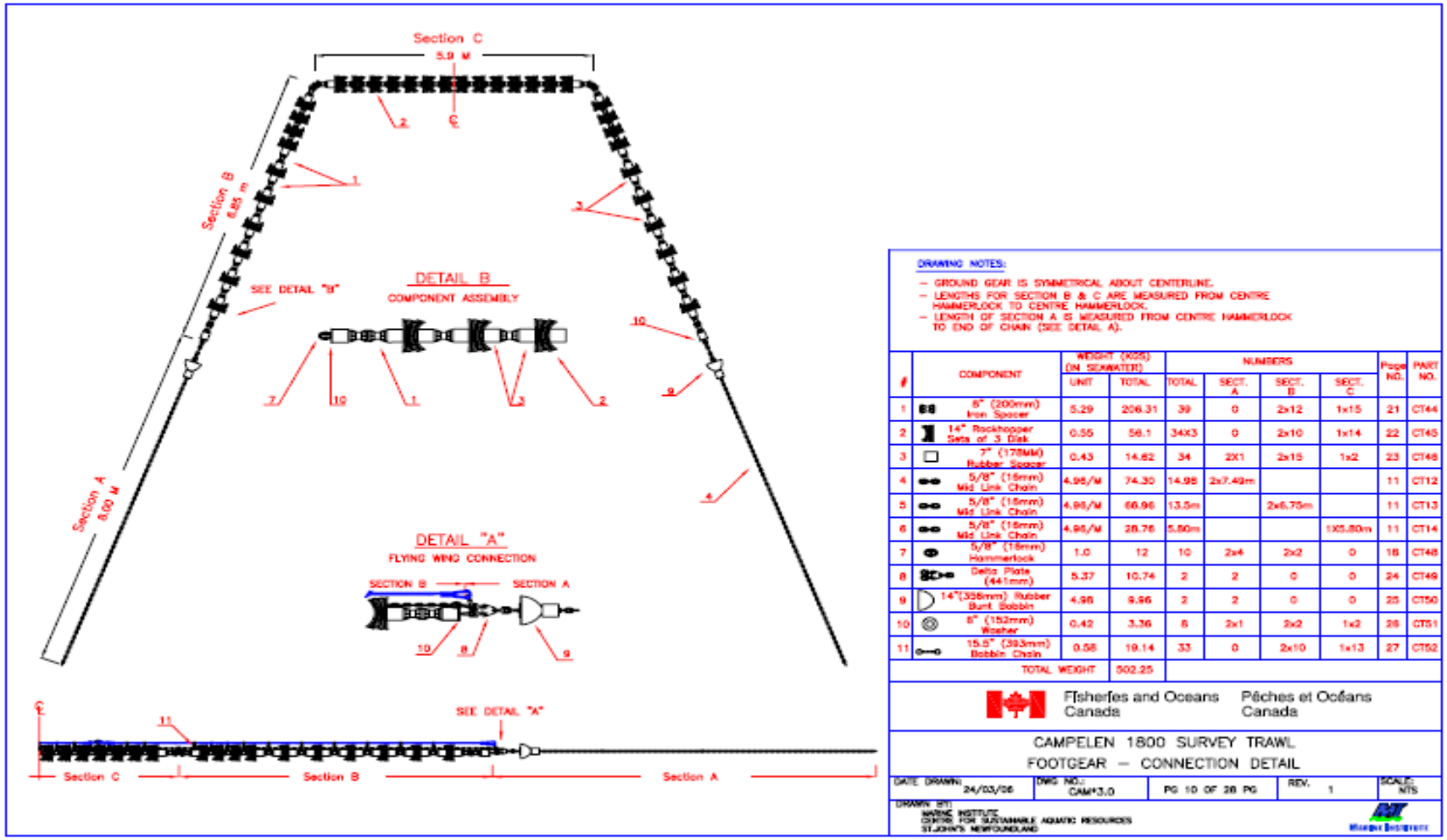
Fig. 2. Rigging profile of the Campelen 1800 shrimp trawl used in annual surveys of the Grand Bank



