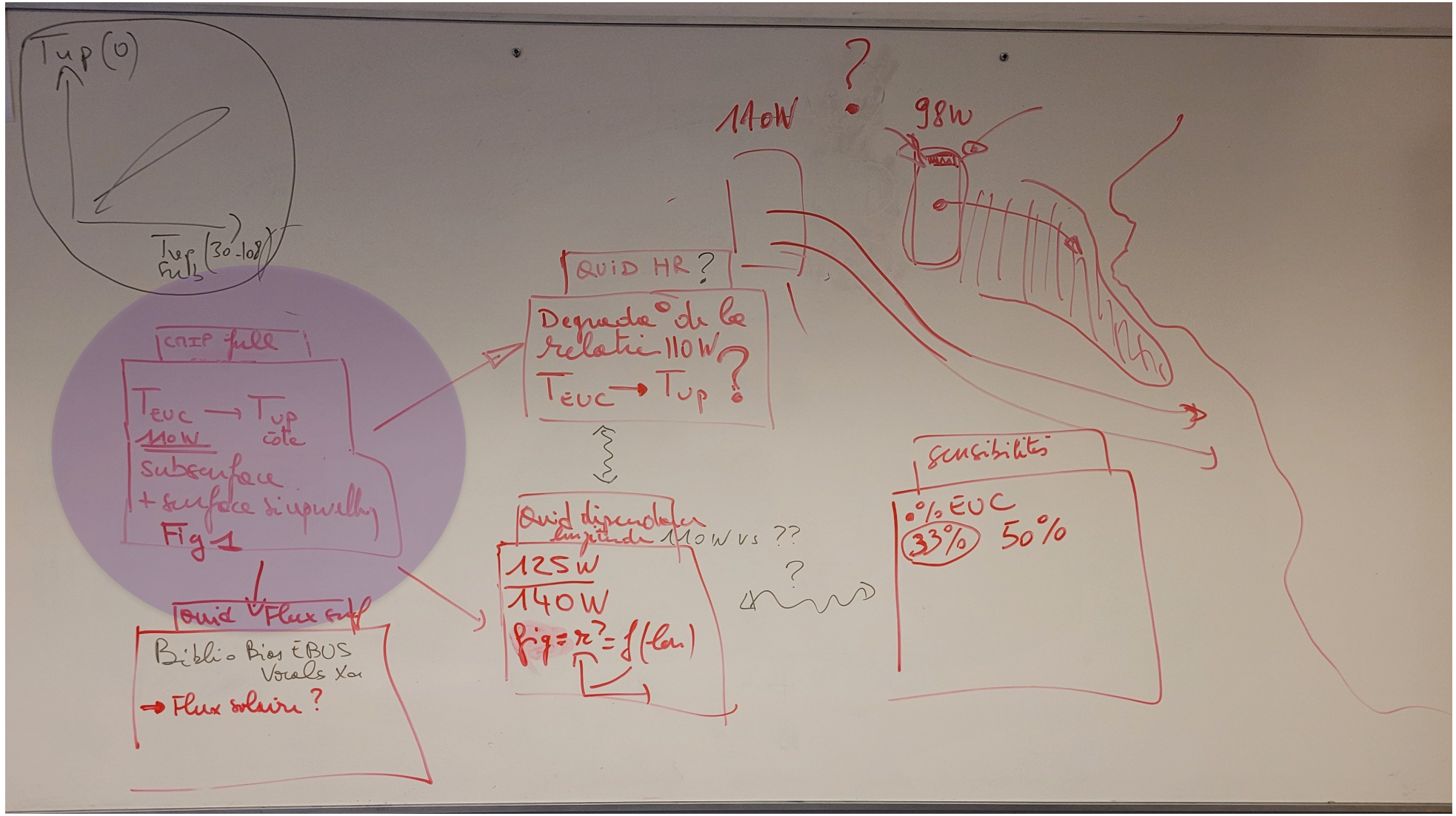
Histoire, 19 Avril 2023

INTRODUCTION

- Importance de la circulation équatoriale pacifique dans l'OMZ

T_up=f(T_EUC, 110W, 20%) : diff_upBas = False / -1° / -0.5°



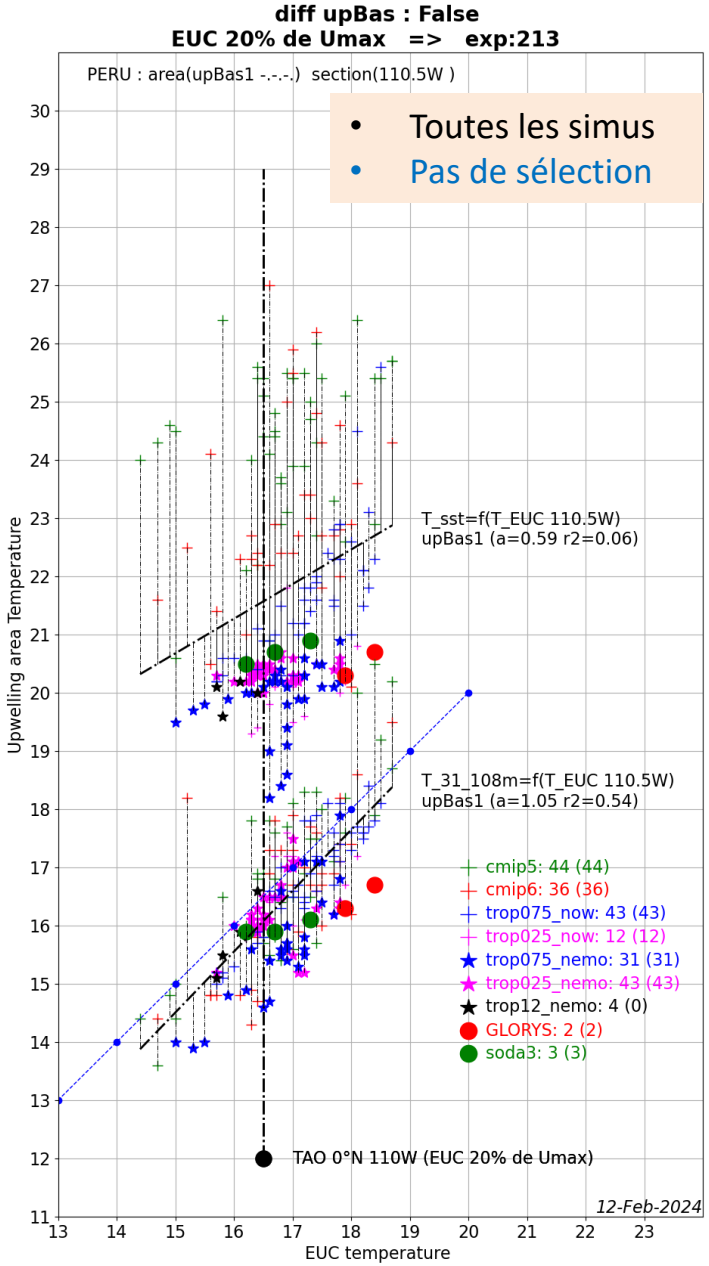
T_up=f(T_EUC, 110W, 20%,31-108m) : diff_upBas = False / -1° / -0.5°

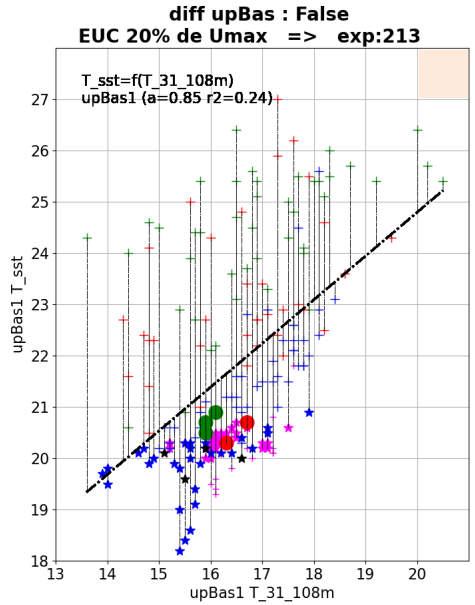
Pour :
- Toutes les simus
- Tous les couplés
- Cmip5 & 6

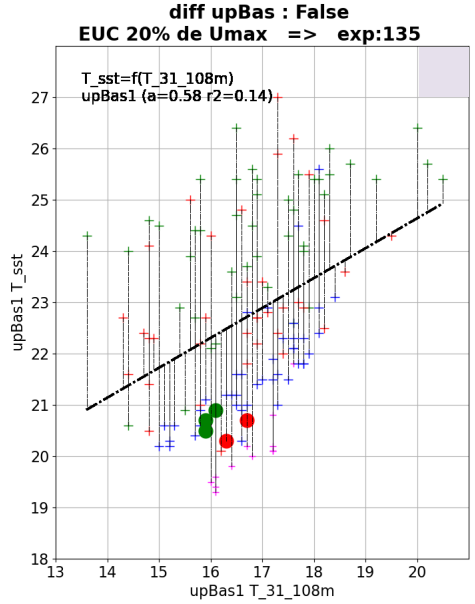
Compare :
- diff_upBas= False
- diff_upBas= -1°
- diff_upBas= -0.5°

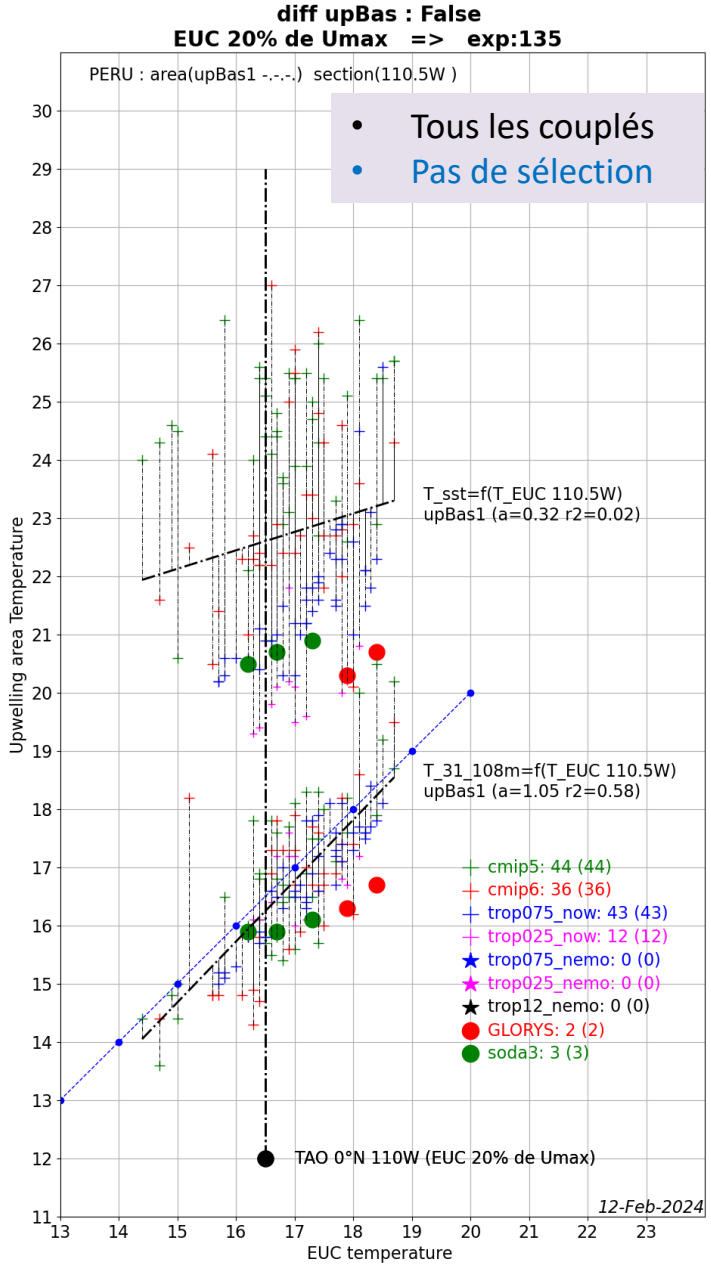
Sens:
- Avec / sans les simus forcées?
- Avec/sans les simus couplées?

