

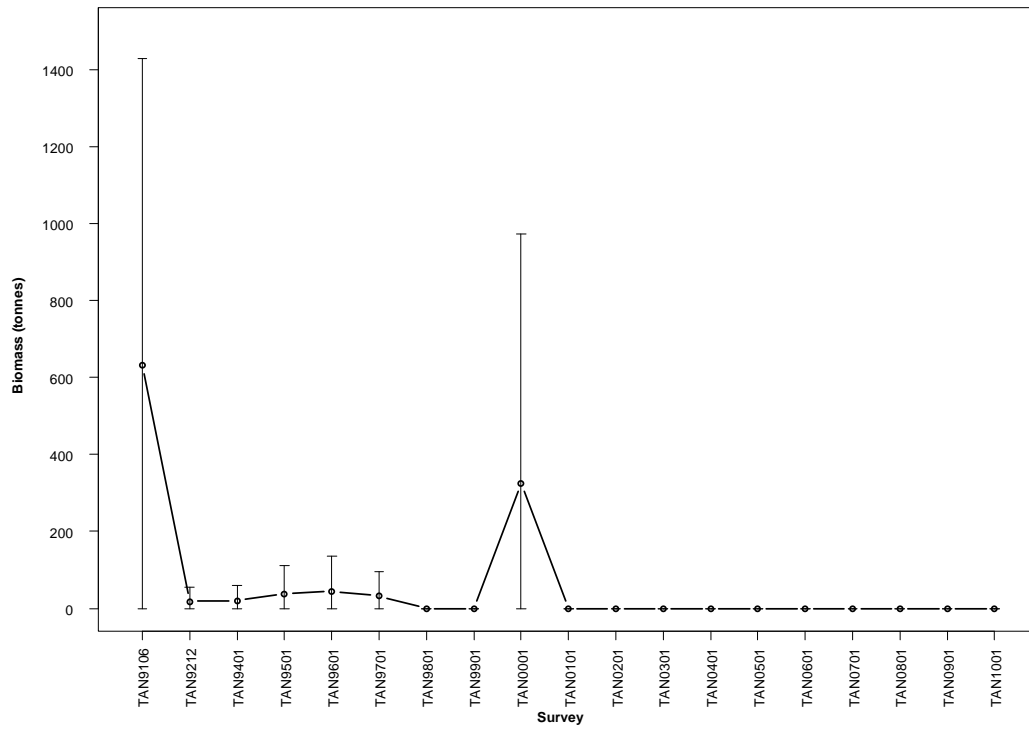


|   |         |
|---|---------|
| Number of surveys caught 1992–2010 (out of 19): | 8       |
| Total catch weight (kg):                        | 1 013.0 |
| Number measured                                 | 0       |
| Length range (mean) (cm)                        | –       |
| Number weighed                                  | 0       |
| Length-weight parameters a, b ( $r^2$ )         | –       |

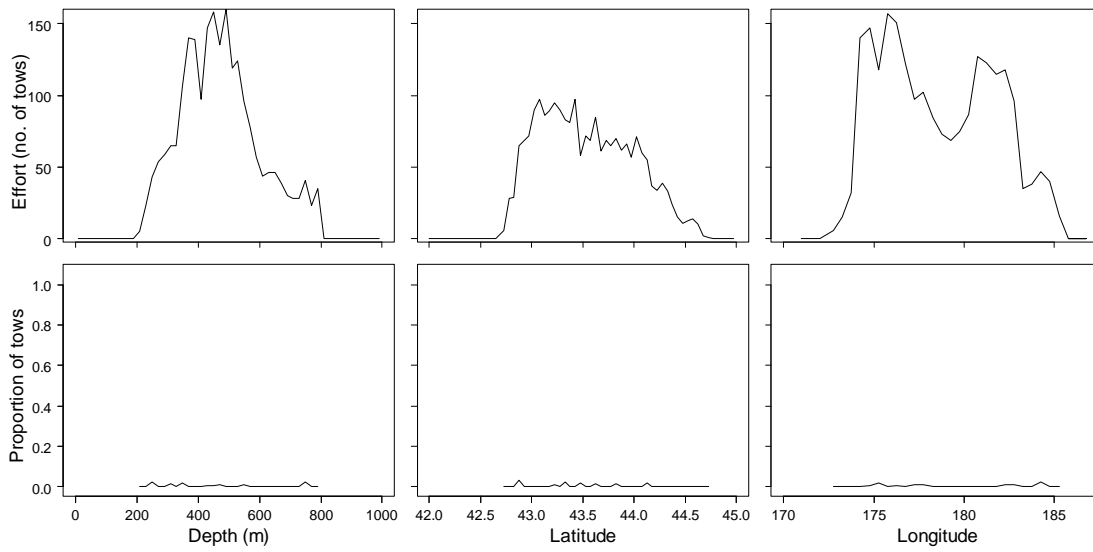
The core survey area and depth range **is not** appropriate for this species. It occurs in midwater. Biomass of this species is **poorly** estimated in the core survey area. Biomass has **decreased** since the start of the time series.

#### Relative biomass estimates

| Year | Biomass (t) | cv (%) |
|------|-------------|--------|
| 1992 | 631         | 63     |
| 1993 | 18          | 100    |
| 1994 | 20          | 100    |
| 1995 | 37          | 100    |
| 1996 | 45          | 100    |
| 1997 | 32          | 100    |
| 1998 | 0           | -      |
| 1999 | 0           | -      |
| 2000 | 324         | 100    |
| 2001 | 0           | -      |
| 2002 | 0           | -      |
| 2003 | 0           | -      |
| 2004 | 0           | -      |
| 2005 | 0           | -      |
| 2006 | 0           | -      |
| 2007 | 0           | -      |
| 2008 | 0           | -      |
| 2009 | 0           | -      |
| 2010 | 0           | -      |



### Distribution



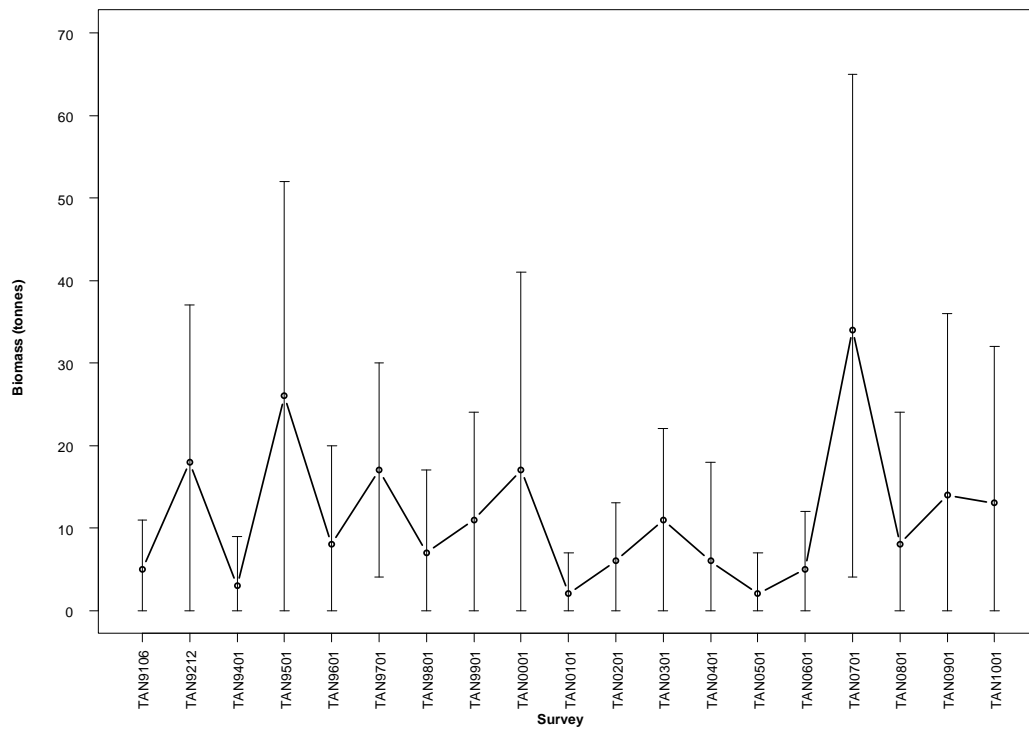


|   |            |
|---|------------|
| Number of surveys caught 1992–2010 (out of 19): | 19         |
| Total catch weight (kg):                        | 71.6       |
| Number measured                                 | 3          |
| Length range (mean) (cm, TL)                    | 53–53 (53) |
| Number weighed                                  | 3          |
| Length-weight parameters a, b ( $r^2$ )         | –          |

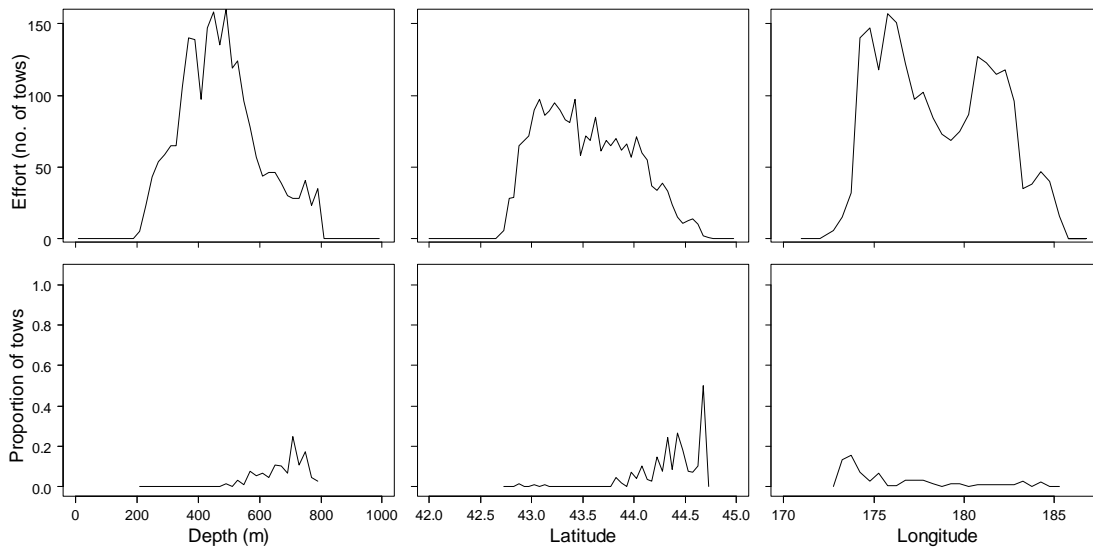
The core survey area and depth range **is** appropriate for this species. Biomass of this species is **poorly** estimated in the core survey area. Biomass **shows no clear trend** since the start of the time series. Catch rates are highest in the **south**.

**Relative biomass estimates**

| Year | Biomass (t) | cv (%) |
|------|-------------|--------|
| 1992 | 5           | 55     |
| 1993 | 18          | 51     |
| 1994 | 3           | 93     |
| 1995 | 26          | 50     |
| 1996 | 8           | 79     |
| 1997 | 17          | 38     |
| 1998 | 7           | 72     |
| 1999 | 11          | 60     |
| 2000 | 17          | 72     |
| 2001 | 2           | 100    |
| 2002 | 6           | 66     |
| 2003 | 11          | 50     |
| 2004 | 6           | 100    |
| 2005 | 2           | 100    |
| 2006 | 5           | 71     |
| 2007 | 34          | 44     |
| 2008 | 8           | 100    |
| 2009 | 14          | 80     |
| 2010 | 13          | 71     |



### Distribution



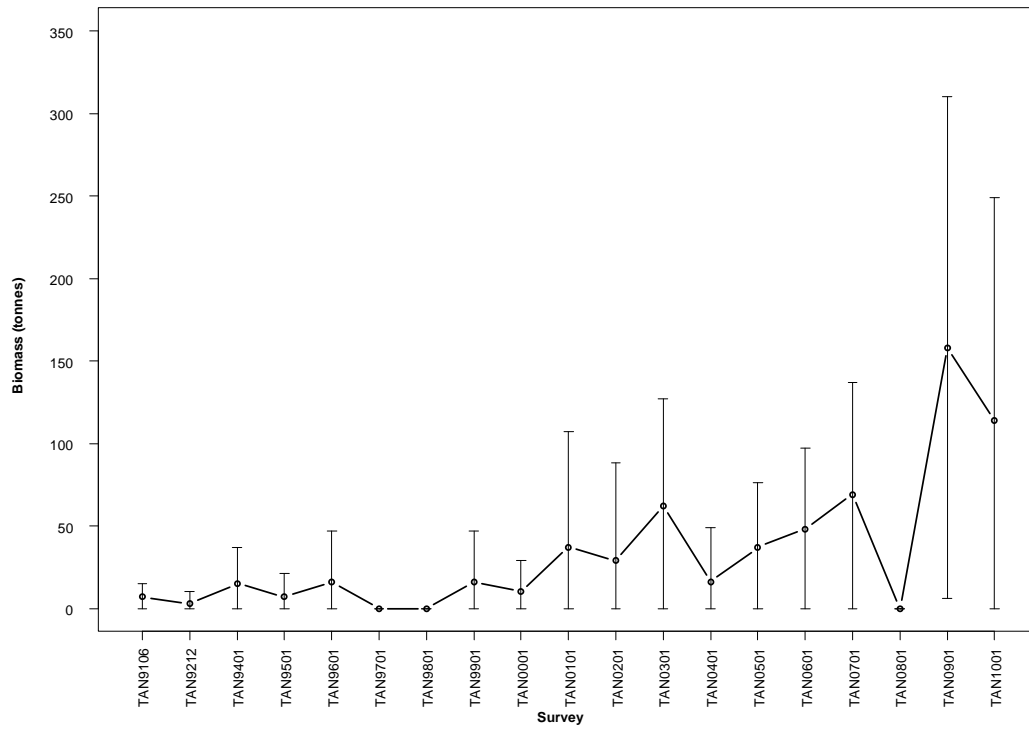


|   |              |
|---|--------------|
| Number of surveys caught 1992–2010 (out of 19): | 16           |
| Total catch weight (kg):                        | 268.8        |
| Number measured                                 | 226          |
| Length range (mean) (cm, TL)                    | 37–77 (53.6) |
| Number weighed                                  | 136          |
| Length-weight parameters a, b ( $r^2$ )         | –            |

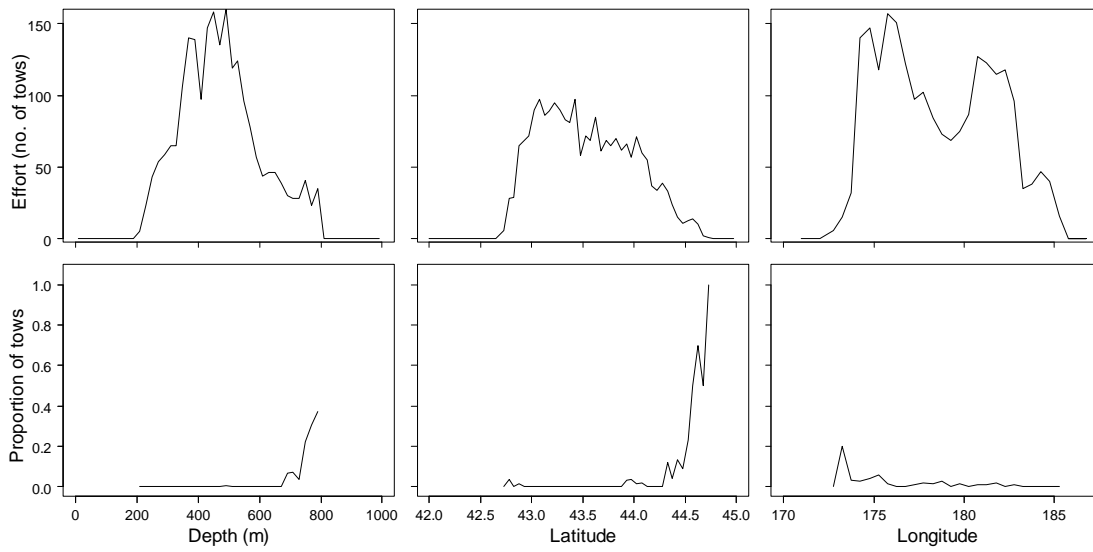
The core survey area and depth range **is not** appropriate for this species. It is found **deeper than 800 m**. Biomass of this species is **poorly** estimated in the core survey area. Biomass has **increased** since the start of the time series. Catch rates are highest in the **south**.

#### Relative biomass estimates

| Year | Biomass (t) | cv (%) |
|------|-------------|--------|
| 1992 | 7           | 62     |
| 1993 | 3           | 100    |
| 1994 | 15          | 70     |
| 1995 | 7           | 100    |
| 1996 | 16          | 100    |
| 1997 | 0           | -      |
| 1998 | 0           | -      |
| 1999 | 16          | 100    |
| 2000 | 10          | 100    |
| 2001 | 37          | 95     |
| 2002 | 29          | 100    |
| 2003 | 62          | 53     |
| 2004 | 16          | 100    |
| 2005 | 37          | 51     |
| 2006 | 48          | 50     |
| 2007 | 69          | 50     |
| 2008 | 0           | -      |
| 2009 | 158         | 48     |
| 2010 | 114         | 60     |



### Distribution



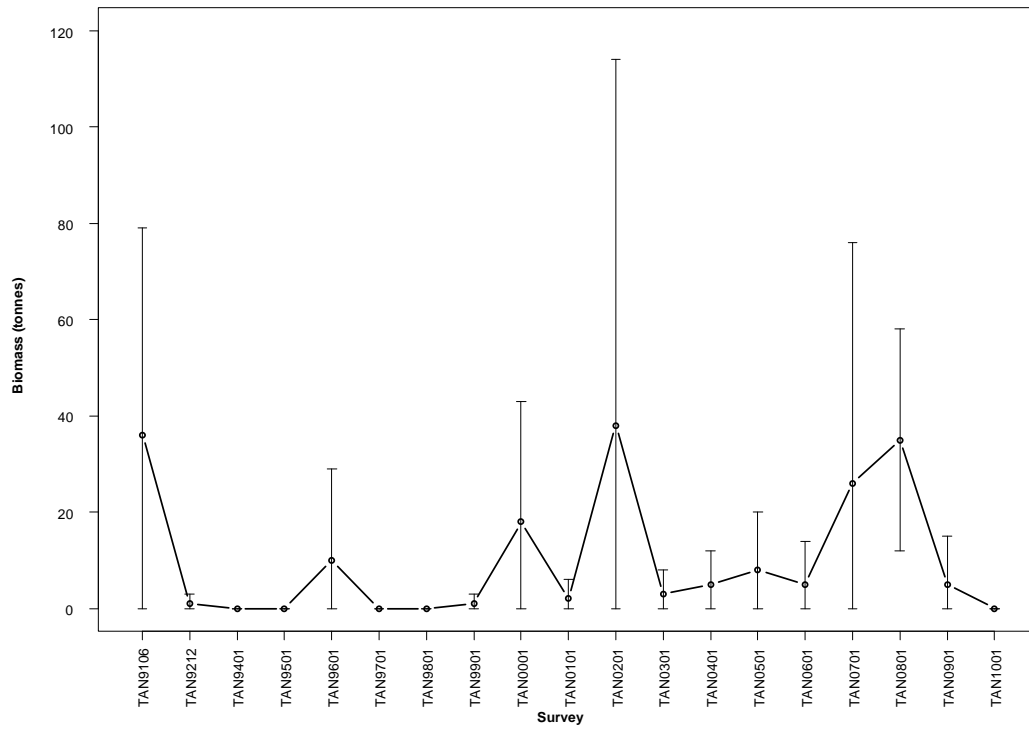


|   |              |
|---|--------------|
| Number of surveys caught 1992–2010 (out of 19): | 14           |
| Total catch weight (kg):                        | 111.9        |
| Number measured                                 | 7            |
| Length range (mean) (cm, TL)                    | 47–53 (51.3) |
| Number weighed                                  | 2            |
| Length-weight parameters a, b ( $r^2$ )         | –            |

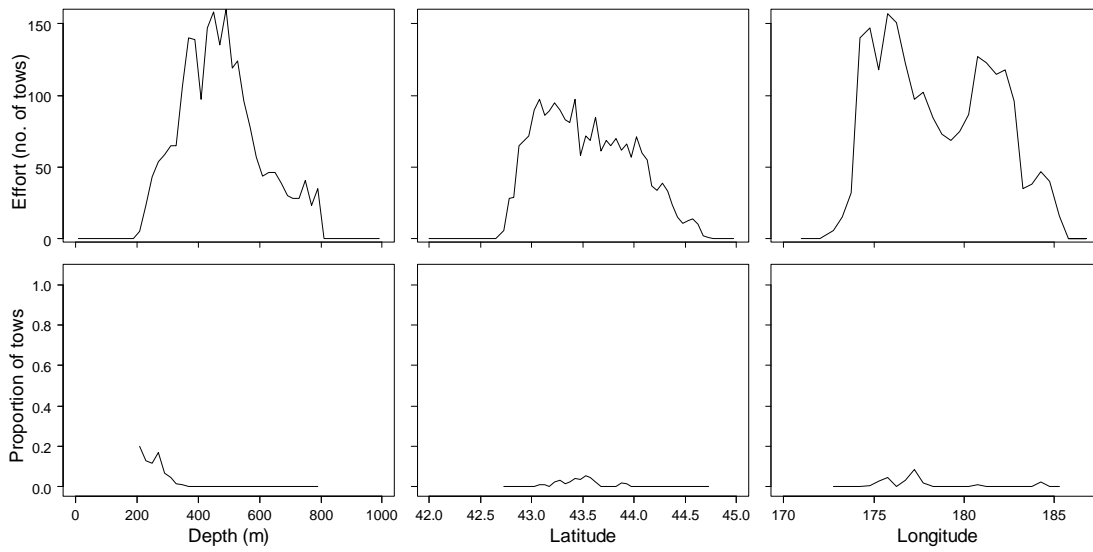
The core survey area and depth range **is not** appropriate for this species. It is found **shallower than 200 m**. Biomass of this species is **poorly** estimated in the core survey area. Biomass **shows no clear trend** since the start of the time series.

