Supplementary Material

Supplementary Table S1. Underwater acoustic recorder deployment information. Hydrophone deployments marked with an asterisk (\*) were undertaken as part of the IMOS acoustic observatories (<https://catalogue-imos.aodn.org.au/geonetwork/srv/api/records/e850651b-d65d-495b-8182-5dde35919616>,(IMOS, 2023)). Latitude and Longitude are both measured in decimal degrees. The Start date and End date are the start and end dates of the entire acoustic recording deployment at each respective location. The “Duty cycle” refers to the sample length/sample increment (in seconds), and the letter C indicates a continuous recording regime of the respective dataset.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Location | Label | Latitude | Longitude | Start date  (dd/mm/yyyy) | End date  (dd/mm/yyyy) | Acoustic recorder type | Sampling frequency (kHz) | Duty cycle (s/s) |
| Abrolhos Islands | ABR | -28.75 | 113.62 | 21/04/2021 | 14/11/2021 | ST500 | 48 | 900/1800 |
| 12/11/2021 | 15/06/2022 | CMST-DSTO USR | 6 | 300/900 |
| Barrow Island | BI | -20.61 | 114.80 | 17/01/2010 | 1/09/2010 | CMST-DSTO USR | 6 | 200/900 |
| 5/09/2010 | 9/01/2011 | CMST-DSTO USR | 6 | 200/900 |
| Bass Strait Shelf 2 | BST2 | -39.20 | 142.81 | 9/02/2011 | 29/06/2011 | CMST-DSTO USR | 6 | 500/900 |
| Bass Strait Shelf 3 | BST3 | -39.08 | 142.67 | 12/04/2012 | 15/01/2013 | CMST-DSTO USR | 6 | 300/900 |
| Bonaparte Gulf 1 | BG1 | -13.13 | 128.19 | 9/03/2011 | 17/09/2011 | CMST-DSTO USR | 6 | 300/900 |
| 17/09/2011 | 30/03/2012 | CMST-DSTO USR | 6 | 300/900 |
| Bonaparte Gulf 2 | BG2 | -12.93 | 128.40 | 15/09/2010 | 9/03/2011 | CMST-DSTO USR | 6 | 300/900 |
| 10/09/2011 | 31/03/2012 | CMST-DSTO USR | 6 | 300/900 |
| 2/04/2012 | 19/09/2012 | CMST-DSTO USR | 6 | 300/900 |
| Bremer Bay | BB | -34.71 | 119.60 | 10/02/2015 | 6/02/2016 | CMST-DSTO USR | 6 | 300/900 |
| Broome | BR | -17.45 | 122.05 | 17/06/2009 | 25/12/2009 | CMST-DSTO USR | 6 | 200/900 |
| 4/05/2010 | 10/07/2010 | CMST-DSTO USR | 8 | 200/900 |
| Broome North | BRN | -18.04 | 121.87 | 22/03/2018 | 15/09/2018 | CMST-DSTO USR | 8 | 300/900 |
| 27/09/2018 | 28/02/2019 | CMST-DSTO USR | 12 | 300/900 |
| Broome Offshore | BRO | -16.84 | 121.69 | 12/08/2009 | 20/04/2010 | CMST-DSTO USR | 6 | 200/900 |
| Browse Island | BRI | -13.84 | 123.30 | 1/04/2007 | 12/11/2007 | CMST-DSTO USR | 6 | 200/900 |
| 30/11/2007 | 11/08/2008 | CMST-DSTO USR | 6 | 200/900 |
| Bundegi 1 | BD1 | -21.86 | 114.17 | 10/01/2021 | 24/03/2021 | ST300 | 48 | 300/900 |
| Bundegi 2 | BD2 | -21.86 | 114.16 | 10/01/2021 | 25/03/2021 | ST300 | 48 | 300/900 |
| Cod Grounds Marine Park | CGMP | -31.68 | 152.9 | 1/07/2018 | 4/08/2018 | ST300 | 48 | C |
| 12/12/2018 | 24/01/2019 | ST300 | 48 | 1800/3600 |
| 17/04/2019 | 24/06/2019 | ST300 | 48 | 1800/3600 |
