

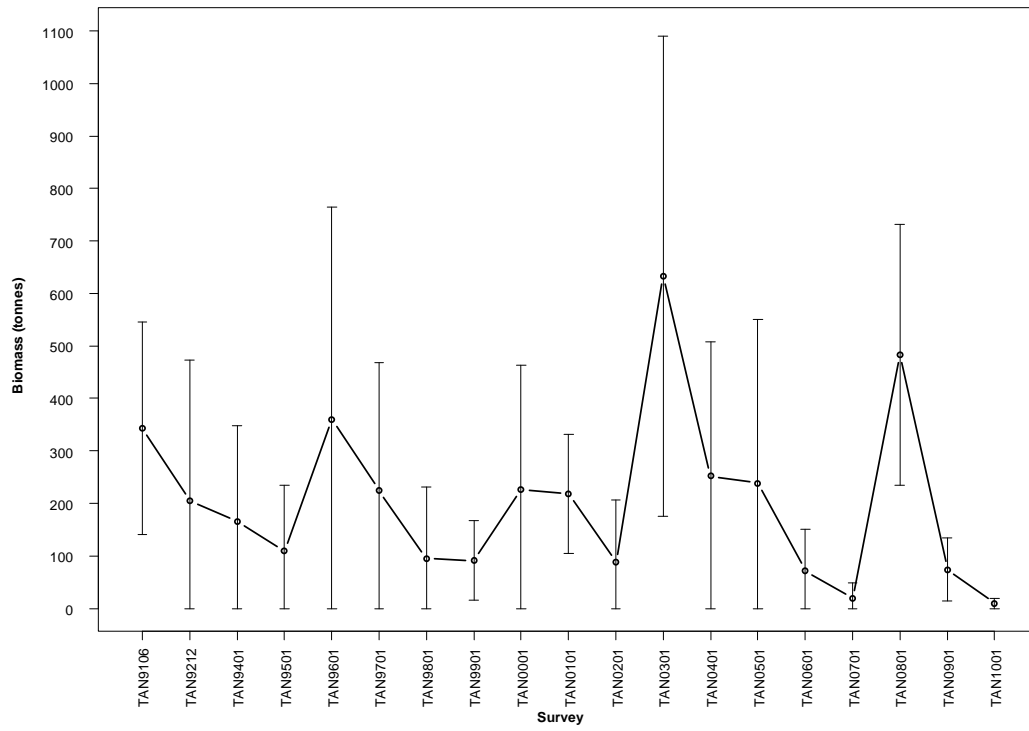


Number of surveys caught 1992–2010 (out of 19):	19
Total catch weight (kg):	2 326.7
Number measured	1 719
Length range (mean) (cm, FL)	27–52 (41.2)
Number weighed	300
Length-weight parameters a, b (r^2)	0.065605, 2.644337 (81.75)

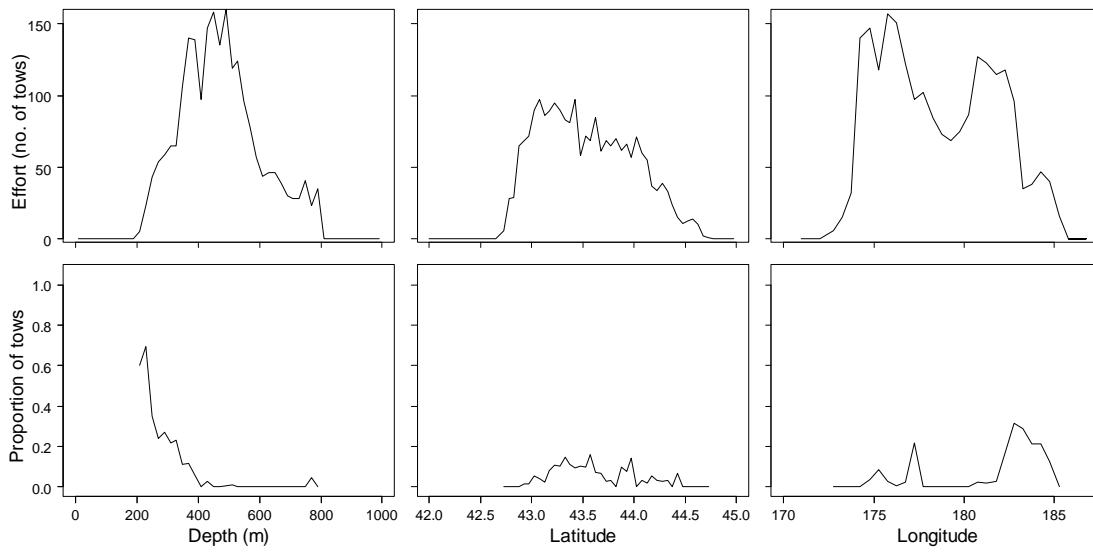
The core survey area and depth range **is not** appropriate for this species. It is found **shallower than 200 m**. Biomass of this species is **poorly** estimated in the core survey area. Biomass **shows no clear trend** since the start of the time series. Catch rates are highest in the **east**. Length frequencies are usually **unimodal**. Mean length has **decreased** since the start of the time series. Gonad stage data indicate that most fish are **maturing or spawning**.

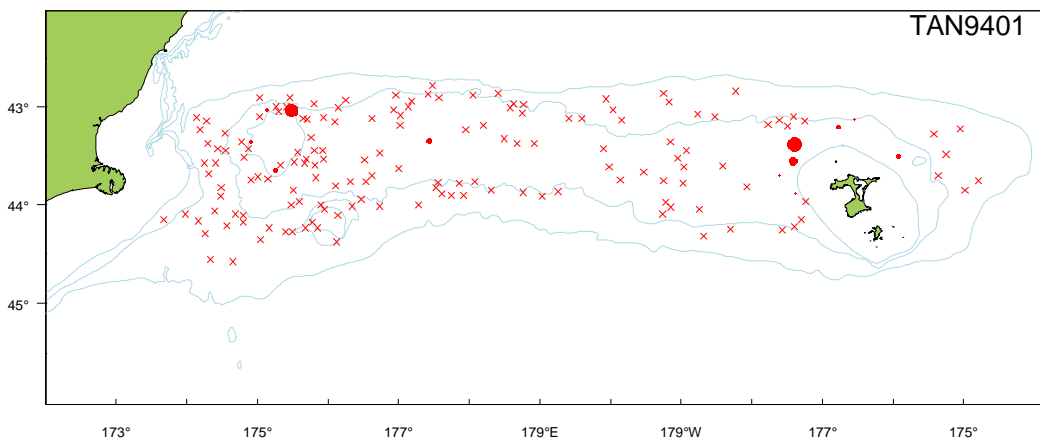
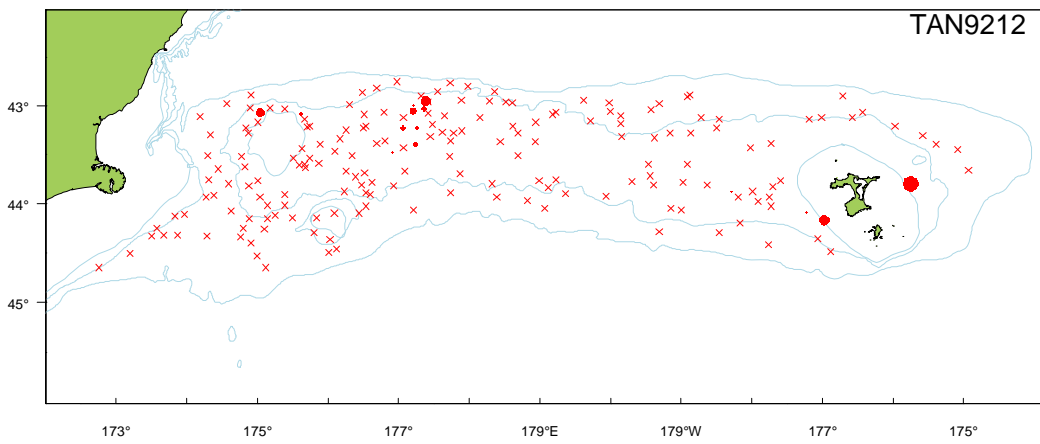
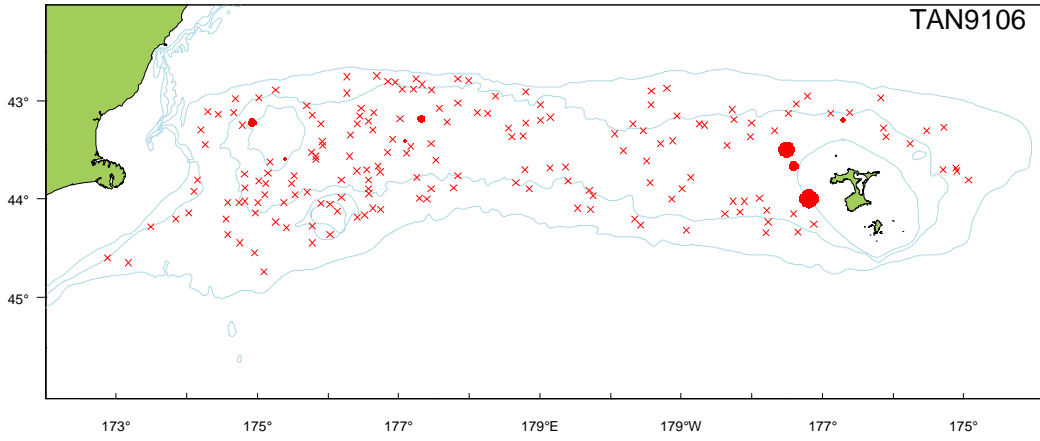
Relative biomass estimates and length summary

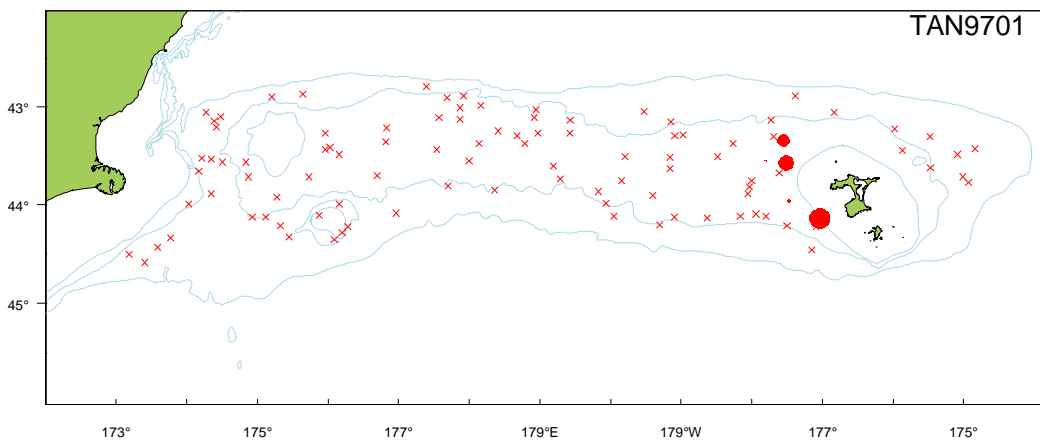
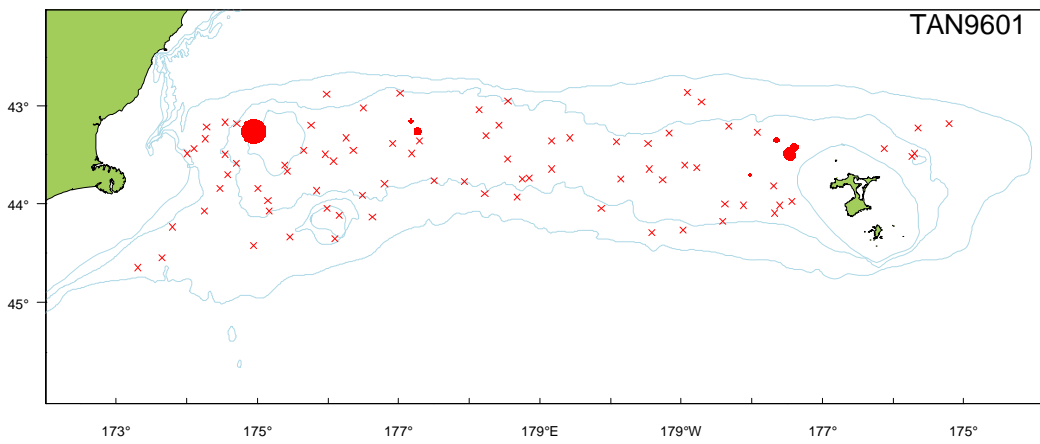
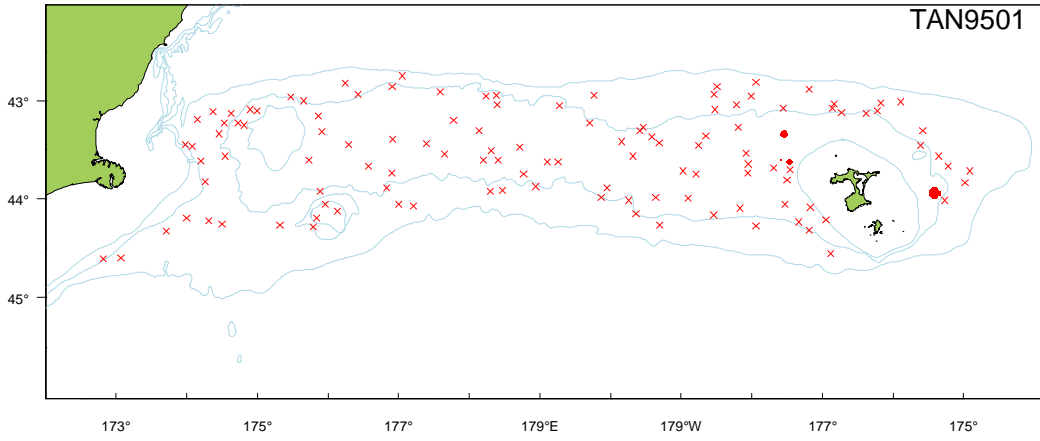
Year	Biomass (t)	cv (%)	Length (cm)			No. measure d
			Min.	Max.	Mean	
1992	343	30	35	49	41.7	128
1993	205	65	34	49	42.7	93
1994	165	55	30	52	42.9	68
1995	110	56	38	47	42.2	28
1996	359	56	37	48	43.2	147
1997	224	54	27	51	41.3	135
1998	95	72	38	48	42.3	35
1999	91	41	33	50	43.4	42
2000	227	52	31	49	42.2	145
2001	218	26	33	48	40.4	110
2002	88	67	35	49	40.1	19
2003	633	36	32	48	39.7	343
2004	252	51	33	47	40.5	98
2005	238	66	32	45	40.4	63
2006	72	56	36	45	41.2	18
2007	19	79	37	43	40.2	4
2008	483	26	33	49	40.5	144
2009	74	41	36	44	41.0	21
2010	9	58	37	43	40.3	3

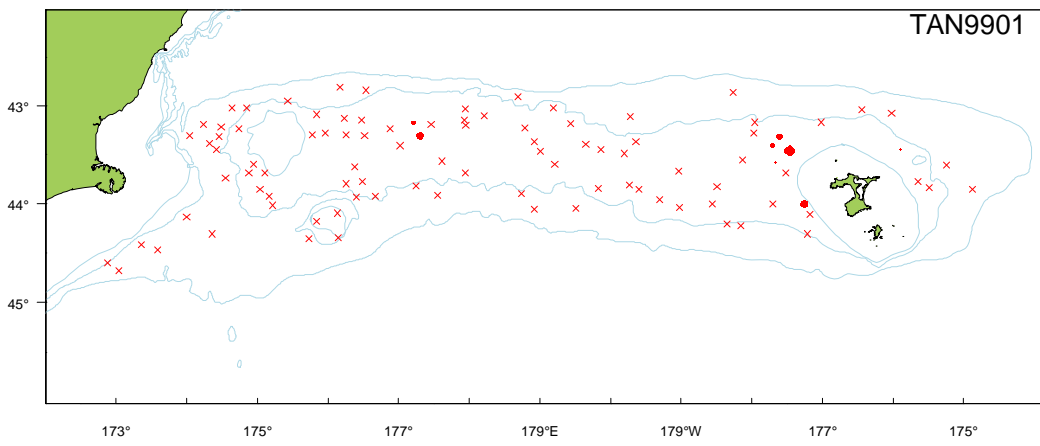
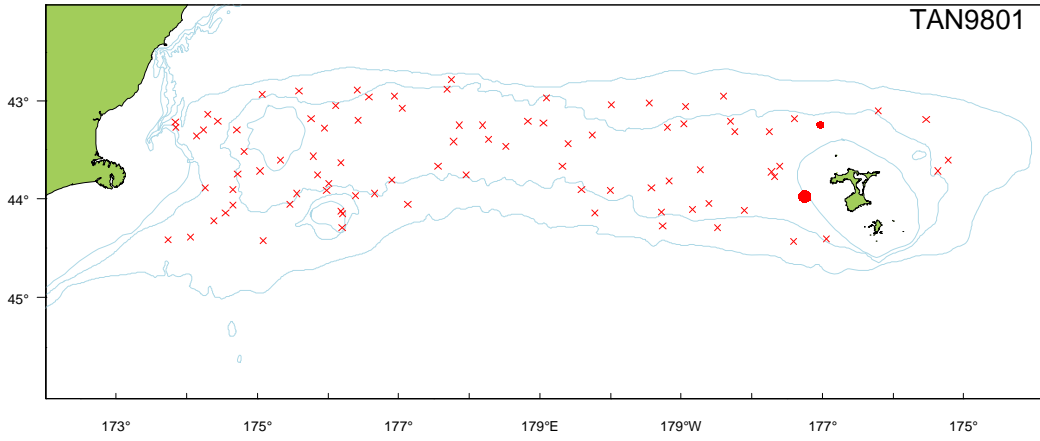


