

Appendix 2. Summary descriptions and maps of the 37 EMUs.

Ecological Marine Unit 1 Summary

Technical Name

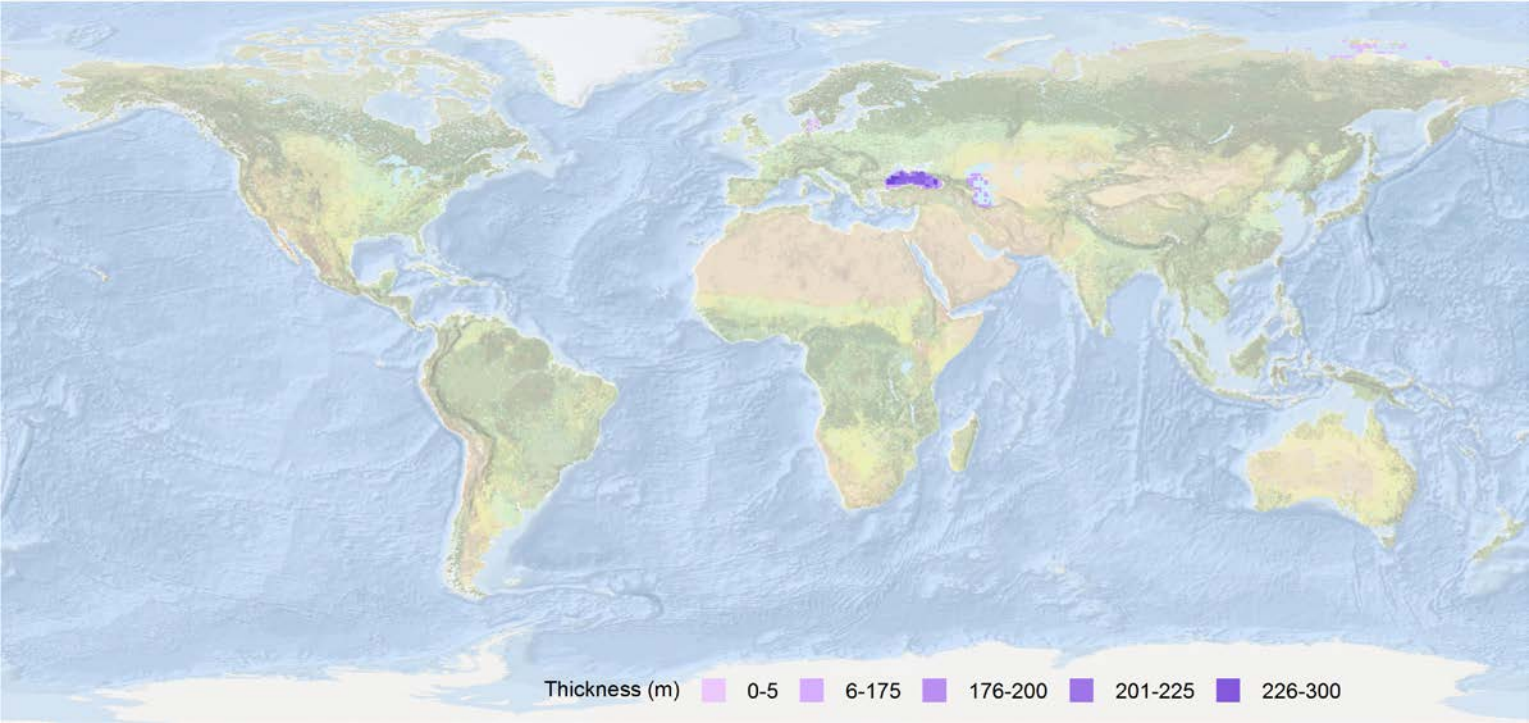
Mesopelagic, Cold, Polyhaline, Severely Hypoxic, Low Nitrate, Medium Phosphate, High Silicate

Common Name

Moderate Depth, Cold, Low Salinity, Very Low Oxygen, Low Nitrate, Medium Phosphate, High Silicate

EMU Volumetric Region Name and Code

Black and Caspian Seas Mesopelagic (BL_C_meso)



EMU 1 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	-0.65	8.3	14.72	1.62
Salinity (unitless)	20.19	21.42	22.32	0.34
Dissolved Oxygen (µmol/l)	0	0.2	0.83	0.15
Nitrate (µmol/l)	0	0.83	4.38	0.74
Phosphate (µmol/l)	2.47	4.27	5.22	0.56
Silicate (µmol/l)	58.88	109.61	196.55	25.15

EMU Water Volume (Km3)	70,488.07
Percent of EMU to Global	0.01%
Unit Middle Median (m)	220.87
Thickness Mean (m)	148.13

Ecological Marine Unit 2 Summary

Technical Name

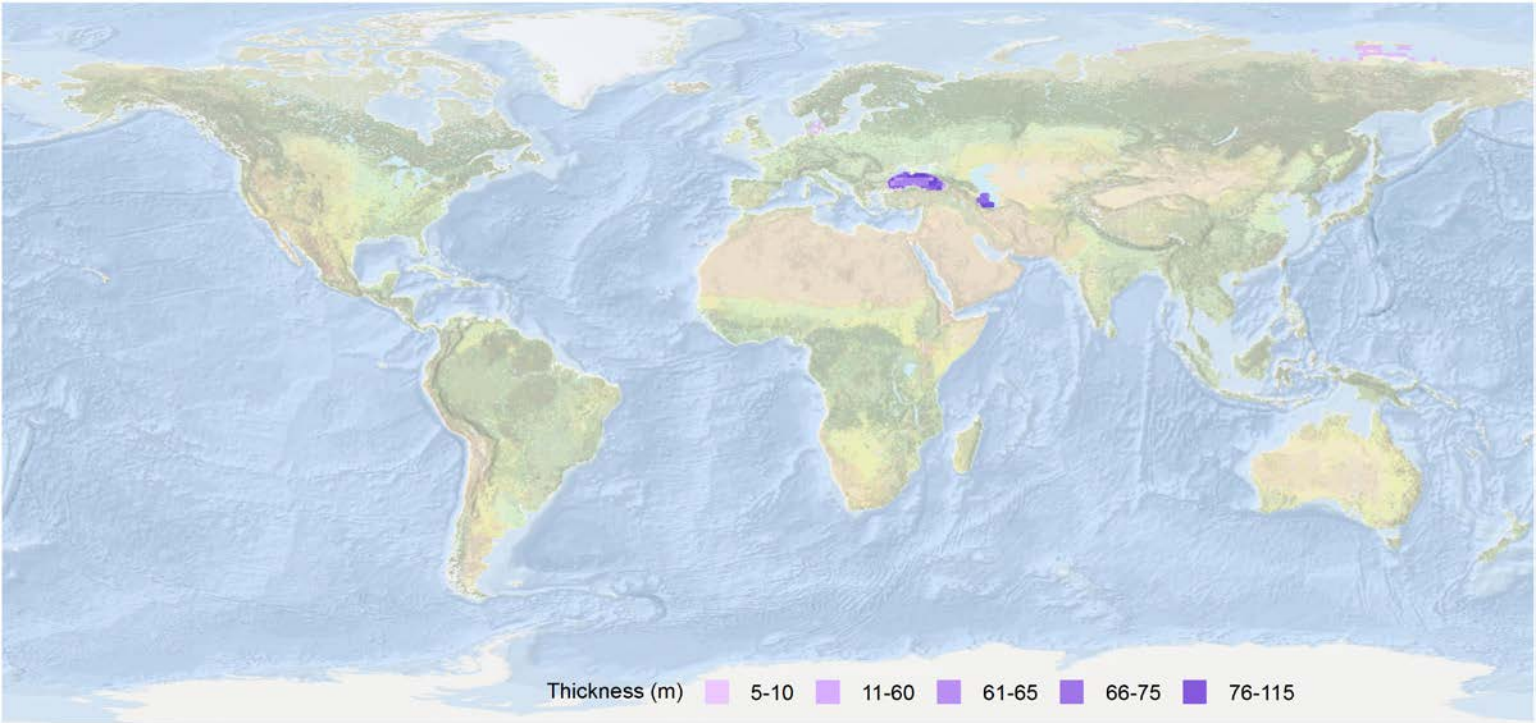
Epipelagic, Cold, Polyhaline, Hypoxic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Cold, Low Salinity, Low Oxygen, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Black and Caspian Seas Epipelagic (BL_C_epi)



EMU 2 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	-0.44	7.27	9.56	2.04
Salinity (unitless)	18.43	19.82	21.61	0.71
Dissolved Oxygen (µmol/l)	0.52	2.68	4.67	1.13
Nitrate (µmol/l)	0	2.85	4.22	1.04
Phosphate (µmol/l)	0.18	0.82	2.5	0.35
Silicate (µmol/l)	4.28	33.65	64.21	13.16

EMU Water Volume (Km3)	29,302.16
Percent of EMU to Global	0.00%
Unit Middle Median (m)	85.28
Thickness Mean (m)	52.21

Ecological Marine Unit 3 Summary

Technical Name

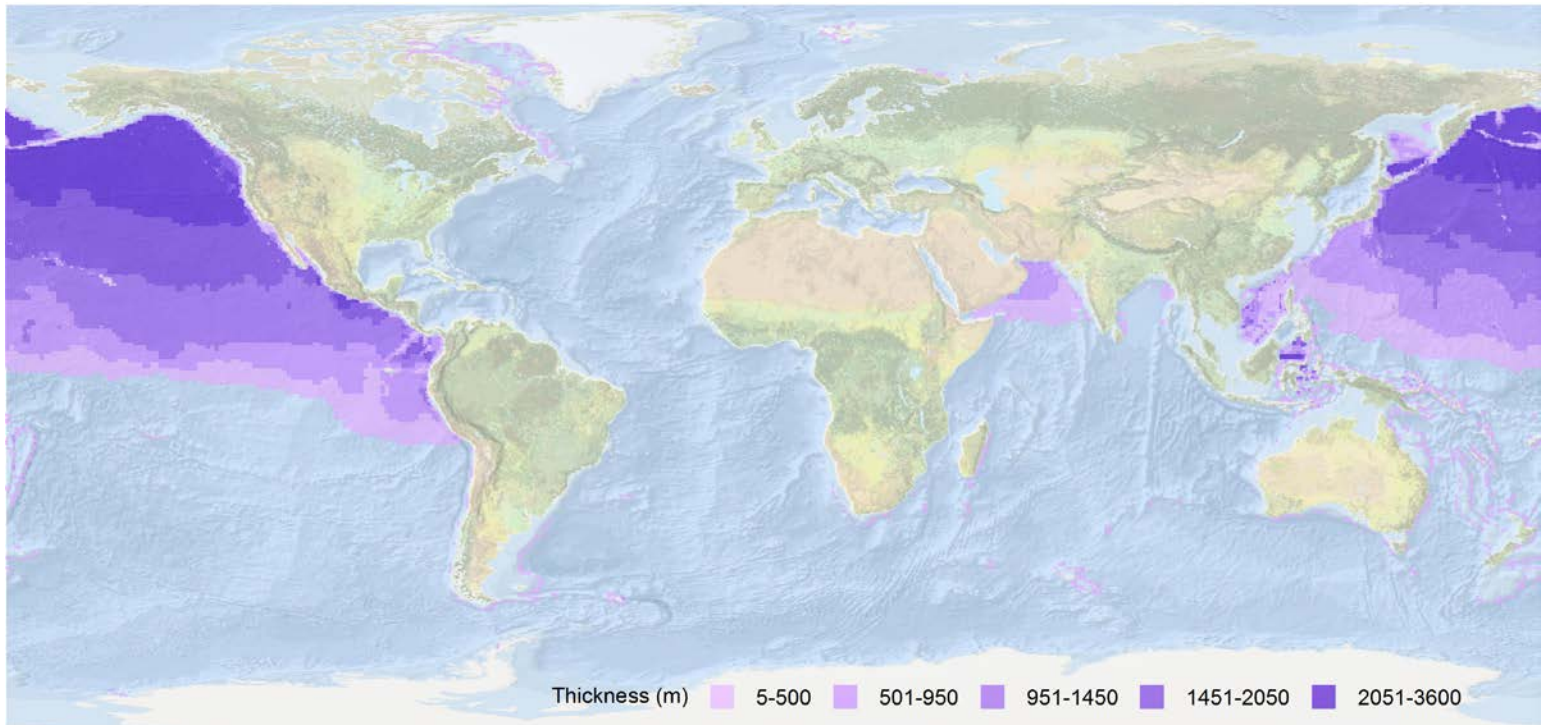
Bathypelagic, Very Cold, Euhaline, Severely Hypoxic, High Nitrate, Medium Phosphate, High Silicate

Common Name

Deep, Very Cold, Normal Salinity, Very Low Oxygen, High Nitrate, Medium Phosphate, High Silicate

EMU Volumetric Region Name and Code

North Pacific and Arabian Sea Bathypelagic (NP_AS_bathy)



EMU 3 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	0.47	2.6	5.16	0.62
Salinity (unitless)	33.52	34.54	35.03	0.12
Dissolved Oxygen (μmol/l)	0.21	1.47	2.98	0.62
Nitrate (μmol/l)	26.67	42.34	56.12	1.82
Phosphate (μmol/l)	2.27	3.03	4.1	0.15
Silicate (μmol/l)	106.22	149.53	247.19	19.52

EMU Water Volume (Km3)	96,803,913.19
Percent of EMU to Global	7.09%
Unit Middle Median (m)	1,598.10
Thickness Mean (m)	1,253.52

Ecological Marine Unit 4 Summary

Technical Name

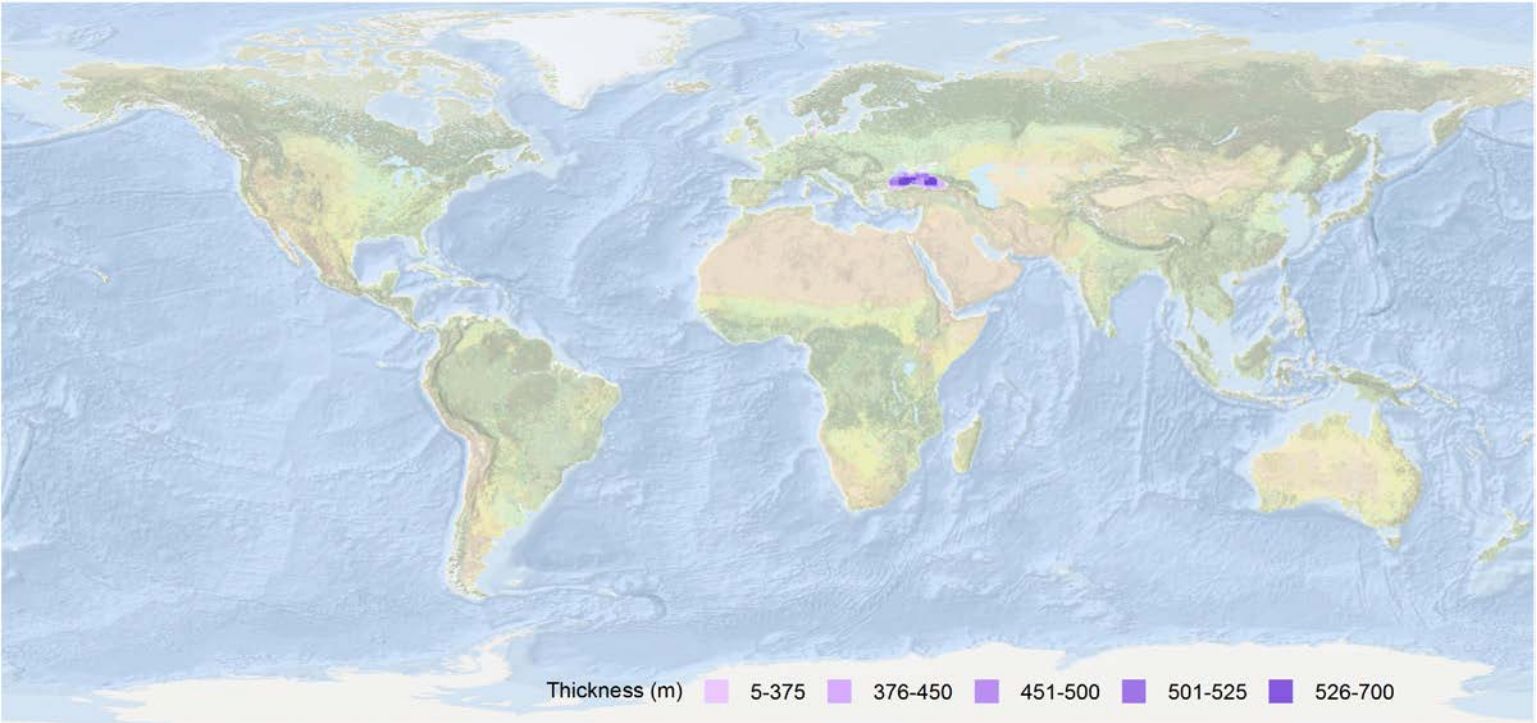
Mesopelagic, Cold, Polyhaline, Severely Hypoxic, Low Nitrate, High Phosphate, High Silicate

Common Name

Moderate Depth, Cold, Low Salinity, Very Low Oxygen, Low Nitrate, High Phosphate, High Silicate

EMU Volumetric Region Name and Code

Black Sea Mesopelagic (BL_meso)



EMU 4 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	4.62	8.89	14.93	0.15
Salinity (unitless)	21.72	22.03	22.4	0.16
Dissolved Oxygen (μmol/l)	0	0.1	0.7	0.11
Nitrate (μmol/l)	0	0.11	1.45	0.26
Phosphate (μmol/l)	5.13	6.18	7.27	0.54
Silicate (μmol/l)	111	160.29	231.35	30.75

EMU Water Volume (Km3)	137,671.34
Percent of EMU to Global	0.01%
Unit Middle Median (m)	498.16
Thickness Mean (m)	445.63

Ecological Marine Unit 5 Summary

Technical Name

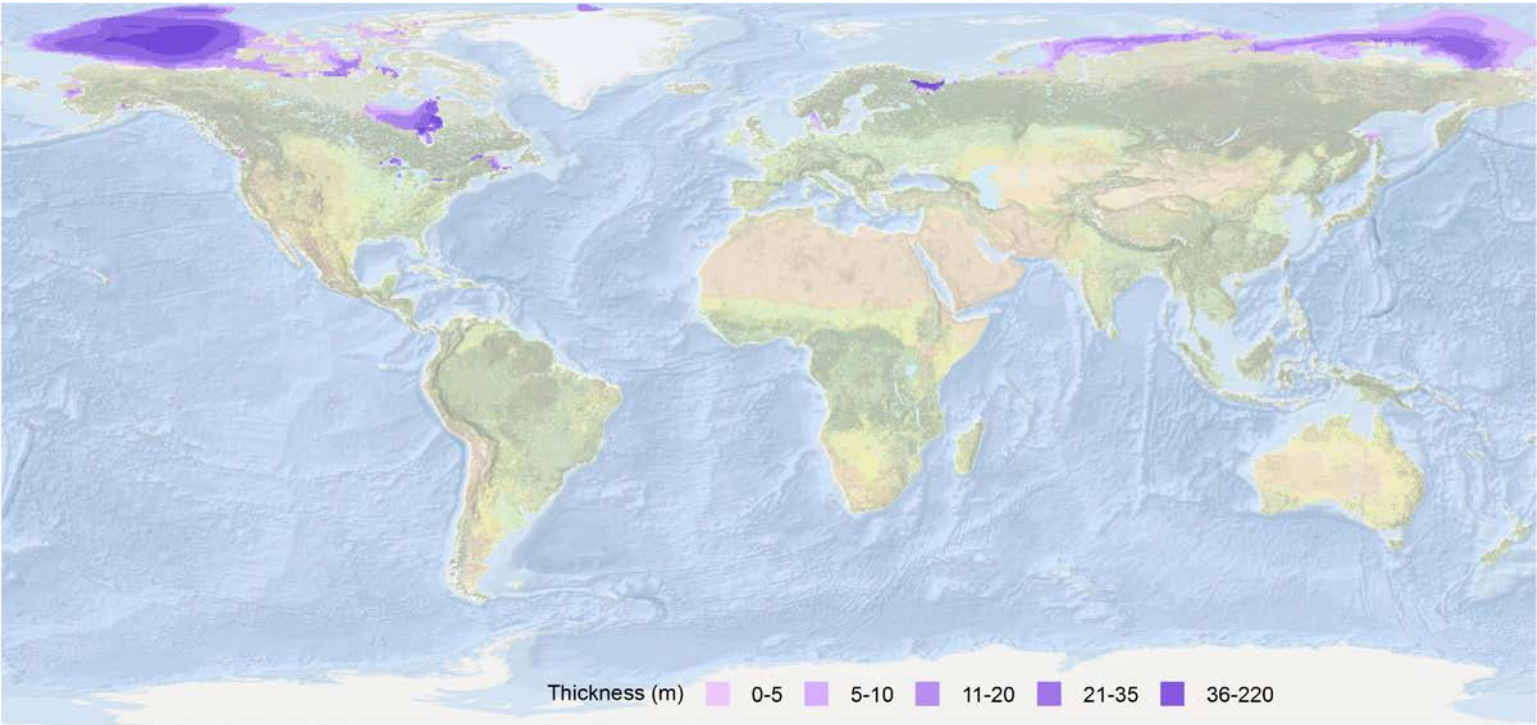
Epipelagic, Frozen/Superchilled, Polyhaline, Highly Oxidic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Superchilled, Low Salinity, High Oxygen, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Arctic Epipelagic (A_epi)



