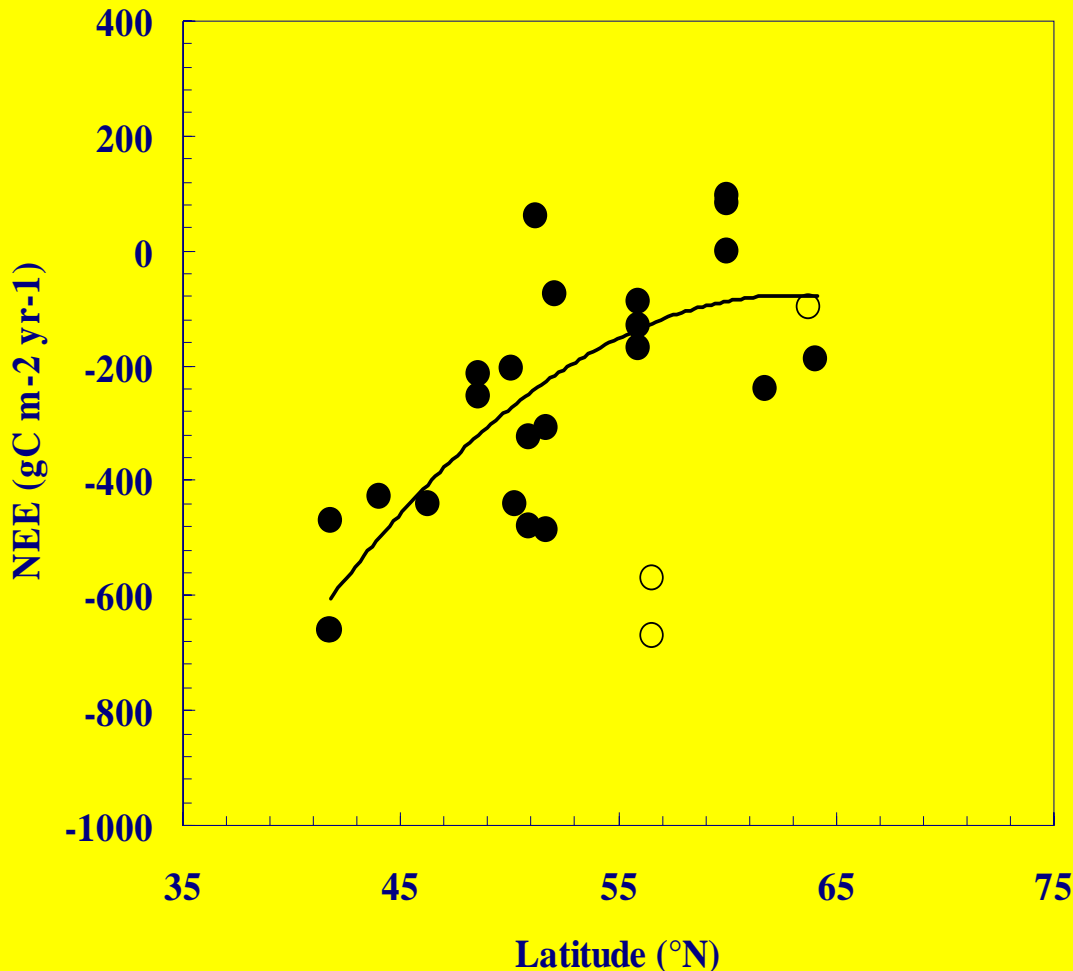


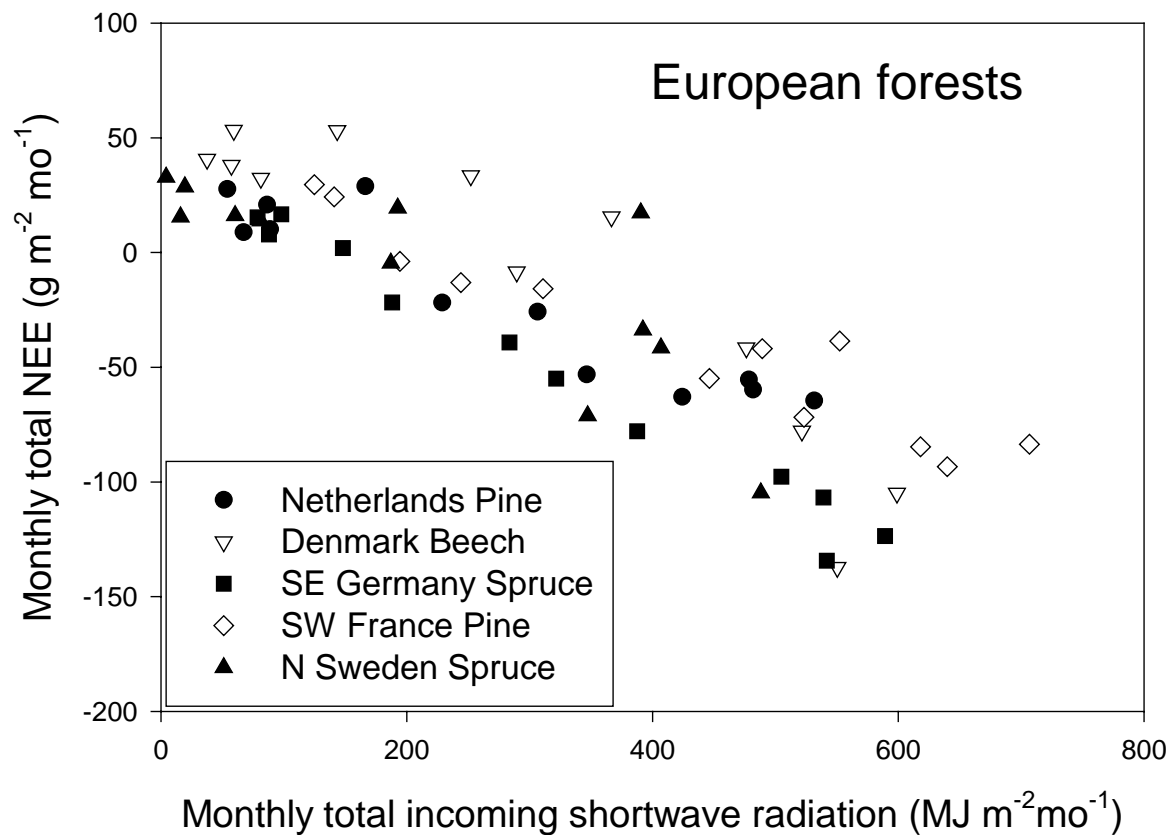
Tower fluxes over ecosystems in South America