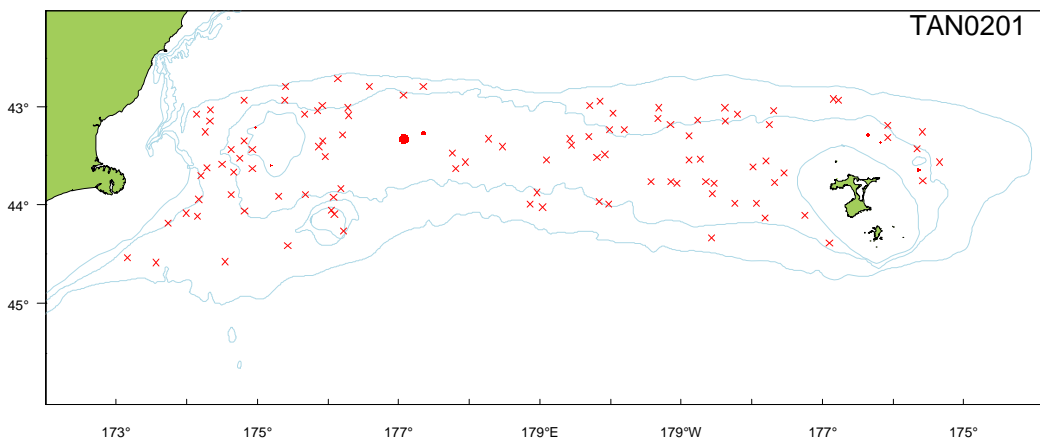
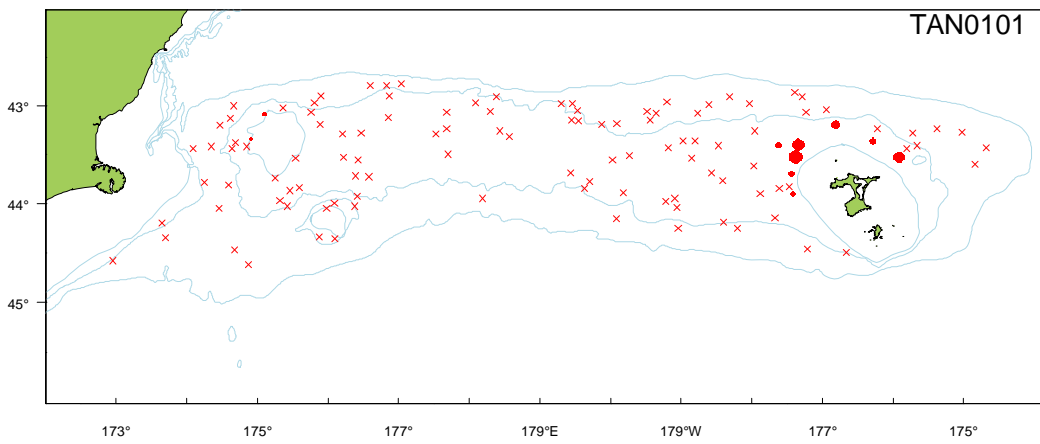
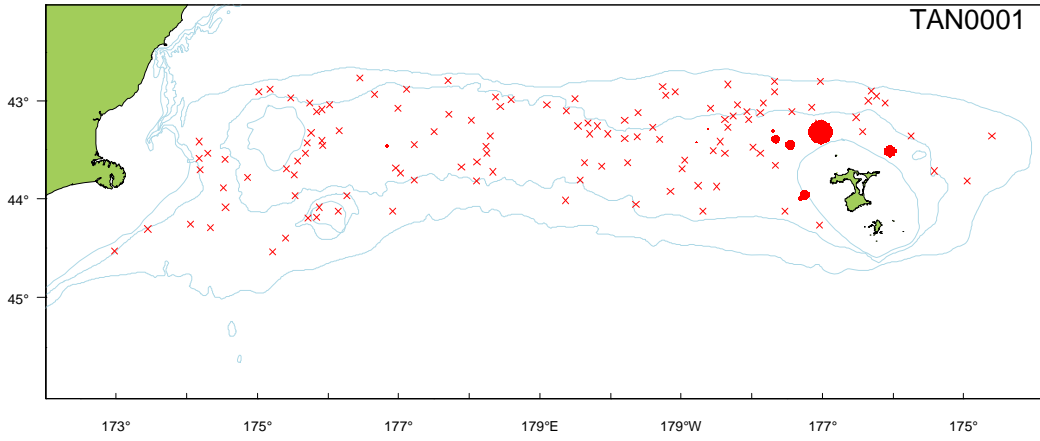
Distribution

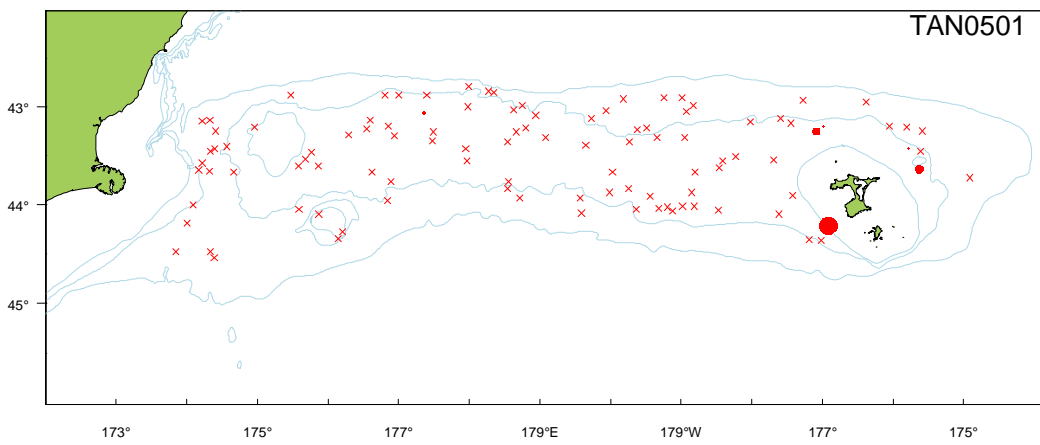
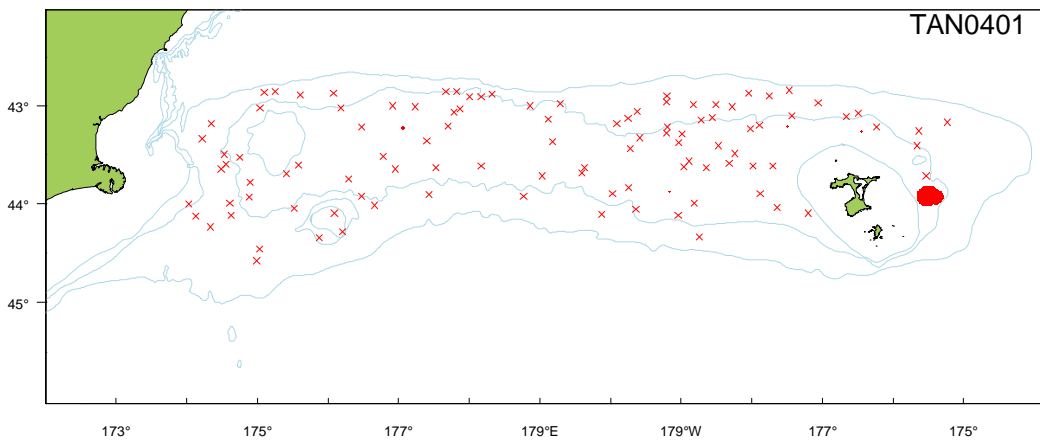
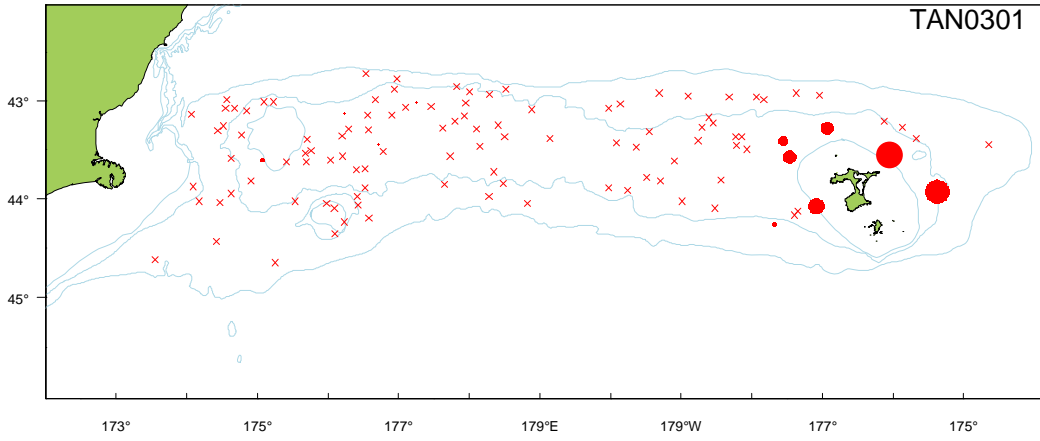


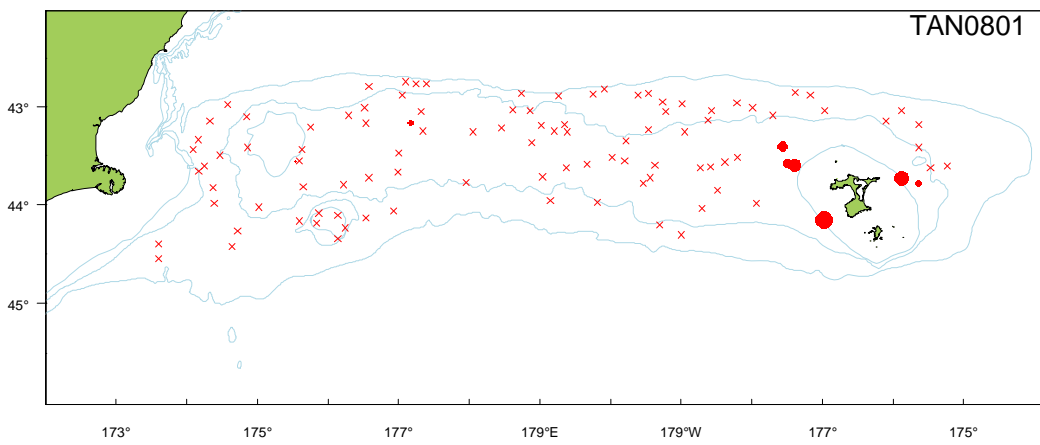
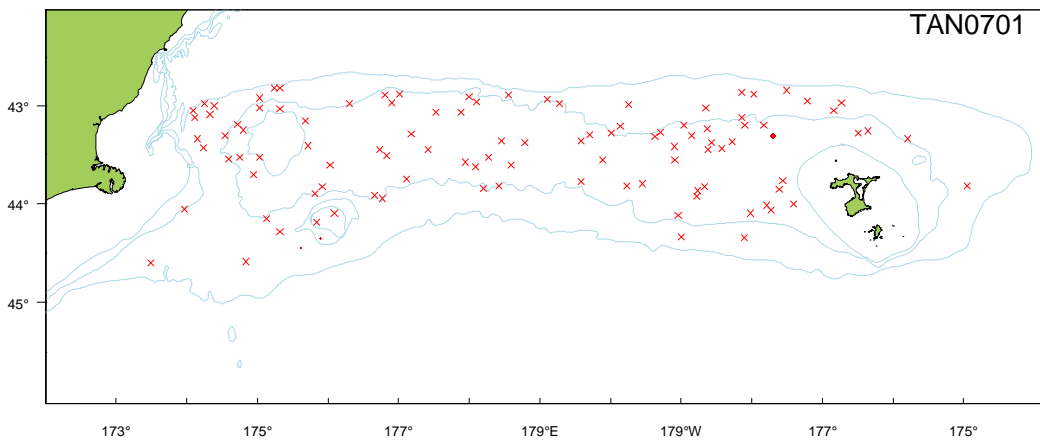
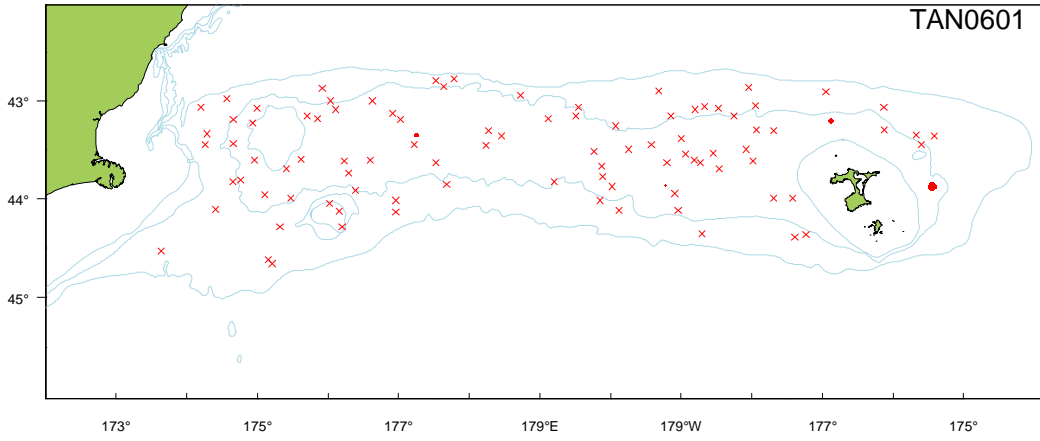


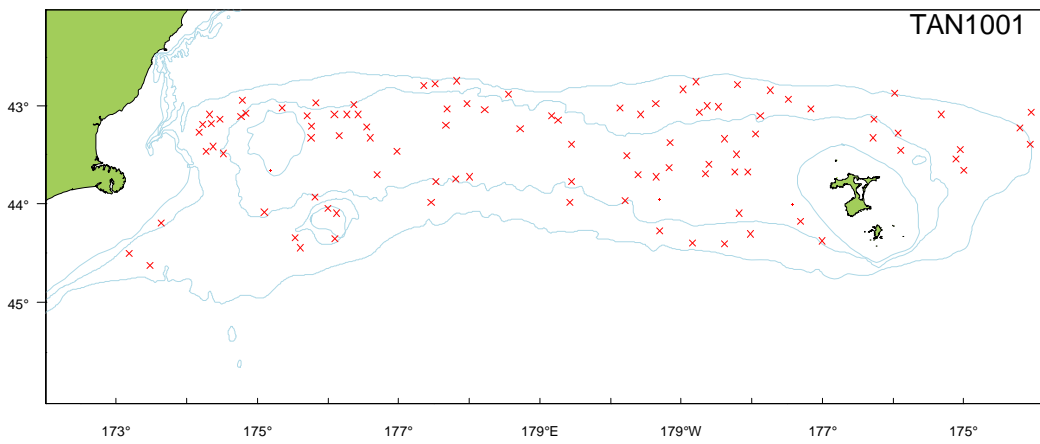
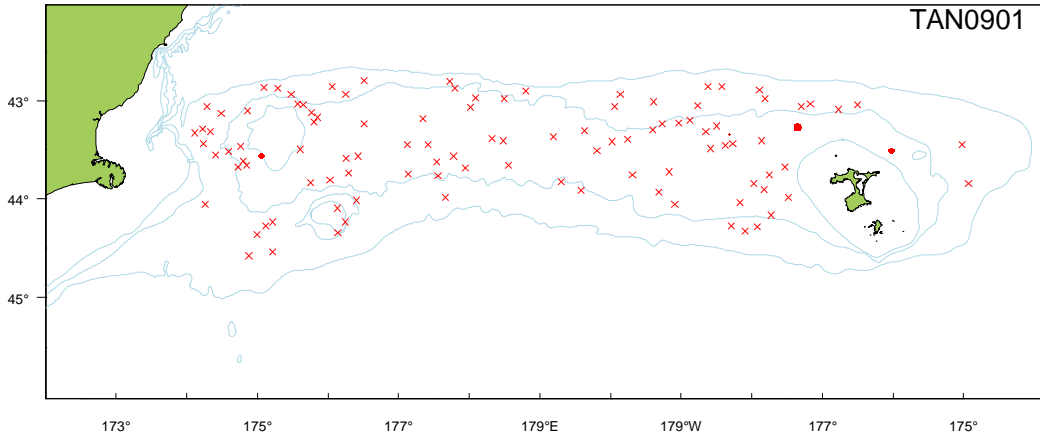




