

Correction to Risk-Based Threshold of Gull-Associated Fecal Marker Concentrations for Recreational Water

Kendra I. Brown, Katherine E. Graham, and Alexandria B. Boehm*

Environmental Science & Technology Letters 2017, 4 (2), 44-48. DOI: 10.1021/acs.estlett.6b00473

Supporting Information

We discovered a unit conversion error in the Matlab code for determining the probability of illness $(P_{ill,sum})$ resulting from exposure to different concentrations of gull marker (CAT). We re-ran the model after correcting the error. Figure 1, below, is a corrected version. A linear regression of



Figure 1. Probability of illness, $P_{\rm ill,sum}$, for swimmers predicted when different concentrations of the gull marker, $C_{\rm CAT}$, are present in ambient water. The midline of each box represents the median; the bottom and top of each box represent the first and third quartiles, respectively, and the bottom and top whiskers represent the 10th and 90th percentiles, respectively. The red line indicates the threshold of 3 cases of illness/100 swimmers.

log₁₀-transformed median $P_{\rm ill,sum}$ versus log₁₀-transformed CAT concentration (units copies per 100 mL) was performed; the equation of the regression line is log₁₀(median $P_{\rm ill,sum}$) = $-5.6 + 1.1 \times \log_{10} C_{\rm CAT}$ ($R^2 = 0.98$). On the basis of this regression, when the level of CAT exceeds 7×10^3 copies/100 mL, the median predicted illness exceeds the threshold of 3 illnesses/ 100 swimmers (the approximate level of risk that the U.S. Environmental Protection Agency protects against with its ambient water quality criteria). The corrected threshold concentration of 7×10^3 copies of CAT/100 mL replaces the incorrect value of 4×10^6 copies/100 mL reported in the original work. Figures S3 and S4 are corrected in the accompanying corrected Supporting Information.

We acknowledge Dr. Graham McBride and Jeff Soller who alerted us to the error and provided independent verification of the corrected calculations.

ASSOCIATED CONTENT

S Supporting Information

The Supporting Information is available free of charge on the ACS Publications website at DOI: 10.1021/acs.estlett.7b00389.

Corrected versions of Figures S3 and S4 (PDF)

Received: September 1, 2017 Accepted: September 5, 2017 Published: September 7, 2017

ACS Publications © 2017 American Chemical Society