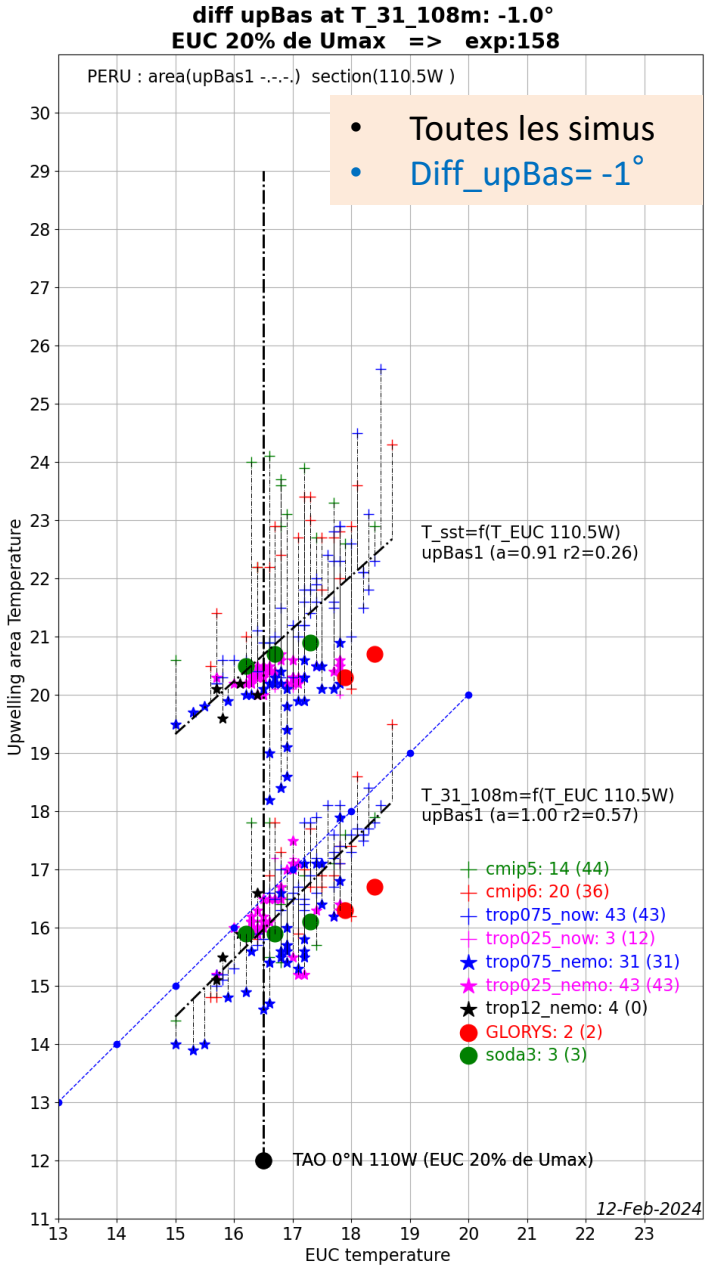
- Critère pour diff_upBas : sur T_31_108m
  - À priori meilleur et surtout plus de sens?

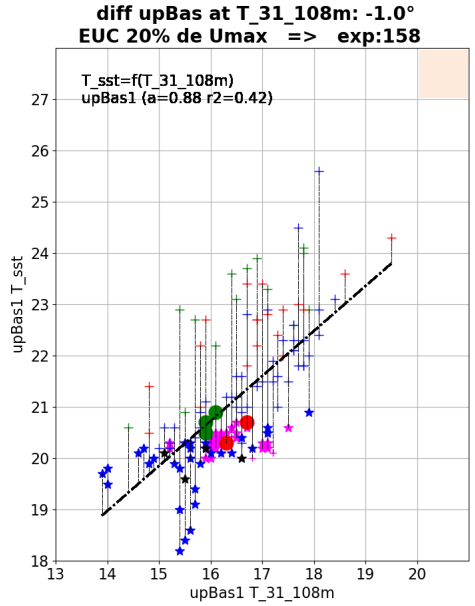

diff upBas : False
EUC 20% de Umax => exp:213
PERU : area(upBas1 -.-.-.) section(110.5W)
• Toutes les simus
• Pas de sélection
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.59 r2=0.06)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.05 r2=0.54)
cmip5: 44 (44)
cmip6: 36 (36)
trop075_now: 43 (43)
trop025_now: 12 (12)
trop075_nemo: 31 (31)
trop025_nemo: 43 (43)
trop12_nemo: 4 (0)
GLORYS: 2 (2)
soda3: 3 (3)
TAO 0°N 110W (EUC 20% de Umax)
12-Feb-2024
Upwelling area Temperature
EUC temperature

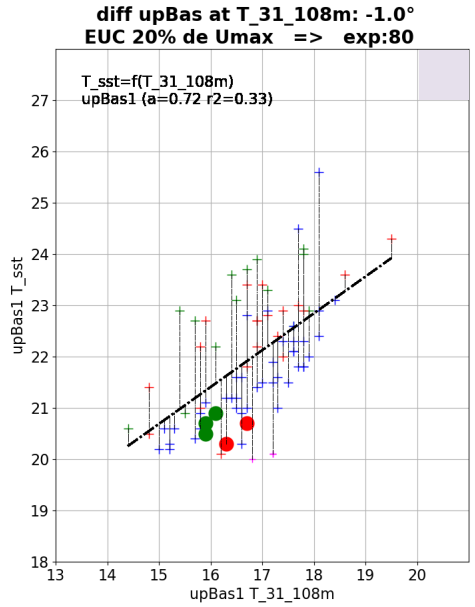

diff upBas : False
EUC 20% de Umax => exp:213
T_sst=f(T_31_108m)
upBas1 (a=0.85 r2=0.24)
upBas1 T_sst
upBas1 T_31_108m

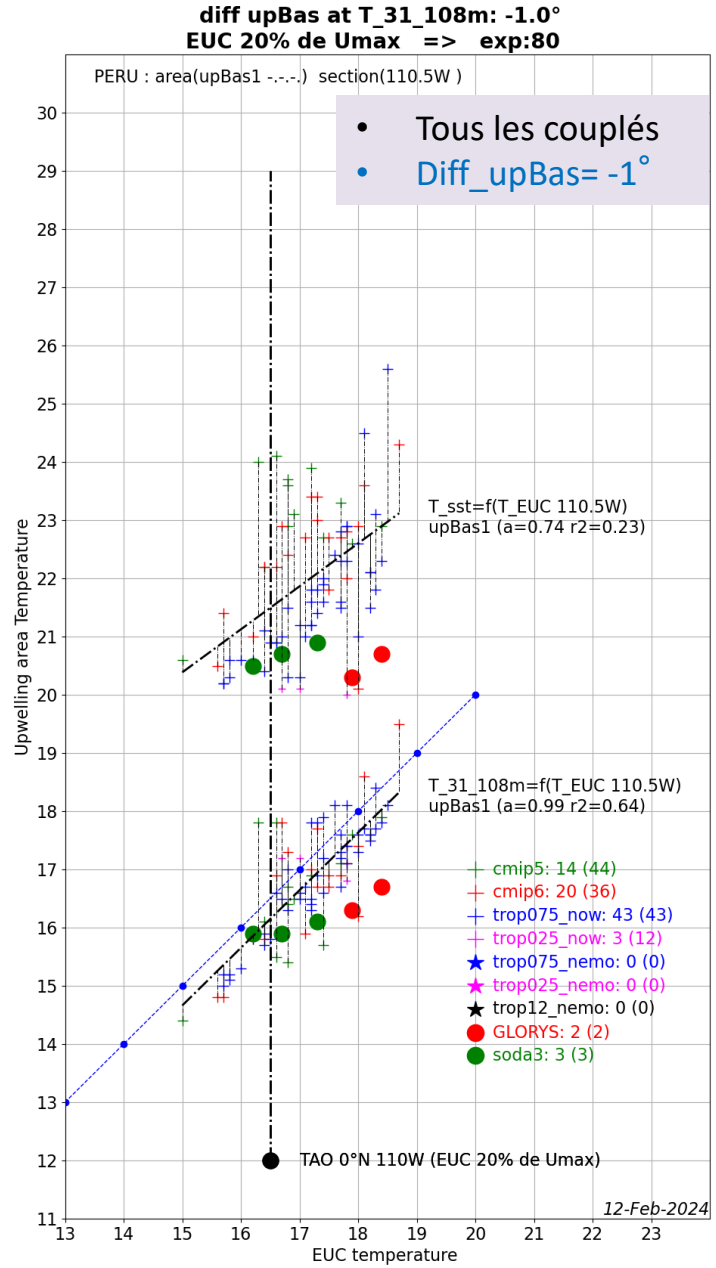

diff upBas : False
EUC 20% de Umax => exp:135
T_sst=f(T_31_108m)
upBas1 (a=0.58 r2=0.14)
upBas1 T_sst
upBas1 T_31_108m

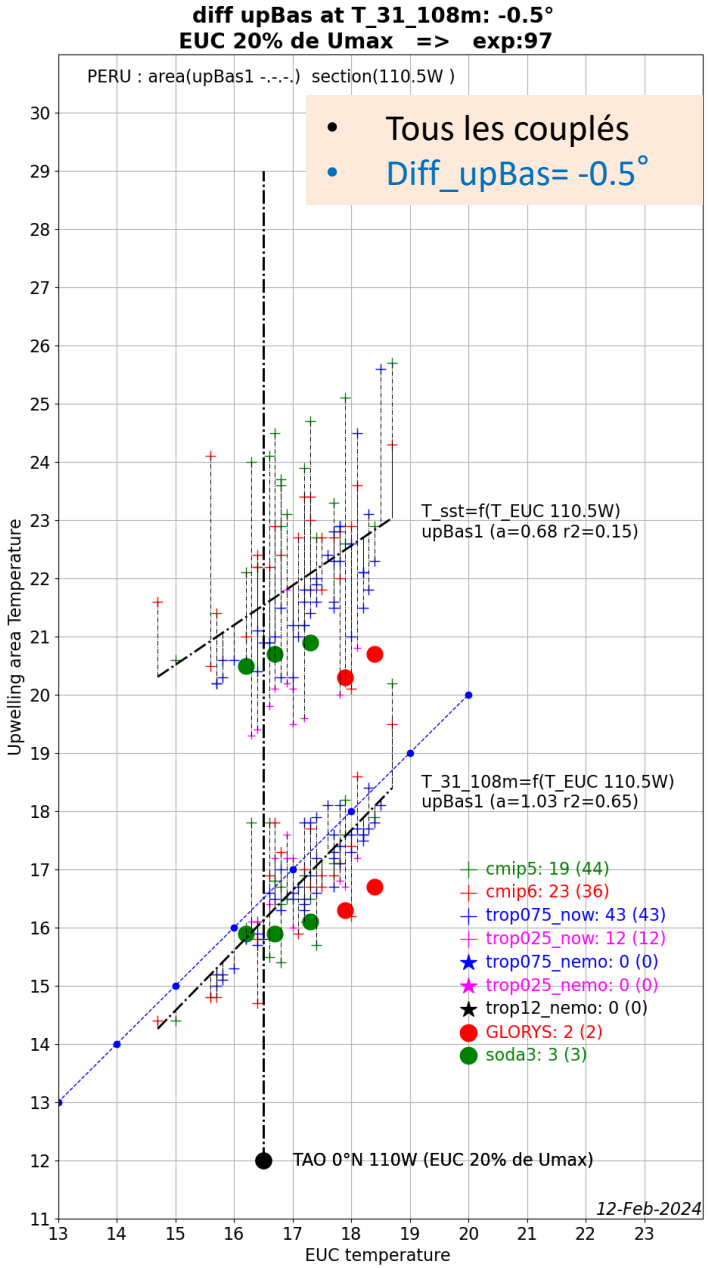

diff upBas : False
EUC 20% de Umax => exp:135
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Pas de sélection
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.32 r2=0.02)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.05 r2=0.58)
cmip5: 44 (44)
cmip6: 36 (36)
trop075_now: 43 (43)
trop025_now: 12 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
TAO 0°N 110W (EUC 20% de Umax)
12-Feb-2024
Upwelling area Temperature
EUC temperature

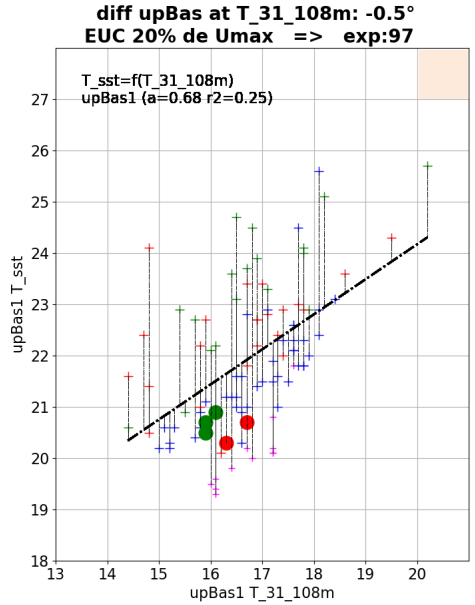

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:158
PERU : area(upBas1 -.-.-.) section(110.5W)
• Toutes les simus
• Diff_upBas= -1°
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.91 r2=0.26)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.00 r2=0.57)
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 31 (31)
trop025_nemo: 43 (43)
trop12_nemo: 4 (0)
GLORYS: 2 (2)
soda3: 3 (3)
TAO 0°N 110W (EUC 20% de Umax)
12-Feb-2024
Upwelling area Temperature
EUC temperature

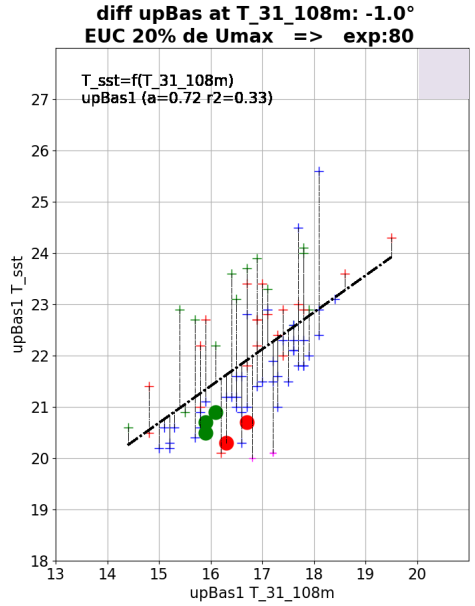

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:158
T_sst=f(T_31_108m)
upBas1 (a=0.88 r2=0.42)
upBas1 T_sst
upBas1 T_31_108m