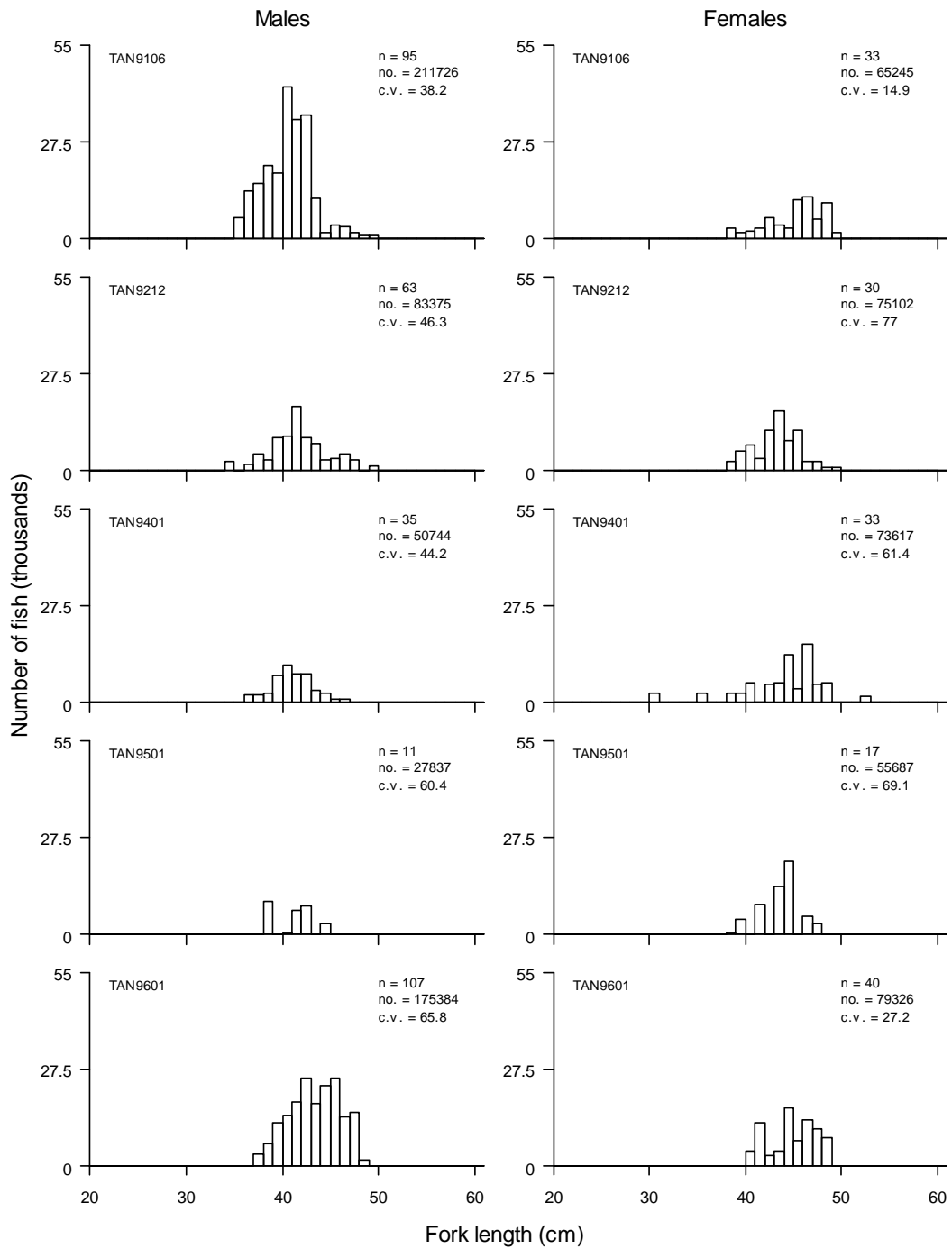


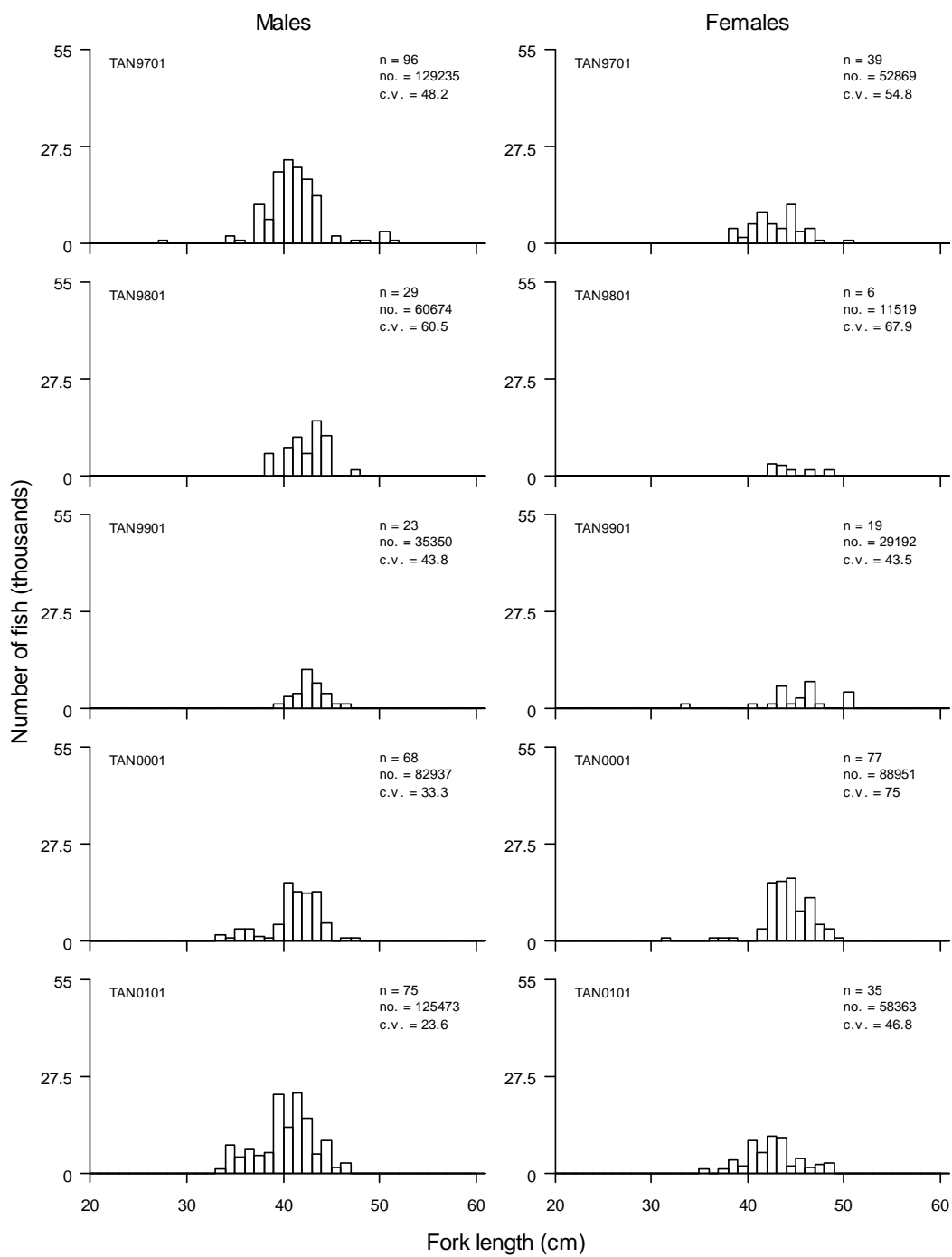


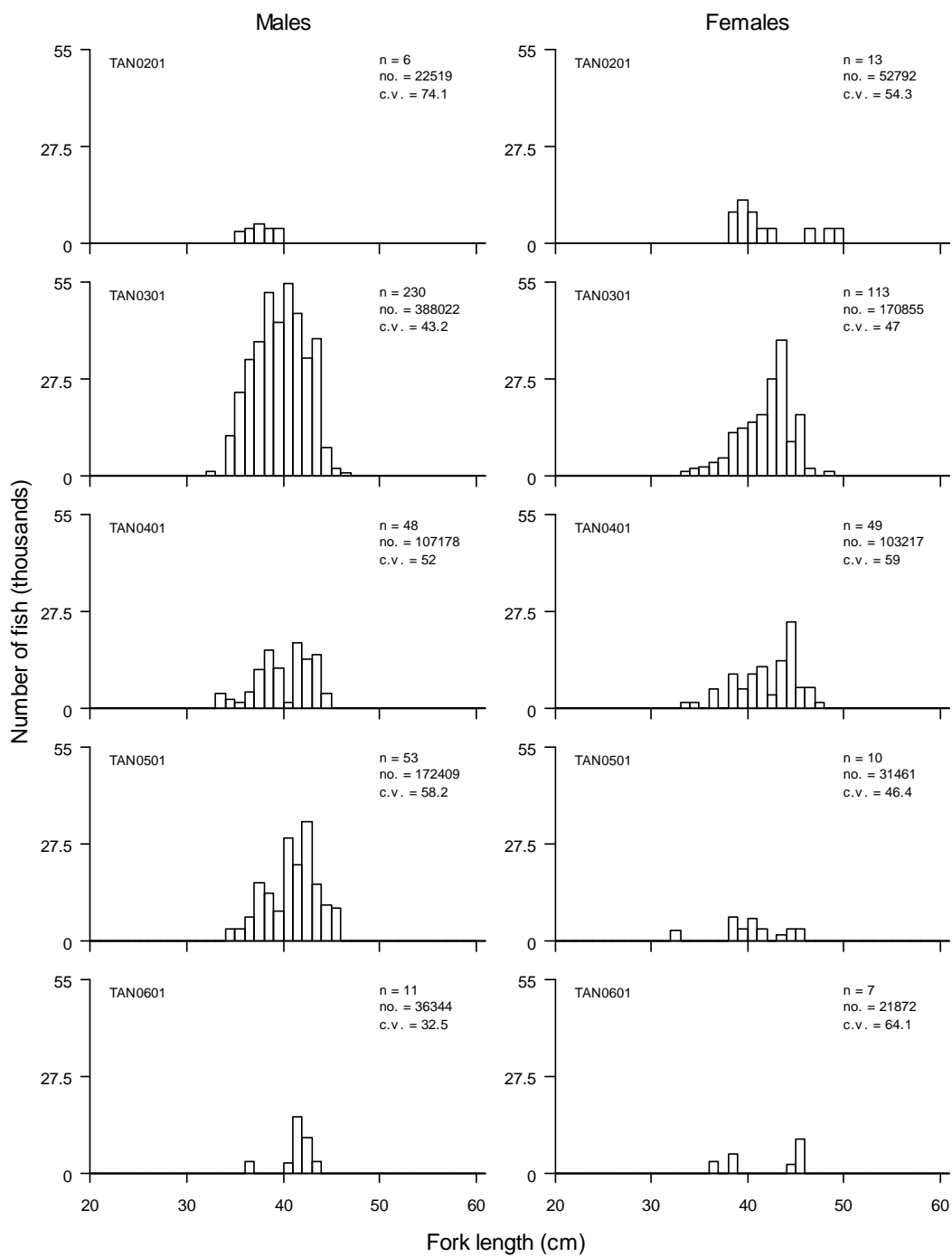


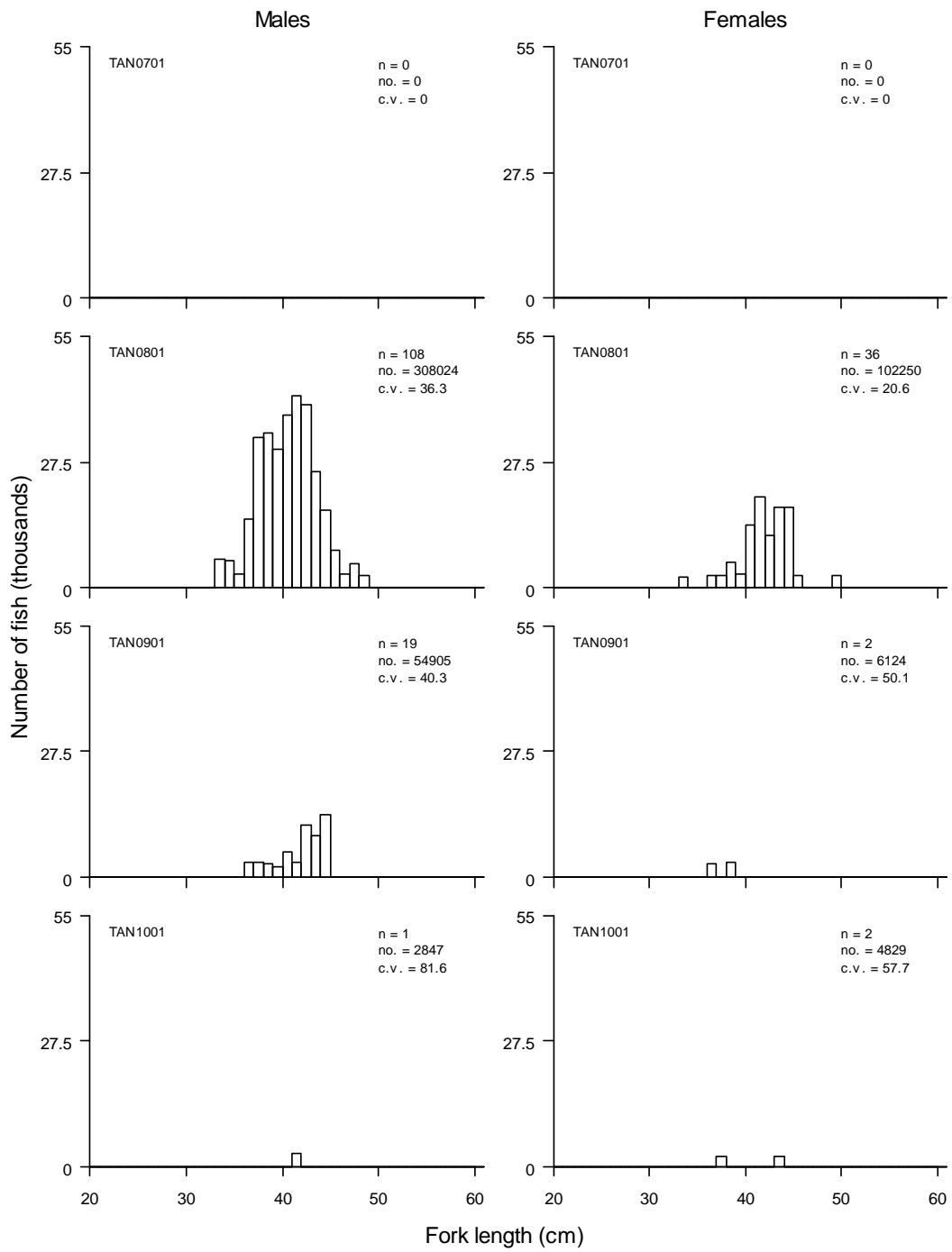


Length Frequencies









Gonad Stage Information

Males

Year	p_M1	p_M2	p_M3	p_M4	p_M5	p_M6	p_M7	n_allM
1992	NA	NA	NA	NA	NA	NA	NA	0
1993	NA	NA	NA	NA	NA	NA	NA	0
1994	NA	NA	NA	NA	NA	NA	NA	0
1995	NA	NA	NA	NA	NA	NA	NA	0
1996	NA	NA	NA	NA	NA	NA	NA	0
1997	0	0.03	0.47	0.42	0.06	0.03	0	36
1998	0	0	0.05	0.95	0	0	0	20
1999	NA	NA	NA	NA	NA	NA	NA	0
2000	NA	NA	NA	NA	NA	NA	NA	0
2001	NA	NA	NA	NA	NA	NA	NA	0
2002	NA	NA	NA	NA	NA	NA	NA	0
2003	0	1	0	0	0	0	0	1
2004	NA	NA	NA	NA	NA	NA	NA	0
2005	0	1	0	0	0	0	0	1
2006	NA	NA	NA	NA	NA	NA	NA	0
2007	NA	NA	NA	NA	NA	NA	NA	0
2008	NA	NA	NA	NA	NA	NA	NA	0
2009	0	1	0	0	0	0	0	8
2010	NA	NA	NA	NA	NA	NA	NA	0
ALL	0	0.17	0.27	0.52	0.03	0.02	0	66