**Relative biomass estimates**

| Year | Biomass (t) | cv (%) |
|------|-------------|--------|
| 1992 | 36          | 59     |
| 1993 | 1           | 100    |
| 1994 | 0           | -      |
| 1995 | 0           | -      |
| 1996 | 10          | 100    |
| 1997 | 0           | -      |
| 1998 | 0           | -      |
| 1999 | 1           | 100    |
| 2000 | 18          | 68     |
| 2001 | 2           | 100    |
| 2002 | 38          | 100    |
| 2003 | 3           | 90     |
| 2004 | 5           | 71     |
| 2005 | 8           | 72     |
| 2006 | 5           | 100    |
| 2007 | 26          | 93     |
| 2008 | 35          | 33     |
| 2009 | 5           | 100    |
| 2010 | 0           | -      |



### Distribution





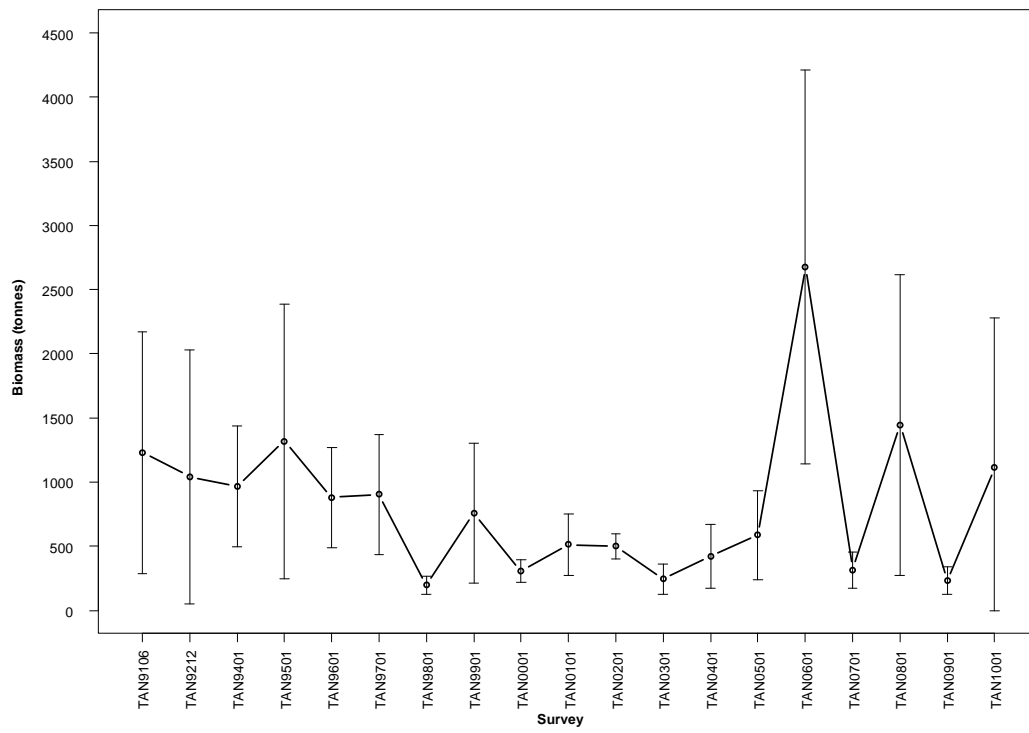


|   |                            |
|---|----------------------------|
| Number of surveys caught 1992–2010 (out of 19): | 19                         |
| Total catch weight (kg):                        | 11 967.4                   |
| Number measured                                 | 15 889                     |
| Length range (mean) (cm, ML)                    | 8–41 (23.3)                |
| Number weighed                                  | 1 471                      |
| Length-weight parameters a, b (r <sup>2</sup> ) | 0.016761, 3.100632 (92.83) |

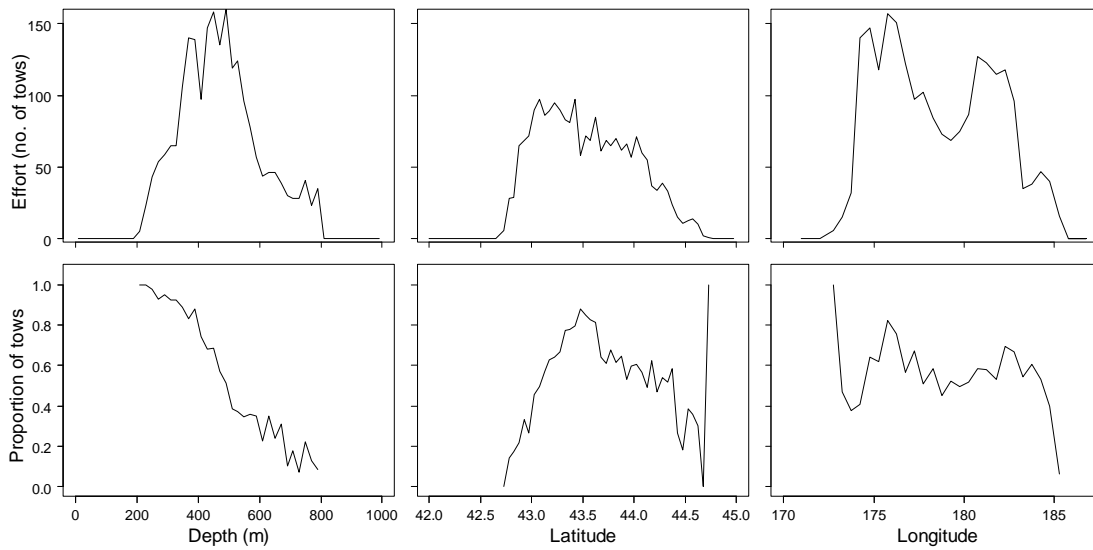
The core survey area and depth range **is not** appropriate for this species. It is found **shallower than 200 m**. Biomass of this species is **well** estimated in the core survey area. Biomass has **decreased and then increased** since the start of the time series. Catch rates are highest in the **west**. Length frequencies are usually **unimodal**. Mean length has **increased then decreased** since the start of the time series.

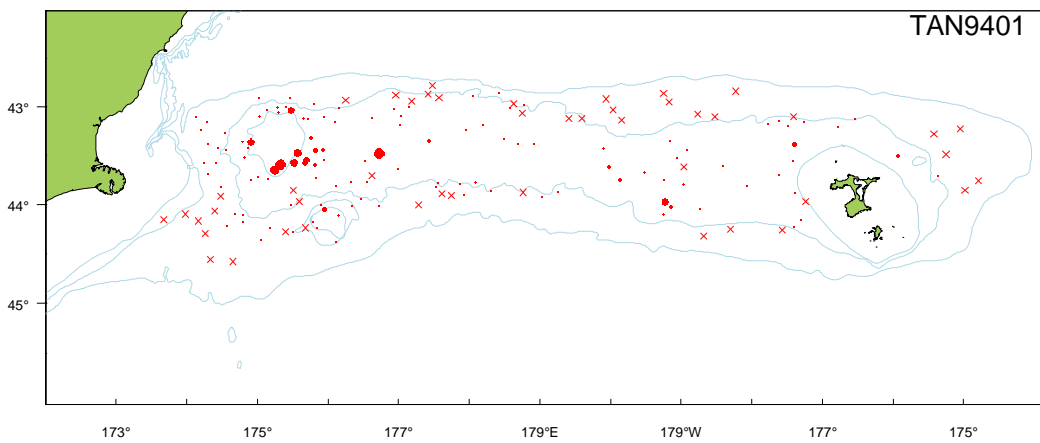
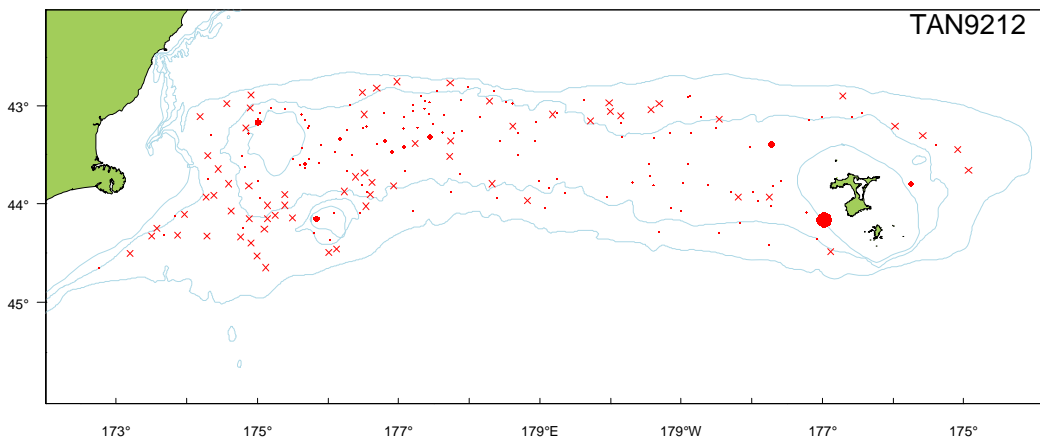
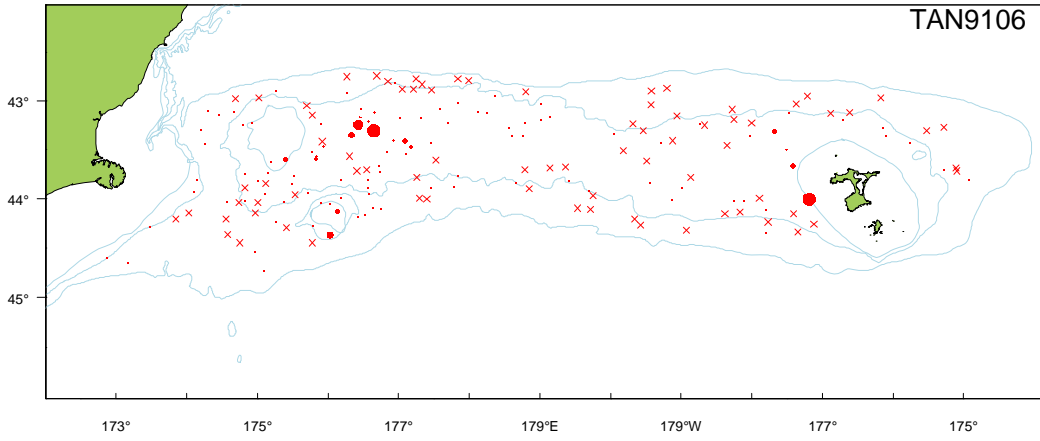
**Relative biomass estimates and length summary**

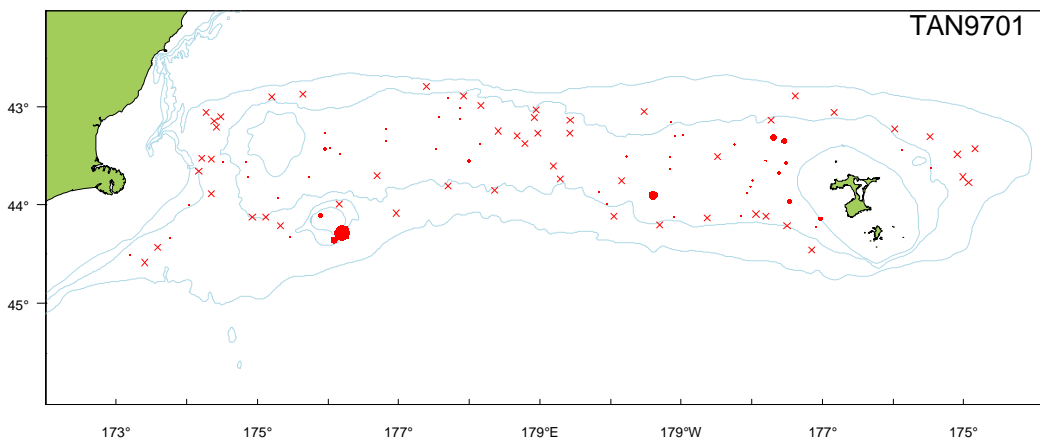
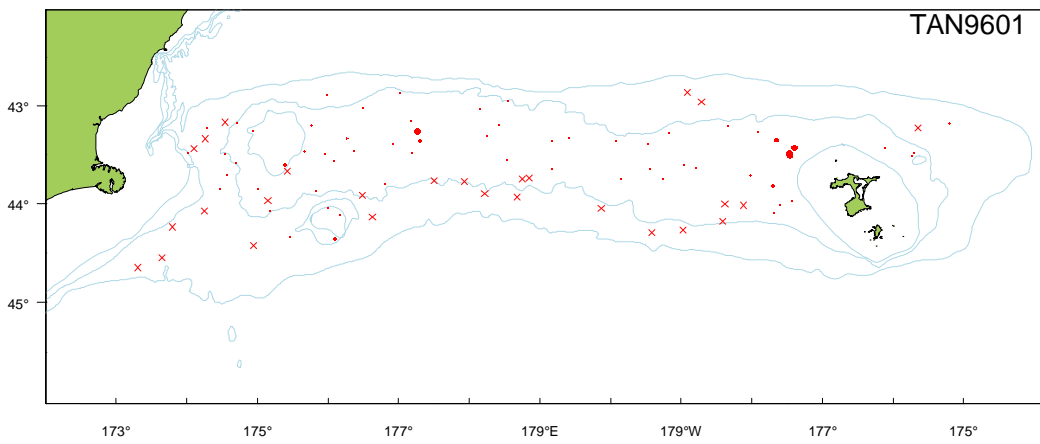
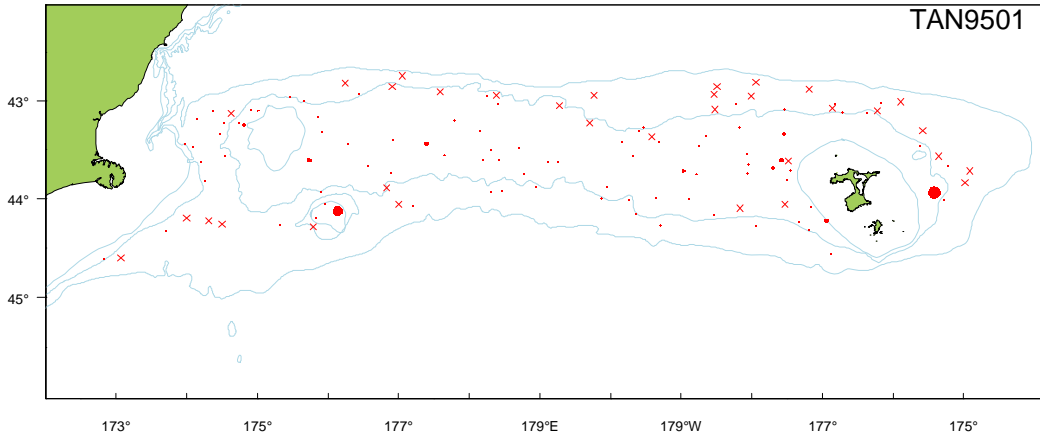
| Year | Biomass (t) | cv (%) | Length (cm) |      |      | No. measure<br>d |
|------|-------------|--------|-------------|------|------|------------------|
|      |             |        | Min.        | Max. | Mean |                  |
| 1992 | 1 231       | 38     | 11          | 39   | 22.2 | 1 584            |
| 1993 | 1 042       | 48     | 11          | 38   | 22.1 | 1 743            |
| 1994 | 967         | 24     | 9           | 40   | 23.3 | 1 251            |
| 1995 | 1 318       | 40     | 10          | 40   | 21.6 | 1 407            |
| 1996 | 879         | 22     | 13          | 40   | 22.4 | 873              |
| 1997 | 904         | 26     | 16          | 38   | 24.7 | 942              |
| 1998 | 197         | 18     | 9           | 38   | 25.7 | 194              |
| 1999 | 755         | 36     | 12          | 36   | 24.7 | 880              |
| 2000 | 307         | 14     | 8           | 35   | 24.3 | 523              |
| 2001 | 512         | 23     | 14          | 37   | 25.1 | 655              |
| 2002 | 499         | 10     | 15          | 37   | 25.6 | 664              |
| 2003 | 245         | 24     | 15          | 38   | 25.6 | 349              |
| 2004 | 420         | 30     | 10          | 38   | 22.8 | 477              |
| 2005 | 589         | 29     | 13          | 41   | 24.9 | 456              |
| 2006 | 2 678       | 29     | 12          | 38   | 22.9 | 1 369            |
| 2007 | 316         | 22     | 16          | 39   | 26.1 | 446              |
| 2008 | 1 444       | 41     | 13          | 36   | 22.0 | 951              |
| 2009 | 230         | 23     | 18          | 36   | 25.2 | 233              |
| 2010 | 1 112       | 53     | 9           | 37   | 23.0 | 575              |

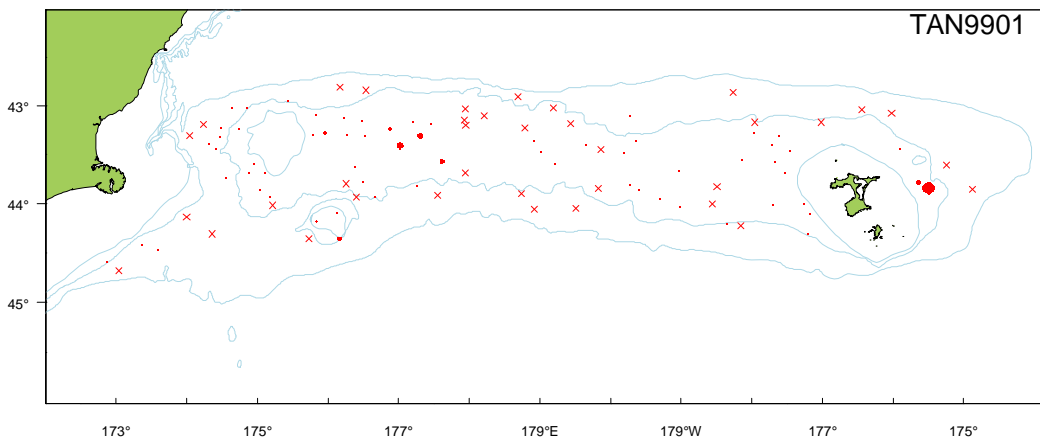
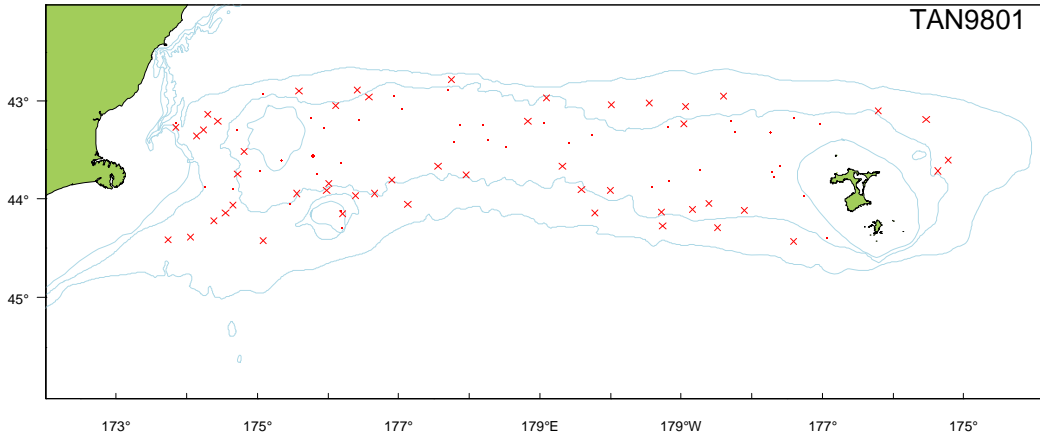


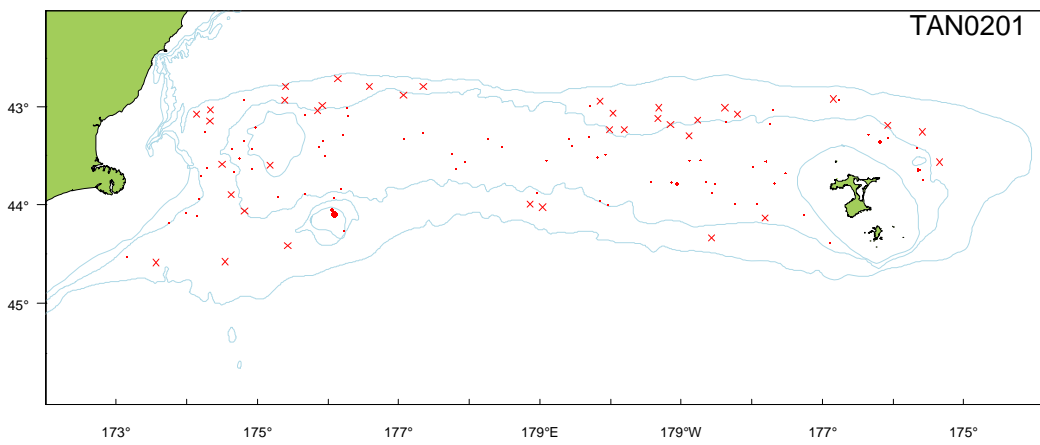
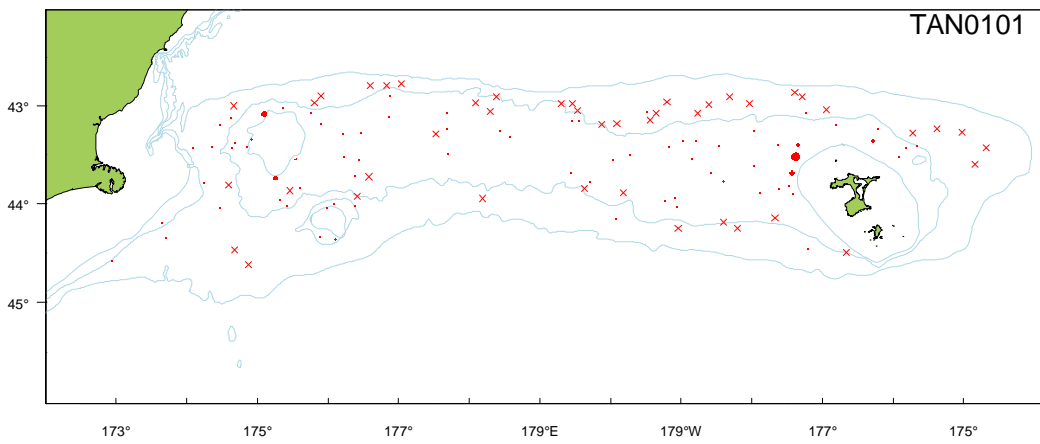
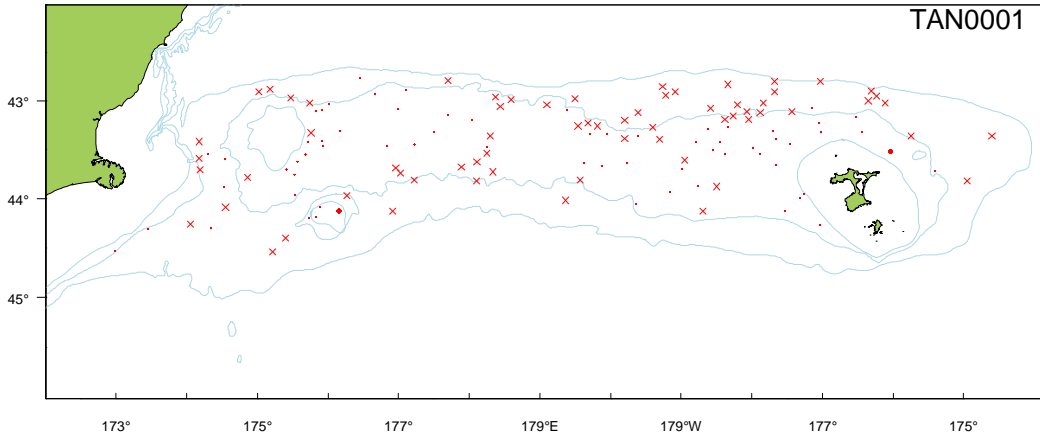
### Distribution

