



# Australia's 2023–2024 Southern Bluefin Tuna Fishing Season

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Research by the Australian Bureau of Agricultural and Resource Economics and Sciences

Working Paper CCSBT-ESC/2508/SBT Fisheries—Australia prepared for the CCSBT Extended Scientific Committee for the 30<sup>th</sup> Meeting of the Scientific Committee, 25–30 August 2025

Technical Report 25.10

July 2025



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### Cataloguing data

This publication (and any material sourced from it) should be attributed as: Blake, S & Patterson, H & 2025, *Australia's 2023–24 southern bluefin tuna fishing season*, ABARES technical report 25.10, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra, August, DOI: [10.25814/ph0k-3923](https://doi.org/10.25814/ph0k-3923).

ISSN 189-3128

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### Acknowledgements

The authors thank Rupert Summerson (ABARES), Jeremy Smith and Robbie Wood (AFMA) and Neil Hughes and George Day (DAFF) for their input and comments on this report. Work was funded by Fisheries Resources Research Fund and ABARES.

### Acknowledgement of Country

We acknowledge the Traditional Custodians of Australia and their continuing connection to land and sea, waters, environment and community. We pay our respects to the Traditional Custodians of the lands we live and work on, their culture, and their Elders past and present.

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# Summary

The 2023–24 southern bluefin tuna (SBT) fishing season report summarises catches and fishing activities in the Australian Southern Bluefin Tuna Fishery (SBTF) up to and including the 2023–24 fishing season<sup>1</sup> (1 December 2023 – 30 November 2024).

Australia's allocation as agreed by the Commission for the Conservation of Southern Bluefin Tuna (CCSBT) was 7,295 t for the 2023–24 fishing season. However, this was adjusted to account for a set aside for the recreational sector and to account for undercatch in the previous fishing season, so the effective total allowable commercial catch was 7,502.9 t. A total of 41 commercial fishing vessels landed SBT in Australian waters in the 2023–24 fishing season for a total catch of 6,324 t. A total of 71.2% of the catch was taken by purse seine with the remainder taken by longline, pole-and-line, rod-and-reel and trolling. Five purse seiners fished off South Australia for the Australian farming operations during the 2023–24 fishing season, with live bait, pontoon-towing and feeding vessels also involved. Most of the purse-seine fishing commenced in December 2023 and finished in March 2024.

Length-frequency data from the purse-seine fishery indicate a shift to smaller fish in recent years. Average lengths of SBT transferred to farms in South Australia declined from 96.4 cm in the 2016–17 season to 83.3 cm in 2023–24.

In the 2023–24 fishing season, observers monitored 11.9% of purse-seine sets where fish were retained for the farm sector and 14.5% of the estimated SBT purse-seine catch. In 2024, the review rate for electronic monitoring (e-monitoring) footage of longline hook effort in the Eastern Tuna and Billfish Fishery during the months and in the areas of the SBT migration through that fishery was 11.6%. In 2024, the review rate for e-monitoring footage of longline hook effort in the entire Western Tuna and Billfish Fishery was 13.9%.

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<sup>1</sup> Various time periods, such as 'calendar years', 'fishing seasons' and 'quota years', can be used when describing Australia's SBT Fishery. Unless otherwise indicated, we have used quota years in this report, but note that fishing seasons of the various fishery components often span quota years. The start and end dates of Australian quota years have varied and are presented in Appendix 1.

# 1 Introduction

This report summarises catches and fishing activities in the 2023–24 fishing season of the Australian Southern Bluefin Tuna (*Thunnus maccoyii*; SBT) Fishery. Caton et al. (1995) provides a more detailed historical description of the fishery.

## 1.1 History

Troll catches of SBT were reported as early as the 1920s off the east coast of Australia, but significant commercial fishing for SBT commenced in the early 1950s with the establishment of a pole-and-live-bait fishery off New South Wales (NSW), SA and, later (1970) Western Australia (WA). Purse seine gear overtook pole as the main fishing method and catches peaked at 21,500 t in 1982. The bulk of this early Australian catch of SBT was canned. Following quota reductions in 1983–84, the WA pole fishery for very small juveniles closed down and the south-eastern fishery began to target larger juveniles to supply the Japanese sashimi market. Surface catches were further reduced between 1989 and 1995 when about half of the Australian total allowable catch (TAC) was taken by Australia–Japan joint venture longliners in the Australian Fishing Zone (AFZ). The joint ventures ceased in late 1997. From 1992 to 1998, domestic longliners operating off Tasmania (TAS) and NSW also took around 5–10% of the total Australian catch.

In 1990–91, about 20 t of SBT were transferred to fattening cages in Port Lincoln, SA, to enhance their value. Utilisation of the Australian SBT TAC in 'farming' operations increased from 3% of the TAC in 1991–92 to 98% in 1999–2000. The purse-seine fishery now accounts for ~85% of the total catch.

Following declaration of the AFZ in 1979, Japanese longliners fished under a range of bilateral conditions, a real-time monitoring program and joint-venture arrangements until 1997 when Japanese longliners were excluded from all AFZ fishing operations following failure to reach agreement on a global TAC within CCSBT. Caton and Ward (1996) provides copies of annual subsidiary agreements for the operations of bilateral-licensed longliners in the AFZ from 1979–80 to 1994–95.

## 1.2 Recent seasons

The Australian commercial SBT catches for the 2023 and 2024 calendar years were 5,850 t and 6,216 t, respectively. The commercial catches for the 2022–23 and 2023–24 fishing seasons were 6,035 t and 6,324 t, respectively (Table 1). The Australian allocation from CCSBT for the 2023–24 fishing season was 7,295 t. Australia carried forward 572.7 t of undercatch to the 2023–24. This action is consistent with the guidelines in the CCSBT Resolution on Limited Carry-forward of Unfished Annual Total Available Catch of Southern Bluefin Tuna adopted in October 2017. See Appendix A for quota year dates and Appendix B for duration of the farm sector fishing season. Australia sets aside 5% of its annual allocation for mortality associated with recreational fishing. For the 2023–24 fishing season this equates to 364.75 t available to recreational fishers, with the remaining amount available for commercial fishing activities.

Australia's 2023–24 Southern Bluefin Tuna Fishing Season

**Table 1 Australian Catch (t) by Gear and State for Fishing Seasons 1988–89 to 2023–24**

| Fishing Season       | Western Australia |           |                |       | South Australia |                   |                |       | New South Wales |                   |       | Tasmania       |                  |       | Large Longliners |         |       | Australia Total |          |       |                  | Total |
|----------------------|-------------------|-----------|----------------|-------|-----------------|-------------------|----------------|-------|-----------------|-------------------|-------|----------------|------------------|-------|------------------|---------|-------|-----------------|----------|-------|------------------|-------|
|                      | Albany            | Esperance | Long-          | Total | Pole &          | Farm              | Long-          | Total | Pole &          | Long-             | Total | Troll          | Long-            | Total | Aust.            | Joint-  | Total | Domestic        | Domestic | Total | RTMP             | All   |
|                      | Pole              | Pole      | line           |       | Purse           | Cages             | line           |       | Purse           | line              |       |                | line             |       | Charter          | venture |       | Surface         | Long-    | Long- |                  | Gears |
|                      |                   |           |                |       | Seine           |                   |                |       | Seine           |                   |       |                |                  |       |                  |         |       |                 | line     | line  |                  |       |
| 1988–89              | 204               | 221       | 0              | 425   | 4872            | 0                 | 0              | 4872  | 0               | 1                 | 1     | 2              | 0                | 2     | 0                | 684     | 684   | 5299            | 1        | 685   | 0                | 5984  |
| 1989–90              | 133               | 97        | 0              | 230   | 4199            | 0                 | 0              | 4199  | 0               | 6                 | 6     | 14             | 0                | 14    | 0                | 400     | 400   | 4443            | 6        | 406   | 0                | 4849  |
| 1990–91              | 175               | 45        | 0              | 220   | 2588            | 0                 | 0              | 2588  | 0               | 15                | 15    | 57             | 0                | 57    | 255              | 881     | 1136  | 2865            | 15       | 1151  | 300 <sup>a</sup> | 4316  |
| 1991–92              | 17                | 0         | 0              | 17    | 1629            | 138               | 14             | 1781  | 34              | 90                | 124   | 36             | 20               | 56    | 59               | 2057    | 2116  | 1854            | 124      | 2240  | 800              | 4894  |
| 1992–93              | 0                 | 0         | 0              | 0     | 716             | 722               | 68             | 1506  | 16              | 238               | 254   | 23             | 44               | 67    | 0                | 2735    | 2735  | 1477            | 350      | 3085  | 650              | 5212  |
| 1993–94              | 0                 | 0         | 0              | 0     | 621             | 1294              | 55             | 1970  | 0               | 286               | 286   | 7              | 105              | 112   | 0                | 2299    | 2299  | 1922            | 446      | 2745  | 270              | 4937  |
| 1994–95              | 0                 | 0         | 0              | 0     | 908             | 1954              | 2              | 2864  | 0               | 157               | 157   | 4              | 109              | 113   | 0                | 1295    | 1295  | 2866            | 268      | 1563  | 650              | 5080  |
| 1995–96              | 0                 | 0         | 0              | 0     | 1447            | 3362              | 0              | 4809  | 28              | 89                | 117   | 0              | 262              | 262   | 0                | 0       | 0     | 4837            | 351      | 351   | 0                | 5188  |
| 1996–97              | 0                 | 0         | 0              | 0     | 2000            | 2498              | 0              | 4497  | 7               | 229               | 236   | 2              | 242              | 244   | 0                | 0       | 0     | 4507            | 472      | 472   | 0                | 4978  |
| 1997–98              | 0                 | 0         | 0 <sup>b</sup> | 0     | 916             | 3488              | 0 <sup>b</sup> | 4403  | 0 <sup>c</sup>  | 475               | 475   | 0 <sup>d</sup> | 219              | 219   | 0                | 0       | 0     | 4433            | 664      | 664   | 0                | 5097  |
| 1998–99              | 0                 | 0         | 0 <sup>b</sup> | 0     | 28              | 4991              | 0 <sup>b</sup> | 5018  | 0 <sup>c</sup>  | 97                | 97    | 0 <sup>d</sup> | 116              | 116   | 0                | 0       | 0     | 5016            | 216      | 216   | 0                | 5232  |
| 1999–00              | 0                 | 0         | 0 <sup>b</sup> | 0     | 0               | 5130              | 13             | 5143  | 0               | 114               | 114   | 0              | 0 <sup>d</sup>   | 0     | 0                | 0       | 0     | 5130            | 127      | 127   | 0                | 5257  |
| 2000–01              | 0                 | 0         | 0 <sup>b</sup> | 0     | 0               | 5162              | 6              | 5168  | 0               | 32                | 32    | 0              | 0 <sup>d</sup>   | 0     | 0                | 0       | 0     | 5162            | 38       | 38    | 0                | 5247  |
| 2001–02              | 0                 | 0         | 7              | 7     | 0               | 5234              | 0              | 5234  | 0               | 22 <sup>e</sup>   | 22    | 0              | 0 <sup>d</sup>   | 0     | 0                | 0       | 0     | 5234            | 29       | 29    | 0                | 5262  |
| 2002–03              | 0                 | 0         | 0 <sup>f</sup> | 0     | 0               | 5375              | 0              | 5375  | 0               | 17                | 17    | 0              | 0                | 0     | 0                | 0       | 0     | 5375            | 17       | 17    | 0                | 5391  |
| 2003–04              | 0                 | 0         | 0 <sup>f</sup> | 0     | 0 <sup>h</sup>  | 4874              | 0 <sup>g</sup> | 4874  | 0               | 226 <sup>e</sup>  | 226   | 0              | 20               | 20    | 0                | 0       | 0     | 4874            | 247      | 247   | 0                | 5120  |
| 2004–05              | 0                 | 0         | 0              | 0     | 0               | 5214              | 0              | 5214  | 0               | 35                | 35    | 0              | 0                | 0     | 0                | 0       | 0     | 5214            | 35       | 35    | 0                | 5248  |
| 2005–06              | 0                 | 0         | 0              | 0     | 0               | 5302              | 0              | 5302  | 0               | 6                 | 6     | 0              | 0                | 0     | 0                | 0       | 0     | 5302            | 6        | 6     | 0                | 5308  |
| 2006–07              | 0                 | 0         | 0              | 0     | 0               | 5230              | 0              | 5230  | 0               | 4                 | 4     | 0              | 0                | 0     | 0                | 0       | 0     | 5230            | 4        | 4     | 0                | 5234  |
| 2007–08              | 0                 | 0         | 0              | 0     | 0               | 5211              | 0              | 5211  | 0               | 23                | 23    | 0              | 0                | 0     | 0                | 0       | 0     | 5211            | 23       | 23    | 0                | 5234  |
| 2008–09              | 0                 | 0         | 0              | 0     | 2               | 5015              | 0              | 5017  | 11              | 213               | 225   | 0              | <1               | <1    | 0                | 0       | 0     | 5029            | 213      | 213   | 0                | 5242  |
| 2009–10 <sup>i</sup> | 0                 | 0         | 0              | 0     | 0               | 3931              | 0              | 3931  | 0               | 161               | 161   | 0              | 0                | 0     | 0                | 0       | 0     | 3931            | 161      | 161   | 0                | 4091  |
| 2010–11 <sup>j</sup> | 0                 | 0         | 0              | 0     | 0               | 3872              | 0              | 3872  | 0               | 85                | 85    | 1              | 0                | 1     | 0                | 0       | 0     | 3872            | 85       | 85    | 0                | 3958  |
| 2011–12              | 0                 | 0         | 0              | 0     | 0               | 4485              | 0              | 4485  | 0               | 58                | 58    | 0              | 0                | 0     | 0                | 0       | 0     | 4485            | 58       | 58    | 0                | 4543  |
| 2012–13              | 0                 | 0         | <1             | 0     | 0               | 4198              | 0              | 4198  | 0               | 341               | 341   | 0              | 0                | 0     | 0                | 0       | 0     | 4198            | 341      | 341   | 0                | 4539  |
| 2013–14              | 0                 | 0         | 0              | 0     | 0               | 5039 <sup>k</sup> | 11             | 5050  | 0               | 369               | 369   | 0              | 0                | 0     | 0                | 0       | 0     | 5039            | 380      | 380   | 0                | 5420  |
| 2014–15              | 0                 | 0         | 0              | 0     | 0               | 4948 <sup>l</sup> | 0              | 4948  | 0               | 572 <sup>m</sup>  | 572   | 0              | 0                | 0     | 0                | 0       | 0     | 4948            | 571      | 571   | 0                | 5519  |
| 2015–16              | 0                 | 0         | 0              | 0     | 0               | 4899 <sup>n</sup> | 0              | 4899  | 0               | 554               | 554   | 0              | 180 <sup>o</sup> | 180   | 0                | 0       | 0     | 4899            | 734      | 734   | 0                | 5633  |
| 2016–17              | 0                 | 0         | 0              | 0     | 0               | 4683              | 0              | 4683  | 0               | 566 <sup>p</sup>  | 566   | 0              | 84 <sup>q</sup>  | 84    | 0                | 0       | 0     | 4683            | 650      | 650   | 0                | 5334  |
| 2017–18              | 0                 | 0         | 0              | 0     | 0               | 5130 <sup>r</sup> | 0              | 5130  | 0               | 1029 <sup>s</sup> | 1029  | 0              | 0                | 0     | 0                | 0       | 0     | 5130            | 1029     | 1029  | 0                | 6159  |
| 2018–19              | 0                 | 0         | 0              | 0     | 0               | 5294 <sup>t</sup> | 0              | 5294  | 0               | 761               | 761   | 0              | 20 <sup>u</sup>  | 20    | 0                | 0       | 0     | 5308            | 766      | 766   | 0                | 6074  |
| 2019–20              | 0                 | 0         | 0              | 0     | 0               | 4570 <sup>v</sup> | 0              | 4570  | 0               | 833               | 833   | 0              | 26 <sup>w</sup>  | 26    | 0                | 0       | 0     | 4586            | 844      | 844   | 0                | 5429  |

**Table 1 Australian Catch (t) by Gear and State for Fishing Seasons 1988–89 to 2023–24, Cont.**

| Fishing Season | Western Australia |                |           |       | South Australia    |                   |           |       | New South Wales    |                   |       | Tasmania |                  |       | Large Longliners |               |       | Australia Total  |                    |                 |      | Total             |
|----------------|-------------------|----------------|-----------|-------|--------------------|-------------------|-----------|-------|--------------------|-------------------|-------|----------|------------------|-------|------------------|---------------|-------|------------------|--------------------|-----------------|------|-------------------|
|                | Albany Pole       | Esperance Pole | Long-line | Total | Pole & Purse Seine | Farm Cages        | Long-line | Total | Pole & Purse Seine | Long-line         | Total | Troll    | Long-line        | Total | Aust. Charter    | Joint-venture | Total | Domestic Surface | Domestic Long-line | Total Long-line | RTMP | Total All Gears   |
| 2020–21        | 0                 | 0              | 0         | 0     | 0                  | 4593 <sup>x</sup> | 0         | 4594  | 0                  | 1023              | 1023  | 0        | 31 <sup>y</sup>  | 31    | 0                | 0             | 0     | 4606             | 1041               | 1041            | 0    | 5647 <sup>z</sup> |
| 2021–22        | 0                 | 0              | 0         | 0     | 0                  | 4944 <sup>A</sup> | 0         | 4944  | 0                  | 988 <sup>B</sup>  | 988   | 0        | 38 <sup>C</sup>  | 38    | 0                | 0             | 0     | 4942             | 1013 <sup>D</sup>  | 1013            | 0    | 5970 <sup>D</sup> |
| 2022–23        | 0                 | 0              | 0         | 0     | 0                  | 4699 <sup>E</sup> | 0         | 4699  | 0                  | 1314              | 1314  | 0        | 22 <sup>F</sup>  | 22    | 0                | 0             | 0     | 4712             | 1323               | 1323            | 0    | 6035              |
| 2023–24        | 0                 | 0              | 0         | 0     | 0                  | 4526 <sup>G</sup> | 0         | 4526  | 0                  | 1167 <sup>H</sup> | 1167  | 0        | 631 <sup>I</sup> | 0     | 0                | 0             | 0     | 4526             | 1798               | 1798            | 0    | 6324              |

Note that 'RTMP' refers to the Real Time Monitoring Program.