#	COMPONENT	MATERIALS	QTY	PAGE NO.	PART NO.
1	Top Wing	PE Netting	2	4,5,7	CT16
2	Square	PE Netting	1	4	CT17
3	1st Belly Top	PE Netting	1	4	CT18
4	2nd Belly Top	PE Netting	1	4	CT19
5	3rd belly top	PE Netting	1	4	CT20
6	Extension (1 Panel)	PE Netting	2	4	CT21
7	Lower Wing 60mm	PE Netting	2	4,5,8	CT22
8	Lower Wing 80mm	PE Netting	2	4,5,8	CT23
9	1st Belly Lower	PE Netting	1	4	CT24
10	2nd Belly Lower	PE Netting	1	4	CT25
11	3rd Belly Lower	PE Netting	1	4	CT26
12	Codend (1 Panel)	PE Netting	4	4	CT27
13	Side Panel No.1	PE Netting	2	4	CT28
14	Side Panel No.2	PE Netting	2	4	CT29
15	Side Panel No.3	PE Netting	2	4	CT30
16	Side Panel No.4	PE Netting	2	4	CT31
17	Codend Cover(1 Panel)	PE Netting	2	4	CT32
18	Headline	Comb. Rope	3	4,7	CT33
19	Upper Bolshline	PP Rope	3	4,7	CT34
20	Upper Wingline	Comb. Rope	2	4	CT35
21	Fishingline	Comb. Rope	3	4,12	CT36
22	Lower Bolshline	PP Rope	3	4,12	CT37
23	Lower Wingline	Comb. Rope	2	4	CT38
24	L/Wingend Bolshline	PP Rope	2	4	CT39
25	Breastline	Comb. Rope	4	4	CT40
26	Ribline #1	PP Rope	4	4	CT41
27	Ribline #2	PP Rope	4	4	CT42
28	Ribline #3	PP Rope	2	4	CT43
29	Ribline #4	PP Rope	2	4	CT44
30	Liner (1 panel)	Nylon	2	4	CT55

RTEX	DIAMETER (mm)
2200	2.00
3650	3.00
4310	3.50
5263	4.00

Fig. 3. Schematic diagram of net plan for the Campelen 1800 shrimp trawl.



#	COMPONENT	WEIGHT (KGS) (IN SEAWATER) UNIT	TOTAL	NUMBERS TOTAL	SECT. A	SECT. B	SECT. C	Page NO.	PART NO.
1	8" (200mm) Iron Spacer	5.29	206.31	39	0	2x12	1x15	21	CT44
2	14" Rockhopper Sets of 3 Disk	0.55	56.1	34X3	0	2x10	1x14	22	CT45
3	7" (178MM) Rubber Spacer	0.43	14.62	34	2X1	2x15	1x2	23	CT46
4	5/8" (16mm) Mid Link Chain	4.96/M	74.30	14.98	2x7.49m			11	CT12
5	5/8" (16mm) Mid Link Chain	4.96/M	66.96	13.5m		2x6.75m		11	CT13
6	5/8" (16mm) Mid Link Chain	4.96/M	28.76	5.80m			1X5.80m	11	CT14
7	5/8" (16mm) Hammerlock	1.0	12	10	2x4	2x2	0	18	CT48
8	Delta Plate (441mm)	5.37	10.74	2	2	0	0	24	CT49
9	14"(356mm) Rubber Bunt Bobbin	4.98	9.96	2	2	0	0	25	CT50
10	6" (152mm) Washer	0.42	3.36	8	2x1	2x2	1x2	26	CT51
11	15.5" (393mm) Bobbin Chain	0.58	19.14	33	0	2x10	1x13	27	CT52
	TOTAL WEIGHT		502.25						

Fig. 4. Schematic plan of the rockhopper footgear of the Campelen 1800 shrimp trawl.