EMU 5 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	-1.62	-0.96	12.1	1.05
Salinity (unitless)	25.99	28.59	29.63	0.78
Dissolved Oxygen (µmol/l)	5.03	8.71	9.89	0.48
Nitrate (µmol/l)	0	1.16	15.24	1.08
Phosphate (µmol/l)	0	0.79	2.24	0.24
Silicate (µmol/l)	0.31	9.36	32.87	5.37

EMU Water Volume (Km3)	79,011.98
Percent of EMU to Global	0.01%
Unit Middle Median (m)	12.32
Thickness Mean (m)	18.47

Ecological Marine Unit 6 Summary

Technical Name

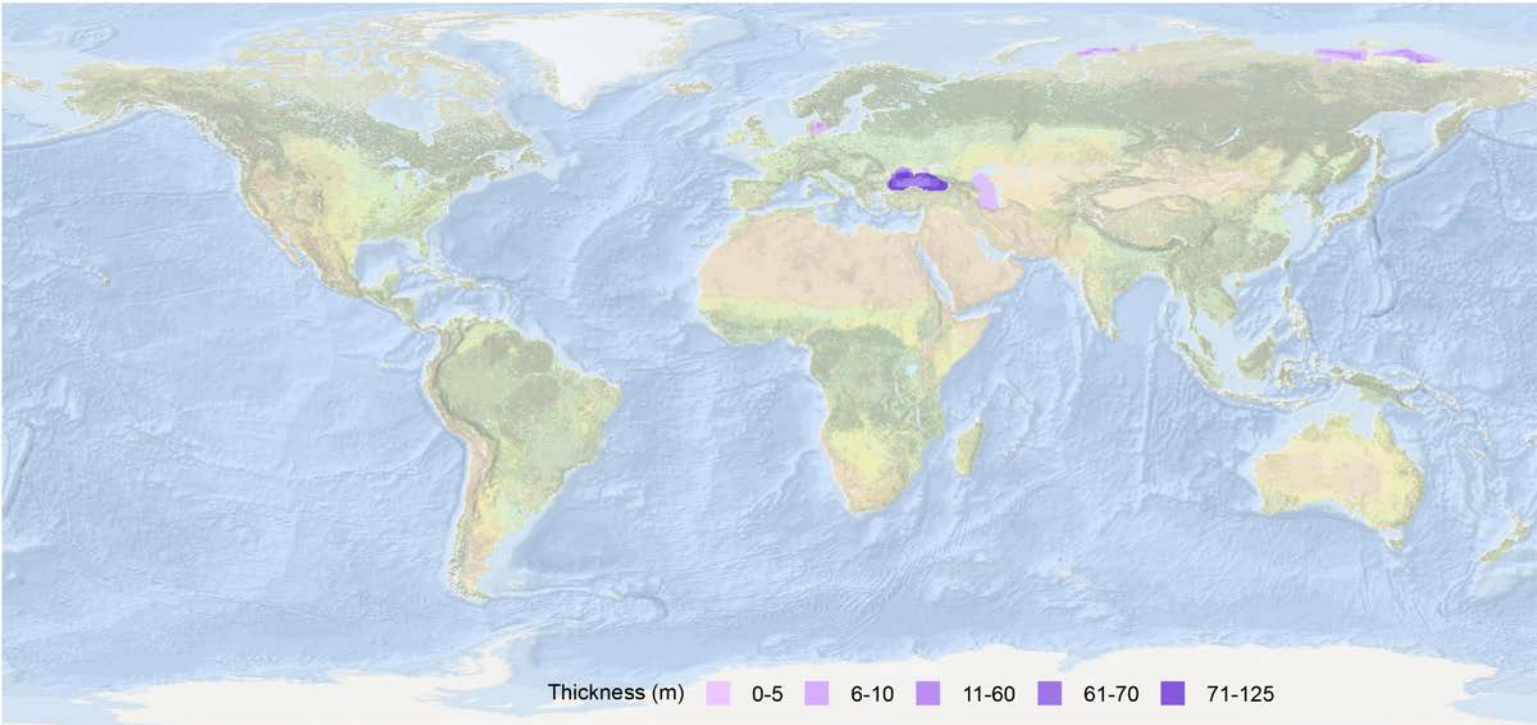
Epipelagic, Cold, Polyhaline, Oxic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Cold, Low Salinity, Moderate Oxygen, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Black and Caspian Seas Epipelagic (BL_C_epi)



EMU 6 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	-0.38	9.24	19.38	4.06
Salinity (unitless)	16.22	18.35	20.65	0.45
Dissolved Oxygen (µmol/l)	4.13	6.65	9.57	1.05
Nitrate (µmol/l)	0.05	1.13	5.8	0.79
Phosphate (µmol/l)	0.1	0.28	1.11	0.15
Silicate (µmol/l)	4.04	13.86	56.85	6.79

EMU Water Volume (Km3)	28,710.79
Percent of EMU to Global	0.00%
Unit Middle Median (m)	30.45
Thickness Mean (m)	26.94

Ecological Marine Unit 7 Summary

Technical Name

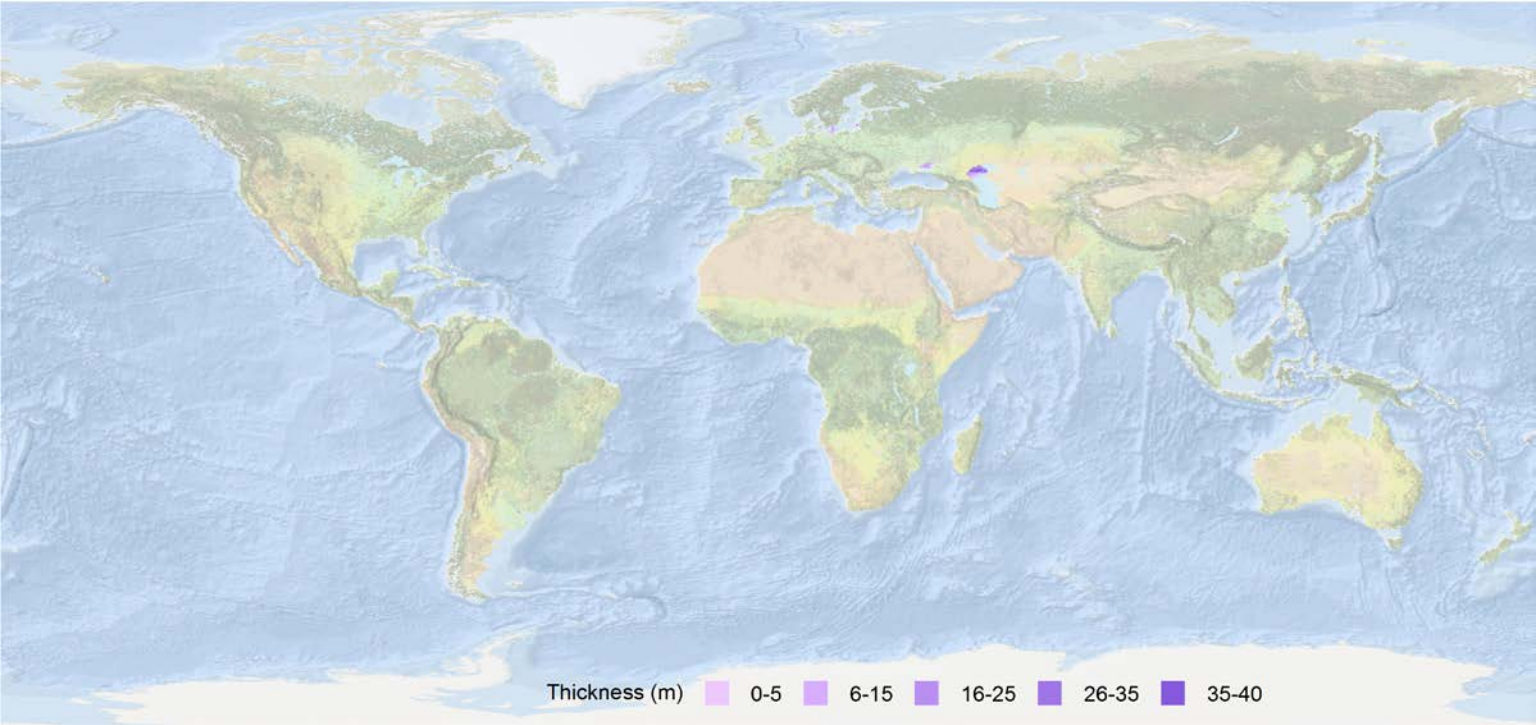
Epiplagic, Moderate to Cool, Mesohaline, Oxidic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Cool, Very Low Salinity, Moderate Oxygen, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Caspian Sea Epipelagic (C_epi)



EMU 7 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	4.81	15.62	20.91	3.05
Salinity (unitless)	7.81	9.4	10.96	0.86
Dissolved Oxygen (µmol/l)	5.05	6.8	7.93	0.44
Nitrate (µmol/l)	0.02	0.25	2.78	0.45
Phosphate (µmol/l)	0.05	0.17	0.7	0.11
Silicate (µmol/l)	3.38	6.64	29.29	5.22

EMU Water Volume (Km3)	1,368.36
Percent of EMU to Global	0.00%
Unit Middle Median (m)	13.85
Thickness Mean (m)	18.74

Ecological Marine Unit 8 Summary

Technical Name

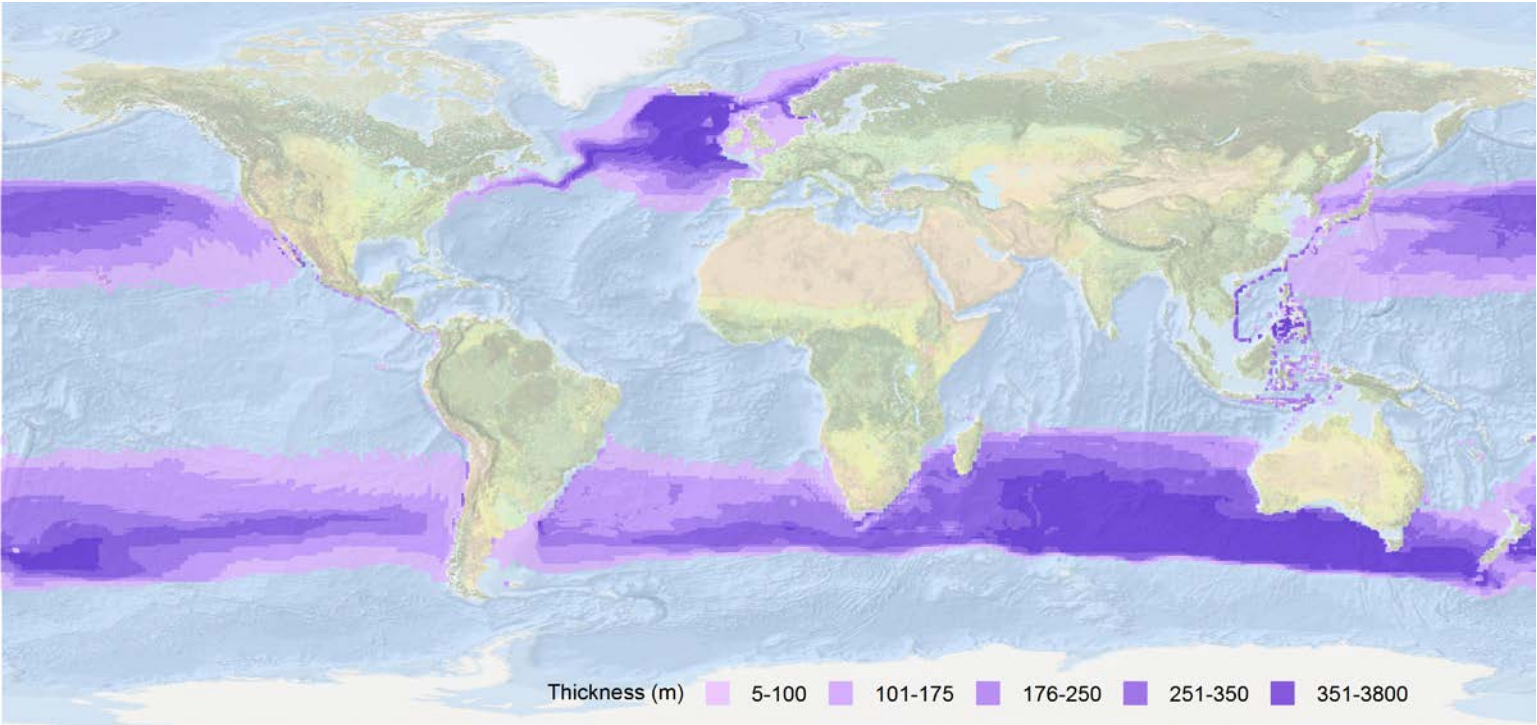
Epipelagic, Moderate to Cool, Euhaline, Oxic, Medium Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Cool, Normal Salinity, Moderate Oxygen, Medium Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Subantarctic, North Atlantic, and North Pacific Epipelagic (SAA_NA_NP_epi)



EMU 8 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	3.39	11.05	18.44	1.96
Salinity (unitless)	32.57	34.59	35.65	0.45
Dissolved Oxygen (μmol/l)	3.75	5.73	7.29	0.61
Nitrate (μmol/l)	0.01	10.62	22.7	4.14
Phosphate (μmol/l)	0.11	0.84	1.83	0.23
Silicate (μmol/l)	0.41	5.96	34.17	4.18

EMU Water Volume (Km3)	26,219,376.97
Percent of EMU to Global	1.92%
Unit Middle Median (m)	151.24
Thickness Mean (m)	219.21

Ecological Marine Unit 9 Summary

Technical Name

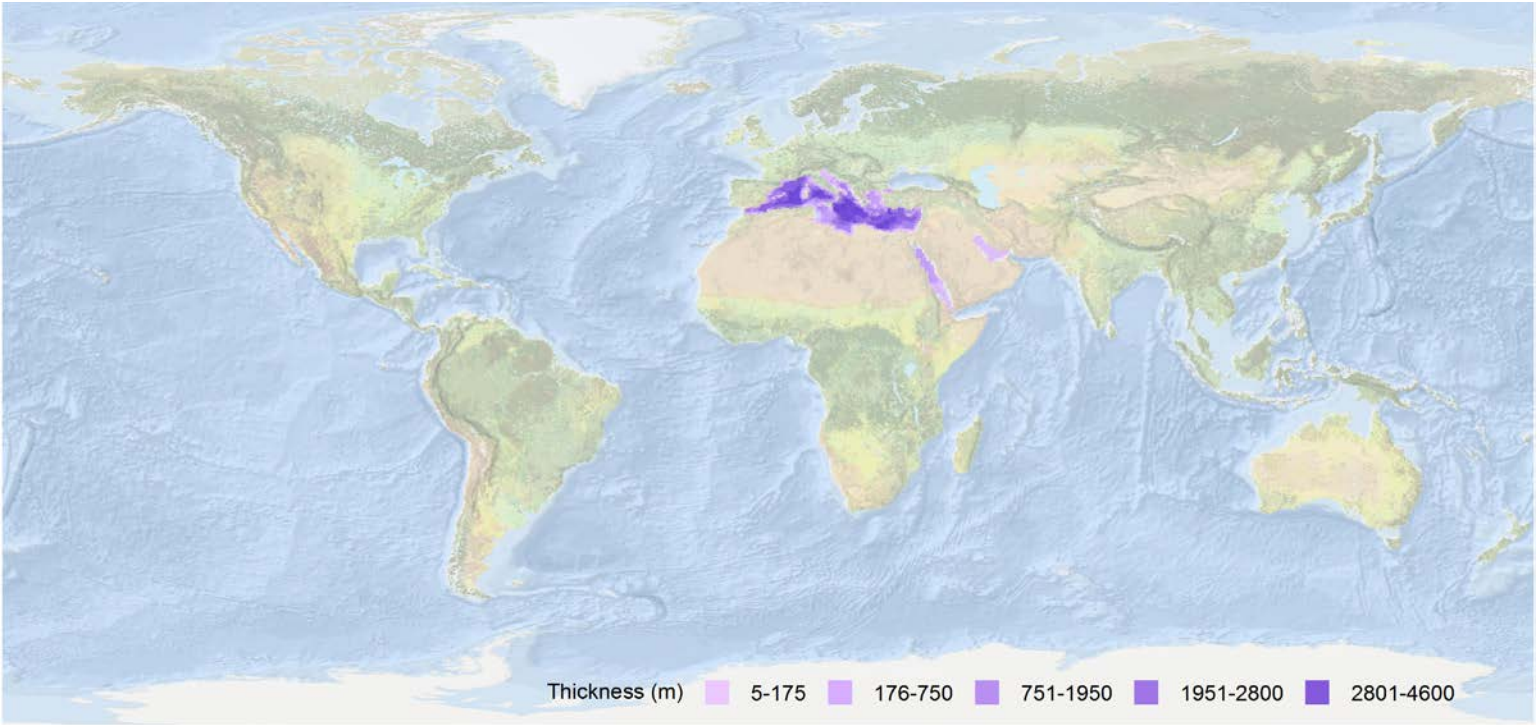
Mesopelagic, Moderate to Cool, Euhaline, Oxic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Moderate Depth, Cool, Normal Salinity, Moderate Oxygen, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Mediterranean and Red Seas Mesopelagic (M_R_meso)



EMU 9 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	12.52	15.28	29.53	2.86
Salinity (unitless)	37.34	38.62	40.77	0.41
Dissolved Oxygen (μmol/l)	2.04	4.69	5.98	0.53
Nitrate (μmol/l)	0	3.75	15.02	2.84
Phosphate (μmol/l)	0.02	0.19	0.77	0.11
Silicate (μmol/l)	0.31	4.76	26.46	2.78

EMU Water Volume (Km3)	3,998,804.78
Percent of EMU to Global	0.29%
Unit Middle Median (m)	301.77
Thickness Mean (m)	1,481.43

