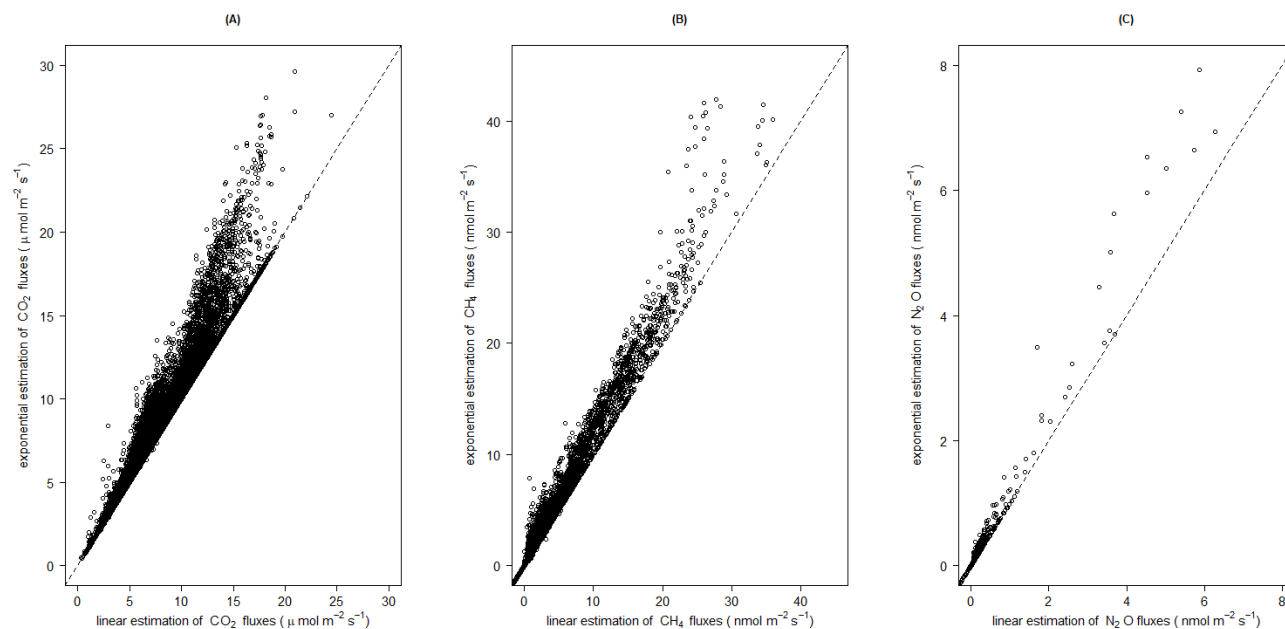


Supplementary File 1: R code for merging Picarro files to include them in Soil Flux pro

```
## to list all the days in a given directory (Picarro makes one directory per day)
ListDay<-list.files()
5 Pfile<-list()
  ## to concatenate all the hourly file in one file per day
  for (j in 1:length(ListDay))
  {
    print(j)
10 ListFilesPicarro<-list.files(ListDay[j])
    Data<-read.table(paste(ListDay[j],"/",ListFilesPicarro[1],sep=""))
    for (i in 2:length(ListFilesPicarro))
    {
      temp<-read.table(paste(ListDay[j],"/",ListFilesPicarro[i],sep=""))
15 Data<-rbind(Data, temp)
      print(i)
    }
    Pfile[[j]]<-Data
  }
20 ## to concatenante all days and make just one file will all data
  MasterData<-Pfile[[1]]
  for (k in 2:length(Pfile))
  {
    MasterData<-rbind(MasterData,Pfile[[k]])
25 print(k)
  }
  ## to write the table in a way that SFP can read it
  write.table(MasterData, "MasterData.dat", quote=F)

30
```

Supplementary Figure 1: Comparison of linear (x-axis) and exponential (y-axis) fit of the same measurement for all the fluxes used in the study for (A) CO₂, (B) CH₄ and (C) N₂O. The dashed line represents the 1:1 line. High fluxes of all three gases are clearly underestimated using linear fit.



Supplementary Figure 2: Relationship between soil surface humidity and (A) CO₂, (B) CH₄ and (C) N₂O fluxes over the study period.