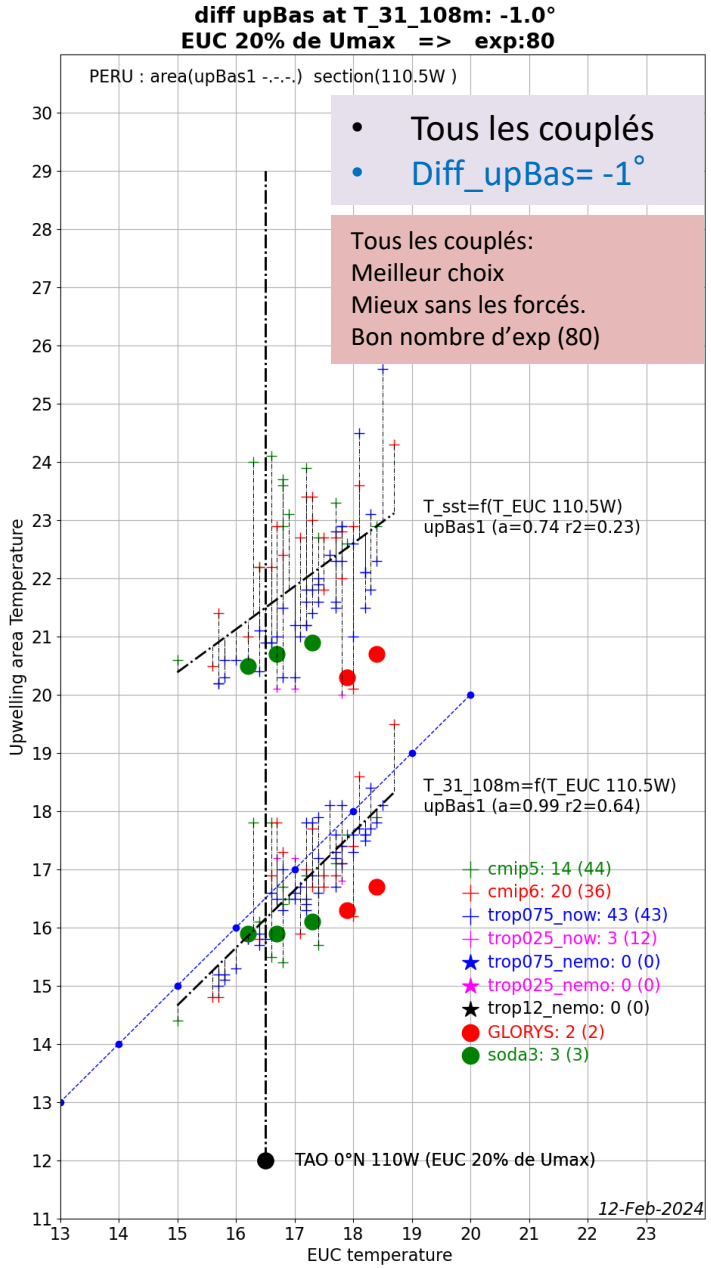

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_31_108m)
upBas1 (a=0.72 r2=0.33)
upBas1 T_sst
upBas1 T_31_108m

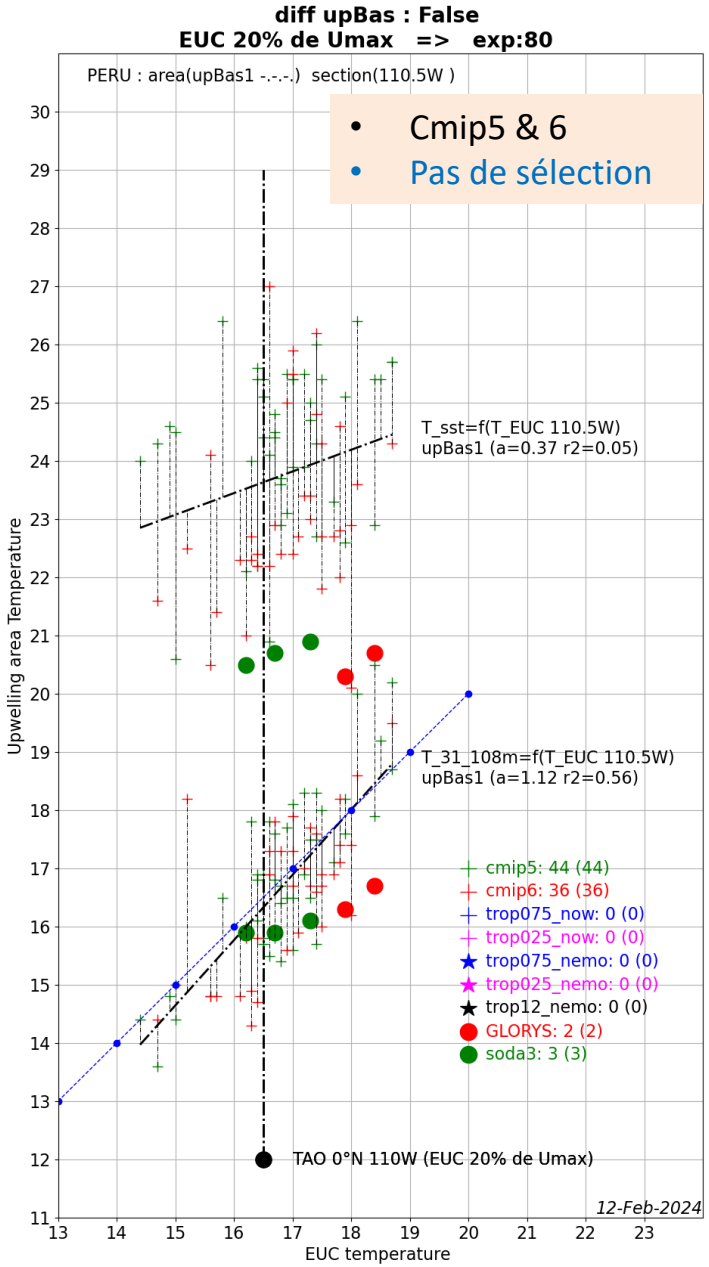

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=0.99 r2=0.64)
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
TAO 0°N 110W (EUC 20% de Umax)
12-Feb-2024
Upwelling area Temperature
EUC temperature

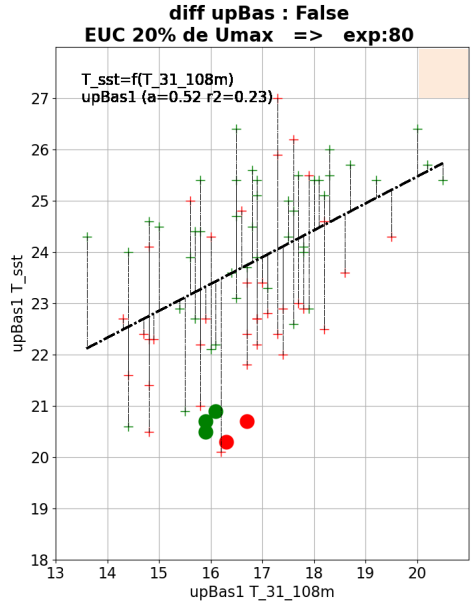

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:97
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -0.5°
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.68 r2=0.15)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.03 r2=0.65)
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 43 (43)
trop025_now: 12 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
TAO 0°N 110W (EUC 20% de Umax)
12-Feb-2024
Upwelling area Temperature
EUC temperature

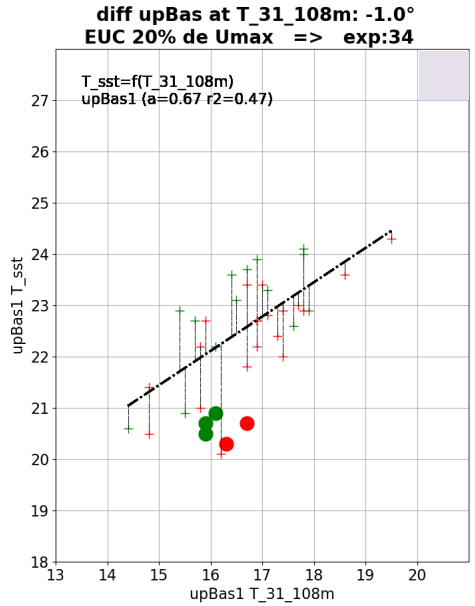

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:97
T_sst=f(T_31_108m)
upBas1 (a=0.68 r2=0.25)
upBas1 T_sst
upBas1 T_31_108m

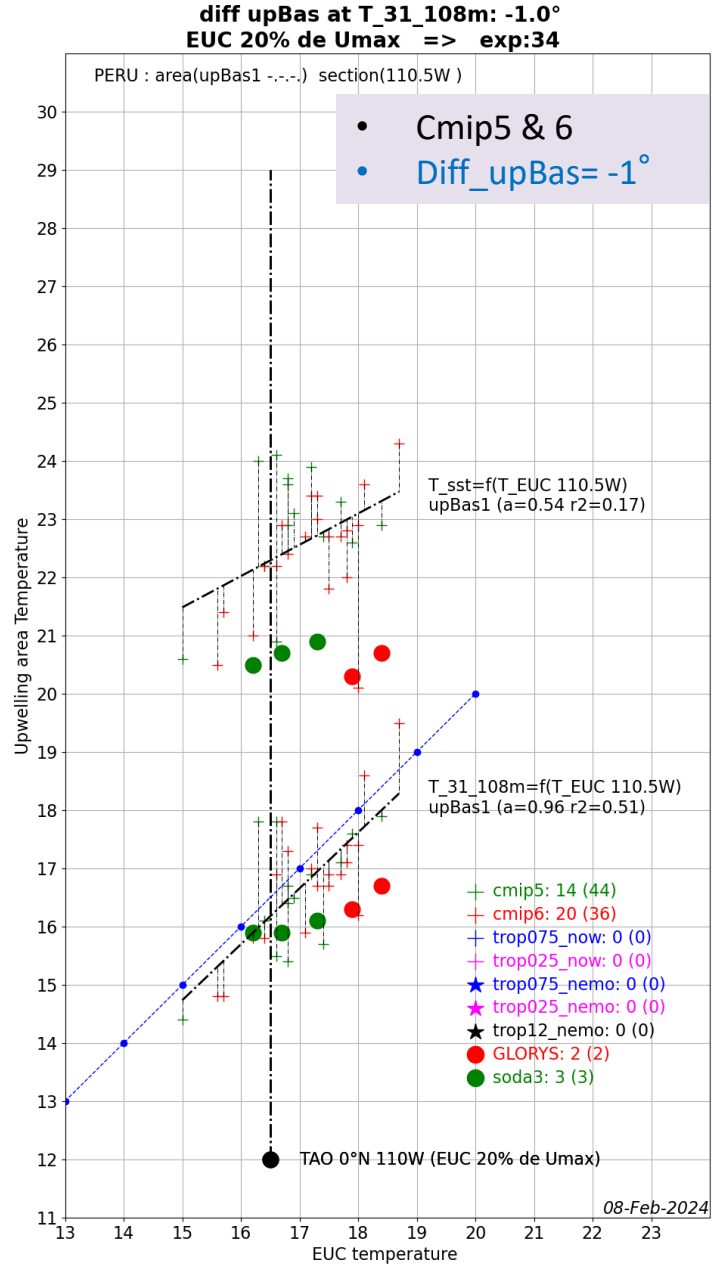

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_31_108m)
upBas1 (a=0.72 r2=0.33)
upBas1 T_sst
upBas1 T_31_108m

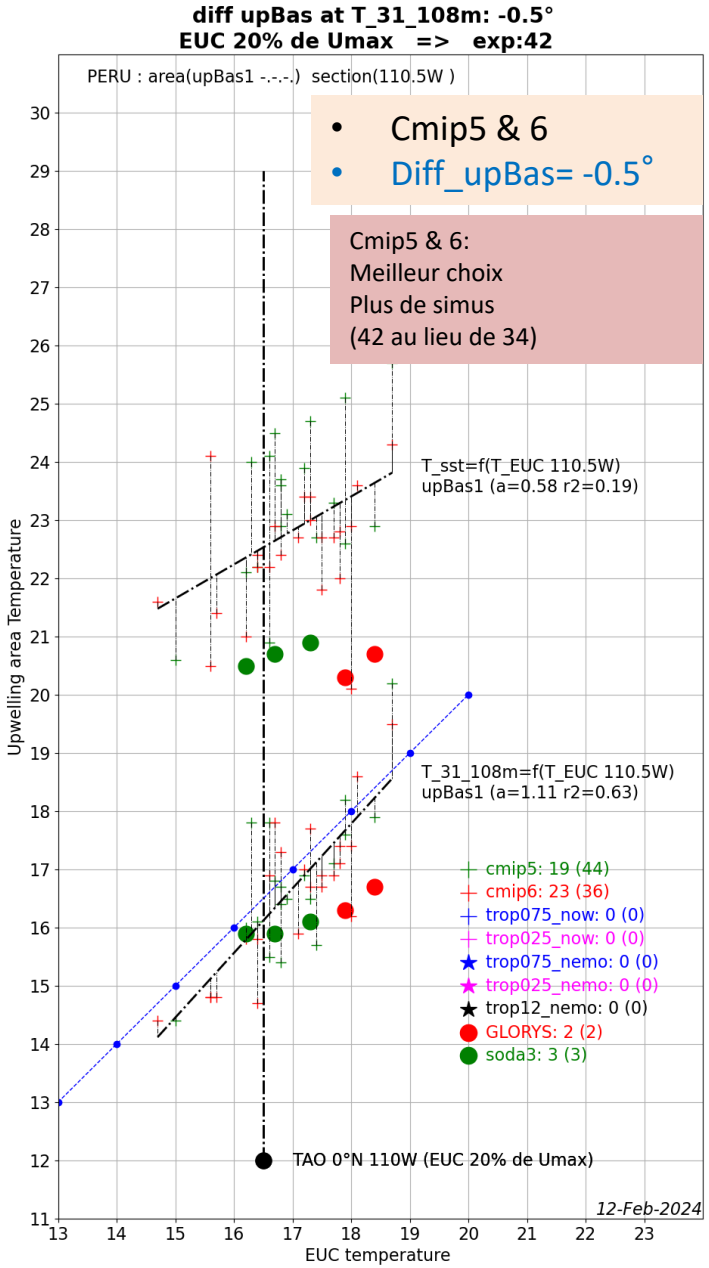

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
Tous les couplés:
Meilleur choix
Mieux sans les forcés.
Bon nombre d'exp (80)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=0.99 r2=0.64)
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
TAO 0°N 110W (EUC 20% de Umax)
12-Feb-2024
Upwelling area Temperature
EUC temperature