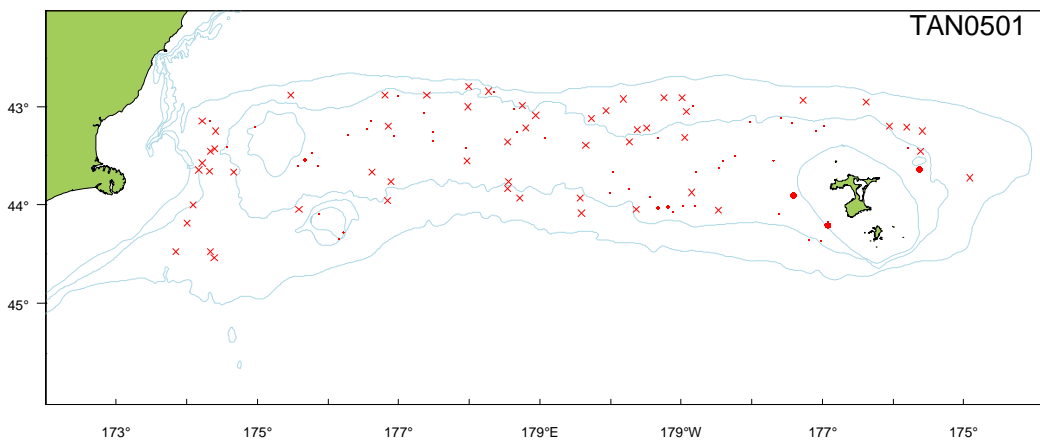
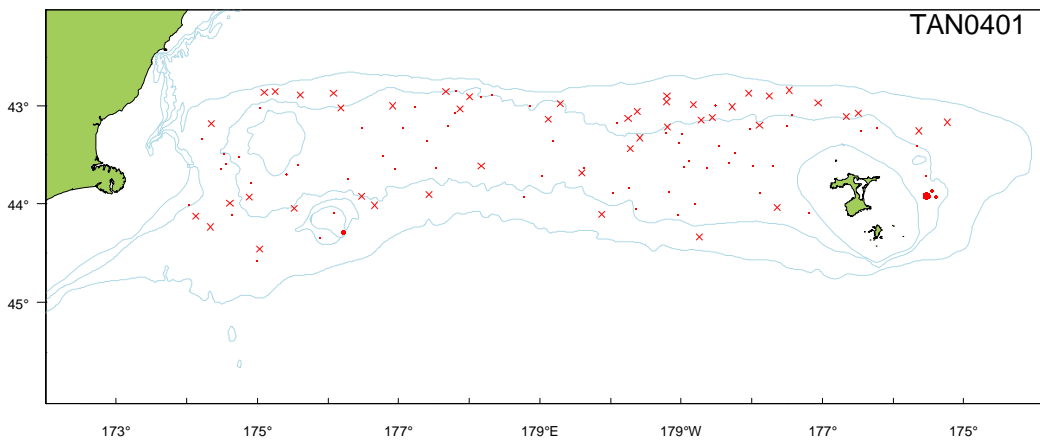
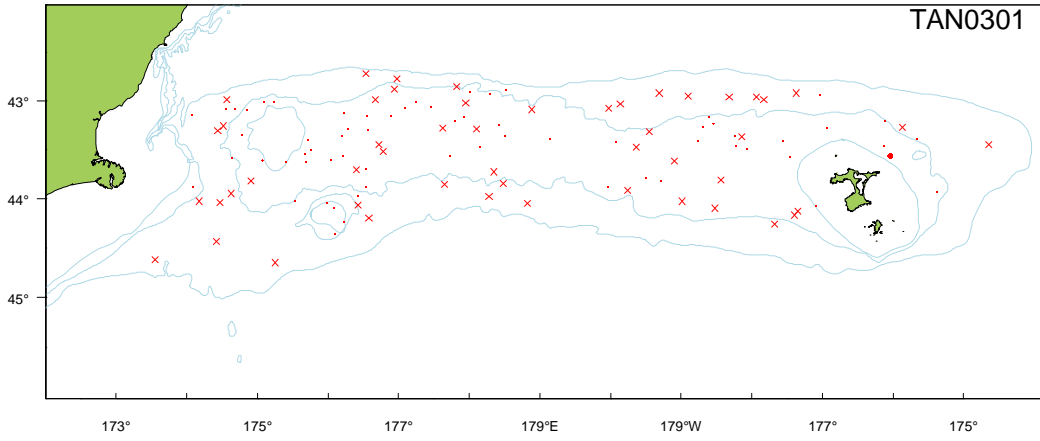


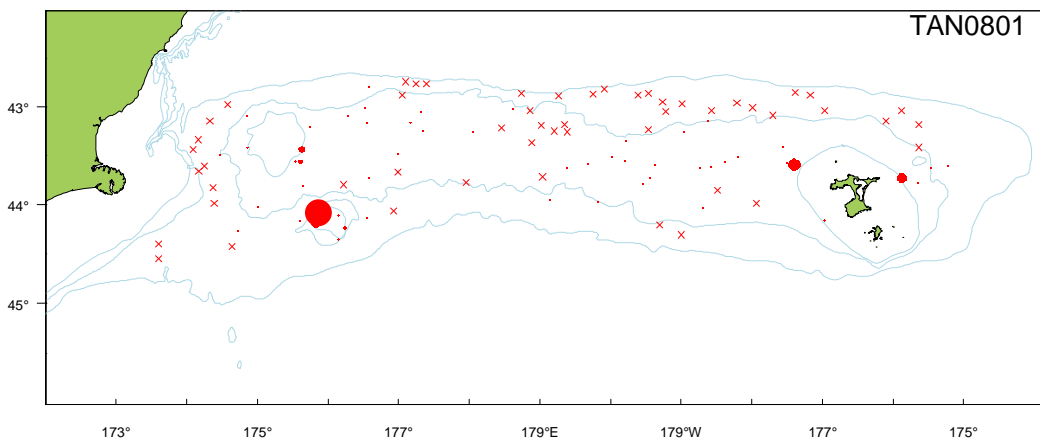
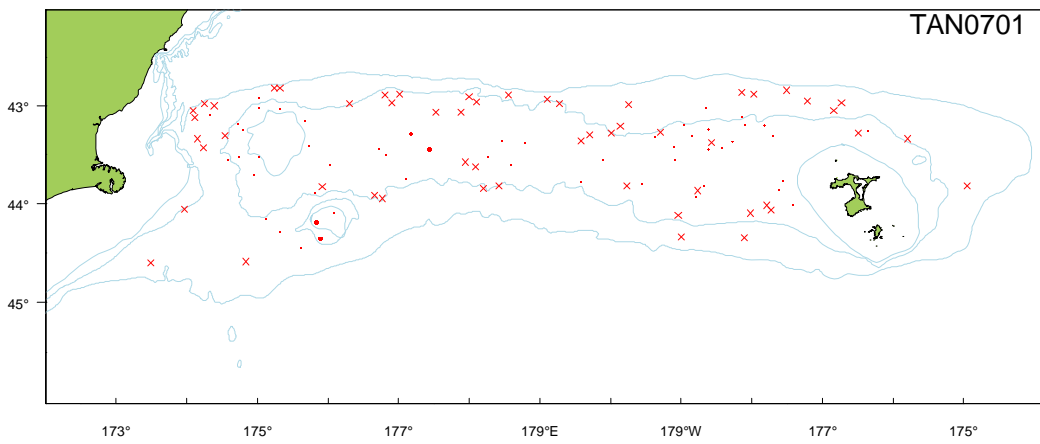
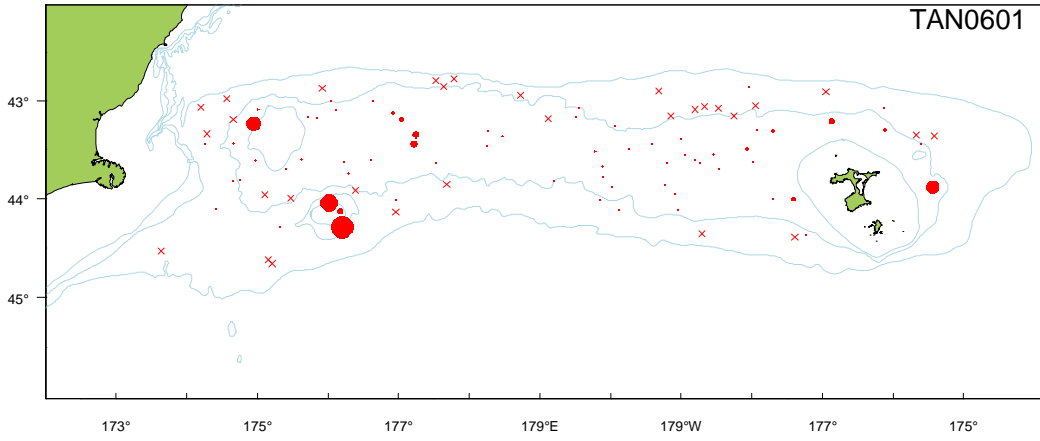




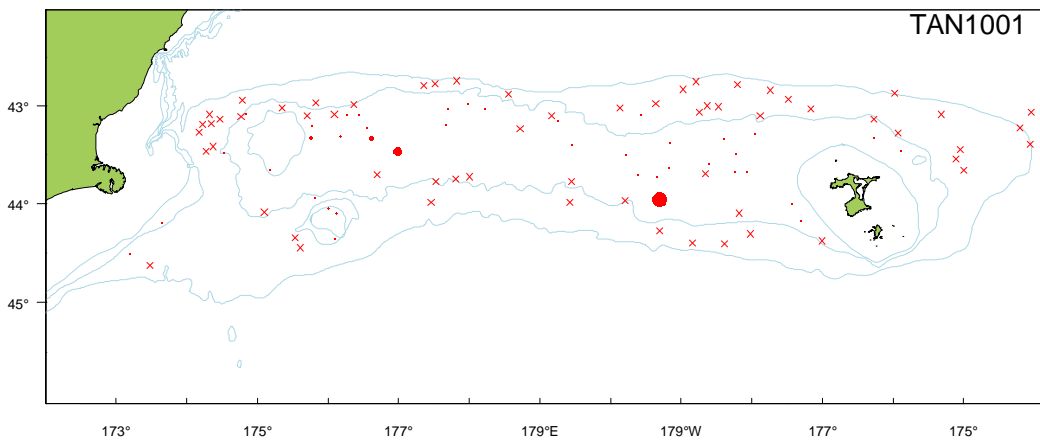
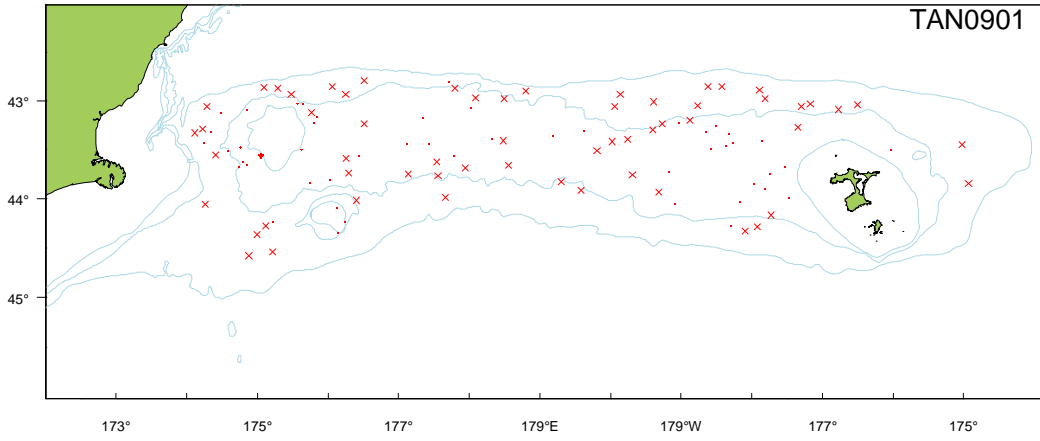




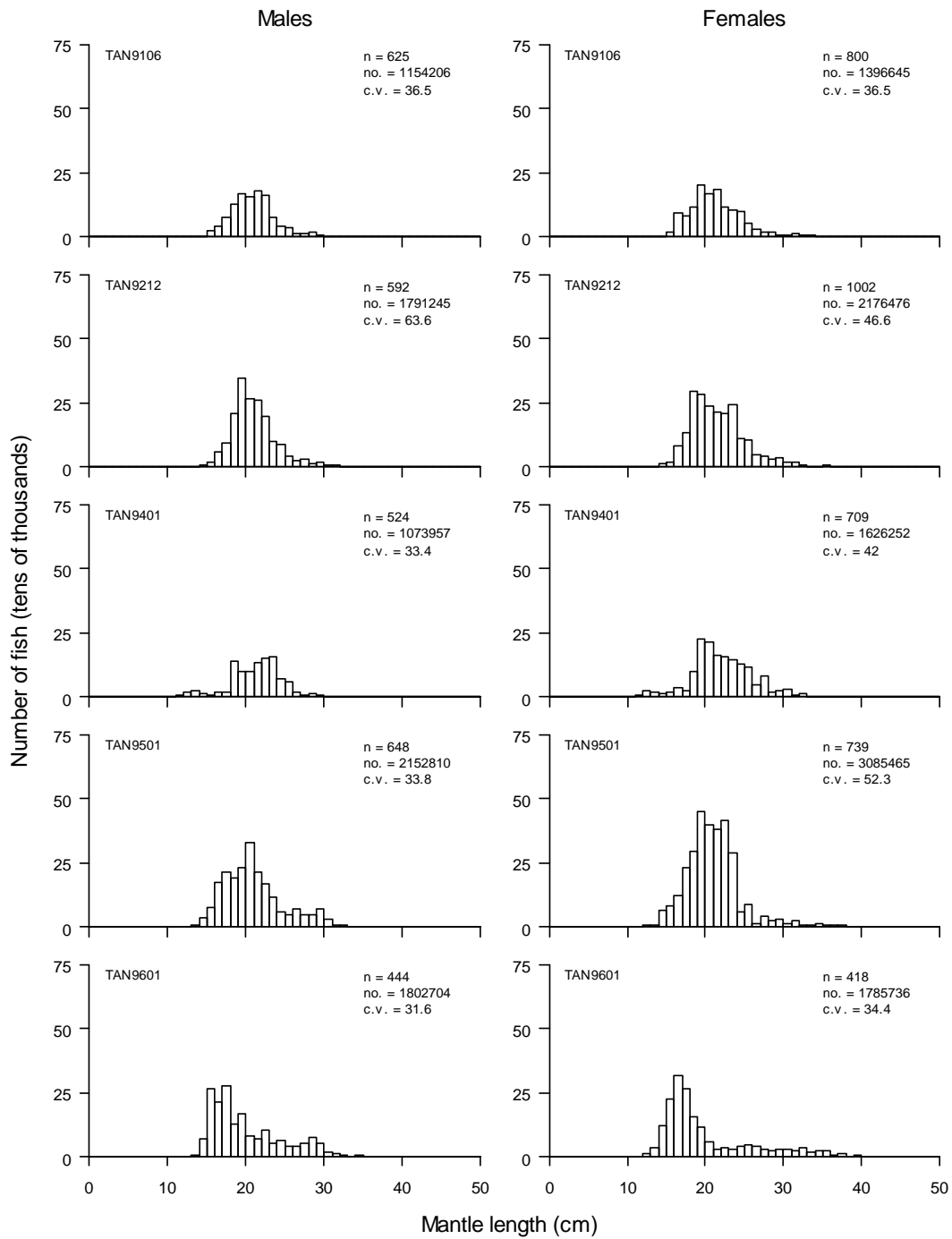


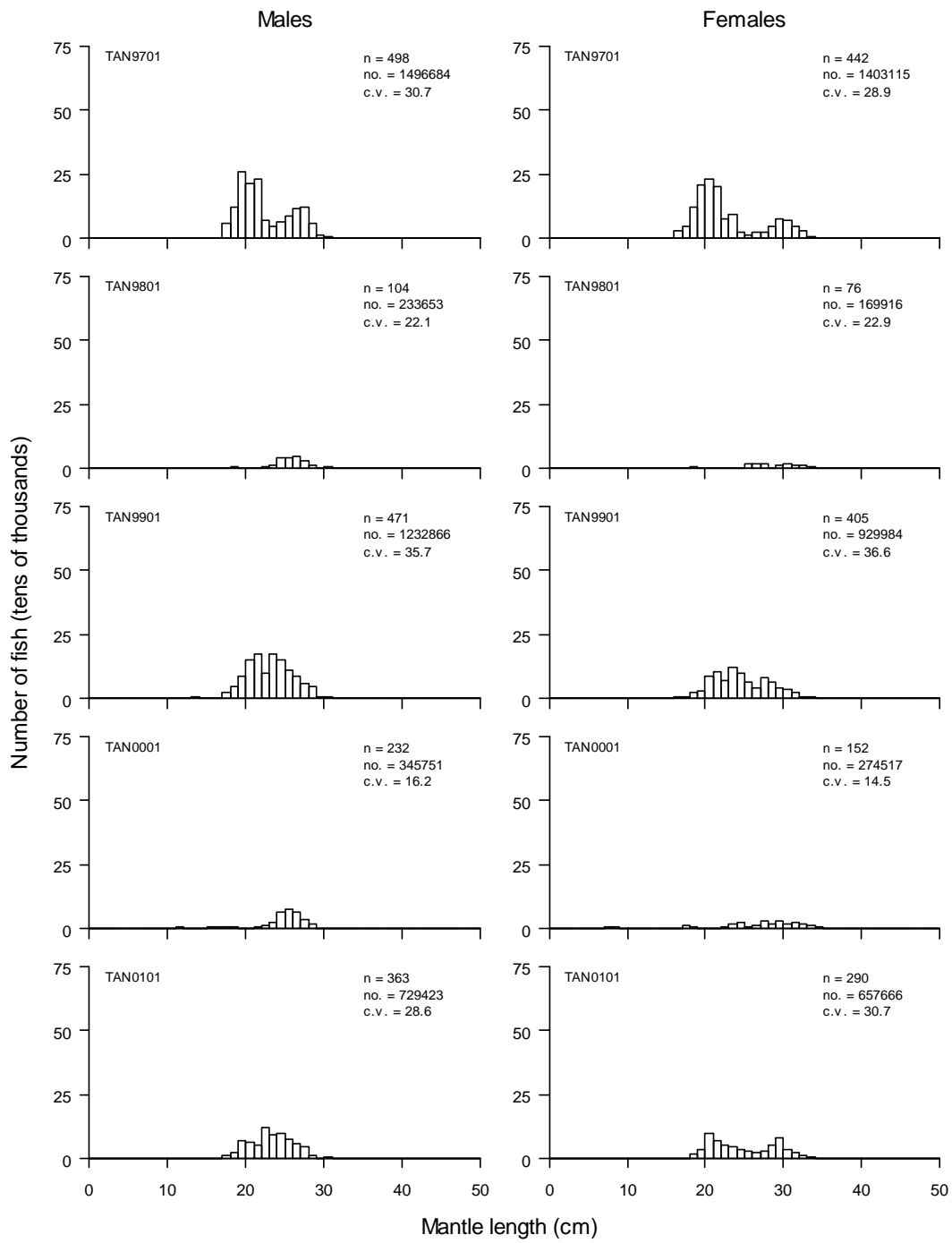


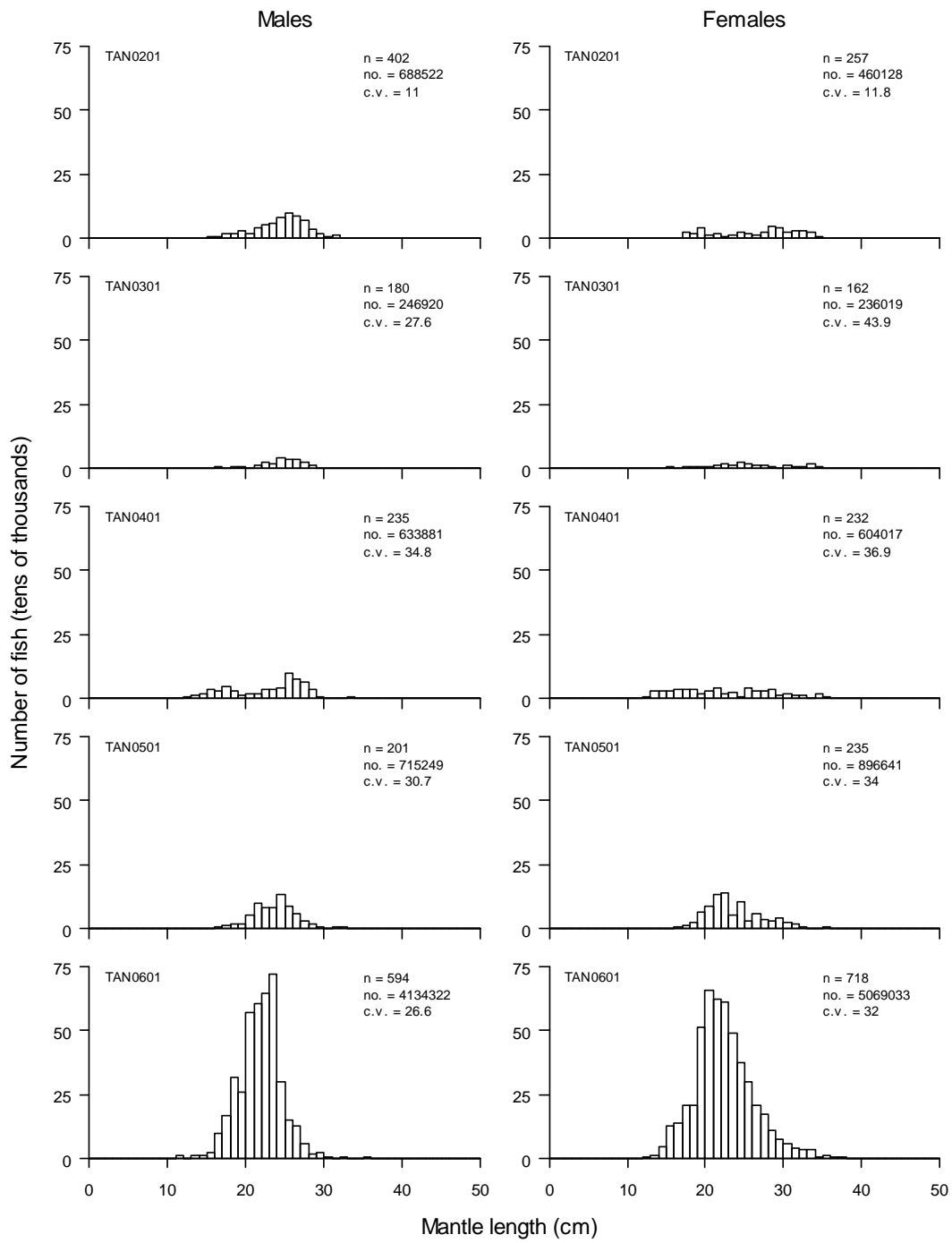


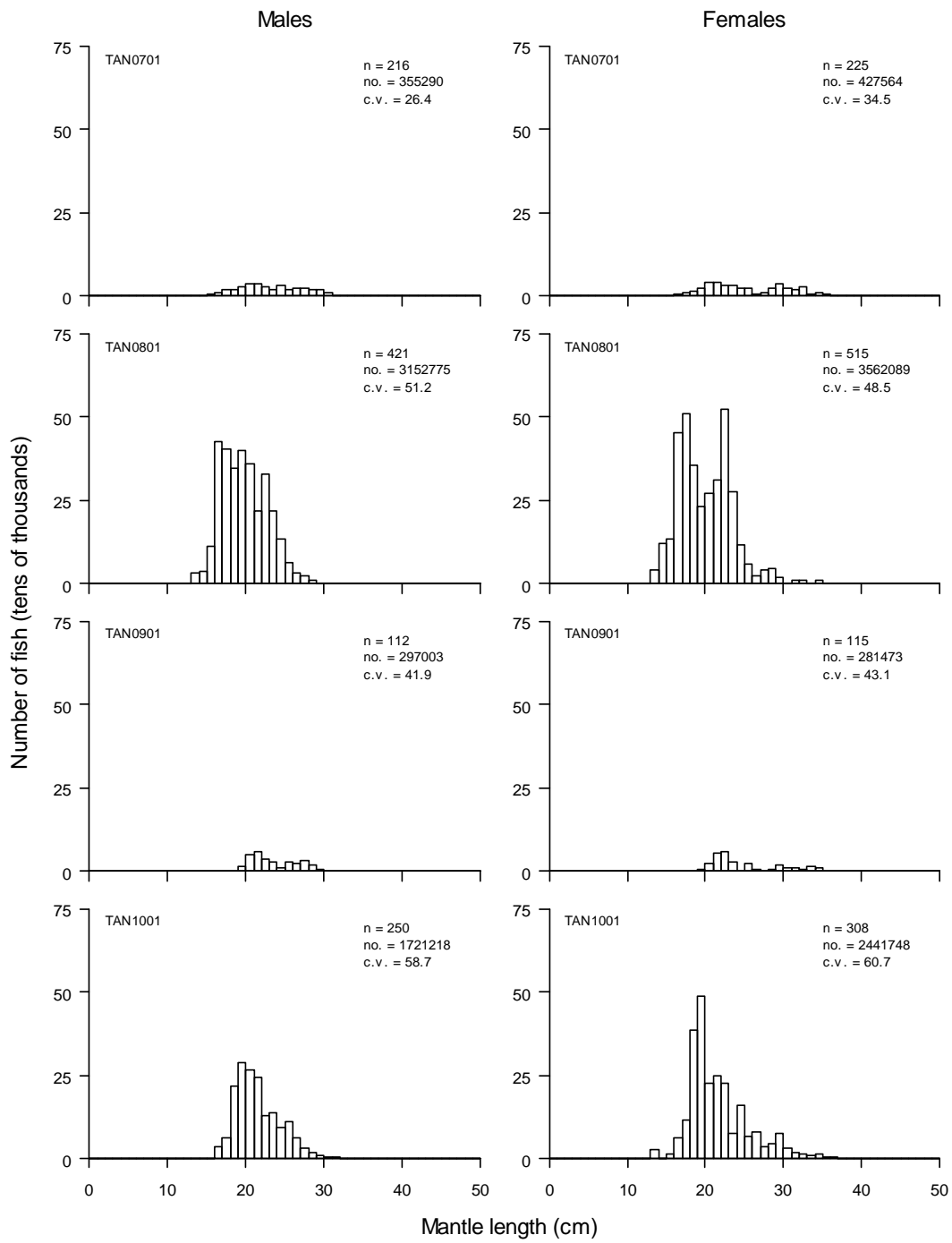


## Length Frequencies









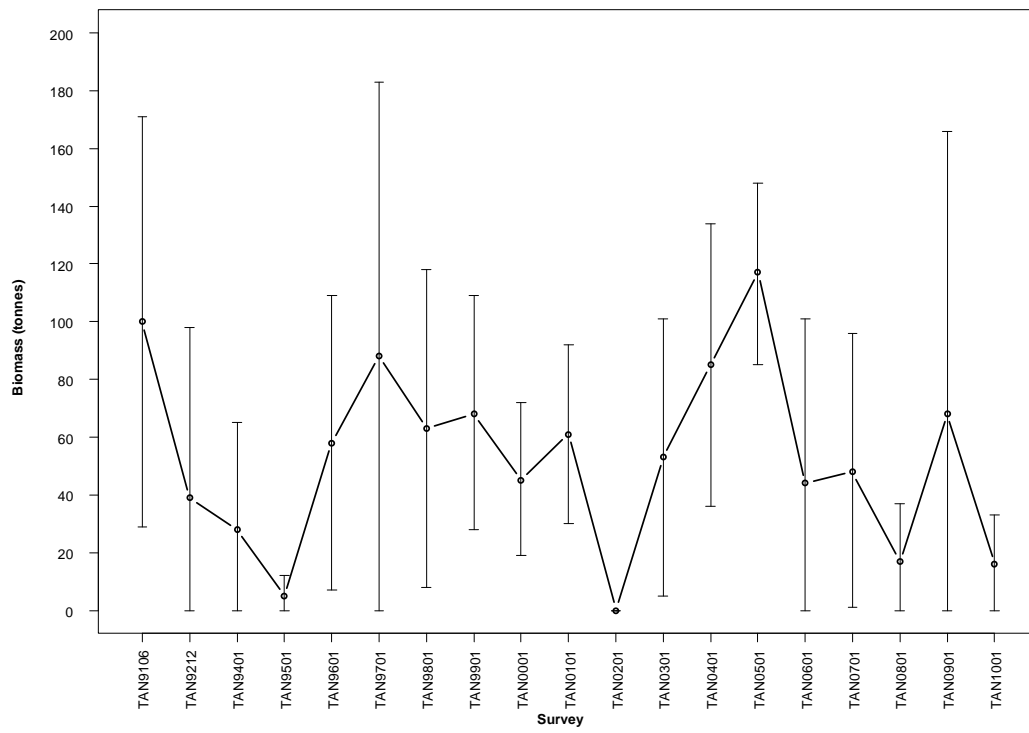


|   |              |
|---|--------------|
| Number of surveys caught 1992–2010 (out of 19): | 18           |
| Total catch weight (kg):                        | 500.8        |
| Number measured                                 | 161          |
| Length range (mean) (cm, TL)                    | 36–94 (73.3) |
| Number weighed                                  | 84           |
| Length-weight parameters a, b ( $r^2$ )         | –            |