| Coral Bay | CB | -23.12 | 113.75 | 10/01/2021 | 22/03/2021 | ST300 | 48 | 300/900 |
| Cowaranup 1 | CW1 | -33.62 | 114.98 | 21/12/2011 | 15/02/2012 | CMST-DSTO USR | 11 | 540/660 |
| Cowaranup 2 | CW2 | -33.62 | 114.97 | 21/12/2011 | 15/02/2012 | CMST-DSTO USR | 11 | 540/660 |
| Darwin Harbour 1 | DH1 | -12.55 | 130.85 | 2/11/2012 | 2/02/2013 | CMST-DSTO USR | 10 | 350/900 |
| 4/04/2013 | 5/06/2013 | CMST-DSTO USR | 12 | 500/900 |
| 7/06/2013 | 11/09/2013 | CMST-DSTO USR | 12 | 500/900 |
| 18/09/2013 | 12/11/2013 | CMST-DSTO USR | 12 | 500/900 |
| 9/08/2014 | 19/11/2014 | CMST-DSTO USR | 15 | 500/900 |
| Darwin Harbour 2 | DH2 | -12.50 | 130.90 | 2/11/2012 | 13/12/2012 | CMST-DSTO USR | 10 | 350/900 |
| 14/12/2012 | 9/03/2013 | CMST-DSTO USR | 11 | 350/900 |
| 3/04/2013 | 5/06/2013 | CMST-DSTO USR | 12 | 500/900 |
| 3/04/2013 | 5/06/2013 | CMST-DSTO USR | 96 | 250/900 |
| 7/06/2013 | 11/09/2013 | CMST-DSTO USR | 12 | 500/900 |
| 18/09/2013 | 12/11/2013 | CMST-DSTO USR | 12 | 500/900 |
| 10/05/2014 | 8/08/2014 | CMST-DSTO USR | 12 | 500/900 |
| Darwin Harbour 3 | DH3 | -12.50 | 130.87 | 14/12/2012 | 11/04/2013 | CMST-DSTO USR | 48 | 120/900 |
| 3/04/2013 | 5/06/2013 | CMST-DSTO USR | 12 | 500/900 |
| 7/06/2013 | 6/09/2013 | CMST-DSTO USR | 96 | 250/900 |
| 7/06/2013 | 11/09/2013 | CMST-DSTO USR | 12 | 500/900 |
| 18/09/2013 | 12/11/2013 | CMST-DSTO USR | 12 | 500/900 |
| Exmouth Plateau 1 | EP1 | -20.24 | 113.89 | 7/10/2011 | 17/01/2012 | CMST-DSTO USR | 6 | 500/900 |
| 19/01/2012 | 11/09/2012 | CMST-DSTO USR | 6 | 250/900 |
| Exmouth Plateau 2 | EP2 | -19.93 | 113.23 | 15/01/2010 | 18/05/2010 | CMST-DSTO USR | 16 | 200/900 |
| 19/05/2010 | 12/08/2010 | CMST-DSTO USR | 16 | 200/900 |
| 13/09/2010 | 8/01/2011 | CMST-DSTO USR | 16 | 200/900 |
| Exmouth Plateau 3 | EP3 | -20.39 | 114.07 | 6/10/2011 | 18/01/2012 | CMST-DSTO USR | 6 | 200/900 |
| 19/01/2012 | 11/09/2012 | CMST-DSTO USR | 6 | 250/900 |
| Fowlers Bay 1 | FB1 | -32.03 | 132.57 | 17/06/2014 | 8/12/2014 | CMST-DSTO USR | 6 | 600/900 |
| Fowlers Bay 2 | FB2 | -32.06 | 132.53 | 6/08/2015 | 10/09/2015 | CMST-DSTO USR | 6 | 500/900 |
| Great Australian Bight East | GABE | -34.85 | 133.42 | 4/11/2011 | 11/02/2012 | CMST-DSTO USR | 8 | 350/900 |
| 11/02/2012 | 17/06/2012 | CMST-DSTO USR | 8 | 250/900 |
| Great Australian Bight Inshore | GABI | -31.89 | 130.65 | 2/11/2011 | 10/02/2012 | CMST-DSTO USR | 4 | 350/900 |
| 11/02/2012 | 7/06/2012 | CMST-DSTO USR | 8 | 250/900 |
| Great Australian Bight Offshore | GABO | -33.36 | 130.68 | 3/11/2011 | 11/02/2012 | CMST-DSTO USR | 4 | 650/900 |
| 11/02/2012 | 18/06/2012 | CMST-DSTO USR | 8 | 250/900 |
| IMOS Dampier\* | DR | -19.39 | 115.91 | 20/11/2012 | 27/09/2013 | CMST-DSTO USR | 6 | 300/900 |
| 11/08/2014 | 13/06/2015 | CMST-DSTO USR | 6 | 300/900 |