Ecological Marine Unit 10 Summary

Technical Name

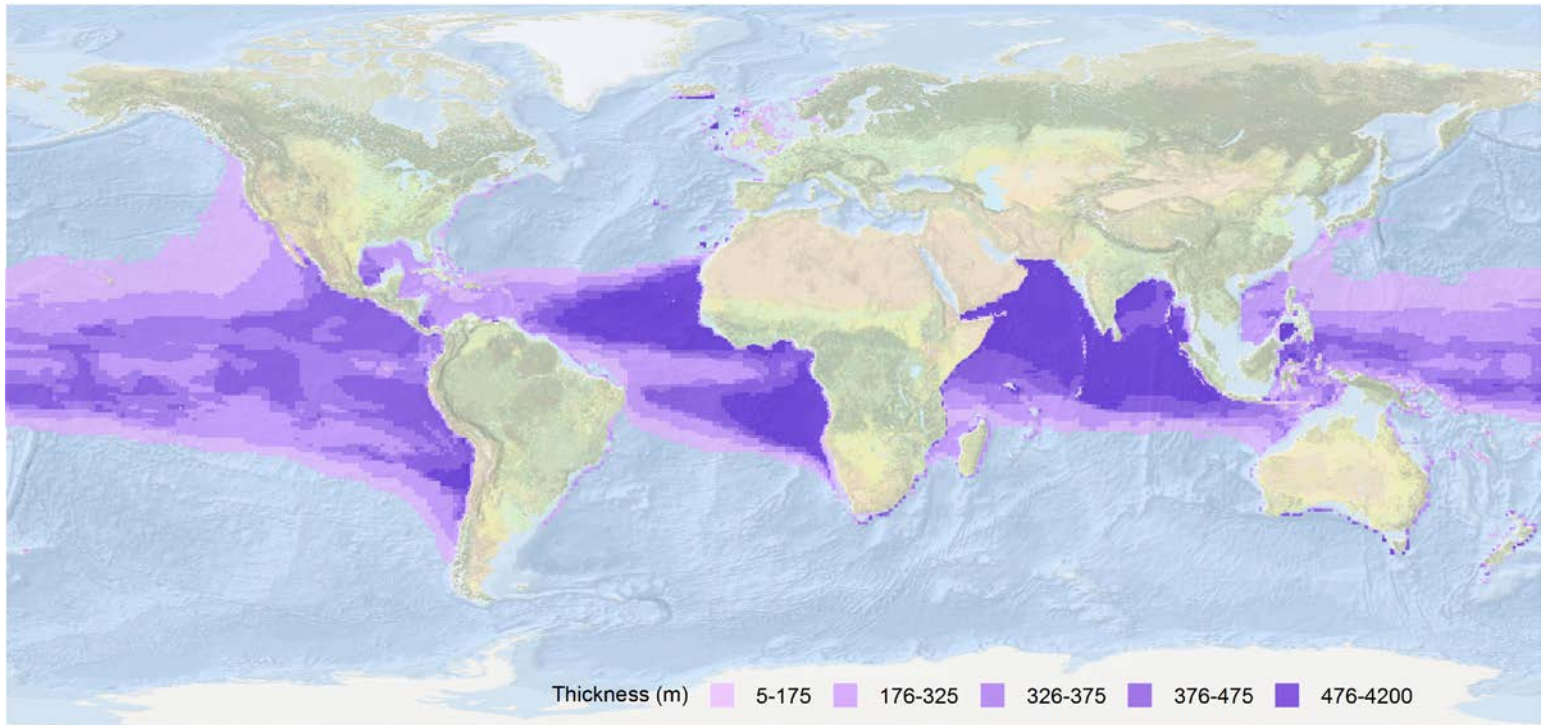
Mesopelagic, Cold, Euhaline, Severely Hypoxic, High Nitrate, Low Phosphate, Low Silicate

Common Name

Moderate Depth, Cold, Normal Salinity, Very Low Oxygen, High Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Equatorial Indian, Tropical Atlantic, and Tropical Pacific Mesopelagic (EI_TA_TP_meso)



EMU 10 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	4.66	9.83	24.2	2.26
Salinity (unitless)	33.63	34.78	36.94	0.3
Dissolved Oxygen (μmol/l)	0.03	1.56	3.55	0.87
Nitrate (μmol/l)	9.87	30.84	43.71	4.2
Phosphate (μmol/l)	1.26	2.28	3.36	0.31
Silicate (μmol/l)	6.75	31.96	96.02	12.38

EMU Water Volume (Km3)	45,669,990.26
Percent of EMU to Global	3.34%
Unit Middle Median (m)	390.89
Thickness Mean (m)	339.64

Ecological Marine Unit 11 Summary

Technical Name

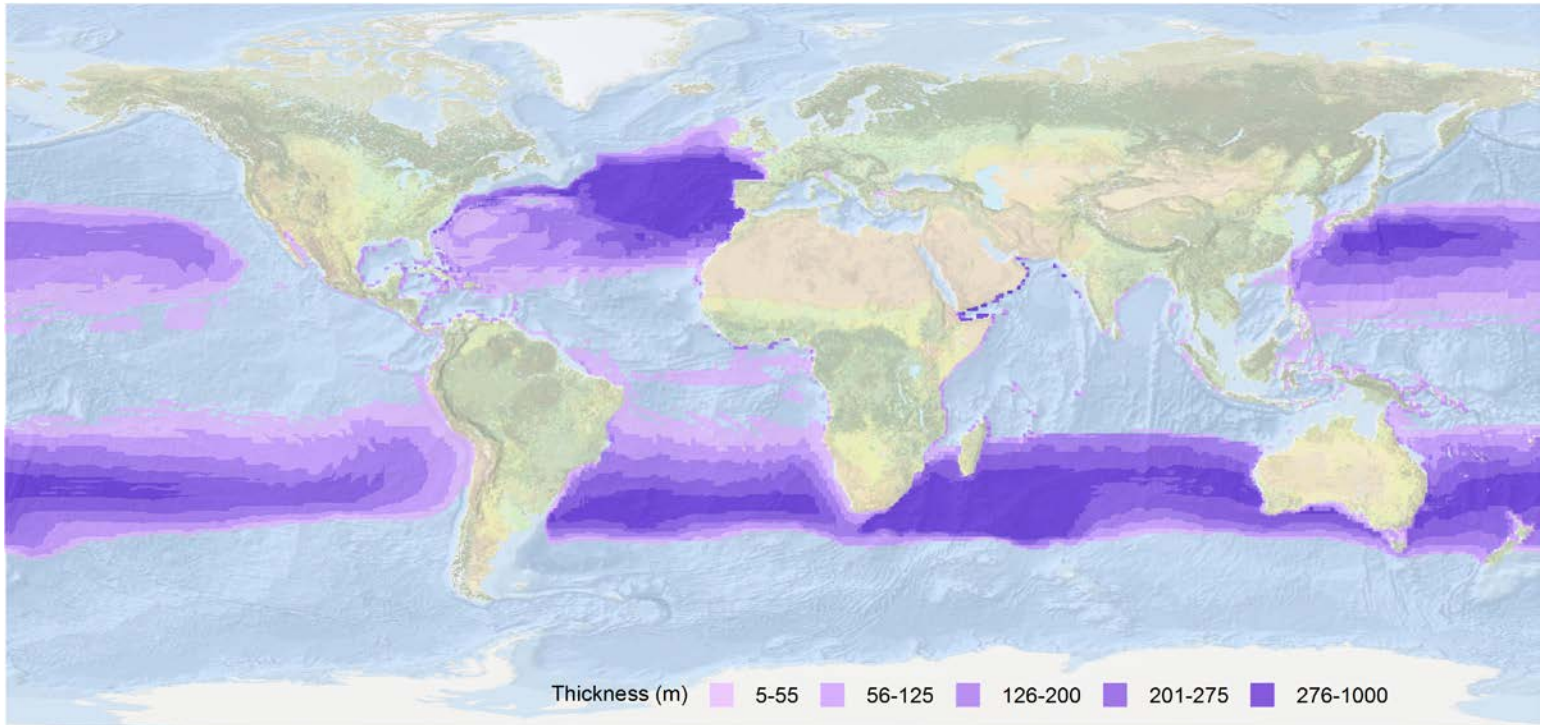
Epipelagic, Moderate to Cool, Euhaline, Oxic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Cool, Normal Salinity, Moderate Oxygen, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Northern Subtropical and Southern Subtropical Epipelagic (NS_SS_epi)



EMU 11 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	10.07	16.46	21.67	2.26
Salinity (unitless)	33.93	35.33	36.46	0.41
Dissolved Oxygen (μmol/l)	3.25	5.23	6.46	0.46
Nitrate (μmol/l)	0.01	3.66	19.98	3.27
Phosphate (μmol/l)	0.05	0.39	1.4	0.19
Silicate (μmol/l)	0.27	3.33	20.34	1.86

EMU Water Volume (Km3)	22,994,027.00
Percent of EMU to Global	1.68%
Unit Middle Median (m)	101.22
Thickness Mean (m)	172.49

Ecological Marine Unit 12 Summary

Technical Name

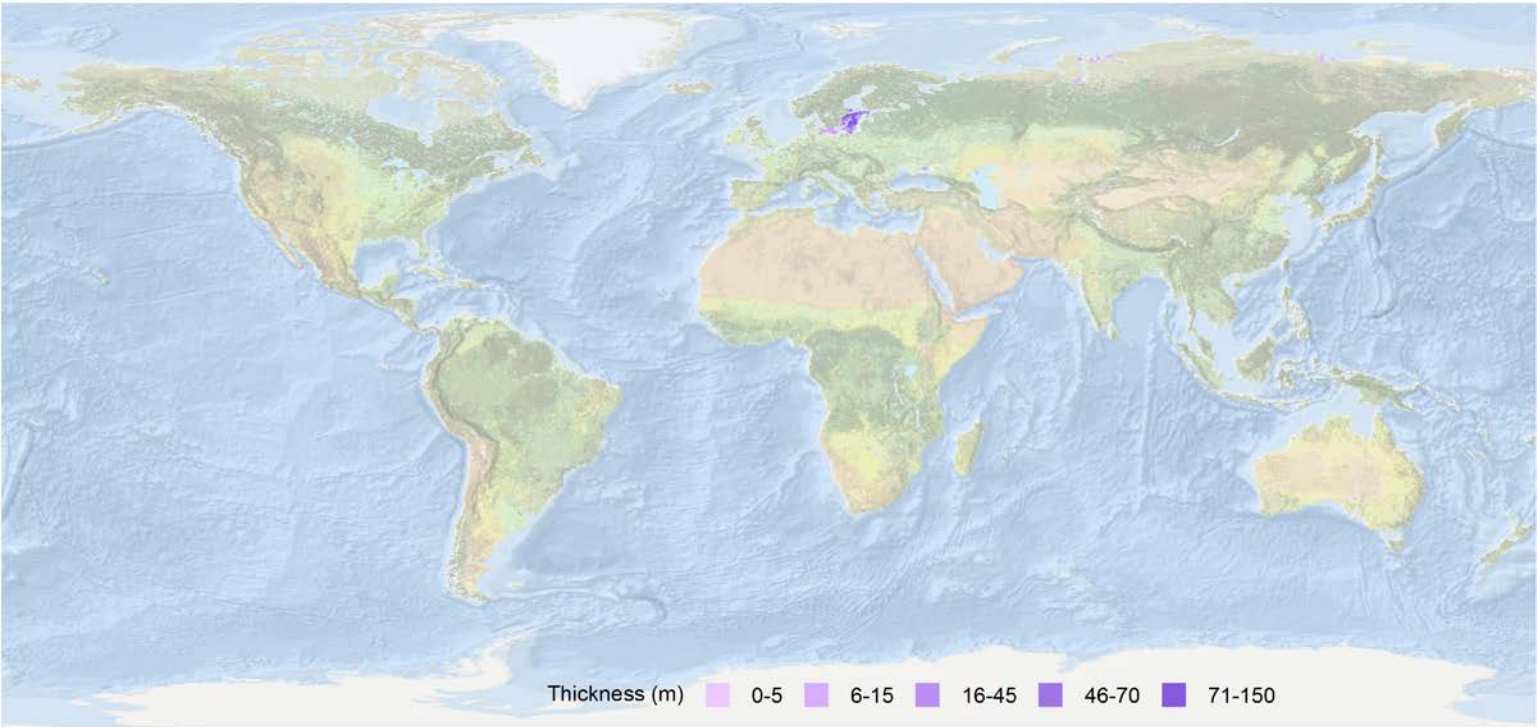
Epipelagic, Very Cold, Mesohaline, Severely Hypoxic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Very Cold, Very Low Salinity, Very Low Oxygen, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Baltic Sea Epipelagic (BA_epi)



EMU 12 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	0.72	4.73	14.05	1.36
Salinity (unitless)	8.98	10.22	12.03	0.64
Dissolved Oxygen (µmol/l)	0.29	1.62	4.36	0.64
Nitrate (µmol/l)	3.15	5.85	7.72	0.82
Phosphate (µmol/l)	1.2	2.39	3.85	0.39
Silicate (µmol/l)	28.7	43.6	60.68	4.95

EMU Water Volume (Km3)	3,865.12
Percent of EMU to Global	0.00%
Unit Middle Median (m)	88.50
Thickness Mean (m)	33.47

Ecological Marine Unit 13 Summary

Technical Name

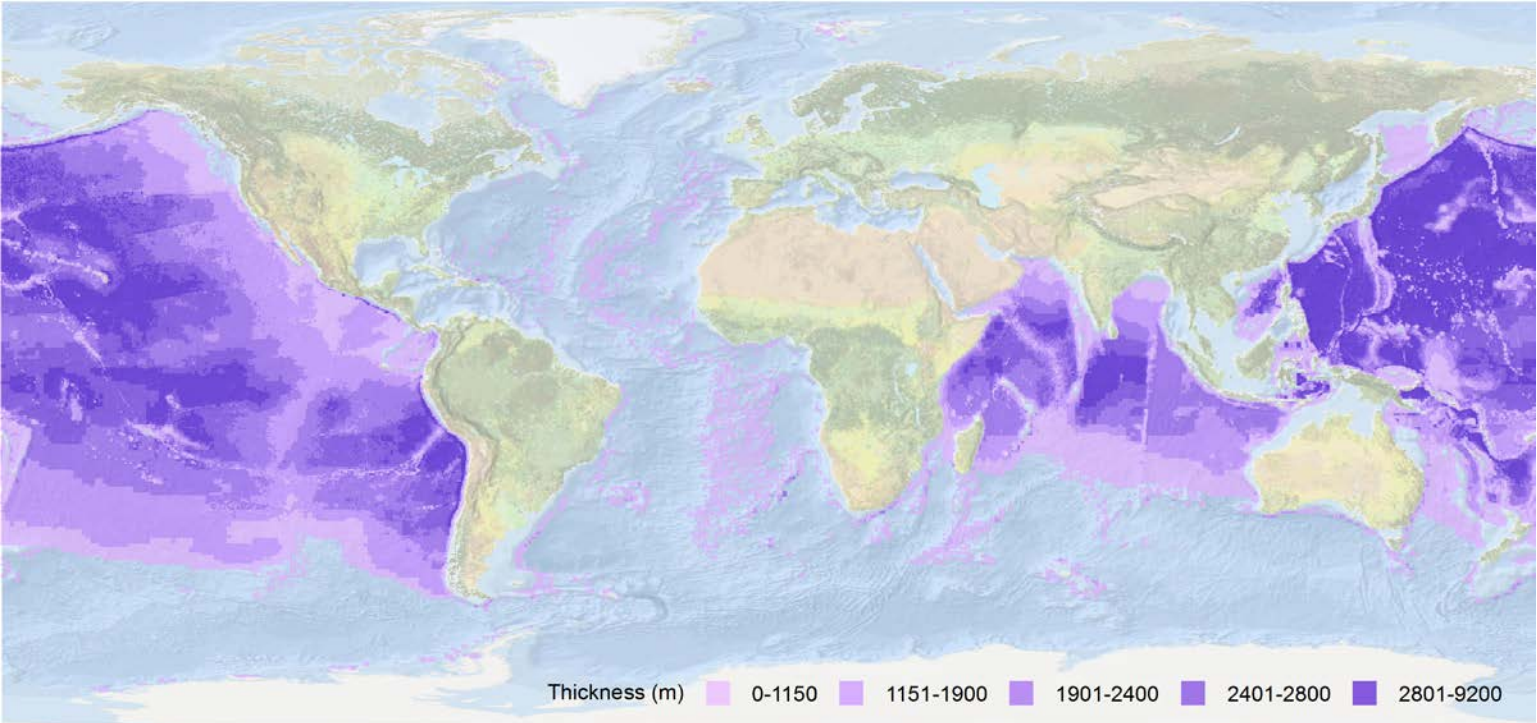
Bathypelagic, Very Cold, Euhaline, Hypoxic, High Nitrate, Medium Phosphate, High Silicate

Common Name

Deep, Very Cold, Normal Salinity, Low Oxygen, High Nitrate, Medium Phosphate, High Silicate

EMU Volumetric Region Name and Code

Pacific and Indian Bathypelagic (P_I_bathy)



EMU 13 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	-0.38	1.93	5.54	0.51
Salinity (unitless)	33.43	34.67	34.93	0.05
Dissolved Oxygen (µmol/l)	1.69	3.26	4.33	0.43
Nitrate (µmol/l)	25.26	37.03	48.49	1.57
Phosphate (µmol/l)	0.53	2.6	3.36	0.12
Silicate (µmol/l)	88.01	138.03	189.63	19.05

EMU Water Volume (Km3)	347,060,603.65
Percent of EMU to Global	25.40%
Unit Middle Median (m)	2,871.85
Thickness Mean (m)	2,010.79

Ecological Marine Unit 14 Summary

Technical Name

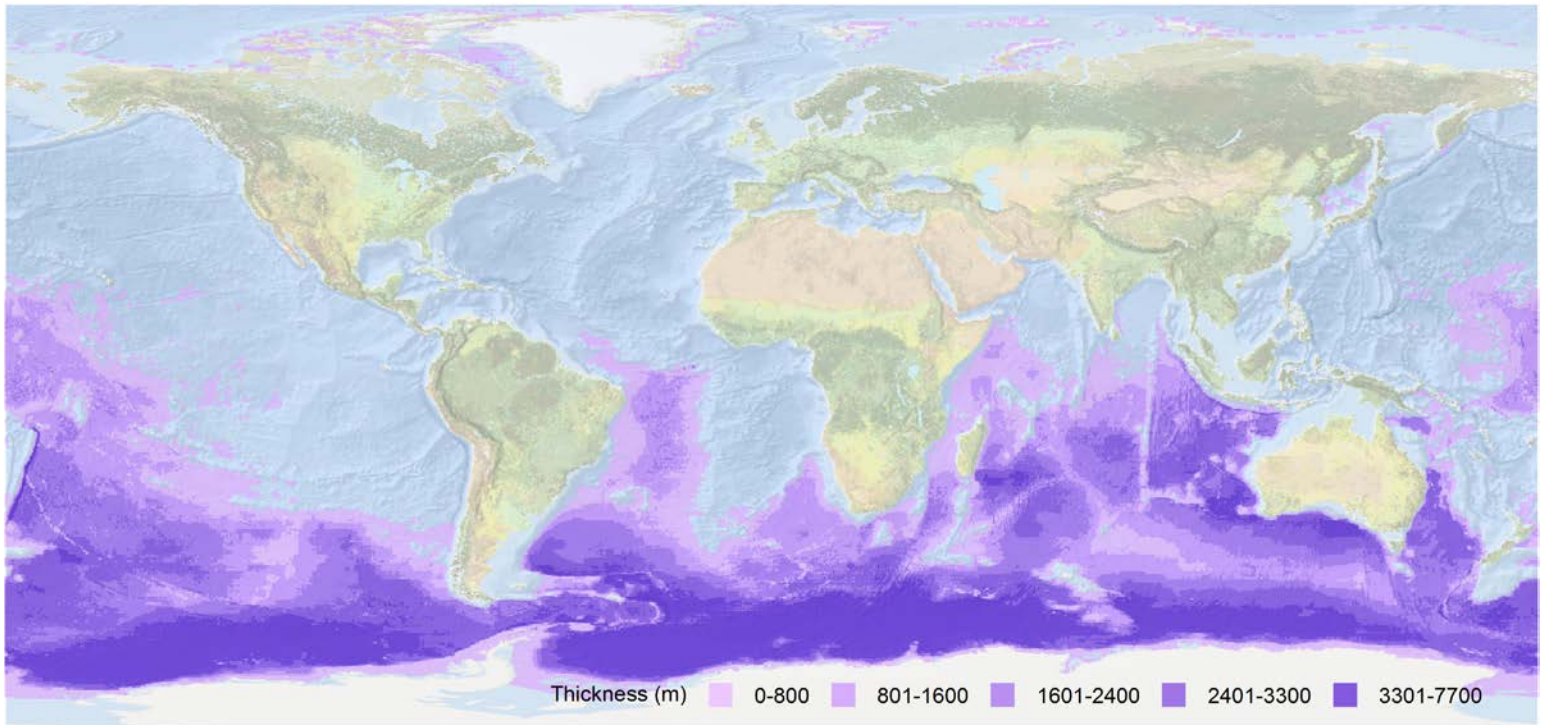
Bathypelagic, Very Cold, Euhaline, Oxic, High Nitrate, Low Phosphate, High Silicate

Common Name

Deep, Very Cold, Normal Salinity, Moderate Oxygen, High Nitrate, Low Phosphate, High Silicate

EMU Volumetric Region Name and Code

Antarctic and Subantarctic Bathypelagic (AA_SAA_bathy)