**a** Note that a further 700 t of Australian quota was 'frozen' (not allocated) in 1990–91.

**b** 1997–98 and 1998–99 Western Australia and South Australia non-farm catches are included in South Australia pole and purse seine catch, and in 1999–00 and 2000–01 Western Australia longline catch is included in South Australia longline due to confidentiality guidelines.

**c** 1997–98 to 1998–99 New South Wales pole and purse seine catches are included in New South Wales longline catch due to confidentiality guidelines.

**d** 1997–98 and 1998–99 Tasmania troll catches are included in Tasmania longline, and in 1999–00, 2000–01 and 2001–02 Tasmania longline catch is included in New South Wales longline due to confidentiality guidelines.

**e** 2001–02 and 2003–04 New South Wales longline catch also includes Queensland longline catch due to confidentiality guidelines.

**f** 2002–03 and 2003–04 Western Australia longline catch is included in New South Wales longline due to confidentiality guidelines.

**g** 2003–04 South Australia longline catch is included in New South Wales longline due to confidentiality guidelines.

**h** 2003–04 additional South Australia purse seine catch that did not go into farm cages is included in South Australia farm cages catch due to confidentiality guidelines.

**i** Year 1 of the 2009–11 fishing season (2009–10).

**j** Year 2 of the 2009–11 fishing season (2010–11).

**k** Includes <1t of trolling.

**l** Includes <1t of pole-and-line.

**m** Includes <5t of rod-and-reel around New South Wales and rod-and-reel and longline around Tasmania, due to confidentiality constraints.

**n** Includes <5t of pole-and-line and rod-and-reel, due to confidentiality constraints.

**o** Includes <1t of trolling, due to confidentiality constraints.

**p** Includes <1t of trolling, due to confidentiality constraints.

**q** Includes <1t of trolling, rod-and-reeling and gillnetting, due to confidentiality constraints.

**r** Includes pole-and-line, due to confidentiality constraints.

**s** Includes longlining and rod-and-reeling off Tasmania, due to confidentiality constraints.

**t** Includes pole-and-line, due to confidentiality constraints.

**u** Includes trolling and rod-and-reeling, due to confidentiality constraints.

**v** Includes pole-and-line, due to confidentiality constraints.

**w** Includes trolling and rod-and-reeling, due to confidentiality constraints.

**x** Includes pole-and-line, due to confidentiality constraints.

**y** Includes trolling off Western Australia and Tasmania, and rod-and-reeling off Tasmania, due to confidentiality constraints.

## Australia's 2023–24 Southern Bluefin Tuna Fishing Season

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**z** Total catch reported in this table is 2t larger than the actual total catch for the 2020-21 season. This is due to 2t of SBT being caught in November 2021 but landed in December 2021. To assign the location of catch, logbook latitude and longitude values are required, which are assigned to seasons based on the date caught. This resulted in the discrepancy from the total catch as reported by landing data.

**A** Includes pole-and-line and trolling off South Australia and some trolling off Western Australia, due to confidentiality constraints.

**B** Includes longline in Queensland, due to confidentiality constraints.

**C** Includes trolling and rod-and-reeling off Tasmania and some rod-and-reeling off Victoria, due to confidentiality constraints.

**D** Total catch reported in this table is 2t lower than the actual total catch for the 2021-22 season. This is due to 2t of SBT being caught in November 2021 but landed in December 2021. To assign the location of catch, logbook latitude and longitude values are required, which are assigned to seasons based on the date caught. This resulted in the discrepancy from the total catch as reported by landing data.

**E** Includes pole-and-line off South Australia and trolling off Western Australia, due to confidentiality constraints.

**F** Includes rod-and-reel and trolling off Tasmania and Victoria; and longline off Victoria, due to confidentiality constraints.

**G** Includes handlining, pole-and-lining and rod-and-reeling off South Australia; and trolling and longlining off Western Australia, due to confidentiality constraints.

**H** Includes longlining off Queensland, due to confidentiality constraints.

**I** Includes rod-and-reel off Victoria and Tasmania and longlining off Victoria due to confidentiality constraints.

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## 2 Catch and effort

### 2.1 Purse seine fishery

In 2023–24, 71.2% of the Australian catch of SBT was taken by purse seine off SA for farm operations. The remainder was taken by longline off NSW, TAS, QLD, VIC and WA; pole-and-line and handline off SA; trolling off WA; and, rod-and-reel off SA, TAS and VIC. Australian catch by gear and state from the 1988–89 to the 2023–24 fishing season is shown in Table 1. Catch by fishing season with number of vessels and vessel search hours are shown in Appendix C. The Australian catch of SBT for the calendar years 2023 and 2024 is mapped in Figure 4 and Figure 5, respectively.

#### 2.1.1 Nominal CPUE

Nominal catch-per-unit-effort (CPUE) indices for the Australian surface and longline fisheries are not viewed as indicative of stock status. The farm operations use purse seines to catch SBT, with assistance from bait vessels and spotter planes. Australia does not consider these data suitable for interpreting catch rates as an index of abundance.

#### 2.1.2 Size composition

In the SA purse-seine fishery, there has been reduced competition for SBT among fishers following the introduction of individual transferable quotas (ITQs). Starting in the late 1980s, the fishery targeted small (~80 cm) SBT, which were previously taken in bulk for canning (Caton et al. 1995). However, the size range of SBT taken has been variable since then. Closure of Australian canneries resulted in an increase in the average length of SBT landed for fresh-chilled export. As the farming component of the fishery increased in the 1990s, the average length of SBT landed in SA decreased from a peak of 103.2 cm in 1995 to 80.4 cm in 2022 (Table 2). In recent seasons, this is primarily due to a reduction in the size of SBT available to purse-seine fishing in key fishing grounds in the Great Australian Bight. The average length of SBT landed in SA in 2023–24 was 83.3 cm.

### 2.2 Longline fishery

The catch of SBT by the Australian longline fleet off the east coast has grown in recent years from 58 t in 2011–12 to 1,798.6 t in 2023–24. Approximately 95% of the Australian longline caught SBT are landed or processed in six main locations: Lakes Entrance, Ulladulla, Bermagui, Eden, Sydney and Mooloolaba. Current in port sampling programs are mainly targeted at tropical tunas, however SBT length frequency data are also collected from the major ports during the months May – October (n=3,326 in 2023–24).

As the catch has increased questions have been raised about whether there is value in collecting otoliths for estimation of the age composition of the catch of this fishery (for use in the SBT operating models), and if so, how many otoliths are required and how will length-at-age data be used to estimate catch-at-age with required level of precision. The size range of SBT caught in the longline fishery (~110–180 cm fork length) is larger than those caught by the surface fishery (~80–110 cm) so length-at-age data currently collected by Australia cannot be applied to the longline fishery.

Australia engaged CSIRO in 2017 to evaluate the direct ageing requirements for the Australian longline fishery. The research concluded that based on the size range of SBT caught by the longline fishery a minimum sample size of 300 otoliths (~20 fish per 5-cm length class) for direct ageing per fishing season would be sufficient. It was noted that flexibility in the sampling program is important if the size range of SBT in the catch changes over time. The aim of the sampling program would be to provide a representative estimate of length at age by collecting otoliths from the full range of sizes caught while maintaining sufficient numbers of otoliths in each size class to achieve the target level of precision. The number of otoliths required to meet ageing requirements for fish caught in the longline fishery may need to be re-visited in parallel with, and in light of, recent epigenetic ageing analysis of SBT that has shown this method produces reliable age estimates for SBT in other age classes.

### **2.2.1 Nominal CPUE**

Nominal SBT CPUE for Australian longline effort and 4+ catch was provided in the 2025 data exchange and is shown at Appendix D and Appendix E.

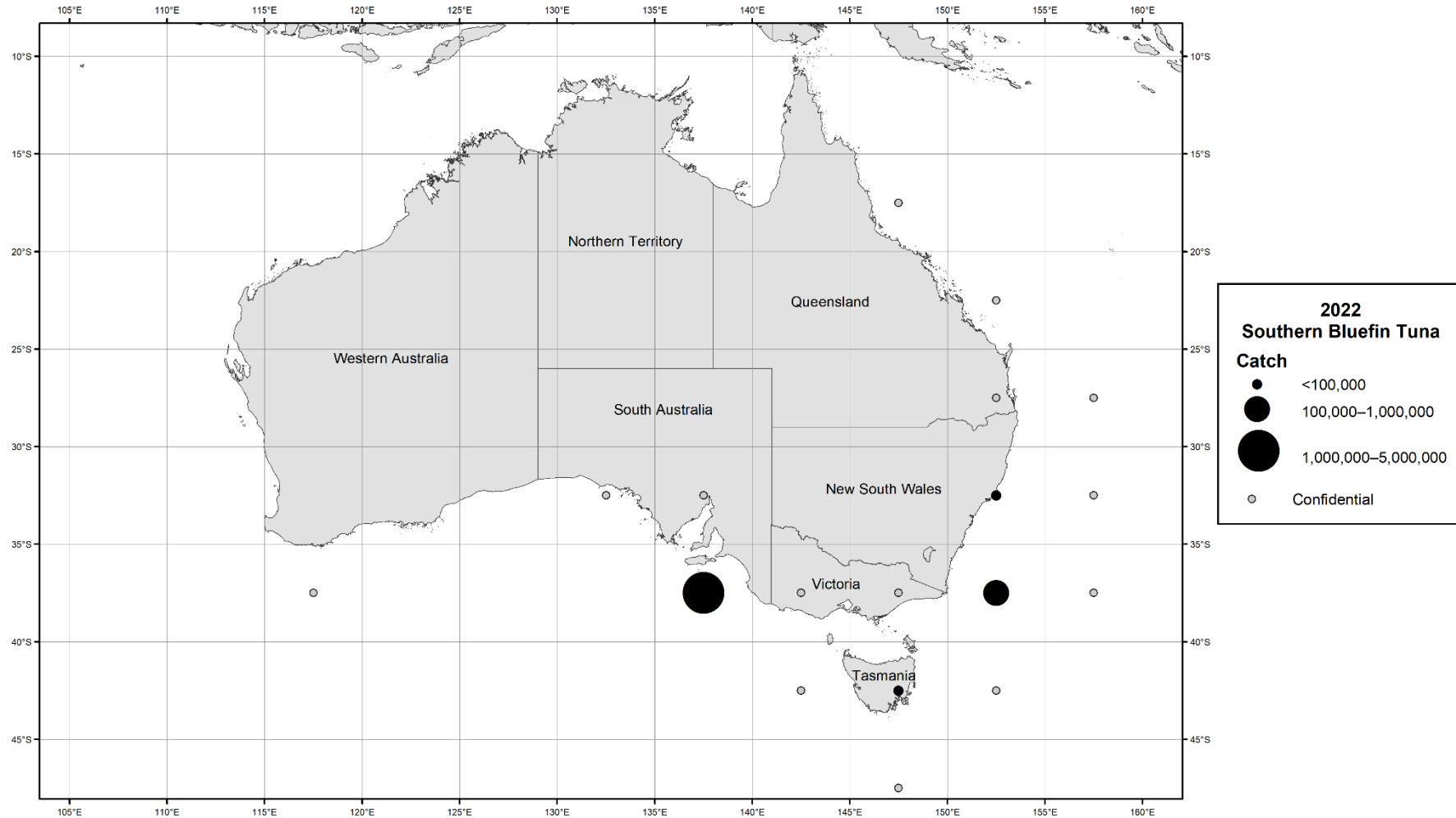
### **2.2.2 Size composition**

Since the late 1980s, the average length of SBT landed in NSW has varied considerably because of the varying contribution of longline and sporadic surface catches to the overall catch levels. However, longline-caught SBT off NSW have, in general, been considerably larger than SBT previously taken in this fishery by purse seine in SA (Figure 6 and 7). Similarly, the size trends in the Tasmanian area of the fishery reflect the change from trolling to longlining operations, which target larger fish, in 1993.

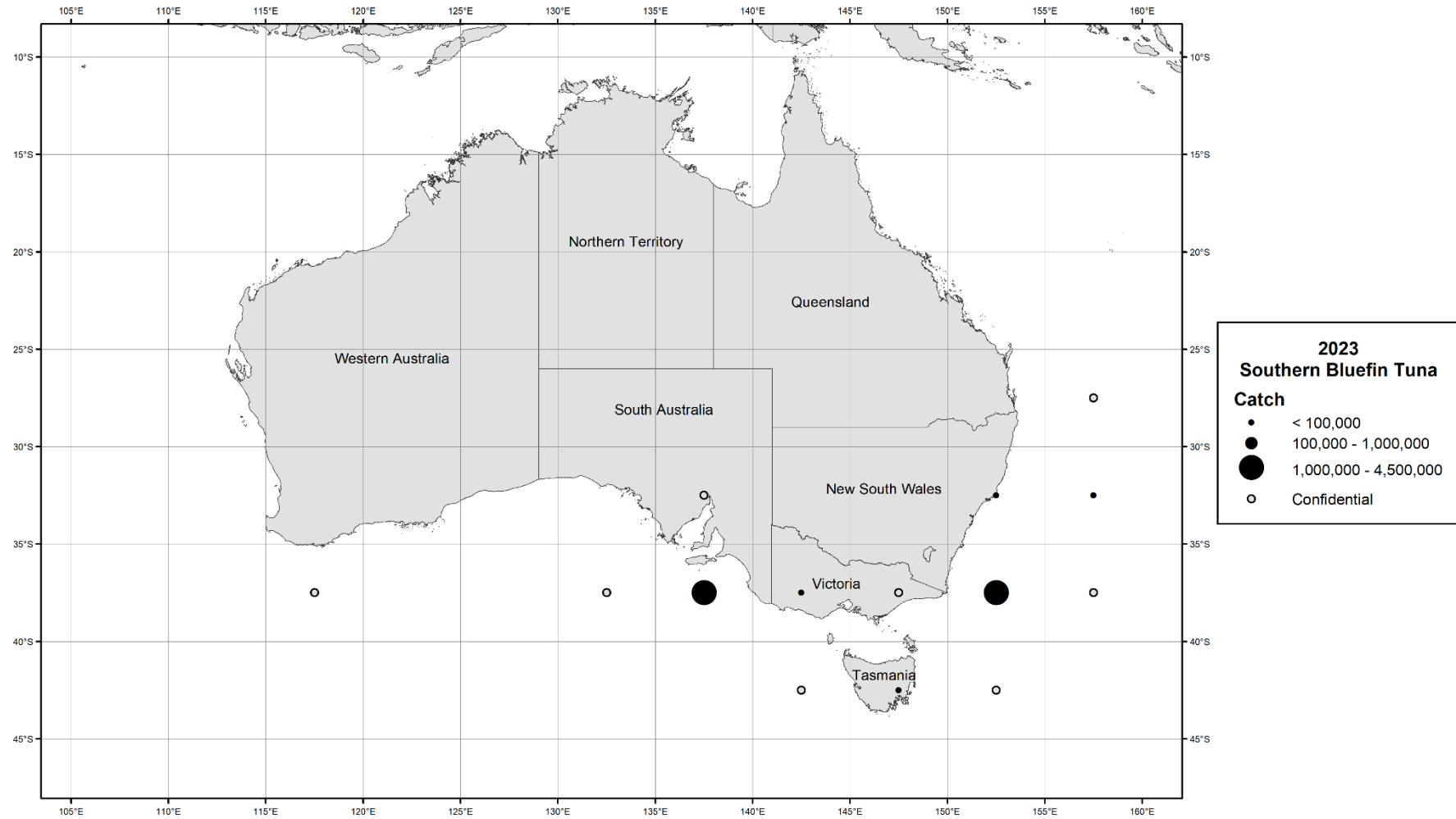
The percentage representation by length in the winter catches of Japanese longliners off eastern TAS from 1988 to 1997 show modal changes through time (Figure 8). Modes that represent juvenile age classes were less visually evident in 1988 and 1989. Sample sizes were < 1000 in these years which may contribute to the lack of modal clarity. Modes at approximately 90 cm, 104 cm and 118 cm were visually evident in the period between 1991 and 1997. Progression of these modes into size classes >130 cm was also visually evident over this period. The absence of clear modes in the size range of 130 cm to 150 cm in the period 1988 to 1993 is consistent with intensive removals of small SBT in the early 1980s by Australia's surface fishery.