| IMOS Kangaroo Island\* | KI | -36.12 | 135.89 | 9/12/2014 | 17/11/2015 | CMST-DSTO USR | 6 | 300/900 |
| 17/11/2015 | 8/11/2016 | CMST-DSTO USR | 6 | 300/900 |
| 22/11/2016 | 4/11/2017 | CMST-DSTO USR | 6 | 300/900 |
| IMOS Perth Canyon\* | PC | -31.86 | 115.03 | 23/09/2016 | 26/08/2017 | CMST-DSTO USR | 6 | 300/900 |
| IMOS Portland\* | PT | -38.53 | 141.24 | 6/05/2009 | 22/12/2009 | CMST-DSTO USR | 6 | 500/900 |
| 7/02/2010 | 30/05/2010 | CMST-DSTO USR | 6 | 500/900 |
| 15/02/2012 | 5/11/2012 | CMST-DSTO USR | 6 | 350/900 |
| 30/12/2010 | 3/12/2011 | CMST-DSTO USR | 6 | 300/900 |
| 7/11/2012 | 16/05/2013 | CMST-DSTO USR | 6 | 400/900 |
| 29/12/2013 | 26/11/2014 | CMST-DSTO USR | 6 | 300/900 |
| 3/02/2015 | 25/01/2016 | CMST-DSTO USR | 6 | 300/900 |
| 29/02/2016 | 20/02/2017 | CMST-DSTO USR | 6 | 300/900 |
| 24/02/2017 | 11/02/2018 | CMST-DSTO USR | 6 | 300/900 |
| IMOS Scott Reef\* | IMOSN | -15.48 | 121.25 | 20/11/2012 | 29/09/2013 | CMST-DSTO USR | 6 | 300/900 |
| 1/10/2013 | 2/06/2014 | CMST-DSTO USR | 6 | 300/900 |
| 19/08/2014 | 8/05/2015 | CMST-DSTO USR | 6 | 300/900 |
| IMOS Tuncurry 1\* | TC1 | -32.29 | 152.91 | 5/06/2012 | 29/05/2013 | CMST-DSTO USR | 6 | 300/900 |
| IMOS Tuncurry 2\* | TC2 | -32.32 | 152.95 | 6/04/2011 | 26/04/2012 | CMST-DSTO USR | 6 | 250/900 |
| Keppel North | KE2 | -23.086 | 150.90 | 5/11/2021 | 10/01/2022 | ST500 | 48 | 300/900 |
| Keppel South | KE1 | -23.09 | 150.90 | 5/11/2021 | 10/01/2022 | ST500 | 48 | 300/900 |
| King Island | KG | -39.75 | 143.51 | 2/11/2005 | 7/06/2006 | CMST-DSTO USR | 3 | 200/1080 |
| Lizard Island Big Vicky’s | LBV | -14.69 | 145.44 | 27/09/2015 | 16/12/2015 | ST202 | 48 | C |
| 6/03/2015 | 17/03/2015 | ST202 | 48 | C |
| 26/11/2016 | 4/12/2016 | ST202 | 48 | C |
| 6/04/2016 | 5/05/2016 | ST202 | 48 | C |
| Lizard Island Eagle Island | LEI | -14.69 | 145.39 | 31/10/2014 | 8/11/2014 | ST202 | 48 | C |
| Lizard Island Lagoon | LLG | -14.69 | 145.46 | 26/09/2015 | 13/12/2015 | ST202 | 48 | C |
| 7/03/2015 | 14/03/2015 | ST202 | 48 | C |
| 26/11/2016 | 5/12/2016 | ST202 | 48 | C |
| 7/04/2016 | 7/05/2016 | ST202 | 48 | C |
| Lizard Island North Point 1 | LNP1 | -14.64 | 145.45 | 29/10/2014 | 29/11/2014 | ST202 | 48 | C |
| 8/03/2015 | 17/03/2015 | ST202 | 48 | C |
| 26/09/2015 | 15/12/2015 | ST202 | 48 | C |
| 7/04/2016 | 6/05/2016 | ST202 | 48 | C |
| 12/11/2016 | 3/12/2016 | ST202 | 48 | C |
| Lizard Island North Point 2 | LNP2 | -14.67 | 145.45 | 2/12/2019 | 26/03/2020 | ST500 | 48 | C |
| Lizard Island Offshore | LIO | -14.68 | 145.40 | 1/12/2014 | 5/07/2015 | CMST-DSTO USR | 18 | 180/900 |
| Lizard Island South Island | LSI | -14.7 | 145.46 | 29/09/2015 | 15/12/2015 | ST202 | 48 | C |
| 7/04/2016 | 23/04/2016 | ST202 | 48 | C |
| Maret Island | MI | -14.41 | 124.89 | 14/09/2006 | 1/03/2007 | CMST-DSTO USR | 6 | 200/900 |