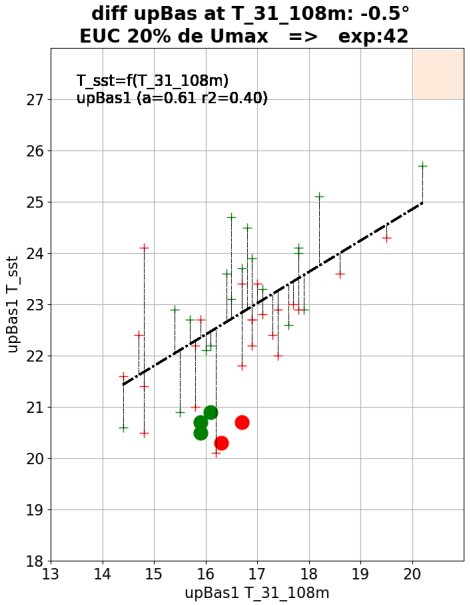

diff upBas : False
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Pas de sélection
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.37 r2=0.05)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.12 r2=0.56)
cmip5: 44 (44)
cmip6: 36 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
TAO 0°N 110W (EUC 20% de Umax)
12-Feb-2024
Upwelling area Temperature
EUC temperature

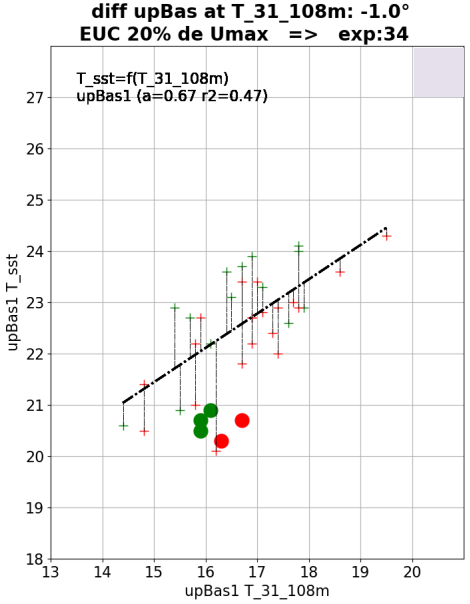

diff upBas : False
EUC 20% de Umax => exp:80
T_sst=f(T_31_108m)
upBas1 (a=0.52 r2=0.23)
upBas1 T_sst
upBas1 T_31_108m

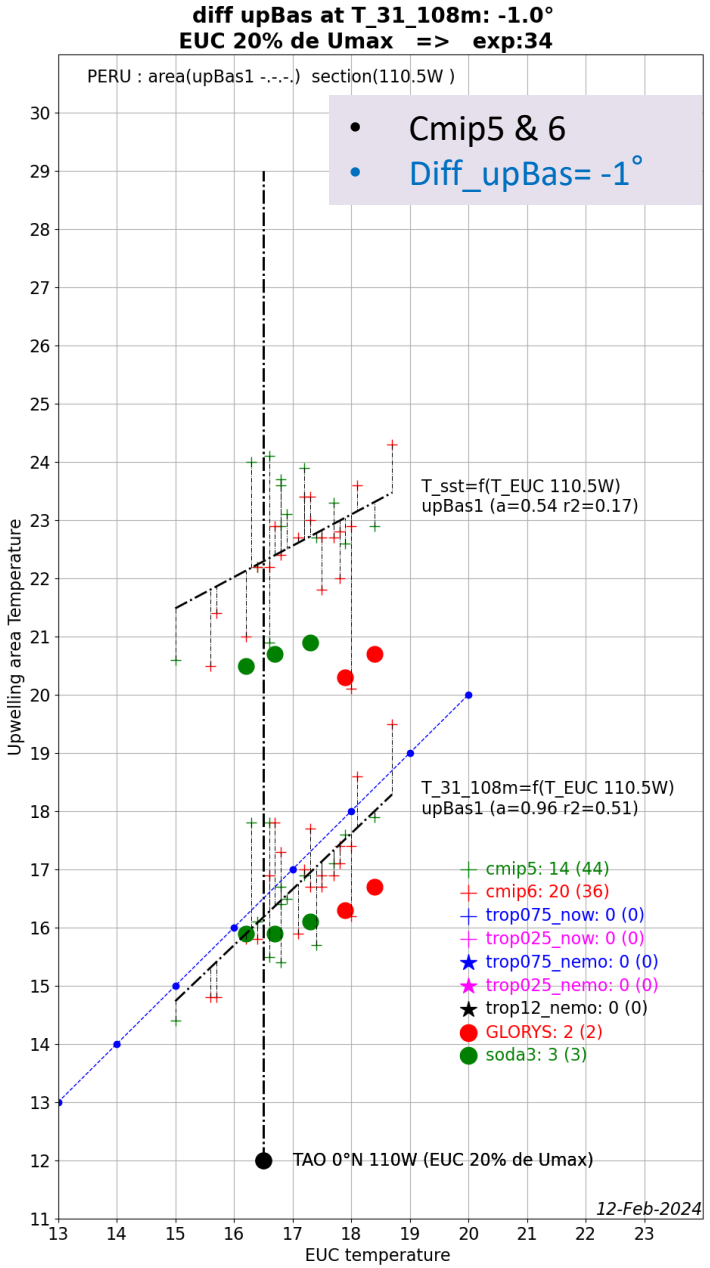

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:34
T_sst=f(T_31_108m)
upBas1 (a=0.67 r2=0.47)
upBas1 T_sst
upBas1 T_31_108m


diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:34
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -1°
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.54 r2=0.17)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=0.96 r2=0.51)
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
TAO 0°N 110W (EUC 20% de Umax)
08-Feb-2024
Upwelling area Temperature
EUC temperature

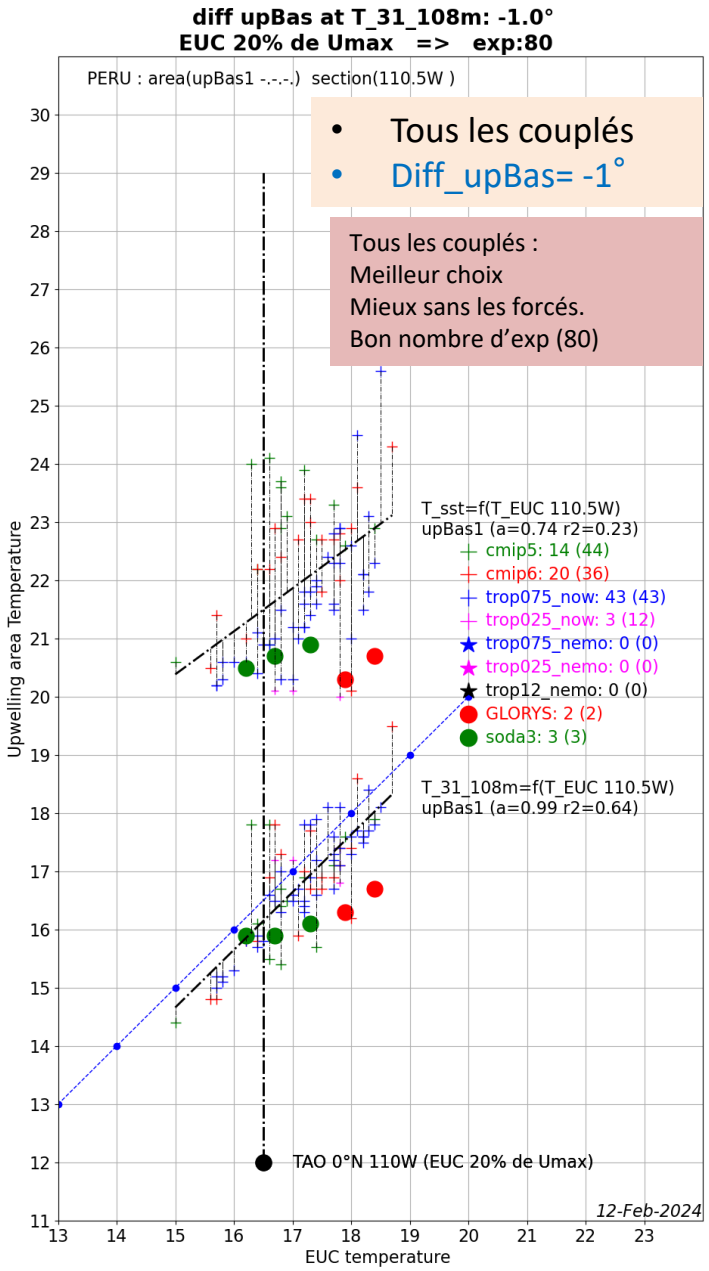

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
Cmip5 & 6:
Meilleur choix
Plus de simus
(42 au lieu de 34)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.11 r2=0.63)
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
TAO 0°N 110W (EUC 20% de Umax)
12-Feb-2024
Upwelling area Temperature
EUC temperature

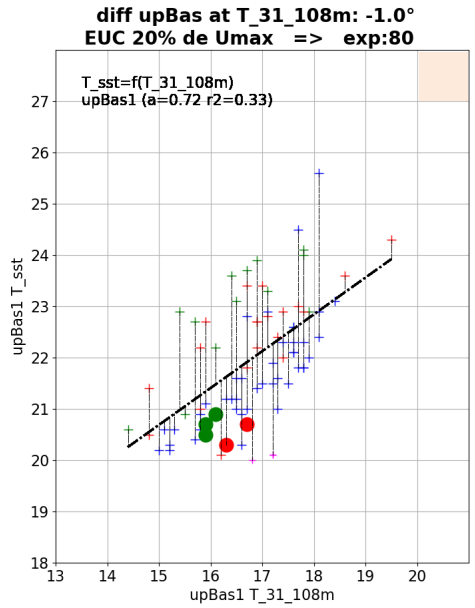

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_31_108m)
upBas1 (a=0.61 r2=0.40)
upBas1 T_sst
upBas1 T_31_108m

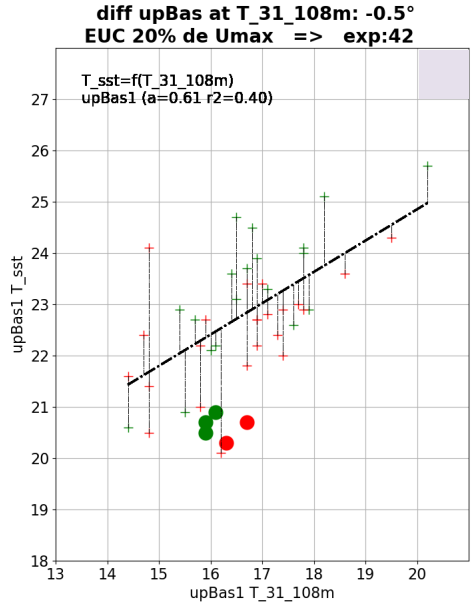

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:34
T_sst=f(T_31_108m)
upBas1 (a=0.67 r2=0.47)
upBas1 T_sst
upBas1 T_31_108m

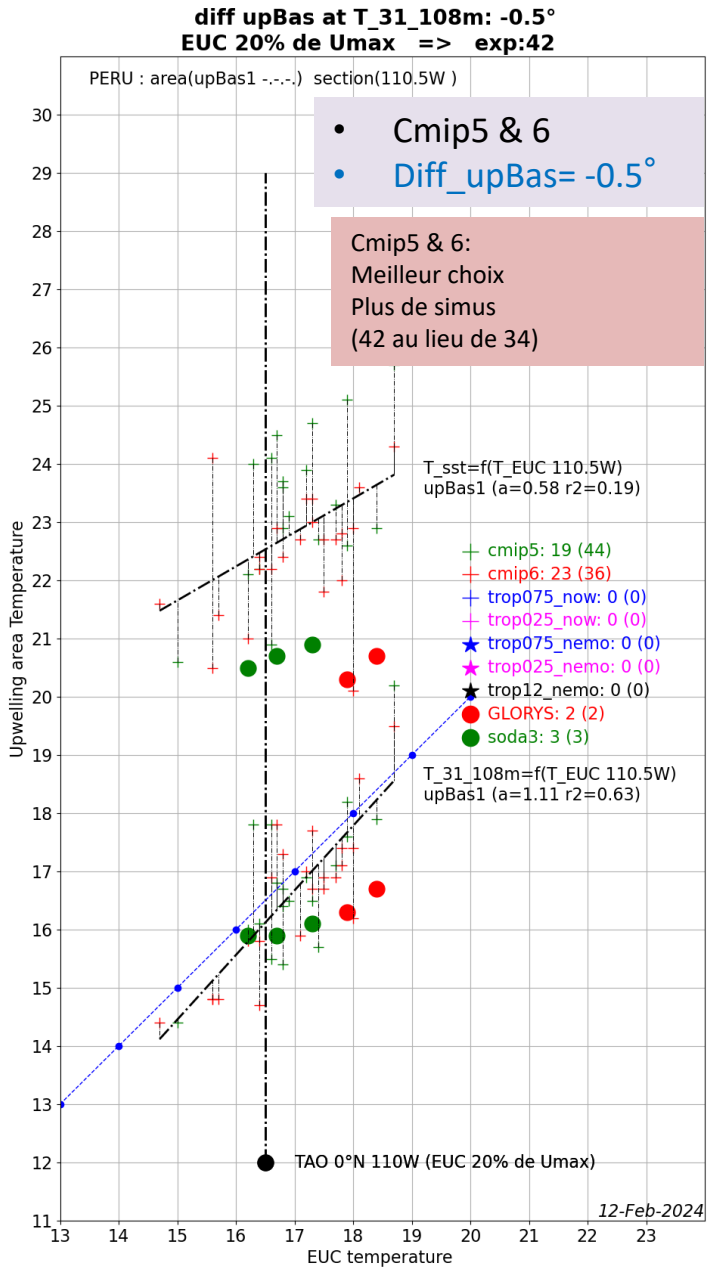

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:34
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -1°
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.54 r2=0.17)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=0.96 r2=0.51)
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
TAO 0°N 110W (EUC 20% de Umax)
12-Feb-2024
Upwelling area Temperature
EUC temperature