A reduced representation of SBT <105 cm was visually evident in 1994, then of SBT <120 cm in 1995, and SBT <135 cm in 1996. This coincided with a reduced abundance of small SBT (<100 cm) in the TAS troll fishery in 1994 and 1995, and the failure of the troll fishery in 1996 and 1997. The Japanese and joint-venture longline operations in the AFZ ceased operations in 1997.

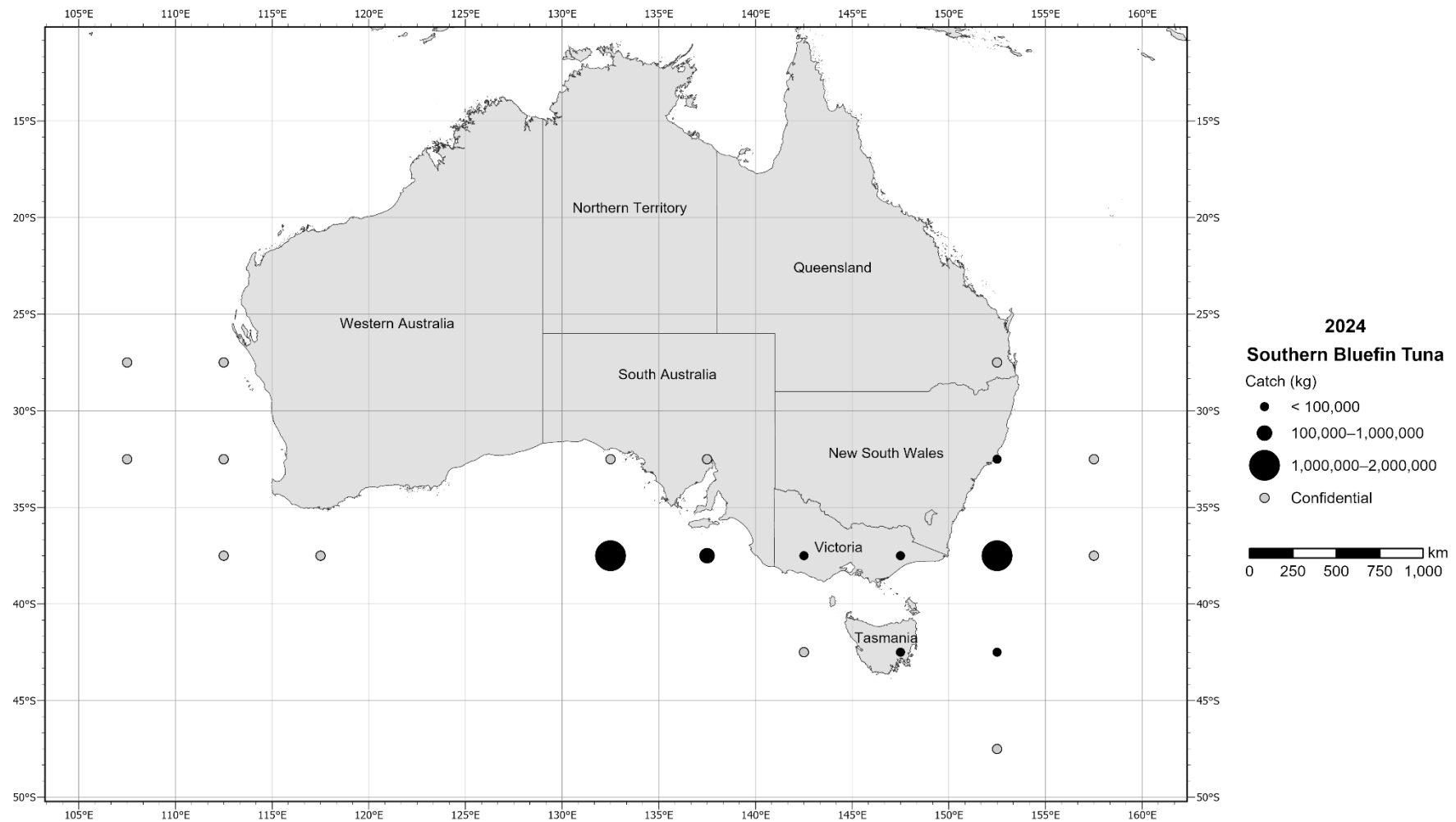
**Figure 1 Australian SBT catch in the 2022 calendar year. Note that catch is centred in each grid square.**



**Figure 2 Australian SBT catch in the 2023 calendar year. Note that catch is centred in each grid square.**



**Figure 3 Australian SBT catch in the 2024 calendar year. Note that catch is centred in each grid square.**

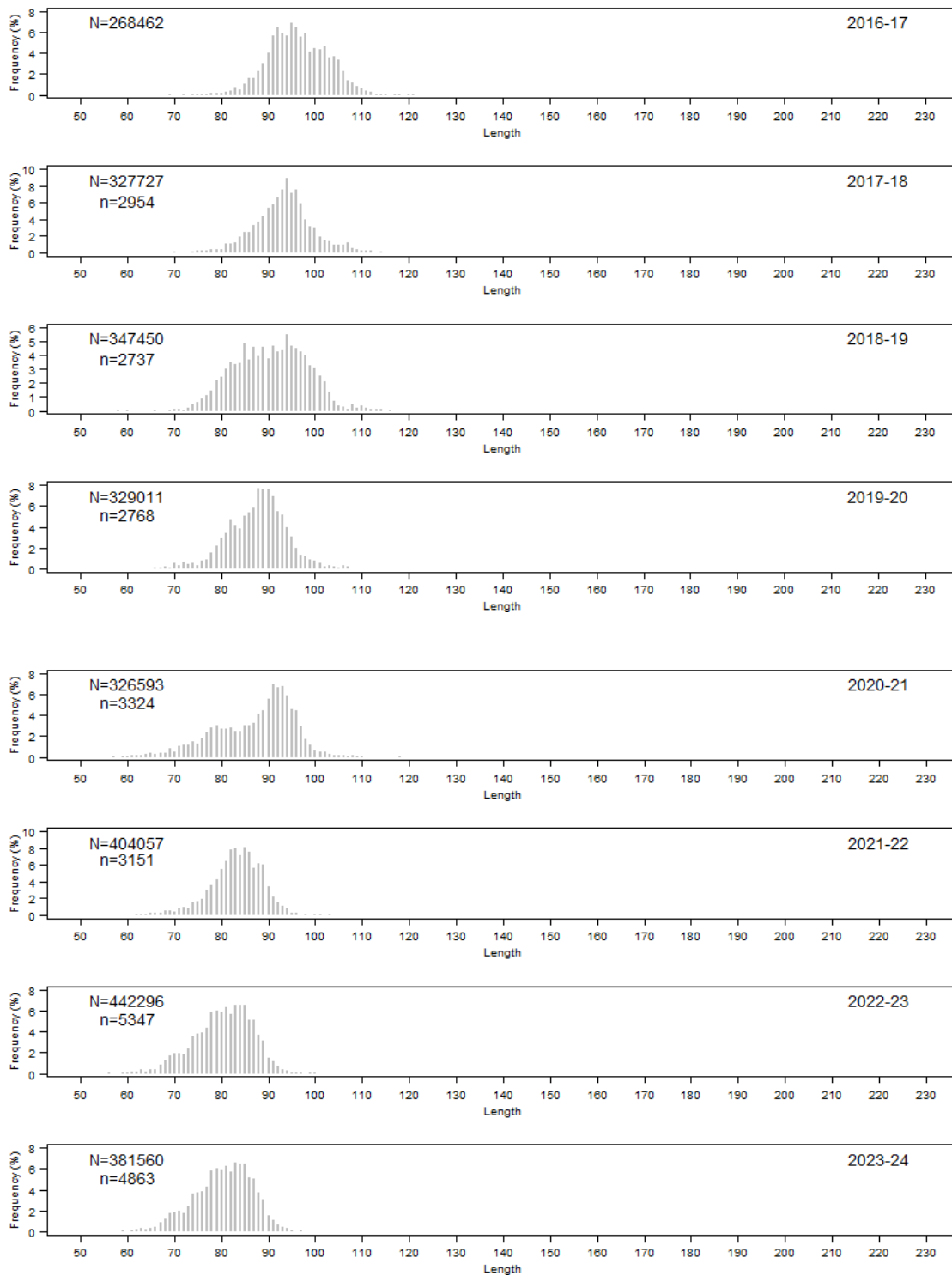


**Table 2 Average fork length (cm) of SBT landed in each Australian state, 1989 to 2024**

| Calendar<br>Year | Western<br>Australia <sup>a</sup> | South<br>Australia <sup>a</sup> | Tasmania | NSW   | Joint-<br>venture |
|------------------|-----------------------------------|---------------------------------|----------|-------|-------------------|
| 1989             | 65.4                              | 88.8                            | —        | —     | —                 |
| 1990             | 65.6                              | 89.3                            | 96.0     | 112.8 | —                 |
| 1991             | 67.2                              | 95.5                            | 94.9     | 154.8 | 114.5             |
| 1992             | 66.1                              | 97.0                            | 93.4     | 109.2 | 108.0             |
| 1993             | 65.2                              | 101.1                           | 99.7     | 117.8 | 116.5             |
| 1994             | —                                 | 97.4                            | 125.5    | 121.3 | 124.8             |
| 1995             | —                                 | 103.2                           | 127.9    | 125.0 | 125.0             |
| 1996             | —                                 | 102.7                           | 132.7    | 139.7 | —                 |
| 1997             | —                                 | 97.7                            | 133.2    | 134.6 | —                 |
| 1998             | —                                 | 94.9                            | 134.5    | 136.1 | —                 |
| 1999             | —                                 | 97.6                            | 134.2    | 138.5 | —                 |
| 2000             | —                                 | 97.0                            | —        | 154.3 | —                 |
| 2001             | 154.3                             | 98.1                            | —        | 149.7 | —                 |
| 2002             | —                                 | 98.4                            | —        | 159.9 | —                 |
| 2003             | —                                 | 98.7                            | —        | 154.1 | —                 |
| 2004             | —                                 | 93.6                            | —        | 161.9 | —                 |
| 2005             | —                                 | 91.0                            | —        | 161.7 | —                 |
| 2006             | —                                 | 90.7                            | —        | 154.1 | —                 |
| 2007             | —                                 | 94.0                            | —        | 150.5 | —                 |
| 2008             | —                                 | 93.9                            | —        | 166.7 | —                 |
| 2009             | —                                 | 97.3                            | 159.9    | 149.6 | —                 |
| 2010             | —                                 | 94.4                            | —        | 146.7 | —                 |
| 2011             | —                                 | 89.1                            | 147.5    | 149.1 | —                 |
| 2012             | —                                 | 93.0                            | —        | 167.0 | —                 |
| 2013             | —                                 | 96.1                            | —        | 146.6 | —                 |
| 2014             | —                                 | 94.7                            | —        | 155.2 | —                 |
| 2015             | —                                 | 92.5                            | —        | 140.3 | —                 |
| 2016             | —                                 | 96.4                            | —        | 142.9 | —                 |
| 2017             | —                                 | 93.4                            | 134.1    | 140.4 | —                 |
| 2018             | —                                 | 90.6                            | 133.5    | 139.5 | —                 |
| 2019             | —                                 | 87.8                            | 129.6    | 140.7 | —                 |
| 2020             | —                                 | 87.2                            | 132.5    | 141.4 | —                 |
| 2021             | —                                 | 83.3                            | 123.1    | 136.3 | —                 |
| 2022             | —                                 | 80.4                            | 133.0    | 140.1 | —                 |
| 2023             | —                                 | 83.3                            | 124.9    | 136.1 | —                 |
| 2024             | —                                 | —                               | 125.9    | 136.7 | —                 |

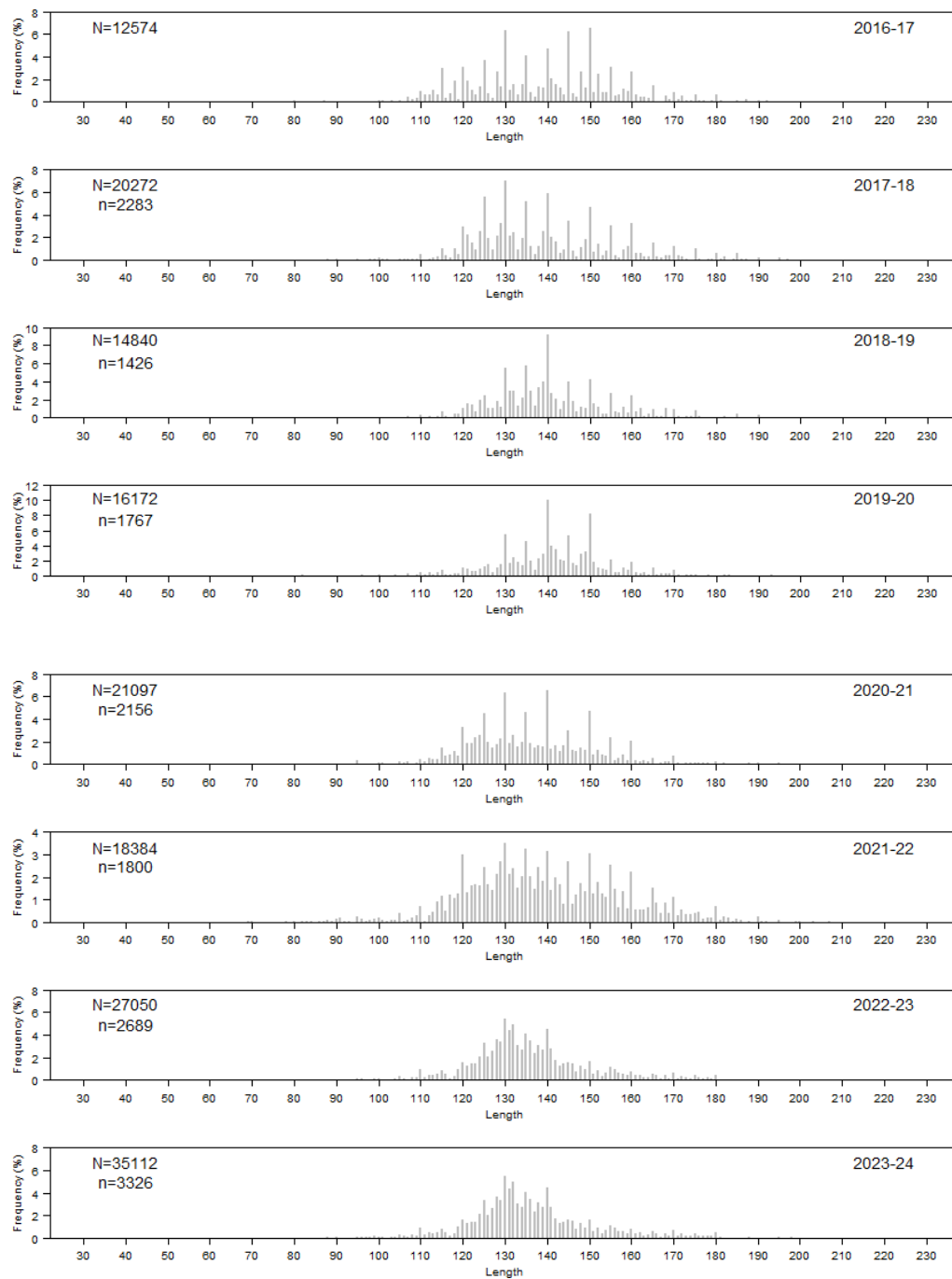
<sup>a</sup> Lengths are reported by calendar year, except for Western Australia, which are by financial year (e.g. 1998 represents the financial year 1998–99) and South Australia, which are by fishing season, to cover the summer season