Females

Year	p_F1	p_F2	p_F3	p_F4	p_F5	p_F6	p_F7	n_allF
1992	NA	NA	NA	NA	NA	NA	NA	0
1993	NA	NA	NA	NA	NA	NA	NA	0
1994	NA	NA	NA	NA	NA	NA	NA	0
1995	NA	NA	NA	NA	NA	NA	NA	0
1996	NA	NA	NA	NA	NA	NA	NA	0
1997	0	0	0.75	0.25	0	0	0	4
1998	0	0	0.8	0.2	0	0	0	5
1999	NA	NA	NA	NA	NA	NA	NA	0
2000	NA	NA	NA	NA	NA	NA	NA	0
2001	NA	NA	NA	NA	NA	NA	NA	0
2002	NA	NA	NA	NA	NA	NA	NA	0
2003	NA	NA	NA	NA	NA	NA	NA	0
2004	NA	NA	NA	NA	NA	NA	NA	0
2005	NA	NA	NA	NA	NA	NA	NA	0
2006	NA	NA	NA	NA	NA	NA	NA	0
2007	NA	NA	NA	NA	NA	NA	NA	0
2008	NA	NA	NA	NA	NA	NA	NA	0
2009	0	1	0	0	0	0	0	1
2010	0	1	0	0	0	0	0	1
ALL	0	0.18	0.64	0.18	0	0	0	11

Toadfishes

TOA



Coded as COT

Number of surveys caught 1992–2010 (out of 19):	9
Total catch weight (kg):	26.4

Coded as PSY

Number of surveys caught 1992–2010 (out of 19):	7
Total catch weight (kg):	64.6
Number measured	6
Number weighed	6

Coded as TOA

Number of surveys caught 1992–2010 (out of 19):	3
Total catch weight (kg):	27.3

Coded as TOD

Number of surveys caught 1992–2010 (out of 19):	8
Total catch weight (kg):	114.4
Number measured	1

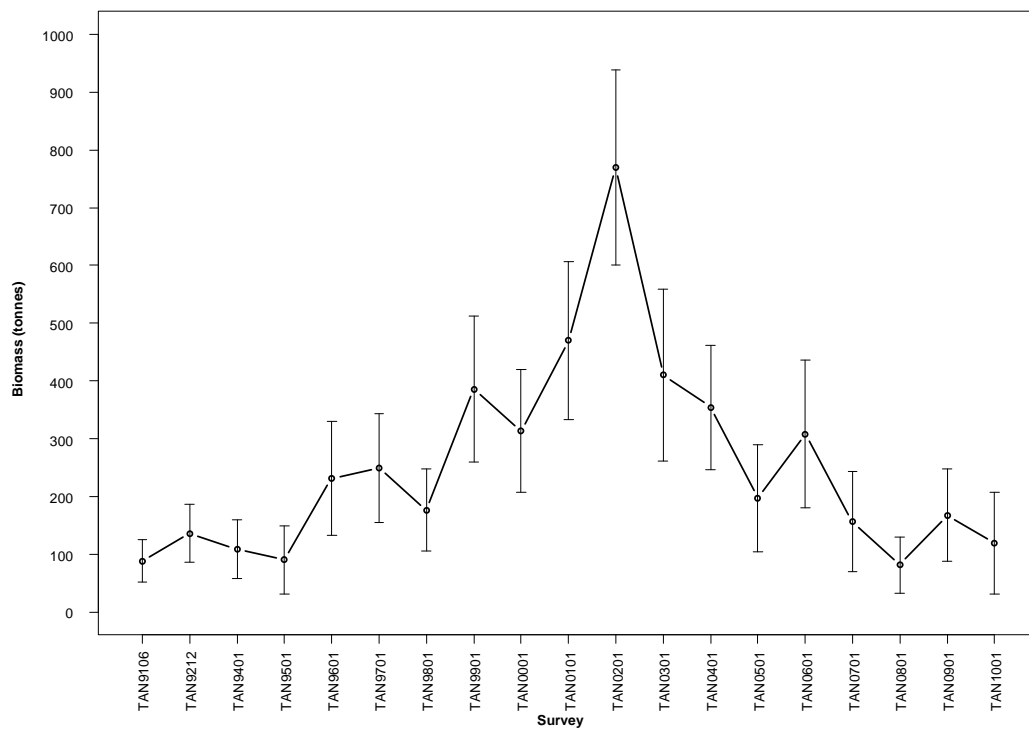
Coded as TOP

Number of surveys caught 1992–2010 (out of 19):	19
Total catch weight (kg):	2 770.9
Number measured	24
Number weighed	3

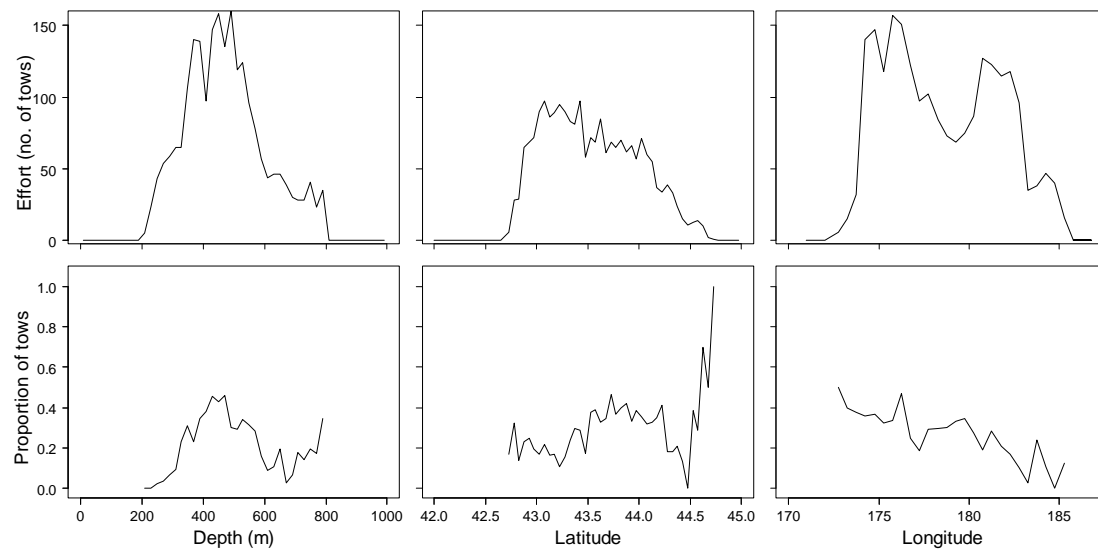
The core survey area and depth range **is** appropriate for this group. Biomass of this group is **well** estimated in the core survey area. Biomass has **increased and then decreased** since the start of the time series. Catch rates are highest in the **west**.

Relative biomass estimates

Year	Biomass (t)	cv (%)
1992	88	22
1993	136	19
1994	109	24
1995	90	33
1996	231	22
1997	249	19
1998	176	21
1999	386	17
2000	313	17
2001	470	15
2002	769	11
2003	410	19
2004	354	16
2005	197	24
2006	308	21
2007	156	28
2008	81	31
2009	167	24
2010	119	38



Distribution



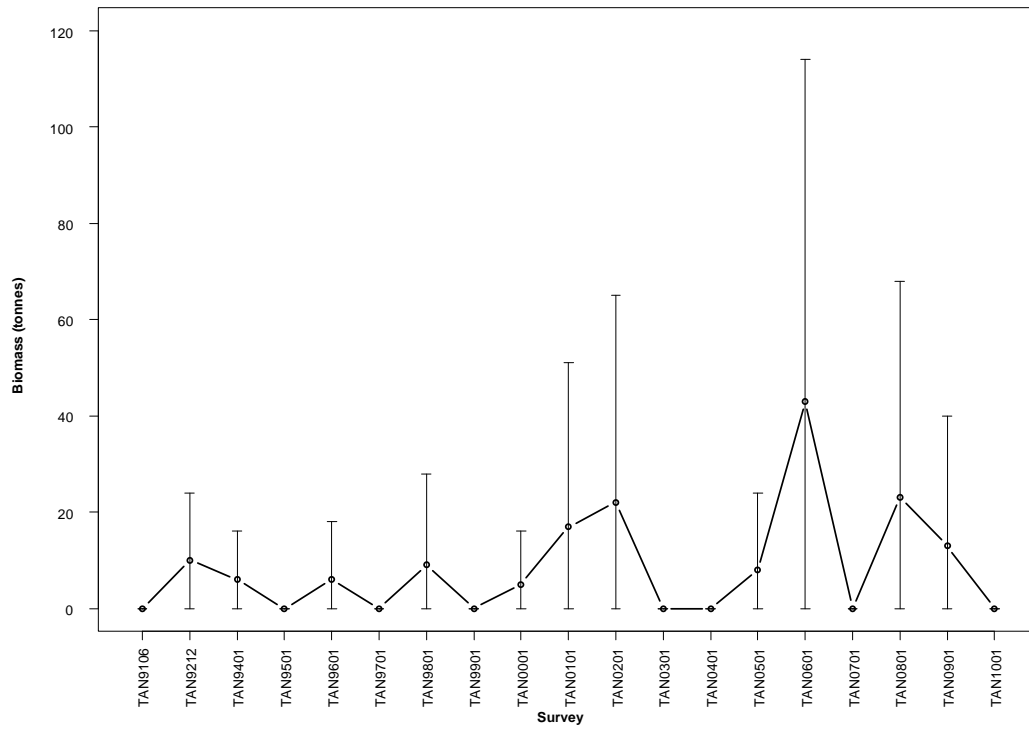


Number of surveys caught 1992–2010 (out of 19):	11
Total catch weight (kg):	97.5
Number measured	12
Length range (mean) (cm, FL)	60–74 (67.5)
Number weighed	6
Length-weight parameters a, b (r^2)	–

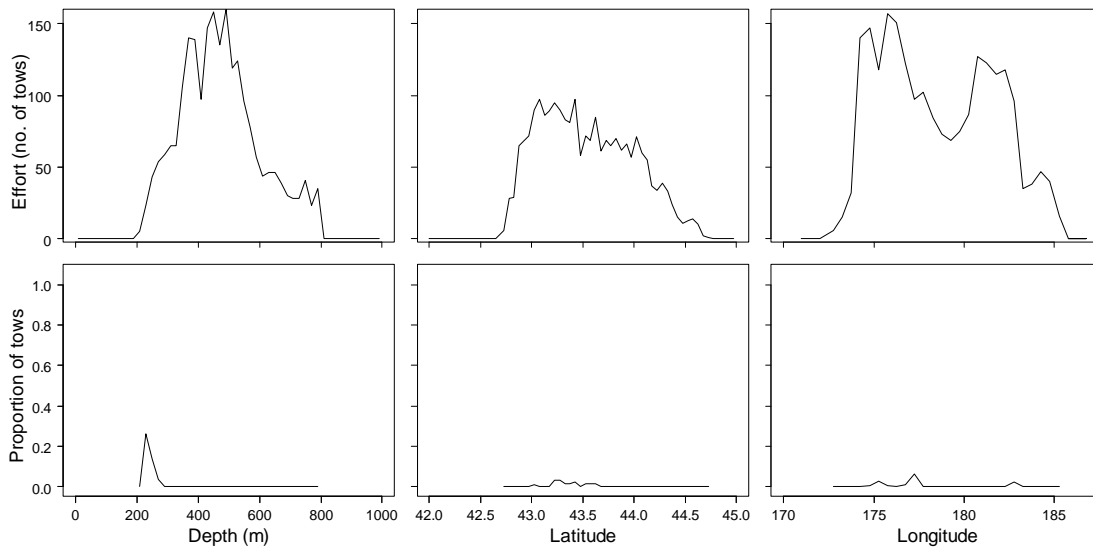
There were **too few fish caught to determine whether the core survey area is appropriate for this species**. Biomass of this species is **poorly** estimated in the core survey area. Biomass **shows no clear trend** since the start of the time series.

Relative biomass estimates

Year	Biomass (t)	cv (%)
1992	0	-
1993	10	75
1994	6	74
1995	0	-
1996	6	100
1997	0	-
1998	9	100
1999	0	-
2000	5	100
2001	17	100
2002	22	100
2003	0	-
2004	0	-
2005	8	100
2006	43	82
2007	0	-
2008	23	100
2009	13	100
2010	0	-



Distribution



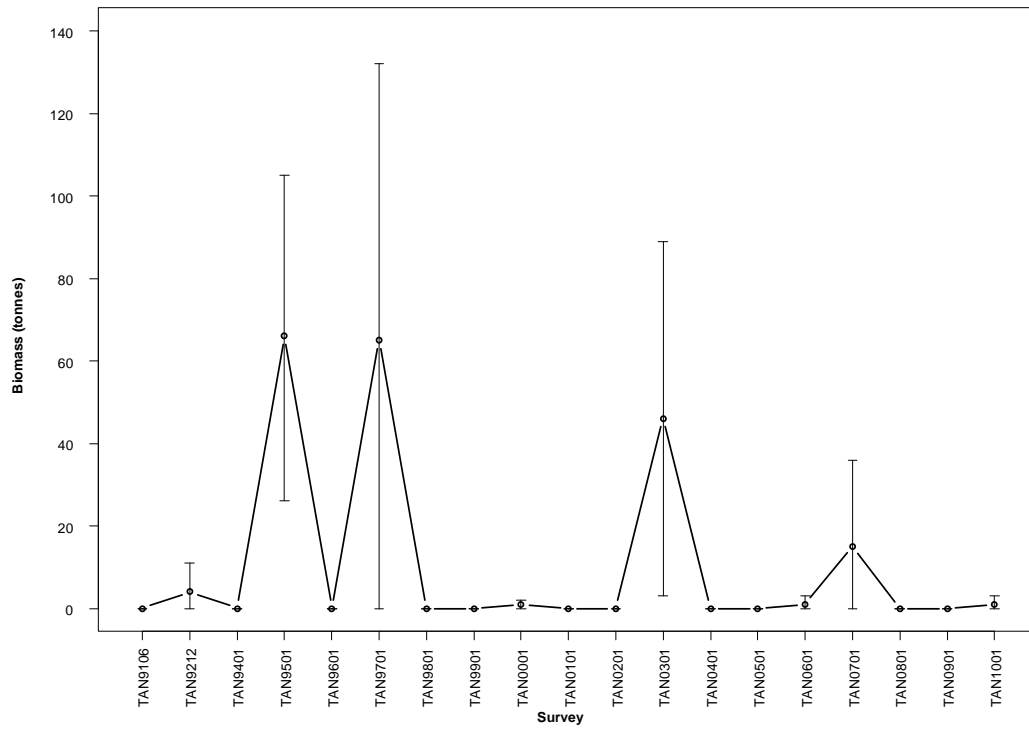


Number of surveys caught 1992–2010 (out of 19):	8
Total catch weight (kg):	112.6
Number measured	0
Length range (mean) (cm)	–
Number weighed	0
Length-weight parameters a, b (r^2)	–

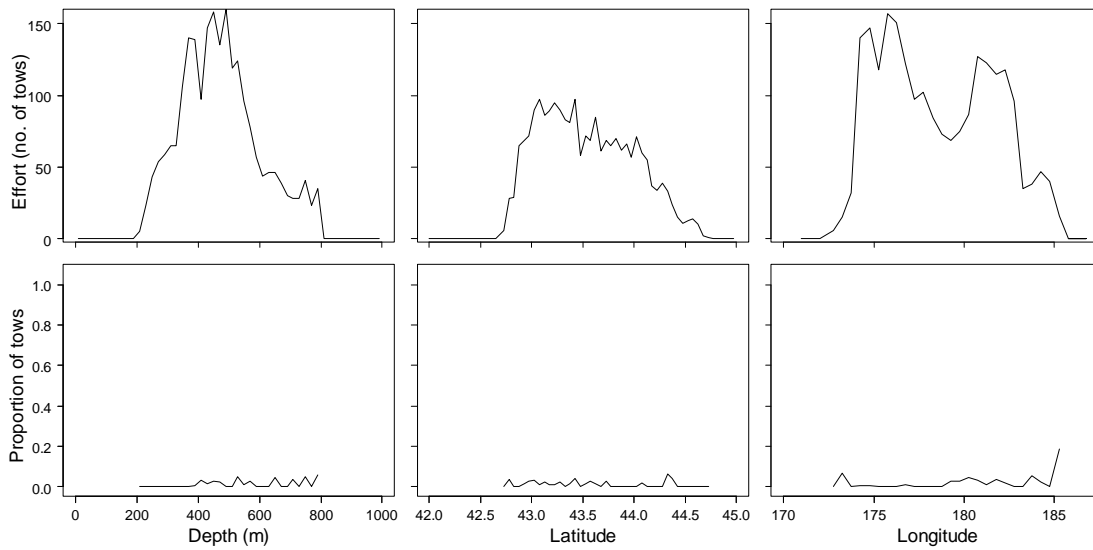
There were **too few fish caught to determine whether the core survey area is appropriate for this species**. Biomass of this species is **poorly** estimated in the core survey area. Biomass **shows no clear trend** since the start of the time series.