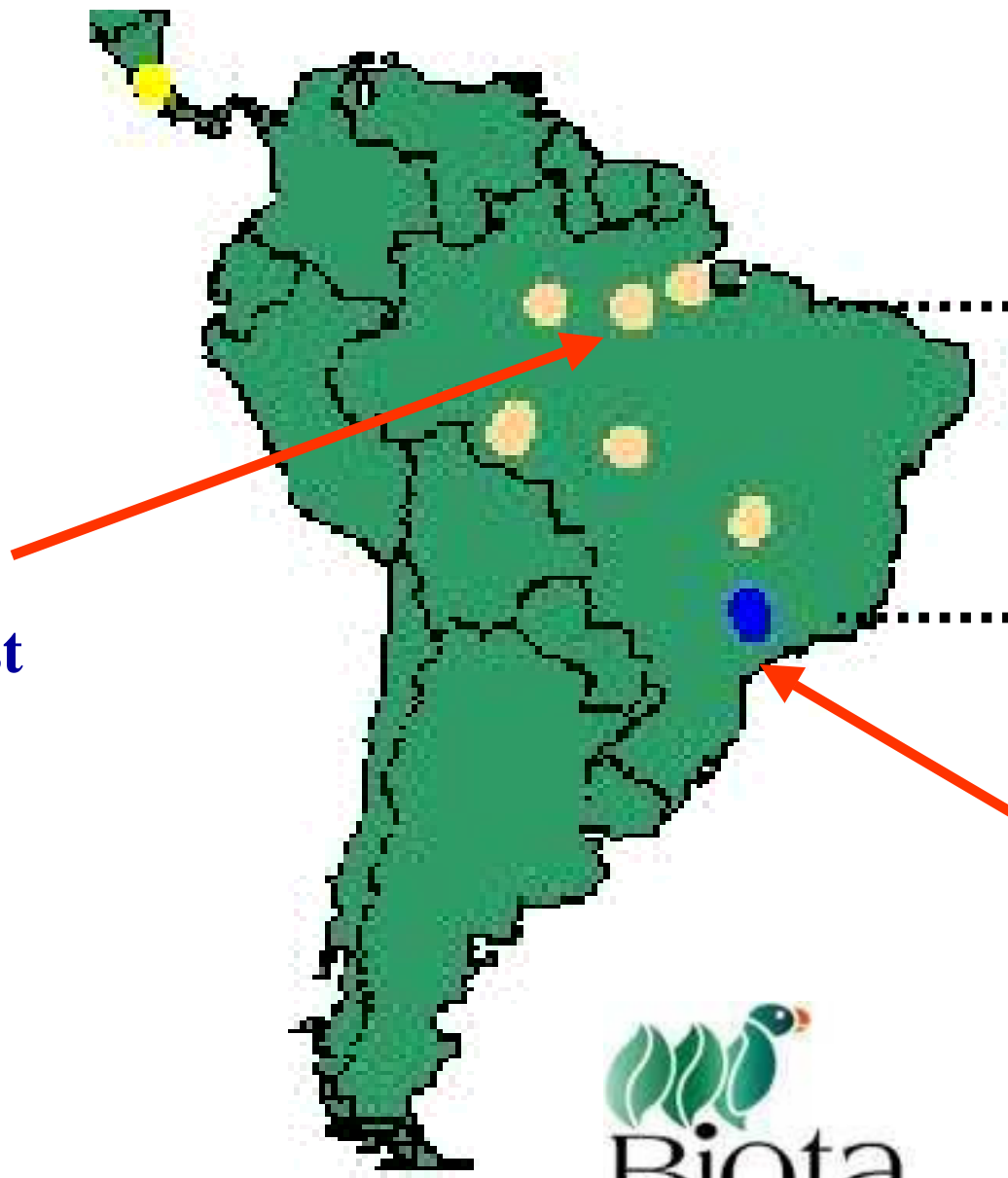
The Euroflux result: NEE (net ecosystem exchange) variation with latitude



*** Mostly of terrestrial ecosystems in South America lie northward of 35° S**

Carbon uptake in temperate forests: controlled by radiation input?