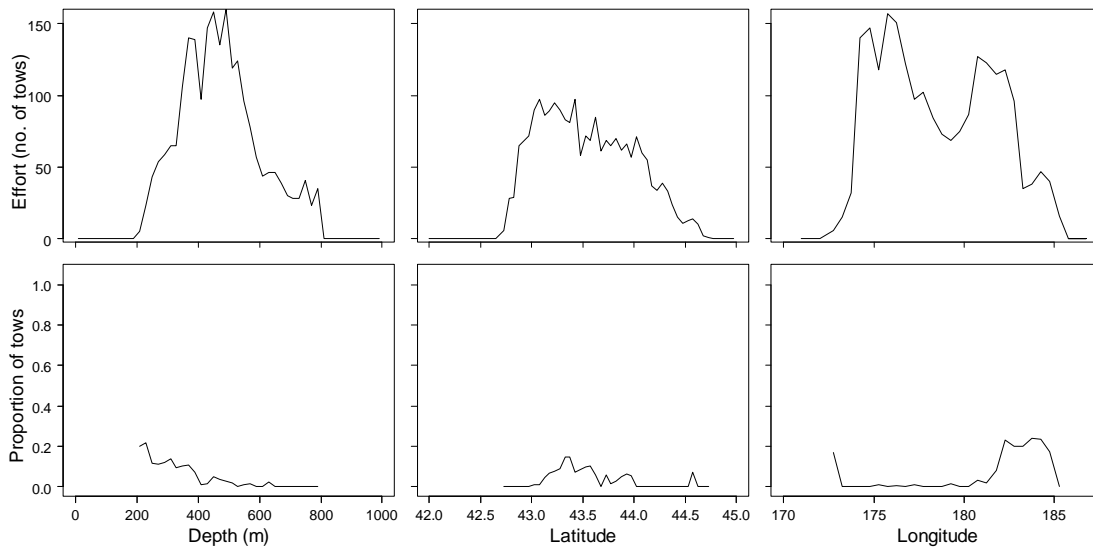
The core survey area and depth range **is not** appropriate for this species. It is found **shallower than 200 m**. Biomass of this species is **poorly** estimated in the core survey area. Biomass **shows no clear trend** since the start of the time series. Catch rates are highest in the **east**.

#### Relative biomass estimates

| Year | Biomass (t) | cv (%) |
|------|-------------|--------|
| 1992 | 100         | 35     |
| 1993 | 39          | 76     |
| 1994 | 28          | 64     |
| 1995 | 5           | 70     |
| 1996 | 58          | 44     |
| 1997 | 88          | 54     |
| 1998 | 63          | 44     |
| 1999 | 68          | 29     |
| 2000 | 45          | 29     |
| 2001 | 61          | 26     |
| 2002 | 0           | -      |
| 2003 | 53          | 45     |
| 2004 | 85          | 29     |
| 2005 | 117         | 13     |
| 2006 | 44          | 64     |
| 2007 | 48          | 50     |
| 2008 | 17          | 56     |
| 2009 | 68          | 73     |
| 2010 | 16          | 50     |



### Distribution



Oarfish (*Regalecus glesne*)

OAR

No picture available

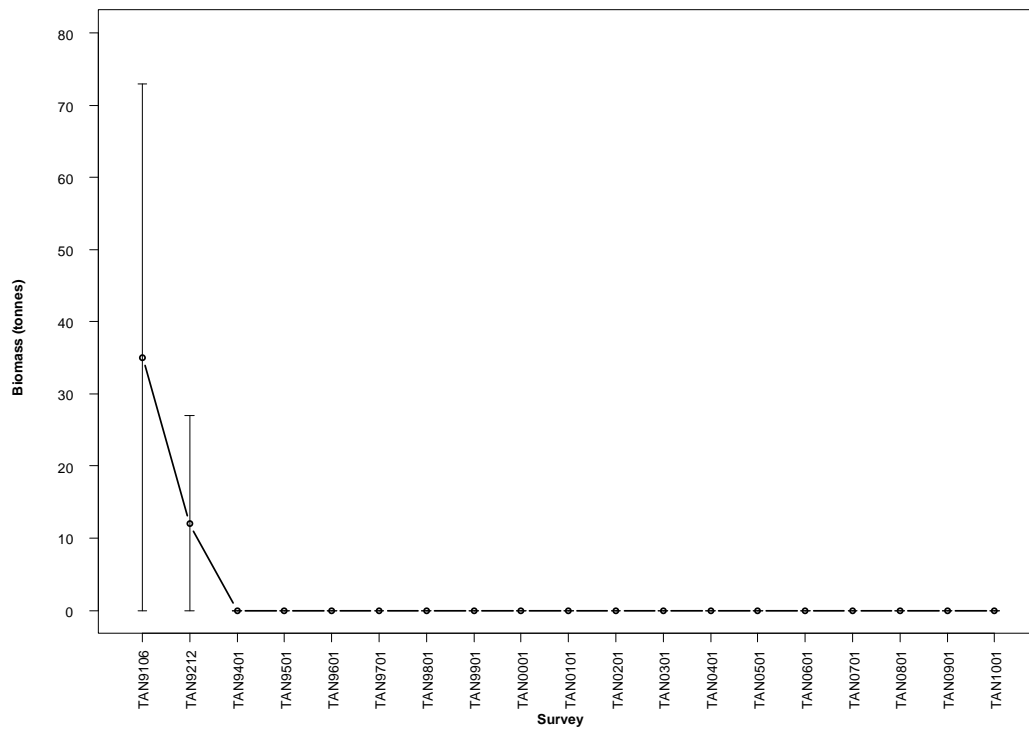
|   |      |
|---|------|
| Number of surveys caught 1992–2010 (out of 19): | 4    |
| Total catch weight (kg):                        | 57.6 |
| Number measured                                 | 0    |
| Length range (mean) (cm)                        | –    |
| Number weighed                                  | 0    |
| Length-weight parameters a, b ( $r^2$ )         | –    |

The core survey area and depth range **is not** appropriate for this species. It occurs in midwater. Biomass of this species is **poorly** estimated in the core survey area. Biomass has **decreased** since the start of the time series.

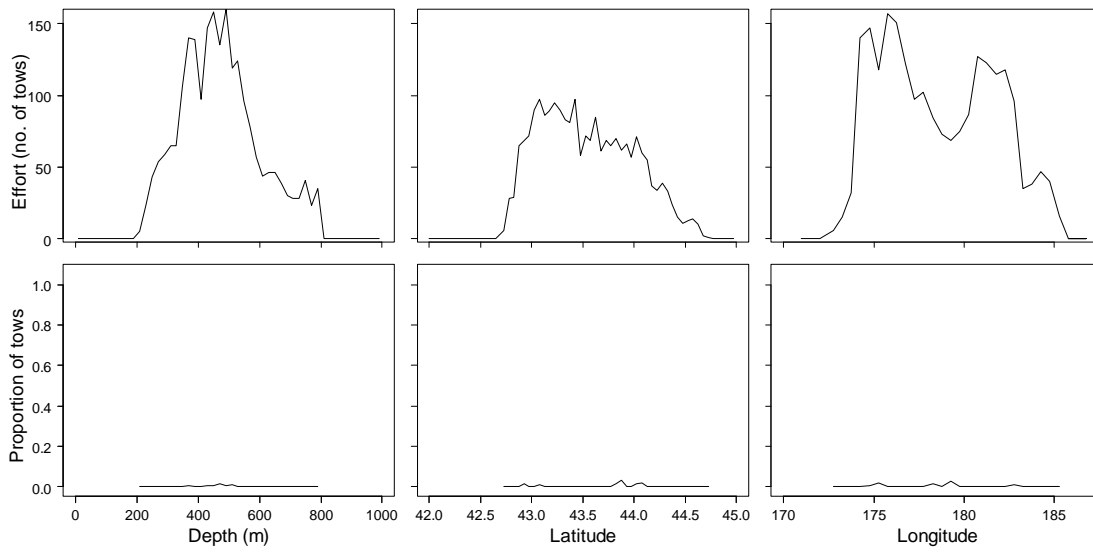
**Relative biomass estimates**

| <b>Year</b> | <b>Biomass (t)</b> | <b>cv (%)</b> |
|-------------|--------------------|---------------|
| 1992        | 35                 | 54            |
| 1993        | 12                 | 61            |
| 1994        | 0                  | -             |
| 1995        | 0                  | -             |
| 1996        | 0                  | -             |
| 1997        | 0                  | -             |
| 1998        | 0                  | -             |
| 1999        | 0                  | -             |
| 2000        | 0                  | -             |
| 2001        | 0                  | -             |
| 2002        | 0                  | -             |
| 2003        | 0                  | -             |
| 2004        | 0                  | -             |
| 2005        | 0                  | -             |
| 2006        | 0                  | -             |
| 2007        | 0                  | -             |
| 2008        | 0                  | -             |
| 2009        | 0                  | -             |
| 2010        | 0                  | -             |





### Distribution



**Coded as DWO**

|   |       |
|---|-------|
| Number of surveys caught 1992–2010 (out of 19): | 16    |
| Total catch weight (kg):                        | 115.7 |

**Coded as EZE**

|   |       |
|---|-------|
| Number of surveys caught 1992–2010 (out of 19): | 6     |
| Total catch weight (kg):                        | 160.1 |

**Coded as OCP**

|   |      |
|---|------|
| Number of surveys caught 1992–2010 (out of 19): | 7    |
| Total catch weight (kg):                        | 43.9 |

**Coded as OCT**

|   |       |
|---|-------|
| Number of surveys caught 1992–2010 (out of 19): | 11    |
| Total catch weight (kg):                        | 252.7 |

**Coded as OPI**

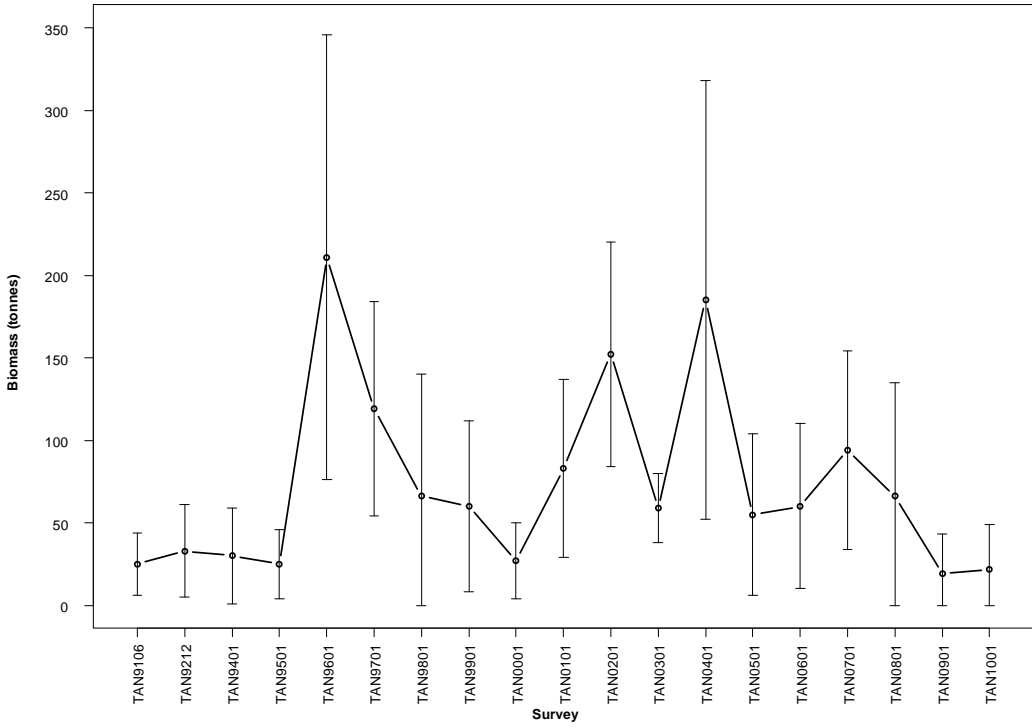
|   |       |
|---|-------|
| Number of surveys caught 1992–2010 (out of 19): | 10    |
| Total catch weight (kg):                        | 101.4 |

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

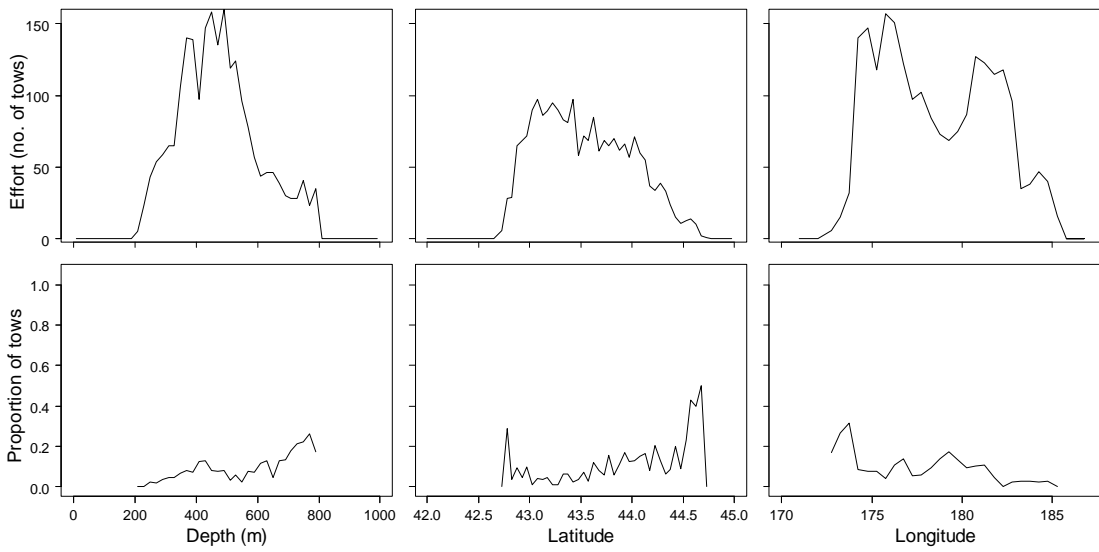
**Relative biomass estimates**

| Year | Biomass (t) | cv (%) |
|------|-------------|--------|
| 1992 | 25          | 38     |
| 1993 | 33          | 43     |
| 1994 | 30          | 50     |
| 1995 | 25          | 44     |
| 1996 | 211         | 33     |
| 1997 | 119         | 28     |
| 1998 | 66          | 57     |
| 1999 | 60          | 44     |
| 2000 | 27          | 43     |
| 2001 | 83          | 33     |
| 2002 | 152         | 23     |
| 2003 | 59          | 18     |

|      |     |    |
|------|-----|----|
| 2004 | 185 | 37 |
| 2005 | 55  | 46 |
| 2006 | 60  | 42 |
| 2007 | 94  | 32 |
| 2008 | 66  | 53 |
| 2009 | 19  | 64 |
| 2010 | 22  | 62 |



**Distribution**



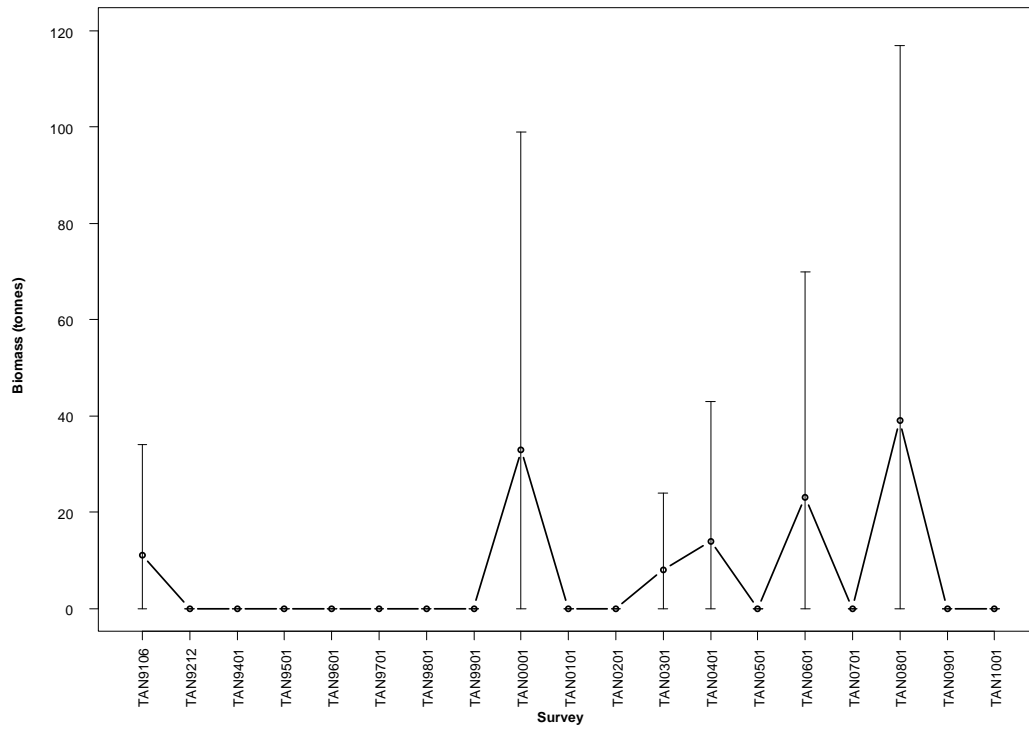


|   |       |
|---|-------|
| Number of surveys caught 1992–2010 (out of 19): | 7     |
| Total catch weight (kg):                        | 132.1 |
| Number measured                                 | 2     |
| Length range (mean) (cm)                        | –     |
| Number weighed                                  | 2     |
| Length-weight parameters a, b ( $r^2$ )         | –     |

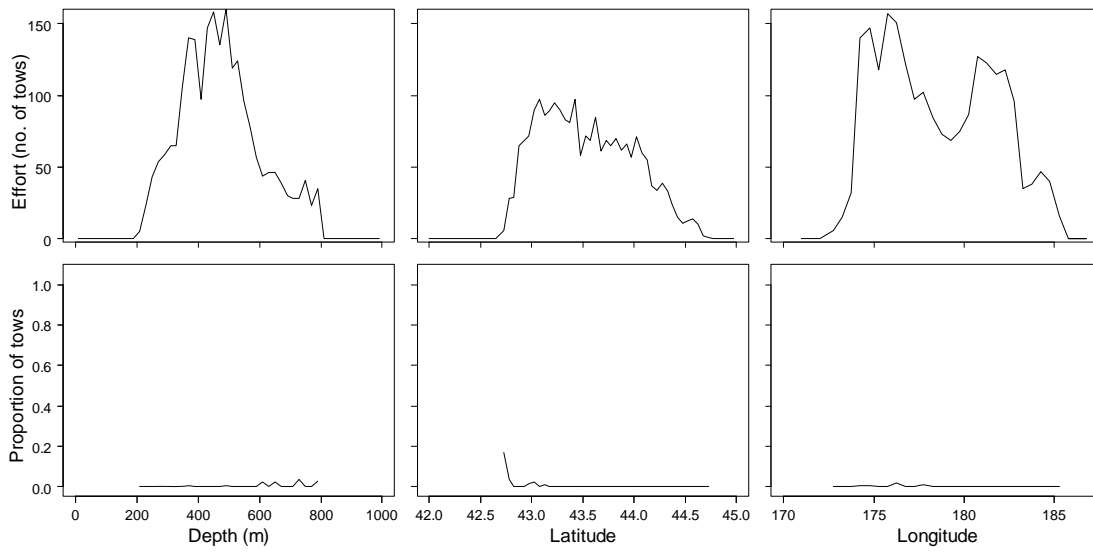
There were **too few fish caught to determine whether the core survey area is appropriate for this species**. Biomass of this species is **poorly** estimated in the core survey area. Biomass **shows no clear trend** since the start of the time series. Catch rates are highest in the **north**.

