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Interactive comment on "Large methyl halide emissions from south Texas salt marshes" *by* R. C. Rhew et al.

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We found an error in our additional text provided in response to reviewer #2, point #1. The tissue halide content for bromide should be 2900 ug/g, with associated changes in the subsequent calculations. The revised text will read:

"However, the amount of chloride and bromide that is volatilized daily via methyl halide emission is not large enough to substantially change the overall Cl- and Br- content in plant tissue. In this study, the biomass normalized diel emission rates of CH3Cl and CH3Br were 1.25 $\pm$ 0.40 μmol gdwt-1 d-1 and 0.062 $\pm$ 0.014 μmol gdwt-1 d-1, respectively (n=9 sites). If we assume that the B. maritima tissue halide contents are similar to those measured in southern California B. maritima plants (210 mg g-1 for Cl- and 2900 ug g-1 for Br- (Manley et al., 2006)), then we estimate that roughly 0.02% of

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Cl and 0.2% Br in the leaf tissue is removed daily via methyl halide emissions. Thus, to impact halide availability, there would need to be a small segregated subset of 'active' halides at the enzyme site. If this 'active' halide pool was 0.5% of the overall tissue content, then the methyl halide emissions could reduce that pool by 4% for Cl and 34% for Br daily. This would lead to an increased CH3Cl to CH3Br emission ratio, until the halide levels were replenished. A subset of 'active' halides in the cytoplasm of plant cells is implied by Ni and Hager (1998, 1999), who proposed that the function of halide methyltransferase is to dispose of excess chloride to regulate internal concentrations."

Interactive comment on Biogeosciences Discuss., 11, 9451, 2014.