3° S

21° S

Tropical forest

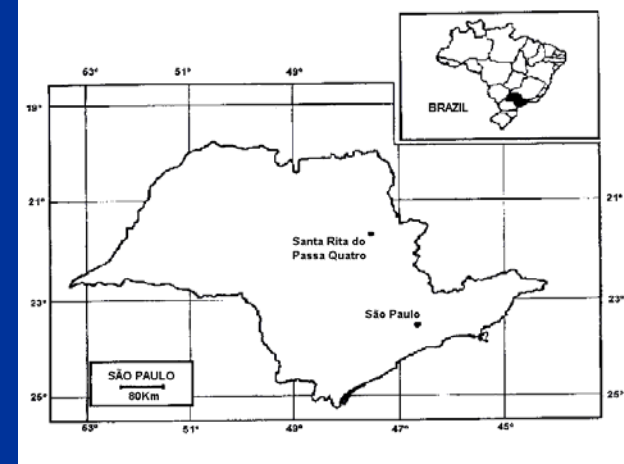
**Santarém
(PA)**

**Cerrado
Restrito**

**Santa Rita do
Passa Quatro
(SP)**



**Tropical woodland
savanna
(Cerrado restrito)**



**Cerrado Restrito
(Gleba Pé de Gigante)**

Micromet tower

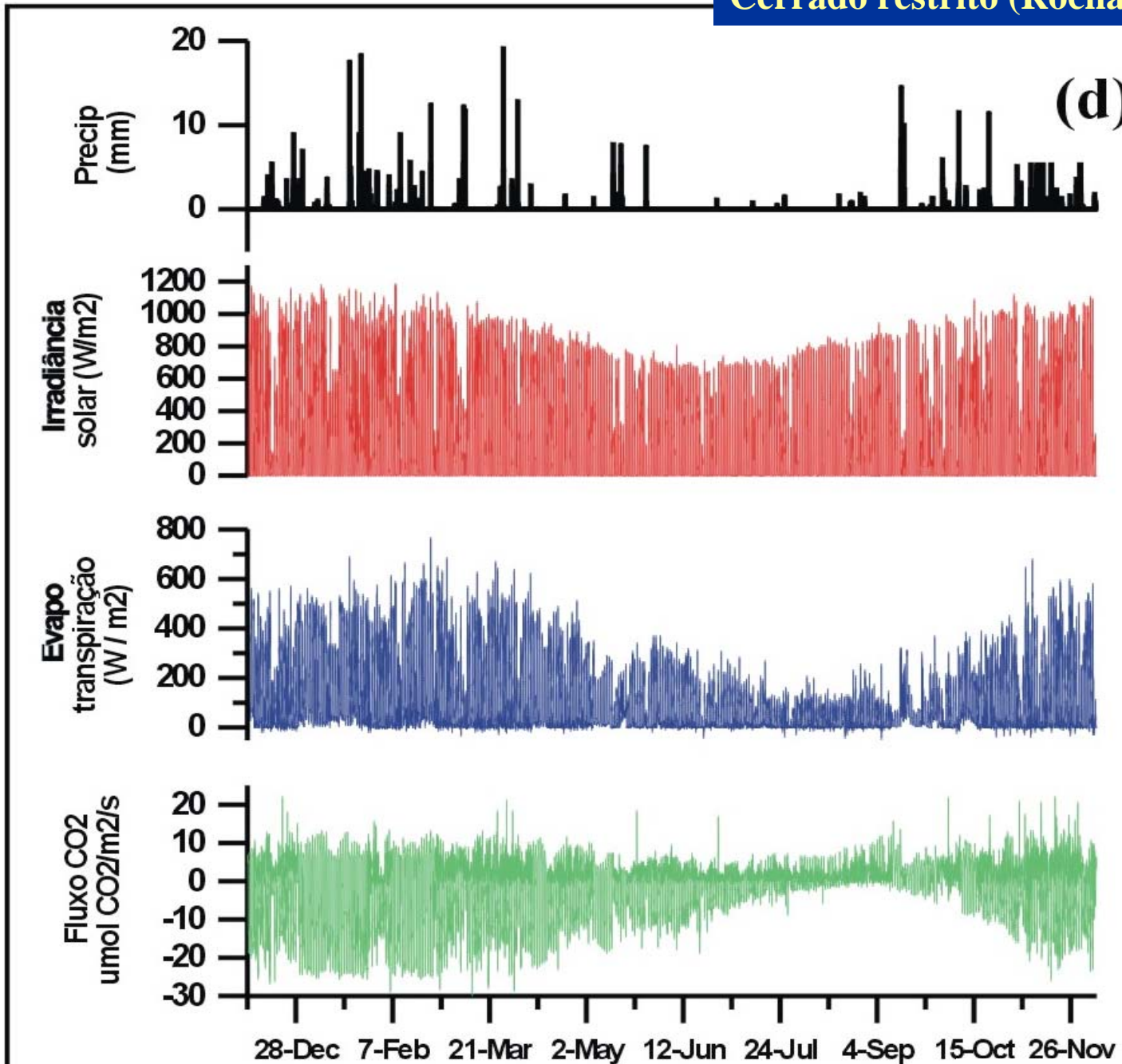