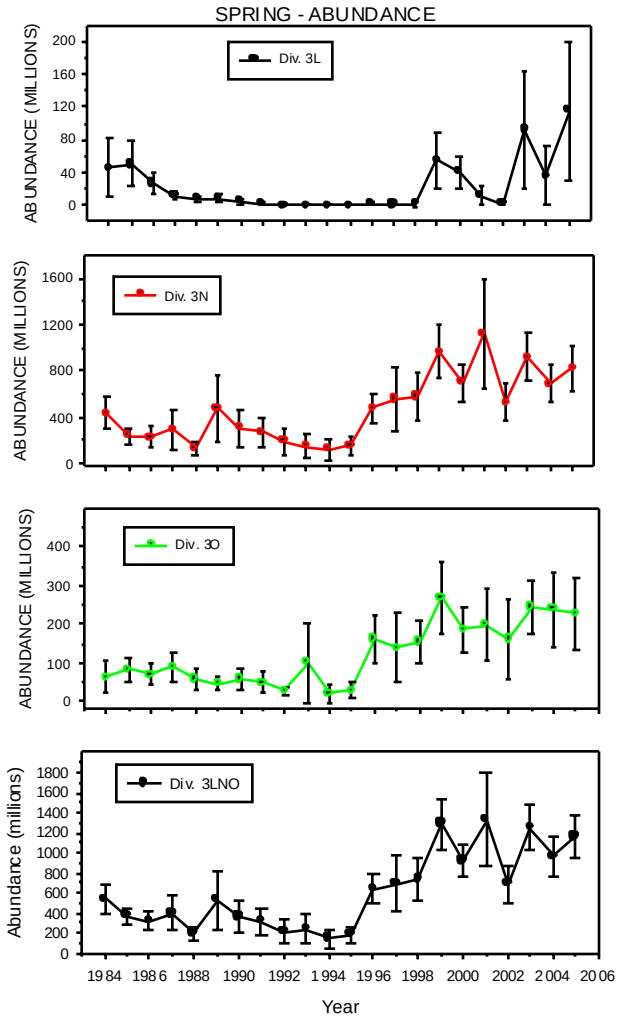


Fig. 5. Abundance estimates of yellowtail (with approx. 95% CI) from Canadian spring surveys in Campelen trawl units, 1984-2005, by NAFO Division and cumulative estimates for the combined Div 3LNO.

