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6, S25-S28, 2009

Interactive Comment

Interactive comment on "The density of seawater as a function of salinity (5 to $70\,\mathrm{g\,kg^{-1}}$) and temperature (0 to 90 °C)" by F. J. Millero and F. Huang

F. J. Millero and F. Huang

Received and published: 26 February 2009

The corrections were made in the abstract as suggested and other typos in the manuscript were corrected.

Corrections Abstract

Sentence two corrected to read Other measurements Full Screen / Esc

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Line 7 corrected to read 0.003 kg m³

Line 9 corrected to read

All the densities were made relative to pure water

Line 11 equation corrected ${\rm BS}_{A}^{1.5}$

Lines 15 and 16 corrected to read standard errors of 0.0063 kg m $^{-3}$ and all the results (N = 522) from 0 to 90 $^{\circ}$ C gave standard errors of 0.0063 kg m $^{-3}$.

Corrections Results and Discussion

In paragraph one, correct last sentence as follows:

It should be pointed out that our measurements made at salinities above 40 are higher by as much as 0.064 kg m^{-3} with the measurements of Poisson and Badhouni (1993) at 15° , 25° and 30° C.

Equation (5) corrected as follows

 $\mathsf{BS}_A^{1.5}$

Lines 21 and 22 corrected to read

All of the measurements from 0 to 90° C (N = 522) have also been fitted to equation (5).

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Corrections Table 1. Summary of the 1 atm density measurements made on seawater.

Next to last line should read:

This Study (0 to 90°C)

522

0.0063

0 to 90

4 to 70

Corrected Table 2. The coefficients for the densities measured in this study fitted to equation (2).

First Column, last coefficient should read: S_A^2

Last Column 0 to 90°C should read:

8.174451E-01

-3.638577E-03

6.480811E-05

-7.312404E-07

5.330431E-09

-1.657628E-11

-5.481436E-03

3.486075E-05

-3.049727E-07

5.346196E-04

522

0.0063

Corrected Table 3. The coefficients for the densities measured in this study and

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literature data (Millero et al., 1976; Poisson and Brunet, 1980) fitted to equation (2).

First Column, last coefficient should read: S_A^2

Corrected Caption Figure 3. The differences between the measured (N = 522) and calculated densities (p-p⁰, kg m⁻³) from 0 to 90°C and S_A from 5 to 70 g kg⁻¹ as a function of temperature and salinity (σ = 0.0063 kg m⁻³).

Interactive comment on Ocean Sci. Discuss., 6, 153, 2009.

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