EMU 14 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	-2.05	0.88	3.31	0.69
Salinity (unitless)	33.27	34.7	34.9	0.04
Dissolved Oxygen (μmol/l)	2.96	4.74	6.86	0.41
Nitrate (μmol/l)	16.96	32.71	40.33	1.21
Phosphate (μmol/l)	1.49	2.27	3.02	0.09
Silicate (μmol/l)	72.25	115.2	167.23	13.89

EMU Water Volume (Km3)	277,552,060.90
Percent of EMU to Global	20.31%
Unit Middle Median (m)	2,595.55
Thickness Mean (m)	2,096.30

Ecological Marine Unit 15 Summary

Technical Name

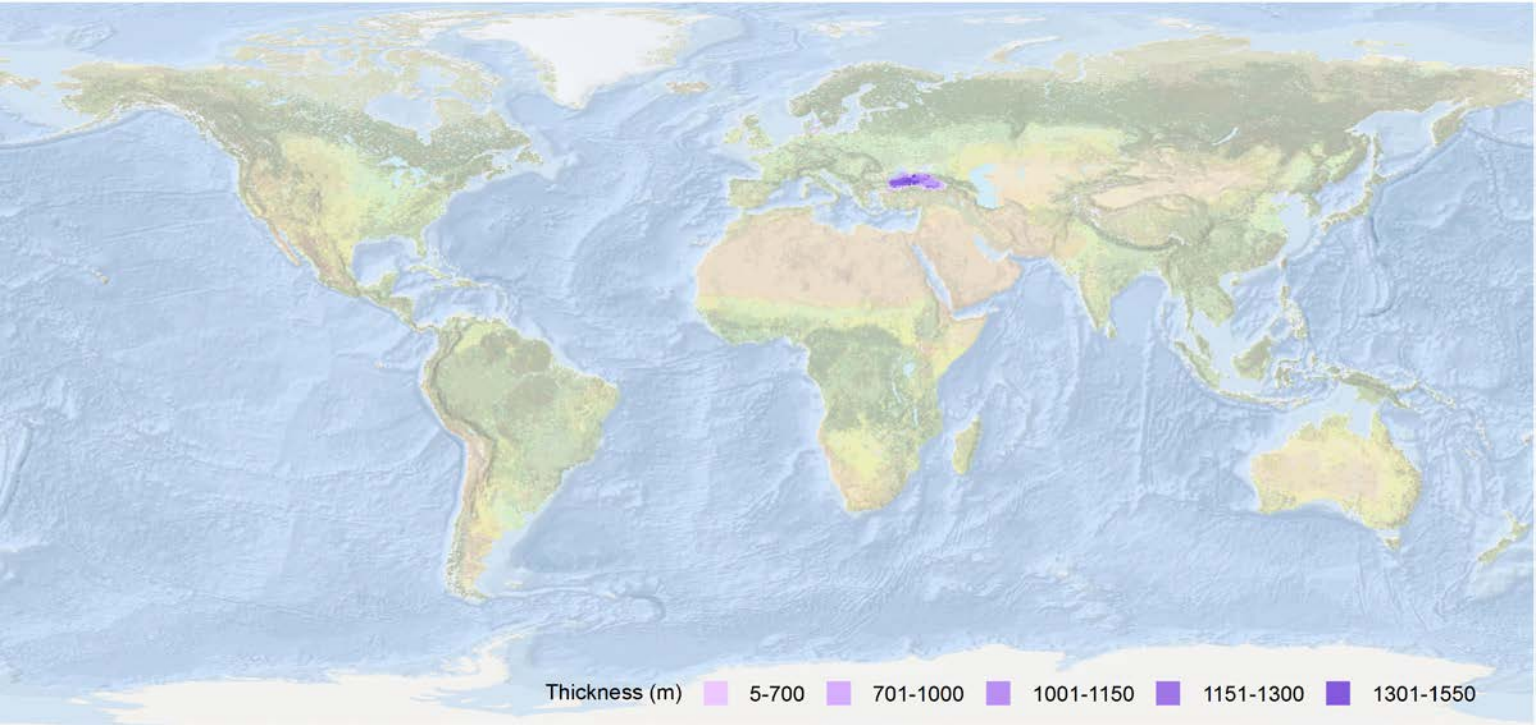
Bathypelagic, Cold, Polyhaline, Anoxic, Low Nitrate, High Phosphate, High Silicate

Common Name

Deep, Cold, Low Salinity, No Oxygen, Low Nitrate, High Phosphate, High Silicate

EMU Volumetric Region Name and Code

Black Sea Bathypelagic (BL_bathy)



EMU 15 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	7.18	9	15.16	0.17
Salinity (unitless)	21.98	22.29	23.44	0.06
Dissolved Oxygen (µmol/l)	0	0	0.07	0.01
Nitrate (µmol/l)	0	0.03	1.45	0.2
Phosphate (µmol/l)	6.84	8.02	9.76	0.55
Silicate (µmol/l)	91.49	192.79	258.23	25.59

EMU Water Volume (Km3)	277,932.33
Percent of EMU to Global	0.02%
Unit Middle Median (m)	1,297.92
Thickness Mean (m)	962.14

Ecological Marine Unit 16 Summary

Technical Name

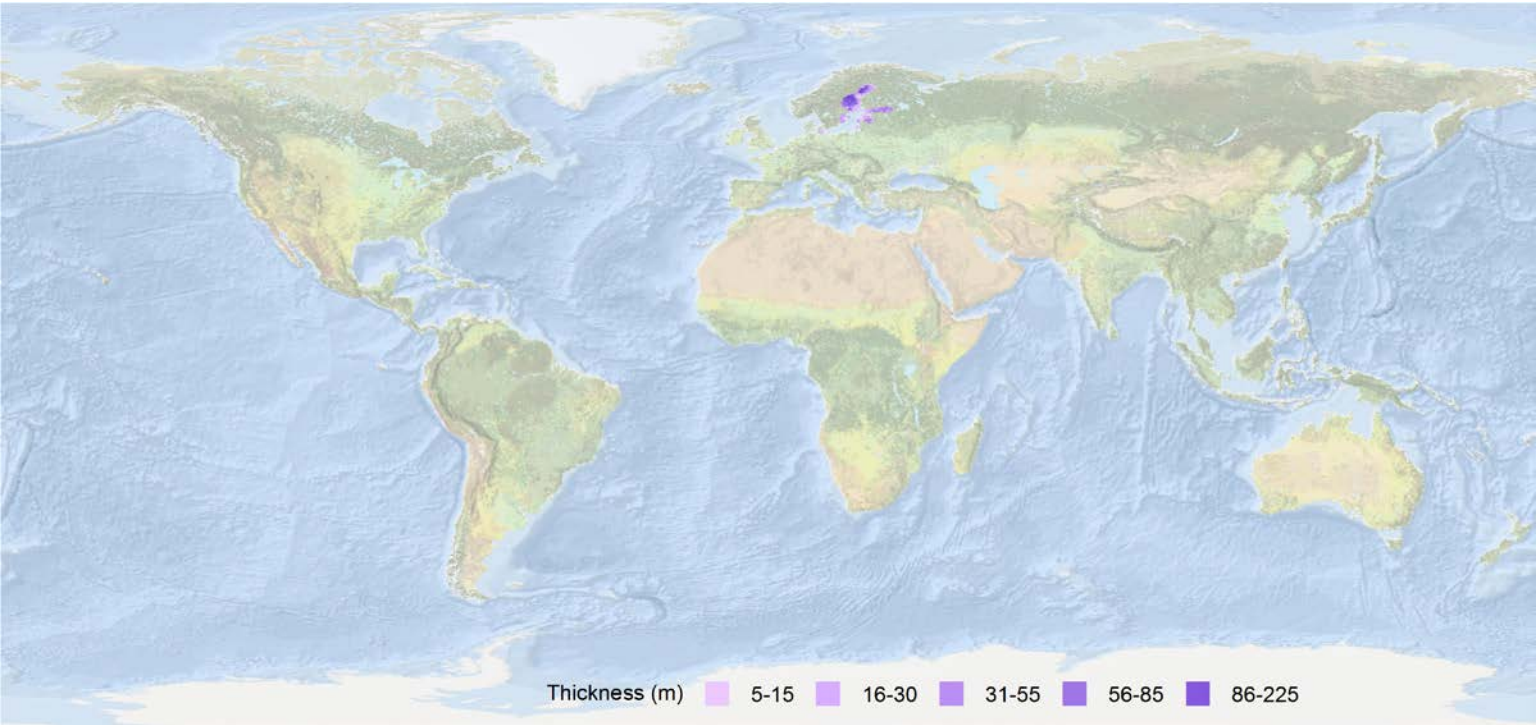
Epipelagic, Very Cold, Mesohaline, Highly Oxidic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Very Cold, Very Low Salinity, High Oxygen, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Baltic Sea Epipelagic (BA_epi)



EMU 16 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	1.76	4.22	11.99	1.73
Salinity (unitless)	5.01	5.61	6.49	0.45
Dissolved Oxygen (µmol/l)	6.43	8.41	8.95	0.49
Nitrate (µmol/l)	0.07	3.35	7.51	1.85
Phosphate (µmol/l)	0.05	0.18	0.67	0.12
Silicate (µmol/l)	9.06	18.46	29.67	6.17

EMU Water Volume (Km3)	7,665.87
Percent of EMU to Global	0.00%
Unit Middle Median (m)	25.20
Thickness Mean (m)	49.24

Ecological Marine Unit 17 Summary

Technical Name

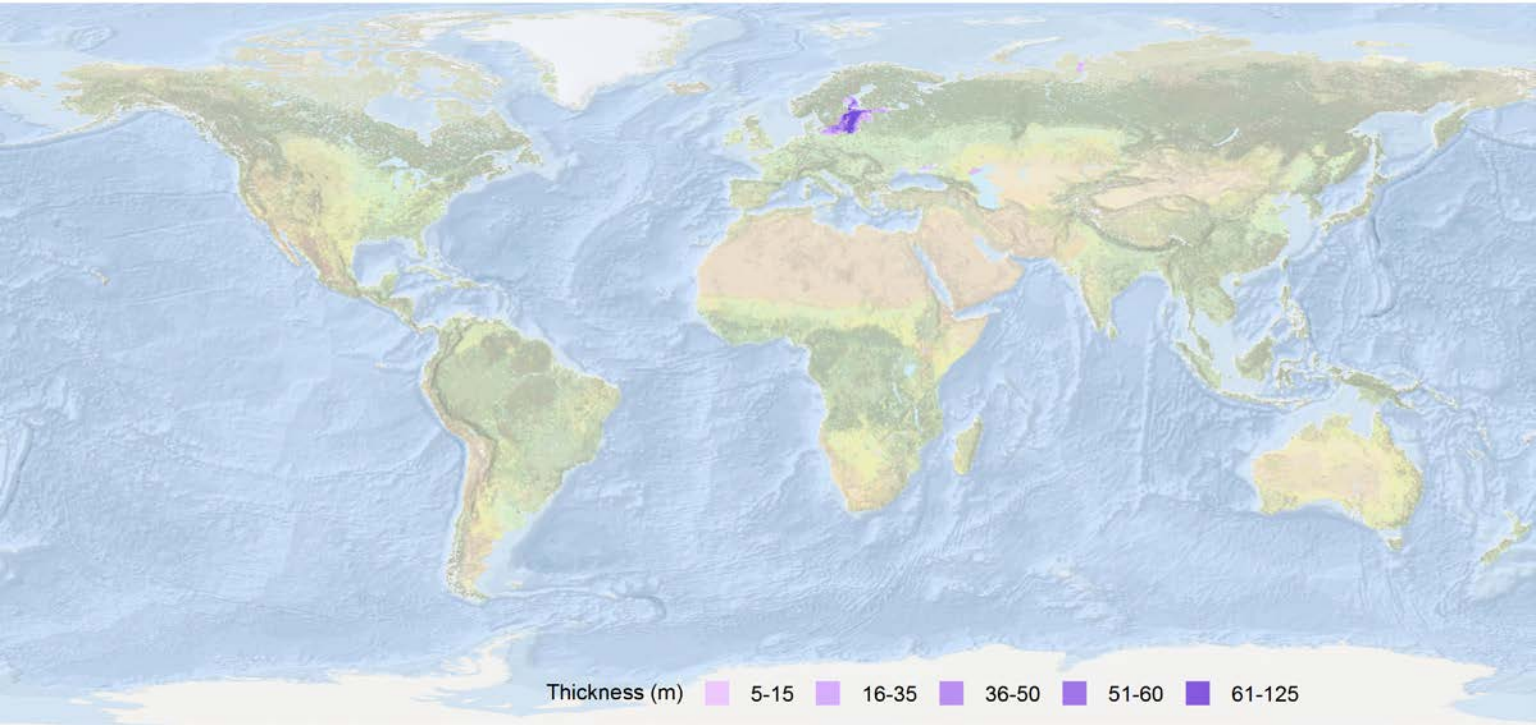
Epipelagic, Cold, Mesohaline, Oxic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Cold, Very Low Salinity, Moderate Oxygen, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Baltic Sea Epipelagic (BA_epi)



EMU 17 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	1.34	5.84	14.24	2.06
Salinity (unitless)	6.33	7.32	8.91	0.42
Dissolved Oxygen (µmol/l)	6.11	7.94	8.51	0.37
Nitrate (µmol/l)	0.12	1.97	5.68	0.72
Phosphate (µmol/l)	0.14	0.42	1.01	0.14
Silicate (µmol/l)	2.01	12.13	29.9	2.61

EMU Water Volume (Km3)	10,110.28
Percent of EMU to Global	0.00%
Unit Middle Median (m)	25.50
Thickness Mean (m)	40.59

Ecological Marine Unit 18 Summary

Technical Name

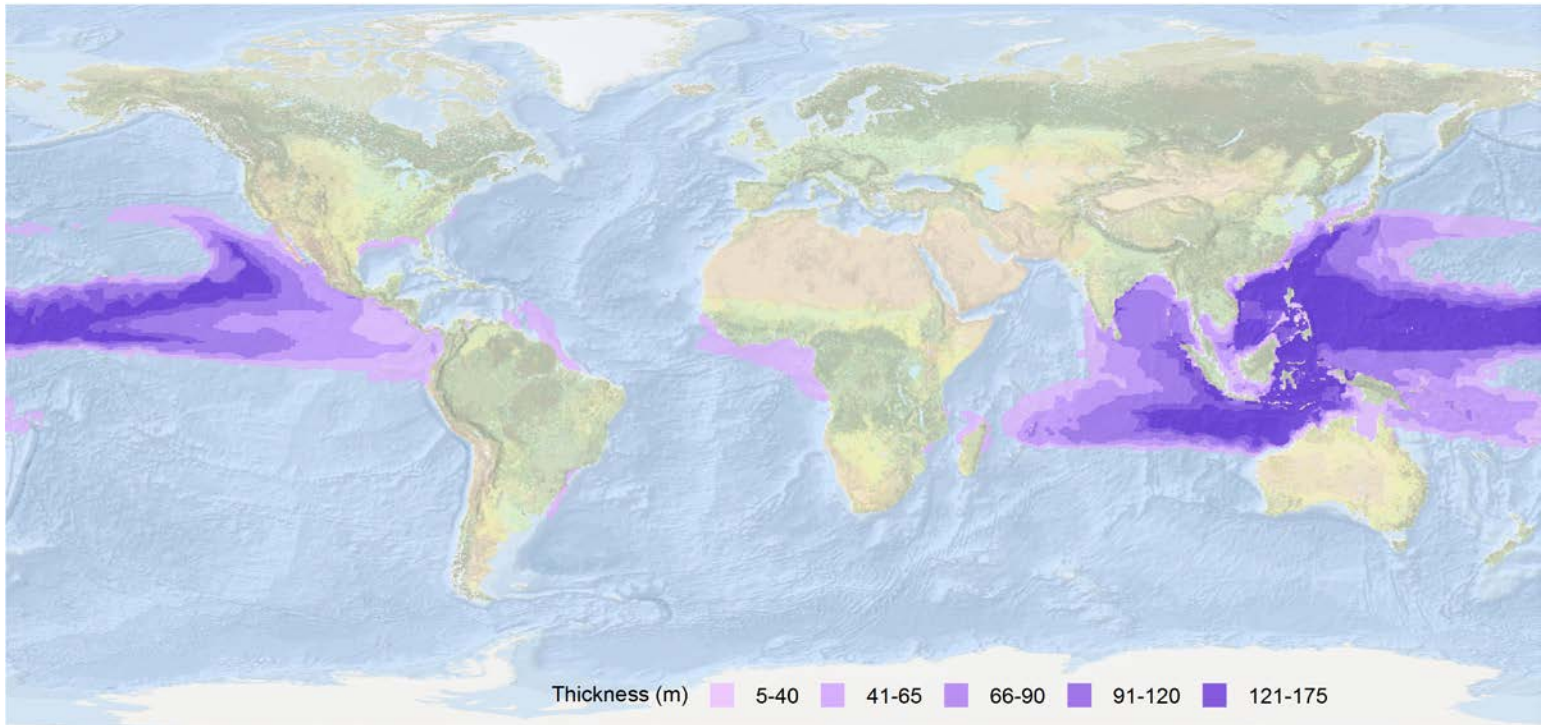
Epipelagic, Warm to Very Warm, Euhaline, Oxic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Warm, Normal Salinity, Moderate Oxygen, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

North Pacific Subtropical and Equatorial Indian Epipelagic (NPS_EI_epi)



EMU 18 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	16.42	26.15	30.33	2.64
Salinity (unitless)	31.89	34.43	35.01	0.43
Dissolved Oxygen (μmol/l)	1.5	4.53	5.83	0.41
Nitrate (μmol/l)	0	1.39	21.45	2.17
Phosphate (μmol/l)	0.03	0.27	1.37	0.18
Silicate (μmol/l)	0.38	3.73	28.85	2.52

EMU Water Volume (Km3)	6,075,341.37
Percent of EMU to Global	0.44%
Unit Middle Median (m)	39.45
Thickness Mean (m)	75.65

Ecological Marine Unit 19 Summary

Technical Name

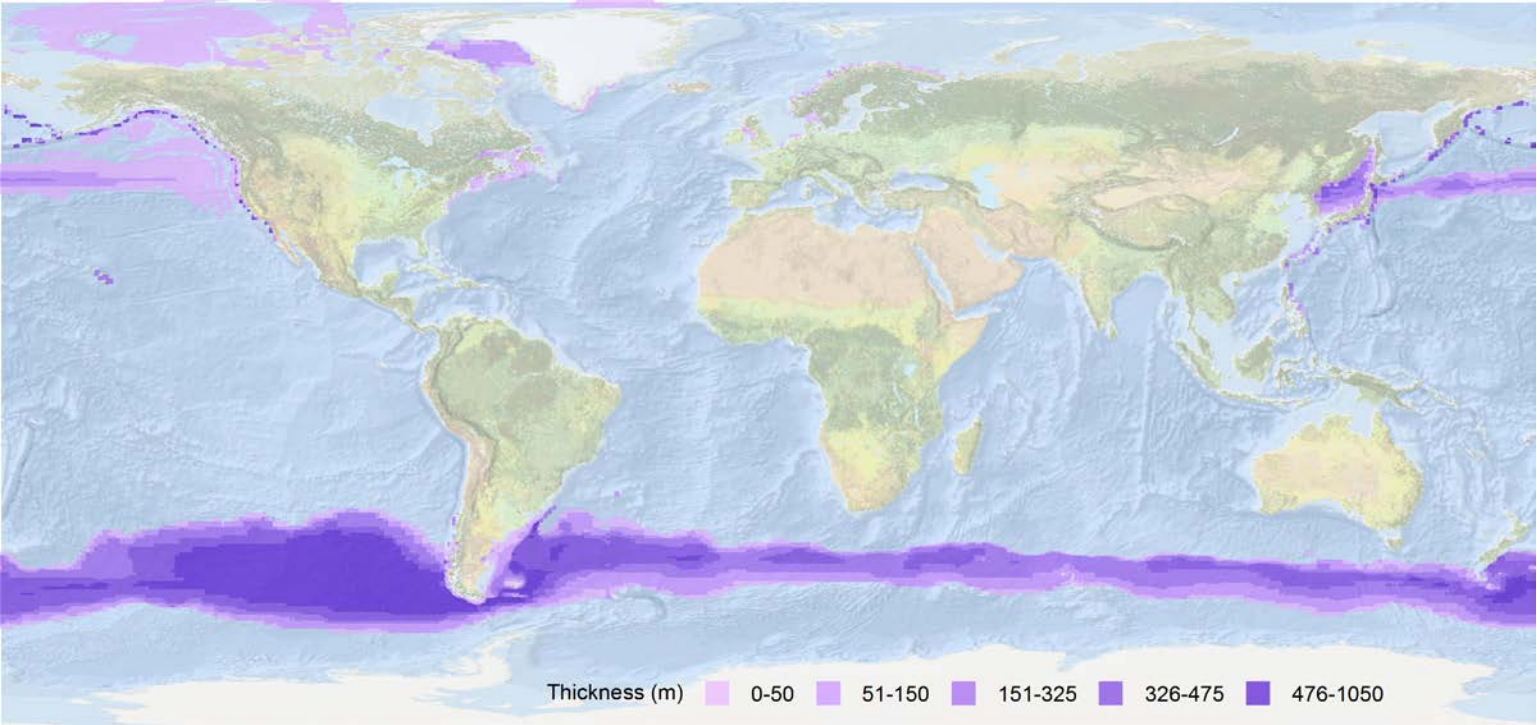
Epipelagic, Cold, Euhaline, Oxidic, Medium Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Cold, Normal Salinity, Moderate Oxygen, Medium Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Subantarctic and North Pacific Subtropical Epipelagic (SAA_NPS_epi)