#### Relative biomass estimates

| Year | Biomass (t) | cv (%) |
|------|-------------|--------|
| 1992 | 11          | 100    |
| 1993 | 0           | -      |
| 1994 | 0           | -      |
| 1995 | 0           | -      |
| 1996 | 0           | -      |
| 1997 | 0           | -      |
| 1998 | 0           | -      |
| 1999 | 0           | -      |
| 2000 | 33          | 100    |
| 2001 | 0           | -      |
| 2002 | 0           | -      |
| 2003 | 8           | 100    |
| 2004 | 14          | 100    |
| 2005 | 0           | -      |
| 2006 | 23          | 100    |
| 2007 | 0           | -      |
| 2008 | 39          | 100    |
| 2009 | 0           | -      |
| 2010 | 0           | -      |



### Distribution



**Coded as ANZ**

|   |      |
|---|------|
| Number of surveys caught 1992–2010 (out of 19): | 6    |
| Total catch weight (kg):                        | 17.2 |

**Coded as GLS**

|   |         |
|---|---------|
| Number of surveys caught 1992–2010 (out of 19): | 3       |
| Total catch weight (kg):                        | 9 530.5 |

**Coded as HYA**

|   |          |
|---|----------|
| Number of surveys caught 1992–2010 (out of 19): | 5        |
| Total catch weight (kg):                        | 13 381.7 |

**Coded as ONG**

|   |          |
|---|----------|
| Number of surveys caught 1992–2010 (out of 19): | 18       |
| Total catch weight (kg):                        | 69 359.9 |

**Coded as SUA**

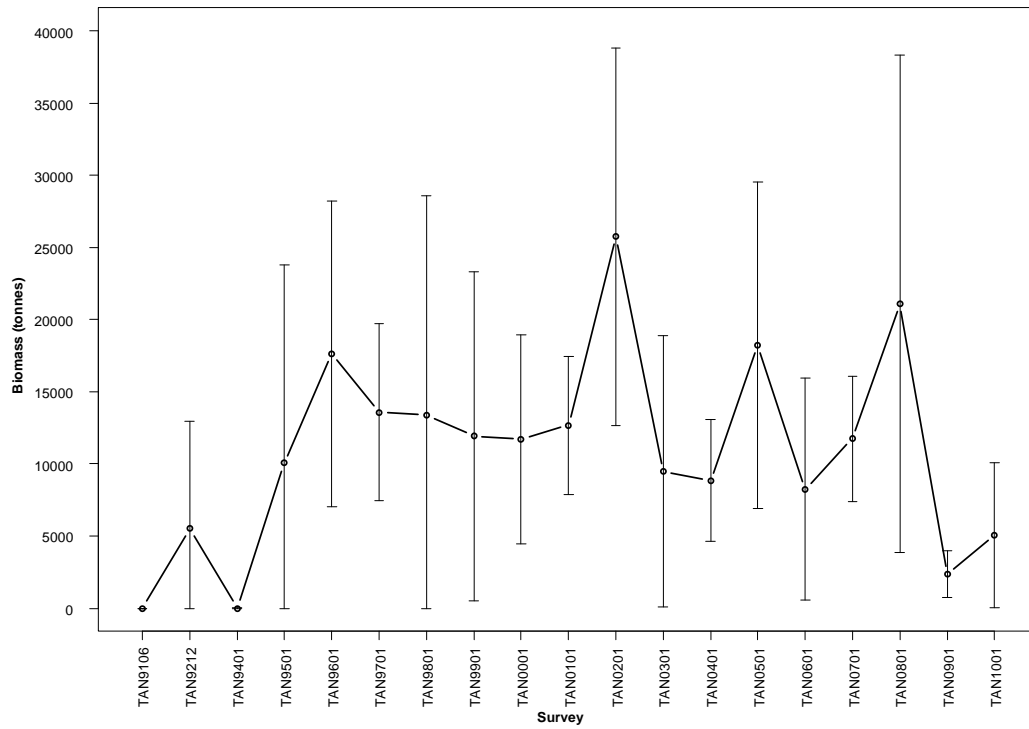
|   |      |
|---|------|
| Number of surveys caught 1992–2010 (out of 19): | 6    |
| Total catch weight (kg):                        | 19.9 |

The core survey area and depth range **is** appropriate for this group. Biomass of this group is **poorly** estimated in the core survey area. Biomass **shows no clear trend** since the start of the time series, but this group was **poorly recorded** in early surveys.

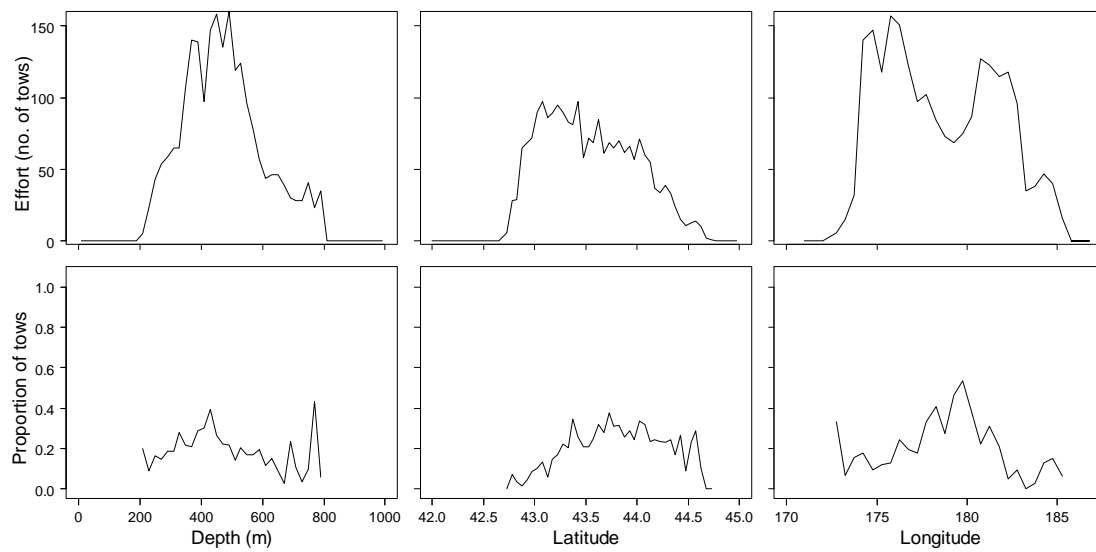
**Relative biomass estimates**

| Year | Biomass (t) | cv (%) |
|------|-------------|--------|
| 1992 | 0           | -      |
| 1993 | 5 522       | 69     |
| 1994 | 3           | 100    |
| 1995 | 10 057      | 70     |
| 1996 | 17 633      | 31     |
| 1997 | 13 578      | 23     |
| 1998 | 13 403      | 58     |
| 1999 | 11 916      | 49     |
| 2000 | 11 696      | 32     |
| 2001 | 12 675      | 19     |
| 2002 | 25 754      | 26     |
| 2003 | 9 485       | 50     |

|      |        |    |
|------|--------|----|
| 2004 | 8 855  | 24 |
| 2005 | 18 204 | 32 |
| 2006 | 8 245  | 48 |
| 2007 | 11 747 | 19 |
| 2008 | 21 095 | 42 |
| 2009 | 2 367  | 35 |
| 2010 | 5 080  | 50 |



### Distribution





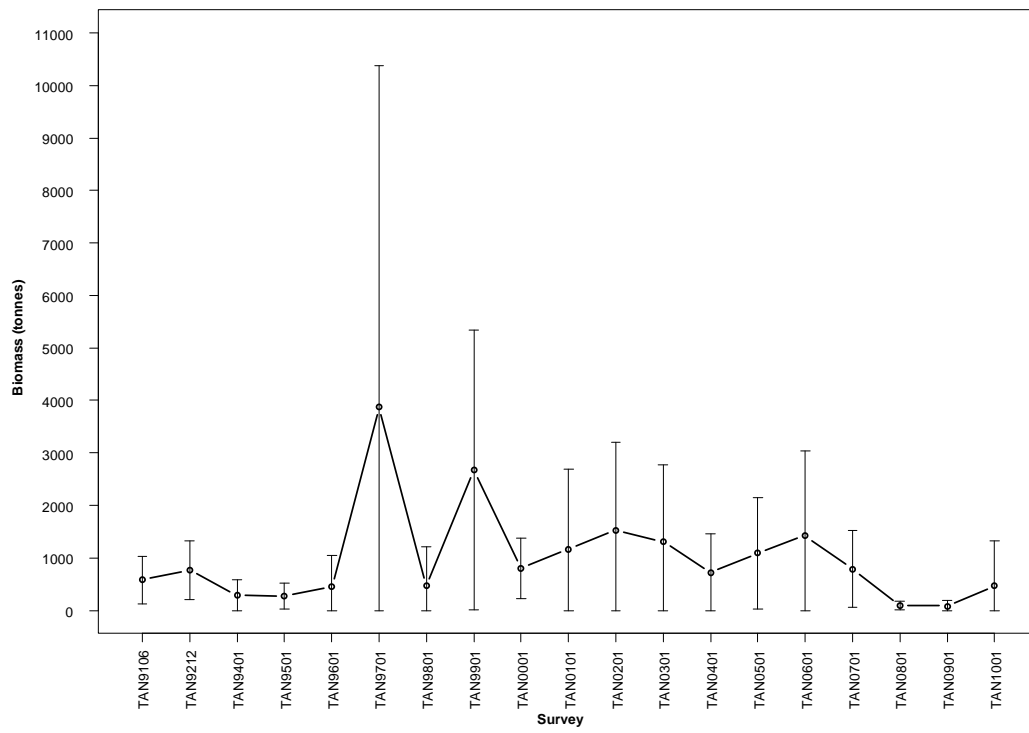
|   |                           |
|---|---------------------------|
| Number of surveys caught 1992–2010 (out of 19): | 19                        |
| Total catch weight (kg):                        | 11 294.3                  |
| Number measured                                 | 4 091                     |
| Length range (mean) (cm, FL)                    | 15–38 (29.6)              |
| Number weighed                                  | 1 427                     |
| Length-weight parameters a, b ( $r^2$ )         | 0.019974, 3.024211 (93.7) |

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 has **increased and then decreased** since the start of the time series. Length frequencies are usually **unimodal**. Mean length **shows no clear trend** since the start of the time series. Gonad stage data indicate that most fish are **maturing or ripe**.

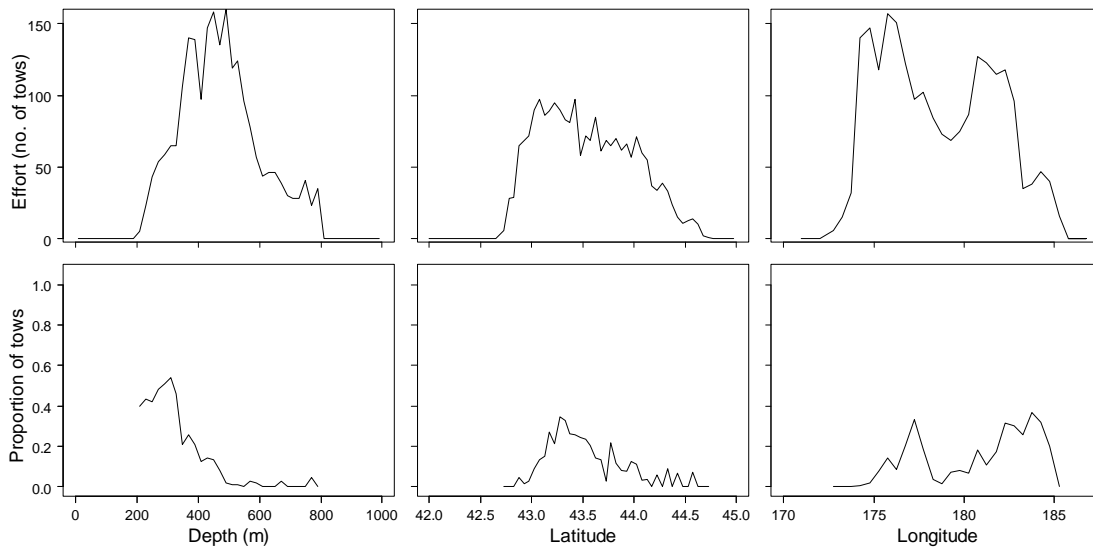
#### Relative biomass estimates and length summary

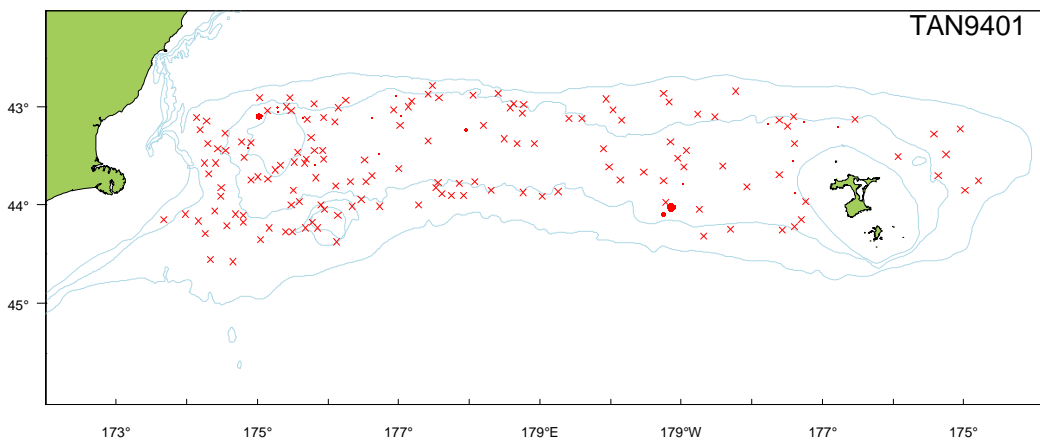
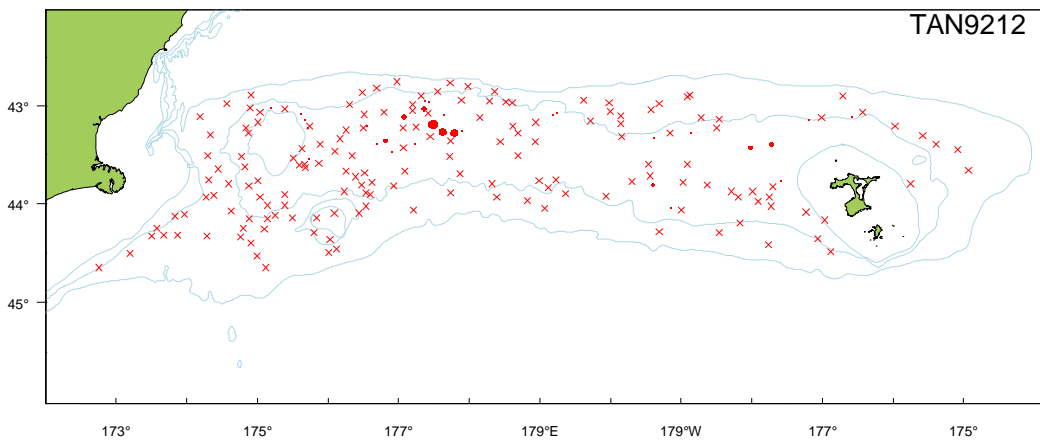
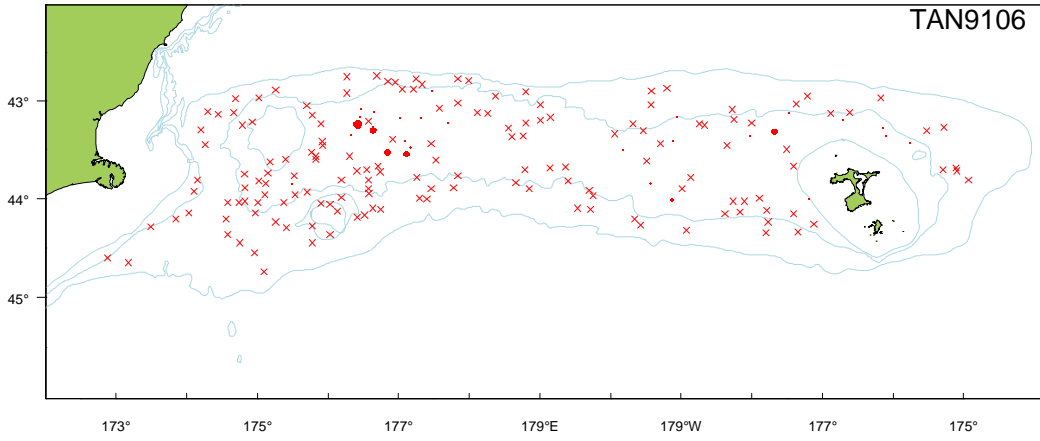
| Year | Biomass (t) | cv (%) | Length (cm) |      |      | No. measure |
|------|-------------|--------|-------------|------|------|-------------|
|      |             |        | Min.        | Max. | Mean |             |
| 1992 | 580         | 39     | -           | -    | -    | 0           |
| 1993 | 767         | 36     | -           | -    | -    | 0           |
| 1994 | 288         | 52     | -           | -    | -    | 0           |
| 1995 | 271         | 45     | -           | -    | -    | 0           |
| 1996 | 455         | 64     | -           | -    | -    | 0           |
| 1997 | 3 882       | 84     | -           | -    | -    | 0           |
| 1998 | 462         | 81     | -           | -    | -    | 0           |
| 1999 | 2 673       | 50     | 16          | 37   | 29.9 | 464         |
| 2000 | 804         | 36     | 18          | 36   | 29.1 | 419         |
| 2001 | 1 166       | 66     | 18          | 37   | 29.7 | 269         |
| 2002 | 1 528       | 55     | 16          | 37   | 28.2 | 284         |
| 2003 | 1 313       | 56     | 19          | 38   | 29.9 | 600         |
| 2004 | 719         | 51     | 15          | 37   | 29.1 | 339         |
| 2005 | 1 089       | 49     | 18          | 37   | 30.0 | 363         |
| 2006 | 1 425       | 57     | 16          | 37   | 29.7 | 355         |
| 2007 | 785         | 47     | 17          | 38   | 30.8 | 312         |
| 2008 | 94          | 42     | 20          | 35   | 28.4 | 74          |
| 2009 | 81          | 64     | 21          | 38   | 28.5 | 53          |
| 2010 | 463         | 93     | 21          | 37   | 30.3 | 129         |

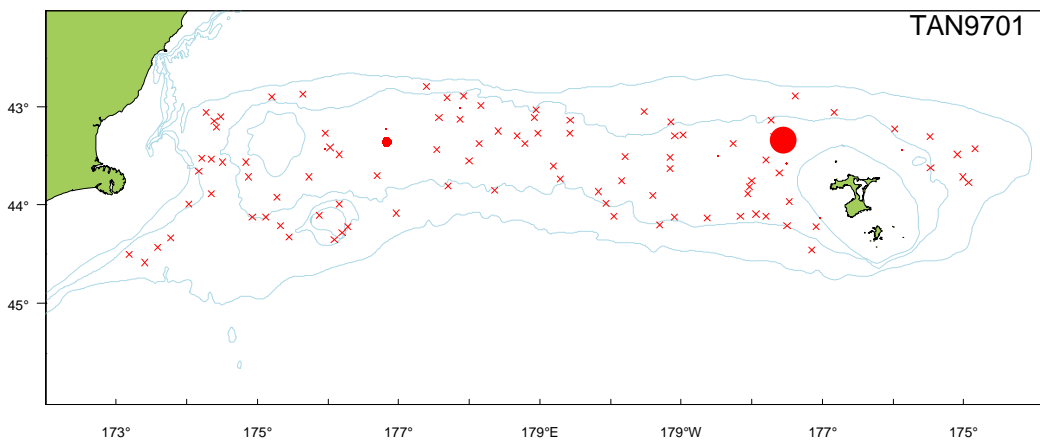
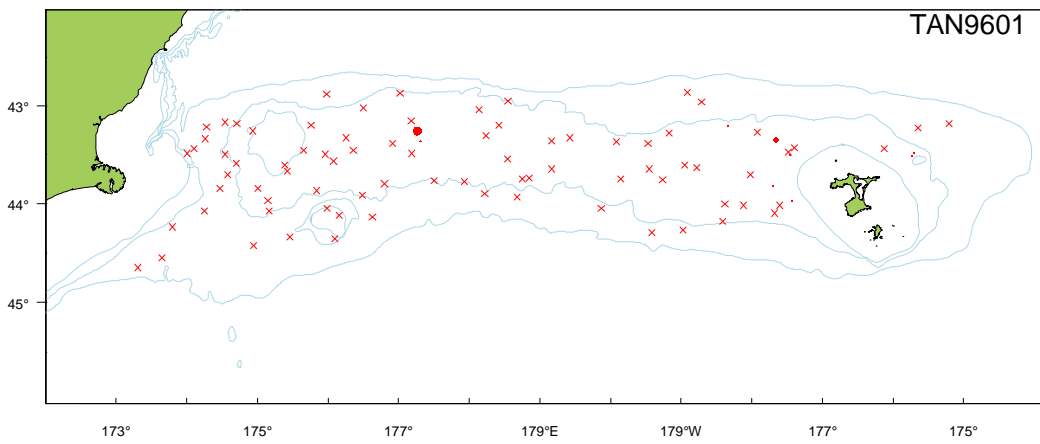
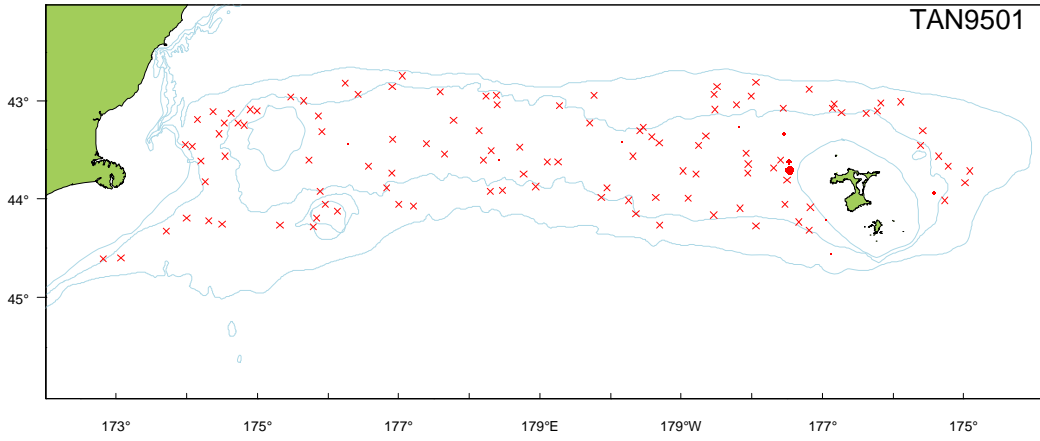


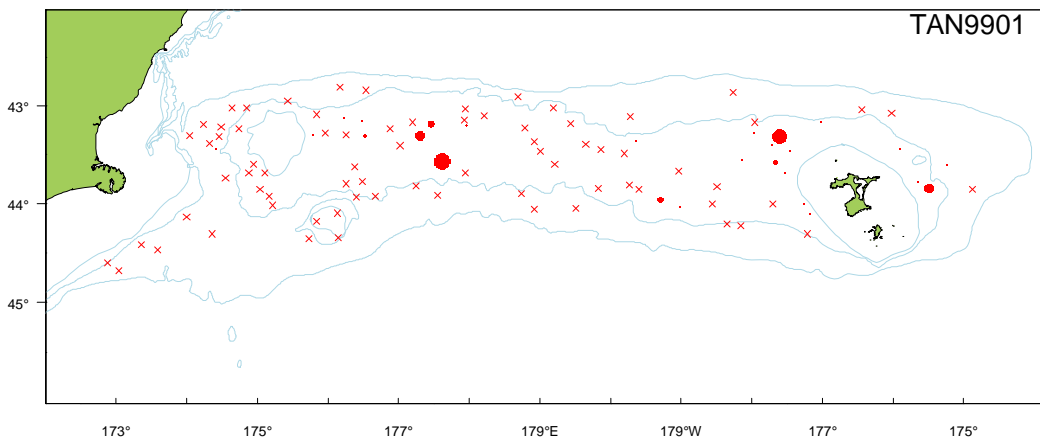
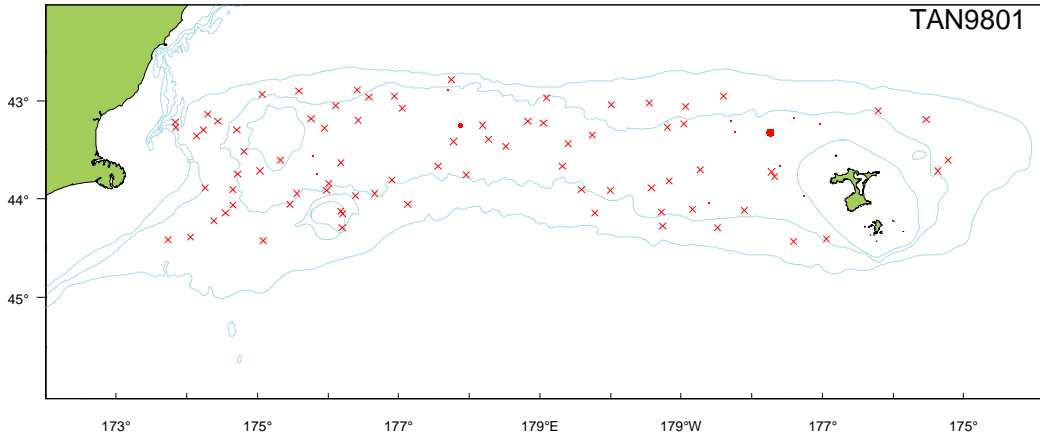