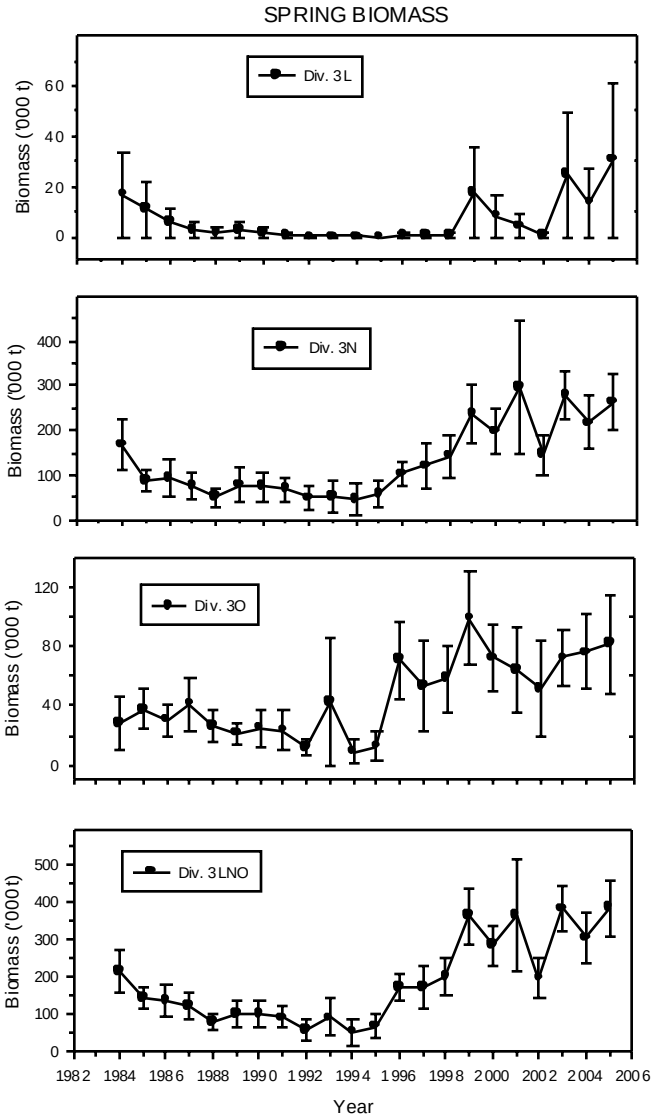


Fig. 6 Biomass of yellowtail flounder (with approx. 95% CI) from Canadian Spring surveys, 1984-2005.

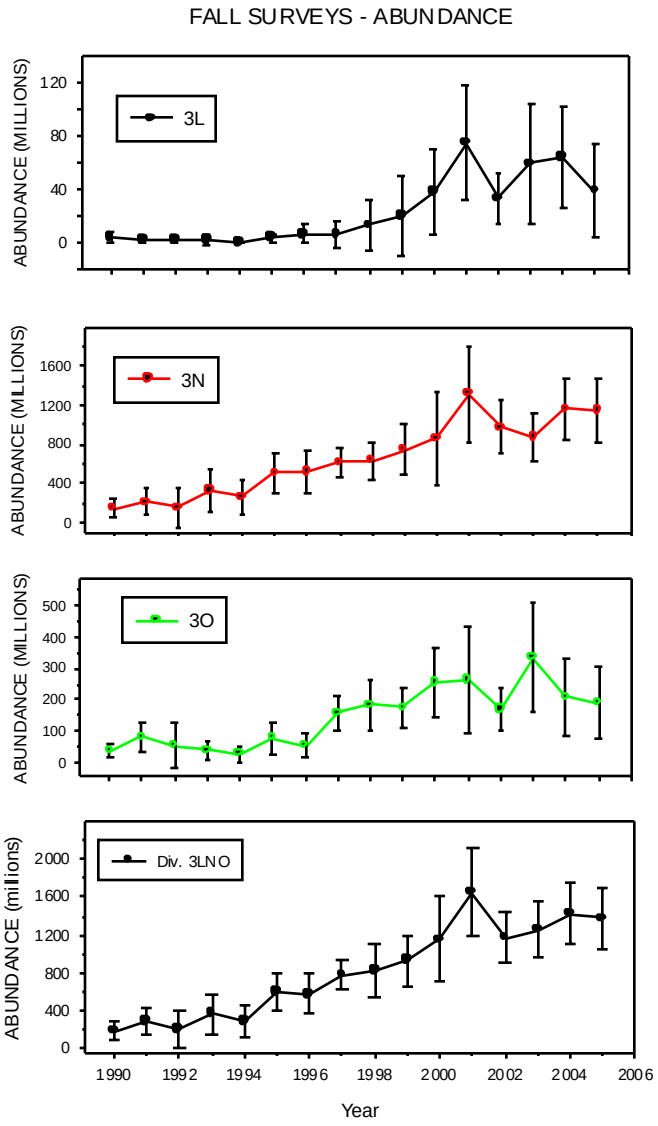


Fig. 7. Abundance estimates of yellowtail flounder (with approx. 95% CI) from Canadian fall surveys, 1990-2005, by NAFO Division and cumulative estimates for Div. 3LNO.