EMU 19 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	-1.52	5.5	13.74	1.85
Salinity (unitless)	33.11	34.09	34.7	0.2
Dissolved Oxygen (µmol/l)	4.21	6.64	7.74	0.51
Nitrate (µmol/l)	9.3	20.64	32.16	3.51
Phosphate (µmol/l)	0.49	1.49	2.2	0.2
Silicate (µmol/l)	0	10.46	54.73	6.04

EMU Water Volume (Km3)	14,030,918.23
Percent of EMU to Global	1.03%
Unit Middle Median (m)	114.29
Thickness Mean (m)	257.08

Ecological Marine Unit 20 Summary

Technical Name

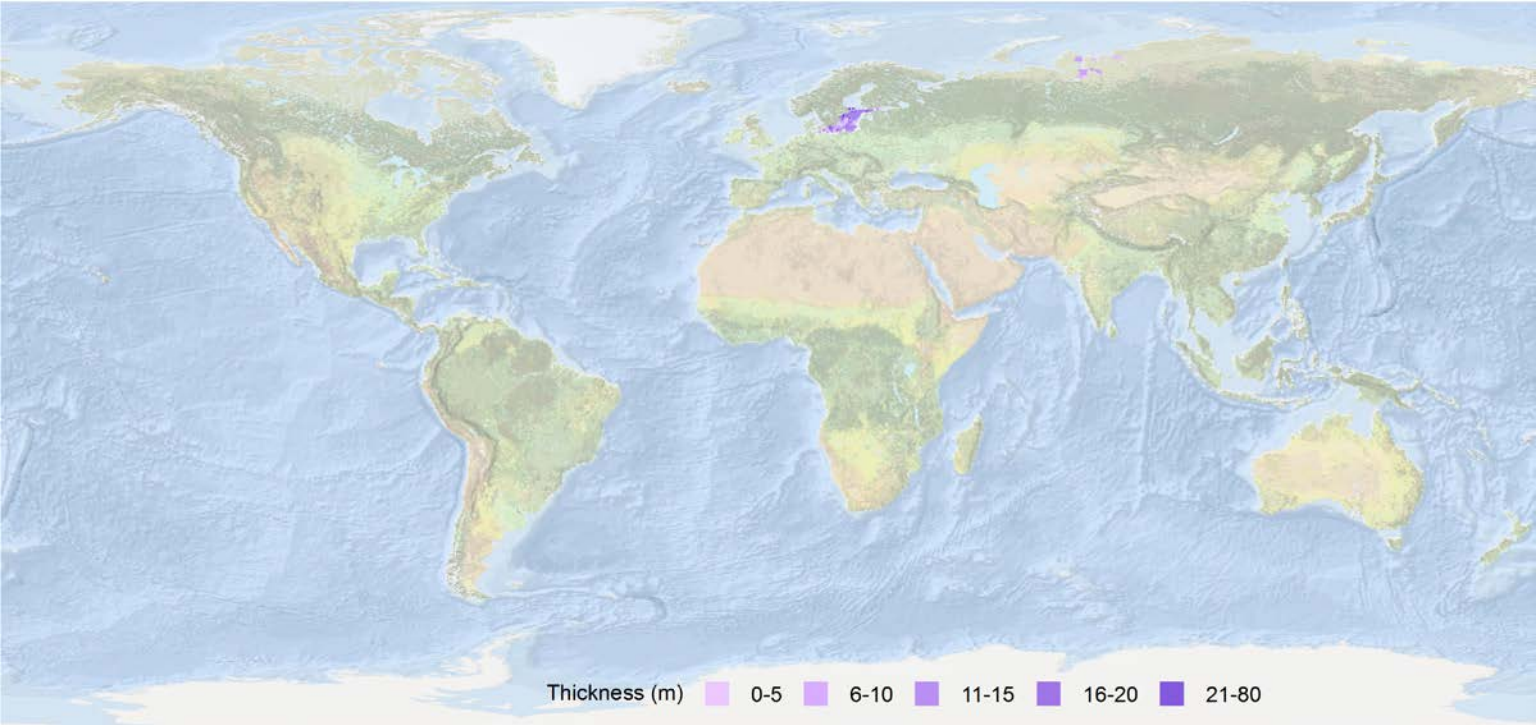
Epipelagic, Very Cold, Mesohaline, Oxidic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Very Cold, Very Low Salinity, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Baltic Sea Epipelagic (BA_epi)



EMU 20 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	1.11	4.04	8.88	1.23
Salinity (unitless)	7.47	8.79	11	0.54
Dissolved Oxygen (µmol/l)	2.69	4.78	7.2	1.06
Nitrate (µmol/l)	2.33	4.54	6.03	0.89
Phosphate (µmol/l)	0.54	1.3	2.11	0.37
Silicate (µmol/l)	14.59	26.88	40.52	5.5

EMU Water Volume (Km3)	1,747.60
Percent of EMU to Global	0.00%
Unit Middle Median (m)	65.63
Thickness Mean (m)	12.41

Ecological Marine Unit 21 Summary

Technical Name

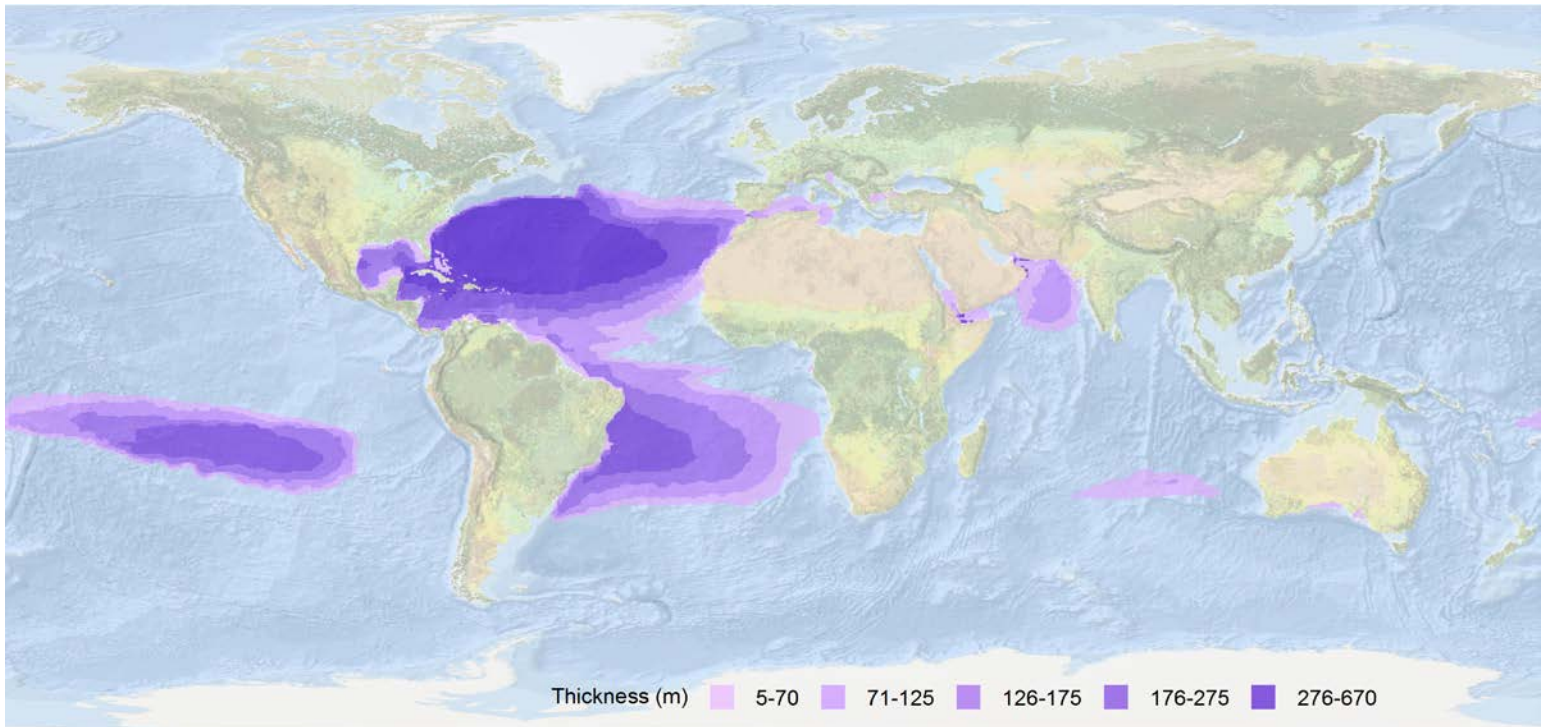
Epipelagic, Warm to Very Warm, Euhaline, Oxidic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Warm, Normal Salinity, Moderate Oxygen, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Atlantic Subtropical and South Pacific Subtropical Epipelagic (ATS_SPS_epi)



EMU 21 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	12.67	22.53	29.73	3
Salinity (unitless)	35.77	36.48	38.13	0.36
Dissolved Oxygen (μmol/l)	2.43	4.8	5.88	0.4
Nitrate (μmol/l)	0.01	1.56	16.5	2.34
Phosphate (μmol/l)	0.01	0.2	1.4	0.15
Silicate (μmol/l)	0.39	1.72	18.82	1.14

EMU Water Volume (Km3)	10,810,147.83
Percent of EMU to Global	0.79%
Unit Middle Median (m)	63.96
Thickness Mean (m)	182.66

Ecological Marine Unit 22 Summary

Technical Name

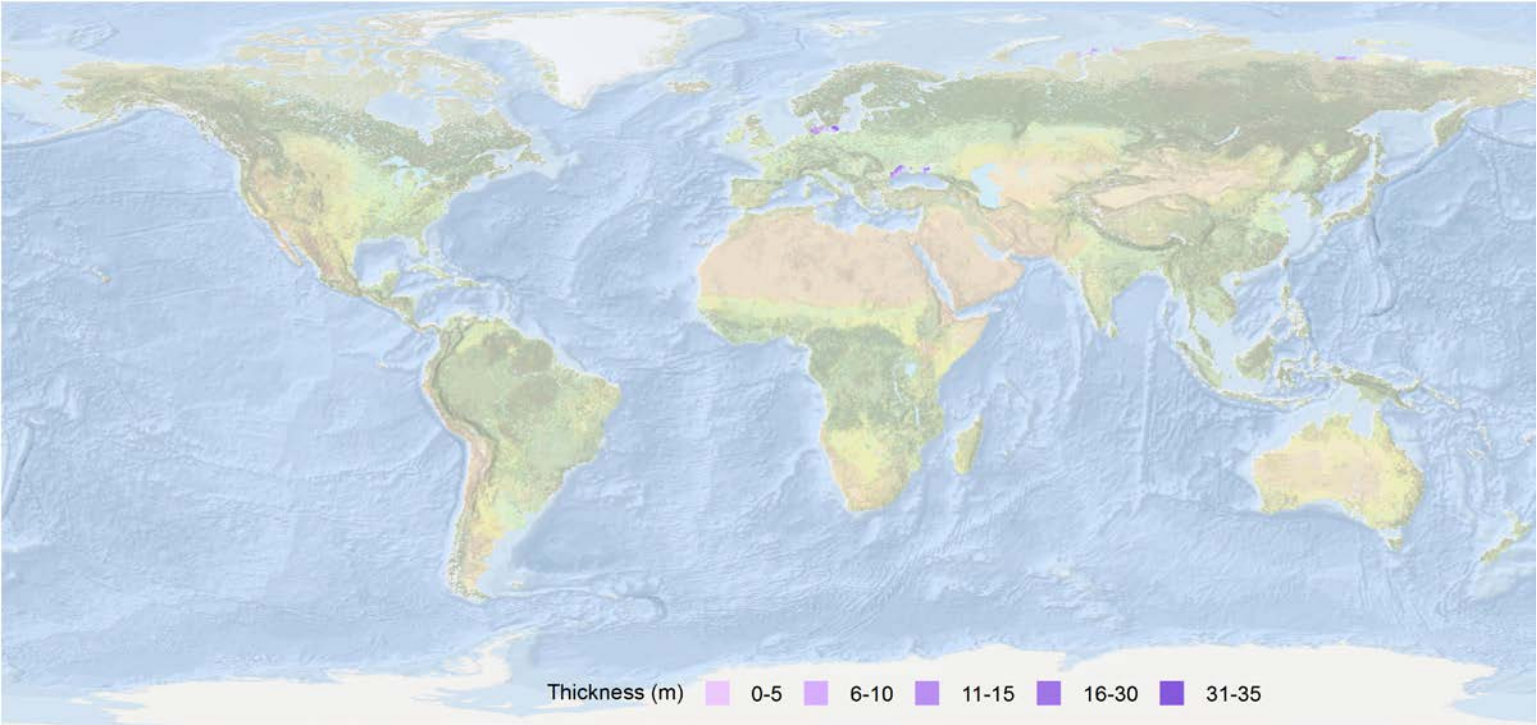
Epipelagic, Cold, Mesohaline, Hypoxic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Cold, Very Low Salinity, Low Oxygen, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Baltic and Black Seas Epipelagic (BA_BL_epi)



EMU 22 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	0.07	8.15	15.55	4.89
Salinity (unitless)	13.37	15.87	17.01	0.84
Dissolved Oxygen (µmol/l)	2.32	2.98	3.79	0.55
Nitrate (µmol/l)	6.13	6.62	6.97	0.35
Phosphate (µmol/l)	1.3	1.6	1.86	0.21
Silicate (µmol/l)	31.11	37.82	43.72	4.62

EMU Water Volume (Km3)	688.12
Percent of EMU to Global	0.00%
Unit Middle Median (m)	7.67
Thickness Mean (m)	10.43

Ecological Marine Unit 23 Summary

Technical Name

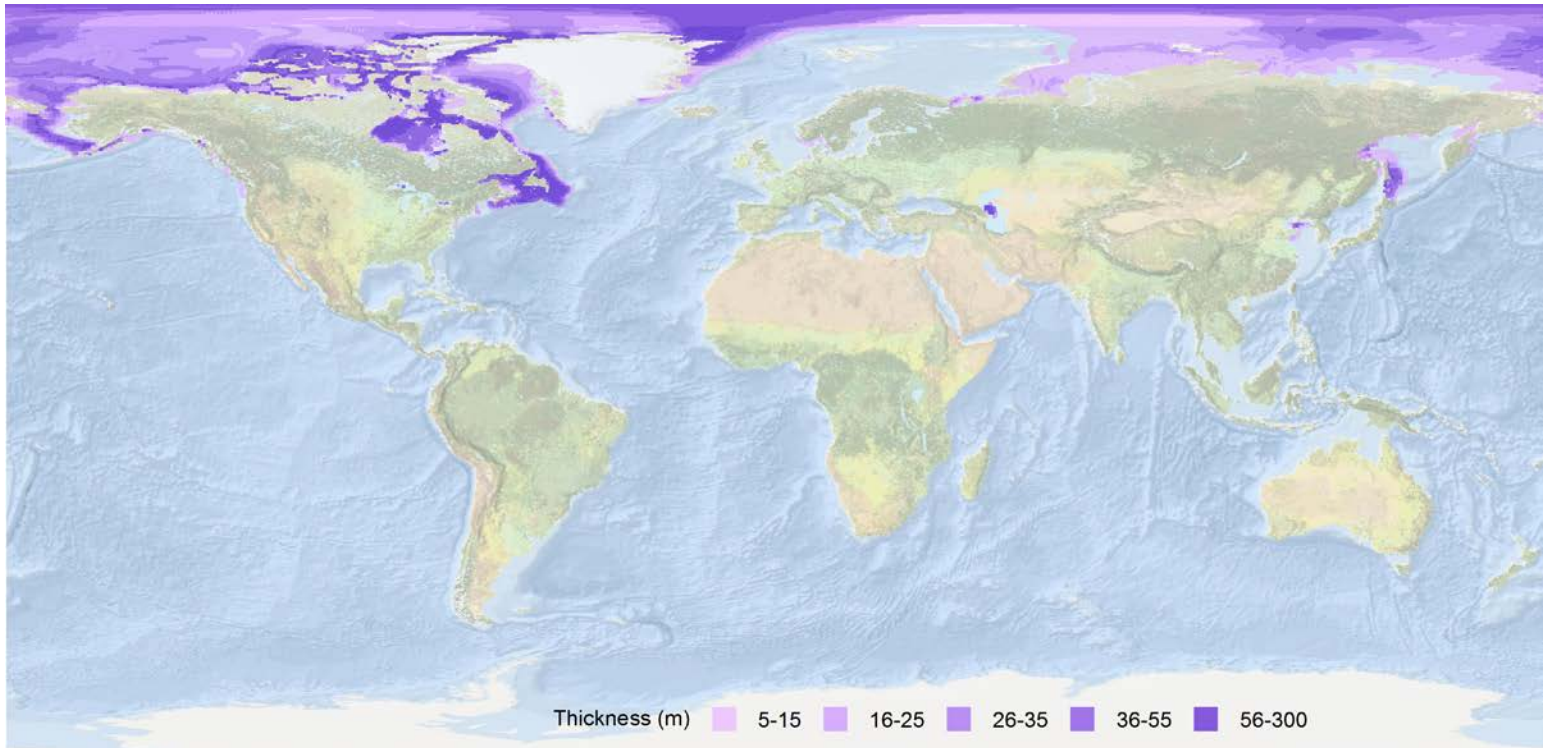
Epipelagic, Frozen/Superchilled, Euhaline, Highly Oxidic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Superchilled, Normal Salinity, High Oxygen, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Arctic and Labrador Sea Epipelagic (A_L_epi)



EMU 23 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	-1.88	-1.13	14.03	1.31
Salinity (unitless)	30.92	32.22	33.24	0.45
Dissolved Oxygen (μmol/l)	4.5	8.02	10.38	0.51
Nitrate (μmol/l)	0	4.65	17.03	2.63
Phosphate (μmol/l)	0.05	0.96	2.49	0.31
Silicate (μmol/l)	0.61	11.44	45.16	6.19

EMU Water Volume (Km3)	392,386.99
Percent of EMU to Global	0.03%
Unit Middle Median (m)	40.18
Thickness Mean (m)	33.21