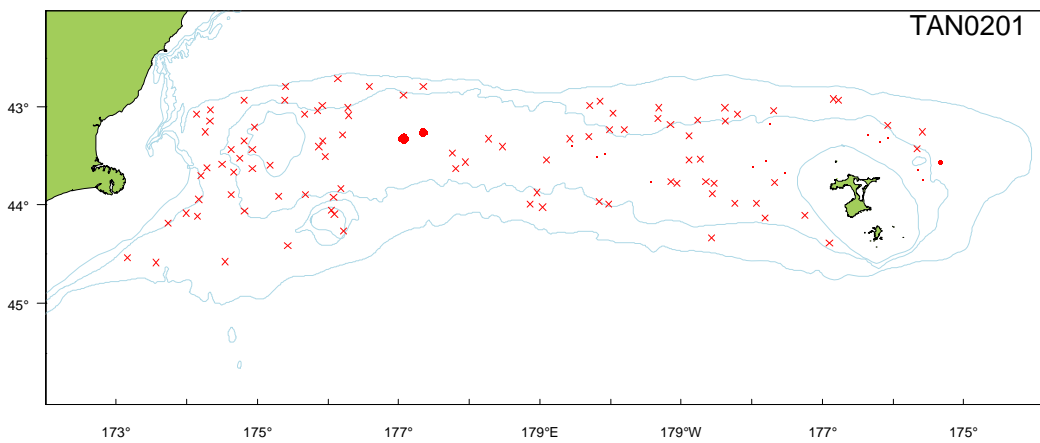
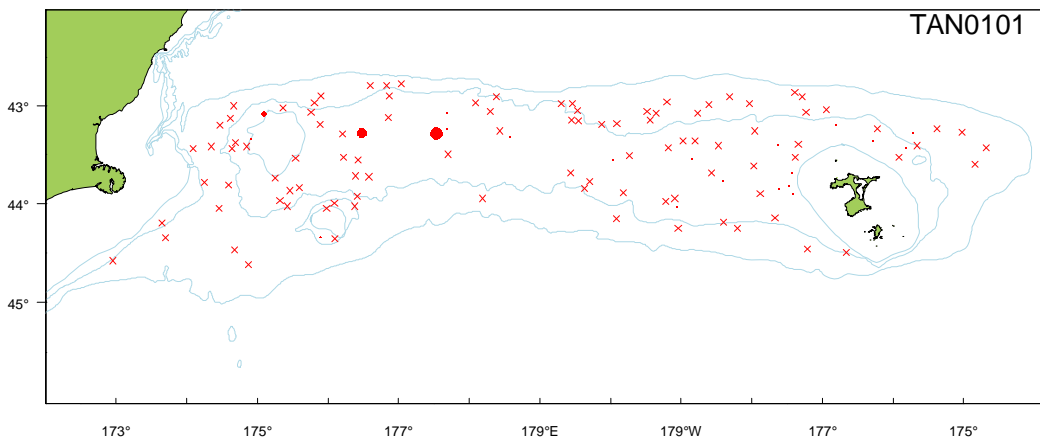
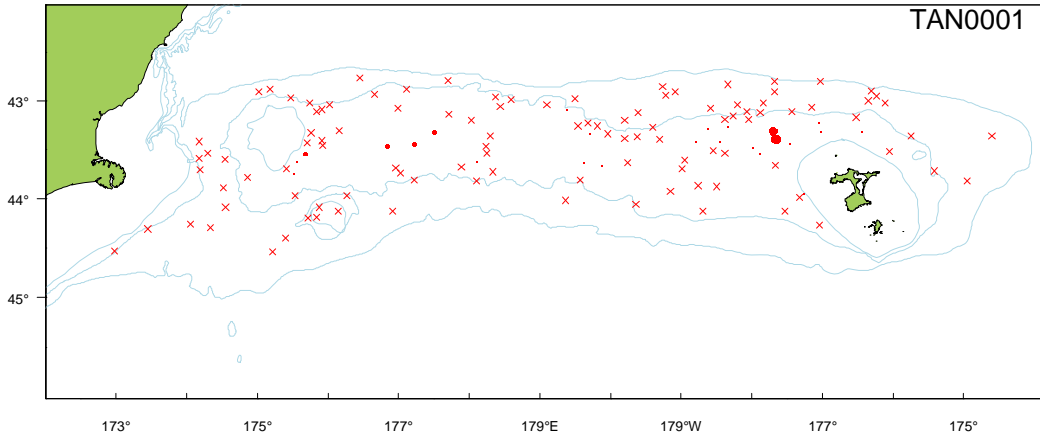
### Distribution

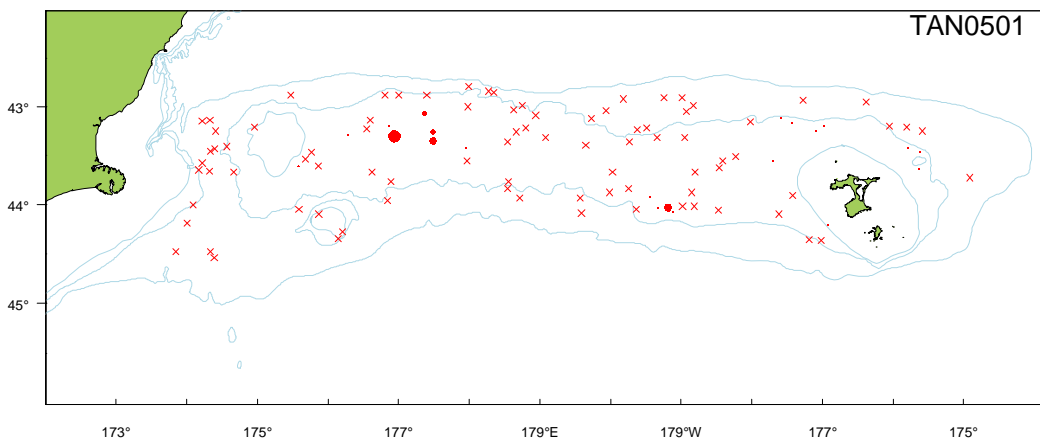
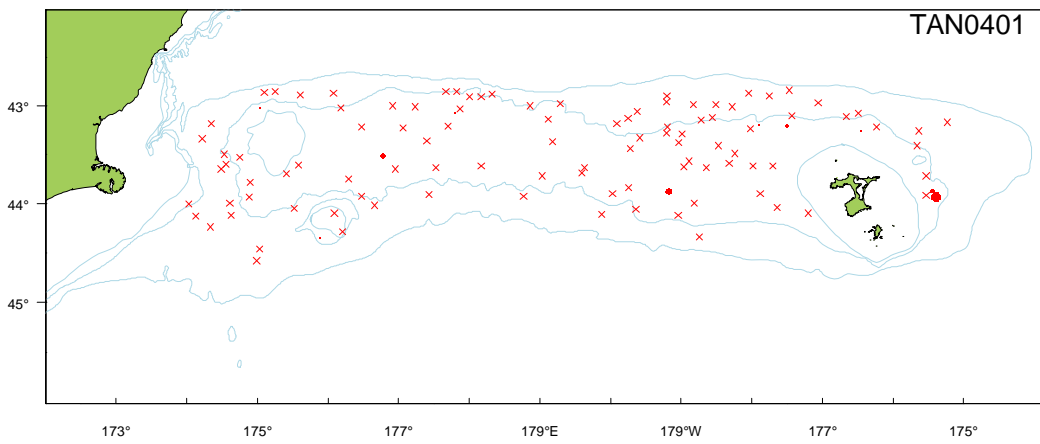
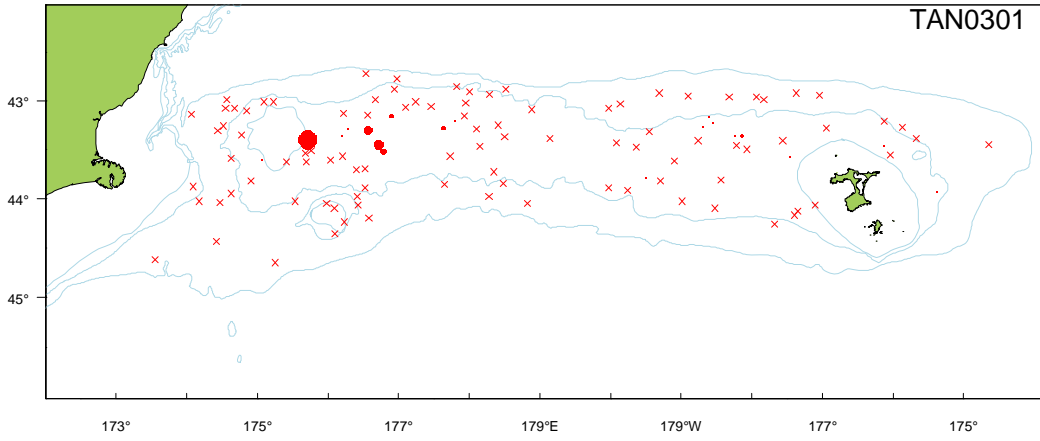


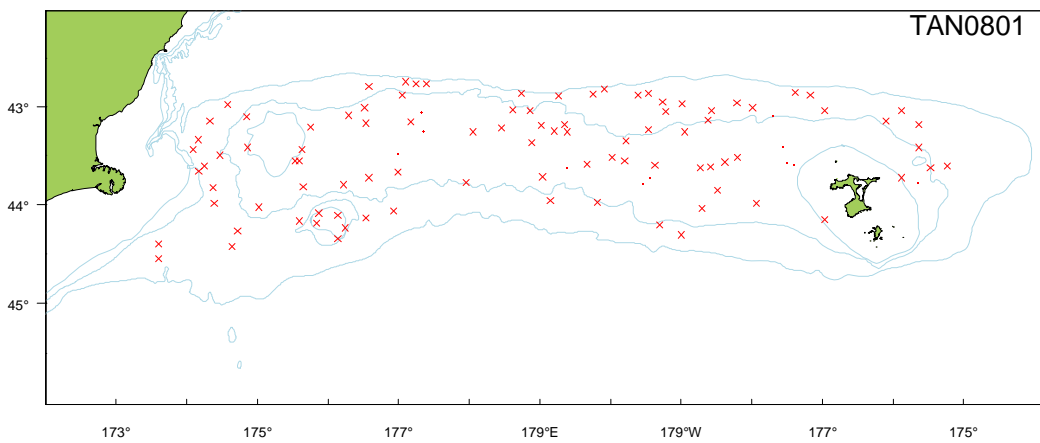
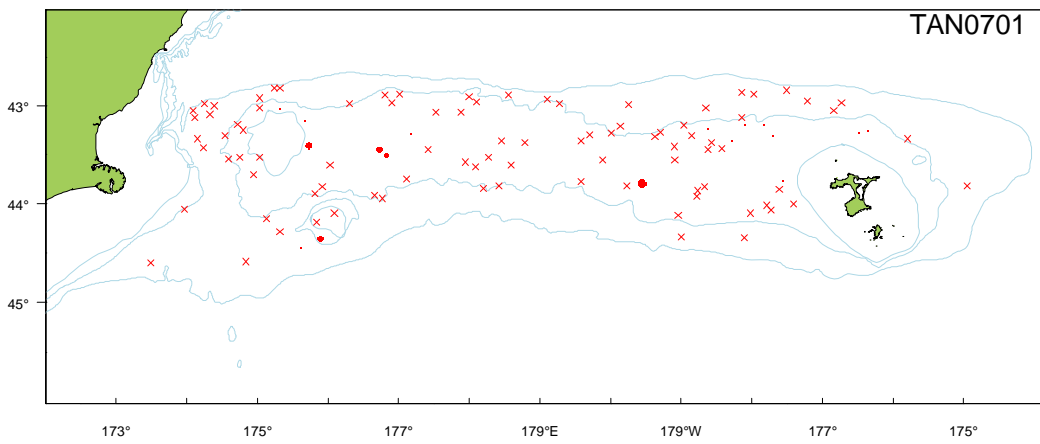
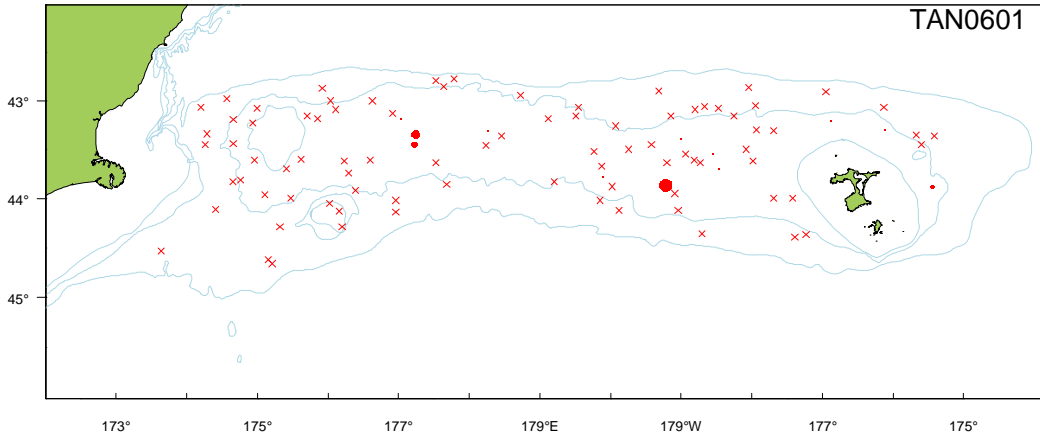


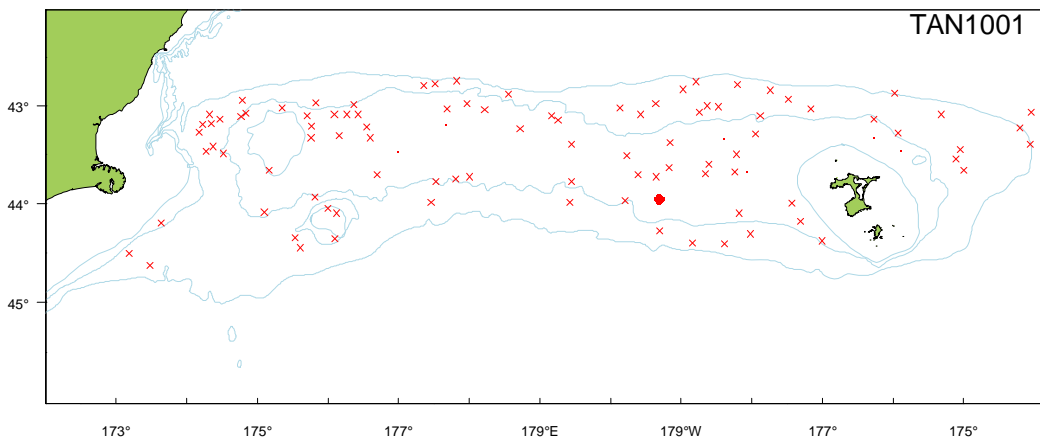
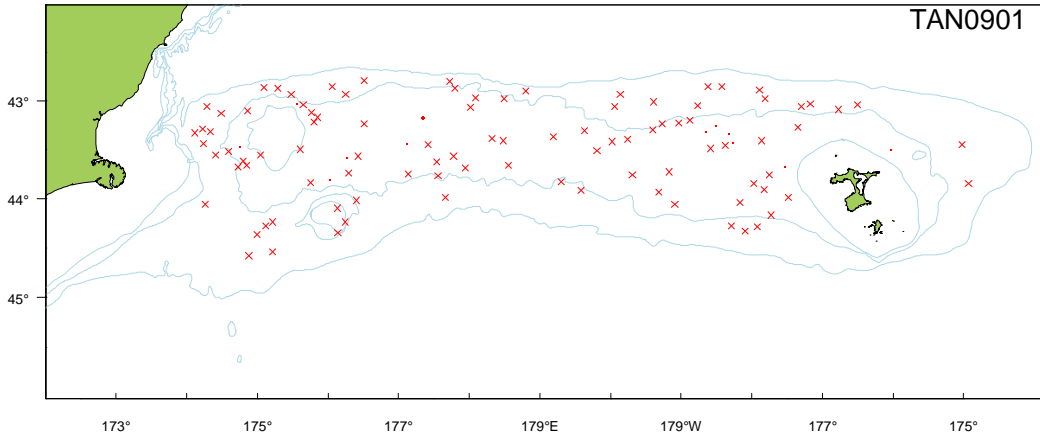






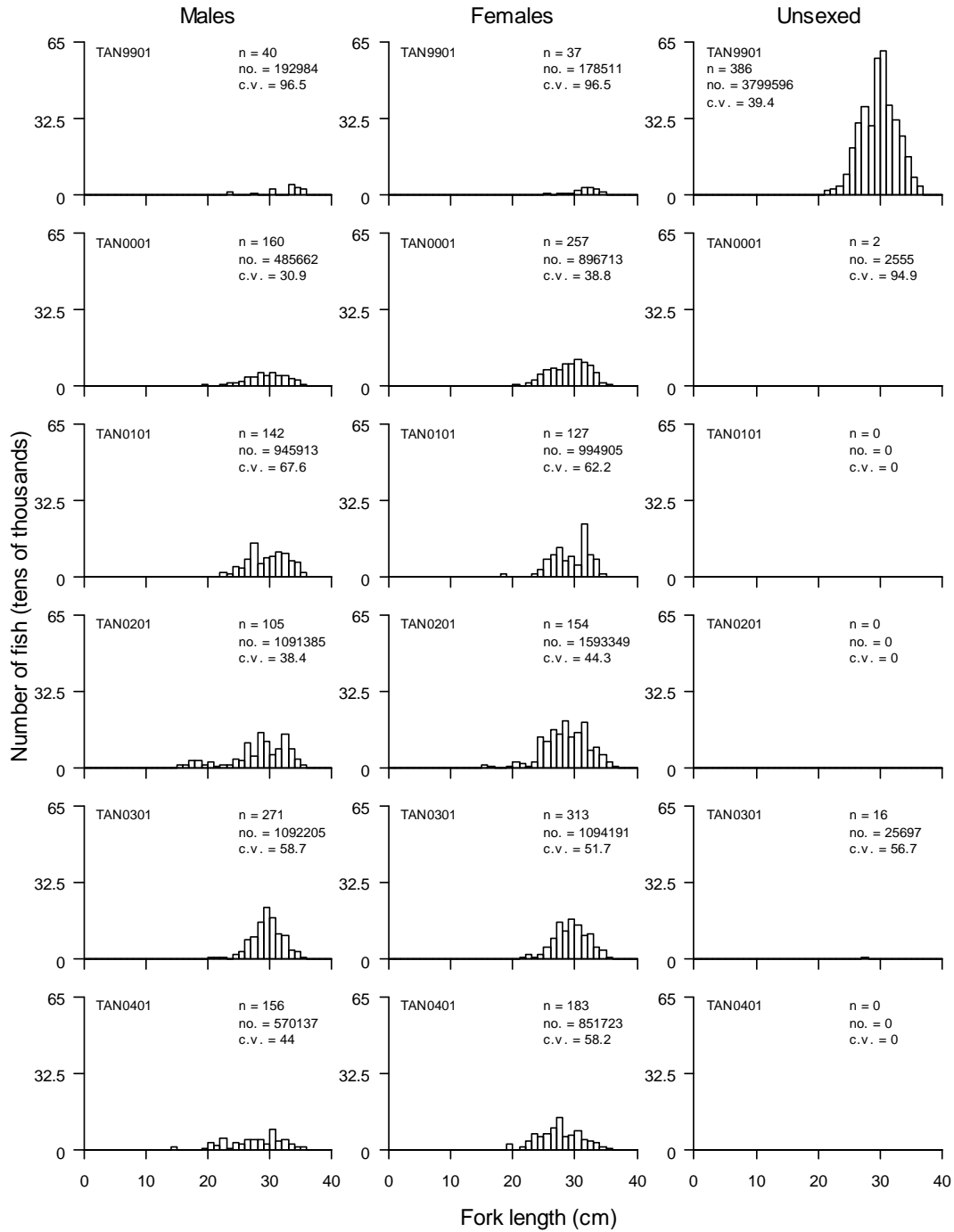


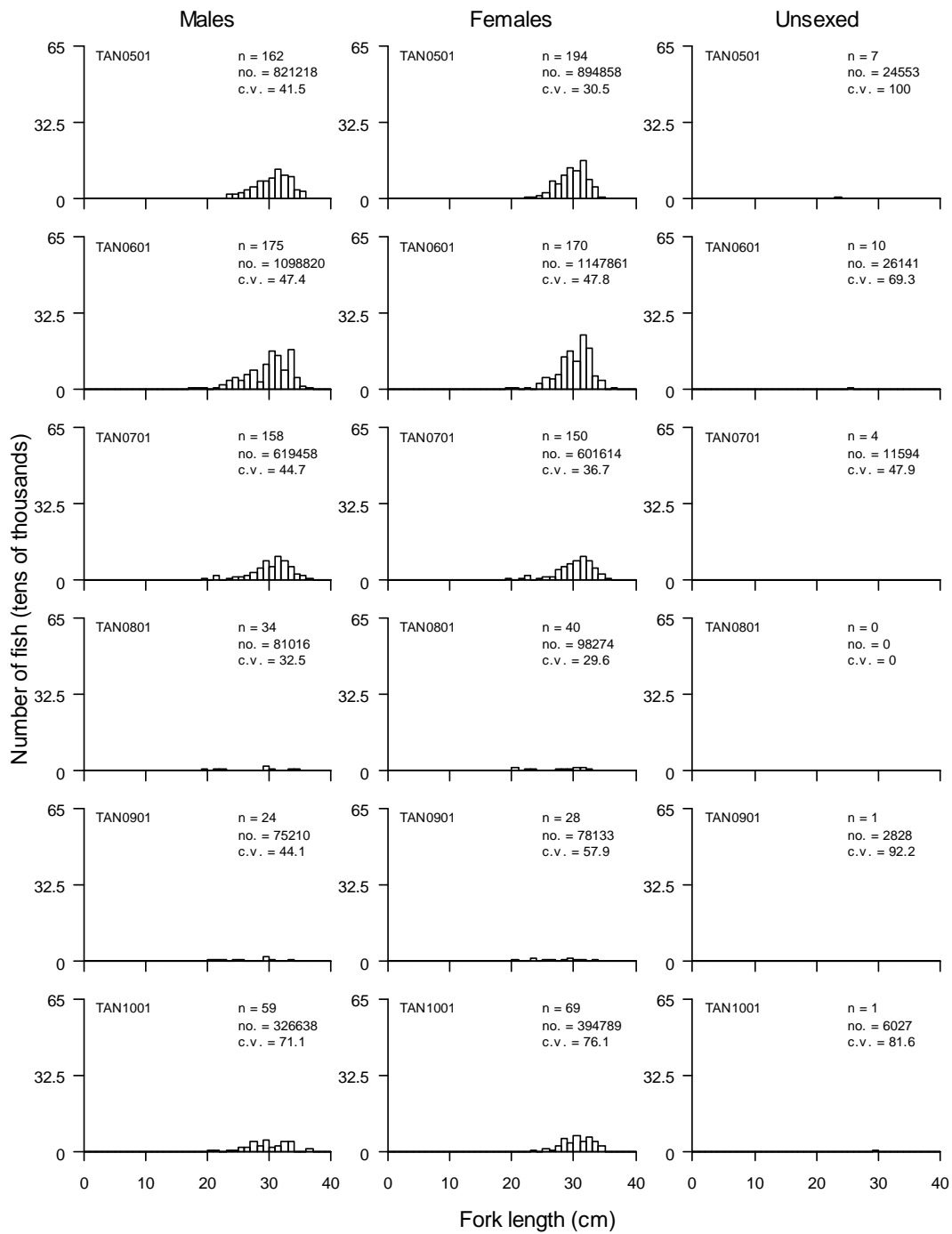






# Length Frequencies





## 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 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 1998 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 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    | 0    | 0.67 | 0.28 | 0.04 | 0    | 0    | 46     |
| 2004 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2005 | 0.2  | 0.33 | 0.33 | 0.07 | 0.07 | 0    | 0    | 15     |
| 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 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2010 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| ALL  | 0.05 | 0.08 | 0.59 | 0.23 | 0.05 | 0    | 0    | 61     |