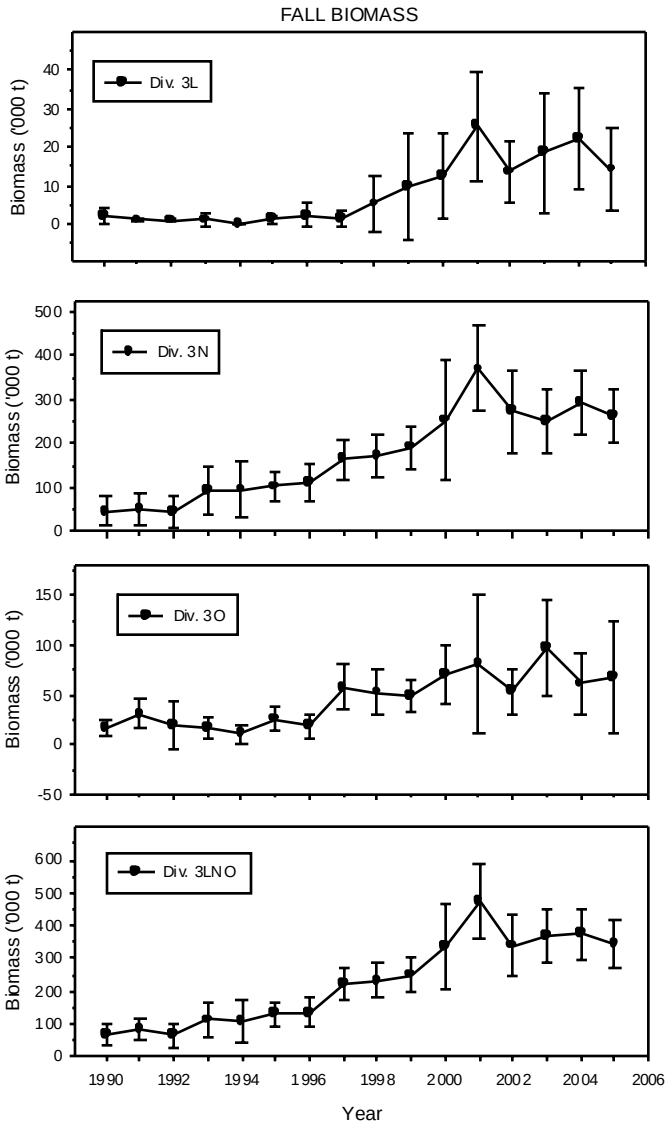


Fig. 8. Biomass estimates (with approx. 95% CI) by Division and cumulative biomass for Div. 3LNO (lower panel) of yellowtail flounder from the Canadian fall surveys from 1990-2005.