Relative biomass estimates

Year	Biomass (t)	cv (%)
1992	0	-
1993	4	100
1994	0	-
1995	66	30
1996	0	-
1997	65	52
1998	0	-
1999	0	-
2000	1	100
2001	0	-
2002	0	-
2003	46	47
2004	0	-
2005	0	-
2006	1	100
2007	15	75
2008	0	-
2009	0	-
2010	1	100



Distribution



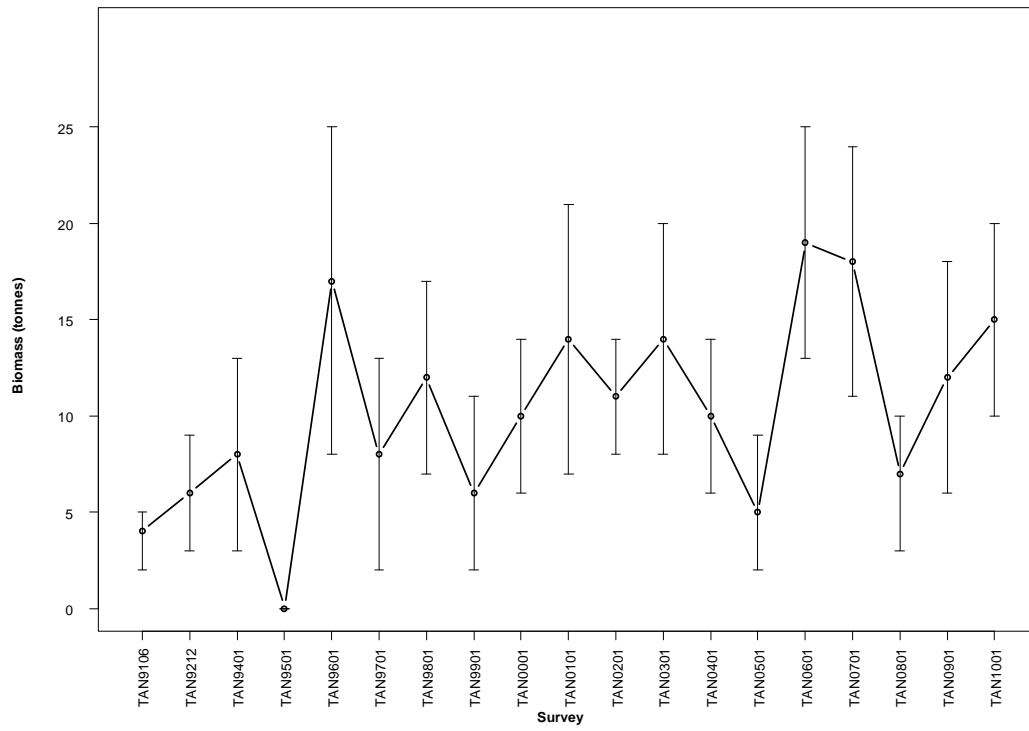


Number of surveys caught 1992–2010 (out of 19):	19
Total catch weight (kg):	77.7
Number measured	26
Length range (mean) (cm, TL)	24–34 (29)
Number weighed	16
Length-weight parameters a, b (r^2)	–

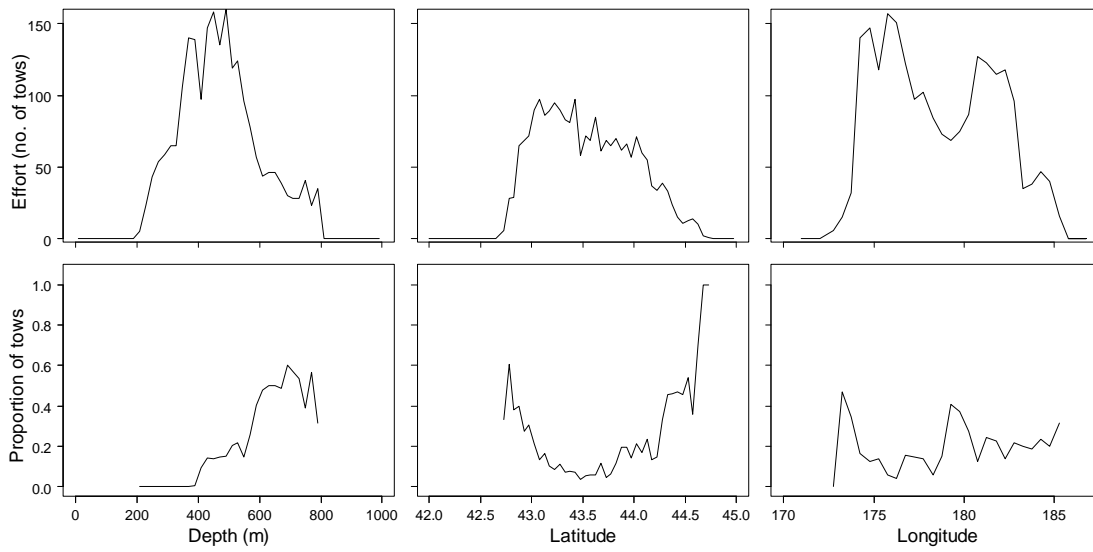
The core survey area and depth range **is not** appropriate for this species. It is found **deeper than 800 m**. Biomass of this species is **well** estimated in the core survey area. Biomass **shows no clear trend** since the start of the time series.

Relative biomass estimates

Year	Biomass (t)	cv (%)
1992	4	23
1993	6	25
1994	8	32
1995	0	100
1996	17	26
1997	8	36
1998	12	20
1999	6	33
2000	10	19
2001	14	25
2002	11	15
2003	14	22
2004	10	21
2005	5	33
2006	19	15
2007	18	18
2008	7	26
2009	12	26
2010	15	16



Distribution



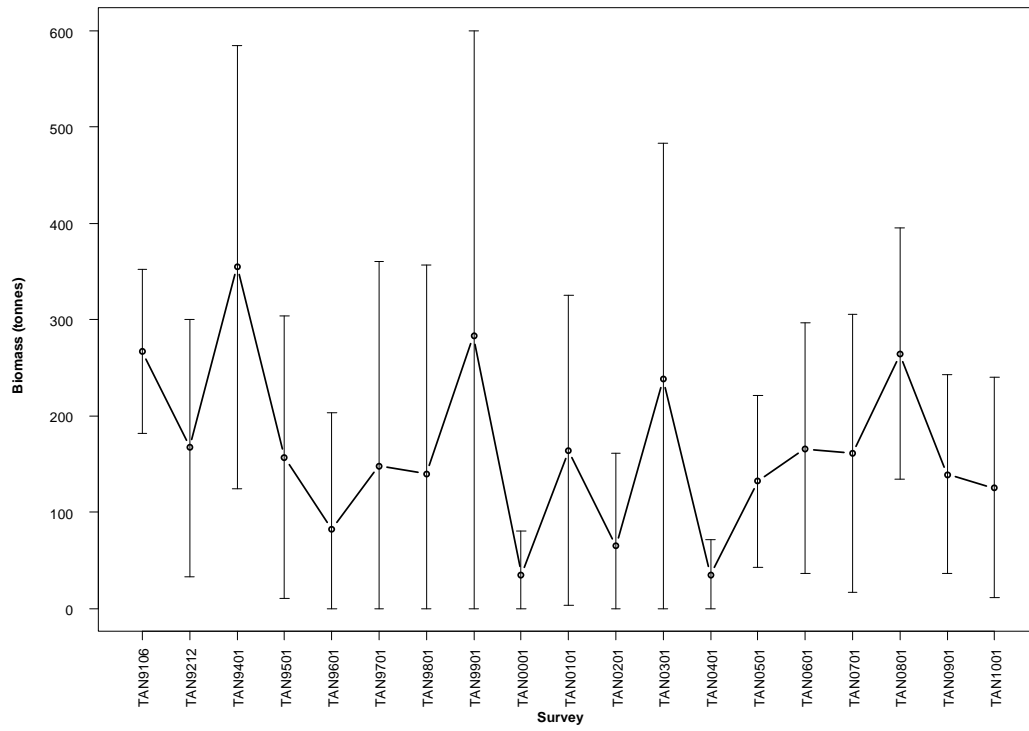


Number of surveys caught 1992–2010 (out of 19):	19
Total catch weight (kg):	2 643.7
Number measured	489
Length range (mean) (cm, TL)	40–96 (64)
Number weighed	319
Length-weight parameters a, b (r^2)	–

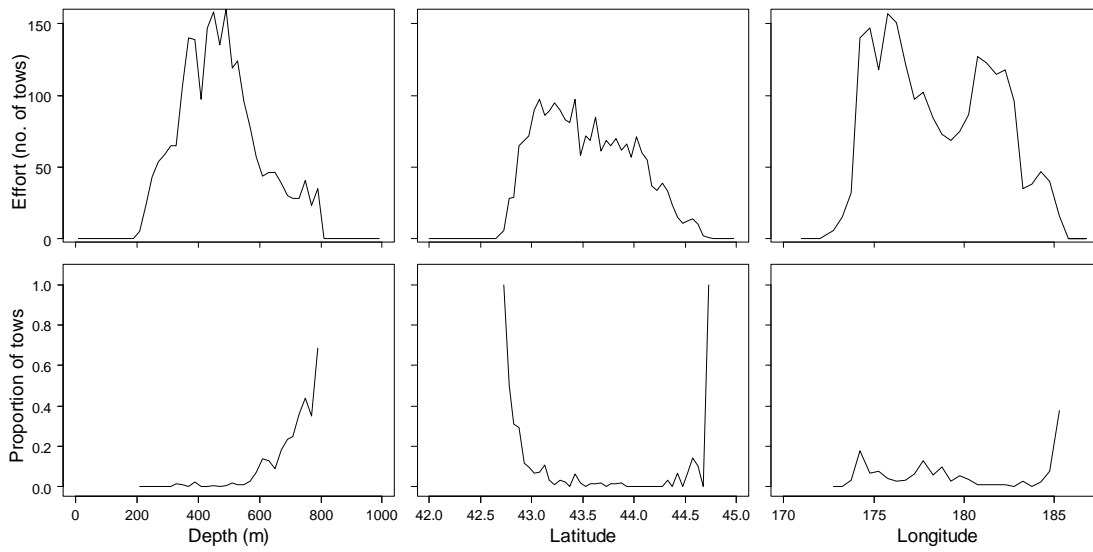
The core survey area and depth range **is not** appropriate for this species. It is found **deeper than 800 m**. Biomass of this species is **poorly** estimated in the core survey area. Biomass **shows no clear trend** since the start of the time series.

Relative biomass estimates

Year	Biomass (t)	cv (%)
1992	267	16
1993	167	40
1994	355	32
1995	157	47
1996	82	74
1997	148	71
1998	140	77
1999	283	56
2000	35	65
2001	164	49
2002	65	74
2003	238	51
2004	35	51
2005	132	34
2006	166	39
2007	161	45
2008	264	25
2009	139	37
2010	125	46



Distribution



Witch (*Arnoglossus scapha*)

WIT

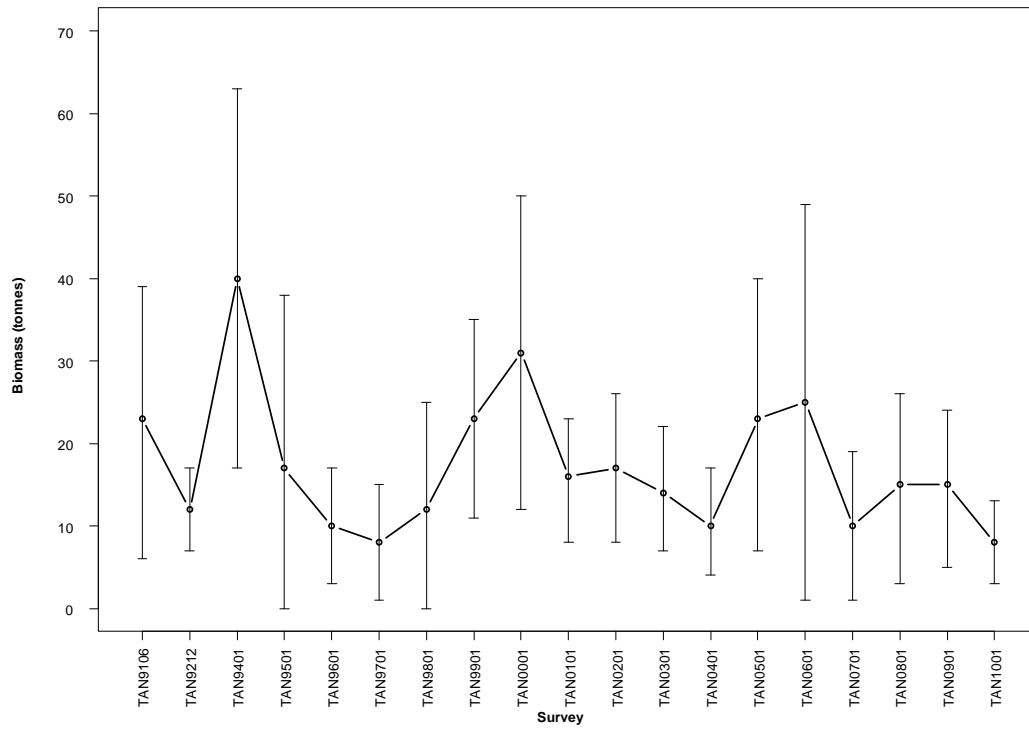


Number of surveys caught 1992–2010 (out of 19):	19
Total catch weight (kg):	200.1
Number measured	17
Length range (mean) (cm, TL)	24–33 (28.2)
Number weighed	12
Length-weight parameters a, b (r^2)	–

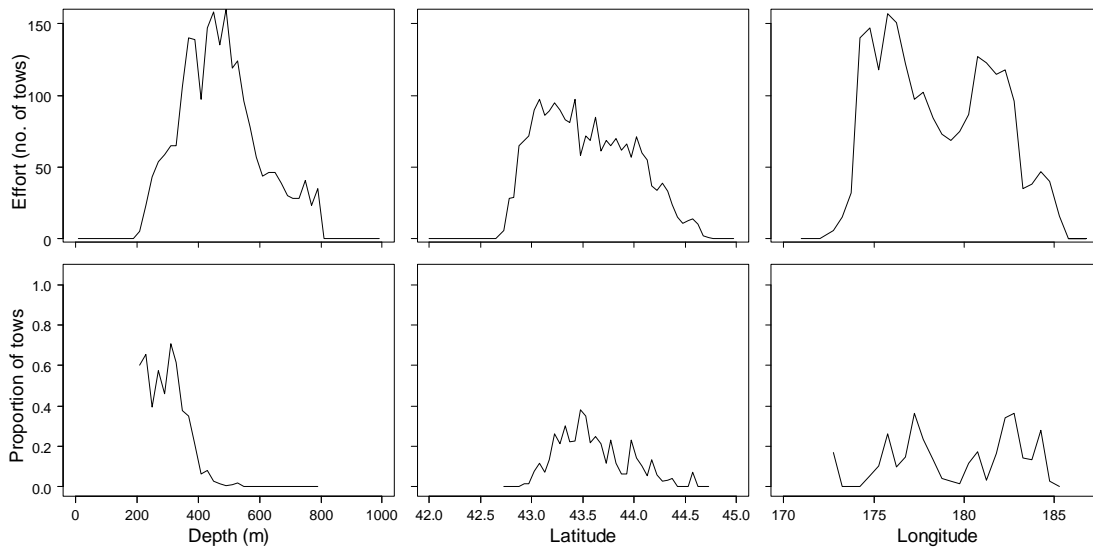
The core survey area and depth range **is not** appropriate for this species. It is found **shallower than 200 m**. Biomass of this species is **moderately well** estimated in the core survey area. Biomass **shows no clear trend** since the start of the time series. Catch rates are highest in the **north**.