Ecological Marine Unit 24 Summary

Technical Name

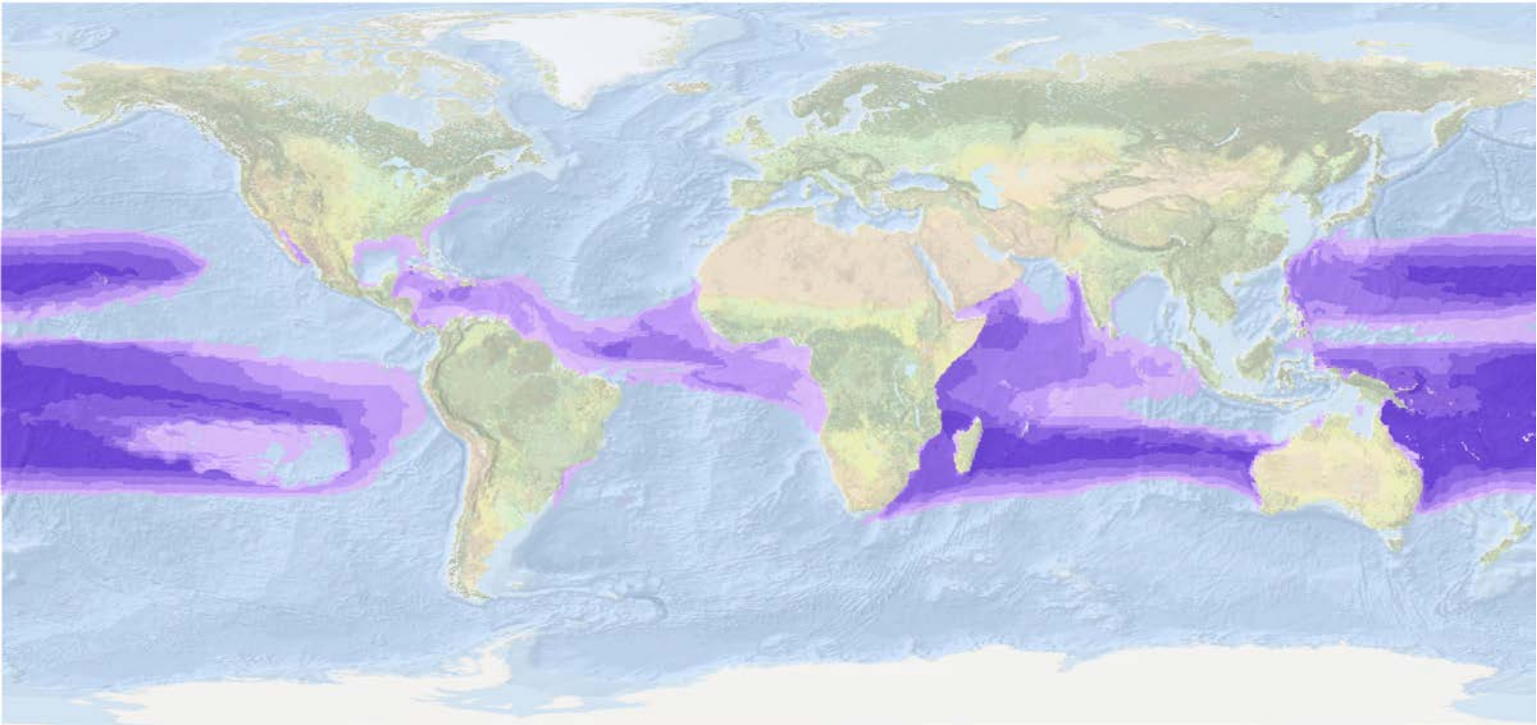
Epipelagic, Warm to Very Warm, Euhaline, Oxidic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Warm, Normal Salinity, Moderate Oxygen, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Tropical Pacific, Tropical Indian, and Equatorial Atlantic Epipelagic (TP_TI_EA_epi)



EMU 24 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	18.78	24.77	29.54	2.52
Salinity (unitless)	34.73	35.39	36.26	0.3
Dissolved Oxygen (µmol/l)	1.76	4.58	5.51	0.43
Nitrate (µmol/l)	0	2.05	15.01	2.67
Phosphate (µmol/l)	0.01	0.31	1.4	0.23
Silicate (µmol/l)	0.25	2.95	17.58	1.94

EMU Water Volume (Km3)	11,637,344.73
Percent of EMU to Global	0.85%
Unit Middle Median (m)	50.00
Thickness Mean (m)	94.99

Ecological Marine Unit 25 Summary

Technical Name

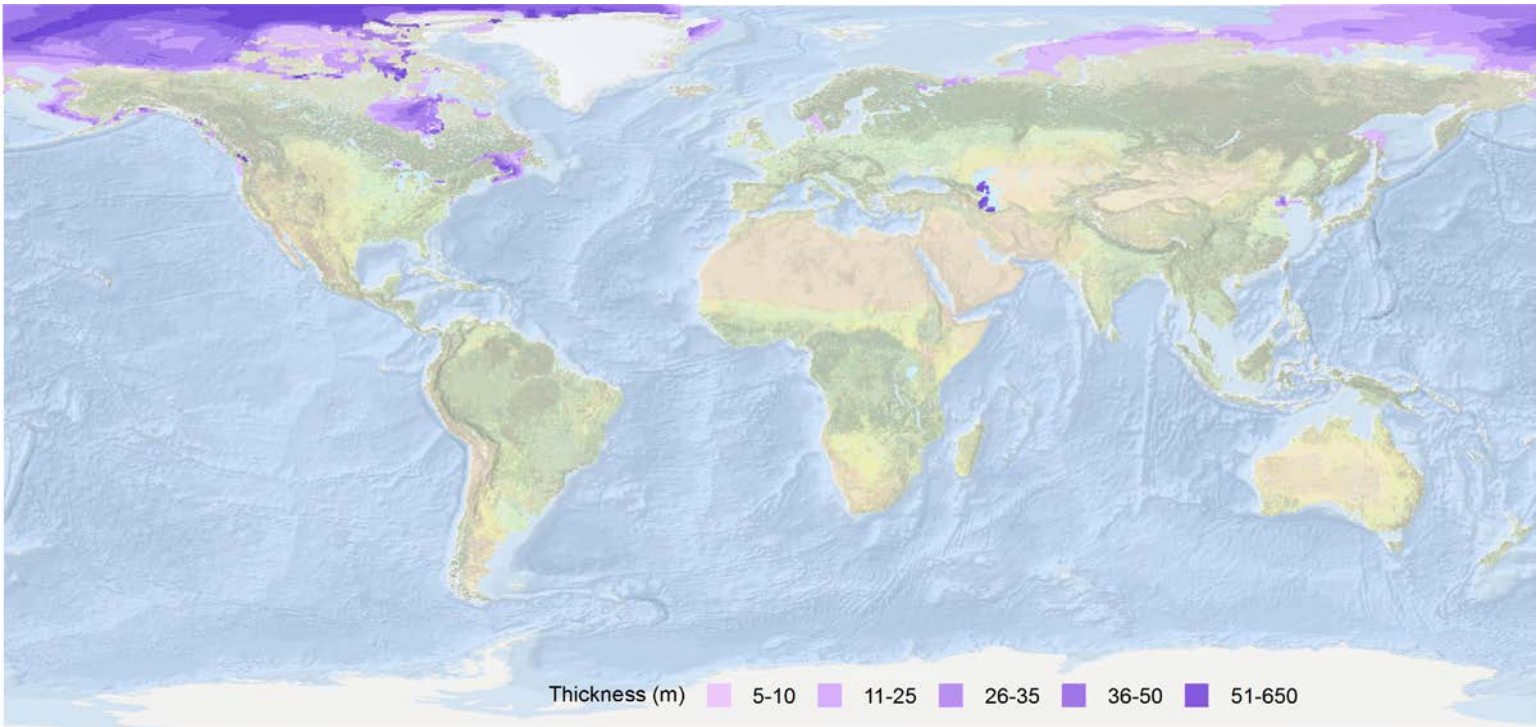
Epipelagic, Frozen/Superchilled, Euhaline, Highly Oxidic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Superchilled, Normal Salinity, High Oxygen, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Arctic and Labrador Sea Epipelagic (A_L_epi)



EMU 25 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	-1.76	-1.27	13.84	1.11
Salinity (unitless)	29.54	30.7	31.64	0.48
Dissolved Oxygen (μmol/l)	5.08	8.65	10.39	0.43
Nitrate (μmol/l)	0.03	1.91	16.5	1.35
Phosphate (μmol/l)	0.01	0.88	2.21	0.23
Silicate (μmol/l)	0.61	9.56	37.57	3.75

EMU Water Volume (Km3)	221,753.31
Percent of EMU to Global	0.02%
Unit Middle Median (m)	25.28
Thickness Mean (m)	29.37

Ecological Marine Unit 26 Summary

Technical Name

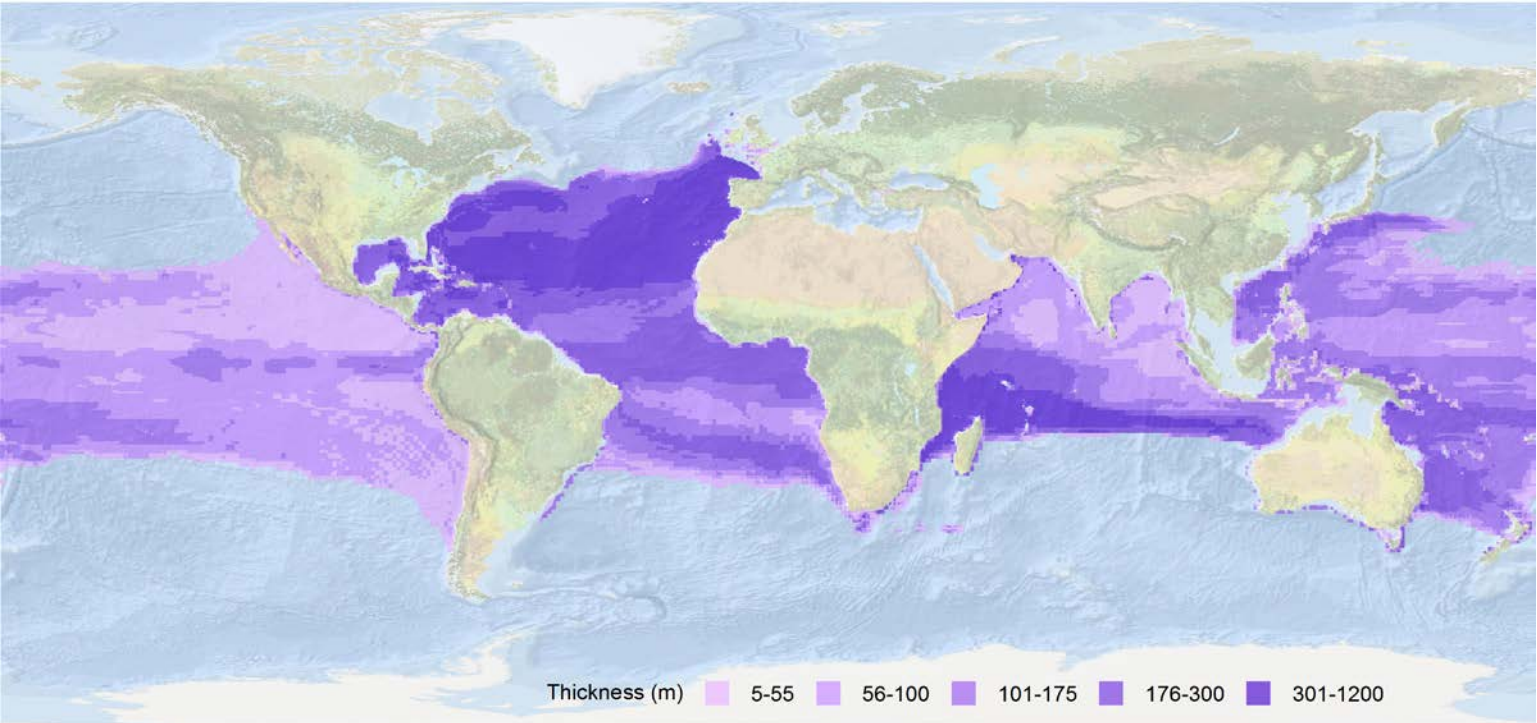
Mesopelagic, Moderate to Cool, Euhaline, Hypoxic, Medium Nitrate, Low Phosphate, Low Silicate

Common Name

Moderate Depth, Cool, Normal Salinity, Low Oxygen, Medium Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Tropical and Subtropical Mesopelagic (T_ST_meso)



EMU 26 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	6.8	14.27	26.44	3.62
Salinity (unitless)	33.59	35.14	36.91	0.46
Dissolved Oxygen (μmol/l)	0.47	3.21	4.99	0.75
Nitrate (μmol/l)	1.8	17.48	32.24	4.37
Phosphate (μmol/l)	0.47	1.27	2.43	0.28
Silicate (μmol/l)	1.61	12.37	60.31	6.41

EMU Water Volume (Km3)	26,333,737.98
Percent of EMU to Global	1.93%
Unit Middle Median (m)	242.26
Thickness Mean (m)	159.79

Ecological Marine Unit 27 Summary

Technical Name

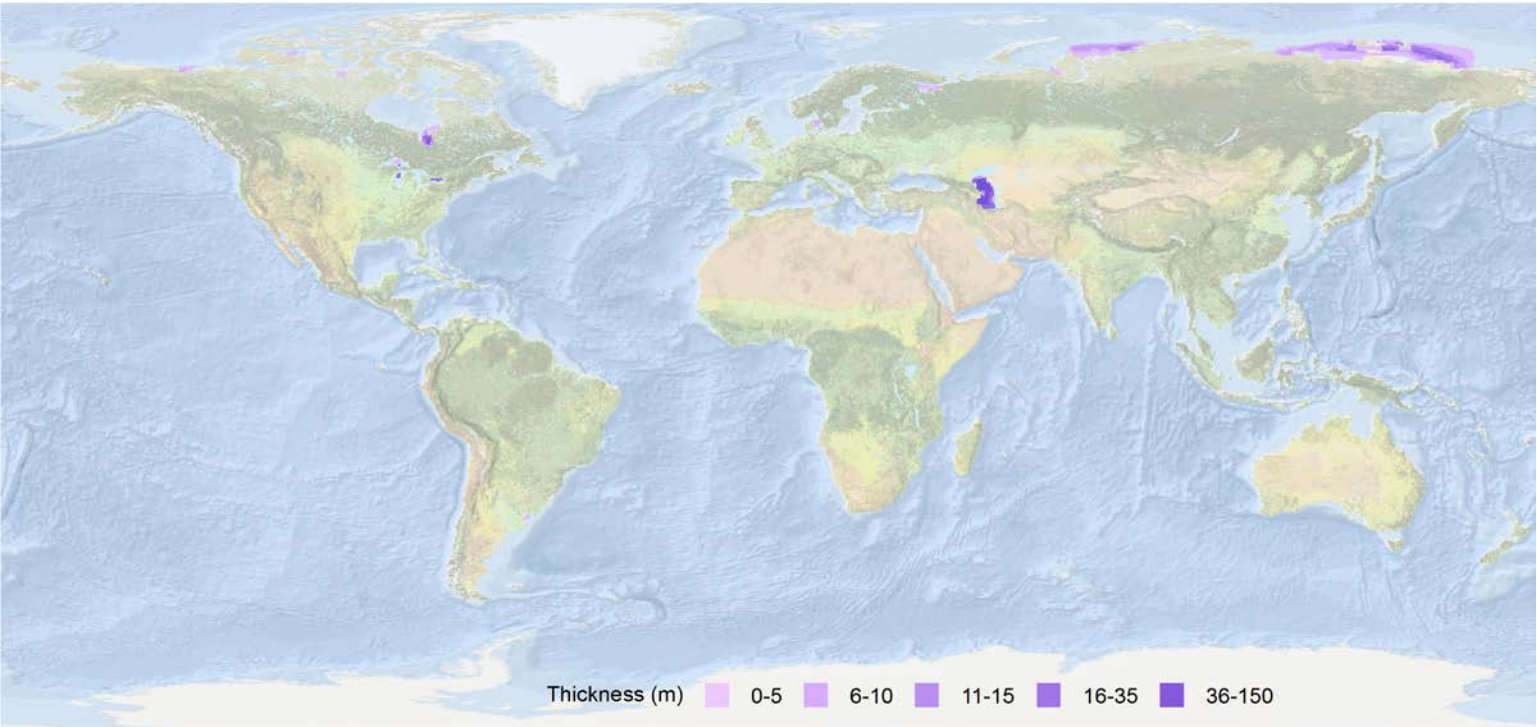
Epipelagic, Very Cold, Polyhaline, Oxidic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Very Cold, Low Salinity, Moderate Oxygen, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Caspian Sea Epipelagic (C_epi)



EMU 27 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	-1.26	2.95	19.23	4.03
Salinity (unitless)	20.42	22.6	25.32	1.29
Dissolved Oxygen (µmol/l)	4.63	7.59	9.59	1.38
Nitrate (µmol/l)	0	0.92	6.53	1.19
Phosphate (µmol/l)	0.06	0.46	1.52	0.32
Silicate (µmol/l)	1.62	15.62	49.03	9.33

EMU Water Volume (Km3)	21,833.01
Percent of EMU to Global	0.00%
Unit Middle Median (m)	26.81
Thickness Mean (m)	15.74

Ecological Marine Unit 28 Summary

Technical Name

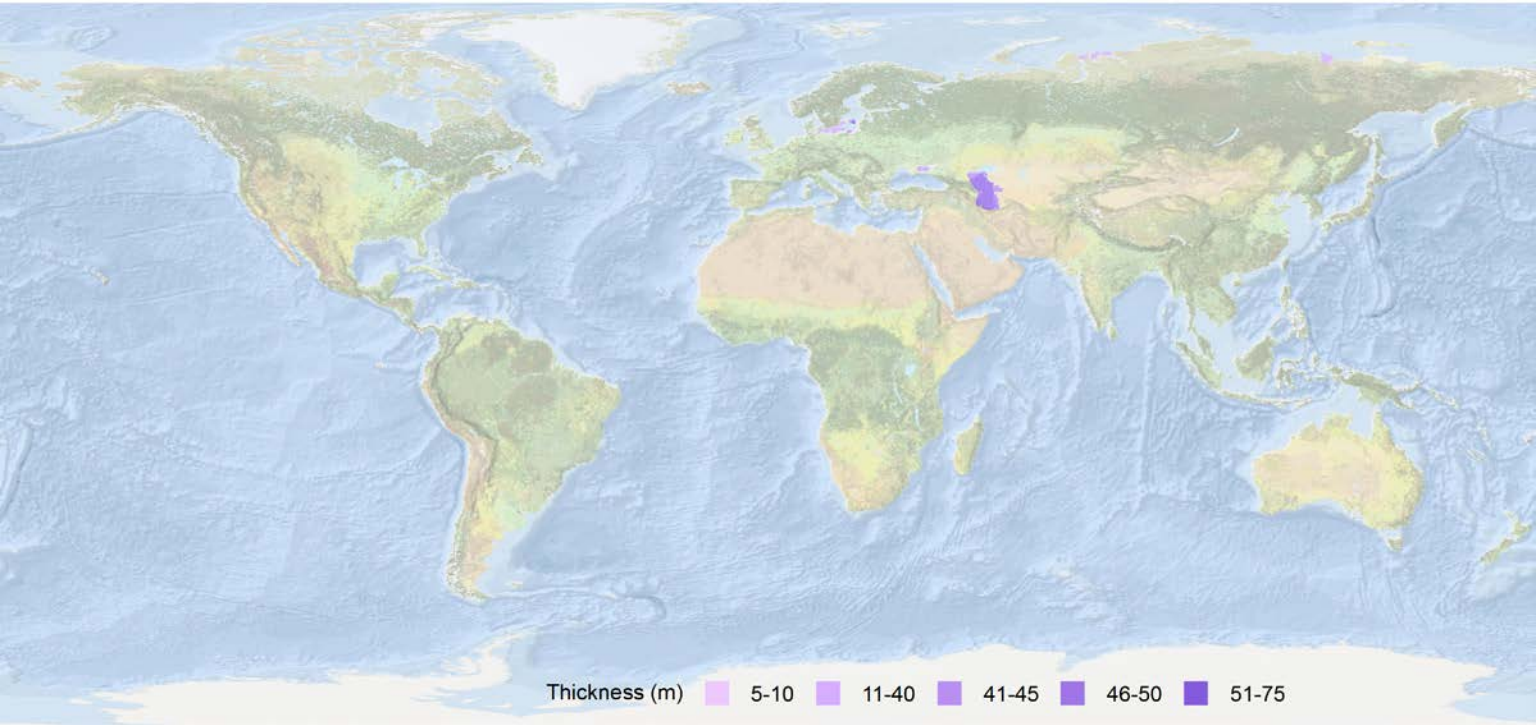
Epipelagic, Moderate to Cool, Mesohaline, Oxidic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Cool, Very Low Salinity, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Caspian Sea Epipelagic (C_epi)



EMU 28 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	0.19	12.67	19.84	3.43
Salinity (unitless)	10.96	12.76	14.27	0.36
Dissolved Oxygen (µmol/l)	3.79	6.72	9.34	0.6
Nitrate (µmol/l)	0	0.19	6.13	0.69
Phosphate (µmol/l)	0.06	0.2	1.3	0.1
Silicate (µmol/l)	2.1	6.49	56.85	7.02

