Corrigendum: Extrapolation and Uncertainty Evaluation of Carbon Dioxide and Methane Emissions in the Qinghai-Tibetan Plateau Wetlands Since the 1960s

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In the original article, we intended to show the annual mean GHG flux rate within Figures 4, 5, and Table 1. However, there was an oversight in dividing the number by 12 (months).

Below, you can find the corrected Figures 4, 5, and Table 1, as well as the corrections of the numbers cited at various points in the text. The updated section in the Abstract, Page 1, Lines 11–14, can be found below. In addition, the updated portion in the Results, section ‘Extrapolation of CO₂ and CH₄ Emission Rates of the Study Site’, Page 7, Lines 1–22, can also be found below.

We apologize for these errors and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

ABSTRACT

Based on such relationship patterns and soil temperature data (1960–2017), we extrapolated the CO₂ and CH₄ emissions of study site for the past 57 years: the mean CO₂ emission rate was 91.38 mg C m⁻² h⁻¹ on different measurement methods and timescales, with the range of the mean emission rate from 35.10 to 146.25 mg C m⁻² h⁻¹, while the mean CH₄ emission rate was 2.75 mg C m⁻² h⁻¹, with the ranges of the mean emission rate from 1.41 to 3.85 mg C m⁻² h⁻¹.
FIGURE 4 | Annual CO₂ and CH₄ emission rates of the study site from 1960 to 2017 were extrapolated based on regression models between soil temperature and CO₂/CH₄ emissions measured using the static chamber method (A,C) and using the eddy covariance method (B,D) at different timescales (Annual or NG&G seasonal).
Zhang et al. Corrigendum: Extrapolation of CO\textsubscript{2} and CH\textsubscript{4} Emissions

FIGURE 5 | Calculated differences between extrapolated annual greenhouse gas emission rate of study site from 1960 to 2017. CO\textsubscript{2} and CH\textsubscript{4} emission rates were extrapolated by models based on data derived from the static chamber method (A,C) or Eddy covariance method (B,D) at annual and NG&G seasonal timescales, respectively. The differences between the maximum and minimum extrapolated values of each year were plotted.

TABLE 1 | Extrapolated mean emission rate of CO\textsubscript{2} and CH\textsubscript{4} of study site for the period 1960–2017, based on models derived from data obtained using the chamber or EC method at different timescales*.

| Emission rate (mg C m\textsuperscript{-2} h\textsuperscript{-1}) | Measurement method | Annual | NG&G seasonal | Average |
|-------------------------------------------------|-------------------|--------|---------------|---------|
| CO\textsubscript{2}                              | Chamber           | 35.10  | 38.60         | 91.38   |
|                                                | EC                | 146.25 | 145.58        |         |
| CH\textsubscript{4}                             | Chamber           | 1.41   | 1.88          | 2.75    |
|                                                | EC                | 3.85   | 3.85          |         |

*Timescales were the entire year (Annual), non-growing season and growing season (NG&G seasonal). Abbreviations: Chamber, static chamber; EC, eddy covariance.

RESULTS

Extrapolation of CO\textsubscript{2} and CH\textsubscript{4} Emission Rates of the Study Site
Extrapolated mean CO\textsubscript{2} emission rate of study site from 1960 to 2017 was calculated to be 91.38 mg C m\textsuperscript{-2} h\textsuperscript{-1}, with the ranges of the mean emission rate from 35.10 to 146.25 mg C m\textsuperscript{-2} h\textsuperscript{-1} on different measurement methods and timescales (Table 1). The differences of emission rates between the maximum and minimum values extrapolated for each year reflected uncertainties from the same measurement method at different timescales. Uncertainties in extrapolation of the CO\textsubscript{2} emission rates ranged from 0.84 to 4.38 mg C m\textsuperscript{-2} h\textsuperscript{-1} based on static chamber data, and from 0.13 to 12.67 mg C m\textsuperscript{-2} h\textsuperscript{-1} based on EC data (Figures 5A,B).

Extrapolated values for CH\textsubscript{4} emission rate based on EC data were three times larger than extrapolated values based on chamber data (Figures 4C,D). Extrapolated mean CH\textsubscript{4} emission rate of the study site was 2.75 mg C m\textsuperscript{-2} h\textsuperscript{-1} from 1960 to 2017, with the ranges of the mean emission rate from 1.41 to 3.85 mg...
C m$^{-2}$ h$^{-1}$ on different measurement methods and timescales (Table 1). Differences in annual average maxima and minima reflected uncertainties from static chamber method data ranging from 0.30 to 0.52 mg C m$^{-2}$ h$^{-1}$ (Figure 5C), while uncertainties in data extrapolated from the EC method ranged from 0 to 0.30 mg C m$^{-2}$ h$^{-1}$ (Figure 5D).