Correction to "A simple surface conductance model to estimate regional evaporation using MODIS leaf area index and the Penman-Monteith equation"

Ray Leuning, Y. Q. Zhang, Amelie Rajaud, Helen Cleugh, and Kevin Tu

Received 2 December 2008; published 24 January 2009.

Citation: Leuning, R., Y. Q. Zhang, A. Rajaud, H. Cleugh, and K. Tu (2009), Correction to "A simple surface conductance model to estimate regional evaporation using MODIS leaf area index and the Penman-Monteith equation," *Water Resour. Res.*, *45*, W01701, doi:10.1029/2008WR007631.

[1] In the paper "A simple surface conductance model to estimate regional evaporation using MODIS leaf area index and the Penman-Monteith equation" by R. Leuning et al. (*Water Resources Research*, *44*, W10419, doi:10.1029/2007WR006562, 2008) an error has been found in the computer program used to calculate the canopy conductances (equation (12)) that were used to construct the contour plots in Figure 2. The correct Figure 2 is shown below, along with the corresponding amended text for paragraph 15. The rest of the paper is correct, and the senior author apologizes for the error.

[2] Contour plots of the evaporative fraction, $f_E = \lambda E/A$, as predicted by the evaporation model, are shown in Figure 2 as a function of Q_h and $L_{ai} \times 100$ for values of D_a = 0.5, 1.0, 1.5 and 2.0 kPa. Increasing D_a for any combination of Q_h and L_{ai} results in an increase in evaporative fraction; for example, f_E is predicted to increase from 0.52 to 0.68 for Q_h = 300 W m^{-2} and L_{ai} = 3 as D_a increases from 0.5 to 2.0 kPa. The contour spacing decreases with increasing D_a, indicating increasing sensitivity of f_E to variations in humidity deficit and leaf area index at higher humidity deficits. Sensitivity of f_E to L_{ai} is greatest at low values of Q_h and vice versa.

0043-1397/09/2008WR007631$09.00

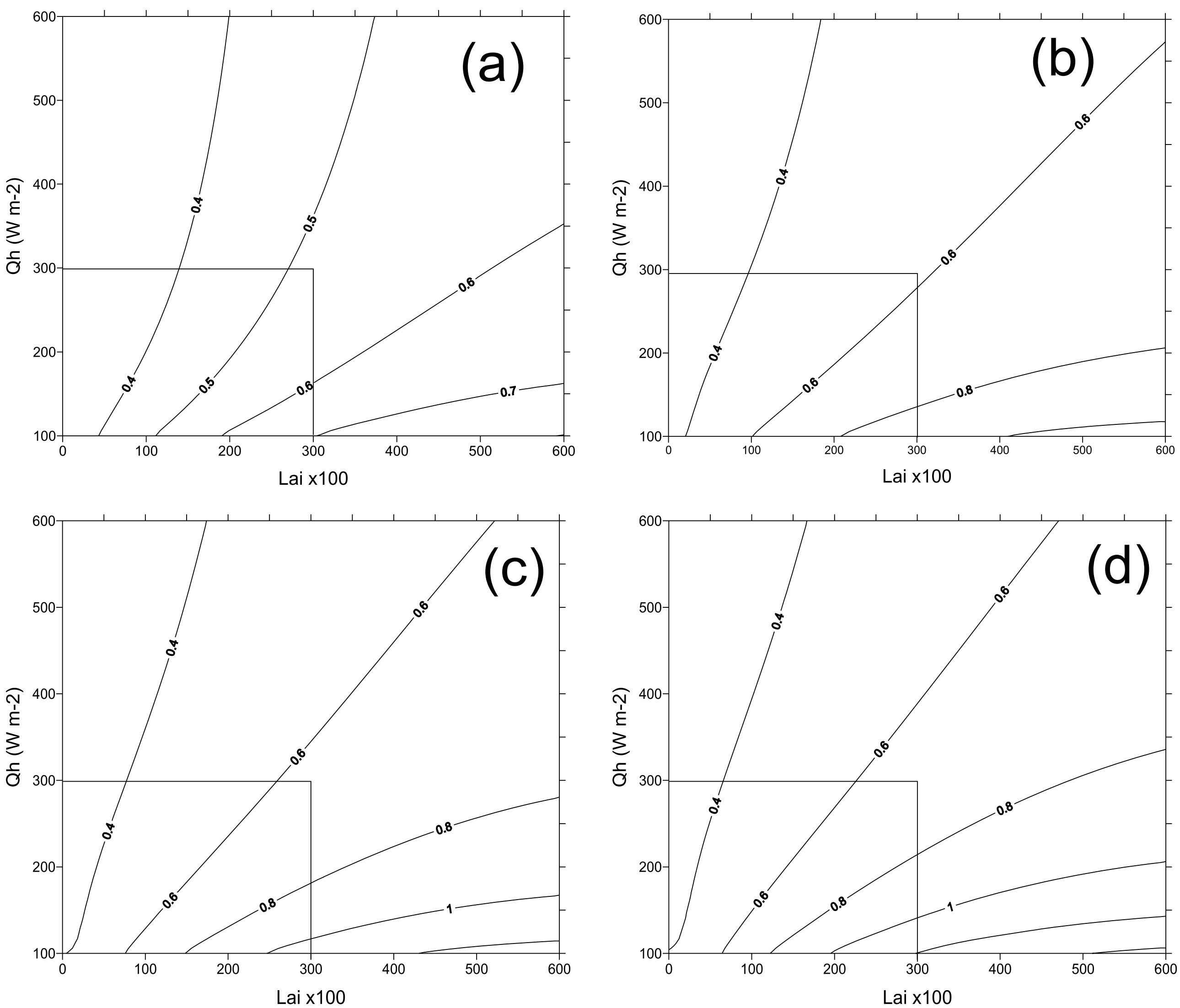

Figure 2. Contour plots of the evaporative fraction, $f_E = \lambda\ E/A$, as a function of absorbed photosynthetically active radiation, Q_h, and leaf area index ($L_{ai} \times 100$) for (a)$D_a = 0.5$ kPa, (b) $D_a = 1.0$ kPa, (c) $D_a = 1.5$ kPa, and (d) $D_a = 2.0$ kPa. Fixed parameter values are $g_{sx} = 0.008$ m/s, $Q_{50} = 30$ W/m^2, $G_a = 0.033$ m/s, $k_Q = k_A = 0.6$, $D_{50} = 1.0$ kPa, and $f = 0.5$.