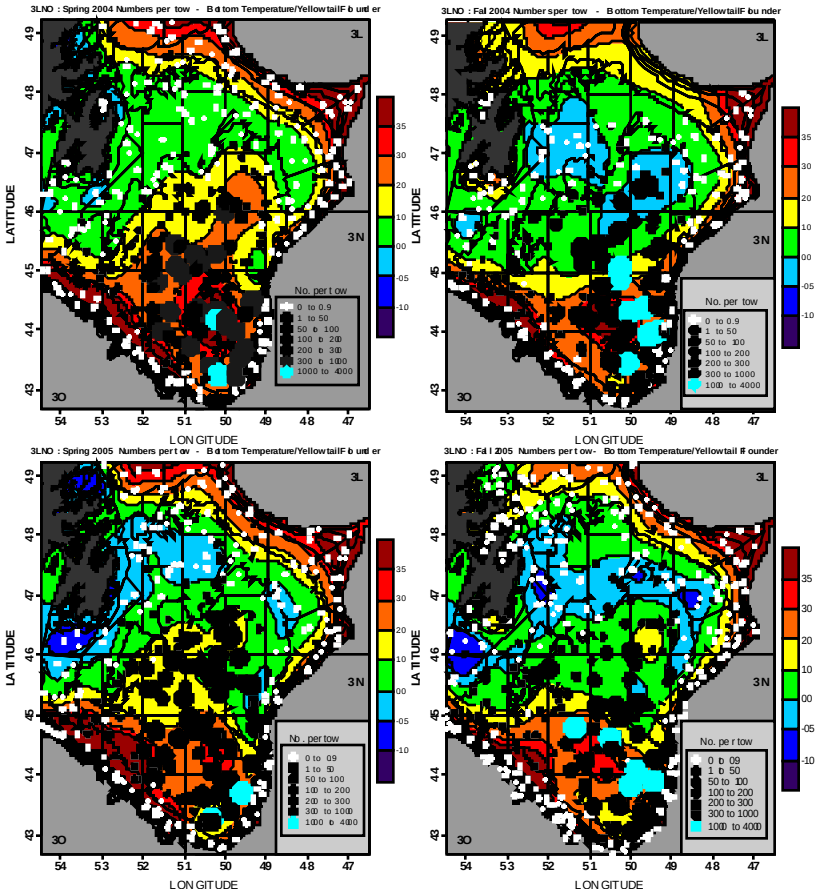


Fig. 9. Yellowtail flounder (numbers per tow) in Div. 3LNO from spring and fall surveys for 2004 and 2005 overlaid on survey temperatures for the same time period.

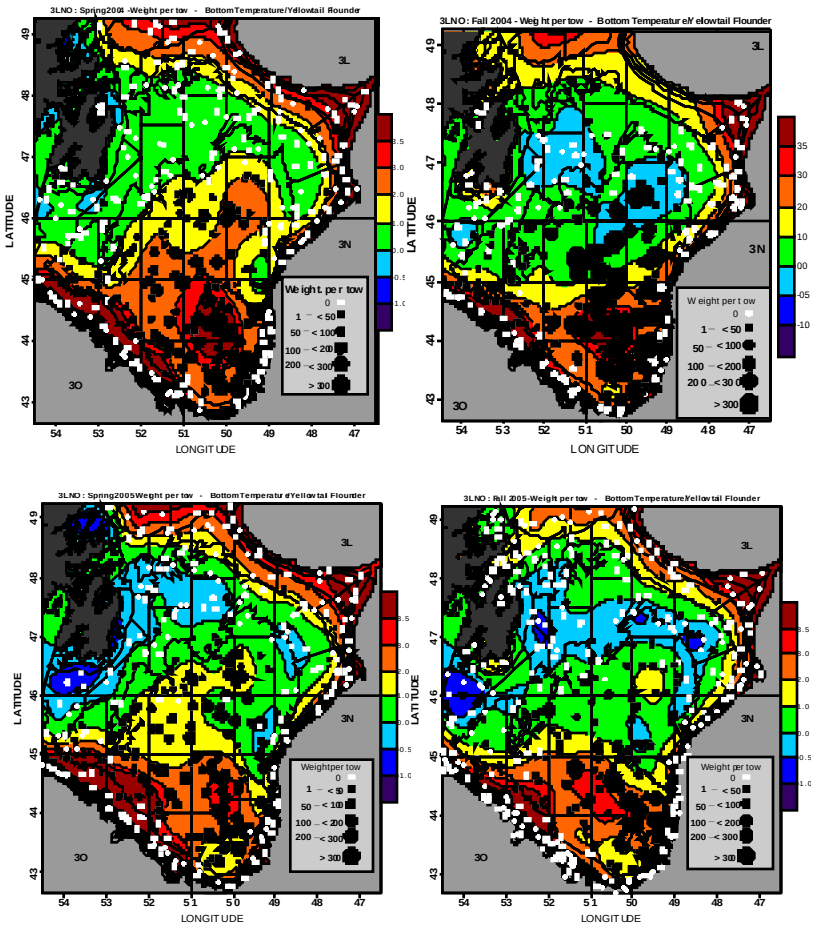


Fig. 10. Yellowtail flounder (weight per tow) in Div. 3LNO from spring and fall surveys for 2004 and 2005 overlaid on survey temperatures for the same time period.