Wet season



Dry season

Cerrado Restrito: strong seasonality controlling the surface fluxes



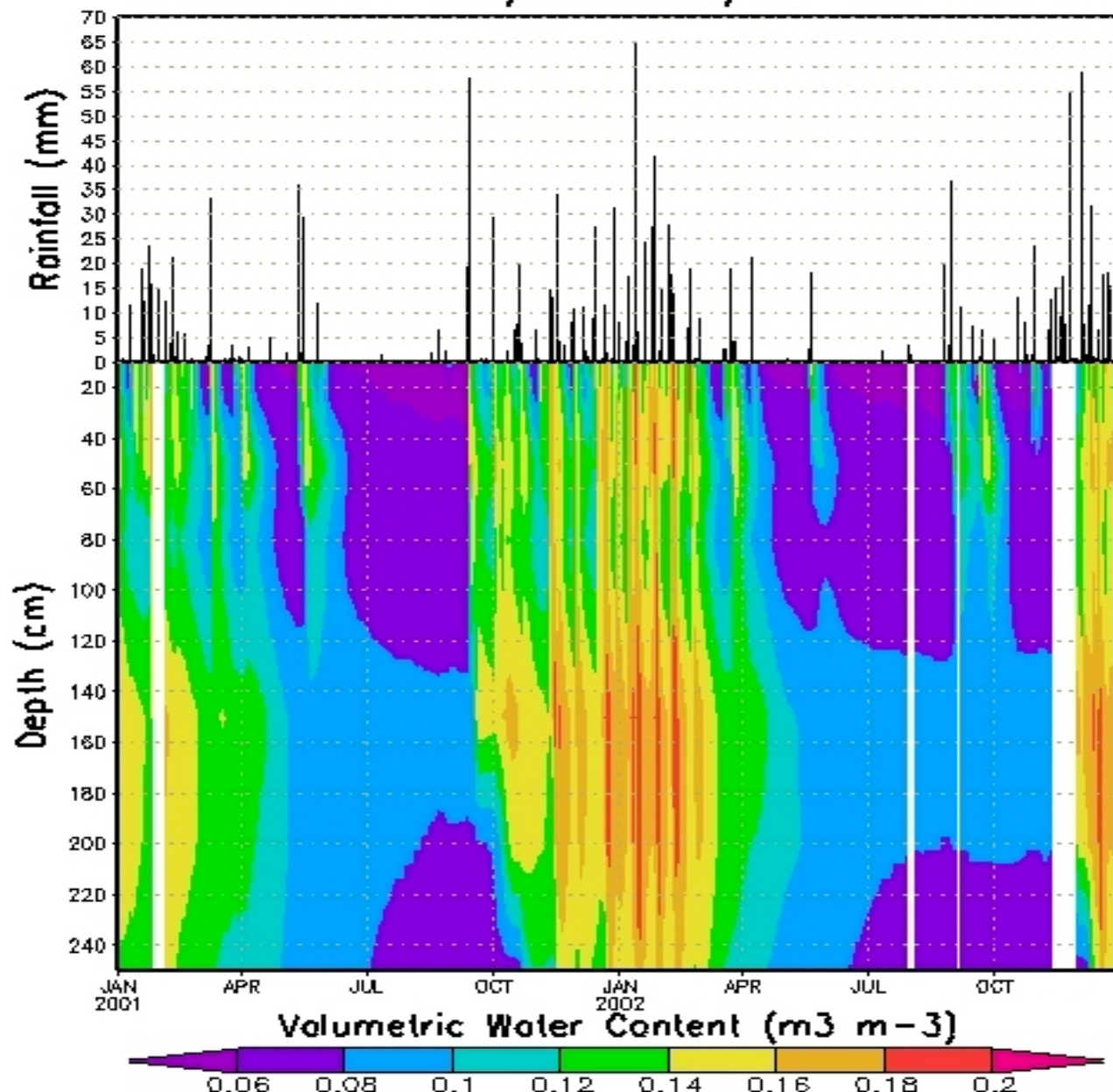
Soil moisture seasonality

Cerrado Restrito

site: Gleba Pé de Gigante

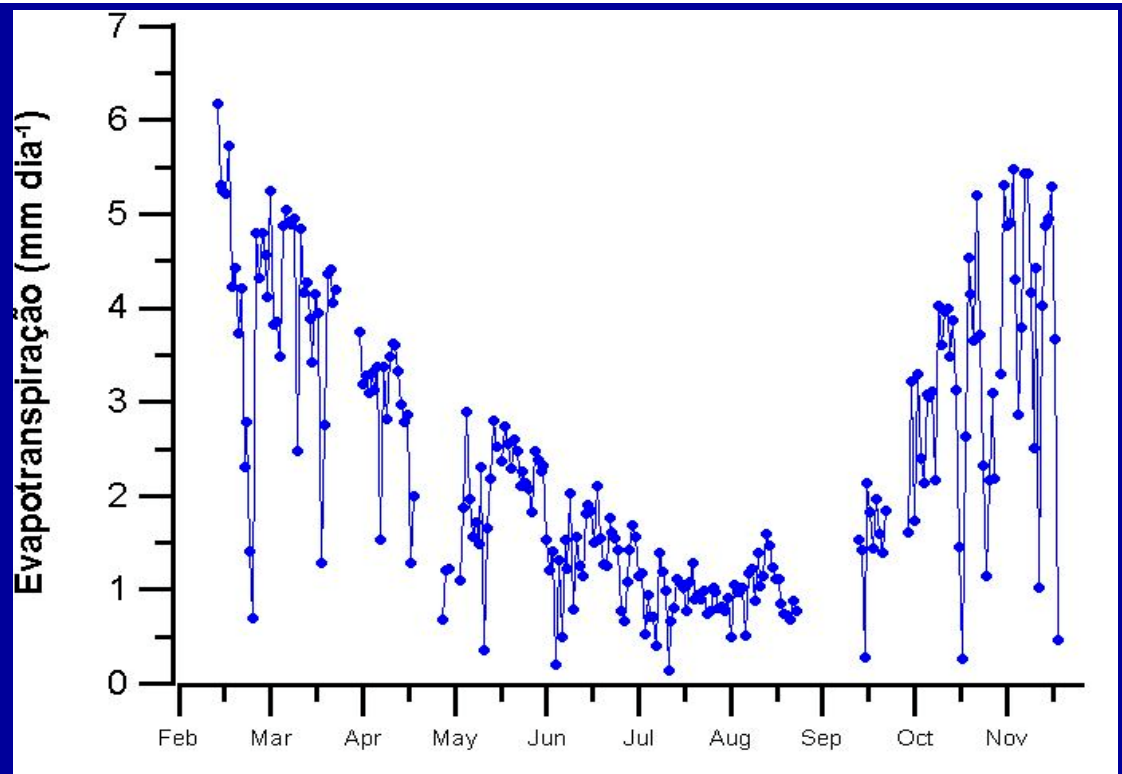
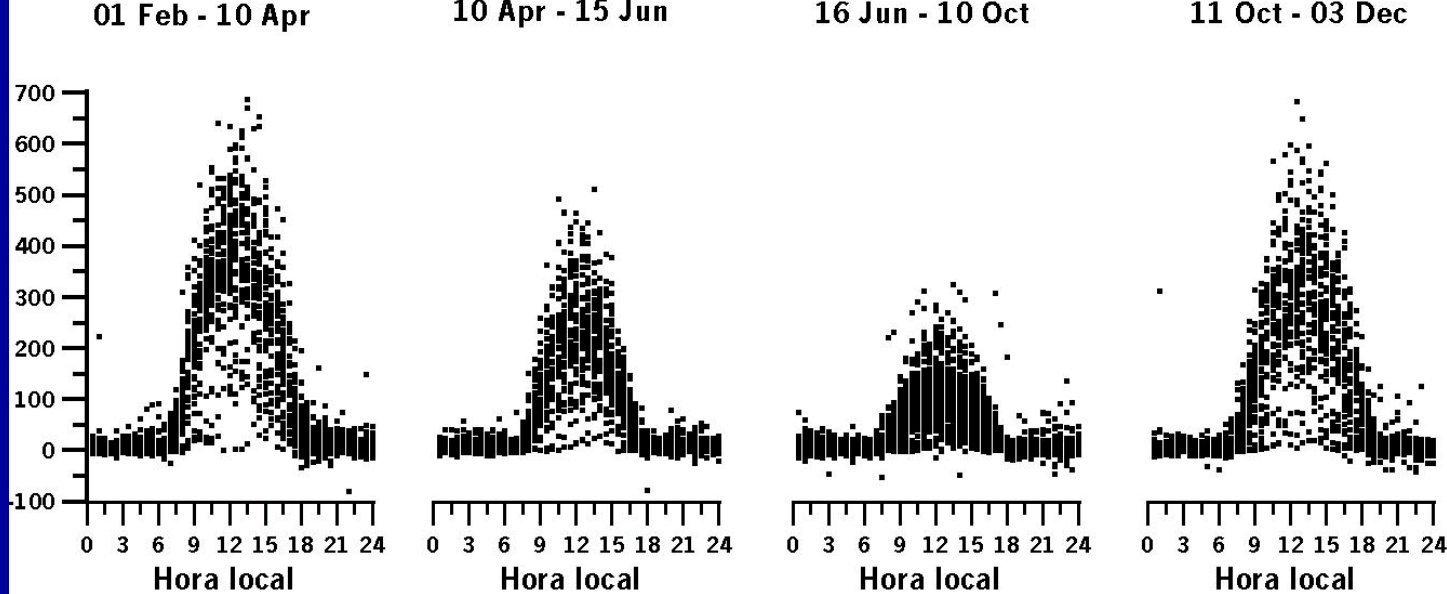