**Figure 4 Length frequency of SBT purse seine catch in Australian waters raised to total catch, 2016–17 to 2023–24 fishing seasons**



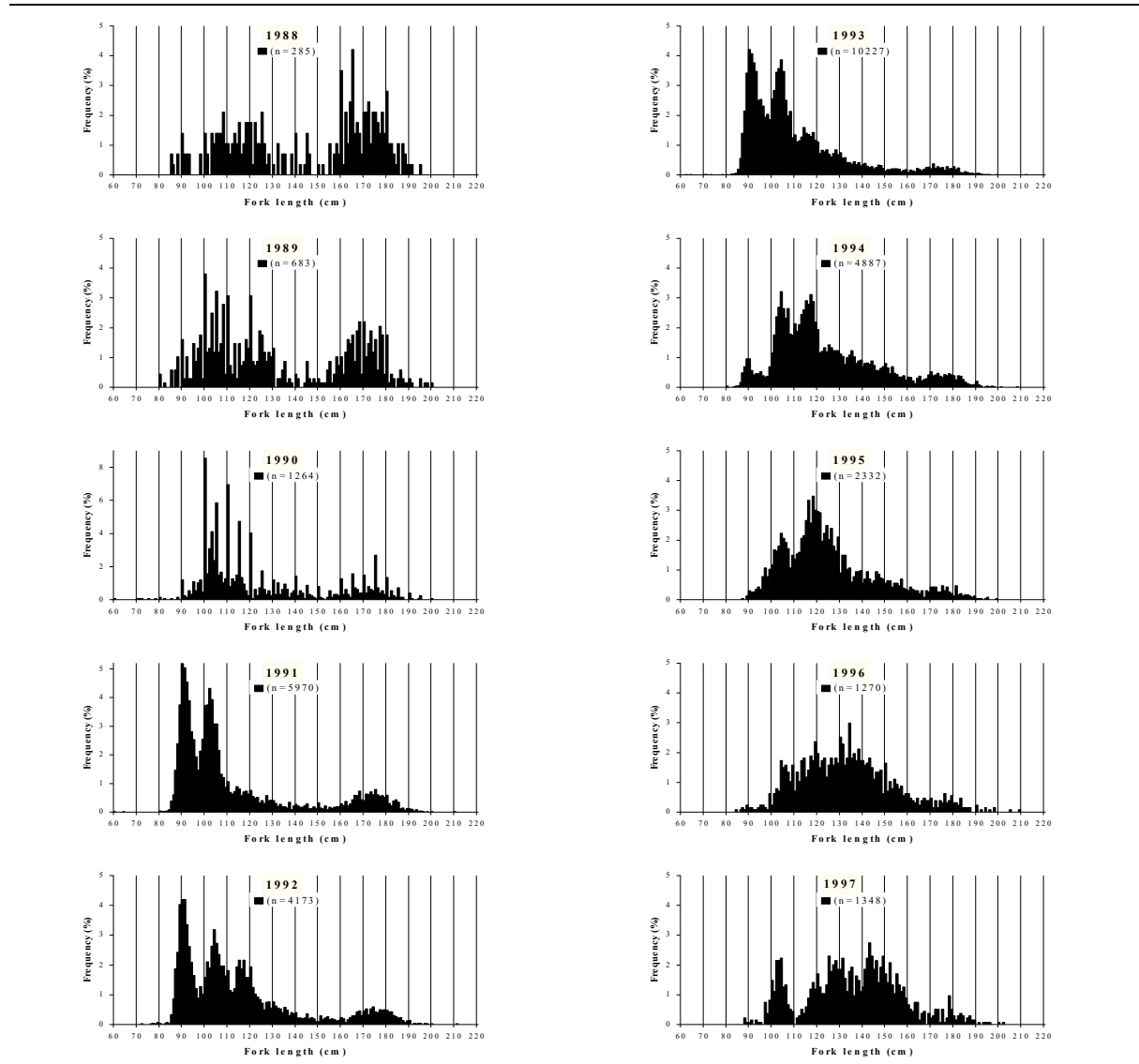
Source: tow cage size monitoring database

**Figure 5 Length frequency histograms for retained SBT longline catch in Australian waters raised to total catch, 2016–17 to 2023–24 quota years**

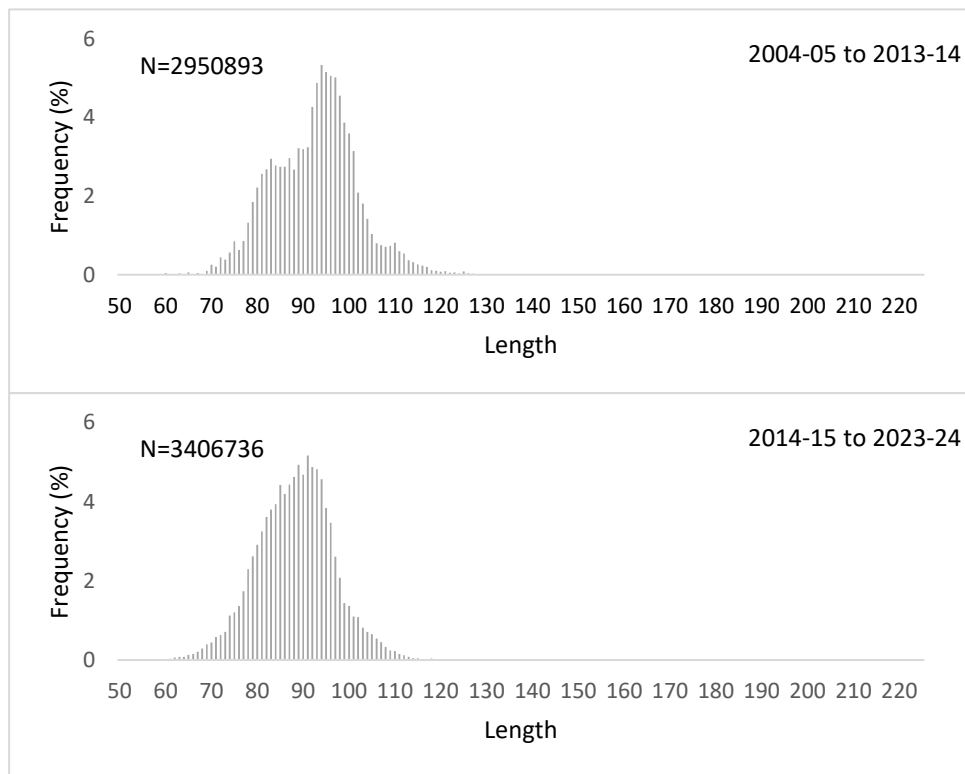


Source: AFMA observer data and processor monitoring data

**Figure 6 Length frequency of SBT measured by Australian observers on Japanese longliners fishing in the Tasmania region, 1988 to 1997. The data include small SBT tagged and released by observers.**

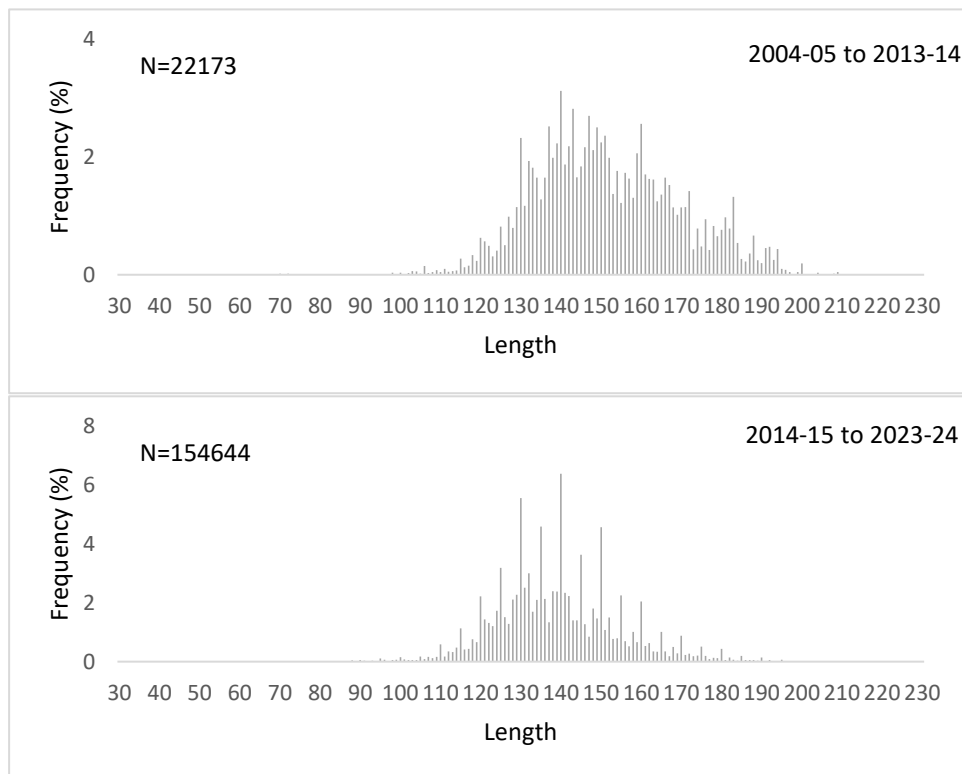


**Figure 7 Length frequency histograms for retained SBT purse seine catch in Australian waters raised to total catch by decade, quota years**



Source: AFMA observer data and processor monitoring data

**Figure 8 Length frequency histograms for retained SBT longline catch in Australian waters raised to total catch by decade, quota years**



Source: AFMA observer data and processor monitoring data

## 3 Fleet size and distribution

In 2023–24, a total of 41 commercial fishing vessels landed SBT (or transferred to farm cages) in Australian waters.

### 3.1 South Australia (SA)

The one- to five-year-old SBT, which school from late spring to autumn in surface waters of the eastern Great Australian Bight, SA, were fished by 5 purse seiners during 2023–24, with various live bait, pontoon-towing and feeding vessels also involved. Purse-seine fishing commenced in mid-December 2023 and finished by the end-March 2024. One vessel conducted pole-and-line operations in the waters off SA in the 2023–24 season. One vessel also conducted handline operations, and two vessels conducted rod-and-reel operations. Two vessels conducted longlining operations in the waters off SA, both of which also fished in Tasmanian or Victorian waters.

### 3.2 Western Australia (WA)

Two trolling vessels and three longline vessels caught SBT off WA in 2023–24.

### 3.3 New South Wales (NSW)

In 2023–24, 22 longliners reported landing both older juvenile and adult SBT in deeper waters off NSW. Fourteen of these vessels also fished waters around VIC, TAS or QLD.

### 3.4 Tasmania (TAS)

In 2023–24, six longliners caught SBT off TAS. All of these also operated in waters off NSW, VIC or SA. Three vessels conducted rod-and-reel operations catching SBT off TAS.

### 3.5 Queensland (QLD)

Three vessels caught SBT off QLD in 2023–24. All of these vessels also operated in waters off NSW, VIC or TAS.

### 3.6 Victoria (VIC)

Fifteen longline vessel caught SBT off Victoria, all of which also operated off NSW, South Australia, QLD or TAS. Four vessels conducted rod-and-reel operations catching SBT off Victoria.

## 4 Research and monitoring to improve estimates of attributable catch

### 4.1 Recreational fishing

Recreational fishing for SBT occurs primarily off south-east TAS, NSW, SA, and western VIC. There is also some catch of small SBT off south-west WA. Recreational fishing for SBT is managed by the relevant states. States that have a recreational fishing bag limit (number of fish that can be retained) for SBT include SA, VIC, TAS and NSW. SA also has a limit on the number of SBT taken per boat. Retention of SBT by recreational fishers is banned in QLD.

Tracey et al. (2016) details a study examining post-release survival and physiological stress in SBT captured recreationally. This study estimated a post-release survival rate of 86.6% and indicates that SBT captured recreationally are likely to survive when released. However, this result is a best-case scenario for recreational fishing using proper handling methods and it is unclear how these results relate to commercial longline post-survival rates.

#### 4.1.1 National estimate of recreational SBT catch

In 2013, Australia commenced a project with the relevant state jurisdictions to develop a methodology to obtain robust estimates of the total Australian recreational catch of SBT (Moore et al. 2015). The project incorporated elements of previous surveys, including TAS off-site and Victorian on-site surveys. The project reviewed potential methodologies, conducted initial survey design work and tested on-site surveys in SA locations, from January to August 2014.

[A national survey of recreational fishing for SBT](#) that commenced in 2018 was finalised in 2020 (Tracey et al. 2020). The survey estimated recreational catch was 270 t for the survey year. Australia advised the CCSBT in 2020 that it would set aside 5% of its CCSBT allocation annually against recreational catch, starting in the 2020–21 season, which at the time was around 312 t. The additional amount set aside allows for fluctuation between years in the recreational fishery, plus some room for growth in recreational catch.

#### **4.1.2 Variation in recreational catch**

Anecdotal evidence suggests that the recreational catch of SBT can vary between years and regions. The mechanisms driving this variability are not well understood but likely include factors such as variation in the currents and oceanographic conditions. These environmental factors also likely affect the size of the fish that are available, as variation in the size of the SBT taken by recreational fishers has been documented both within and between years (e.g. Forbes et al. 2009; Tracey et al. 2013).

Fisher behaviour also varies between regions and seasons and is likely to influence the level of fishing for SBT. In years where the fish are further offshore there is likely to be less effort to fish. In contrast, when the fish occur close to shore, they may be available to a wider group of fishers. Fishers may also be motivated to fish (or not to fish) based on other factors such as the size of the fish being taken and the perceived abundance of fish in that year.

#### **4.1.3 Tag releases**

The number of reported SBT tag releases by Australian recreational fishers is provided in Table 3. These data do not include recreational tag releases using CCSBT tags. There has been an increase in reported tag and release activity for SBT since 2005, particularly in SA. The trends in SBT tag-releases are difficult to interpret; tagging is influenced by various factors, including the abundance and distribution of SBT, angler participation rates (fishing effort), angler attitudes and behaviour, the condition of fish, the availability of tags and management measures (e.g. bag limits) in relation to fish size and catch rates.