Bilan :


diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
Tous les couplés :
Meilleur choix
Mieux sans les forcés.
Bon nombre d'exp (80)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=0.99 r2=0.64)
TAO 0°N 110W (EUC 20% de Umax)
12-Feb-2024
Upwelling area Temperature
EUC temperature


diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_31_108m)
upBas1 (a=0.72 r2=0.33)
upBas1 T_sst
upBas1 T_31_108m

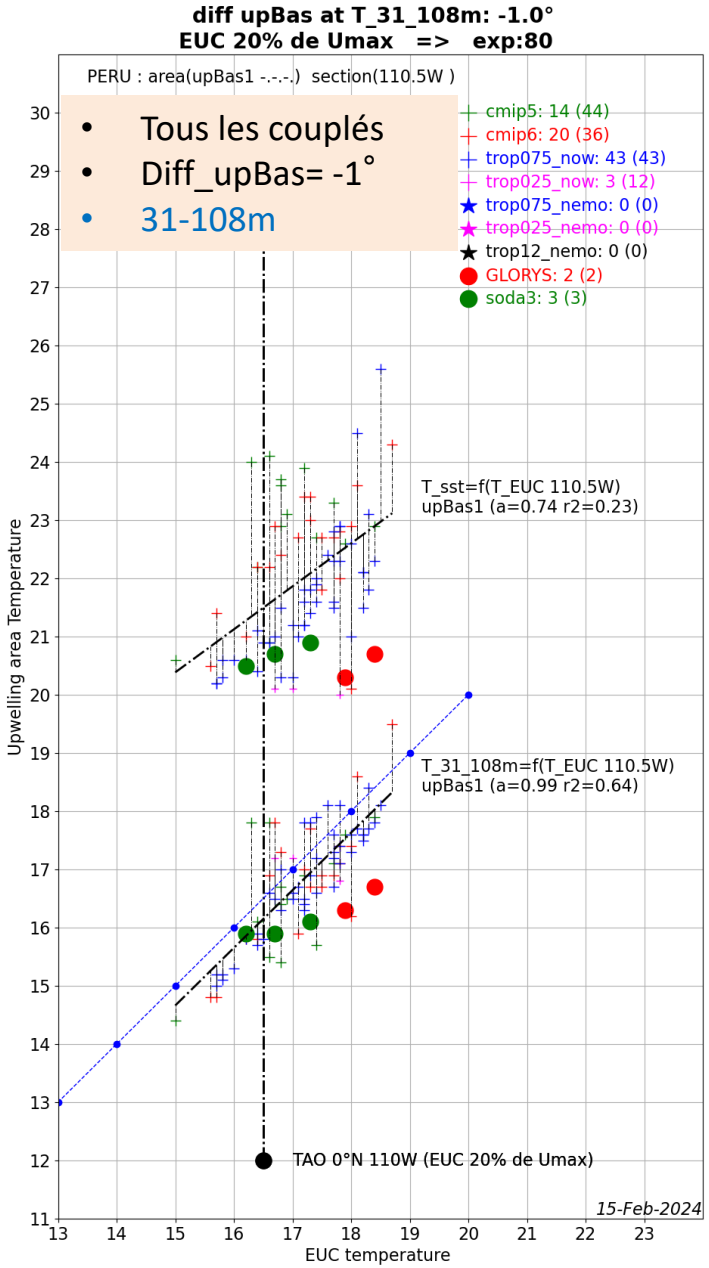

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_31_108m)
upBas1 (a=0.61 r2=0.40)
upBas1 T_sst
upBas1 T_31_108m

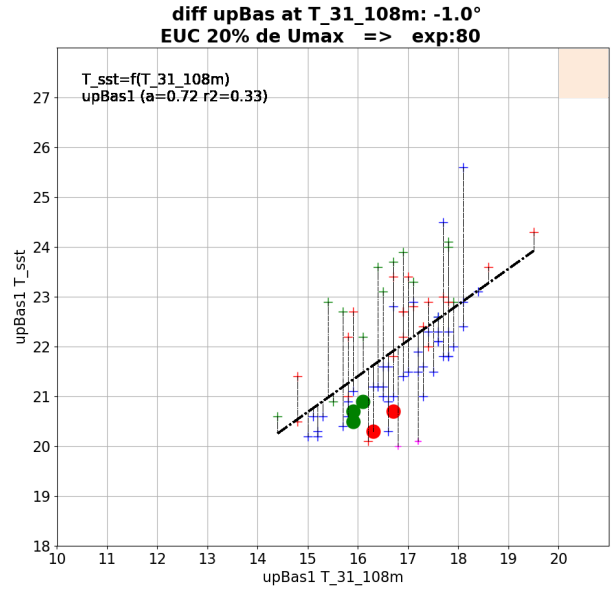

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
Cmip5 & 6:
Meilleur choix
Plus de simus
(42 au lieu de 34)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.11 r2=0.63)
TAO 0°N 110W (EUC 20% de Umax)
12-Feb-2024
Upwelling area Temperature
EUC temperature

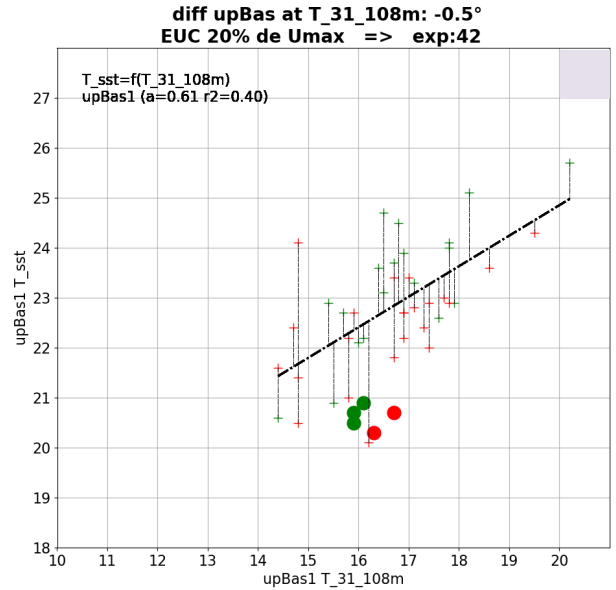
T_up=f(T_EUC, 110W, 20%, 31_108m) : 31_108m / 54m / 87m / 120m / 181m

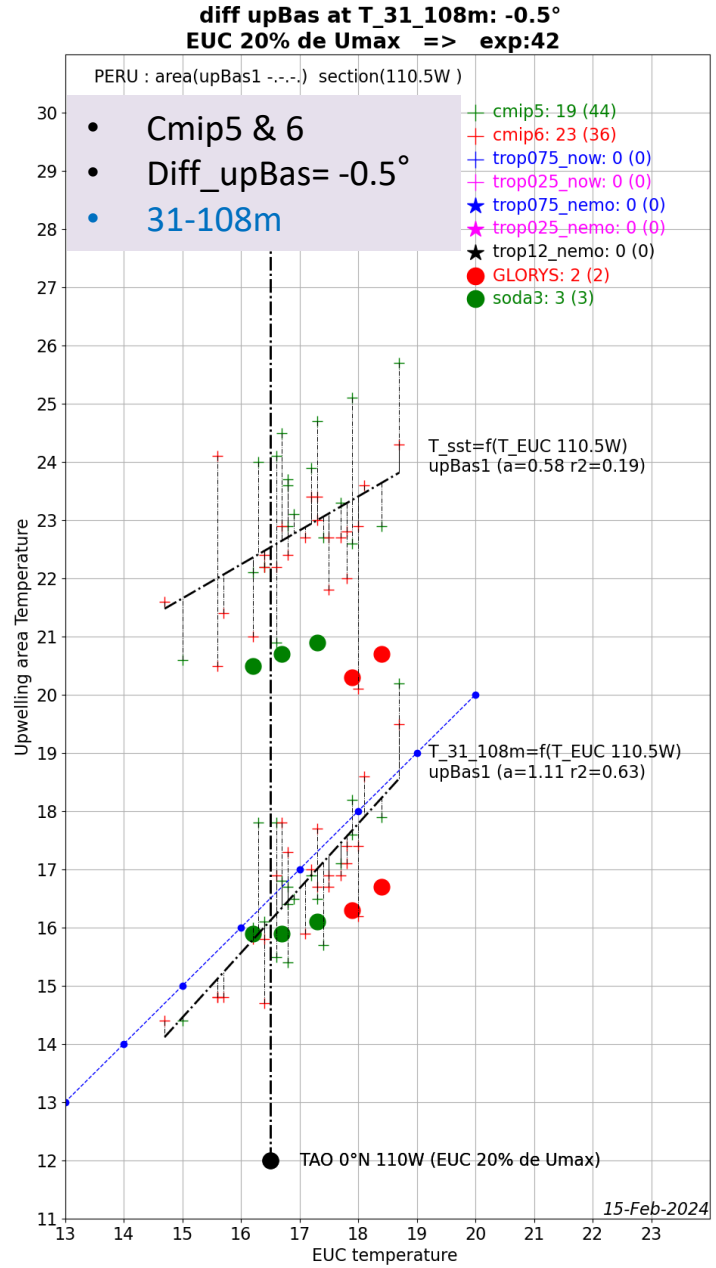
- Tous les couplés / Diff_upBas= -1°
- Cmip5 & 6 / Diff_upBas= -0.5°

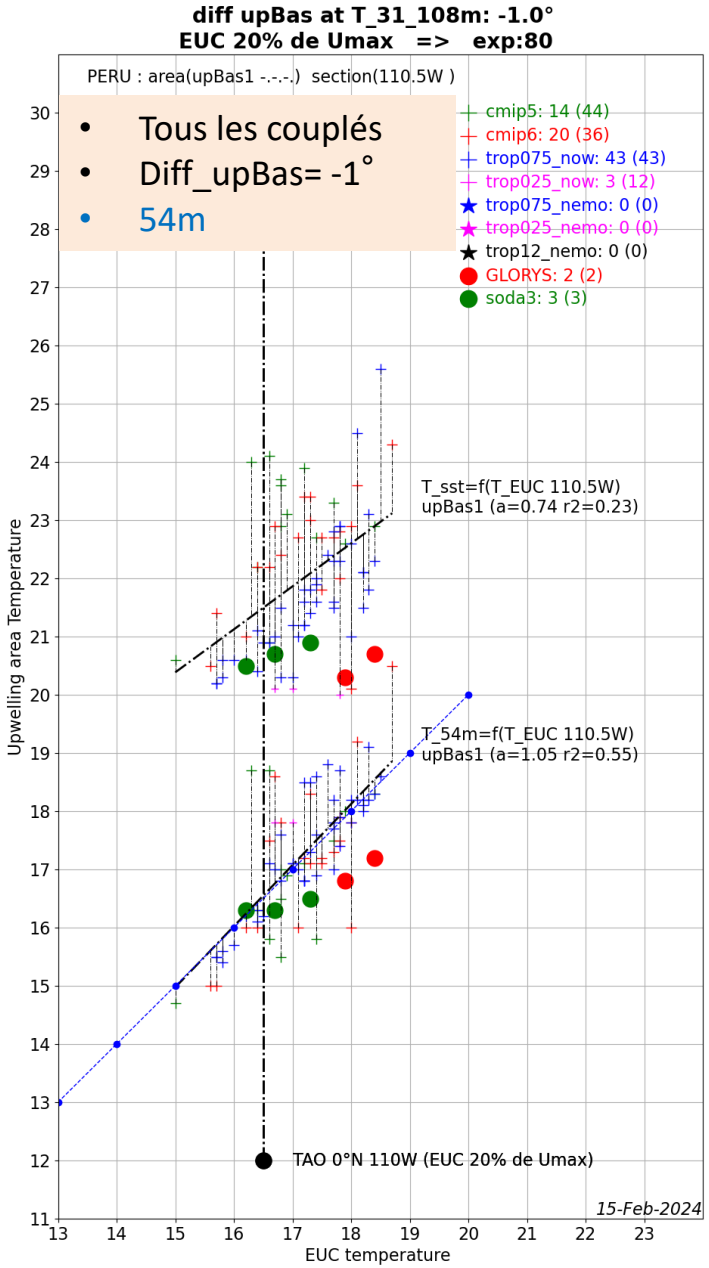
- Compare 31_108m / 54m / 87m / 120m / 181m
- *Aussi pour vérifier que le cumul 31_108m est OK*