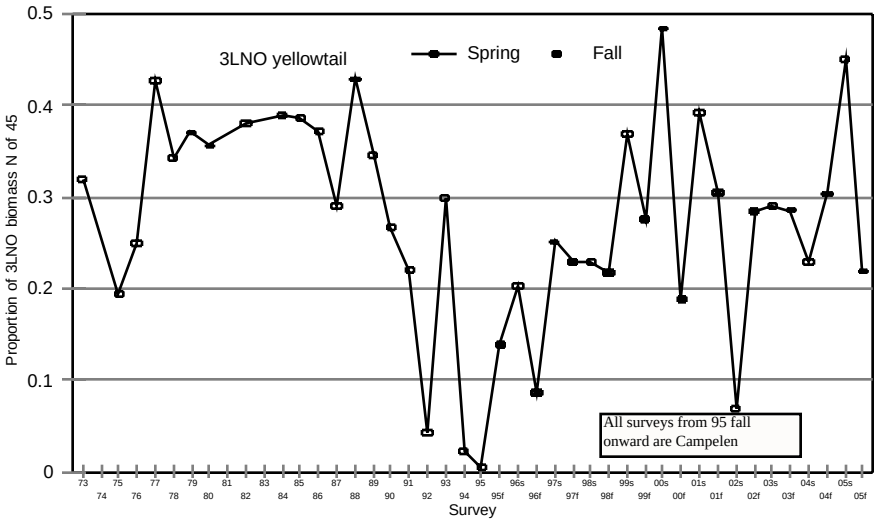


Fig 11. Proportion of yellowtail flounder caught north of 45°N in Divs. 3LNO> All data up to 1995 are from spring surveys only.

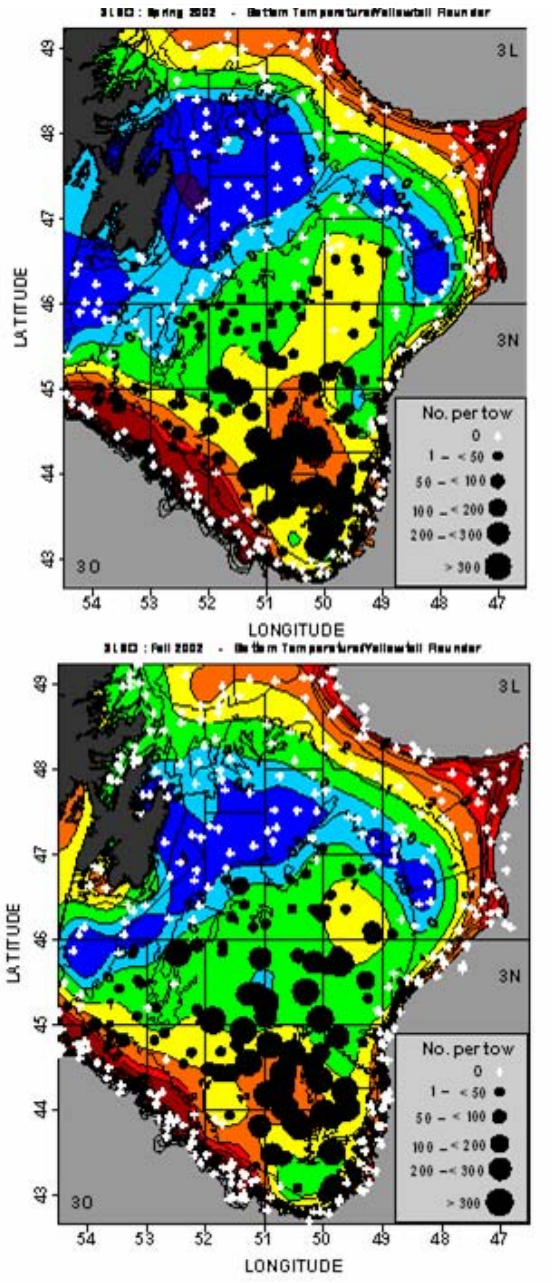


Fig. 12. Yellowtail flounder (Numbers per tow) in Div. 3LNO from spring and fall surveys for 2002 overlaid on survey temperatures for the same time period.