EMU Water Volume (Km3)	14,208.45
Percent of EMU to Global	0.00%
Unit Middle Median (m)	19.60
Thickness Mean (m)	33.56

Ecological Marine Unit 29 Summary

Technical Name

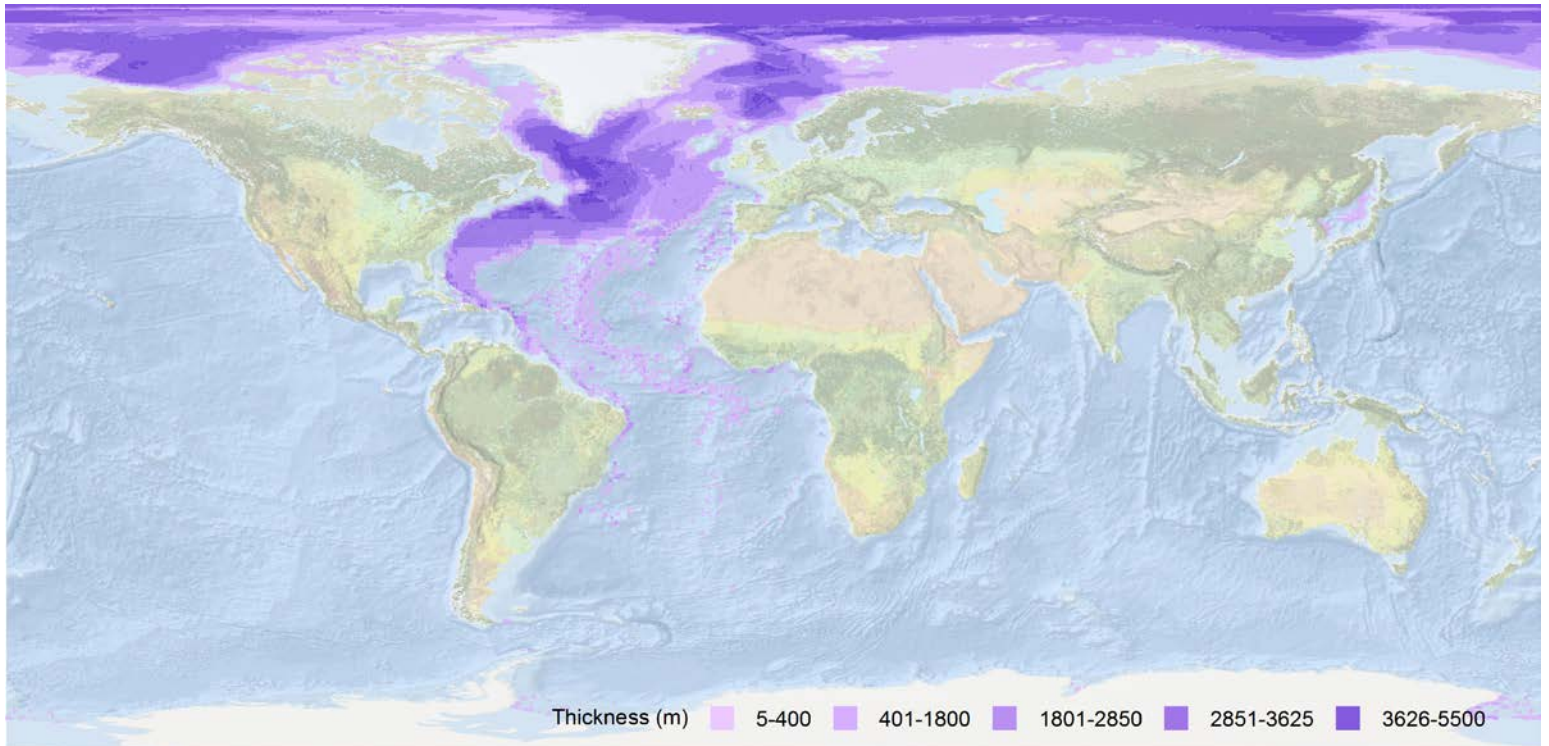
Bathypelagic, Very Cold, Euhaline, Oxidic, Medium Nitrate, Low Phosphate, Low Silicate

Common Name

Deep, Very Cold, Normal Salinity, Moderate Oxygen, Medium Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Arctic and North Atlantic Bathypelagic (A_NA_bathy)



EMU 29 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	-2	0.69	7.4	1.72
Salinity (unitless)	33.93	34.89	35.38	0.12
Dissolved Oxygen (μmol/l)	4.83	6.71	8.31	0.3
Nitrate (μmol/l)	1.69	13.83	22.58	2.17
Phosphate (μmol/l)	0.1	0.96	1.6	0.13
Silicate (μmol/l)	0.29	9.87	41.33	3.28

EMU Water Volume (Km3)	39,402,422.32
Percent of EMU to Global	2.88%
Unit Middle Median (m)	1,127.70
Thickness Mean (m)	2,168.50

Ecological Marine Unit 30 Summary

Technical Name

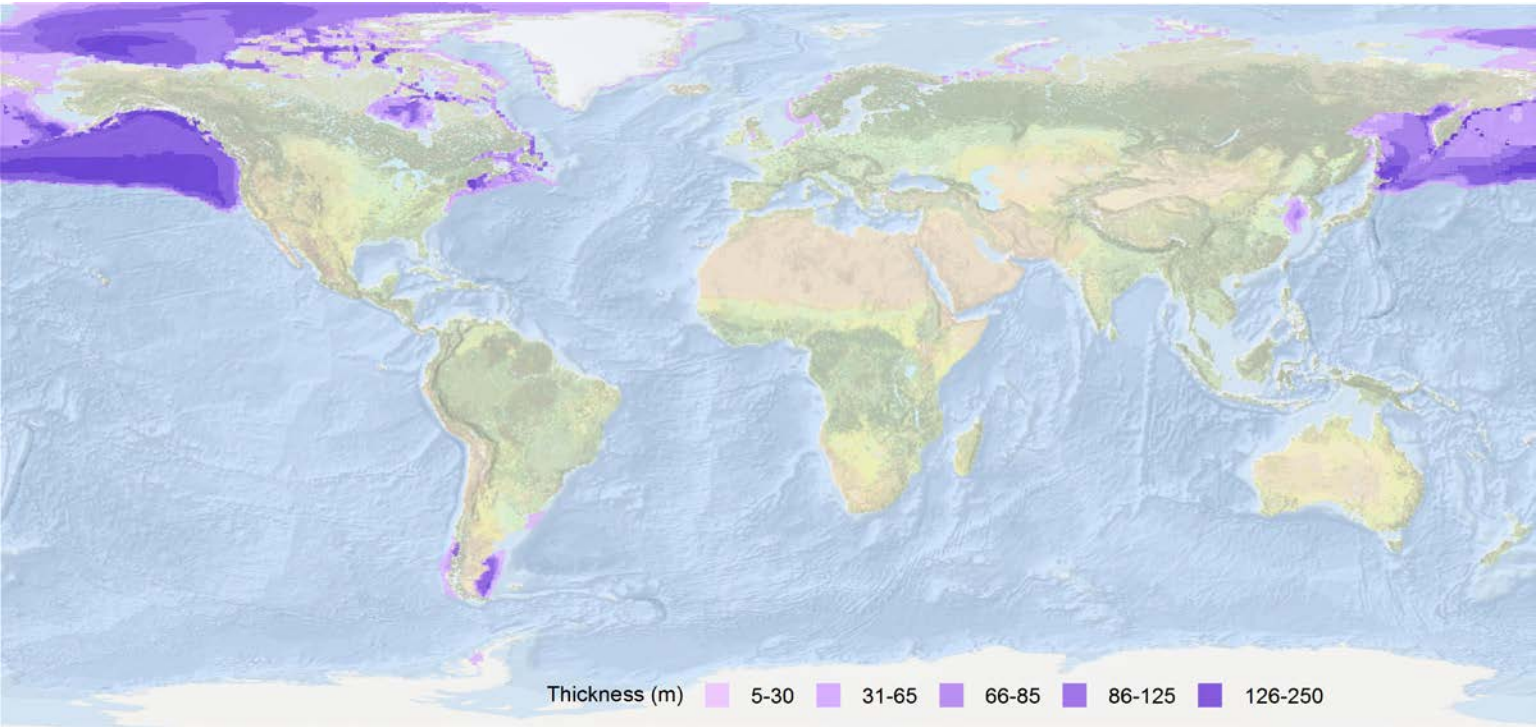
Epipelagic, Very Cold, Euhaline, Oxic, Medium Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Very Cold, Normal Salinity, Moderate Oxygen, Medium Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

North Pacific and Beaufort Sea Epipelagic (NP_BE_epi)



EMU 30 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	-1.79	3.88	18.56	4.28
Salinity (unitless)	30.95	32.82	33.78	0.33
Dissolved Oxygen (µmol/l)	4.2	6.76	8.31	0.5
Nitrate (µmol/l)	0	13.11	29.71	5.02
Phosphate (µmol/l)	0.25	1.4	2.7	0.36
Silicate (µmol/l)	0.61	25	78.33	10.61

EMU Water Volume (Km3)	1,688,982.45
Percent of EMU to Global	0.12%
Unit Middle Median (m)	66.47
Thickness Mean (m)	75.72

Ecological Marine Unit 31 Summary

Technical Name

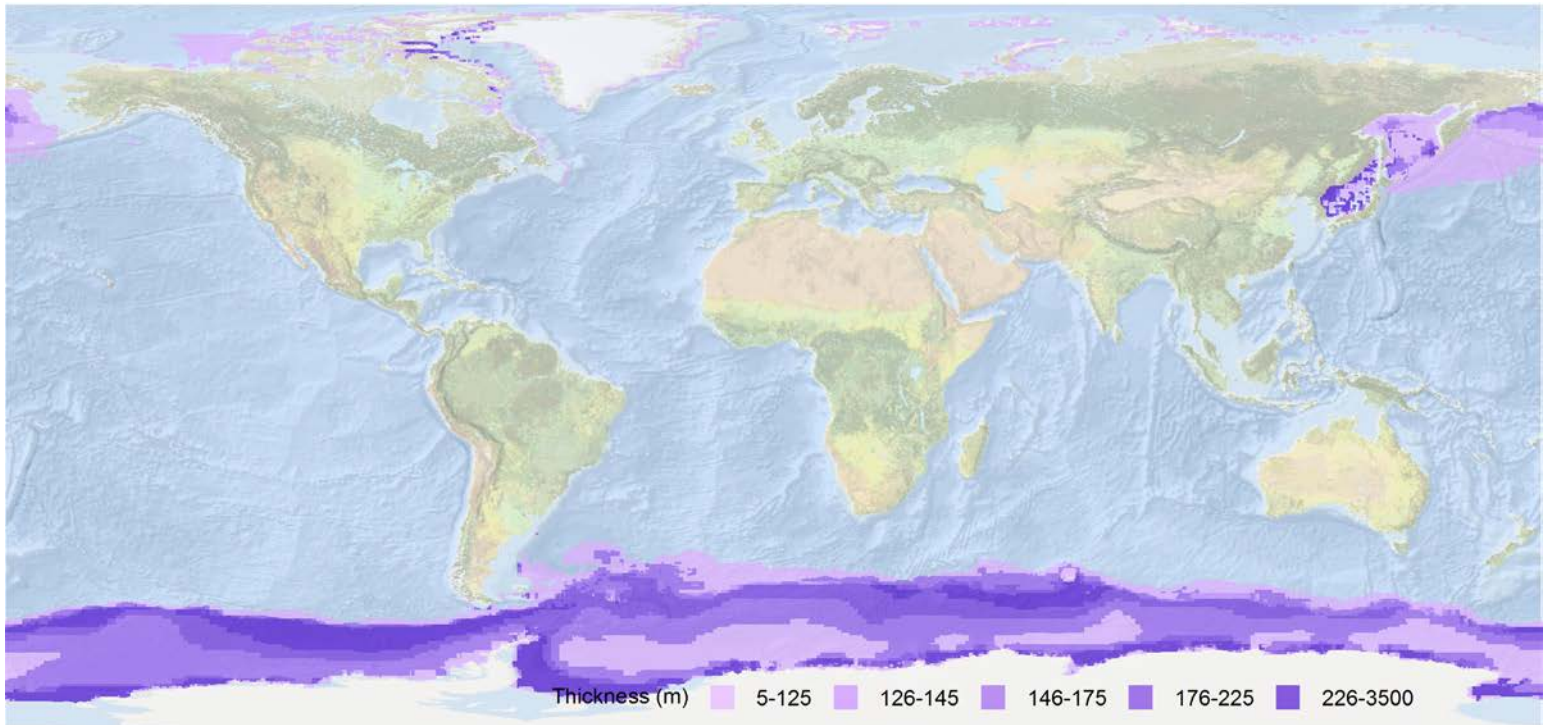
Epipelagic, Frozen/Superchilled, Euhaline, Oxic, Medium Nitrate, Low Phosphate, Medium Silicate

Common Name

Shallow, Superchilled, Normal Salinity, Moderate Oxygen, Medium Nitrate, Low Phosphate, Medium Silicate

EMU Volumetric Region Name and Code

Antarctic and Bering Sea Epipelagic (AA_BR_epi)



EMU 31 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	-2.05	-0.27	5.81	1.39
Salinity (unitless)	32.12	34.05	34.92	0.27
Dissolved Oxygen (μmol/l)	4.98	7.3	8.98	0.52
Nitrate (μmol/l)	12.71	27.53	39.64	2.21
Phosphate (μmol/l)	0.99	1.94	3.08	0.15
Silicate (μmol/l)	8.21	50.42	103.82	18.01

EMU Water Volume (Km3)	7,868,077.67
Percent of EMU to Global	0.58%
Unit Middle Median (m)	65.30
Thickness Mean (m)	170.49

Ecological Marine Unit 32 Summary

Technical Name

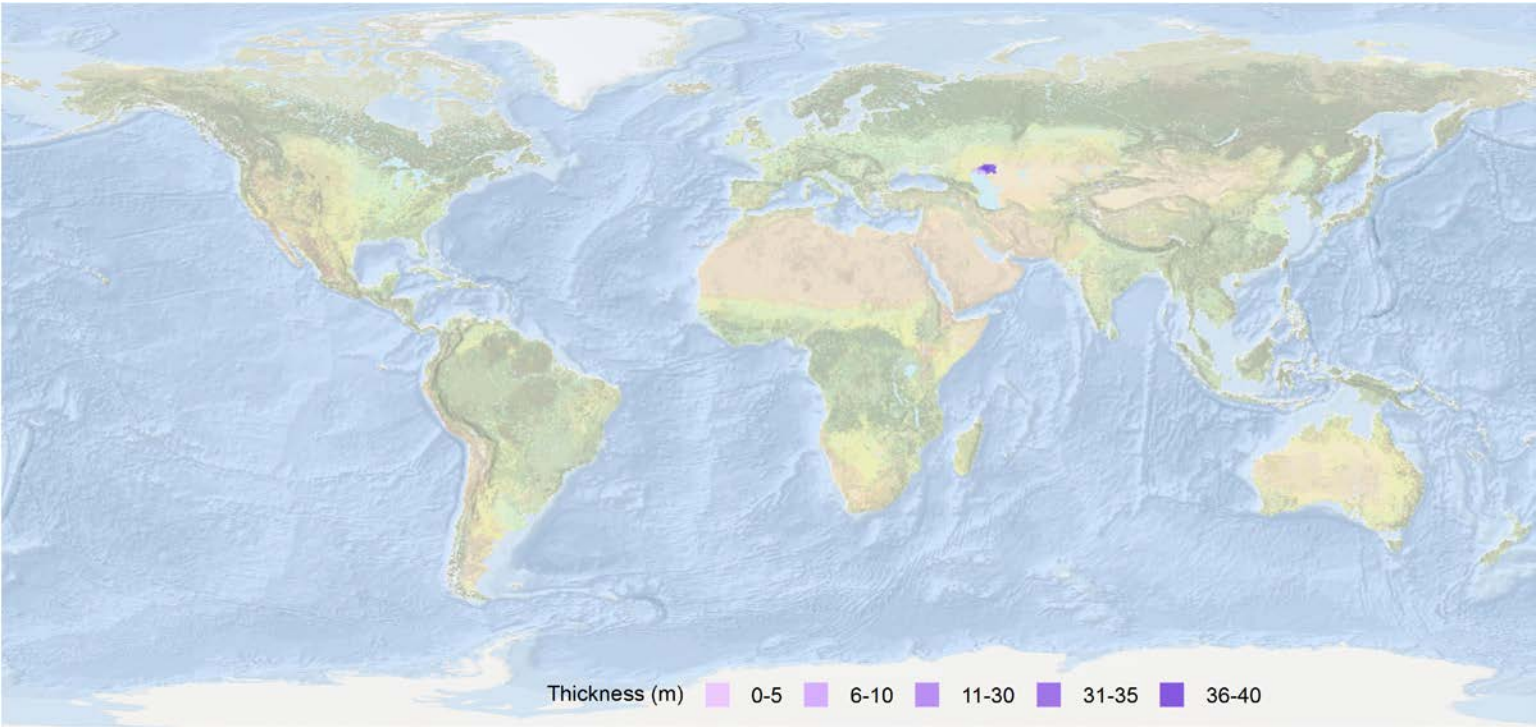
Epipelagic, Warm to Very Warm, Mesohaline, Oxic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Warm, Very Low Salinity, Moderate Oxygen, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Caspian Sea Epipelagic (C_epi)



EMU 32 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	12.46	21.59	26.49	2.45
Salinity (unitless)	5.18	6.66	7.9	0.58
Dissolved Oxygen (µmol/l)	4.94	6.79	7.62	0.56
Nitrate (µmol/l)	0.02	0.15	0.45	0.09
Phosphate (µmol/l)	0.05	0.11	0.3	0.05
Silicate (µmol/l)	2.13	4.67	13.41	1.37

EMU Water Volume (Km3)	1,512.82
Percent of EMU to Global	0.00%
Unit Middle Median (m)	15.56
Thickness Mean (m)	27.92

Ecological Marine Unit 33 Summary

Technical Name

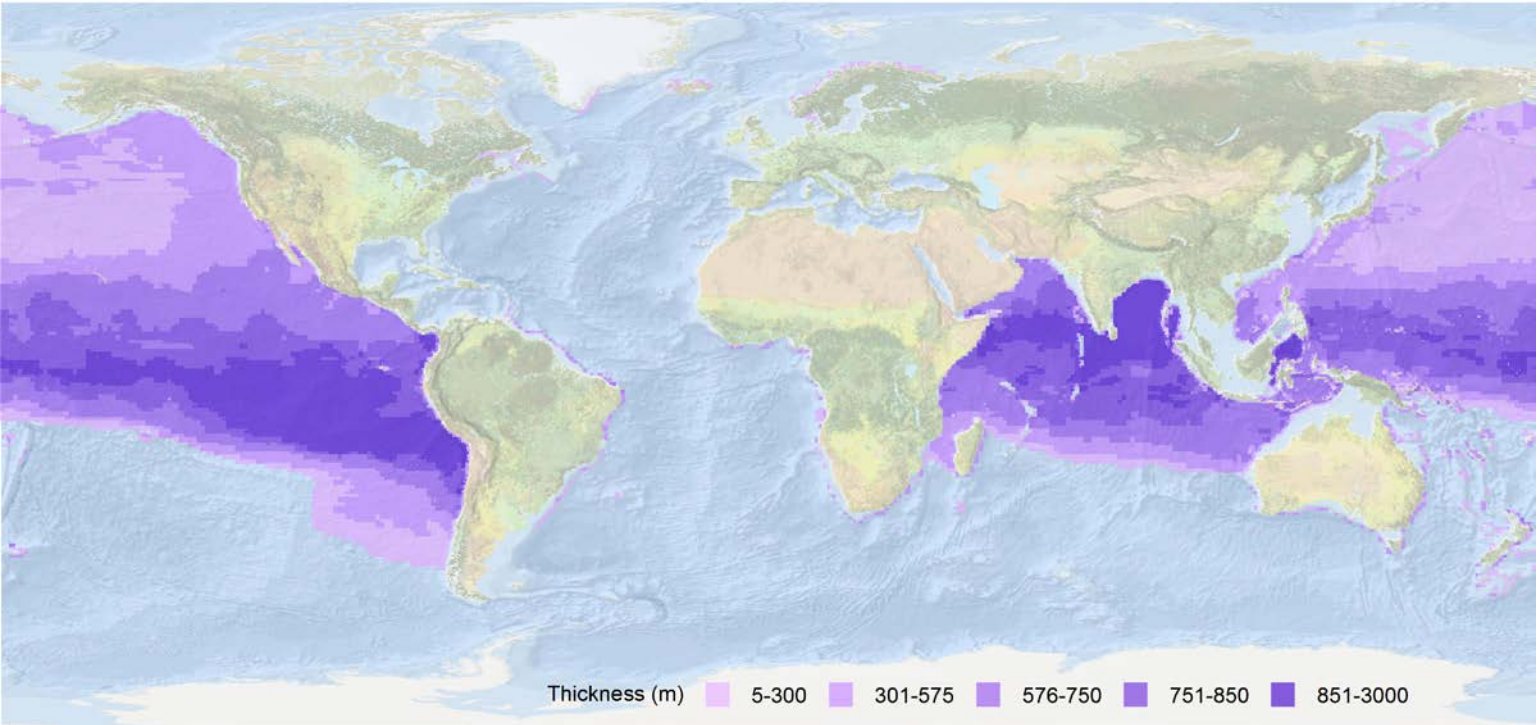
Mesopelagic, Very Cold, Euhaline, Severely Hypoxic, High Nitrate, Medium Phosphate, Medium Silicate