### 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 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 1998 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 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 | 0.02 | 0    | 0.73 | 0.25 | 0    | 0    | 0    | 52     |
| 2004 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2005 | 0.14 | 0.14 | 0.41 | 0.32 | 0    | 0    | 0    | 22     |
| 2006 | 0    | 0    | 1    | 0    | 0    | 0    | 0    | 1      |
| 2007 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2008 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2009 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2010 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| ALL  | 0.05 | 0.04 | 0.64 | 0.27 | 0    | 0    | 0    | 75     |

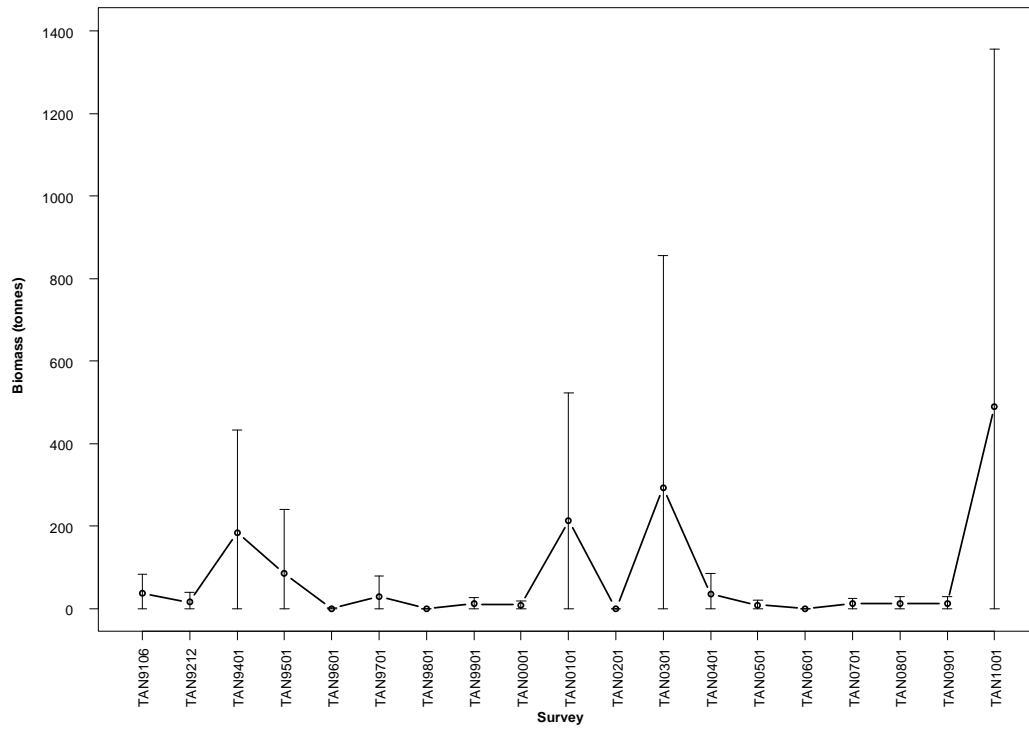


|   |                           |
|---|---------------------------|
| Number of surveys caught 1992–2010 (out of 19): | 18                        |
| Total catch weight (kg):                        | 2 893.2                   |
| Number measured                                 | 3 223                     |
| Length range (mean) (cm, SL)                    | 90–40 (24.8)              |
| Number weighed                                  | 738                       |
| Length-weight parameters a, b ( $r^2$ )         | 0.05042 , 2.879128 (98.8) |

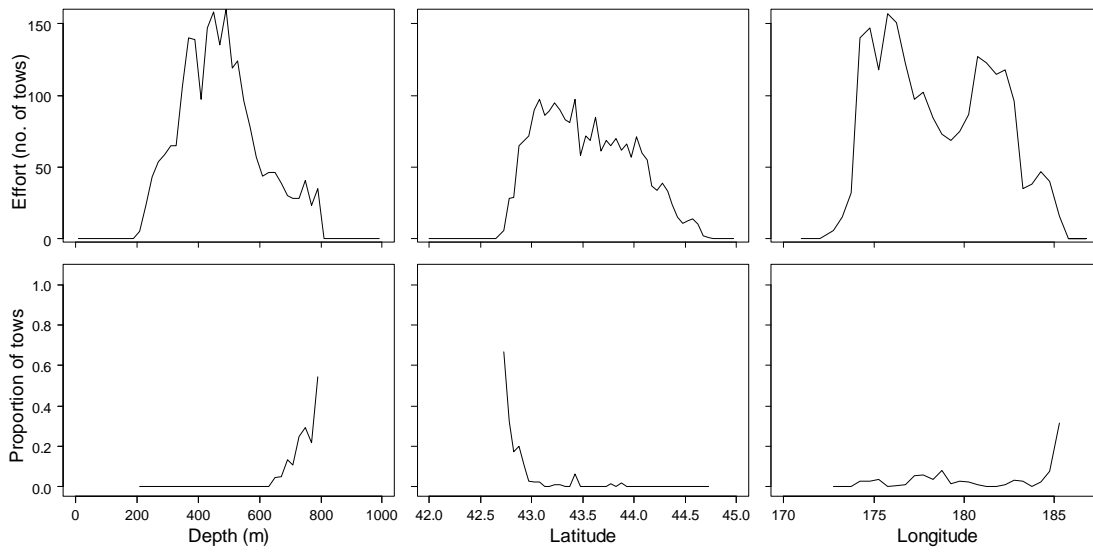
The core survey area and depth range **is not** appropriate for this species. It is found **deeper than 800 m**. Biomass of this species is **poorly** estimated in the core survey area. Biomass **shows no clear trend** since the start of the time series. Catch rates are highest in the **north and east**. Length frequencies are usually **unimodal**. Mean length has **shows no clear trend** since the start of the time series. Gonad stage data indicate that most fish are **immature or resting**.

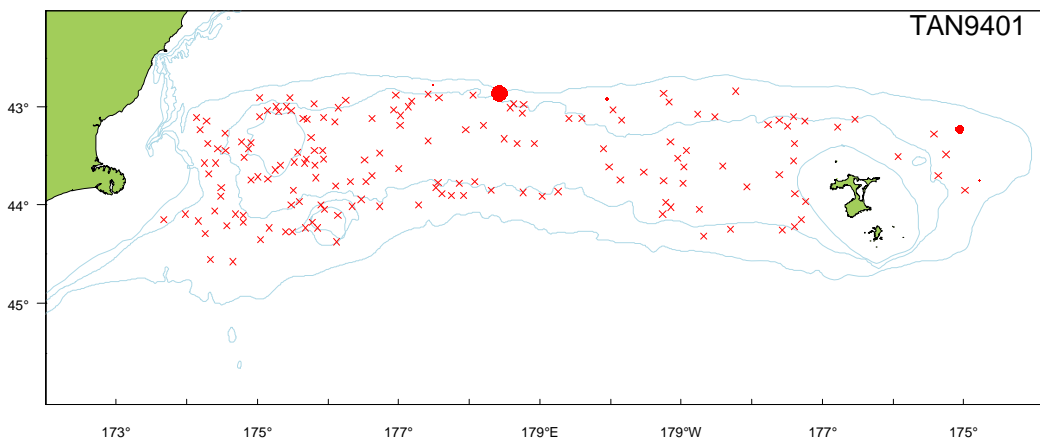
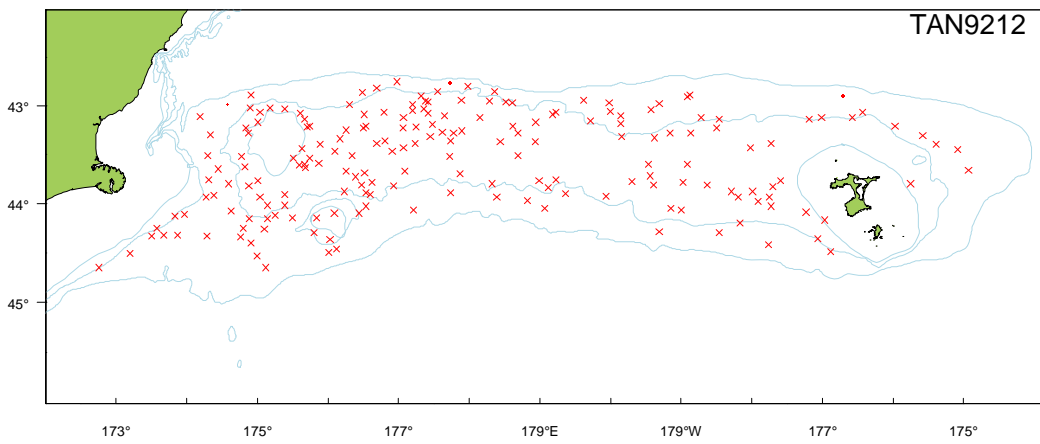
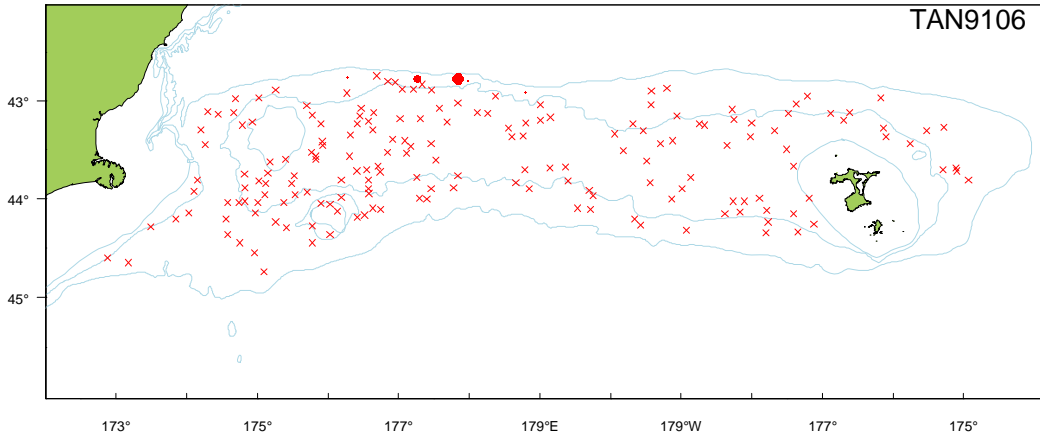
#### Relative biomass estimates and length summary

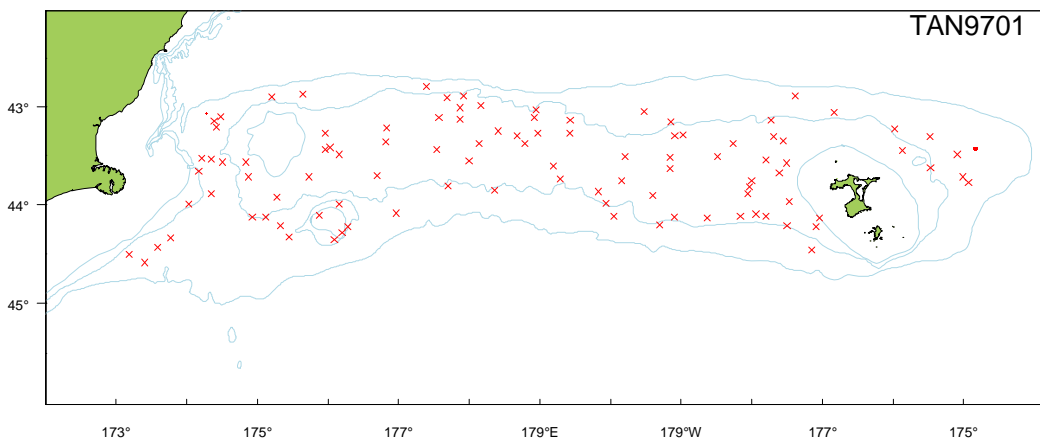
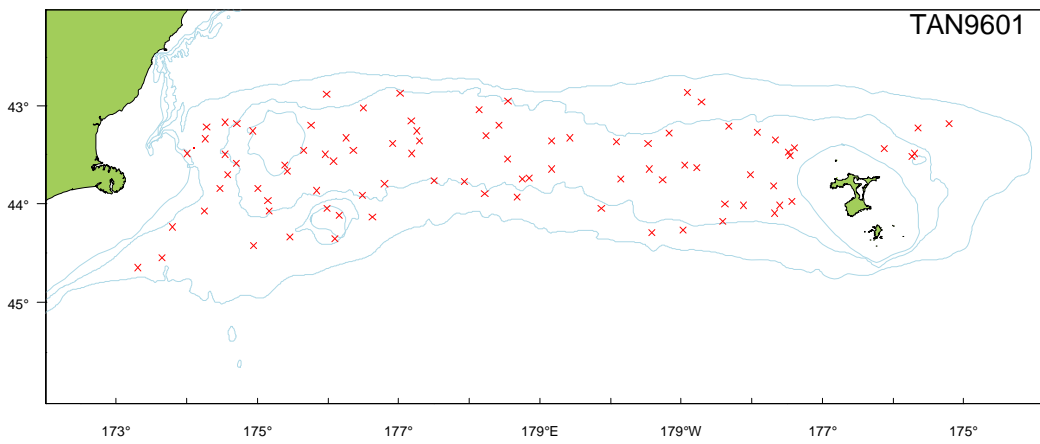
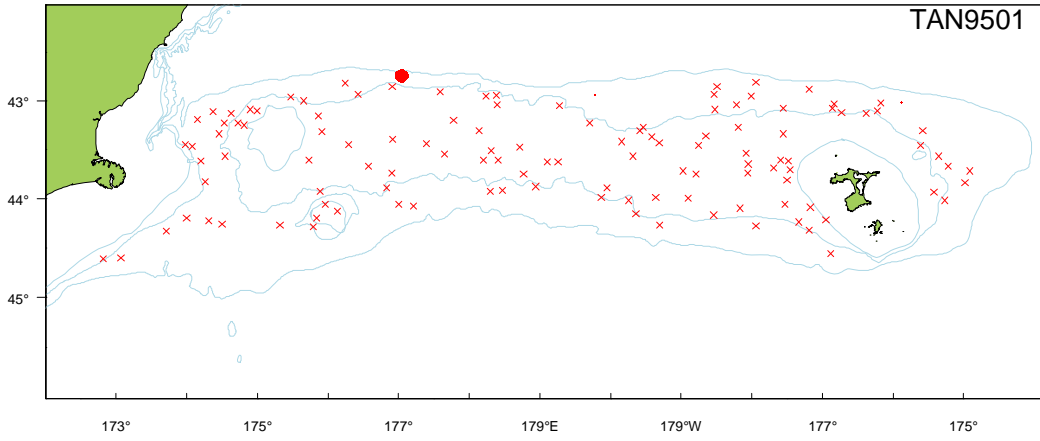
| Year | Biomass (t) | cv (%) | Length (cm) |      |      | No. measure<br>d |
|------|-------------|--------|-------------|------|------|------------------|
|      |             |        | Min.        | Max. | Mean |                  |
| 1992 | 37          | 63     | 11          | 40   | 22.3 | 105              |
| 1993 | 15          | 74     | 20          | 38   | 28.1 | 9                |
| 1994 | 184         | 68     | 11          | 36   | 21.6 | 234              |
| 1995 | 84          | 92     | 17          | 38   | 28.0 | 55               |
| 1996 | 0           | 100    | 14          | 17   | 15.5 | 2                |
| 1997 | 28          | 90     | 18          | 35   | 23.7 | 15               |
| 1998 | 0           | 0      | -           | -    | -    | 0                |
| 1999 | 11          | 70     | 22          | 35   | 29.0 | 3                |
| 2000 | 8           | 61     | 13          | 31   | 17.8 | 16               |
| 2001 | 213         | 72     | 9           | 38   | 26.2 | 116              |
| 2002 | 0           | -      | -           | -    | -    | 0                |
| 2003 | 292         | 97     | 15          | 38   | 28.9 | 88               |
| 2004 | 34          | 74     | 16          | 36   | 27.5 | 22               |
| 2005 | 8           | 70     | 11          | 25   | 16.2 | 23               |
| 2006 | 0           | -      | -           | -    | -    | 0                |
| 2007 | 11          | 64     | 10          | 30   | 15.1 | 42               |
| 2008 | 11          | 71     | 12          | 34   | 21.1 | 17               |
| 2009 | 12          | 69     | 9           | 40   | 22.9 | 14               |
| 2010 | 489         | 89     | 12          | 40   | 30.5 | 191              |

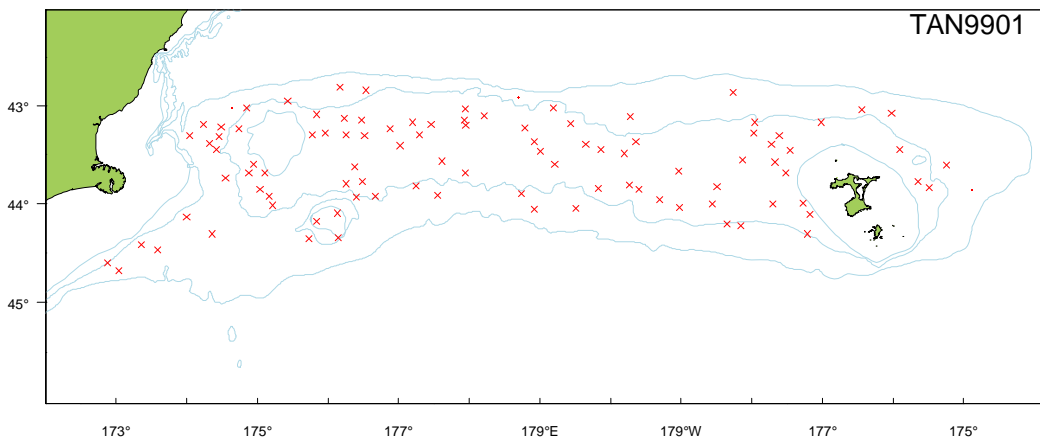
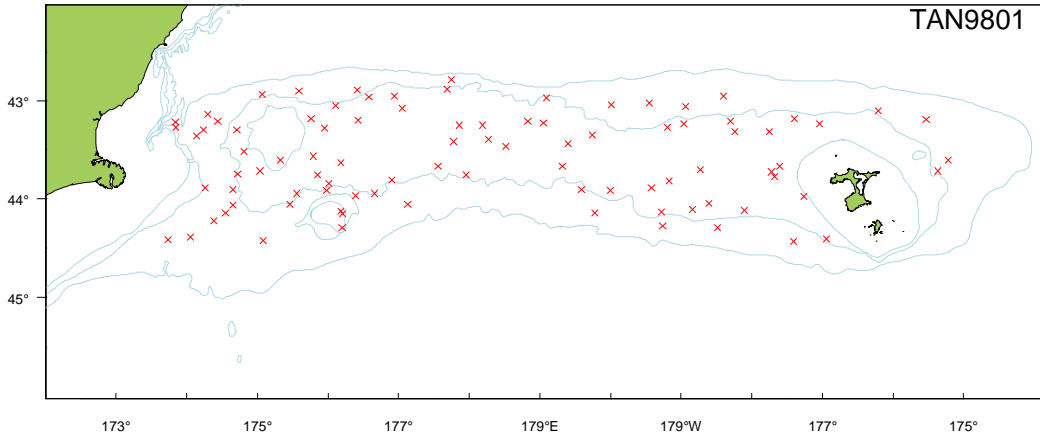


### Distribution

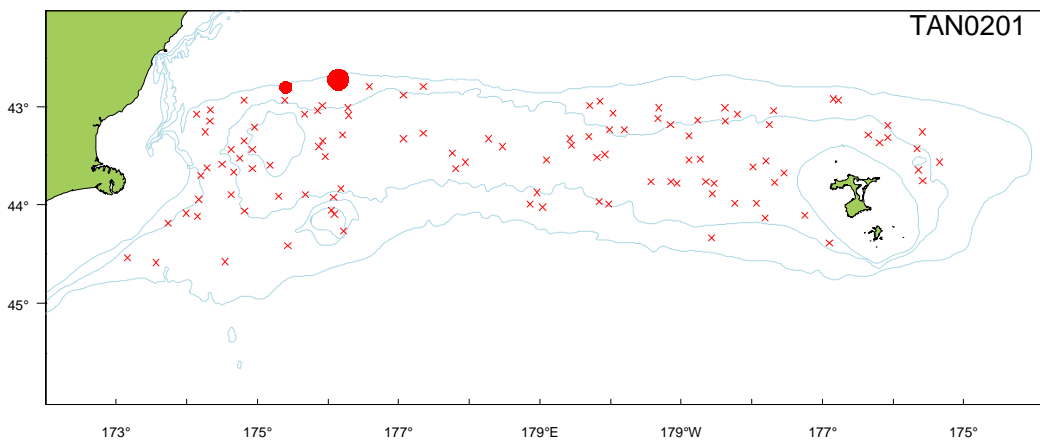
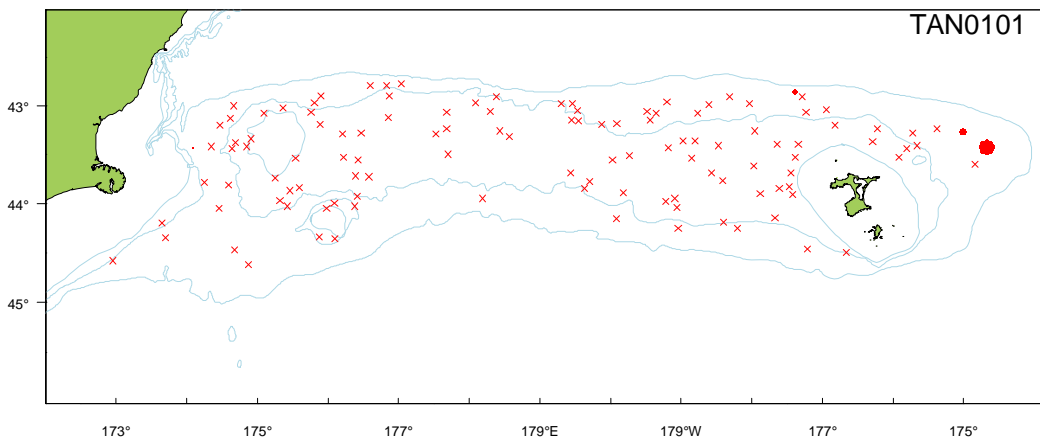
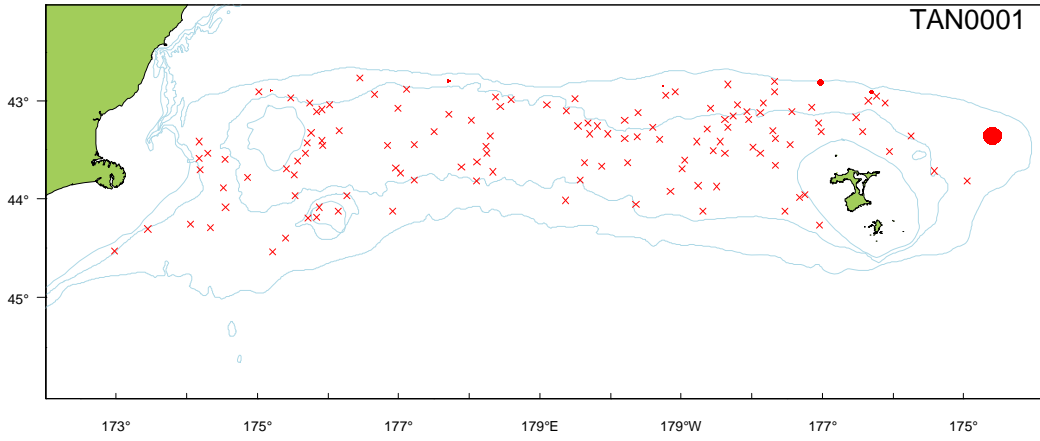