| 1/04/2007 | 28/11/2007 | CMST-DSTO USR | 6 | 200/900 |
| 30/11/2007 | 11/08/2008 | CMST-DSTO USR | 6 | 200/900 |
| Montebello | MO | -20.19 | 115.39 | 24/03/2010 | 26/10/2010 | CMST-DSTO USR | 6 | 200/900 |
| Murat Marine Park East | MRE | -32.35 | 132.37 | 8/02/2020 | 3/05/2020 | ST300 | 48 | C |
| Murat Marine Park West | MRW | -32.38 | 132.34 | 8/02/2020 | 25/04/2020 | ST300 | 48 | C |
| Newcastle | NC | -33.07 | 151.70 | 4/10/2019 | 16/12/2019 | ST300 | 48 | C |
| North West 1 | NW1 | -19.78 | 114.62 | 1/01/2019 | 15/05/2019 | CMST-DSTO USR | 96 | 180/900 |
| 15/05/2019 | 10/08/2019 | CMST-DSTO USR | 96 | 180/900 |
| 11/08/2019 | 29/12/2019 | CMST-DSTO USR | 96 | 180/900 |
| 11/08/2019 | 31/01/2019 | CMST-DSTO USR | 96 | 200/900 |
| North West 2 | NW2 | -19.95 | 115.54 | 17/09/2010 | 28/03/2011 | CMST-DSTO USR | 6 | 200/900 |
| 28/03/2011 | 20/04/2011 | CMST-DSTO USR | 6 | 200/900 |
| North West 3 | NW3 | -19.78 | 114.56 | 1/11/2021 | 1/06/2022 | CMST-DSTO USR | 96 | 300/1200 |
| 1/06/2022 | 2/02/2023 | CMST-DSTO USR | 96 | 300/1200 |
| North West 4 | NW4 | -20.29 | 115.18 | 30/10/2021 | 12/05/2022 | CMST-DSTO USR | 96 | 300/1200 |
| 2/06/2022 | 31/01/2023 | CMST-DSTO USR | 96 | 300/1200 |
| North West 5 | NW5 | -18.96 | 113.62 | 1/11/2021 | 3/06/2022 | CMST-DSTO USR | 96 | 300/1200 |
| 2/06/2022 | 4/02/2023 | CMST-DSTO USR | 96 | 300/1200 |
| North West 6 | NW6 | -19.14 | 115.23 | 2/11/2021 | 3/06/2022 | CMST-DSTO USR | 96 | 300/900 |
| 4/06/2022 | 17/02/2023 | CMST-DSTO USR | 96 | 400/900 |
| North West Shelf 1 | NWS1 | -19.87 | 115.28 | 24/07/2009 | 23/03/2010 | CMST-DSTO USR | 6 | 200/1020 |
| 25/03/2010 | 6/11/2010 | CMST-DSTO USR | 6 | 200/900 |
| North West Shelf 2 | NWS2 | -19.87 | 115.26 | 6/05/2009 | 23/07/2009 | CMST-DSTO USR | 6 | 200/900 |
| North West Shelf 3 | NWS3 | -19.88 | 115.25 | 18/12/2005 | 20/03/2006 | CMST-DSTO USR | 6 | 200/900 |
| 21/03/2006 | 27/11/2006 | CMST-DSTO USR | 6 | 200/900 |
| Onslow | ON | -21.53 | 115.03 | 12/09/2009 | 22/03/2010 | CMST-DSTO USR | 8 | 200/900 |
| 26/03/2010 | 12/11/2010 | CMST-DSTO USR | 6 | 200/900 |
| Point Ann | PA | -34.26 | 119.55 | 26/07/2016 | 4/11/2016 | CMST-DSTO USR | 12 | 1000/1800 |
| Point Samson East | PSE | -19.72 | 117.80 | 12/04/2018 | 21/09/2018 | CMST-DSTO USR | 8 | 300/900 |
| 21/09/2018 | 22/03/2019 | CMST-DSTO USR | 8 | 300/900 |
| Point Samson West | PSW | -19.83 | 117.54 | 12/04/2018 | 22/08/2018 | CMST-DSTO USR | 8 | 300/900 |
| 24/08/2018 | 22/05/2019 | CMST-DSTO USR | 8 | 300/900 |
| Port Hedland | PH | -20.14 | 118.39 | 30/06/2011 | 20/10/2011 | CMST-DSTO USR | 10 | 300/900 |
| 1/11/2011 | 15/03/2012 | CMST-DSTO USR | 10 | 300/900 |
| 28/03/2012 | 25/07/2012 | CMST-DSTO USR | 10 | 300/900 |
