

Oceans and Climate Branch CTD Data Report
CTD_REPORT_2022001GM

**For further information, contact Tamara Holzwarth-Davis
National Marine Fisheries Service, Northeast Fisheries Science
Center, Woods Hole, Massachusetts 02543-1097.**

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Oceans and Climate Branch CTD Data Report

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NOAA Fisheries Service
Northeast Fisheries Science Center
Woods Hole, MA 02543

GM 22-01
North Atlantic Right Whale Survey
Data Coverage: February 7 – 11 & March 10 - 11, 2022

This report presents a summary of surface and bottom temperature and salinity data collected during the Northeast Fisheries Science Center's GM2201 North Atlantic Right Whale Survey aboard the NEFSC Ship R/V *Gloria Michelle*.

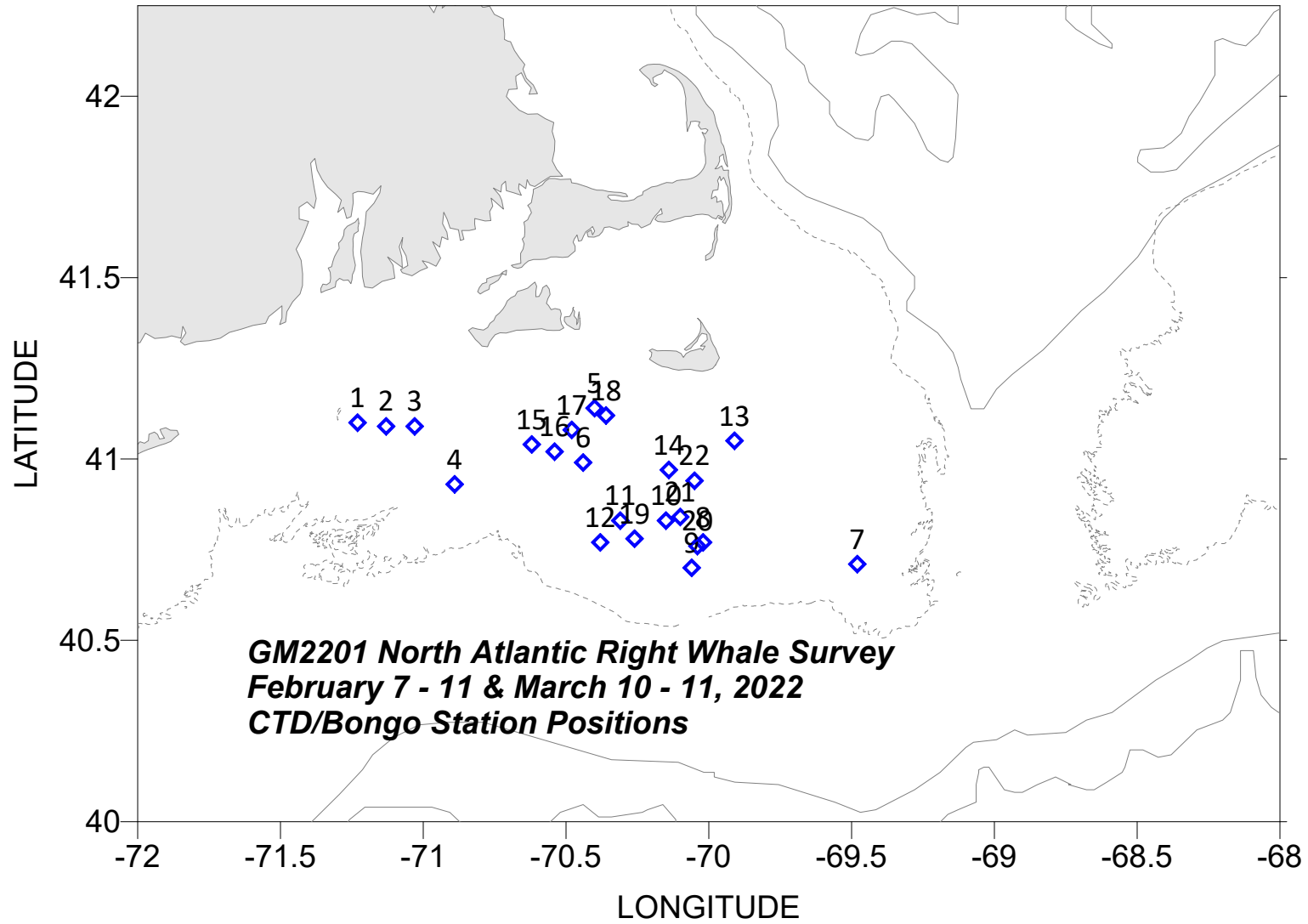
All data was obtained with a Seabird Electronics SBE19+V2 Seacat profiling CTD (s/n 4758).

The SBE19+V2 was deployed on 22 double oblique bongo casts (however, the CTD malfunctioned and no data was collected during cast #18).

Data presented here have been audited, however, corrections and/or updates may be applied at a later time.