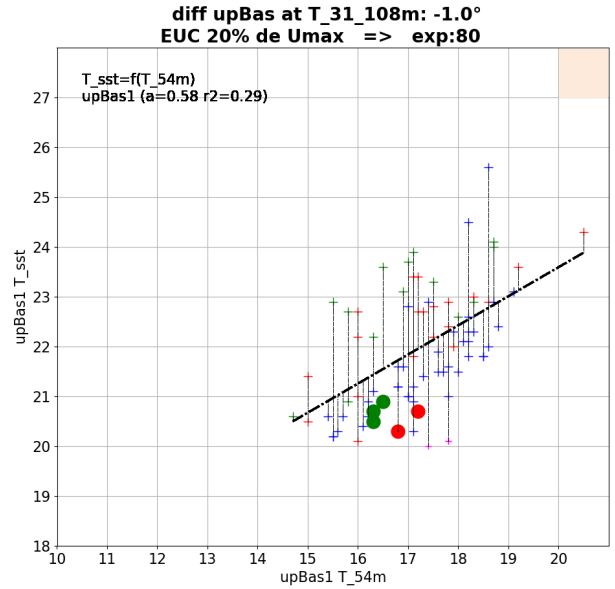

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 31-108m
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=0.99 r2=0.64)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

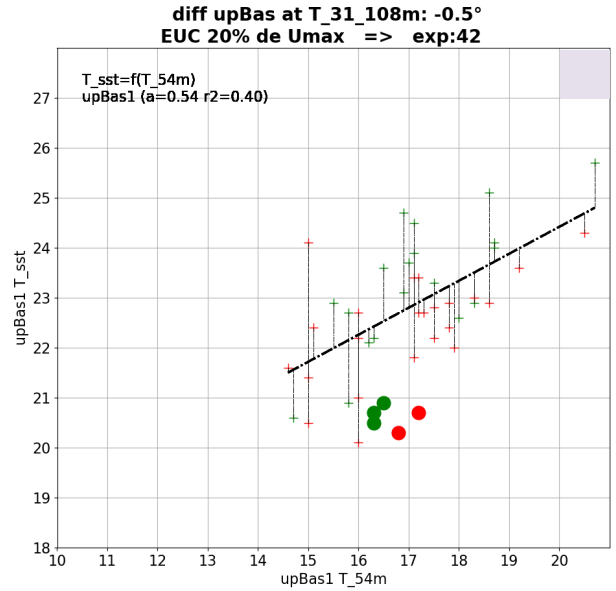

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_31_108m)
upBas1 (a=0.72 r2=0.33)
upBas1 T_sst
upBas1 T_31_108m

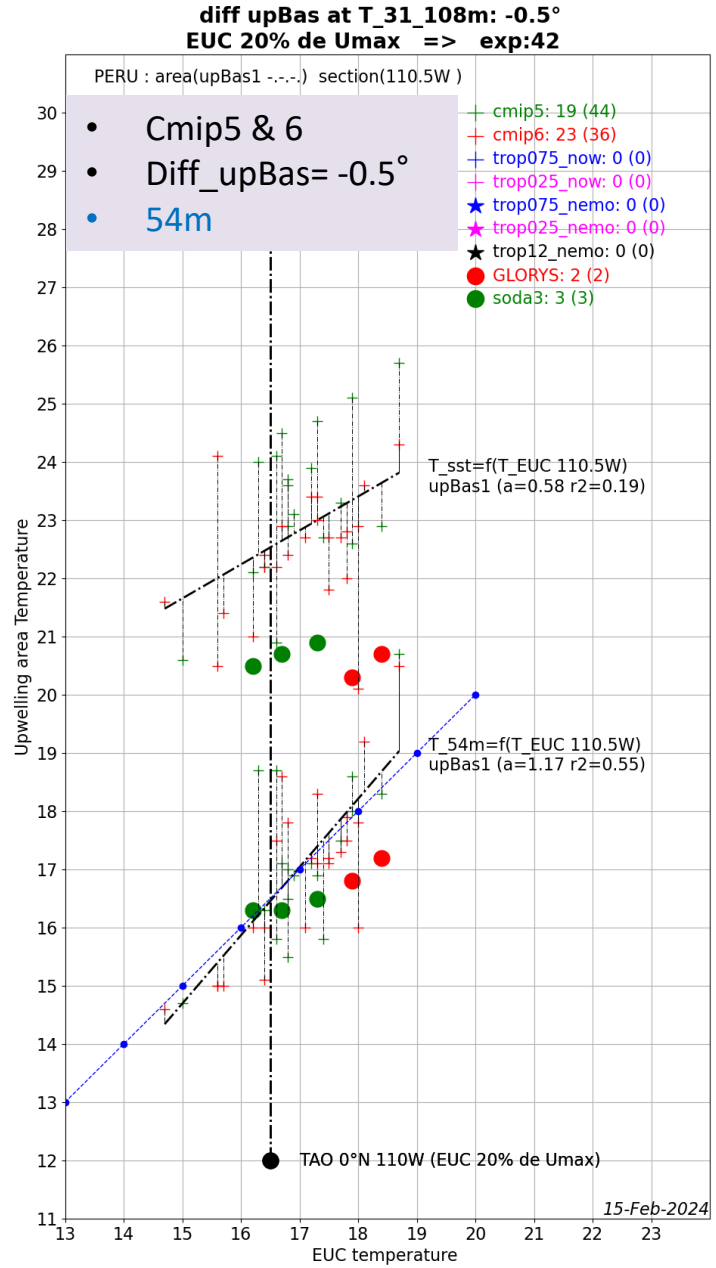

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_31_108m)
upBas1 (a=0.61 r2=0.40)
upBas1 T_sst
upBas1 T_31_108m

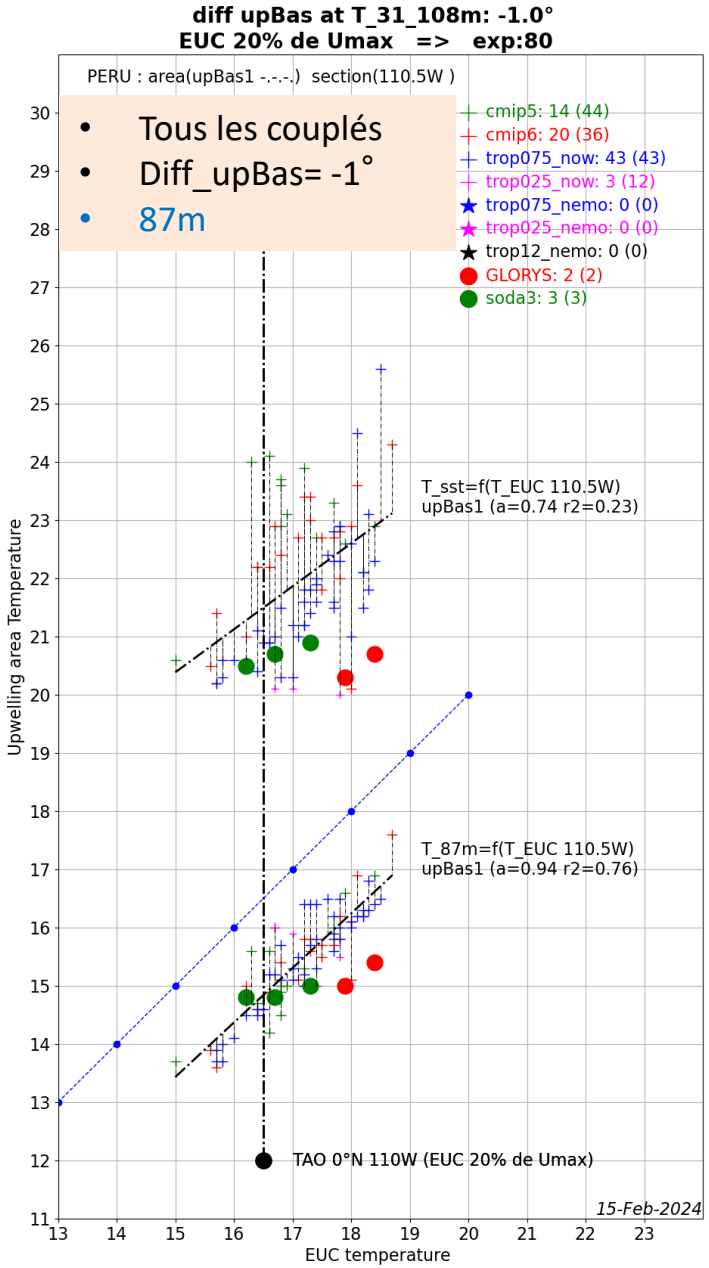

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 31-108m
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.11 r2=0.63)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

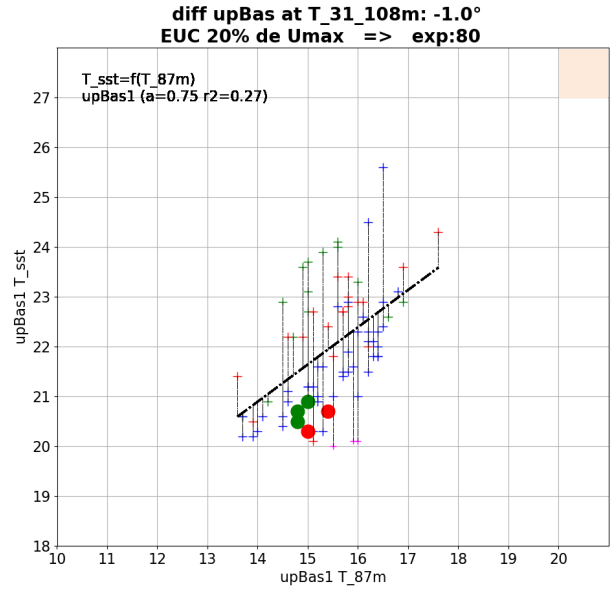

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 54m
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_54m=f(T_EUC 110.5W)
upBas1 (a=1.05 r2=0.55)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

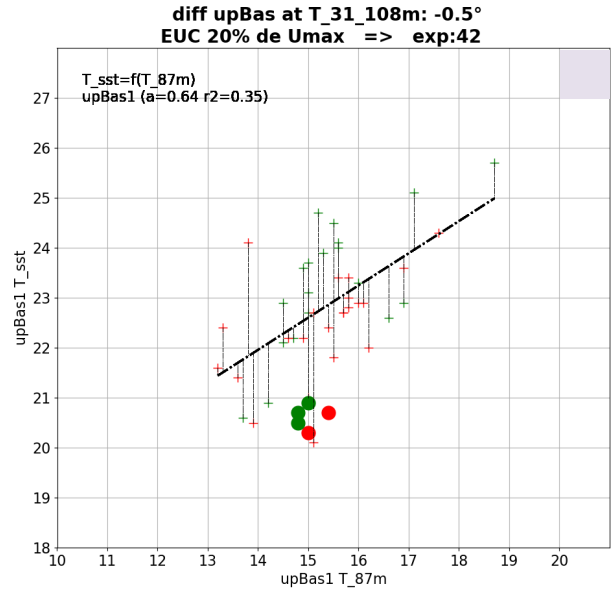

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_54m)
upBas1 (a=0.58 r2=0.29)
upBas1 T_sst
upBas1 T_54m

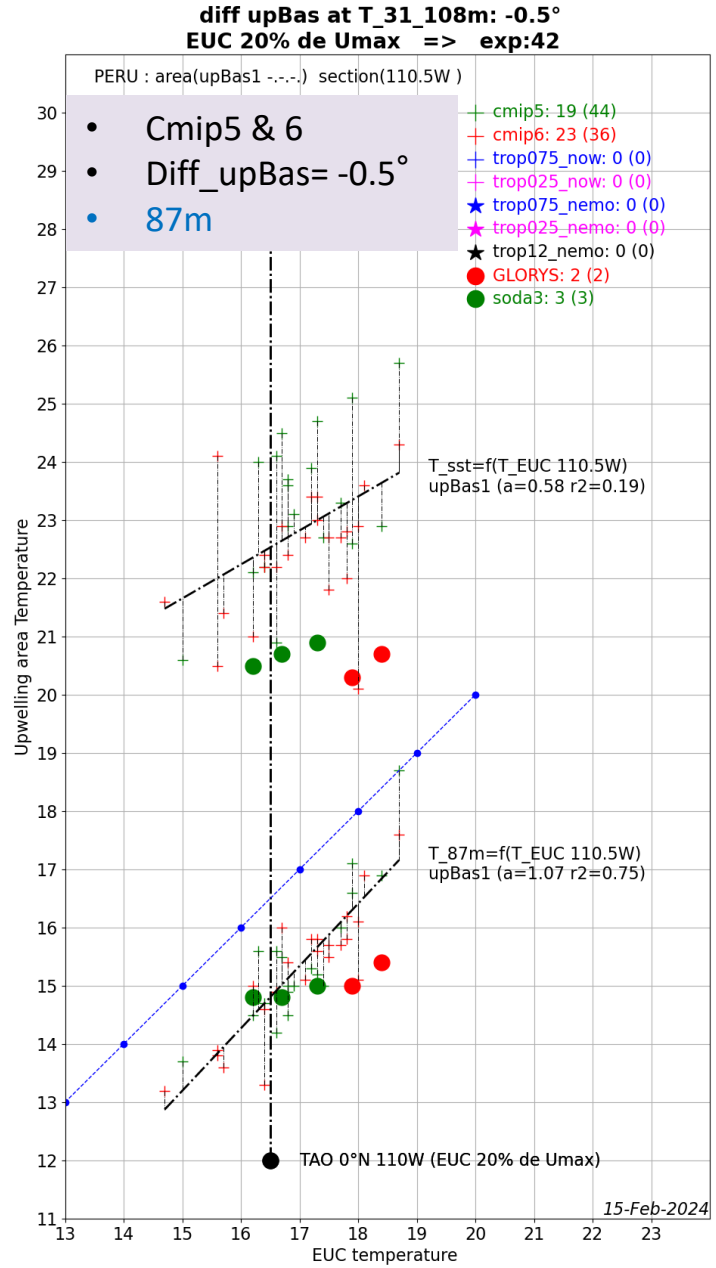

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_54m)
upBas1 (a=0.54 r2=0.40)
upBas1 T_sst
upBas1 T_54m