Common Name

Moderate Depth, Very Cold, Normal Salinity, Very Low Oxygen, High Nitrate, Medium Phosphate, Medium Silicate

EMU Volumetric Region Name and Code

Tropical Pacific and Tropical Indian Mesopelagic (TP_TI_meso)



EMU 33 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	0.74	4.99	10.44	1.33
Salinity (unitless)	33.39	34.53	35.69	0.26
Dissolved Oxygen (µmol/l)	0.04	1.65	3.38	0.71
Nitrate (µmol/l)	19	39.25	49.67	2.77
Phosphate (µmol/l)	1.84	2.87	3.88	0.2
Silicate (µmol/l)	25.97	87.61	127.58	18.54

EMU Water Volume (Km3)	87,570,377.64
Percent of EMU to Global	6.41%
Unit Middle Median (m)	935.40
Thickness Mean (m)	603.19

Ecological Marine Unit 34 Summary

Technical Name

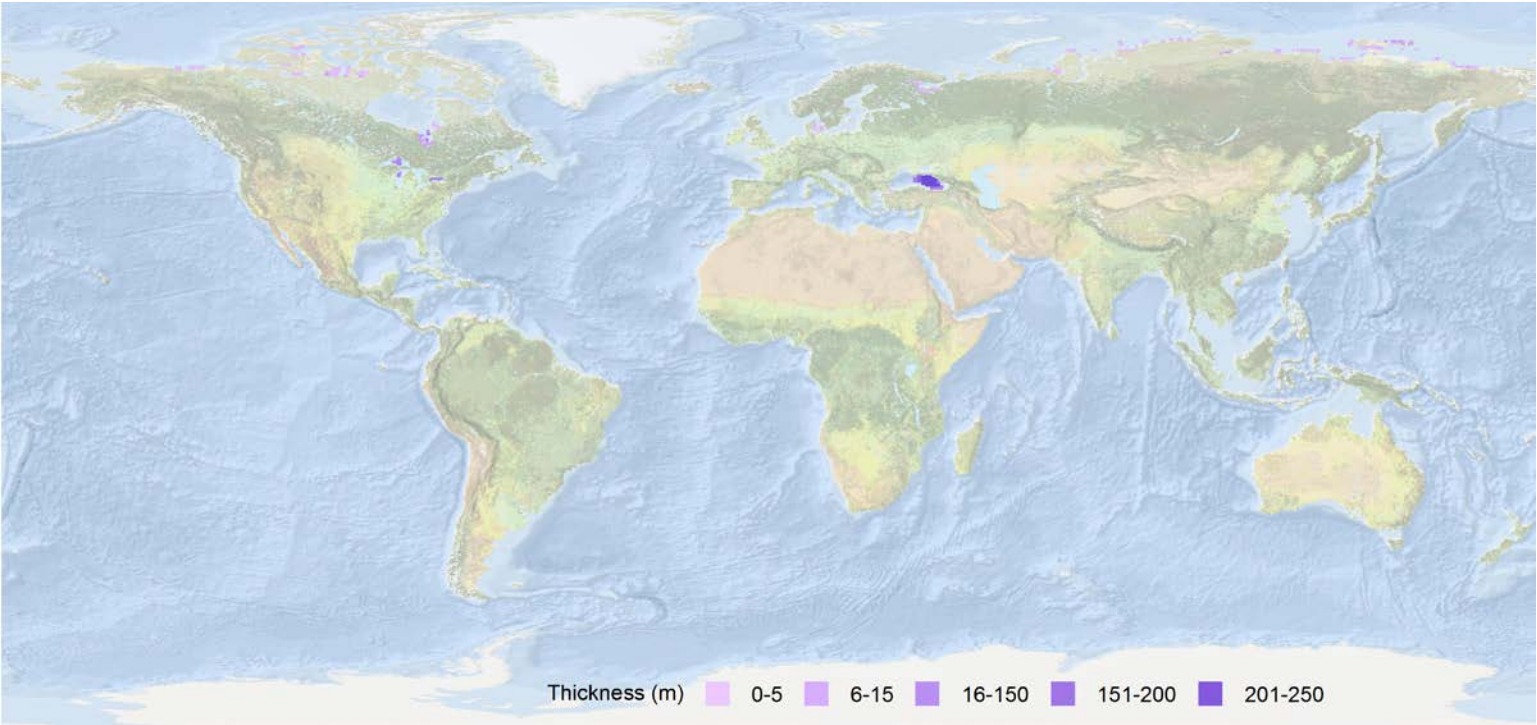
Epipelagic, Very Cold, Polyhaline, Anoxic, Low Nitrate, High Phosphate, High Silicate

Common Name

Shallow, Very Cold, Low Salinity, No Oxygen, Low Nitrate, High Phosphate, High Silicate

EMU Volumetric Region Name and Code

Black Sea Epipelagic (BL_epi)



EMU 34 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	-1.1	4.79	14.49	4.24
Salinity (unitless)	22.32	23.58	25.56	1.2
Dissolved Oxygen (µmol/l)	0	0	0	0
Nitrate (µmol/l)	0	0	0	0
Phosphate (µmol/l)	9.76	10.29	11.62	0.4
Silicate (µmol/l)	158.85	194.1	218.22	14.06

EMU Water Volume (Km3)	24,928.19
Percent of EMU to Global	0.00%
Unit Middle Median (m)	157.95
Thickness Mean (m)	52.39

Ecological Marine Unit 35 Summary

Technical Name

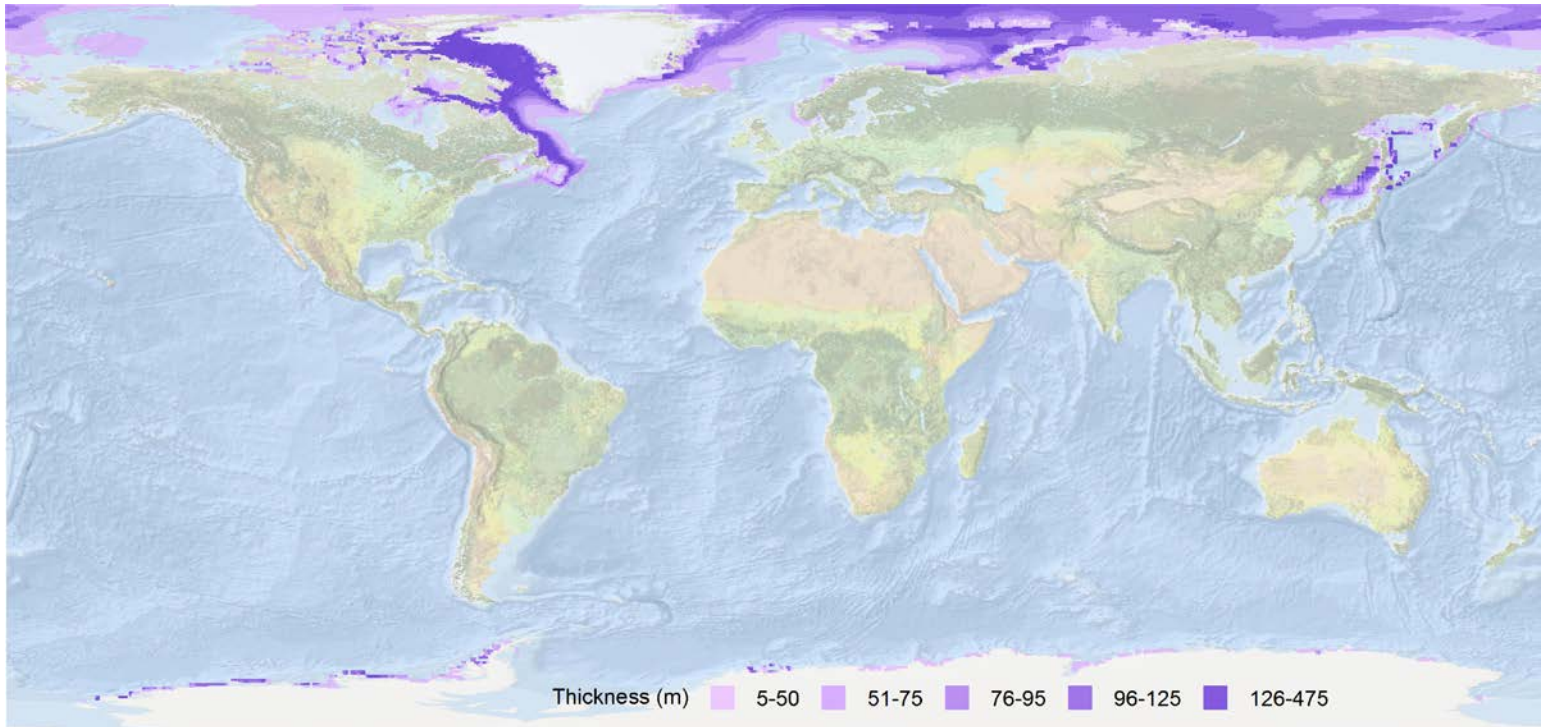
Epipelagic, Frozen/Superchilled, Euhaline, Oxic, Low Nitrate, Low Phosphate, Low Silicate

Common Name

Shallow, Superchilled, Normal Salinity, Moderate Oxygen, Low Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Arctic and Labrador Sea Epipelagic (A_L_epi)



EMU 35 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	-2.04	-0.9	10.37	1.4
Salinity (unitless)	32.88	33.89	34.88	0.43
Dissolved Oxygen (μmol/l)	5.08	7.44	9.17	0.53
Nitrate (μmol/l)	0.22	6.88	24.6	2.45
Phosphate (μmol/l)	0.09	0.74	1.49	0.23
Silicate (μmol/l)	0.44	8.03	74.12	4.71

EMU Water Volume (Km3)	889,680.67
Percent of EMU to Global	0.07%
Unit Middle Median (m)	60.08
Thickness Mean (m)	80.45

Ecological Marine Unit 36 Summary

Technical Name

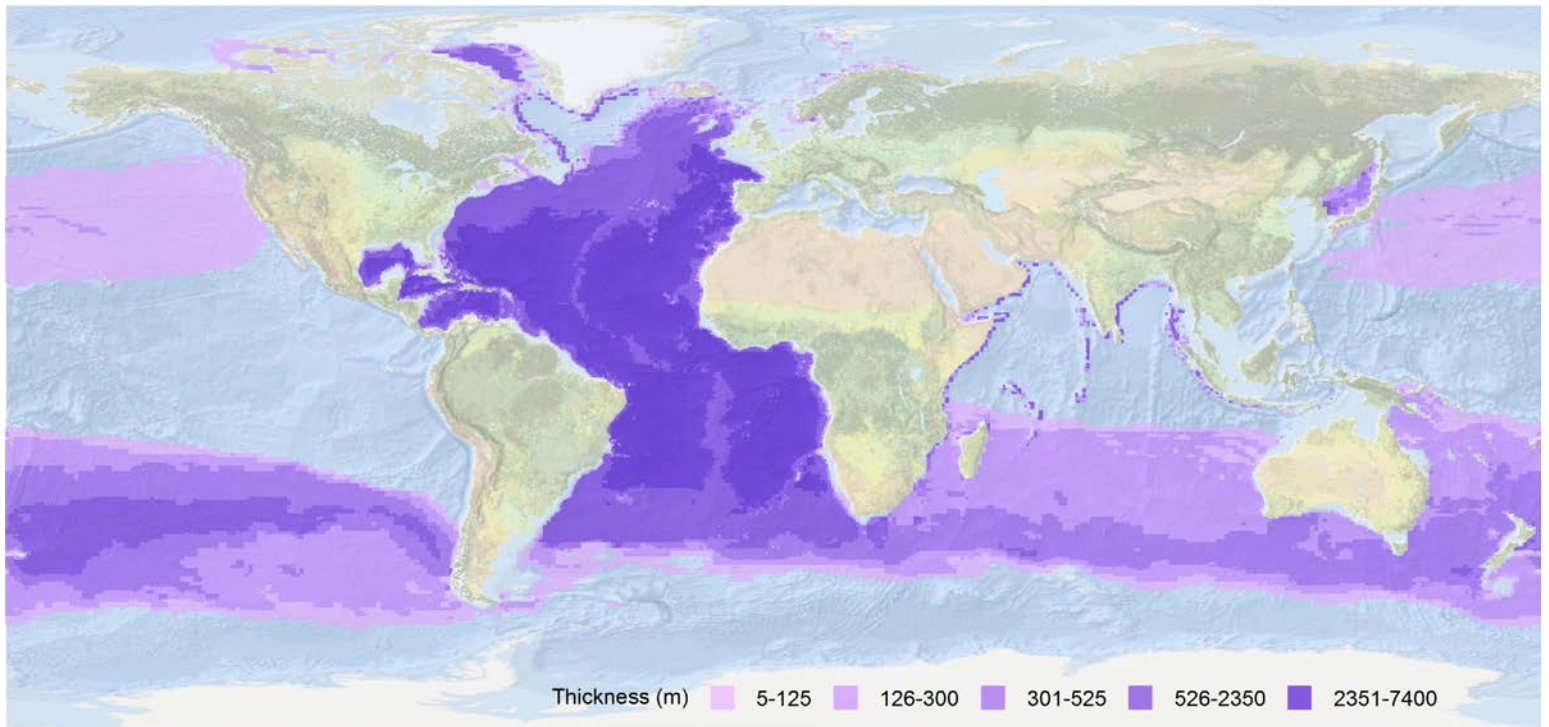
Bathypelagic, Very Cold, Euhaline, Oxic, Medium Nitrate, Low Phosphate, Low Silicate

Common Name

Deep, Very Cold, Normal Salinity, Moderate Oxygen, Medium Nitrate, Low Phosphate, Low Silicate

EMU Volumetric Region Name and Code

Atlantic, Subantarctic, and North Pacific Subtropical Bathypelagic (AT_SAA_NPS_bathy)



EMU 36 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	-0.99	4.58	12.05	2.12
Salinity (unitless)	33.23	34.76	35.86	0.3
Dissolved Oxygen (μmol/l)	3.21	5.27	6.36	0.53
Nitrate (μmol/l)	12.16	22.74	35.69	3
Phosphate (μmol/l)	0.73	1.53	2.23	0.22
Silicate (μmol/l)	0	27.13	80.48	13.82

EMU Water Volume (Km3)	185,999,904.33
Percent of EMU to Global	13.61%
Unit Middle Median (m)	1,580.53
Thickness Mean (m)	957.82

Ecological Marine Unit 37 Summary

Technical Name

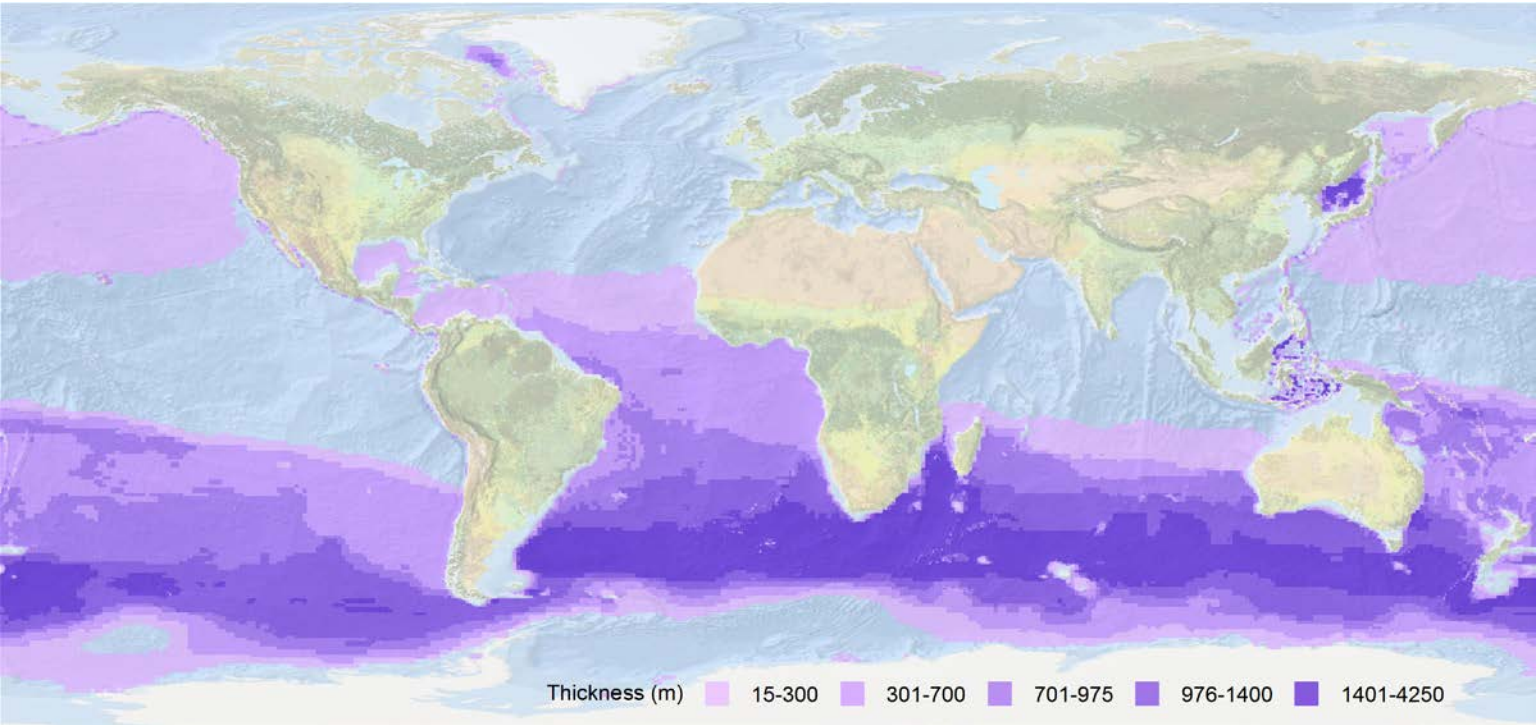
Bathypelagic, Very Cold, Euhaline, Oxic, High Nitrate, Low Phosphate, Medium Silicate

Common Name

Deep, Very Cold, Normal Salinity, Moderate Oxygen, High Nitrate, Low Phosphate, Medium Silicate

EMU Volumetric Region Name and Code

Subantarctic, South Atlantic and North Pacific Bathypelagic (AA_SAT_NP_bathy)



EMU 37 Summary Statistics

	Minimum	Mean	Max	Standard Dev.
Temperature (°C)	-1.97	3.13	10.51	1.23
Salinity (unitless)	32.67	34.52	35.12	0.2
Dissolved Oxygen (μmol/l)	2.39	4.25	6.02	0.52
Nitrate (μmol/l)	10.54	32.7	41.95	2.29
Phosphate (μmol/l)	1.45	2.26	3.07	0.17
Silicate (μmol/l)	12	62.6	101.91	18.9

EMU Water Volume (Km3)	152,103,923.07
Percent of EMU to Global	11.13%
Unit Middle Median (m)	1,139.29
Thickness Mean (m)	779.85