**Table 3 Reported tag releases of SBT by Australian recreational fishers, 1990 to 2024**

| Year | Percentage of total releases |      |      |      |      | No. of Releases |
|------|------------------------------|------|------|------|------|-----------------|
|      | TAS                          | NSW  | SA   | VIC  | WA   |                 |
| 1990 | 7.1                          | 0.0  | 14.3 | 57.1 | 21.4 | 14              |
| 1991 | 5.8                          | 44.7 | 23.2 | 25.6 | 0.7  | 293             |
| 1992 | 5.6                          | 18.5 | 48.1 | 24.1 | 3.7  | 54              |
| 1993 | 3.5                          | 6.9  | 87.9 | 0.0  | 1.7  | 231             |
| 1994 | 0.0                          | 14.3 | 76.2 | 0.0  | 9.5  | 63              |
| 1995 | 0.0                          | 25.0 | 25.0 | 0.0  | 50.0 | 12              |
| 1996 | 0.0                          | 25.8 | 74.2 | 0.0  | 0.0  | 159             |
| 1997 | 0.0                          | 3.7  | 87.0 | 0.0  | 9.3  | 54              |
| 1998 | 4.8                          | 0.8  | 52.5 | 40.6 | 1.3  | 377             |
| 1999 | 0.0                          | 0.0  | 70.9 | 29.1 | 0.0  | 117             |
| 2000 | 0.0                          | 0.4  | 99.1 | 0.4  | 0.0  | 224             |
| 2001 | 38.8                         | 1.9  | 23.8 | 30.6 | 5.0  | 160             |
| 2002 | 39.4                         | 2.6  | 25.9 | 25.4 | 6.7  | 193             |
| 2003 | 14.3                         | 0.0  | 71.4 | 0.0  | 14.3 | 21              |
| 2004 | 31.8                         | 0.0  | 45.5 | 0.0  | 22.7 | 22              |
| 2005 | 0.0                          | 2.1  | 93.7 | 0.0  | 4.2  | 96              |
| 2006 | 7.2                          | 0.2  | 84.7 | 0    | 7.9  | 584             |
| 2007 | 29.3                         | 0.1  | 66.2 | 1.3  | 3.1  | 1303            |
| 2008 | 1.0                          | 0    | 96.6 | 0.5  | 1.9  | 1006            |
| 2009 | 9.0                          | 3.3  | 83.9 | 1.7  | 2.2  | 2044            |
| 2010 | 5.2                          | 0.5  | 85.0 | 4.6  | 4.6  | 3501            |
| 2011 | 4.3                          | 15.9 | 75.7 | 3.5  | 0.6  | 3351            |
| 2012 | 36.5                         | 5.4  | 40.6 | 14.3 | 3.3  | 1042            |
| 2013 | 12.8                         | 0.3  | 80.0 | 6.6  | 0.3  | 986             |
| 2014 | 22.9                         | 3.0  | 59.5 | 14.1 | 0.5  | 2288            |
| 2015 | 16.4                         | 1.0  | 72.3 | 9.7  | 0.6  | 2106            |
| 2016 | 35.8                         | 0.6  | 55.3 | 8.1  | 0.2  | 2842            |
| 2017 | 29.3                         | 2.2  | 58.9 | 8.9  | 0.8  | 1179            |
| 2018 | 18.5                         | 2.8  | 56.9 | 21.0 | 0.7  | 1402            |
| 2019 | 28.9                         | 0.5  | 46.2 | 23.2 | 1.2  | 1095            |
| 2020 | 42.1                         | 0.3  | 32.8 | 24.2 | 0.7  | 1174            |
| 2021 | 35.8                         | 6.3  | 51.3 | 6.3  | 0.3  | 1519            |
| 2022 | 32.6                         | 0    | 55.9 | 11.4 | 0.1  | 2142            |
| 2023 | 42.6                         | 1.7  | 37.4 | 18.2 | 0.1  | 1434            |
| 2024 | 36.9                         | 0.7  | 42.4 | 19.9 | 0.1  | 682             |

Source: NSW DPI Game Fish Tagging Program

## 4.2 Discards in the commercial fishery

### 4.2.1 Describe the various sources of information and data used in calculating the estimates

#### Purse-seine sector

Discarding of fish other than live release (immediately after encirclement or as a live release from tow cage) is not permitted in the purse-seine sector. All dead fish encountered during purse-seine operations, towing or transfers must be recorded in logbooks and accounted for under the quota system. To validate logbooks, observers and at sea inspections are used. In the 2023–24 fishing season, observers monitored 11.9% of purse-seine sets where fish were retained for the farm sector and 14.5% of the estimated SBT catch. Australian Fisheries Management Authority (AFMA)

representatives in Port Lincoln monitored 100% of all transfers. During 2023–24, no discarding of SBT was reported in logbooks collected in the purse-seine fishery in the Great Australian Bight.

### **Longline sector**

During the period from May to September, the waters off the east coast of NSW become an area of significant interaction between the SBT and the Eastern Tuna and Billfish Fishery (ETBF). While the ETBF is a multi-species fishery, the SBT is a single species fishery that requires operators to hold SBT quota that is nominated to their boat in order to take the species.

AFMA implements minimum quota holding requirements in specific areas of the ETBF where there is an increase probability of catching SBT. This approach minimises the risk of SBT being landed without quota being available. ETBF vessels are also required to have a fully operational electronic monitoring system installed in order to operate.

The *Southern Bluefin Tuna Fishery Management Plan 1995* outlines the rules relating to the fishery. Statutory fishing rights issued under the Plan include conditions relevant to the discarding of SBT in the longline sector. These conditions are also included on statutory fishing rights issued for vessels in the ETBF.

The conditions for retaining and discarding SBT in the longline sector are outlined below.

*When fishing in the SBT Zone using the longline method the holder must:*

*a) on first entry (which includes being present or fishing in) to the SBT Zone hold at least 1*

*uncaught Southern Bluefin Tuna Statutory Fishing Right nominated to the boat nominated to this concession;*

*b) on every subsequent entry to the SBT Zone continue to hold at least 1 uncaught Southern Bluefin Tuna Statutory Fishing Right nominated to the boat nominated to this concession;*

*c) ensure all dead SBT are landed (retained) except those that are damaged by sharks to the point that they are not fit for human consumption;*

*d) ensure live SBT are either landed (retained) or released (providing they are in a live and vigorous state).*

*e) ensure any SBT that are to be released or discarded must be done so at the fish door in full view of the e-monitoring system. SBT damaged by sharks must have the damaged portion facing the cameras. SBT that are undamaged and dead when discarded or live fish that are gaffed and released will be deducted from the concession holder's quota. The amount of quota decremented will be determined by the average weight of SBT retained for that trip.*

*f) ensure all SBT, whether retained, released or discarded are reported in the logbook.*

*g) carry an AFMA observer when notified by AFMA.*

### **E-Monitoring**

The baseline (e-monitoring) audit rate for all fisheries is a minimum 10% of shots per boat and a minimum of one shot per drive for each boat per month. The analyses include analysis of full catch

composition for each shot selected for review. Catch composition, discards (including life status) and interactions with protected species on audited shots will be compared to logbook records with discrepancies flagged and reported. The focus of e-monitoring is on fishing activities. However, if behaviour that contravenes Australian or International law is observed in the process of viewing footage, it will be referred to the AFMA Compliance team for investigation.

#### **4.2.2 Describe the method applied for estimating the catch**

In 2024, e-monitoring observed 11.6% of longline hook effort in the ETBF during the months and in the areas of the SBT migration through that fishery. For the fishery as a whole, 9.9% of hooks were observed in 2024. The observed (via e-monitoring) total catch number of SBT was 3,728 individuals, of which 3,481 were retained, 234 fish were discarded (54 of which were reported as released alive, 125 were dead or damaged and 55 of which were reported as having an undetermined life status). The remaining 13 individuals escaped (5 alive, 1 damaged, and 7 of unknown life status). None were tagged.

E-monitoring data for 2024 are >90% complete. Updated (100% complete) data for 2024 will be included in the 2026 report.

#### **4.2.3 Provide the resulting estimated catch**

Logbook and electronic monitoring data for the 2024 fishing season indicate that 2,133 individual fish were discarded dead. A majority of these were due to shark damage to the point they were unfit for human consumption. These discards are not deducted from quota as the weight could not be estimated due to the condition of the fish.

The purse-seine sector is required to record all fish mortalities observed during purse seine, tow and transfer operations. Mortalities are fish that have died in the purse-seine net or in the tow cage and these fish are deducted from quota and accounted for in Australia's total commercial catch. Once transferred into tow pontoons (where fish spend most of their time prior to harvest), no further estimate of discard mortality is obtained as all fish have been accounted for in Australia's total commercial catch.

### **4.3 Customary and/or traditional fishing**

Not applicable

### **4.4 Artisanal fishing**

Not applicable

## 5 Other relevant information

Nil.

# Appendix A: SBT fishing season dates 1988–89 to 2023–24

| Quota Year           | Start Date  | End Date    |
|----------------------|-------------|-------------|
| 1988–89              | 1 Oct 1988  | 30 Sep 1989 |
| 1989–90              | 1 Oct 1989  | 30 Sep 1990 |
| 1990–91              | 1 Oct 1990  | 30 Sep 1991 |
| 1991–92              | 1 Oct 1991  | 31 Oct 1992 |
| 1992–93              | 1 Nov 1992  | 31 Oct 1993 |
| 1993–94              | 1 Nov 1993  | 31 Oct 1994 |
| 1994–95              | 1 Nov 1994  | 15 Dec 1995 |
| 1995–96              | 16 Dec 1995 | 15 Dec 1996 |
| 1996–97              | 16 Dec 1996 | 30 Nov 1997 |
| 1997–98              | 1 Dec 1997  | 30 Nov 1998 |
| 1998–99              | 1 Dec 1998  | 30 Nov 1999 |
| 1999–00              | 1 Dec 1999  | 30 Nov 2000 |
| 2000–01              | 1 Dec 2000  | 30 Nov 2001 |
| 2001–02              | 1 Dec 2001  | 30 Nov 2002 |
| 2002–03              | 1 Dec 2002  | 30 Nov 2003 |
| 2003–04              | 1 Dec 2003  | 30 Nov 2004 |
| 2004–05              | 1 Dec 2004  | 30 Nov 2005 |
| 2005–06              | 1 Dec 2005  | 30 Nov 2006 |
| 2006–07              | 1 Dec 2006  | 30 Nov 2007 |
| 2007–08              | 1 Dec 2007  | 30 Nov 2008 |
| 2008–09              | 1 Dec 2008  | 30 Nov 2009 |
| 2009–11 <sup>a</sup> | 1 Dec 2009  | 30 Nov 2011 |
| 2011–12              | 1 Dec 2011  | 30 Nov 2012 |
| 2012–13              | 1 Dec 2012  | 30 Nov 2013 |
| 2013–14              | 1 Dec 2013  | 30 Nov 2014 |
| 2014–15              | 1 Dec 2014  | 30 Nov 2015 |
| 2015–16              | 1 Dec 2015  | 30 Nov 2016 |
| 2016–17              | 1 Dec 2016  | 30 Nov 2017 |
| 2017–18              | 1 Dec 2017  | 30 Nov 2018 |
| 2018–19              | 1 Dec 2018  | 30 Nov 2019 |
| 2019–20              | 1 Dec 2019  | 30 Nov 2020 |
| 2020–21              | 1 Dec 2020  | 30 Nov 2021 |
| 2021–22              | 1 Dec 2021  | 30 Nov 2022 |
| 2022–23              | 1 Dec 2022  | 30 Nov 2023 |
| 2023–24              | 1 Dec 2023  | 30 Nov 2024 |

<sup>a</sup> Note that 2009–11 was a 2-year season

# Appendix B: Purse seine fishing season duration

| Quota Year           | First Day of Season | Last Day of Season | 1st Day | 50% | 75% | 90% | Last Day         | Duration         |
|----------------------|---------------------|--------------------|---------|-----|-----|-----|------------------|------------------|
| 1993–94              | 1 Nov 93            | 31 Oct 94          | 49      | 113 | 127 | 138 | 175              | 127              |
| 1994–95              | 1 Nov 94            | 15 Dec 95          | 36      | 106 | 133 | 160 | 410 <sup>a</sup> | 375 <sup>a</sup> |
| 1995–96              | 16 Dec 95           | 15 Dec 96          | 1       | 67  | 87  | 131 | 365              | 365              |
| 1996–97              | 16 Dec 96           | 30 Nov 97          | 2       | 66  | 85  | 95  | 141              | 140              |
| 1997–98              | 1 Dec 97            | 30 Nov 98          | 19      | 67  | 84  | 98  | 364              | 346              |
| 1998–99              | 1 Dec 98            | 30 Nov 99          | 10      | 52  | 73  | 78  | 113              | 104              |
| 1999–00              | 1 Dec 99            | 30 Nov 00          | 4       | 56  | 65  | 79  | 118              | 115              |
| 2000–01              | 1 Dec 00            | 30 Nov 01          | 4       | 60  | 80  | 88  | 97               | 94               |
| 2001–02              | 1 Dec 01            | 30 Nov 02          | 9       | 61  | 75  | 80  | 121              | 113              |
| 2002–03              | 1 Dec 02            | 30 Nov 03          | 11      | 60  | 82  | 97  | 116              | 106              |
| 2003–04              | 1 Dec 03            | 30 Nov 04          | 9       | 66  | 87  | 102 | 115              | 107              |
| 2004–05              | 1 Dec 04            | 30 Nov 05          | 5       | 61  | 83  | 98  | 119              | 115              |
| 2005–06              | 1 Dec 05            | 30 Nov 06          | 18      | 70  | 92  | 99  | 358              | 341              |
| 2006–07              | 1 Dec 06            | 30 Nov 07          | 1       | 74  | 93  | 104 | 125              | 125              |
| 2007–08              | 1 Dec 07            | 30 Nov 08          | 10      | 58  | 91  | 94  | 99               | 90               |
| 2008–09              | 1 Dec 08            | 30 Nov 09          | 3       | 76  | 103 | 113 | 130              | 128              |
| 2009–11 <sup>b</sup> | 1 Dec 09            | 30 Nov 10          | 3       | 52  | 69  | 78  | 84               | 82               |
| 2009–11 <sup>c</sup> | 1 Dec 10            | 30 Nov 11          | 22      | 61  | 87  | 100 | 356              | 335              |
| 2011–12              | 1 Dec 11            | 30 Nov 12          | 22      | 71  | 85  | 99  | 110              | 89               |
| 2012–13              | 1 Dec 12            | 30 Nov 13          | 21      | 57  | 71  | 79  | 102              | 82               |
| 2013–14              | 1 Dec 13            | 30 Nov 14          | 18      | 58  | 63  | 64  | 69               | 52               |
| 2014–15              | 1 Dec 14            | 30 Nov 15          | 38      | 72  | 89  | 94  | 112              | 75               |
| 2015–16              | 1 Dec 15            | 30 Nov 16          | 19      | 62  | 72  | 75  | 86               | 68               |
| 2016–17              | 1 Dec 16            | 30 Nov 17          | 21      | 47  | 57  | 66  | 90               | 70               |
| 2017–18              | 1 Dec 17            | 30 Nov 18          | 15      | 67  | 80  | 92  | 113              | 99               |
| 2018–19              | 1 Dec 18            | 30 Nov 19          | 22      | 69  | 84  | 90  | 108              | 87               |
| 2019–20              | 1 Dec 19            | 30 Nov 20          | 15      | 58  | 85  | 102 | 107              | 93               |
| 2020–21              | 1 Dec 20            | 30 Nov 21          | 18      | 71  | 86  | 101 | 119              | 102              |
| 2021–22              | 1 Dec 21            | 30 Nov 22          | 41      | 71  | 79  | 85  | 93               | 53               |
| 2022–23              | 1 Dec 22            | 30 Nov 23          | 23      | 58  | 77  | 92  | 120              | 98               |
| 2023–24              | 1 Dec 23            | 30 Nov 24          | 27      | 69  | 83  | 99  | 102              | 75               |

Note: '1st Day' = Day of First Capture, '50%', etc denote the day of the season on which that percentage of the catch had been taken, 'Last Day' = the Day of Last Capture.