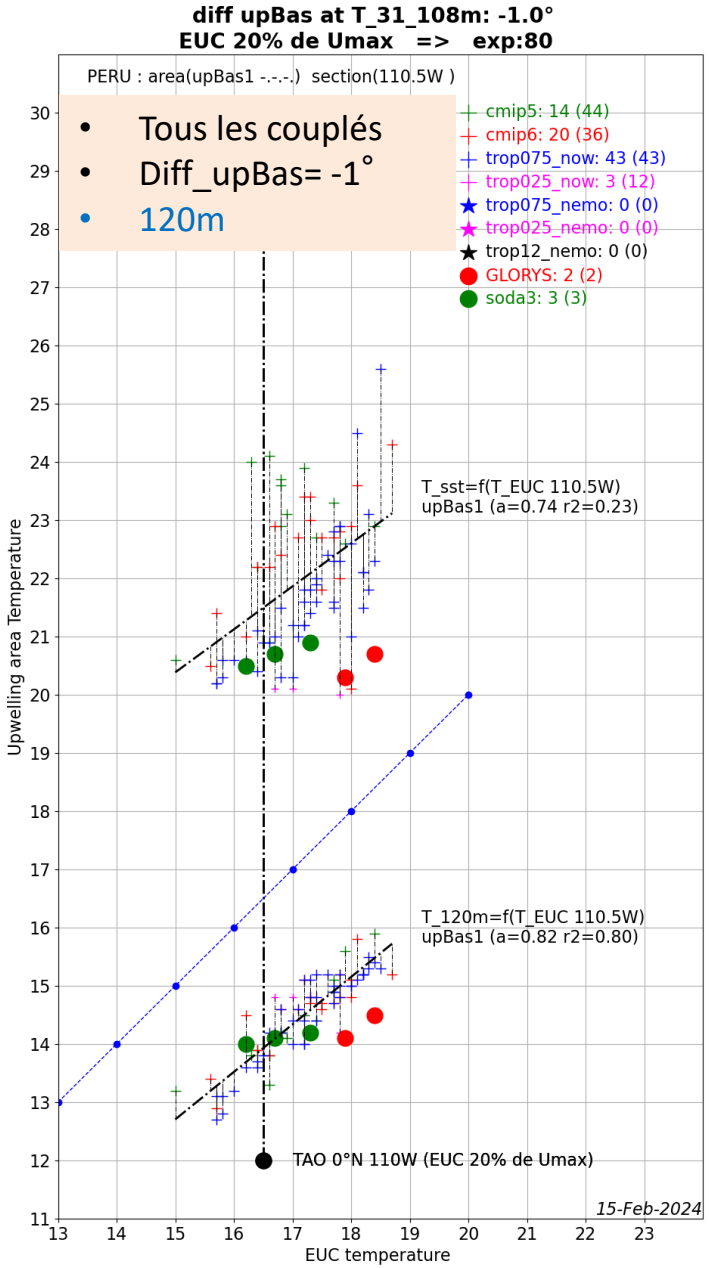

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 54m
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_54m=f(T_EUC 110.5W)
upBas1 (a=1.17 r2=0.55)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

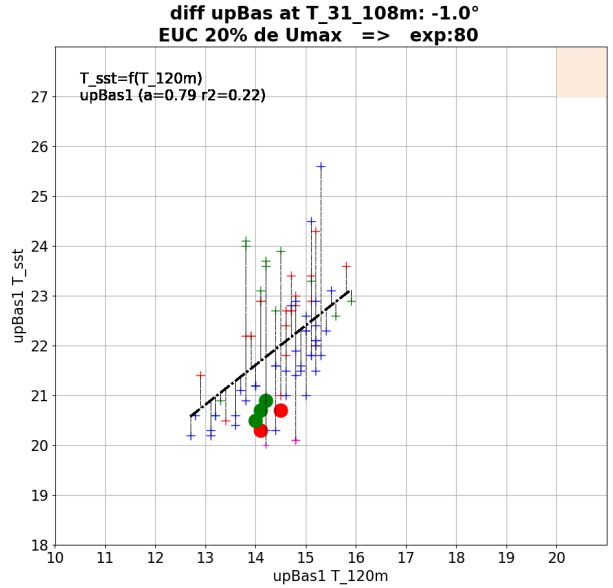

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 87m
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_87m=f(T_EUC 110.5W)
upBas1 (a=0.94 r2=0.76)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

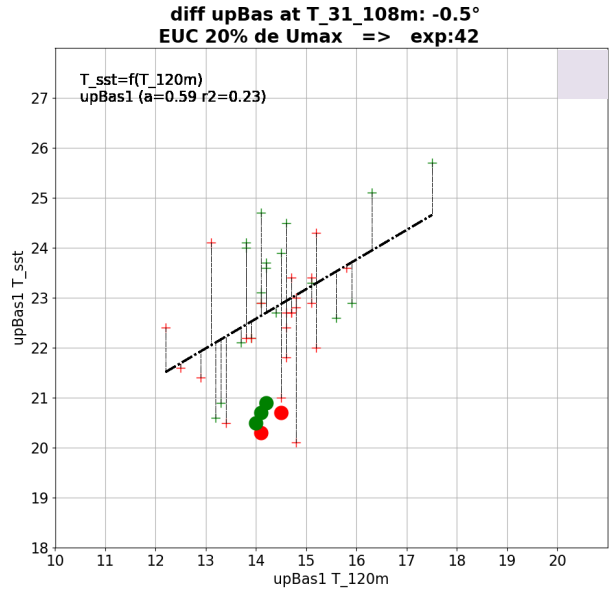

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_87m)
upBas1 (a=0.75 r2=0.27)
upBas1 T_sst
upBas1 T_87m

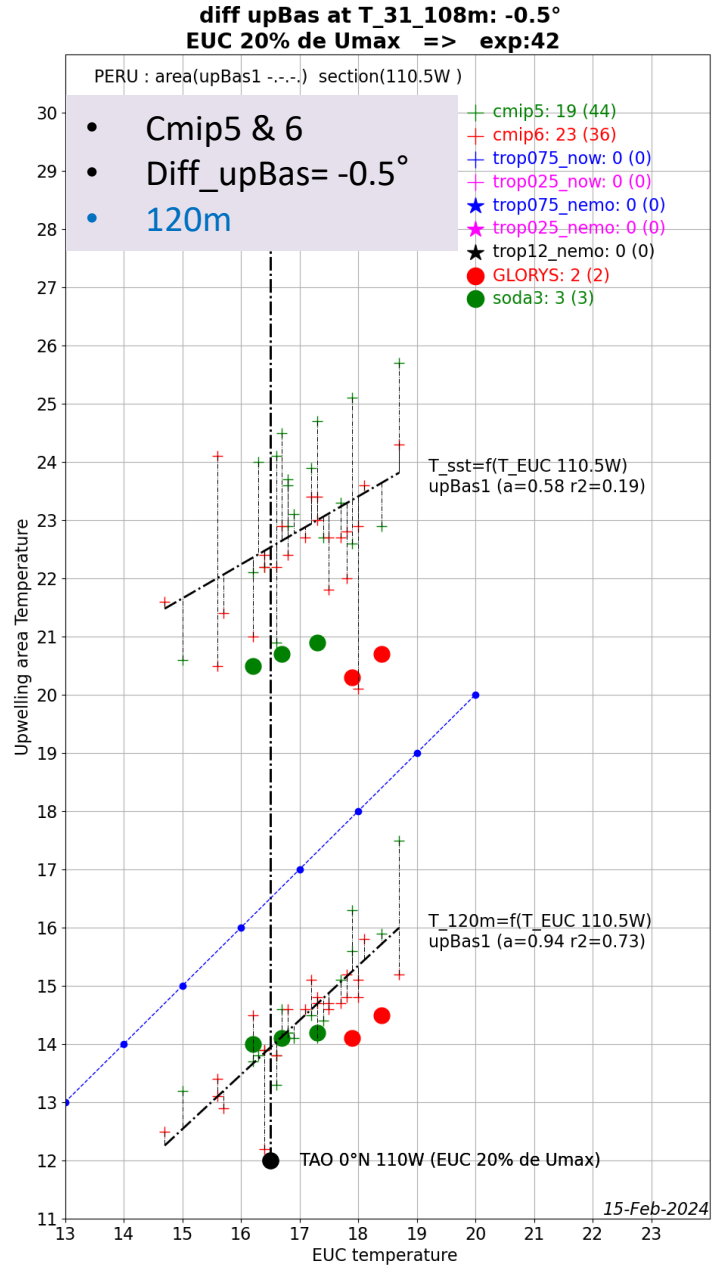

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_87m)
upBas1 (a=0.64 r2=0.35)
upBas1 T_sst
upBas1 T_87m

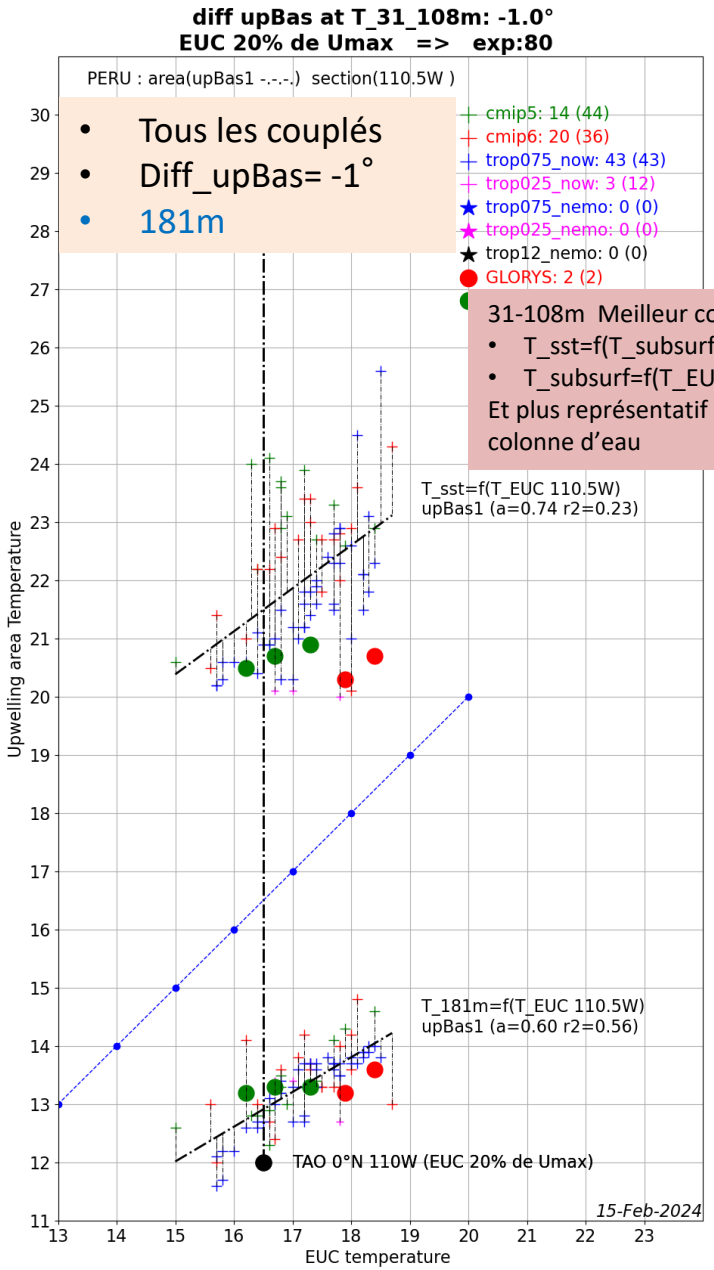

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 87m
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_87m=f(T_EUC 110.5W)
upBas1 (a=1.07 r2=0.75)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature


diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 120m
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_120m=f(T_EUC 110.5W)
upBas1 (a=0.82 r2=0.80)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature


diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_120m)
upBas1 (a=0.79 r2=0.22)
upBas1 T_sst
upBas1 T_120m

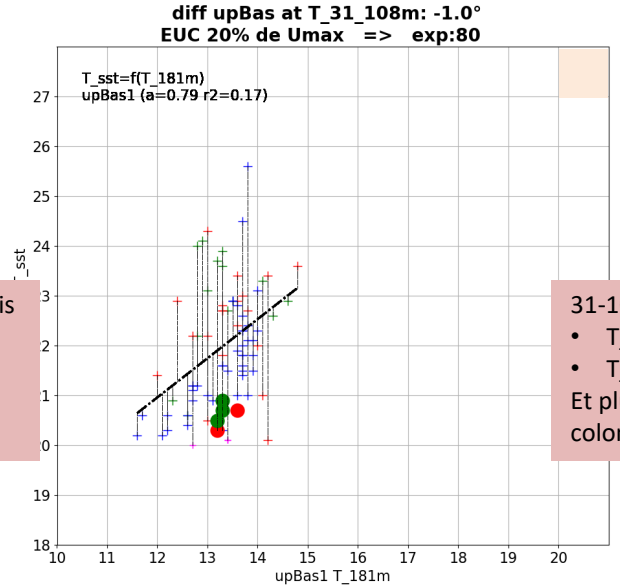

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_120m)
upBas1 (a=0.59 r2=0.23)
upBas1 T_sst
upBas1 T_120m