Relative biomass estimates

Year	Biomass (t)	cv (%)
1992	23	37
1993	12	22
1994	40	29
1995	17	64
1996	10	34
1997	8	44
1998	12	51
1999	23	25
2000	31	31
2001	16	24
2002	17	26
2003	14	26
2004	10	32
2005	23	36
2006	25	49
2007	10	47
2008	15	38
2009	15	33
2010	8	34



Distribution



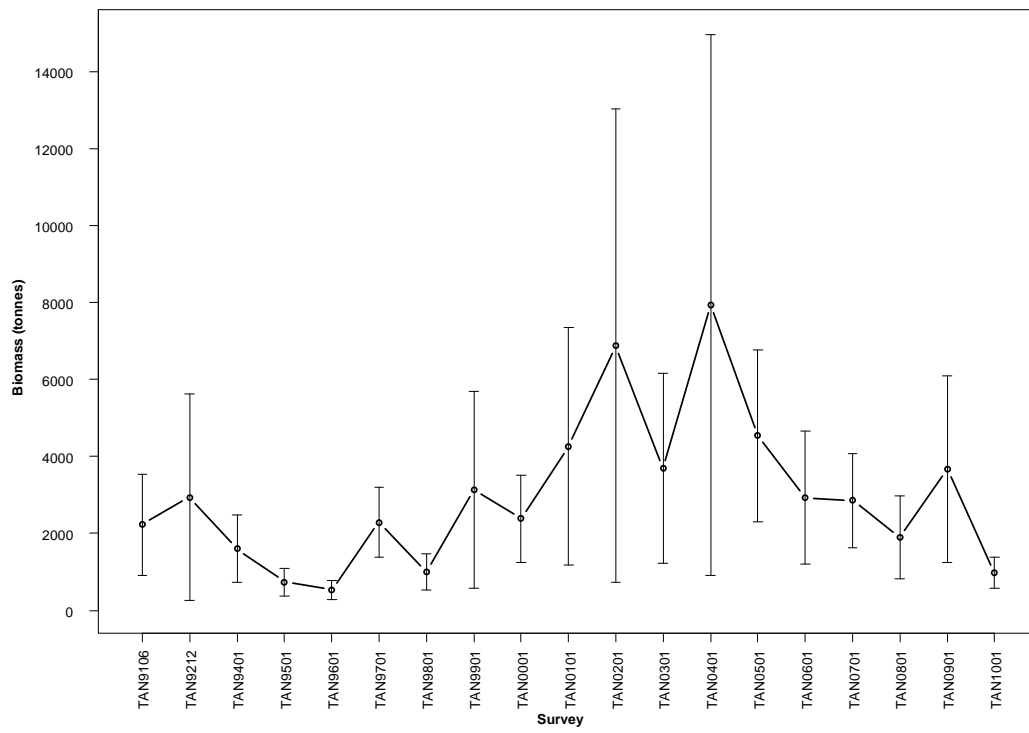


Number of surveys caught 1992–2010 (out of 19):	19
Total catch weight (kg):	36 293
Number measured	16 462
Length range (mean) (cm, FL)	12–65 (37.1)
Number weighed	5 055
Length-weight parameters a, b (r^2)	0.018314, 3.049201 (97.94)

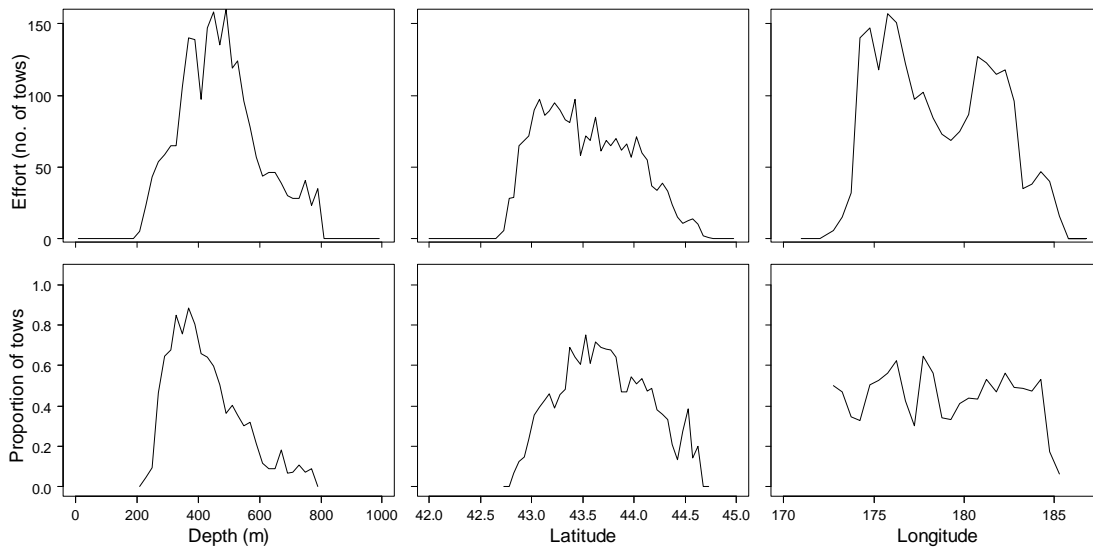
The core survey area and depth range is appropriate for this species. Biomass of this species is **moderately well** estimated in the core survey area. Biomass has **increased and then decreased** since the start of the time series. Catch rates are highest in the **west**. Length frequencies **have multiple modes which may contain information about year-class strength**. Mean length has **decreased and then increased** since the start of the time series. Gonad stage data indicate that most fish are **immature or resting**.

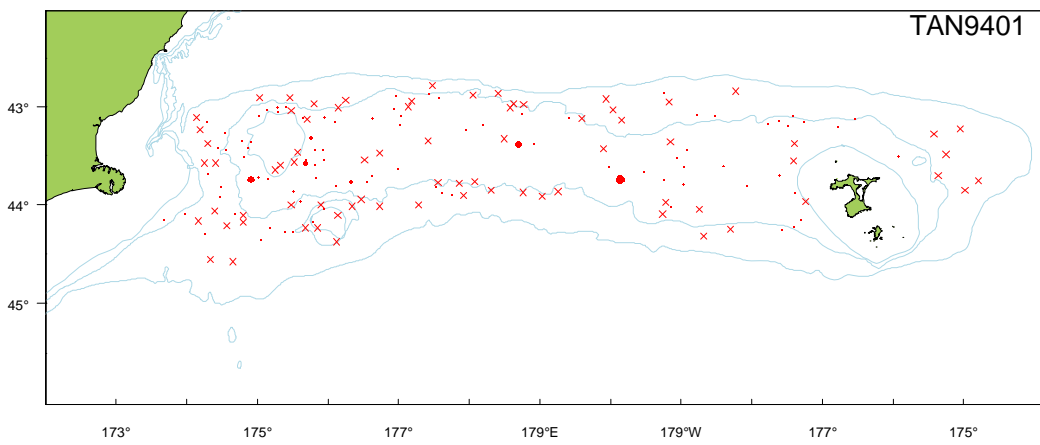
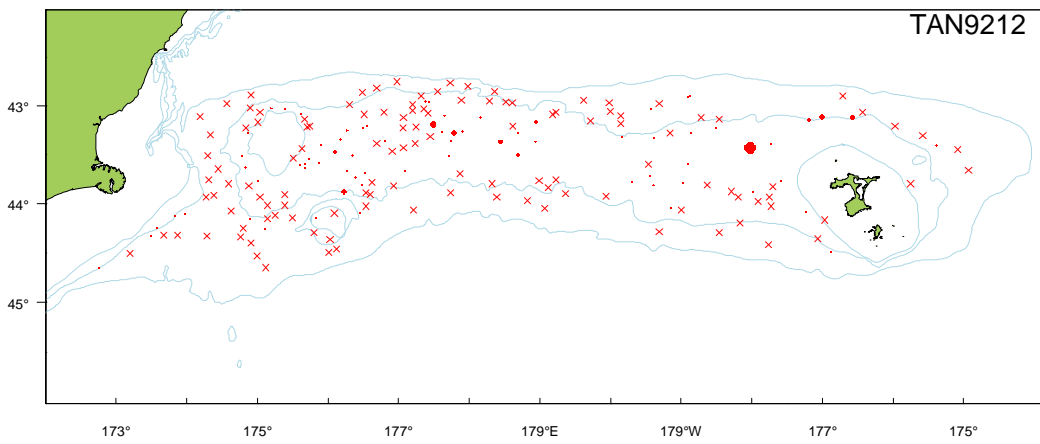
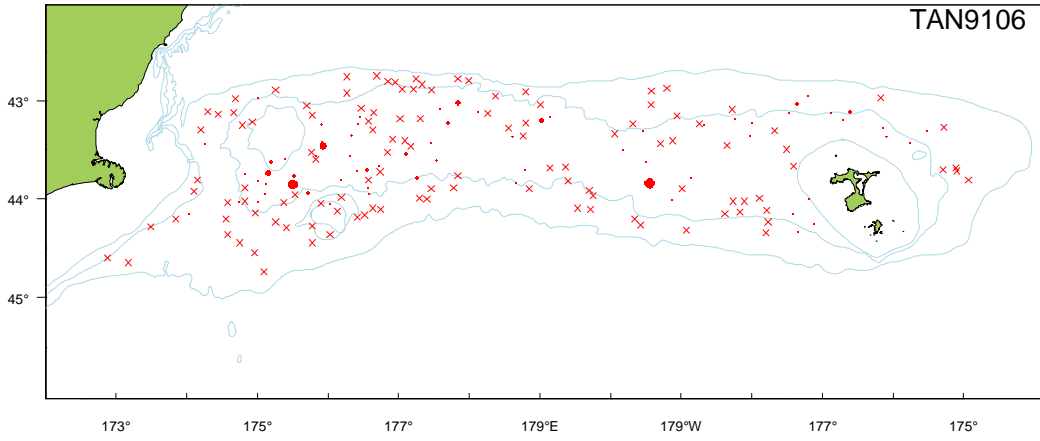
Relative biomass estimates and length summary

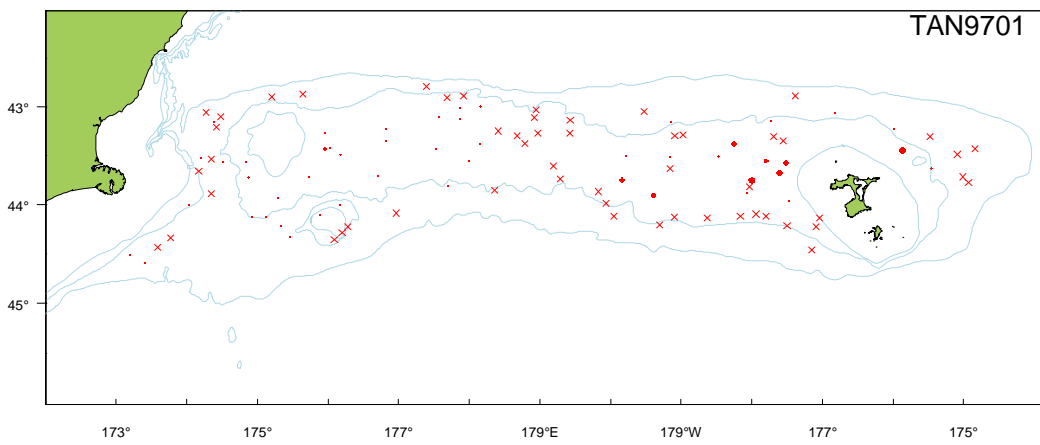
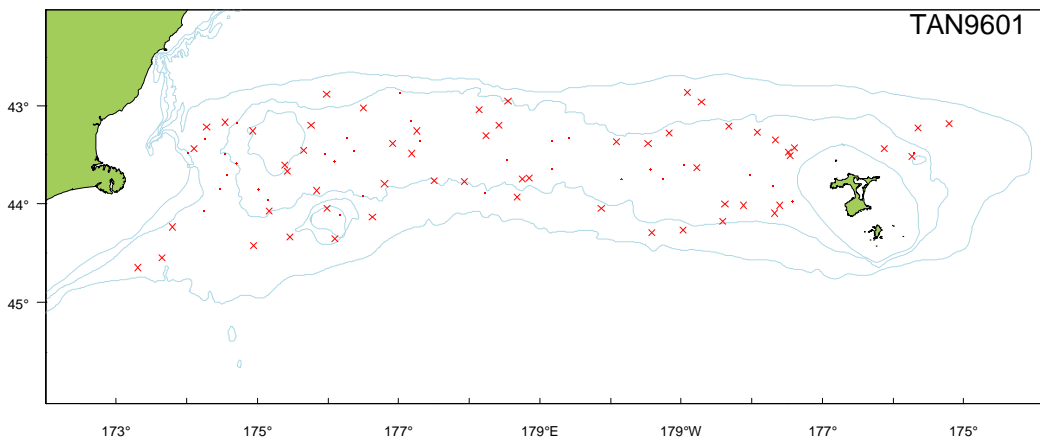
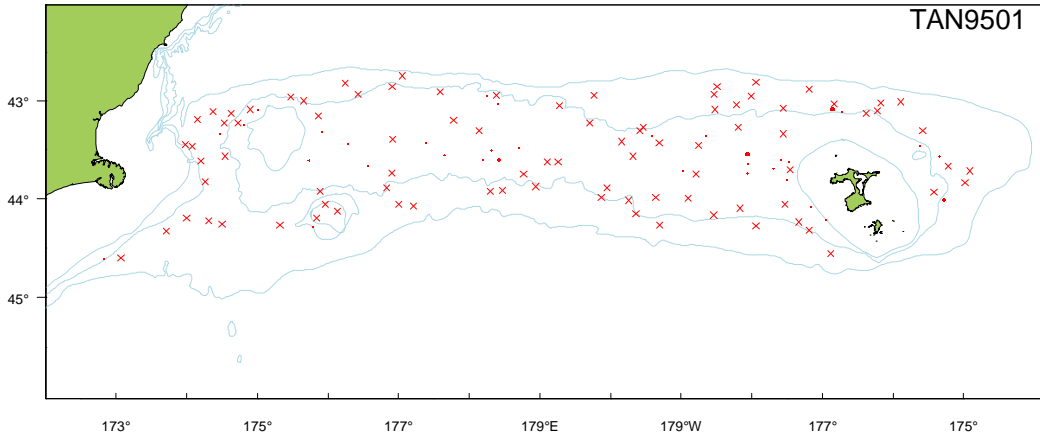
Year	Biomass (t)	cv (%)	Length (cm)			No. measured
			Min.	Max.	Mean	
1992	2 227	30	18	65	40.8	863
1993	2 939	46	20	63	42.2	956
1994	1 606	27	20	63	34.5	863
1995	734	25	19	62	37.1	295
1996	533	24	18	56	39.1	162
1997	2 287	20	14	62	35.6	789
1998	1 009	24	16	60	38.2	342
1999	3 136	41	15	62	37.7	825
2000	2 385	24	16	61	32.8	1 230
2001	4 262	36	13	65	32.7	1 387
2002	6 881	45	12	63	34.9	1 076
2003	3 685	34	24	60	34.2	1 368
2004	7 932	44	19	63	38.3	1 125
2005	4 542	25	23	61	37.5	1 102
2006	2 929	29	17	62	40.1	682
2007	2 853	21	23	61	39.1	874
2008	1 899	28	23	59	40.5	558
2009	3 667	33	26	62	43.0	756
2010	983	21	15	56	39.3	245

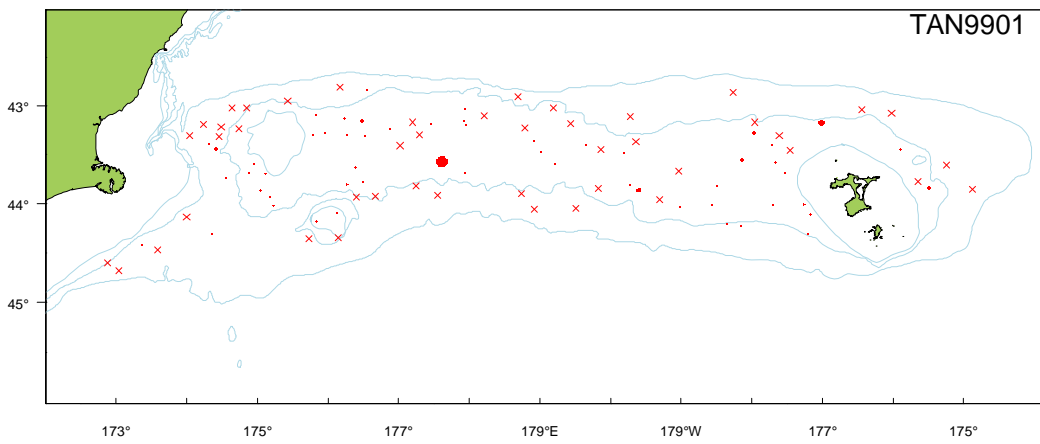
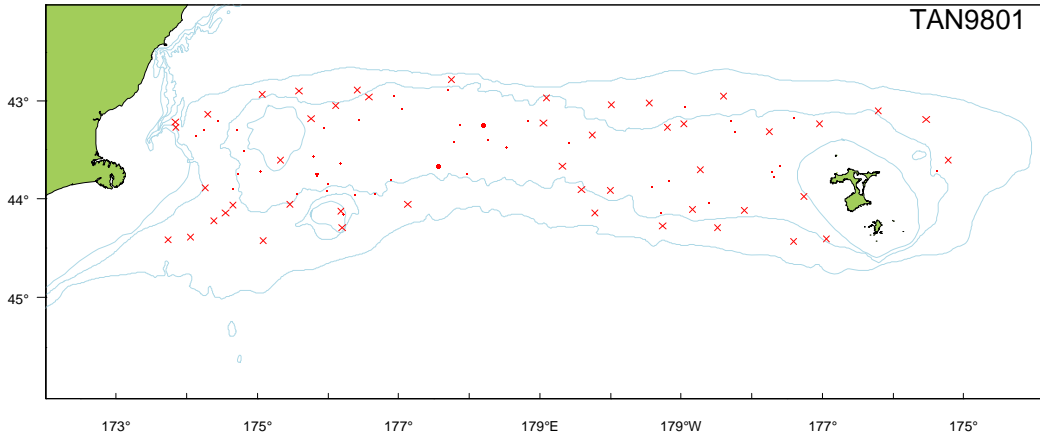