(MSc thesis, Rogério Bruno, IAG/USP)

Cerrado - Sta Rita Passa Quatro/SP
Jan/01 - Dec/02



Cerrado Restrito

Evapotranspiration



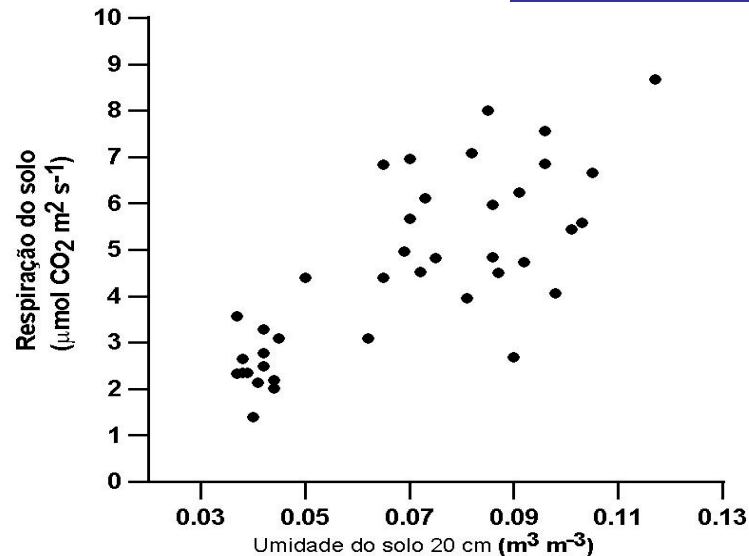
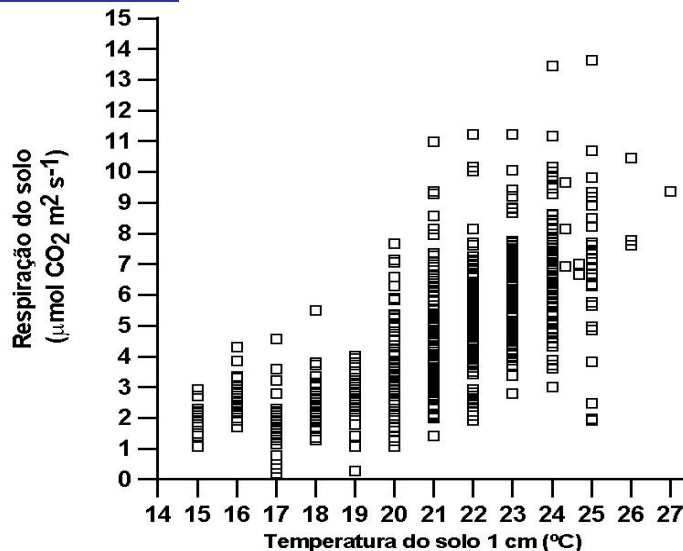
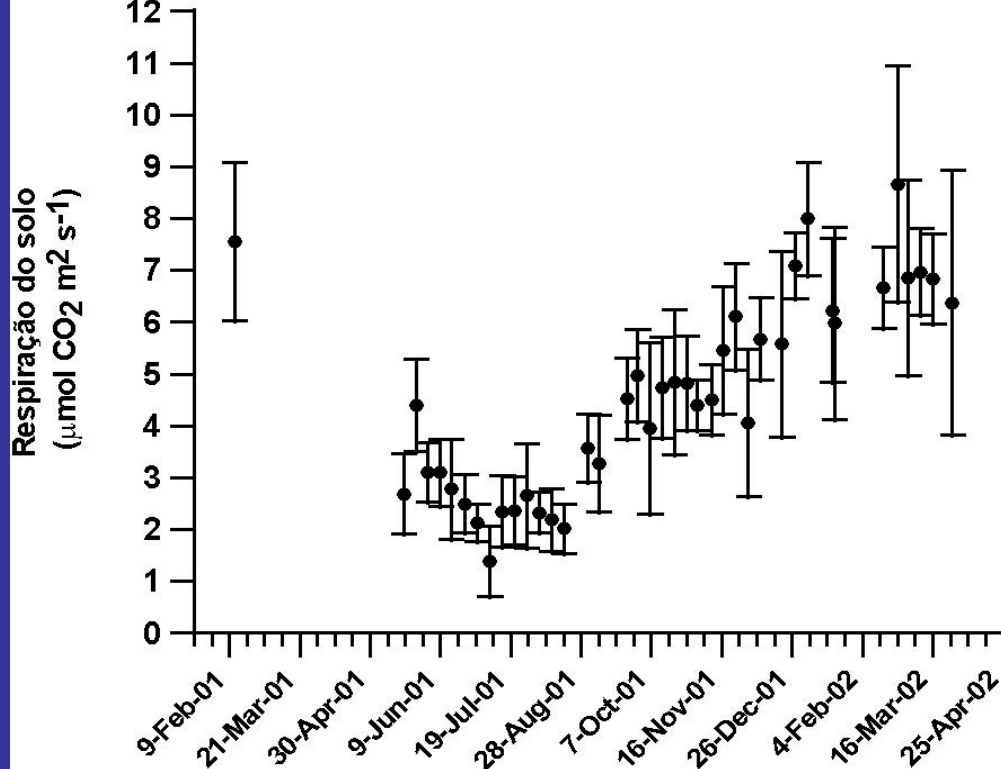
Rocha et al 2004