**a** Figures greater than 365 days because the season dates changed and extended this season for longer than one year.

**b** Year 1 of the 2009–11 season (2009–10)

**c** Year 2 of the 2009–11 season (2010–11)

# Appendix C: Australian surface catch for farm operations, 1994–95 to 2023–24

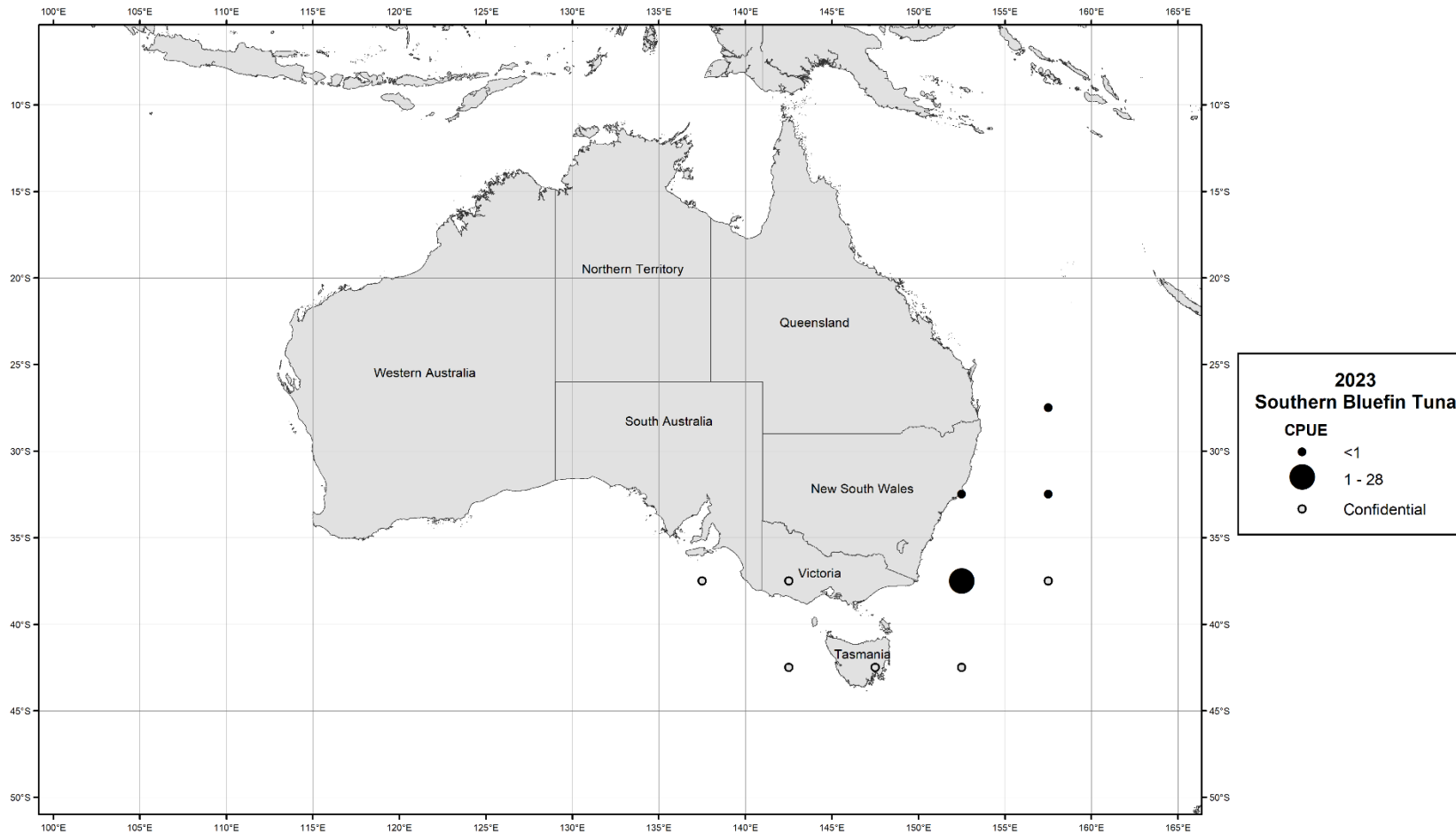
| Season               | Estimated<br>catch (t) | Actual<br>catch (t) | Catcher<br>vessels | Vessel search<br>hours | Sets | No. 1° squares<br>fished |
|----------------------|------------------------|---------------------|--------------------|------------------------|------|--------------------------|
| 1994–95              | 2179                   | 2009                | 5                  | 526                    | 104  | 5                        |
| 1995–96              | 2859                   | 3442                | 6                  | 631                    | 89   | 11                       |
| 1996–97              | 3134                   | 2505                | 7                  | 769                    | 118  | 13                       |
| 1997–98              | 3916                   | 3629                | 7                  | 671                    | 143  | 8                        |
| 1998–99              | 4418                   | 4991                | 7                  | 972                    | 129  | 3                        |
| 1999–00              | 4746                   | 5131                | 8                  | 764                    | 107  | 5                        |
| 2000–01              | 5100                   | 5162                | 8                  | 799                    | 129  | 2                        |
| 2001–02              | 5400                   | 5234                | 7                  | 1309                   | 159  | 3                        |
| 2002–03              | 5188                   | 5375                | 7                  | 1276                   | 150  | 5                        |
| 2003–04              | 5299                   | 4874                | 6                  | 1202                   | 160  | 4                        |
| 2004–05              | 5225                   | 5215                | 8                  | 1168                   | 139  | 4                        |
| 2005–06              | 5463                   | 5302                | 7                  | 1304                   | 156  | 6                        |
| 2006–07              | 5091                   | 5230                | 6                  | 1459                   | 160  | 8                        |
| 2007–08              | 4530                   | 5211                | 7                  | 1217                   | 134  | 2                        |
| 2008–09              | 4348                   | 5017                | 7                  | 1156                   | 139  | 7                        |
| 2009–11 <sup>a</sup> | 3323                   | 3931                | 6                  | 417                    | 78   | 3                        |
| 2009–11 <sup>b</sup> | 3840                   | 3872                | 5                  | 835                    | 106  | 5                        |
| 2011–12              | 4328                   | 4485                | 5                  | 1150                   | 156  | 7                        |
| 2012–13              | 4039                   | 4198                | 5                  | 1021                   | 110  | 11                       |
| 2013–14              | 4381                   | 5029                | 6                  | 752                    | 101  | 4                        |
| 2014–15              | 4789                   | 4950                | 6                  | 1235                   | 154  | 6                        |
| 2015–16              | 4826                   | 4896                | 6                  | 1076                   | 124  | 6                        |
| 2016–17              | 4036                   | 4683                | 6                  | 1004                   | 109  | 5                        |
| 2017–18              | 4920                   | 5123                | 7                  | 1137                   | 191  | 6                        |
| 2018–19              | 4750                   | 5291                | 7                  | 1366                   | 154  | 9                        |
| 2019–20              | 4224                   | 4568                | 7                  | 1248                   | 142  | 12                       |
| 2020–21              | 4203                   | 4592                | 7                  | 1101                   | 152  | 14                       |
| 2021–22              | 4639                   | 4942                | 8                  | 1041                   | 136  | 8                        |
| 2022–23              | 4832                   | 4697                | 6                  | 1688                   | 173  | 11                       |
| 2023–24              | 4085                   | 4505                | 5                  | 1165                   | 118  | 13                       |

Note: Estimated catch is derived from logbook data while actual catch is derived from landing data.

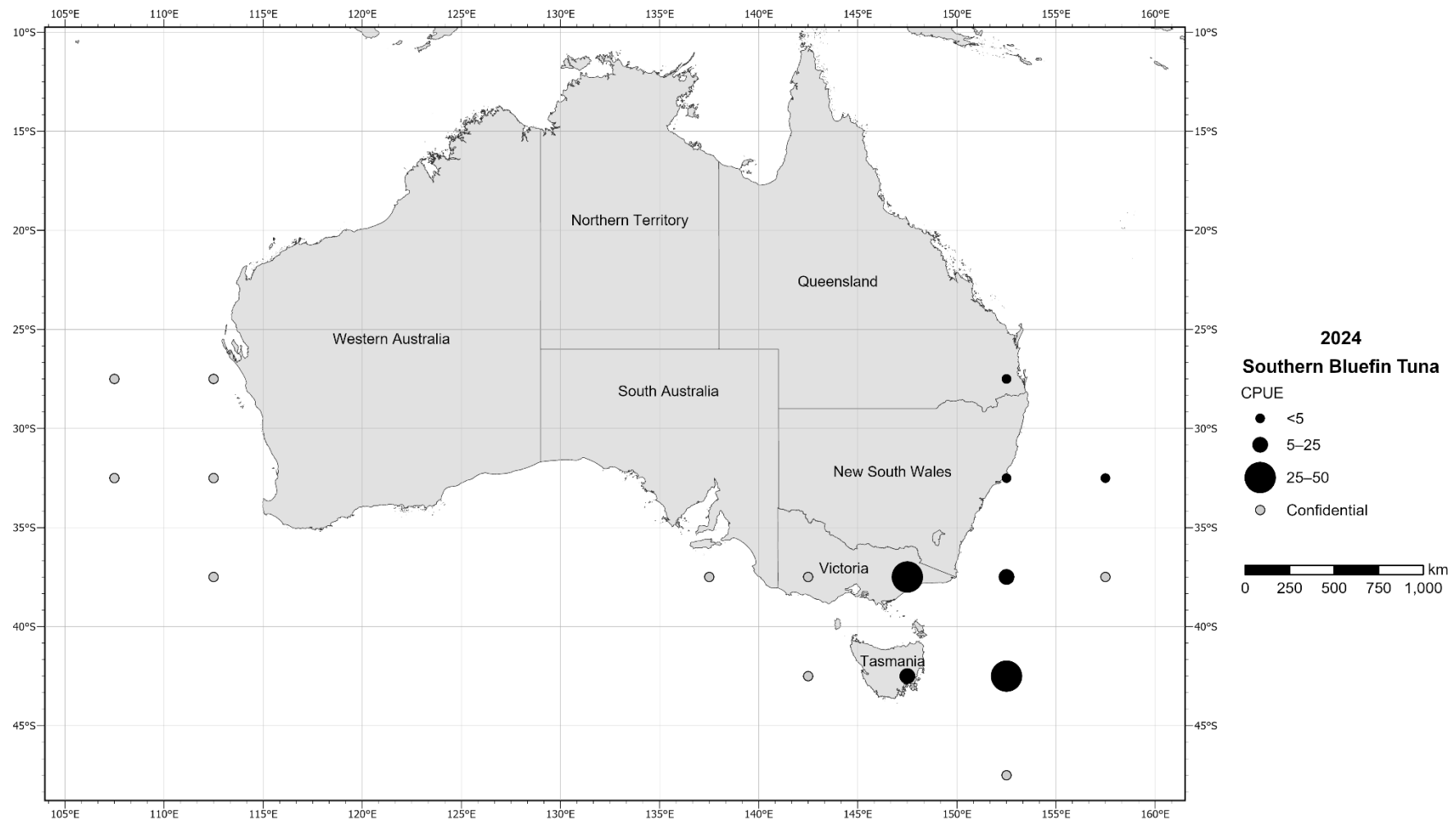
**a** Year 1 of the 2009–11 season (2009–10)

**b** Year 2 of the 2009–11 season (2010–11)

## Appendix D: Nominal CPUE by year and location for all Australian longliners, 2023 and 2024 calendar years



## Australia's 2023–24 Southern Bluefin Tuna Fishing Season



# Appendix E: Nominal CPUE by calendar year for Australian longliners since 2000

| Year | Nominal<br>(normalised)<br>CPUE |
|------|---------------------------------|
| 2000 | 0.502                           |
| 2001 | 0.556                           |
| 2002 | 0.650                           |
| 2003 | 0.569                           |
| 2004 | 0.437                           |
| 2005 | 0.414                           |
| 2006 | 0.316                           |
| 2007 | 0.329                           |
| 2008 | 0.411                           |
| 2009 | 0.591                           |
| 2010 | 0.833                           |
| 2011 | 0.771                           |
| 2012 | 0.762                           |
| 2013 | 0.858                           |
| 2014 | 0.889                           |
| 2015 | 1.217                           |
| 2016 | 0.986                           |
| 2017 | 1.235                           |
| 2018 | 1.407                           |
| 2019 | 1.813                           |
| 2020 | 1.526                           |
| 2021 | 1.768                           |
| 2022 | 2.113                           |
| 2023 | 1.953                           |
| 2024 | 2.282                           |

## Appendix F: Summary of observed catch and effort by year and sector

| Country   | Year    | Sector                   | Observers Deployed | Sea Days | Sets/Tows Observed | Observed Vessels | Observed Effort (% , units) | Observed Catch (% , units)    | Total Cost                          |
|-----------|---------|--------------------------|--------------------|----------|--------------------|------------------|-----------------------------|-------------------------------|-------------------------------------|
| Australia | 2002–03 | Purse Seine <sup>a</sup> | N/A                | 47       | 24                 |                  | 11% (sets)                  | 11%<br>(est. total weight)    | 60,000 (A\$)                        |
| Australia | 2002–03 | Towing <sup>a</sup>      | N/A                | 19       | 1                  |                  | 2.6% (tows)                 |                               | (included above)                    |
| Australia | 2002    | East Coast Longline      | 17                 | 323      | 198                |                  | 14.4% (hooks)               | 35.5%<br>(no. retained catch) | NA                                  |
| Australia | 2002    | West Coast Longline      | N/A                | N/A      | N/A                |                  | N/A (hooks)                 | N/A<br>(no. retained catch)   | NA                                  |
| Australia | 2003–04 | Purse Seine <sup>a</sup> | 2                  | 27       | 21                 |                  | 13% (sets)                  | 12.8%<br>(est. total weight)  | 60,000 (A\$)                        |
| Australia | 2003–04 | Towing <sup>a</sup>      | 2                  | 30       | 2                  |                  | 5.6% (tows)                 |                               | (included above)                    |
| Australia | 2003    | East Coast Longline      | 10                 | 242      | 168                |                  | 14.9% (hooks)               | 55.2%<br>(no. retained catch) | 303,000 (60,000 A\$ SBT component)  |
| Australia | 2003    | West Coast Longline      | 4                  | 72       | 54                 |                  | 2.0% (hooks)                | 4.5%<br>(no. retained catch)  | 42,247 (A\$)                        |
| Australia | 2004–05 | Purse Seine <sup>a</sup> | 2                  | 36       | 15                 |                  | 11.2% (sets)                | 8.5%<br>(est. total weight)   | 60,000 (A\$)                        |
| Australia | 2004–05 | Towing <sup>a</sup>      | 2                  | 24       | 2                  |                  | 5.7% (tows)                 |                               | (included above)                    |
| Australia | 2004    | East Coast Longline      | 11                 |          | 68                 |                  | 11.7% (hooks)               | 5.4%<br>(no. retained catch)  | 966,000 (150,000 A\$ SBT component) |
| Australia | 2004    | West Coast Longline      |                    |          | 59                 |                  | 3.9% (hooks)                | 0%<br>(no. retained catch)    | 57,384(A\$)                         |
| Australia | 2005–06 | Purse Seine <sup>a</sup> | 2                  | 47       | 14                 |                  | 9.2% (sets)                 | 10.1%<br>(est. total weight)  | 78,000 (A\$)                        |
| Australia | 2005    | East Coast Longline      | 14                 |          | 128                |                  | 37.5% (hooks)               | 62.8%<br>(no. retained catch) | 723,289 (160,000 A\$ SBT component) |
| Australia | 2005    | West Coast Longline      |                    |          | 47                 |                  | 9.1% (hooks)                | (no observed catch)           | 0                                   |

Australia's 2023–24 Southern Bluefin Tuna Fishing Season

| Country   | Year                 | Sector                   | Observers Deployed | Sea Days | Sets/Tows Observed                 | Observed Vessels | Observed Effort<br>(%, units) | Observed Catch (%,<br>units)  | Total Cost                     |
|-----------|----------------------|--------------------------|--------------------|----------|------------------------------------|------------------|-------------------------------|-------------------------------|--------------------------------|
| Australia | 2006–07              | Purse Seine <sup>a</sup> | 2                  | 50       | 9                                  |                  | 5.6% (sets)                   | 12.1%<br>(est. total weight)  | NA                             |
| Australia | 2006–07              | Towing <sup>a</sup>      | 2                  | 41       | 2                                  |                  | 6.5% (tows)                   |                               | NA                             |
| Australia | 2006                 | East Coast Longline      | 20                 |          | 138                                |                  | 22.1% (hooks)                 | 88.9%<br>(no. retained catch) | NA                             |
| Australia | 2006                 | West Coast Longline      | 1                  |          | 8                                  |                  | 17.4% (hooks)                 | (no observed catch)           | NA                             |
| Australia | 2007–08              | Purse Seine <sup>a</sup> | 2                  | 19       | 16                                 |                  | 11.8% (sets)                  | 5.6%<br>(est. total weight)   | 68,000 (A\$)                   |
| Australia | 2007–08              | Towing <sup>a</sup>      | 2                  | 38       | 2                                  |                  | 6.0% (tows)                   |                               | (included above)               |
| Australia | 2007                 | East Coast Longline      | 17                 |          | 156                                |                  | 30.2% (hooks – SBT Area)      | 23.2%<br>(no. retained catch) | 180,000 (A\$)                  |
| Australia | 2007                 | West Coast Longline      |                    |          | 10                                 |                  | 1.9% (hooks)                  | No SBT caught                 | 15,589 (A\$)                   |
| Australia | 2008–09              | Purse Seine              | 2                  | 27       | 11 (fish retained)<br>8 (aborted)  | 3                | 7.9% (sets, fish retained)    | 15.3%<br>(est. total weight)  | 77,215 (A\$)                   |
| Australia | 2008–09              | Towing                   | 1                  | 15       | 1                                  | 1                | 3.2% (tows)                   |                               | (included above)               |
| Australia | 2008                 | East Coast Longline      | 31                 |          | 676                                |                  | 47.9% (hooks – SBT Area)      | 34%<br>(no. retained catch)   | 694,500 (A\$ – 08/09 fin year) |
| Australia | 2008                 | West Coast Longline      | 3                  |          | 25                                 |                  | 16.7% (sets)                  | No SBT caught                 | 16,800 (A\$ – 08/09 fin year)  |
| Australia | 2009–11 <sup>b</sup> | Purse Seine              | 1                  | 3        | 7 (fish retained)<br>1 (aborted)   | 2                | 9.0% (sets, fish retained)    | 13.5%<br>(est. total weight)  | 95,392 (A\$)                   |
| Australia | 2009–11 <sup>b</sup> | Towing                   | 1                  | 27       | 1                                  | 1                | 4.2% (tows)                   |                               | (included above)               |
| Australia | 2009                 | East Coast Longline      | 20                 |          | 400                                |                  | 17.2% (hooks – SBT Area)      | 23%<br>(no. retained catch)   | 332,562 (A\$ – 09/10 fin year) |
| Australia | 2009                 | West Coast Longline      | 2                  |          | 31                                 |                  | 8.2% (sets)                   | No SBT caught                 | 21,019 (A\$ – 09/10 fin year)  |
| Australia | 2009–11 <sup>c</sup> | Purse Seine              | 2                  | 49       | 21 (fish retained)<br>11 (aborted) | 2                | 19.8% (fish retained)         | 12.2%<br>(est. total weight)  | 48,830 (A\$)                   |
| Australia | 2009–11 <sup>c</sup> | Towing                   | 2                  | 22       | 1                                  | 1                | 3.7% (tows)                   |                               | (included above)               |
| Australia | 2010                 | East Coast Longline      | 16                 |          | 65                                 |                  | 7.7% (hooks – SBT Area)       | 20.1%<br>(no. retained catch) | 417,240 (A\$ – 10/11 fin year) |
| Australia | 2010                 | West Coast Longline      | 1                  |          | 10                                 |                  | 2.5%<br>(hook effort)         | No SBT caught                 | 14,533 (A\$ – 10/11 fin year)  |