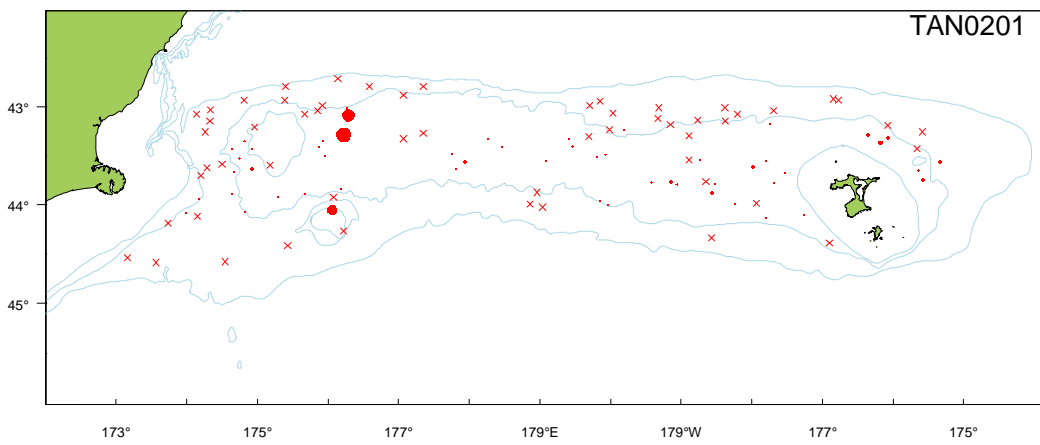
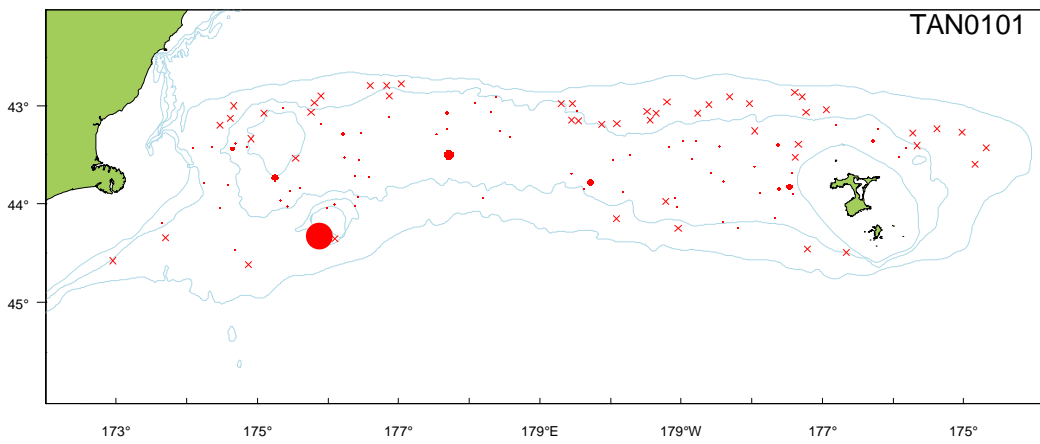
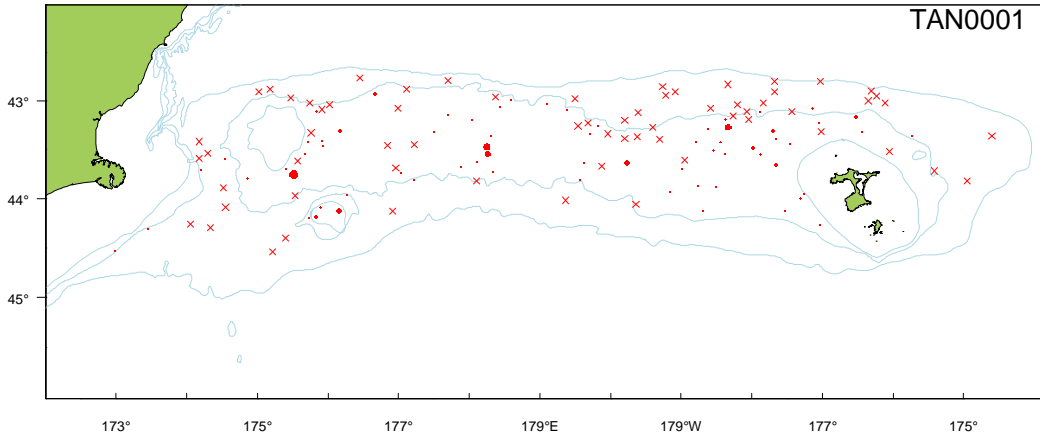
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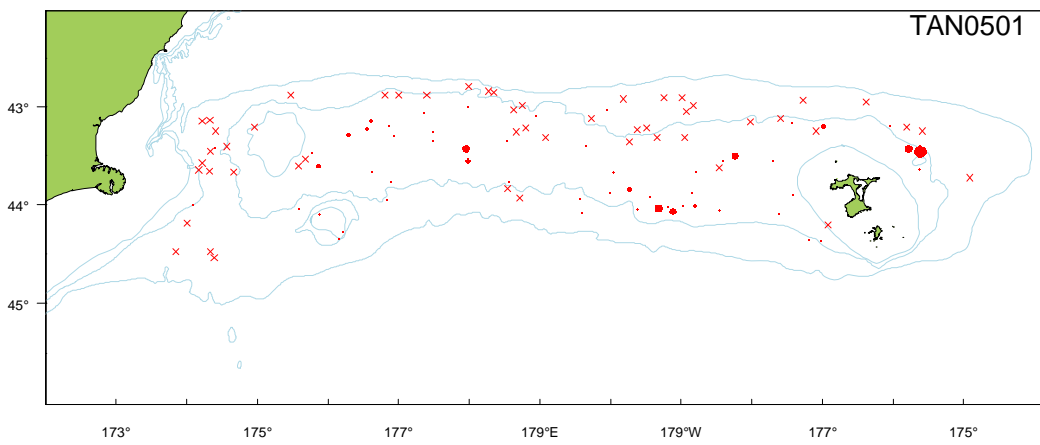
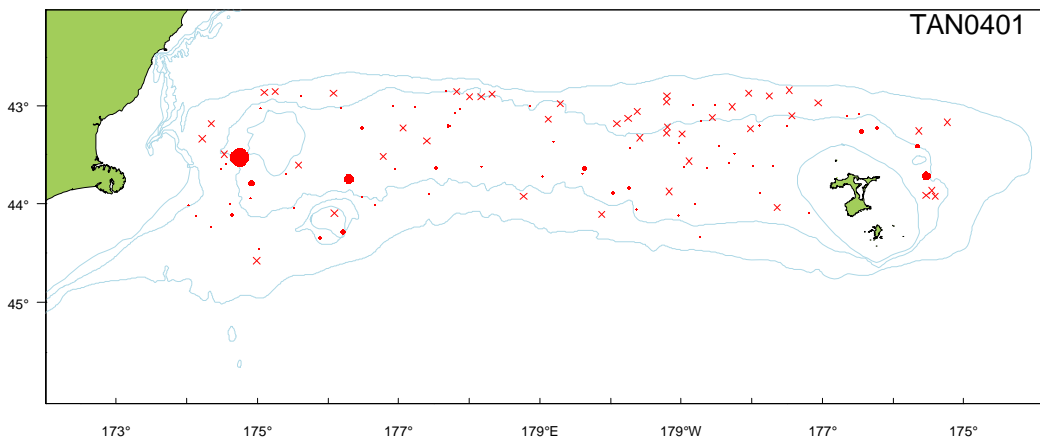
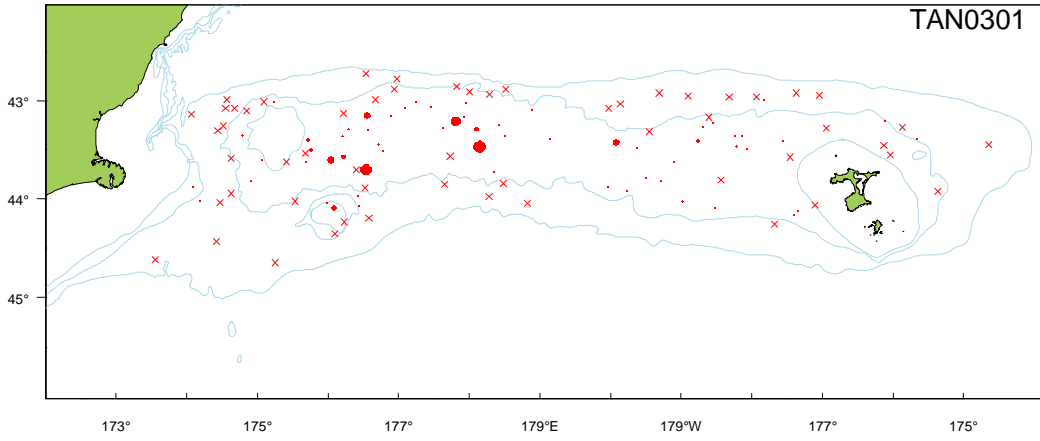


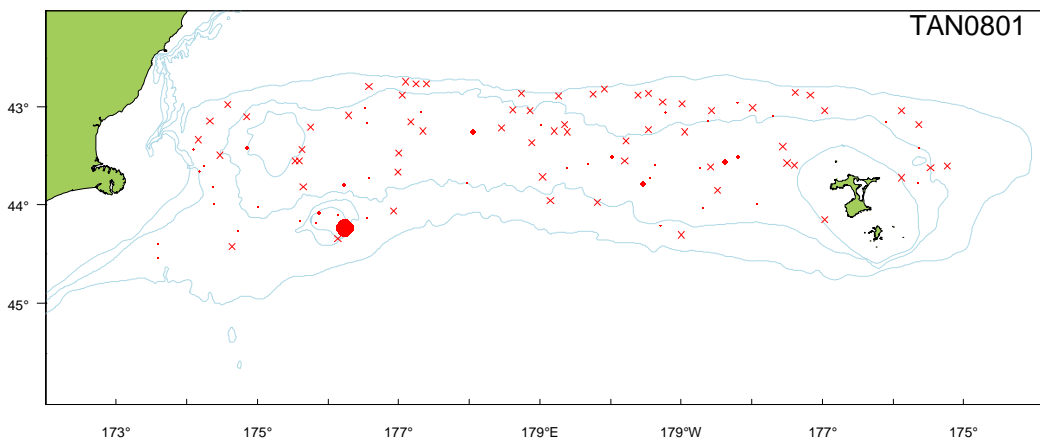
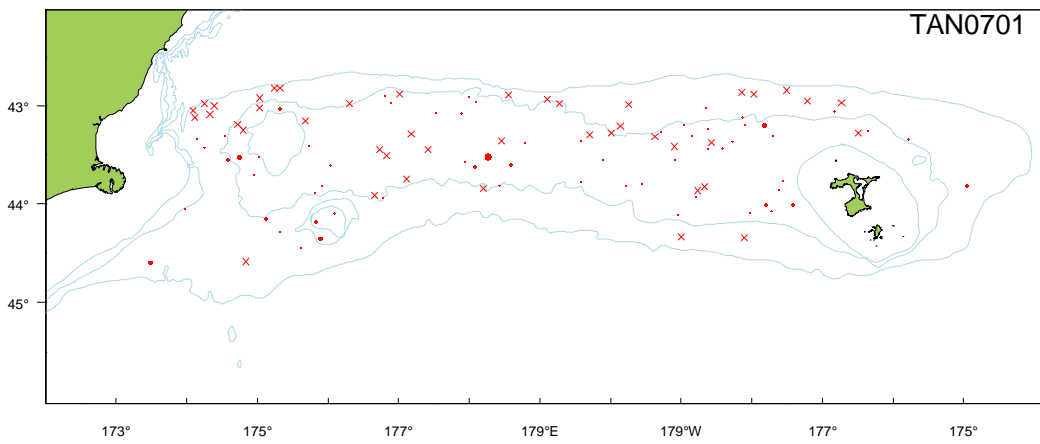
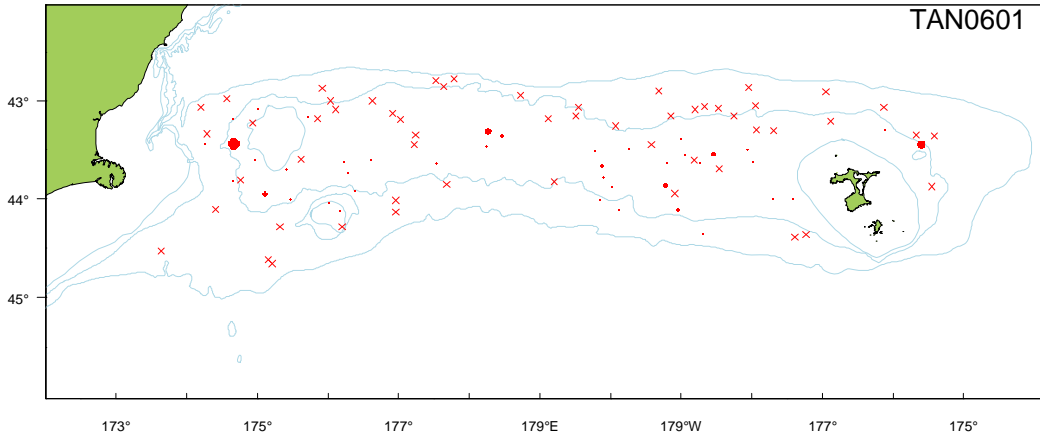


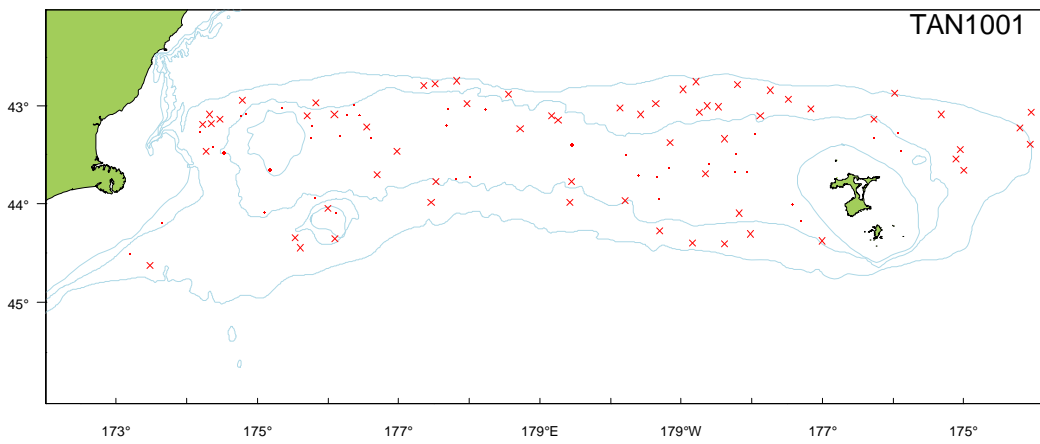
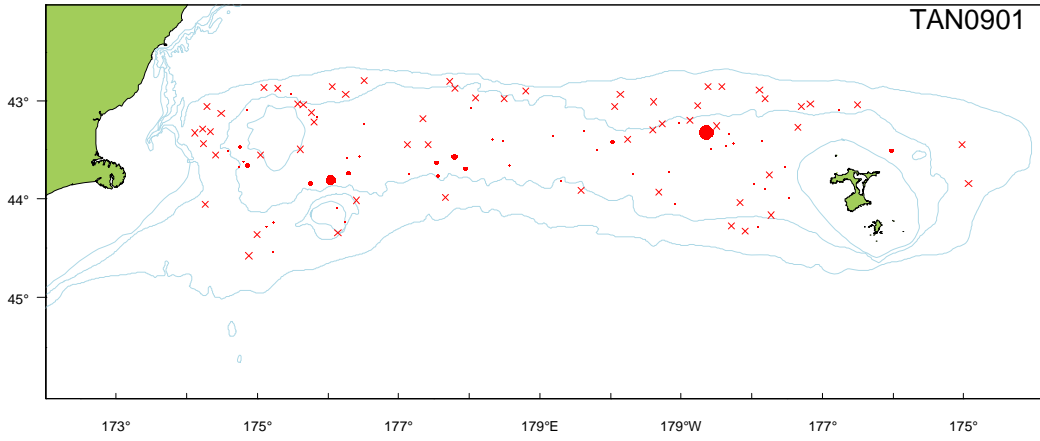