Cerrado Restrito

Soil respiration

correlation
with
temperature
and soil
moisture

Rocha et al 2004



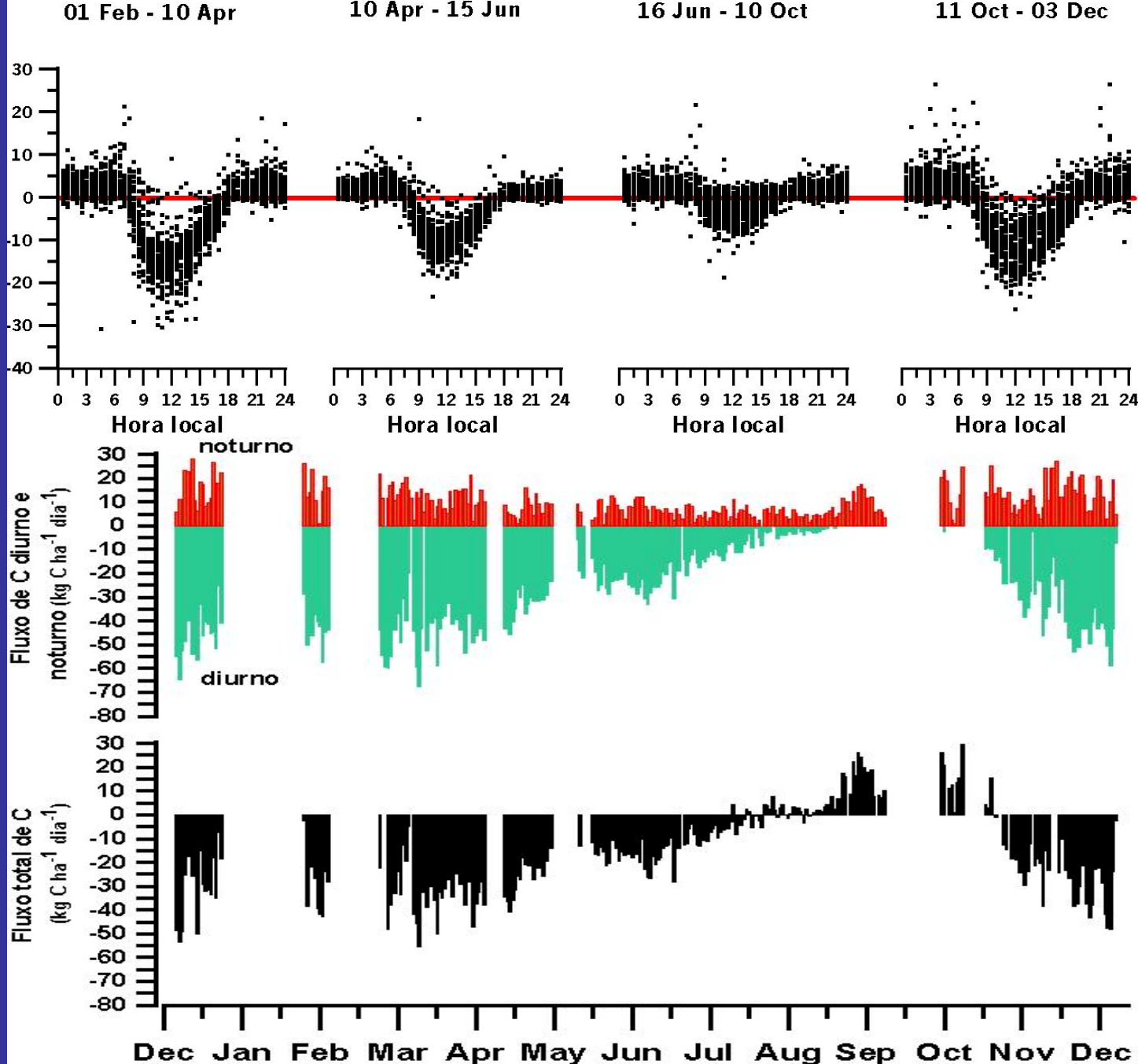
Cerrado Restrito

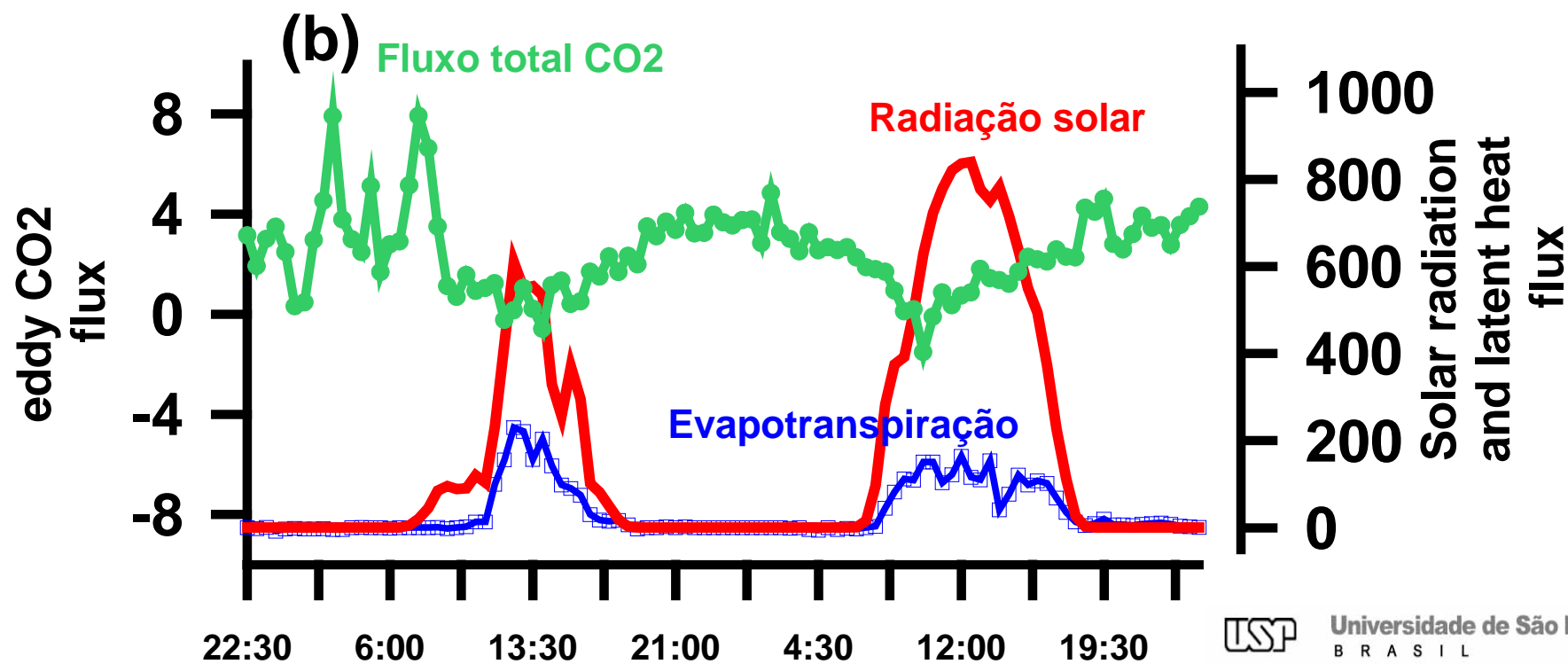
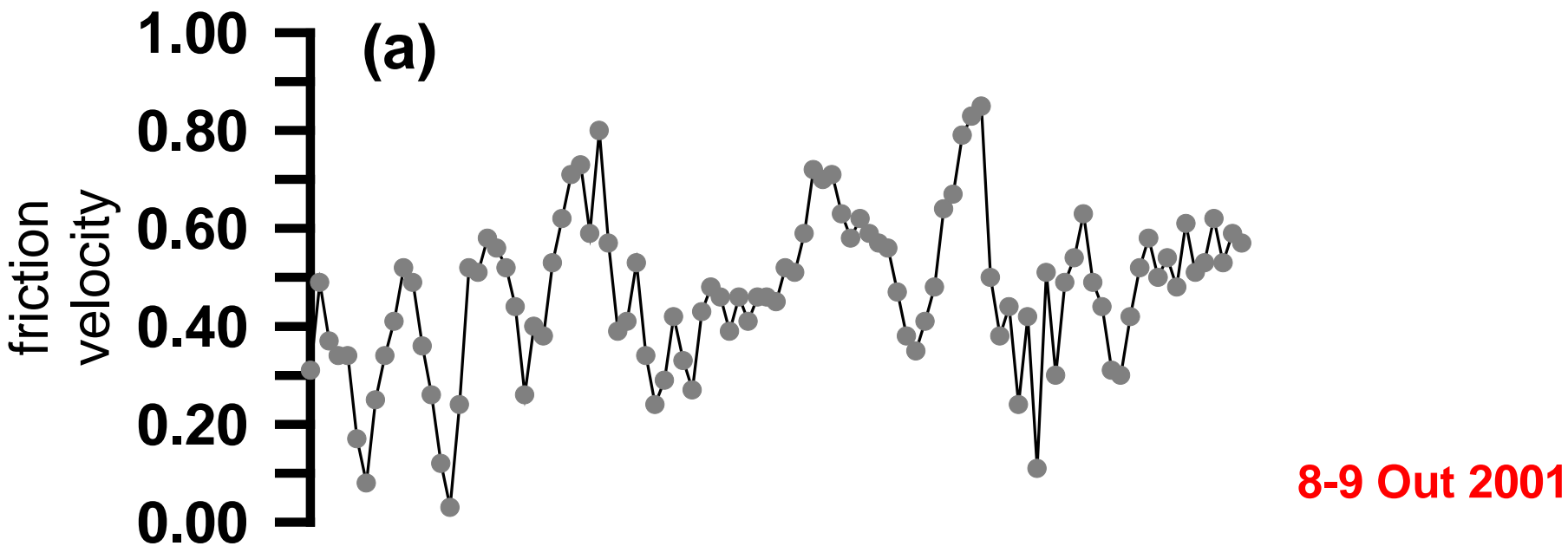
Diel cycle of eddy CO2 flux