The most recent and complete station/CTD data can be found by contacting [Dr. Chris Melrose](#)

Revised: September 20, 2022



**Areal average surface and bottom temperature/salinity and temperature/salinity anomalies for the
GM2201 North Atlantic Right Whale Survey
February 7 - 11 & March 10 - 11, 2022**

| CD | SURFACE | | | | | | BOTTOM | | | | | |
|----|---------|------------|---------|------|------|------|--------|------------|---------|------|------|------|
| | #obs | Temp (°C) | Anomaly | SDV1 | SDV2 | Flag | #obs | Temp (°C) | Anomaly | SDV1 | SDV2 | Flag |
| 52 | 15 | 5.31 | 1.57 | 1.46 | 0.51 | 1 | 11 | 5.23 | 1.96 | 1.52 | 0.63 | 1 |

| CD | SURFACE | | | | | | BOTTOM | | | | | |
|----|---------|----------|---------|------|------|------|--------|----------|---------|------|------|------|
| | #obs | Salinity | Anomaly | SDV1 | SDV2 | Flag | #obs | Salinity | Anomaly | SDV1 | SDV2 | Flag |
| 52 | 15 | 32.93 | 0.25 | 0.52 | 0.12 | 1 | 11 | 32.95 | 0.09 | 0.50 | 0.07 | 1 |

"CD": the calendar mid-date of all the stations within a region for a cruise;

"#obs": the number of observations included in each average;

"Temp (°C)" and "Salt": the areal averaged temperature or salinity; "Anomaly": the areal averaged temp/salt anomaly;

"SDV1": the standard deviation associated with the average temp/salt anomaly;

"SDV2": the standard deviation of the individual anomalies from which the average anomaly was derived;

"Flag": a value of "1" indicates that a true areal average could not be calculated due to poor station coverage. The areal averages listed were derived from a simple average of the observations within the region.

**GM2201 North Atlantic Right Whale Survey
February 7 - 11 & March 10 - 11, 2022**

| Cast # | Station # | Lat (DDMM.M) | Long (DDMM.M) | Day | Mo | Year | Time (GMT) | Btm Depth (m) | Sfc Temp (° C) | Sfc Salt | Deepest Observed Temp (° C) | Deepest Observed Salt | Meters from Bottom | Method of Deployment |
|--------|-----------|--------------|---------------|-----|----|------|------------|---------------|----------------|----------|-----------------------------|-----------------------|--------------------|----------------------|
| 1 | 1 | 4105.8 | 7113.8 | 7 | 2 | 2022 | 17:01 | 34 | 5.01 | 32.90 | 4.91 | 32.90 | 17 | B |
| 2 | 2 | 4105.5 | 7108.0 | 7 | 2 | 2022 | 18:26 | 32 | 4.87 | 32.98 | 4.84 | 32.99 | 15 | B |
| 3 | 3 | 4105.4 | 7101.9 | 7 | 2 | 2022 | 20:39 | 39 | 5.46 | 33.01 | 5.29 | 33.05 | 8 | B |
| 4 | 4 | 4056.1 | 7053.1 | 7 | 2 | 2022 | 22:44 | 55 | 5.59 | 32.85 | 5.59 | 32.88 | 16 | B |
| 5 | 5 | 4108.2 | 7023.9 | 9 | 2 | 2022 | 20:10 | 38 | 3.20 | 32.56 | 3.29 | 32.66 | 12 | B |
| 6 | 6 | 4059.7 | 7026.3 | 9 | 2 | 2022 | 23:48 | 41 | 4.24 | 32.84 | 4.24 | 32.86 | 7 | B |
| 7 | 7 | 4042.4 | 6928.8 | 10 | 2 | 2022 | 12:06 | 48 | 7.30 | 33.24 | 7.31 | 33.24 | 12 | B |
| 8 | 8 | 4046.1 | 7001.3 | 10 | 2 | 2022 | 16:04 | 25 | 5.76 | 33.05 | 5.72 | 33.04 | 4 | B |
| 9 | 9 | 4042.0 | 7003.5 | 10 | 2 | 2022 | 17:44 | 45 | 5.94 | 33.08 | 5.77 | 33.08 | 4 | B |
| 10 | 10 | 4049.8 | 7009.0 | 10 | 2 | 2022 | 19:14 | 34 | 5.73 | 33.06 | 5.59 | 33.05 | 1 | B |
| 11 | 11 | 4049.8 | 7018.4 | 10 | 2 | 2022 | 20:36 | 46 | 5.42 | 33.03 | 5.25 | 33.03 | 11 | B |
| 12 | 12 | 4046.1 | 7022.7 | 10 | 2 | 2022 | 22:53 | 52 | 5.17 | 32.84 | 5.11 | 32.90 | 7 | B |
| 13 | 13 | 4103.3 | 6954.9 | 11 | 2 | 2022 | 12:13 | 24 | 5.32 | 32.88 | 5.33 | 32.88 | 7 | B |
| 14 | 14 | 4058.1 | 7008.1 | 11 | 2 | 2022 | 14:45 | 22 | 5.02 | 32.96 | 4.95 | 32.97 | 5 | B |
| 15 | 15 | 4102.3 | 7037.3 | 10 | 3 | 2022 | 19:32 | 45 | 4.81 | 32.81 | 4.75 | 32.86 | 12 | B |
| 16 | 16 | 4101.5 | 7032.5 | 10 | 3 | 2022 | 21:15 | 45 | 4.67 | 32.75 | 4.64 | 32.82 | 4 | B |
| 17 | 17 | 4104.7 | 7028.7 | 10 | 3 | 2022 | 22:19 | 40 | 4.63 | 32.73 | 4.48 | 32.72 | 3 | B |
| 19 | 19 | 4046.8 | 7015.6 | 11 | 3 | 2022 | 11:41 | 44 | 5.46 | 33.00 | 5.48 | 33.00 | 15 | B |
| 20 | 20 | 4045.6 | 7002.1 | 11 | 3 | 2022 | 13:29 | 36 | 5.48 | 32.97 | 5.43 | 32.98 | 2 | B |
| 21 | 21 | 4050.4 | 7005.8 | 11 | 3 | 2022 | 17:00 | 24 | 5.71 | 32.95 | 5.46 | 32.95 | 5 | B |
| 22 | 22 | 4056.5 | 7002.8 | 11 | 3 | 2022 | 18:09 | 24 | 5.31 | 32.91 | 5.25 | 32.91 | 2 | B |

Deployment codes: B=bongo cast