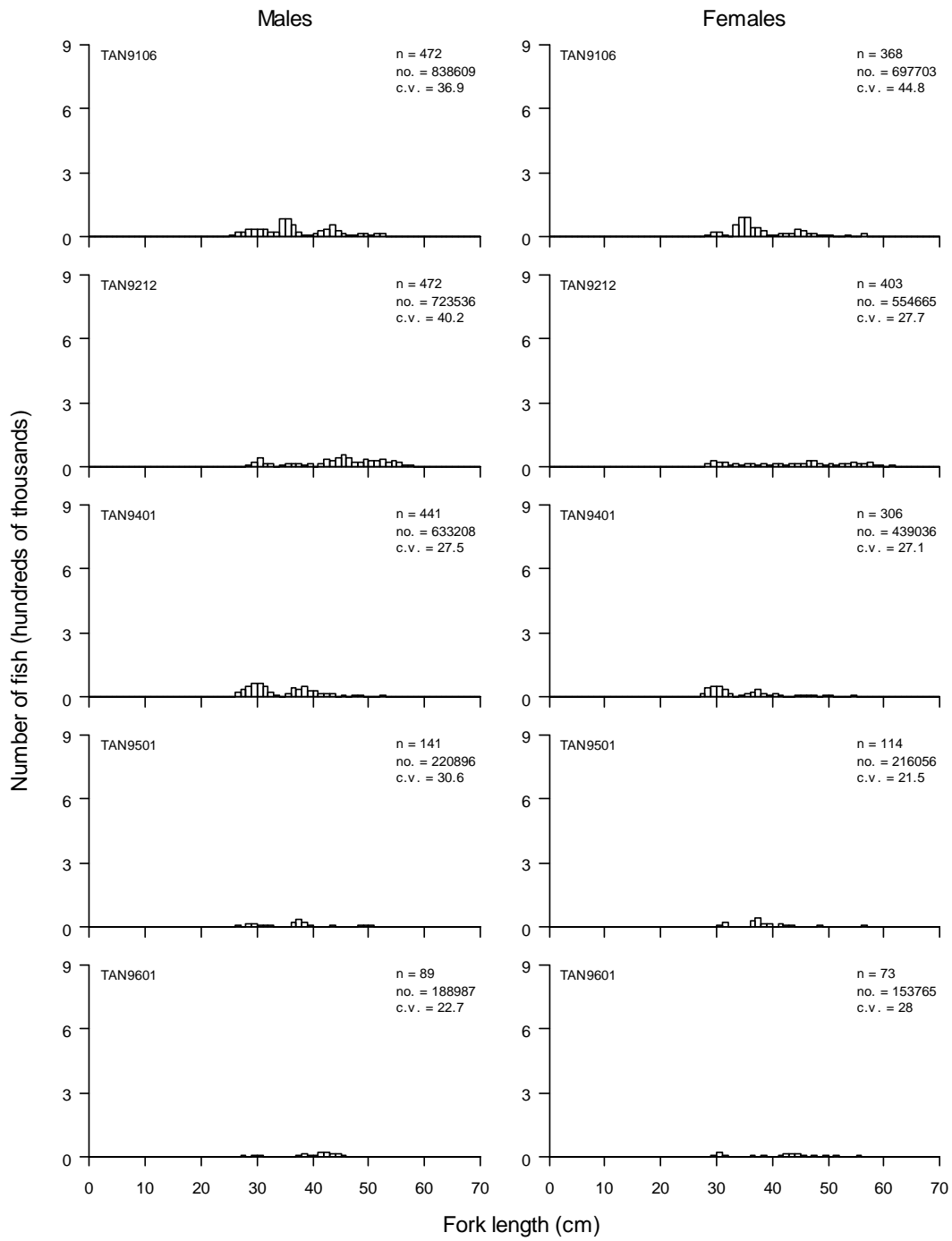


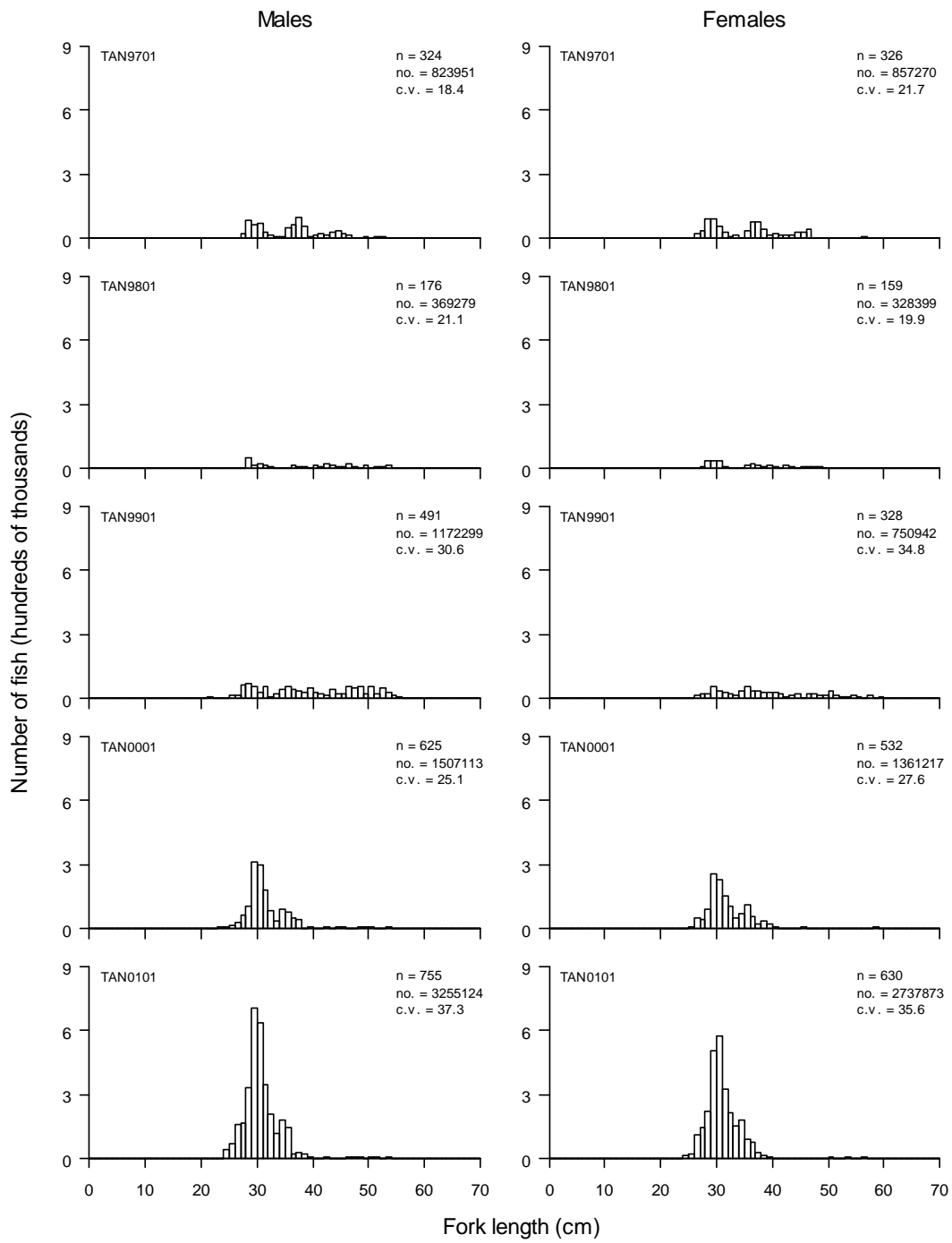


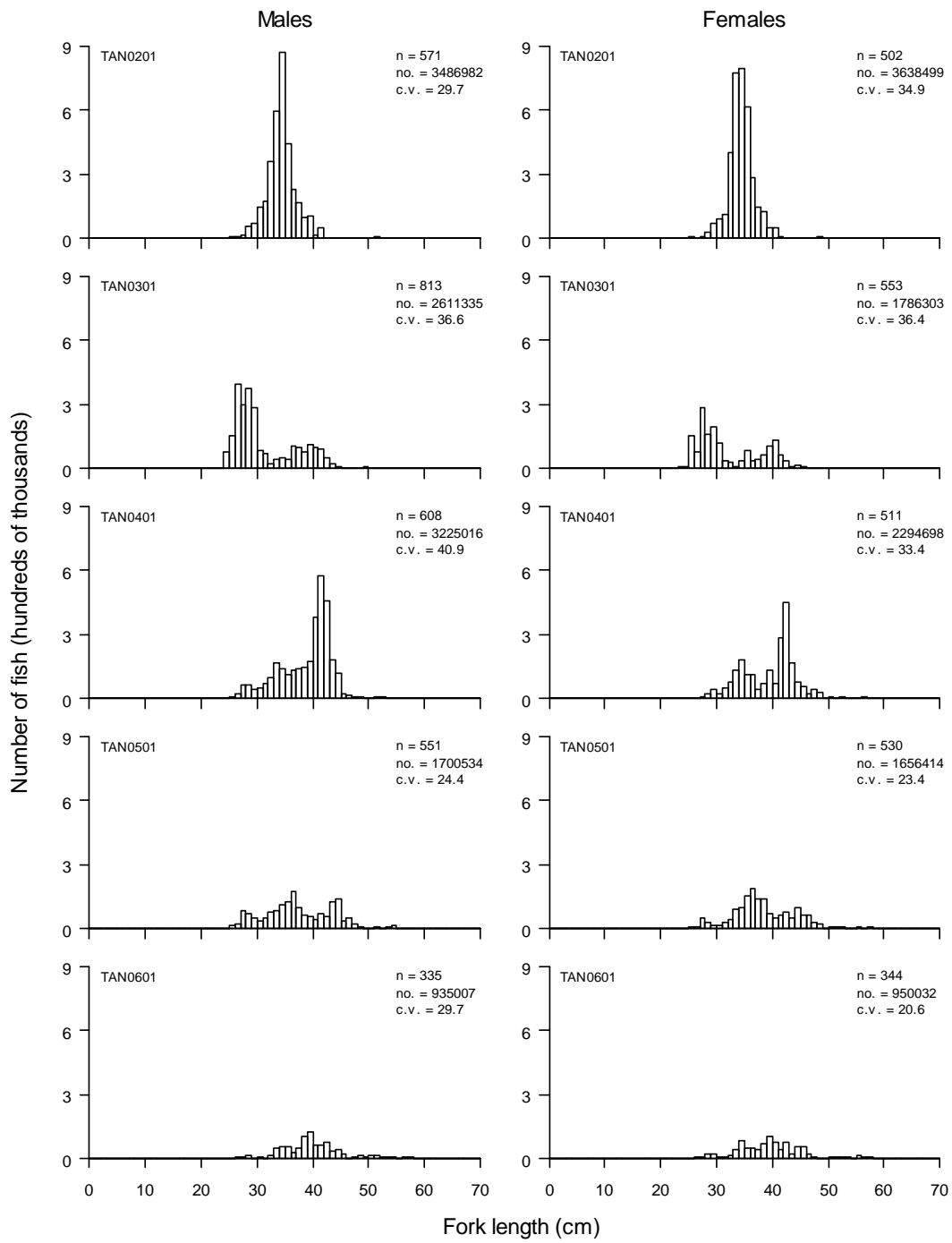


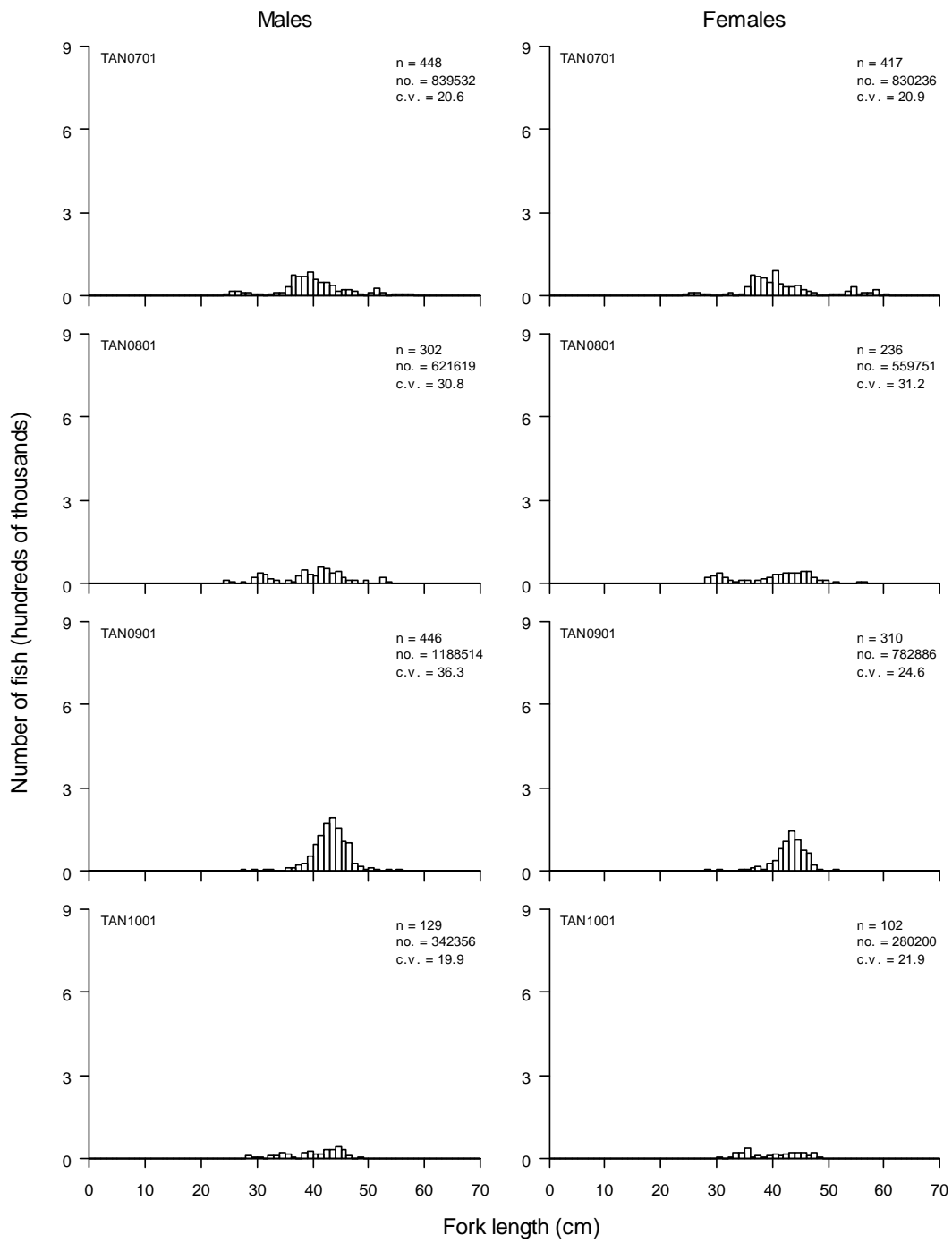


Length Frequencies









Gonad Stage Information

Males

Year	p_M1	p_M2	p_M3	p_M4	p_M5	p_M6	p_M7	n_allM
1992	NA	NA	NA	NA	NA	NA	NA	0
1993	NA	NA	NA	NA	NA	NA	NA	0
1994	0.38	0.53	0	0	0	0	0.09	34
1995	0	1	0	0	0	0	0	1
1996	0.41	0.59	0	0	0	0	0	44
1997	0.46	0.36	0.04	0	0	0	0.13	67
1998	0.45	0.33	0.01	0	0	0	0.22	138
1999	0.42	0.58	0	0	0	0	0	45
2000	NA	NA	NA	NA	NA	NA	NA	0
2001	1	0	0	0	0	0	0	2
2002	NA	NA	NA	NA	NA	NA	NA	0
2003	NA	NA	NA	NA	NA	NA	NA	0
2004	NA	NA	NA	NA	NA	NA	NA	0
2005	0.6	0.38	0.02	0	0	0	0	90
2006	1	0	0	0	0	0	0	4
2007	1	0	0	0	0	0	0	2
2008	NA	NA	NA	NA	NA	NA	NA	0
2009	0.08	0.91	0	0	0	0	0.01	150
2010	0.35	0.65	0	0	0	0	0	40
ALL	0.37	0.55	0.01	0	0	0	0.07	617

Females

Year	p_F1	p_F2	p_F3	p_F4	p_F5	p_F6	p_F7	n_allF
1992	NA	NA	NA	NA	NA	NA	NA	0
1993	NA	NA	NA	NA	NA	NA	NA	0
1994	0.37	0.53	0	0	0	0	0.11	19
1995	0	0	1	0	0	0	0	2
1996	0.32	0.65	0.03	0	0	0	0	34
1997	0.31	0.52	0.17	0	0	0	0	58
1998	0.56	0.29	0.08	0	0	0	0.07	118
1999	0.44	0.56	0	0	0	0	0	25
2000	0	1	0	0	0	0	0	1
2001	0.5	0	0.5	0	0	0	0	2
2002	NA	NA	NA	NA	NA	NA	NA	0
2003	NA	NA	NA	NA	NA	NA	NA	0
2004	NA	NA	NA	NA	NA	NA	NA	0
2005	0.22	0.54	0.24	0	0	0	0	82
2006	1	0	0	0	0	0	0	2
2007	0	1	0	0	0	0	0	1
2008	NA	NA	NA	NA	NA	NA	NA	0
2009	0.07	0.92	0.01	0	0	0	0	74
2010	0.29	0.64	0.07	0	0	0	0	28
ALL	0.33	0.54	0.11	0	0	0	0.02	446