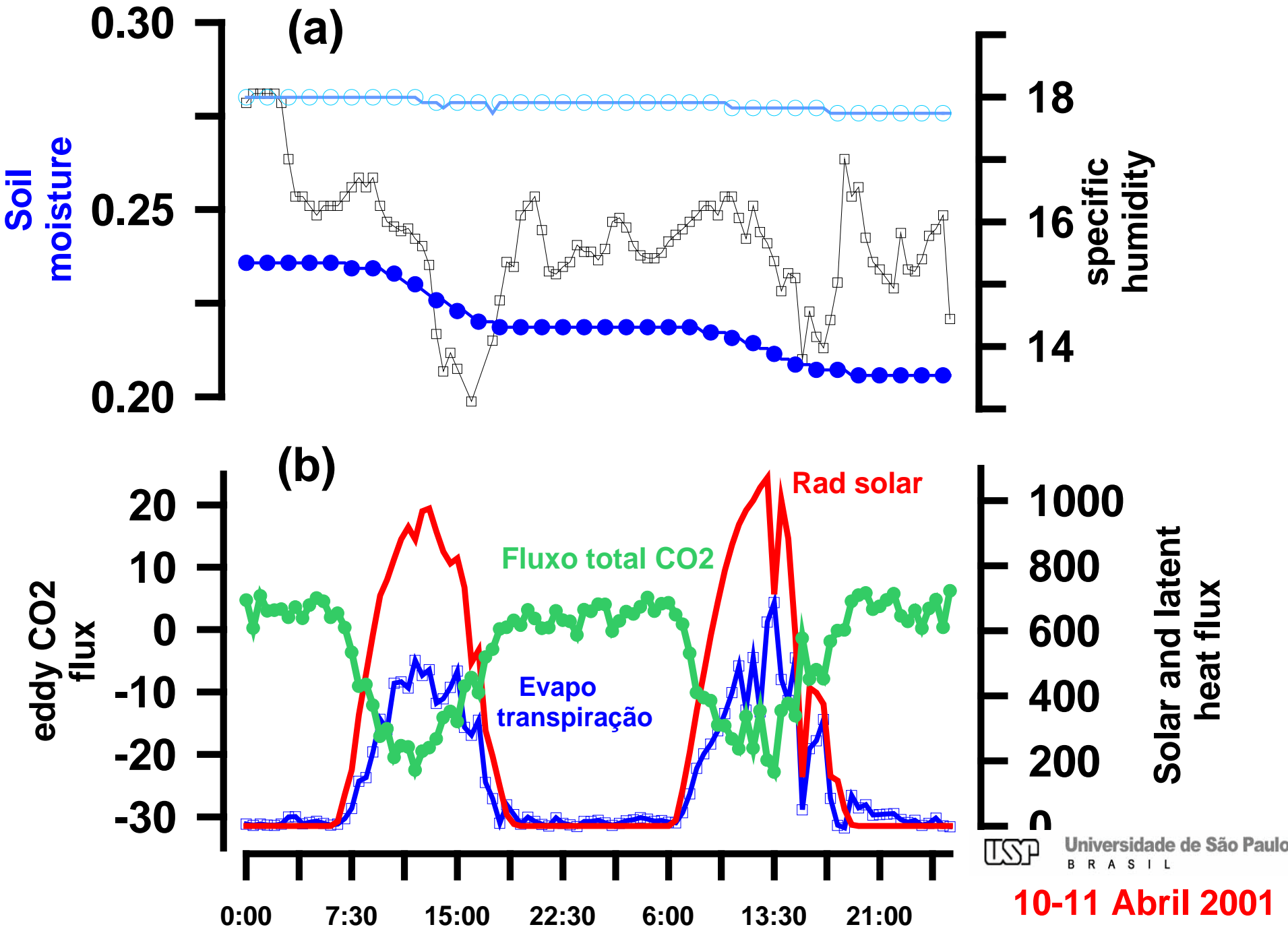
Nocturnal and diurnal CO2 flux

Total CO2 flux

Rocha et al 2002





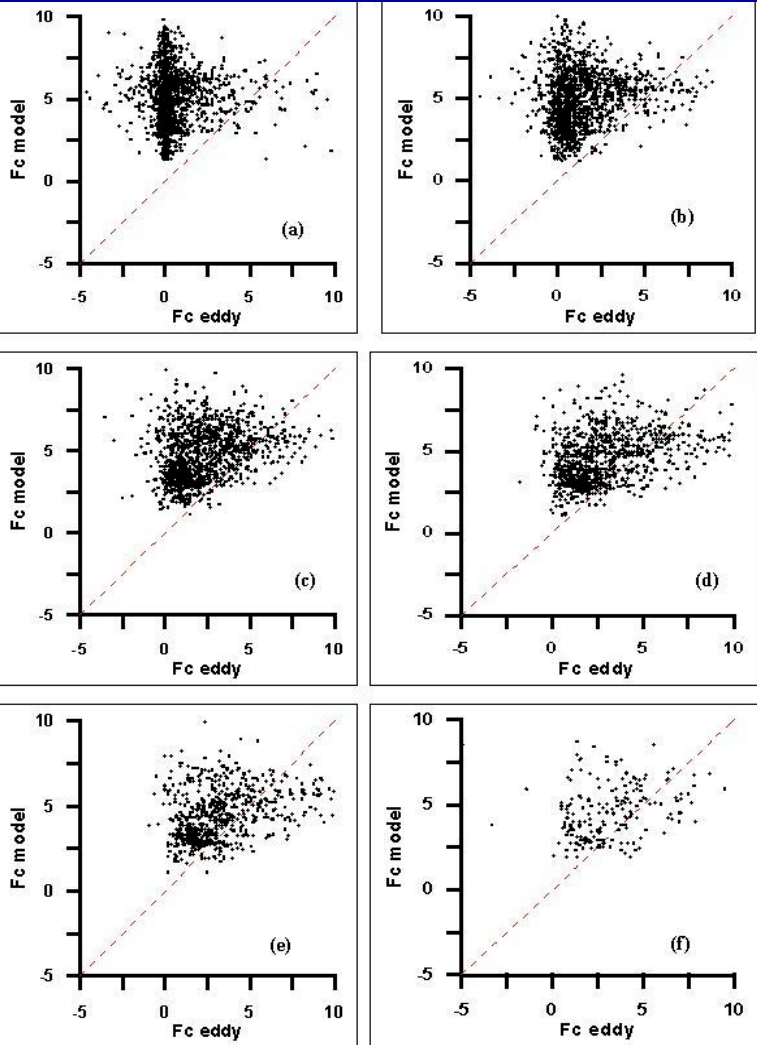
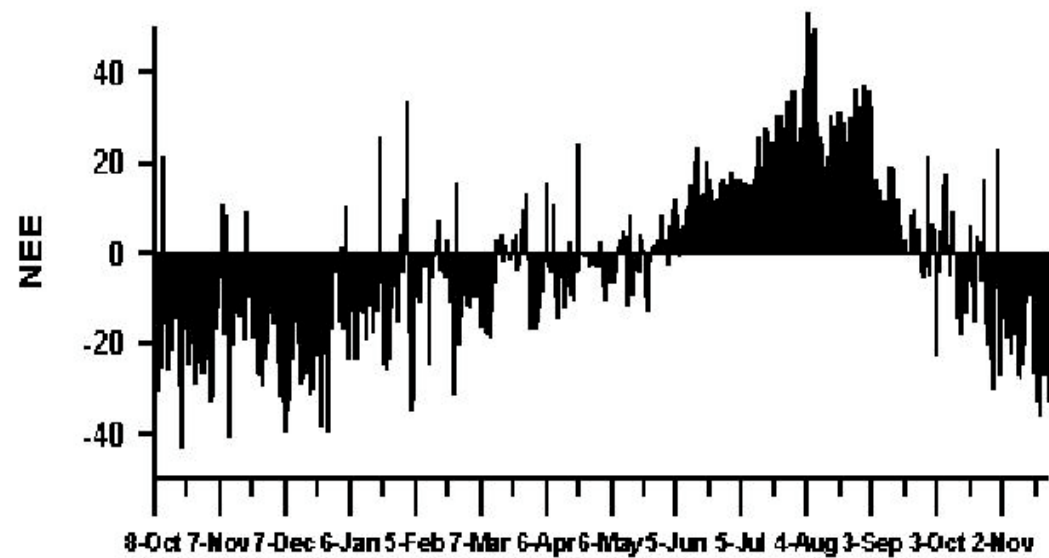