| 25/07/2012 | 19/09/2012 | CMST-DSTO USR | 10 | 300/900 |
| Rowley Shoals 1 | RS1 | -17.07 | 119.65 | 7/10/2020 | 30/10/2020 | ST300 | 96 | 240/300 |
| Rowley Shoals 2 | RS2 | -17.28 | 119.38 | 12/10/2020 | 29/10/2020 | ST300 | 96 | 240/300 |
| Rowley Shoals 3 | RS3 | -17.55 | 118.97 | 15/10/2020 | 29/10/2020 | ST300 | 96 | 240/300 |
| Scott Reef | SR | -14.08 | 121.88 | 14/06/2007 | 12/09/2007 | CMST-DSTO USR | 6 | 200/900 |
| 19/09/2007 | 18/01/2008 | CMST-DSTO USR | 6 | 200/900 |
| 5/02/2008 | 28/09/2008 | CMST-DSTO USR | 6 | 200/900 |
| Scott Reef South 1 | SRS1 | -14.33 | 122.17 | 14/06/2007 | 2/02/2008 | CMST-DSTO USR | 6 | 200/900 |
| 3/02/2008 | 27/09/2008 | CMST-DSTO USR | 6 | 200/900 |
| 2/05/2010 | 9/03/2011 | CMST-DSTO USR | 6 | 200/900 |
| Scott Reef South 2 | SRS2 | -14.33 | 122.17 | 5/09/2006 | 30/04/2007 | CMST-DSTO USR | 6 | 200/900 |
| Scott Reef West | SRW | -14.06 | 121.75 | 14/06/2007 | 12/09/2007 | CMST-DSTO USR | 6 | 200/900 |
| 19/09/2007 | 8/11/2007 | CMST-DSTO USR | 6 | 200/900 |
| 5/02/2008 | 6/07/2008 | CMST-DSTO USR | 6 | 200/900 |
| Solitary Island Marine Park East Pimpernel | SIMPE | -29.70 | 153.40 | 10/08/2018 | 12/09/2018 | ST300 | 48 | C |
| 15/12/2018 | 12/01/2019 | ST300 | 48 | 1800/3600 |
| 11/06/2019 | 30/06/2019 | ST300 | 48 | C |
| Solitary Island Marine Park West Pimpernel | SIMPW | -29.70 | 153.38 | 10/08/2018 | 11/09/2018 | ST300 | 48 | C |
| 12/12/2018 | 15/01/2019 | ST300 | 48 | 1800/3600 |
| 11/06/2019 | 9/08/2019 | ST300 | 48 | 1800/3600 |
| South Coral Bay | SCB | -23.32 | 113.78 | 10/01/2021 | 23/03/2021 | ST300 | 48 | 300/900 |
| Swan River | SW | -32.01 | 115.78 | 4/10/2011 | 11/05/2012 | CMST-DSTO USR | 6 | 300/900 |
| Tasmania | TAS | -44.00 | 144.67 | 12/03/2006 | 21/02/2007 | CMST-DSTO USR | 4 | 800/3600 |
| Thevenard 1 | TH1 | -21.42 | 114.83 | 16/04/2009 | 20/07/2009 | CMST-DSTO USR | 16 | 200/900 |
| 22/07/2009 | 3/11/2009 | CMST-DSTO USR | 16 | 200/900 |
| 14/12/2009 | 25/03/2010 | CMST-DSTO USR | 6 | 200/900 |
| 26/03/2010 | 4/11/2010 | CMST-DSTO USR | 6 | 200/900 |
| Thevenard 2 | TH2 | -21.32 | 114.40 | 22/02/2008 | 3/06/2008 | CMST-DSTO USR | 4 | 450/900 |
| Timor Sea | TS | -9.82 | 129.40 | 25/05/2006 | 28/08/2006 | CMST-DSTO USR | 8 | 400/900 |
| Two Rocks East | TRE | -31.72 | 115.62 | 10/05/2021 | 25/07/2021 | ST300 | 48 | C |
| Two Rocks West | TRW | -31.72 | 115.58 | 10/05/2021 | 2/08/2021 | ST300 | 48 | C |
| Warrnambool | WL | -38.46 | 142.52 | 11/04/2012 | 15/12/2012 | CMST-DSTO USR | 6 | 200/900 |
| Wollongong | WO | -34.52 | 150.91 | 30/10/2019 | 5/02/2020 | ST300 | 48 | C |

# References

IMOS (2023). *IMOS - ANMN Passive Acoustic Observatories Sub-facility* [Online]. Available: <https://catalogue-imos.aodn.org.au/geonetwork/srv/api/records/e850651b-d65d-495b-8182-5dde35919616> [Accessed January 2023].