Australia's 2023–24 Southern Bluefin Tuna Fishing Season

| Country   | Year    | Sector              | Observers Deployed | Sea Days | Sets/Tows Observed             | Observed Vessels | Observed Effort (% units) | Observed Catch (% units)   | Total Cost       |
|-----------|---------|---------------------|--------------------|----------|--------------------------------|------------------|---------------------------|----------------------------|------------------|
| Australia | 2011–12 | Purse Seine         | 1                  | 17       | 17 (fish retained) 2 (aborted) | 1                | 11.1% (fish retained)     | 13.8% (est. total weight)  | 45,000 (A\$)     |
| Australia | 2011–12 | Towing              | 1                  | 13       | 1                              | 1                | 3.4% (tows)               |                            | (included above) |
| Australia | 2011    | East Coast Longline | 9                  |          | 76                             |                  | 9.6% (hooks – SBT Area)   | 17.7% (no. retained catch) | \$750,000 (A\$)  |
| Australia | 2011    | West Coast Longline | 1                  |          | 4                              |                  | 1.7% (hook effort)        | No SBT caught              | \$11,500 (A\$)   |
| Australia | 2012–13 | Purse Seine         | 2                  | 30       | 14 (fish retained) 1 (aborted) | 2                | 12.7% (fish retained)     | 13.9% (est. total weight)  | \$75,000 (A\$)   |
| Australia | 2012–13 | Towing              | 2                  | 26       | 2                              | 2                | 3.8% (tows)               |                            | (included above) |
| Australia | 2012    | East Coast Longline | 9                  |          | 50                             |                  | 6.2% (hooks – SBT Area)   | 16.1% (no. retained catch) | \$800,000 (A\$)  |
| Australia | 2012    | West Coast Longline | 3                  |          | 61                             |                  | 17.9% (hook effort)       | No SBT caught              | \$90,000 (A\$)   |
| Australia | 2013–14 | Purse Seine         | 2                  | 17       | 16 (fish retained) 1 (aborted) | 2                | 17.0% (fish retained)     | 21.9% (est. total weight)  | na               |
| Australia | 2013–14 | Towing              | 1                  | 9        | 1                              | 1                | 4% (tows)                 |                            |                  |
| Australia | 2013    | East Coast Longline | 10                 |          | 87                             |                  | 10.4% (hooks – SBT Area)  | 19.5% (no. retained catch) | na               |
| Australia | 2013    | West Coast Longline | 0                  |          | 0                              |                  | 0%                        | No observer coverage       |                  |
| Australia | 2014–15 | Purse Seine         | 1                  | 17       | 14 (fish retained)             | 1                | 9.1% (fish retained)      | 19.9% (est. total weight)  | na               |
| Australia | 2014–15 | Towing              | 1                  | 20       | 1                              | 1                | 4% (tows)                 |                            |                  |
| Australia | 2014    | East Coast Longline | 5                  |          | 24                             |                  | 3.1% (hooks – SBT Area)   | 4.5% (no. retained catch)  | na               |
| Australia | 2014    | West Coast Longline | 2                  |          | 27                             |                  | 9.1%                      | 31.8% (no. retained catch) |                  |
| Australia | 2015–16 | Purse Seine         | 2                  | 15       | 25                             | 2                | 18.9% (fish retained)     | 20.2% (est. total weight)  | na               |
| Australia | 2015–16 | Towing              | 2                  | 21       | 2                              | 2                | 7.1% (tows)               |                            |                  |
| Australia | 2015    | East Coast Longline |                    |          | 330                            |                  | 5.9% (hooks – SBT Area)   | 6.5% (no. retained catch)  | na               |
| Australia | 2015    | West Coast Longline |                    |          | 19                             |                  | 7.2%                      | No observed catch          | na               |

Australia's 2023–24 Southern Bluefin Tuna Fishing Season

| Country   | Year    | Sector              | Observers Deployed | Sea Days | Sets/Tows Observed | Observed Vessels | Observed Effort<br>(%, units) | Observed Catch (%,<br>units) | Total Cost |
|-----------|---------|---------------------|--------------------|----------|--------------------|------------------|-------------------------------|------------------------------|------------|
| Australia | 2016–17 | Purse Seine         | 2                  | 11       | 20                 | 2                | 18.3% (fish retained)         | 16.8% (est. total weight)    | na         |
| Australia | 2016–17 | Towing              | 2                  | 18       | 2                  | 2                | 9.1% (tows)                   |                              |            |
| Australia | 2016    | East Coast Longline |                    |          | 397                |                  | 9.3% (hooks – SBT Area)       | 12.1% (no. retained catch)   | na         |
| Australia | 2016    | West Coast Longline |                    |          | 24                 |                  | 10.2%                         | No observed catch            | na         |
| Australia | 2017–18 | Purse Seine         | 2                  | 37       | 40                 | 2                | 20.9% (fish retained)         | 19.0% (est. total weight)    | na         |
| Australia | 2017–18 | Towing              | 1                  | 20       | 1                  | 2                | 3.4% (tows)                   |                              |            |
| Australia | 2017    | East Coast Longline |                    |          | 527                |                  | 9.0% (hooks – SBT Area)       | 9.7% (no. retained catch)    | na         |
| Australia | 2017    | West Coast Longline |                    |          | 32                 |                  | 11.7%                         | No observed catch            | na         |
| Australia | 2018–19 | Purse Seine         | 2                  | 35       | 22                 | 2                | 14.3% (fish retained)         | 14.5% (est. total weight)    | na         |
| Australia | 2018–19 | Towing              | 2                  | 25       | 2                  | 2                | 7.7% (tows)                   |                              |            |
| Australia | 2018    | East Coast Longline |                    |          | 488                |                  | 11.5% (hooks – SBT Area)      | 13.8% (no. retained catch)   | na         |
| Australia | 2018    | West Coast Longline |                    |          | 36                 |                  | 13.0%                         | No observed catch            | na         |
| Australia | 2019–20 | Purse Seine         | 2                  | 34       | 14                 | 2                | 9.9% (fish retained)          | 10.3% (est. total weight)    | na         |
| Australia | 2019–20 | Towing              | 2                  | 21       | 2                  | 2                | 7.7% (tows)                   |                              |            |
| Australia | 2019    | East Coast Longline |                    |          | 525                |                  | 12.1% (hooks – SBT Area)      | 12.2% (no. retained catch)   | na         |
| Australia | 2019    | West Coast Longline |                    |          | 31                 |                  | 12.8%                         | No observed catch            | na         |
| Australia | 2020    | East Coast Longline |                    |          | 418                |                  | 11.0% (hooks – SBT Area)      | 7.7% (no. retained catch)    | na         |
| Australia | 2020    | West Coast Longline |                    |          | 19                 |                  | 12.1%                         | No observed catch            | na         |
| Australia | 2020–21 | Purse Seine         | 2                  | 95       | 41                 | 3                | 12.6% (fish retained)         | 14.1% (est. total weight)    | na         |
| Australia | 2020–21 | Towing              | 2                  | 18       | 2                  | 2                | 7.4% (tows)                   |                              | na         |

Australia's 2023–24 Southern Bluefin Tuna Fishing Season

| Country   | Year              | Sector              | Observers Deployed | Sea Days | Sets/Tows Observed | Observed Vessels | Observed Effort (% units) | Observed Catch (% units)   | Total Cost |
|-----------|-------------------|---------------------|--------------------|----------|--------------------|------------------|---------------------------|----------------------------|------------|
| Australia | 2021              | East Coast Longline |                    |          | 404                |                  | 12.0% (hooks – SBT Area)  | 12.9% (no. retained catch) | na         |
| Australia | 2021              | West Coast Longline |                    |          | 23                 |                  | 8.3%                      | No observed catch          | na         |
| Australia | 2021–22           | Purse Seine         | 2                  | 32       | 13                 | 4                | 9.6% (fish retained)      | 10.8% (est. total weight)  | na         |
| Australia | 2021–22           | Towing              | 2                  | 34       | 3                  | 2                | 7.7% (tows)               |                            | na         |
| Australia | 2022              | East Coast Longline |                    |          | 345                |                  | 10.8% (hooks – SBT Area)  | 9.7% (no. retained catch)  | na         |
| Australia | 2022              | West Coast Longline |                    |          | 17                 |                  | 11.1%                     | No observed catch          | na         |
| Australia | 2022–23           | Purse Seine         | 2                  | 36       | 14                 | 2                | 8.1% (fish retained)      | 12.7% (est. total weight)  | na         |
| Australia | 2022–23           | Towing              | 2                  | 23       | 3                  | 3                | 11.5% (tows)              |                            | na         |
| Australia | 2023              | East Coast Longline |                    |          | 390                |                  | 9.0% (hooks – SBT Area)   | 9.5% (no. retained catch)  | na         |
| Australia | 2023              | West Coast Longline |                    |          | 16                 |                  | 9.0%                      | No observed catch          | na         |
| Australia | 2023–24           | Purse Seine         | 2                  | 30       | 22                 | 2                | 11.9% (fish retained)     | 14.5% (est. total weight)  | na         |
| Australia | 2023–24           | Towing              | 1                  | 17       | 2                  | 2                | 7.7% (tows)               |                            | na         |
| Australia | 2024 <sup>d</sup> | East Coast Longline |                    |          | 445                |                  | 11.6% (hooks – SBT Area)  | 11.7% (no. retained catch) | na         |
| Australia | 2024 <sup>d</sup> | West Coast Longline |                    |          | 23 <sup>d\</sup>   |                  | 13.9%                     | No observed catch          | na         |

**a** Australian purse seine and towing observer statistics are for the SBT fishing year December–November

**b** Year 1 of the 2009–11 season (2009–10)

**c** Year 2 of the 2009–11 season (2010–11)

**d** E-monitoring data for 2024 are >90% complete. Updated (100% complete) data for 2024 will be included in the 2026 report.

na = not available

## Appendix G: Number of biological samples taken in observer programs (year and sector)

| Country   | Year                 | Sector      | Otoliths | Sex  | Tags | Stomach contents | Length measurement |
|-----------|----------------------|-------------|----------|------|------|------------------|--------------------|
| Australia | 2002                 | Longline    | 0        | 124  | 165  | 0                | 300                |
| Australia | 2003                 | Longline    | 0        | 51   | 229  | 1                | 388                |
| Australia | 2004                 | Longline    | 5        | 62   | 0    | 5                | 187                |
| Australia | 2004–05              | Purse seine | 2        | 2    | 0    | 0                | 3                  |
| Australia | 2005                 | Longline    | 63       | 189  | 19   | 12               | 264                |
| Australia | 2005–06              | Purse seine | 46       | 46   | 0    | 0                | 23                 |
| Australia | 2006                 | Longline    | 0        | 4    | 1    | 0                | 32                 |
| Australia | 2006–07              | Purse seine | 9        | 17   | 0    | 16               | 19                 |
| Australia | 2007                 | Longline    | 9        | 41   | 0    | 0                | 42                 |
| Australia | 2007–08              | Purse seine | 4        | 4    | 0    | 0                | 4                  |
| Australia | 2008                 | Longline    | 0        | 84   | 0    | 1                | 99                 |
| Australia | 2008–09              | Purse seine | 14       | 14   | 0    | 0                | 14                 |
| Australia | 2009                 | Longline    | 0        | 746  | 0    | 0                | 810                |
| Australia | 2009–11 <sup>a</sup> | Purse seine | 3        | 3    | 0    | 0                | 3                  |
| Australia | 2010                 | Longline    | 0        | 563  | 0    | 0                | 563                |
| Australia | 2009–11 <sup>b</sup> | Purse seine | 4        | 5    | 0    | 0                | 5                  |
| Australia | 2011                 | Longline    | 0        | 255  | 0    | 0                | 255                |
| Australia | 2011–12              | Purse seine | 5        | 8    | 0    | 0                | 8                  |
| Australia | 2012                 | Longline    | 0        | 70   | 0    | 0                | 69                 |
| Australia | 2012–13              | Purse seine | 4        | 6    | 0    | 0                | 119                |
| Australia | 2013                 | Longline    | 0        | 1089 | 0    | 0                | 1089               |
| Australia | 2013–14              | Purse seine | 1        | 1    | 0    | 0                | 1                  |
| Australia | 2014                 | Longline    | 0        | 290  | 0    | 0                | 290                |
| Australia | 2014–15              | Purse seine | 26       | 21   | 0    | 0                | 27                 |
| Australia | 2015–16              | Purse seine | 3        | 15   | 0    | 0                | 15                 |
| Australia | 2016–17              | Purse seine | 0        | 23   | 0    | 0                | 23                 |
| Australia | 2017–18              | Purse seine | 0        | 26   | 0    | 0                | 26                 |
| Australia | 2018–19              | Purse seine | 0        | 8    | 0    | 0                | 8                  |
| Australia | 2019–20              | Purse seine | 0        | 0    | 0    | 0                | 1                  |
| Australia | 2020–21              | Purse seine | 0        | 0    | 0    | 0                | 36                 |
| Australia | 2021–22              | Purse seine | 4        | 4    | 0    | 0                | 13                 |
| Australia | 2022–23              | Purse seine | 23       | 23   | 0    | 0                | 56                 |
| Australia | 2023–24              | Purse seine | 0        | 1    | 0    | 0                | 1                  |

## Australia's 2023–24 Southern Bluefin Tuna Fishing Season

**a** Year 1 of the 2009–11 season (2009–10); **b** Year 2 of the 2009–11 season (2010–11)

# Appendix H: An overview of the Australian SBT observer program

## Observer sources and training

AFMA has recruited and trained observers since its establishment in 1992. Approximately 20 observers are currently employed in the AFMA observer program. They are sourced from universities and maritime industries from around Australia and require the ability to live and work at sea, have demonstrated experience in collecting biological data at sea, and have experience in fisheries research methodologies and collection of associated scientific data. Observers also hold marine radio operators certificate of proficiency (or similar qualifications and/or experience), a sea safety certificate and medical certificate, and have completed an AFMA observer training course.

In 2008 and 2009, in addition to the independent AFMA observers, an international observer from South Africa (Capricorn Fisheries Monitoring) was deployed. No international observers have been used since then.

AFMA implemented a trial of e-monitoring (i.e. on-board, fixed-mount digital video cameras) in the ETBF in 2009–10 to evaluate the effectiveness of this technology for a range of fishery monitoring purposes and to conduct a cost–benefit analysis (Piasente et al. 2012). E-monitoring became compulsory for the Australian longline fleet from 1 July 2015. E-monitoring replaces human observers for all in-zone observer requirements.

## Purse seine fishery – Scientific observer program design and coverage

The target coverage for the SBT purse seine fleet operating out of Port Lincoln is 10% of the total catch and effort for the fishery. Observers monitor 100% of all fishing operations while on board. Most of the Australian SBT purse seine effort has historically taken place in an area between 33–35°S and 131–133°E, although this has changed slightly in recent years (see Figure 9).

The observers in the purse-seine fishery in the 2023–24 fishing season spent 47 days at sea and observed purse seiner activities for 15 days and tow activities for 13 days. The remainder of the days were spent in transit, searching, or lost due to rough weather.

## Purse seine fishery – Observer data collected

### Effort data

The purse-seine observer program for the 2023–24 Australian SBT fishing season monitored fishing and tow operations in 34°43'–36°13'S and 132°51'–136°36'E in January and February 2024. Two Australian observers monitored 14 purse seine sets where fish were retained. This represents 11.9% of the total sets in which fish were taken in 2023–24 (Figure 9). There were eight sets observed where all the fish escaped or were released because the fish were too small.