Cerrado Restrito

Net CO₂ ecosystem flux

Rocha et al 2002

Filling the gaps - estimating the annual CO₂ sum

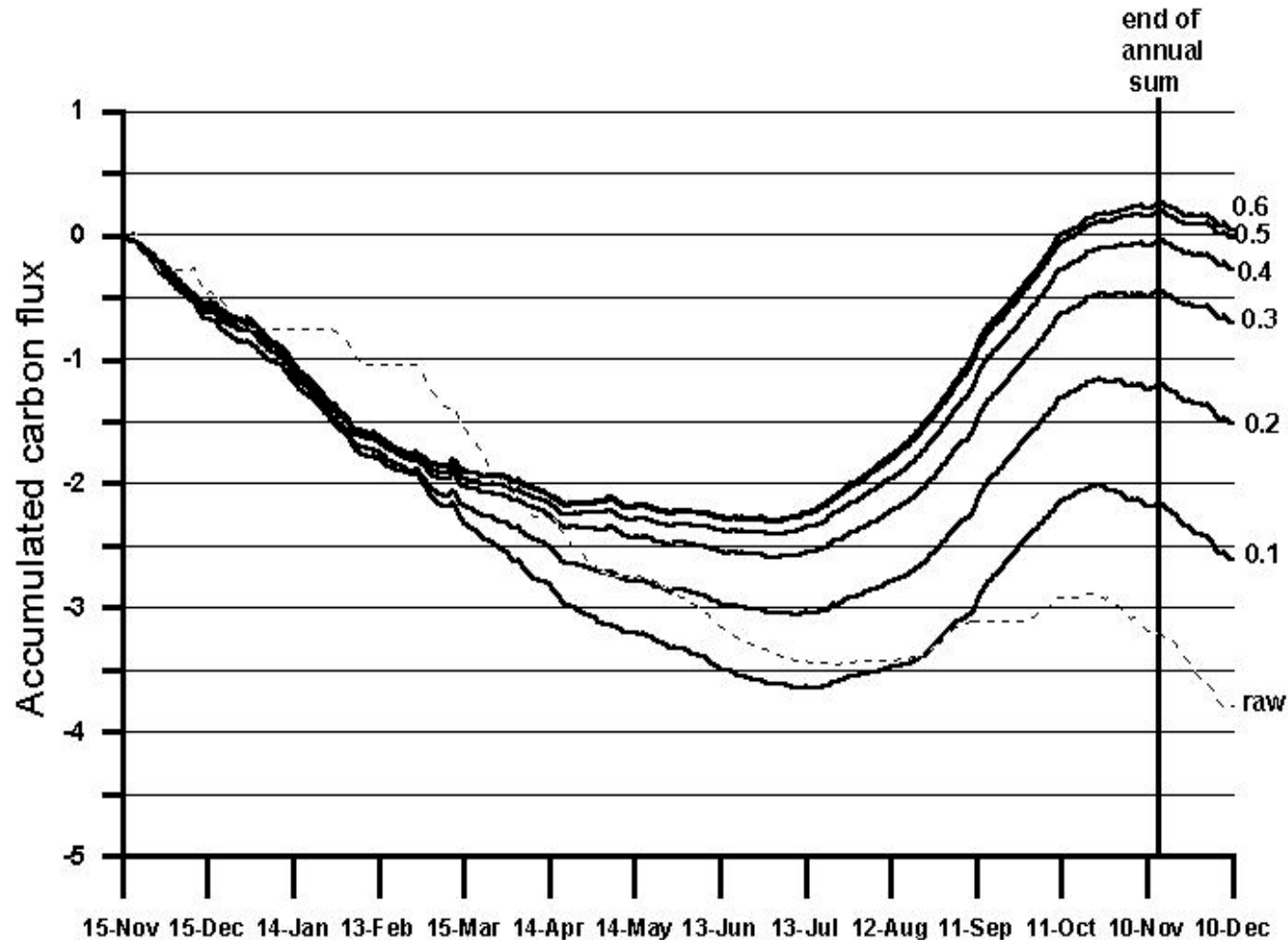


Cerrado Restrito

Annual CO₂ flux
sum

u^* filtered 0,4
m/s

NEE acum ~
-0,05 ton C/ha/yr



Rocha et al 2002

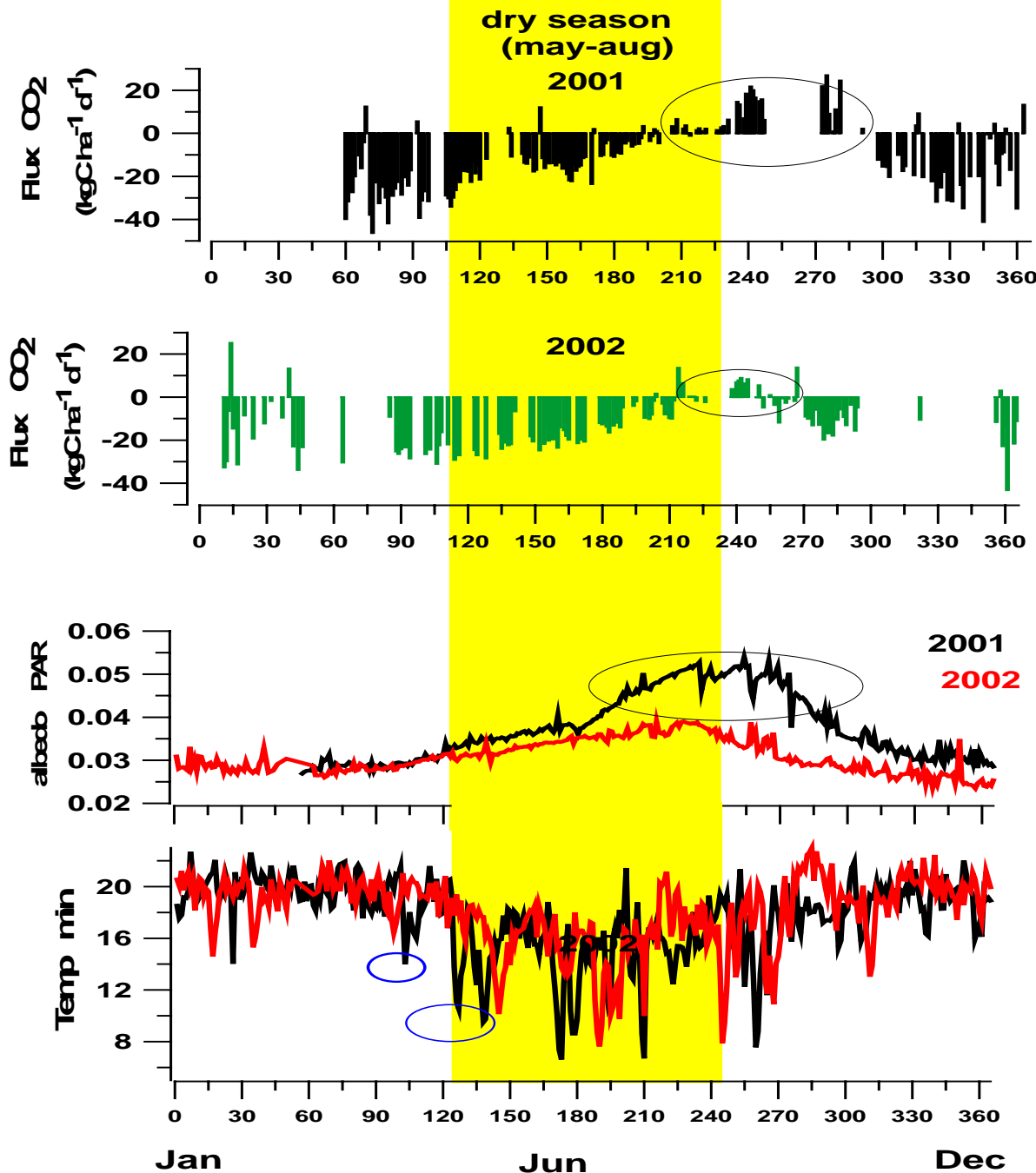
CERRADO RESTRITO: INTERANNUAL VARIABILITY

CO₂ flux 2001

CO₂ flux 2002

Albedo PAR

Minimum Temperature



CERRADO RESTRITO

Rainfall 2001

Evaporation 2001

Rainfall 2002

Evaporation 2002