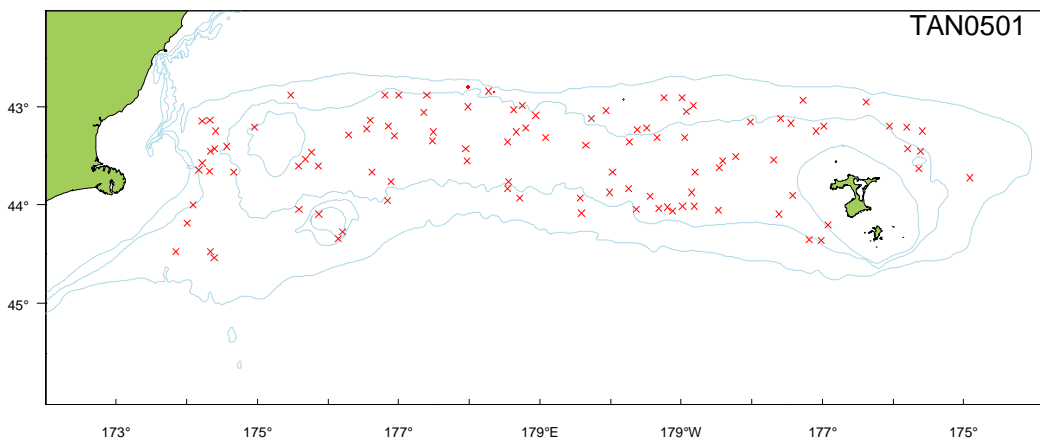
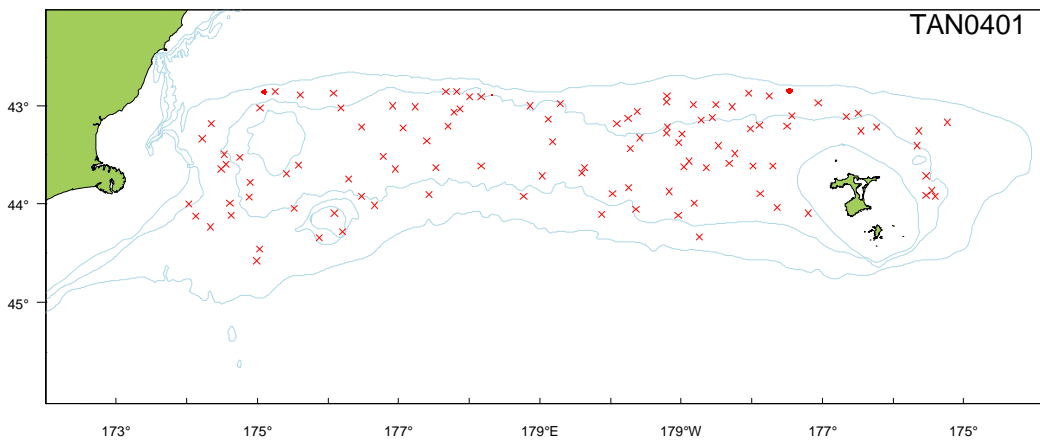
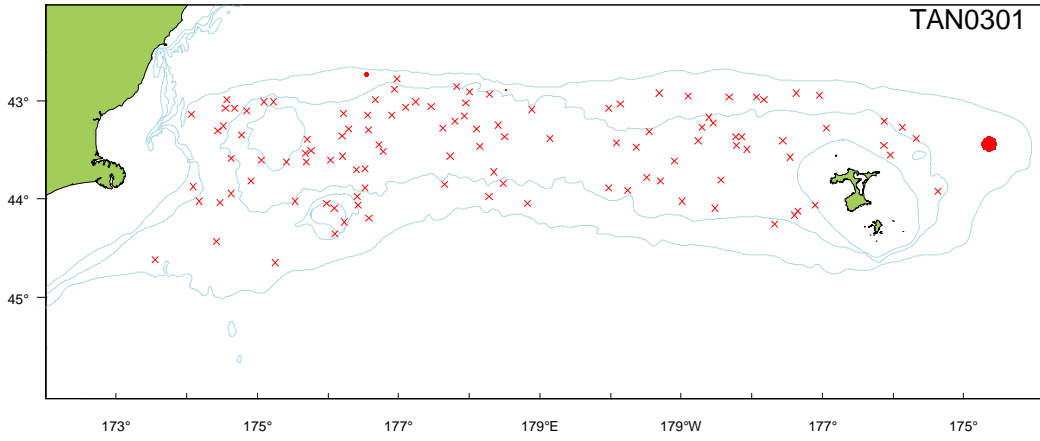


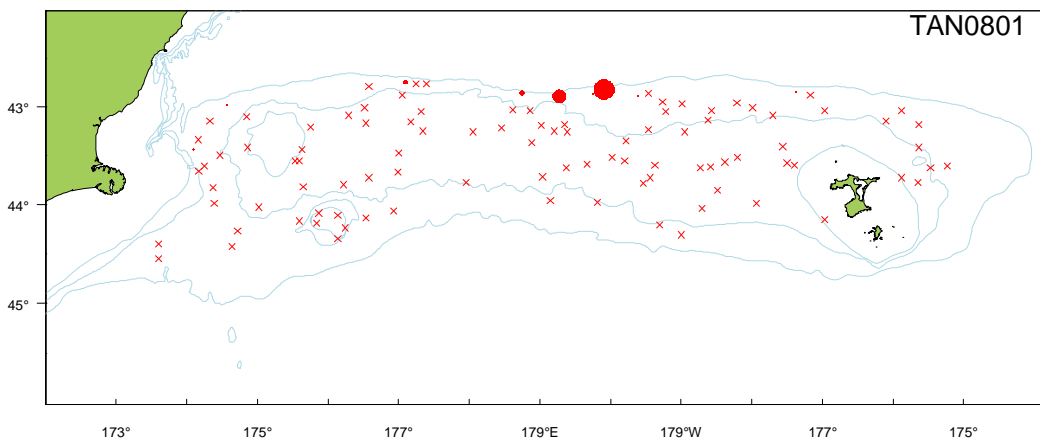
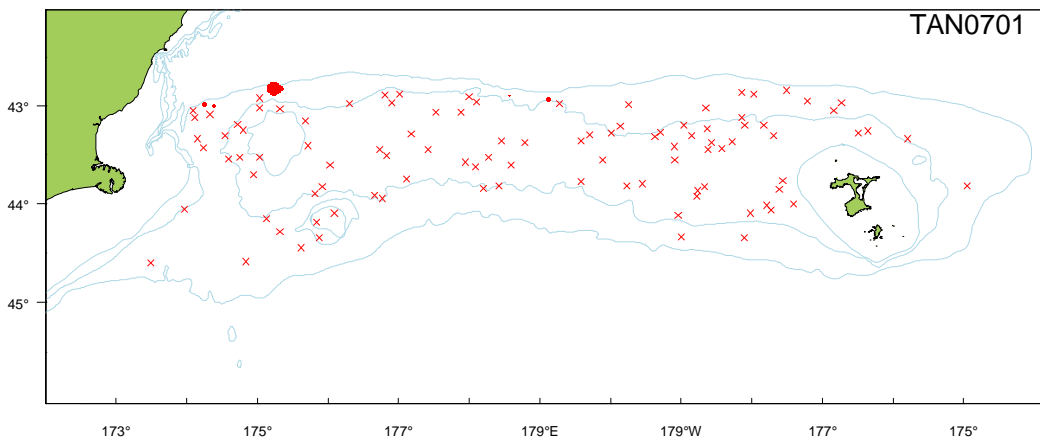
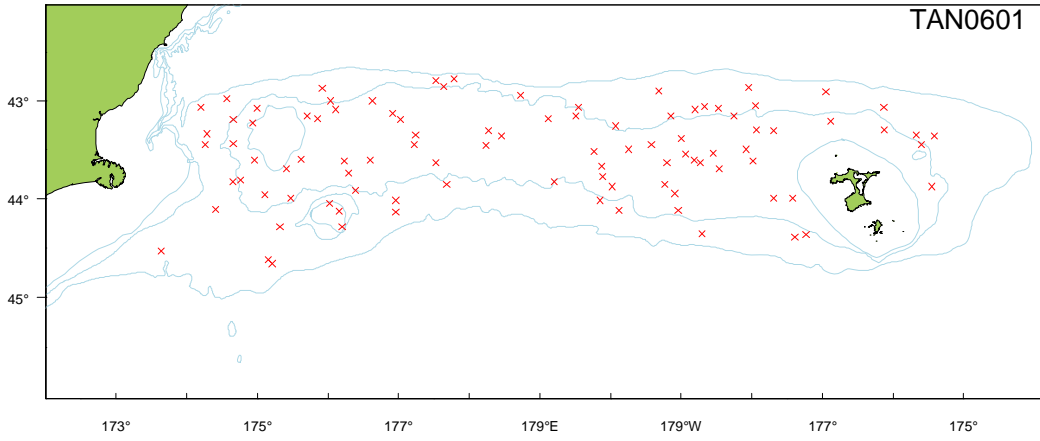


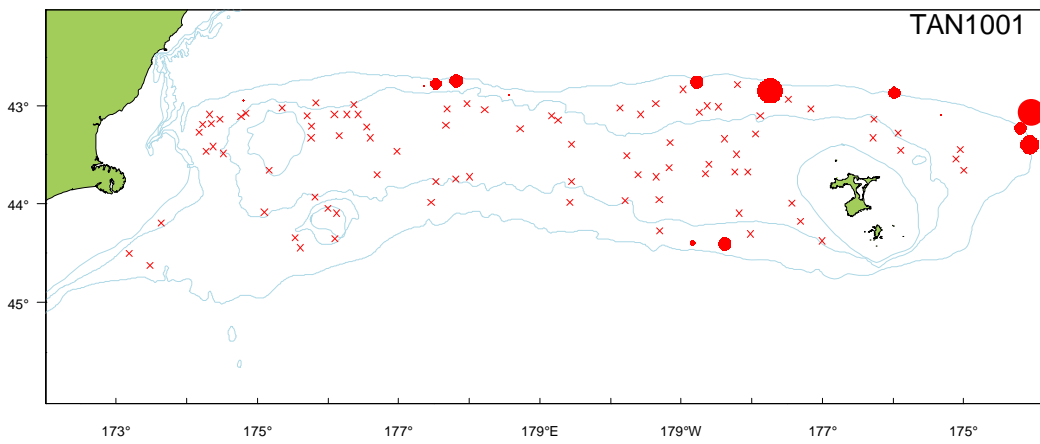
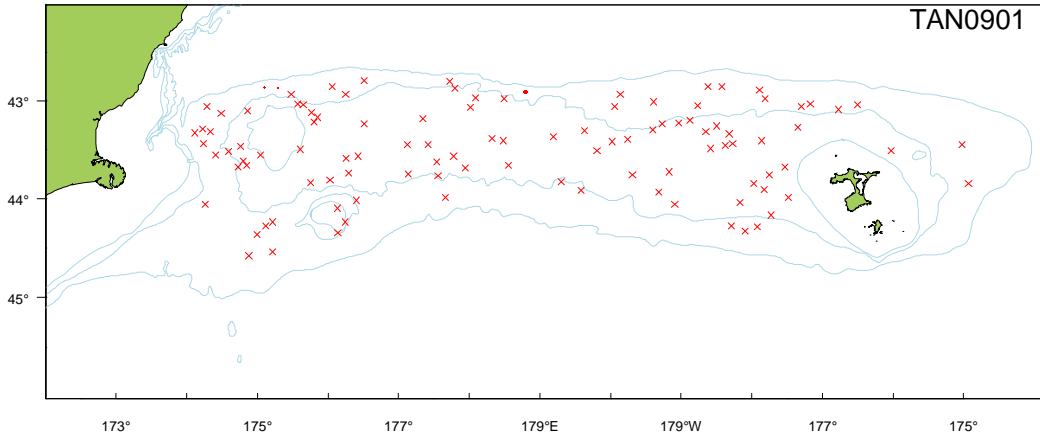




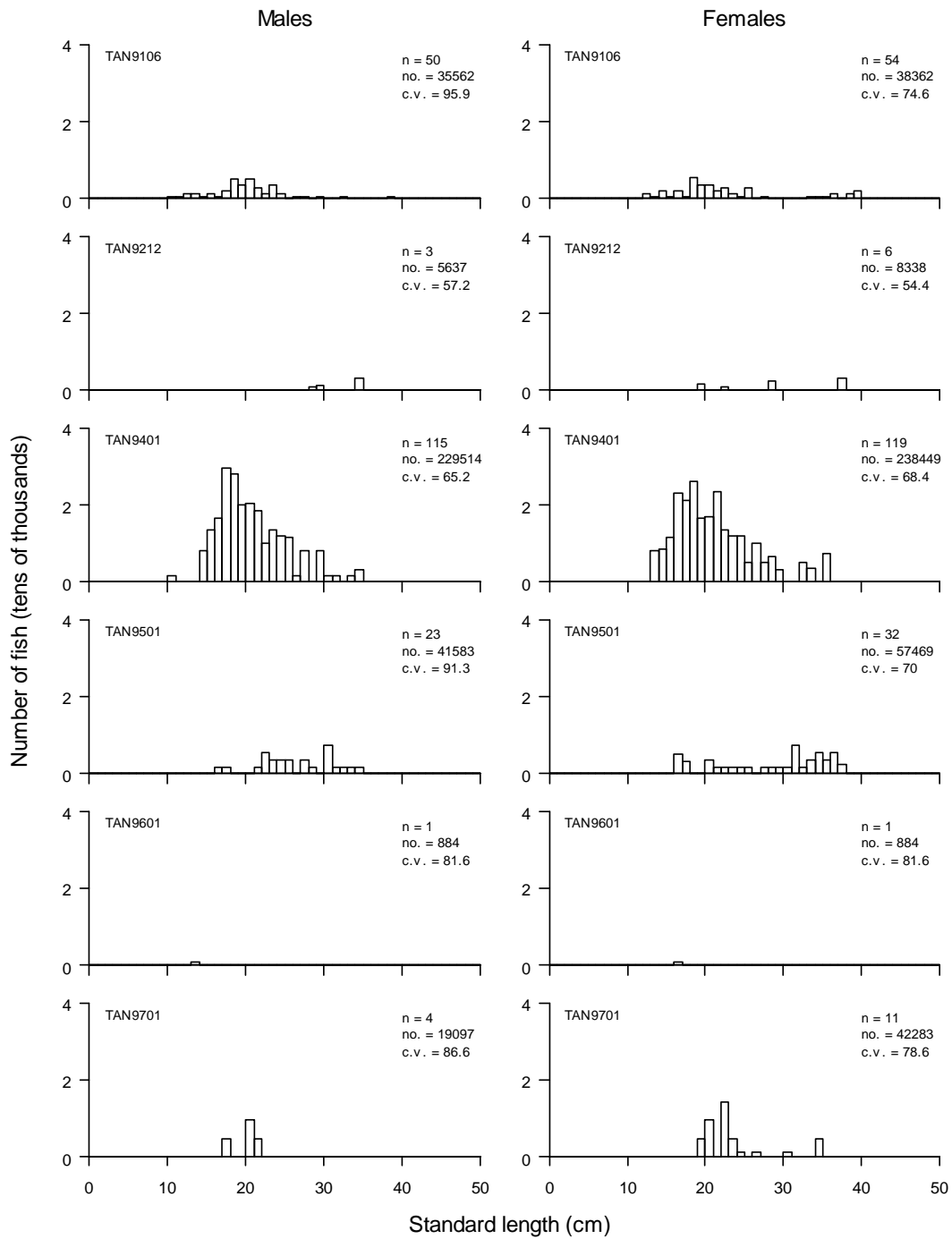


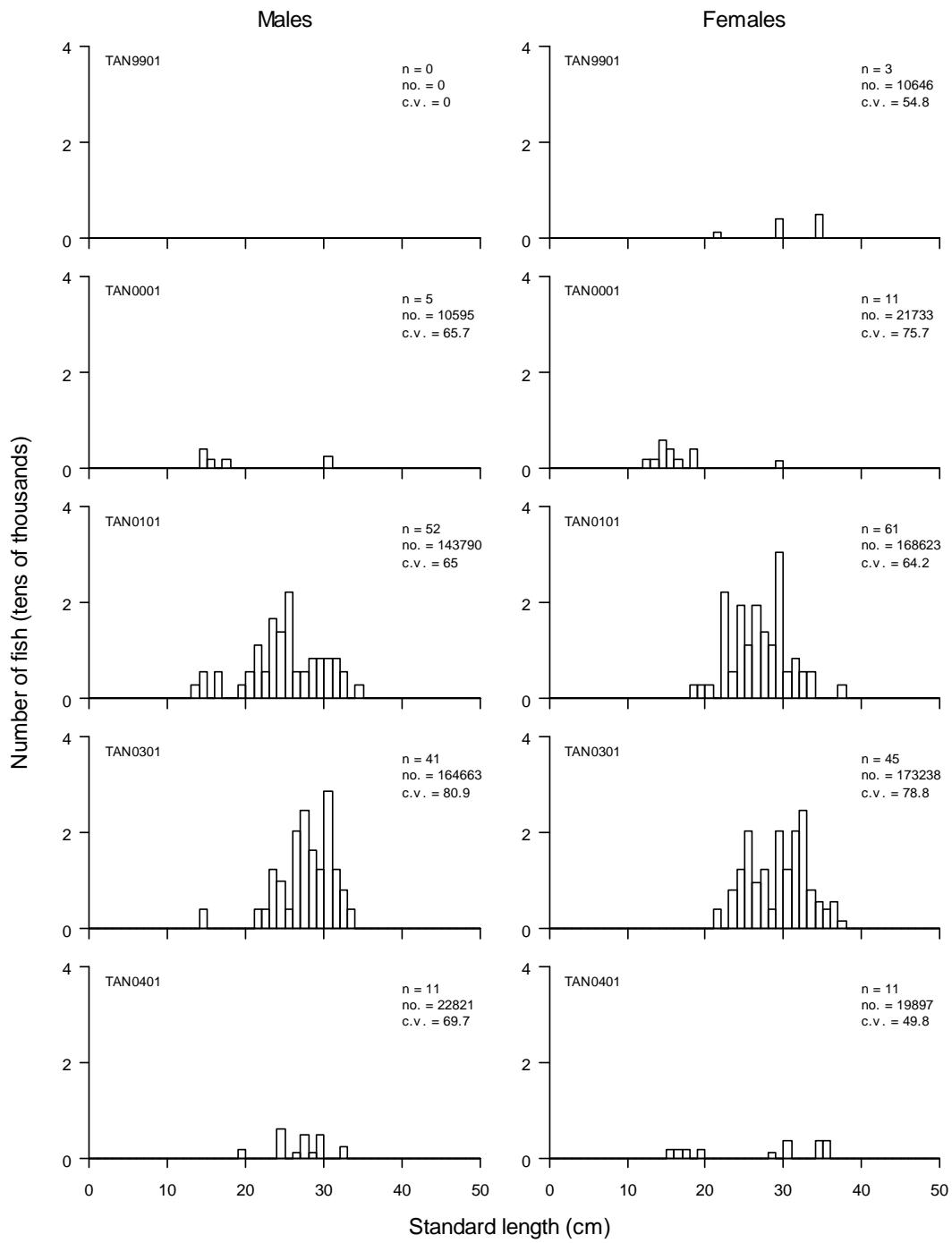


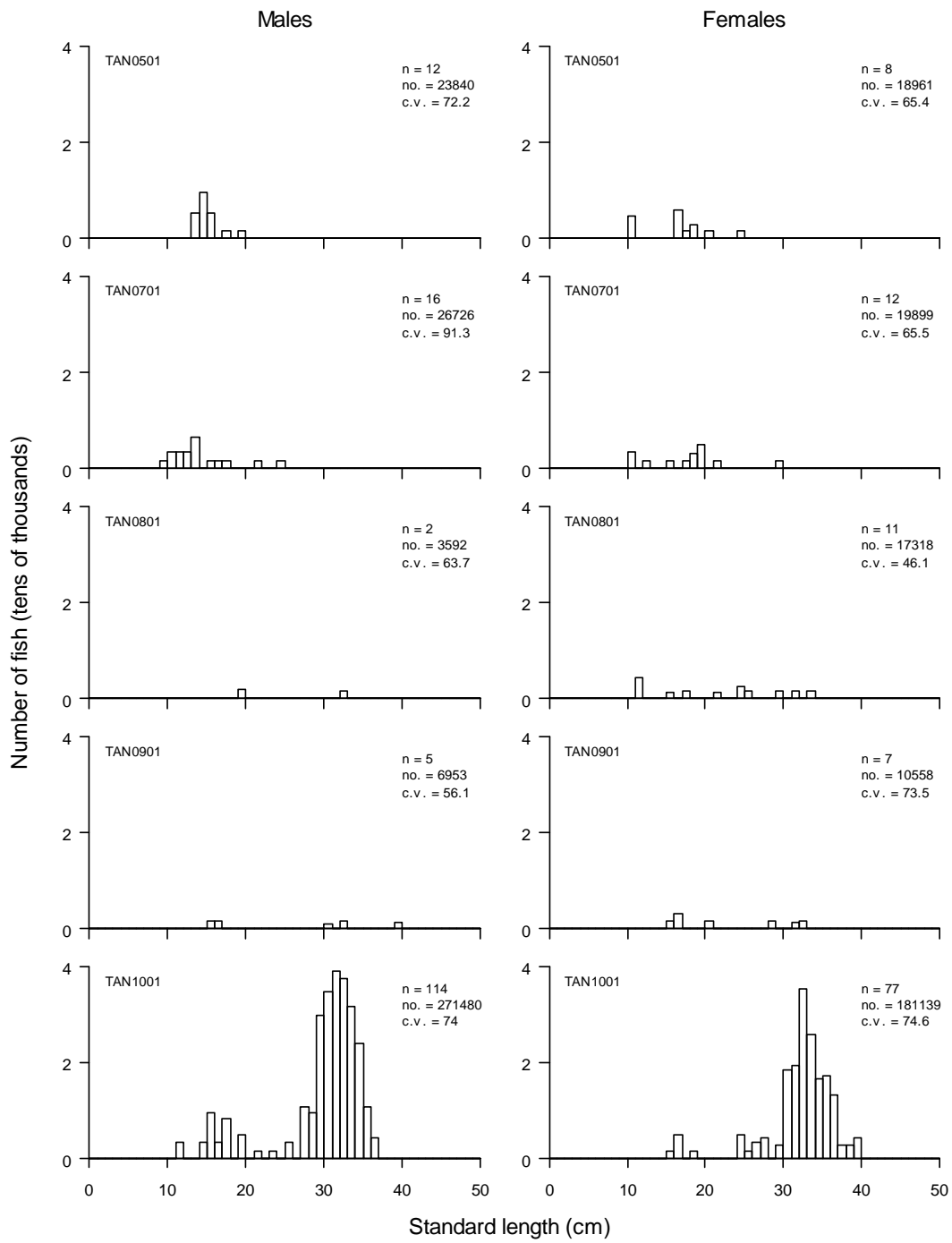




# Length Frequencies







## Gonad Stage Information

### Males

| Year | p_M1 | p_M2 | p_M3 | p_M4 | p_M5 | p_M6 | p_M7 | p_M8 | p_M9 | n_allM |
|------|------|------|------|------|------|------|------|------|------|--------|
| 1992 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 1993 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 1994 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 1995 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 1996 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 1997 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 1998 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 1999 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2000 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2001 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2002 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2003 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2004 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2005 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2006 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2007 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2008 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2009 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2010 | 0.02 | 0.9  | 0.07 | 0    | 0    | 0    | 0    | 0    | 0    | 81     |
| ALL  | 0.02 | 0.9  | 0.07 | 0    | 0    | 0    | 0    | 0    | 0    | 81     |

### Females

| Year | p_F1 | p_F2 | p_F3 | p_F4 | p_F5 | p_F6 | p_F7 | p_F8 | p_F9 | n_allF |
|------|------|------|------|------|------|------|------|------|------|--------|
| 1992 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 1993 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 1994 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 1995 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 1996 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 1997 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 1998 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 1999 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2000 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2001 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2002 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2003 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2004 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2005 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2006 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2007 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2008 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2009 | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 0      |
| 2010 | 0.02 | 0.72 | 0.24 | 0.02 | 0    | 0    | 0    | 0    | 0    | 54     |
| ALL  | 0.02 | 0.72 | 0.24 | 0.02 | 0    | 0    | 0    | 0    | 0    | 54     |