Data were gathered on vessel characteristics, fishing gear and equipment. Comprehensive operational and environmental information were recorded for each set that occurred while the observer was on board. This included information on searching, chumming, setting and hauling activities. Information on chumming operations by the fishing vessel and associated chumming vessels was also recorded. In addition, observers recorded information on the movement of some spotter aircraft and their time in the area preceding sets.

Three tows were observed and data collected on the number of SBT mortalities and the date they occurred. Data were also collected on:

Towing methods

Average towing speed

Cage number and diameter

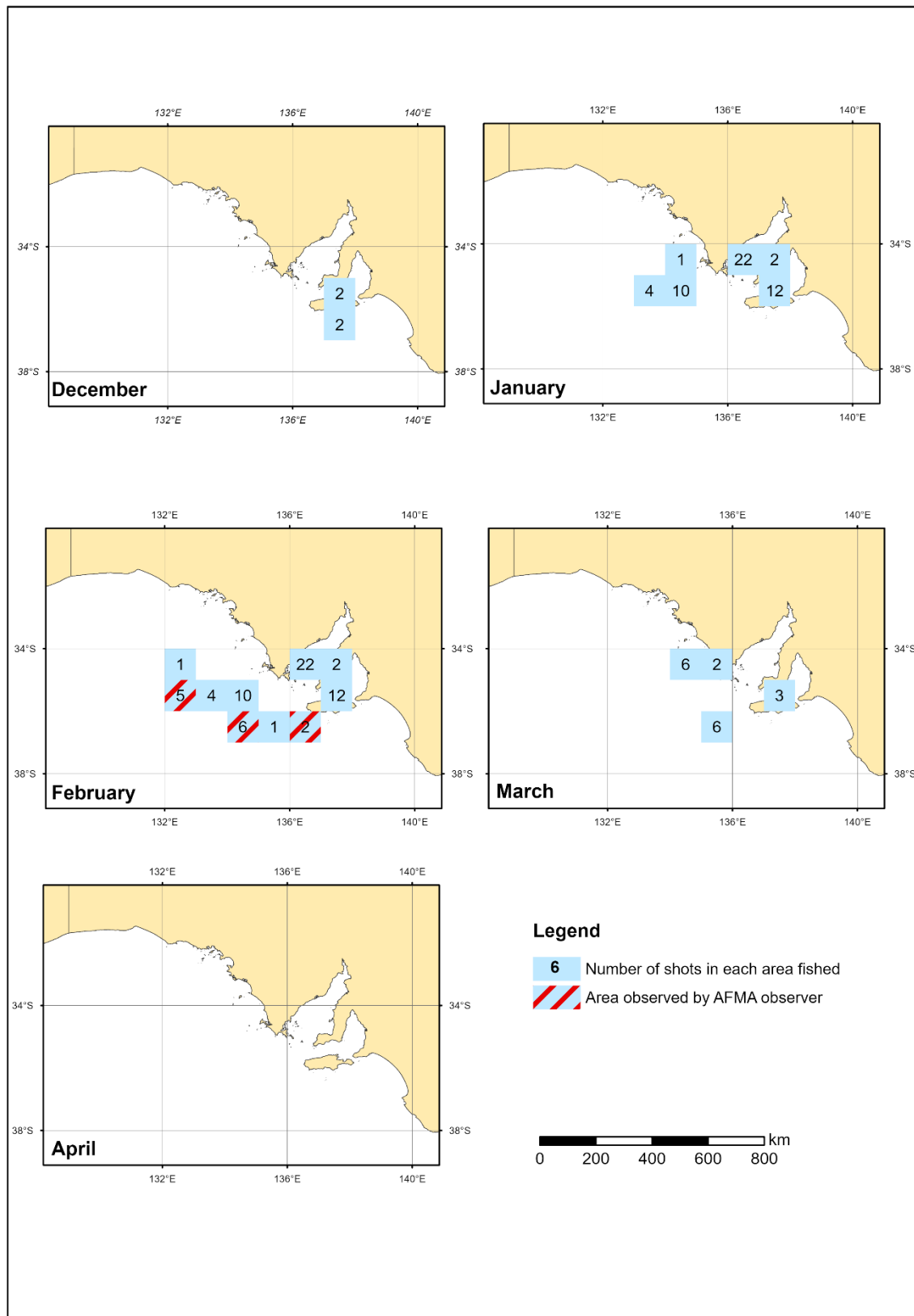
Maximum cage depth

Average weight of SBT transferred

Estimated number of SBT

Methods of counting and verifying fish counts.

**Figure 9** The number of sets recorded in the SBT purse seine fishery from December 2023 to April 2024. The hatching represents areas where observations took place.



## **Catch data**

Observers recorded catch composition and fate of target and bycatch species where possible during all observed sets. The time at start and end of observation, the observed catch in estimated number and estimated weight for SBT and all other species were recorded where possible.

Because fish are taken alive for farming purposes in the purse seine sector, it is not possible to obtain actual weight or length information at the time of catching the SBT. Consequently, both catch data and observed catch data are estimates only and these are reported below.

In total, an estimated 593 t of SBT were caught during observed purse-seine sets. This observed catch accounted for 14.5% of the total estimated purse seine catch of 4,085 t. There were 8 sets observed where fish escaped or were released because the fish were too small.

There were 8 mortalities observed during purse-seine operations, none of which were sampled. One observer monitored 2 tow operations and recorded 1 SBT mortalities during the towing operation, which were sampled.

## **Length frequency data**

It is not possible for onboard observers to obtain length measurements for the live SBT catch, but observers are required to take biological samples from all SBT mortalities. During purse-seine and towing operations, the observers recorded 8 SBT mortalities, 1 of which was sampled. The fork length for the sampled fish was 83 cm.

## **Biological data**

No otolith was obtained from the sampled mortality in the tow operations. There is also an ongoing project to collect otoliths from farm mortalities.

Weight was obtained from the sampled mortality during towing operations. The whole weight of the mortality was 12kg.

## **Longline fishery – Electronic monitoring design and coverage**

The target coverage for the Australian longline fleet is to review at least 10% of video footage of all hauls to verify the accuracy of logbooks. Logbooks are required to be completed for 100% of shots.

In 2024, in the ETBF, south of 30°S and during the months of May to September, e-monitoring monitored 171,322 hooks of a total of 1,481,101, representing 11.6% observer coverage of longline effort during the SBT migration. For the fishery as a whole, 9.9% of hooks were observed in 2024.

During 2024, there was 13.9% observer coverage of longline hook effort in the Western Tuna and Billfish Fishery (WTBF).

E-monitoring data for 2024 are currently >90% complete due to delays in receiving hard drives. Updated (100% complete) data for 2024 will be included in the 2026 report.

## **Longline fishery – Observer data collected**

### **Catch data**

In 2024, south of 30°S and during the months of May to September, the observed total catch number of SBT was 3,728 individuals, of which 3,481 were retained, and 234 fish were discarded (54 of which were reported as released alive, 125 were dead or damaged and 55 of which were reported as having an undetermined life status). The remaining 13 individuals escaped (5 alive, 1 damaged, and 7 of unknown life status). No SBT were tagged during observed longline operations in 2024. ETBF logbooks for 2024 showed 31,760 SBT (1,456.6 t) were retained and 10,028 (24.0%) were released.

In 2024, 2,214 other species were observed caught and retained by longline, south of 30°S and during the months of May to September in the ETBF. This included albacore (1,551), swordfish (303), yellowfin tuna (114), pomfrets (100), tuna, unspecified (90), bigeye tuna (20), skipjack tuna (10), and mahi mahi (9).

During 2024, south of 30°S and during the months of May to September, there were no observed captures of SBT in the WTBF.

### **Tag return monitoring**

There were no tagged SBT observed in 2024.

# Appendix I: Australian southern bluefin tuna research projects

The projects below represent the major research investment areas by Australia for the past several years that directly contribute to the work of the Commission.

| Category            | Project title                                                                                                                       | Year(s) | Amount (AU\$) |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------|---------------|
| Data supporting SBT | Tagging juvenile SBT off South Africa                                                                                               | 2006    | \$100,000     |
|                     | CCSBT conventional tagging programme                                                                                                | 2006    | \$170,832     |
|                     | Archiving of hard parts for SBT in 2006/07                                                                                          | 2006    | \$28,231      |
|                     | Archiving of hard parts for SBT in 2007/08–2009/10                                                                                  | 2007    | \$307,302     |
|                     | Archiving of hard parts for routine ageing and developing age-length keys for the Australian SBT surface fishery 2010/11–2012/13    | 2010    | \$304,643     |
|                     | Development of SBT catch and effort monitoring program                                                                              | 2009    | \$150,000     |
|                     | Aerial survey in the Great Australian Bight (GAB) 2008                                                                              | 2008    | \$427,274     |
|                     | Aerial survey in the Great Australian Bight (GAB) 2009                                                                              | 2009    | \$582,440     |
|                     | Aerial survey in the Great Australian Bight (GAB) 2010                                                                              | 2010    | \$621,625     |
|                     | Aerial survey in the Great Australian Bight (GAB) 2011                                                                              | 2011    | \$753,208     |
|                     | Aerial survey in the Great Australian Bight (GAB) 2012                                                                              | 2012    | \$778,120     |
|                     | Aerial survey in the Great Australian Bight (GAB) 2013                                                                              | 2013    | \$808,360     |
|                     | Aerial survey in the Great Australian Bight (GAB) 2014                                                                              | 2014    | \$661,635     |
| SBT Research        | Acoustic monitoring of juvenile SBT in the GAB                                                                                      | 2002–07 | \$150,000     |
|                     | Spatial interactions among juvenile SBT at a global scale: a large-scale archival tag experiment                                    | 2003–11 | \$2,549,000   |
|                     | Analysis of overcatch data                                                                                                          | 2006    | \$108,553     |
|                     | Monitoring of the Japanese SBT market                                                                                               | 2006    | \$70,000      |
|                     | Fishery-independent estimate of spawning biomass of southern bluefin tuna through identification of close-kin using genetic markers | 2006–11 | \$1,491,146   |
|                     | Australian farm research program                                                                                                    | 2007    | \$200,000     |
|                     | Assessing operational feasibility of stereo video and evaluating monitoring options for the SBT farm sector                         | 2007    | \$395,130     |
|                     | Further monitoring of the Japanese SBT market                                                                                       | 2008    | \$220,000     |

# Australia's 2023–24 Southern Bluefin Tuna Fishing Season

|                      |                                                                                                                          |         |             |
|----------------------|--------------------------------------------------------------------------------------------------------------------------|---------|-------------|
|                      | Tasman residency and spawning migrations of adult SBT                                                                    | 2008–09 | \$165,000   |
|                      | Management Procedure development                                                                                         | 2009    | \$224,899   |
|                      | SBT stereo-video project                                                                                                 | 2010    | \$75,000    |
|                      | Developing a management procedure-based recovery plan for SBT                                                            | 2011    | \$358,130   |
|                      | Otolith chemistry of juvenile southern bluefin tuna                                                                      | 2011–12 | \$20,000    |
|                      | Investigating new data sources and spatial operating models                                                              | 2011–13 | \$315,000   |
|                      | Automation of measurements from underwater stereo-video                                                                  | 2011–14 | \$30,000    |
|                      | Forecasting spatial distribution of SBT habitat in the GAB (proposal)                                                    | 2013–14 | \$145,948   |
|                      | Updating the CCSBT operating model and interseasonal science                                                             | 2014–15 | \$529,301   |
|                      | Interseasonal science – Impact of no 2015 aerial survey on the MP                                                        | 2015    | \$118,385   |
|                      | Interseasonal science – Updated stock assessment and MP work                                                             | 2017    | \$180,000   |
|                      | Interseasonal science – New MP work                                                                                      | 2018    | \$180,000   |
|                      | Interseasonal science – MP development                                                                                   | 2019    | \$185,000   |
|                      | Interseasonal science – MP development and stock assessment                                                              | 2019–21 | \$360,000   |
|                      | Interseasonal science – MP work and stock assessment                                                                     | 2021–24 | \$425,000   |
| Capacity building    | Monitoring of longline catch of SBT landed in Indonesia                                                                  | 2003–04 | \$130,508   |
|                      | Monitoring of longline catch of SBT landed in Indonesia                                                                  | 2004–05 | \$112,628   |
|                      | Monitoring of longline catch of SBT landed in Indonesia                                                                  | 2006–08 | \$397,389   |
| Recreational fishing | Quantifying the recreational catch of SBT off the Victorian coast                                                        | 2010–11 | \$212,000   |
|                      | Developing a methodology for obtaining regular, statistically robust estimates of recreational and charter fishing catch | 2011–12 | \$100,000   |
|                      | Development of methods for obtaining national estimates of recreational catch                                            | 2013–15 | \$570,000   |
|                      | Capture-induced physiological stress and post-release survival of recreationally caught Southern Bluefin Tuna            | 2013–15 | \$383,486   |
|                      | National survey for recreational catch of southern bluefin tuna                                                          | 2018–20 | \$2,311,936 |
|                      |                                                                                                                          |         |             |

# References

- Anonymous 2011, [Technical assessment of the 2011 commercial trial of stereo-video in the Australian southern bluefin tuna farm sector](#), Working paper CCSBT-CC/1110/11, Sixth meeting of the Compliance Committee of the Commission for the Conservation of Southern Bluefin Tuna, Bali, Indonesia, October 2011, accessed 7 July 2025.
- Caton, AE & Ward, PJ 1996, *Arrangements on fisheries between the governments of Australia and Japan on tuna longlining*, Annex to Ward PJ (Ed) (1996) Japanese longlining in eastern Australian waters 1962–1990', Bureau of Resource Sciences, Canberra.
- , Ward, PJ, Colgan, MK, Williams, KF, Ramirez, C & Skousen, T 1995, *The Australian 1989–90 to 1994–95 southern bluefin tuna seasons*, Working Paper SBFWS/95/1, first meeting of the Scientific Committee of the Commission for the Conservation of Southern Bluefin Tuna, Shimizu, Japan, July 1995.
- Forbes, E, Tracey, S & Lyle, J 2009, [Assessment of the 2008 recreational gamefish fishery of southeast Tasmania, with particular reference to southern bluefin tuna](#), Tasmanian Aquaculture and Fisheries Institute, University of Tasmania, Hobart, accessed 7 July 2025.
- Moore, A, Hall, K, Khageswor, G, Tracey, S, Hansen, S, Ward, P, Stobutzki, I, Andrews, J, Nicol, S & Brown, P 2015, [Developing robust and cost-effective methods for estimating the national recreational catch of southern bluefin tuna in Australia](#), FRDC report 2012/022.20, ABARES, Canberra, accessed 7 July 2025.
- , Schirmer, J, Magnusson, A, Keller, K, Hinten, G, Galeano, D, Woodhams, J, Wright, D & Maloney, L 2023, [National social and economic survey of recreational fisher 2018–2021](#), FRDC project no. 2018-161, ABARES, Canberra, accessed 7 July 2025.
- Piasente, M, Stanley, B, Timmiss, T, McElderry, H, Pria, M, & Dyas, M 2012, [Electronic onboard monitoring pilot project for the Eastern Tuna and Billfish Fishery](#), FRDC Project 2009/048, Australian Fisheries Management Authority, Canberra, accessed 7 July 2025.
- Shafait, F, Harvey, ES, Shortis, MR, Mian, A, Ravanbakhsh, M, Seager, JW, Culverhouse, PF, Cline, DE & Edgington, DR 2017, [Towards automating underwater measurement of fish length: a comparison of semi-automatic and manual stereo-video measurements](#), *ICES Journal of Marine Science*, vol. 74, pp. 1690–1701, DOI: 10.1093/icesjms/fsx007, accessed 7 July 2025.
- Tracey, S, Hartmann, K, McAllister, J, Conron, S & Leef, M 2016, [Capture-induced physiological stress and post-release survival of recreationally caught southern bluefin tuna](#), Final report FRDC project 2013-025, Institute for Marine and Antarctic Studies, Hobart, Australia, accessed 7 July 2025.
- , Lyle, JM, Ewing, G, Hartmann, K & Mapleston, A 2013, [Offshore recreational fishing in Tasmania 2011/12](#), Institute of Marine and Antarctic Studies, University of Tasmania, Hobart, accessed 7 July 2025.

—, Lyle, JM, Stark, K, Gray, S, Moore, A, Twiname, S & Wotherspoon, S 2020, [National survey of recreational fishing for southern bluefin tuna in Australia 2018–19](#), Institute for Marine and Antarctic Studies, University of Tasmania, Hobart, accessed 7 July 2025.