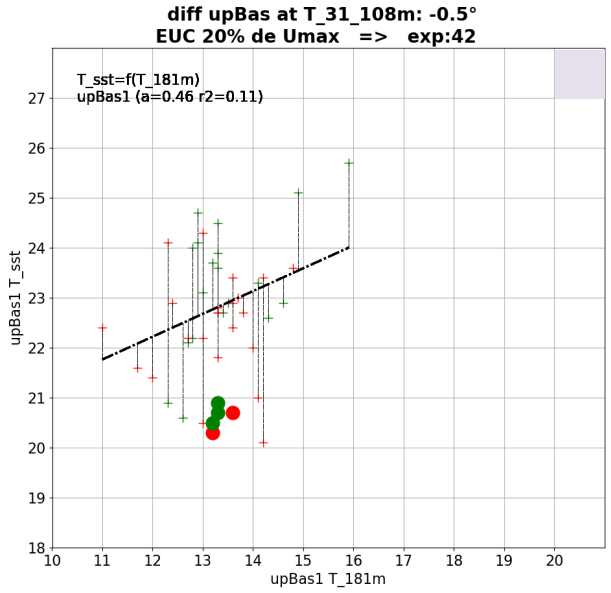

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 120m
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_120m=f(T_EUC 110.5W)
upBas1 (a=0.94 r2=0.73)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature



31-108m Meilleur compromis
- T_sst=f(T_subsurf)
- T_subsurf=f(T_EUC)

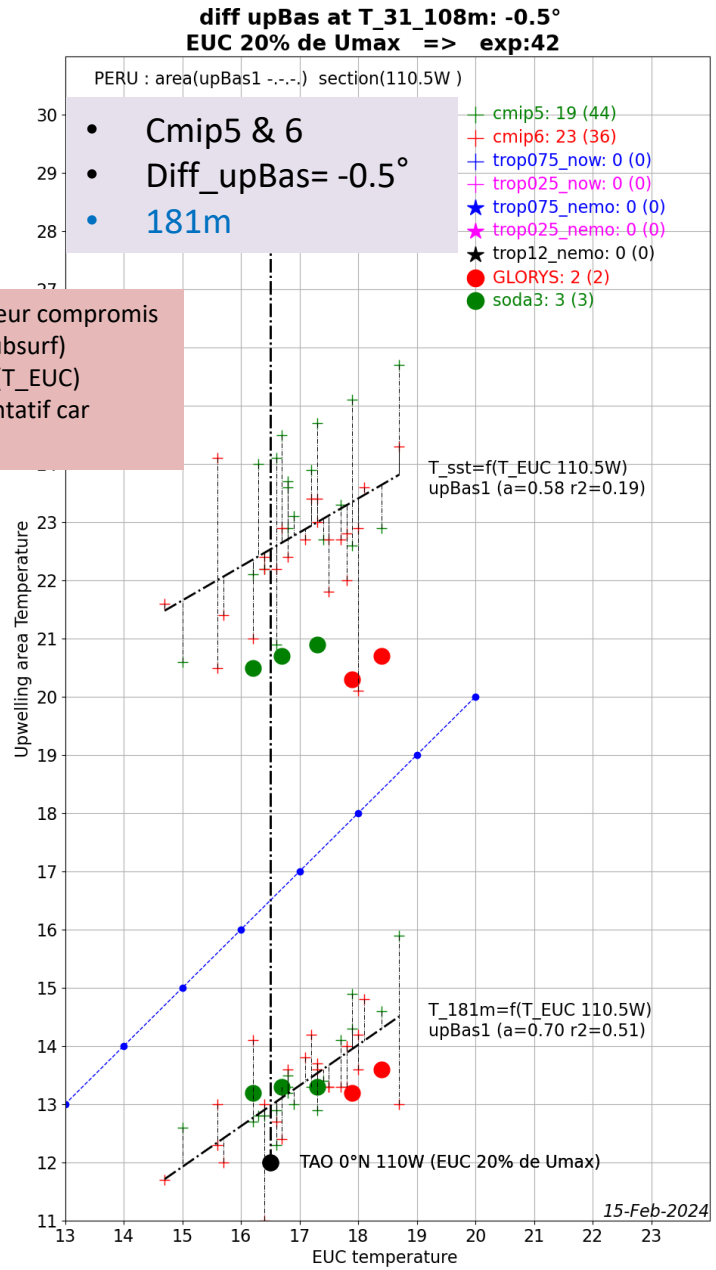
Et plus représentatif car colonne d'eau



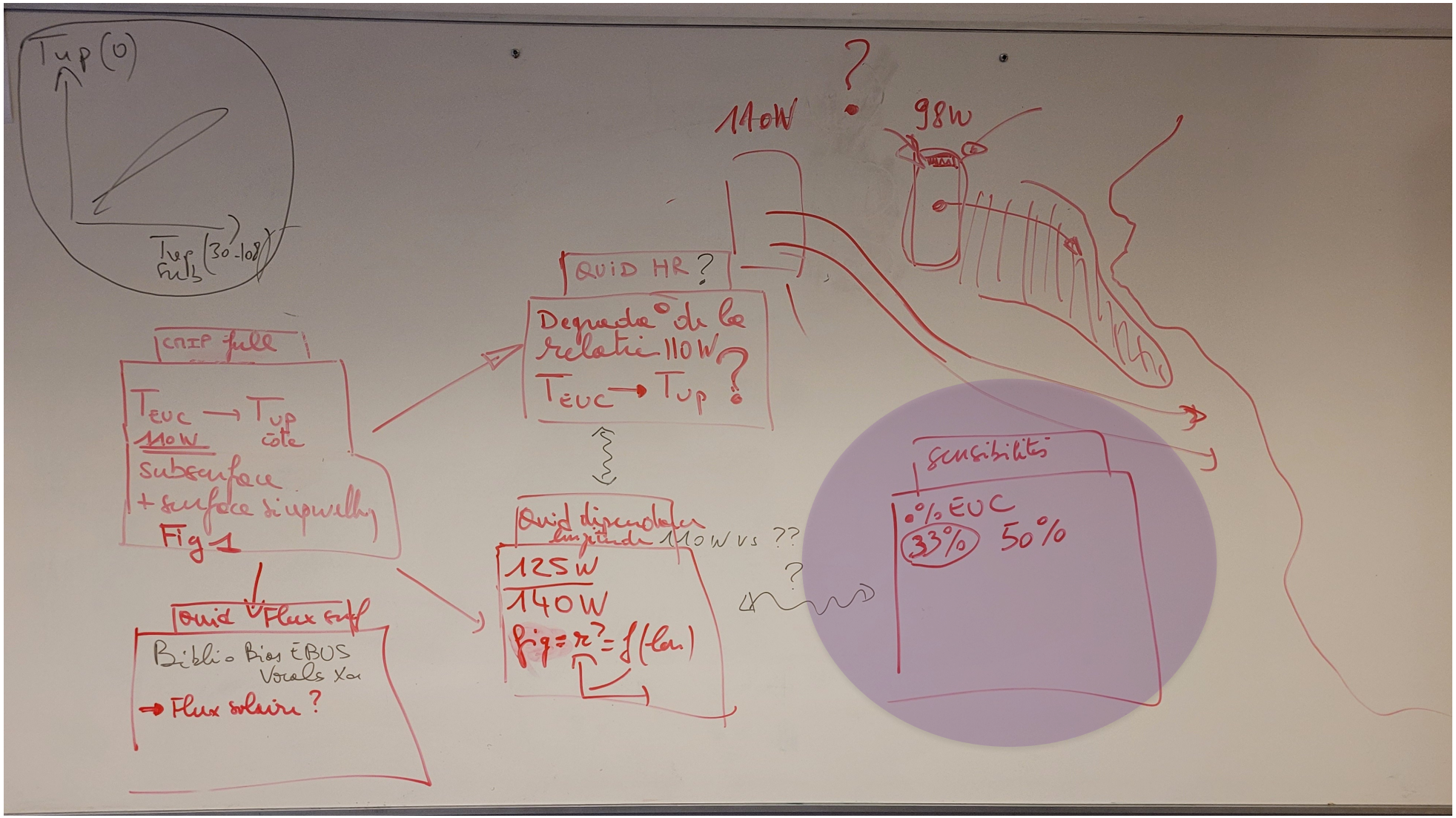


31-108m Meilleur compromis
- T_sst=f(T_subsurf)
- T_subsurf=f(T_EUC)

Et plus représentatif car colonne d'eau



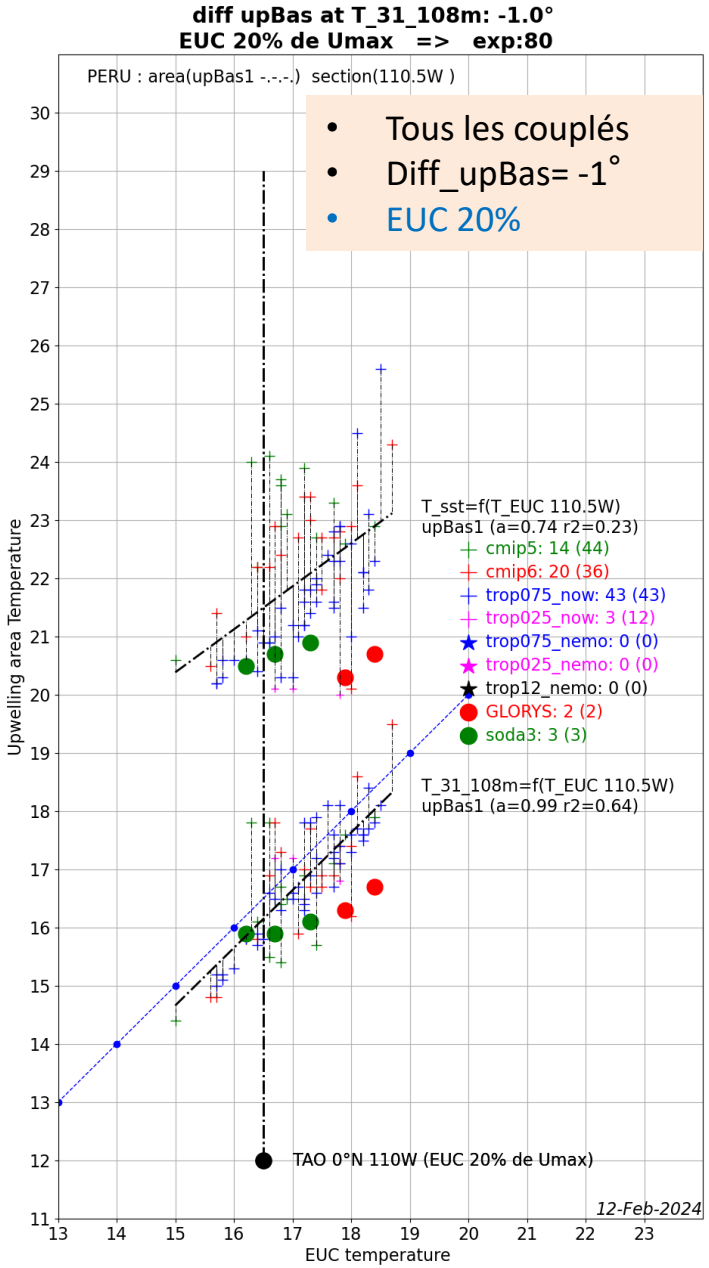
T_up=f(T_EUC, 110W, 20%, 31_108m) : EUC 20% / 33% / 66% / uo Max

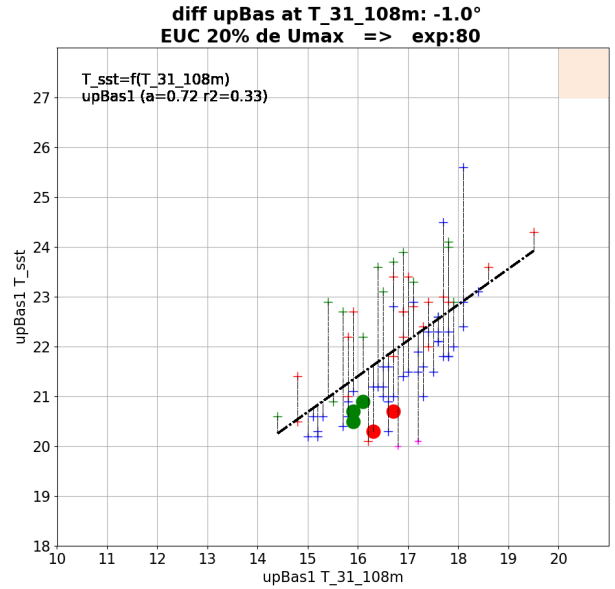


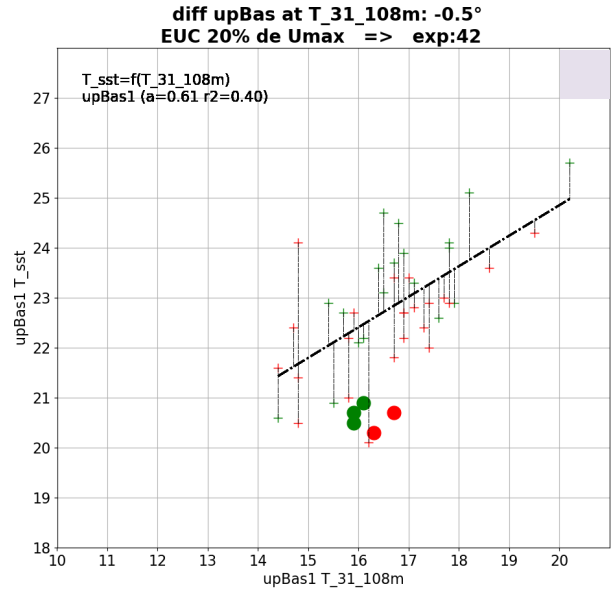
T_up=f(T_EUC, 110W, 20%, 31_108m) : EUC 20% / 33% / 66% / uo Max

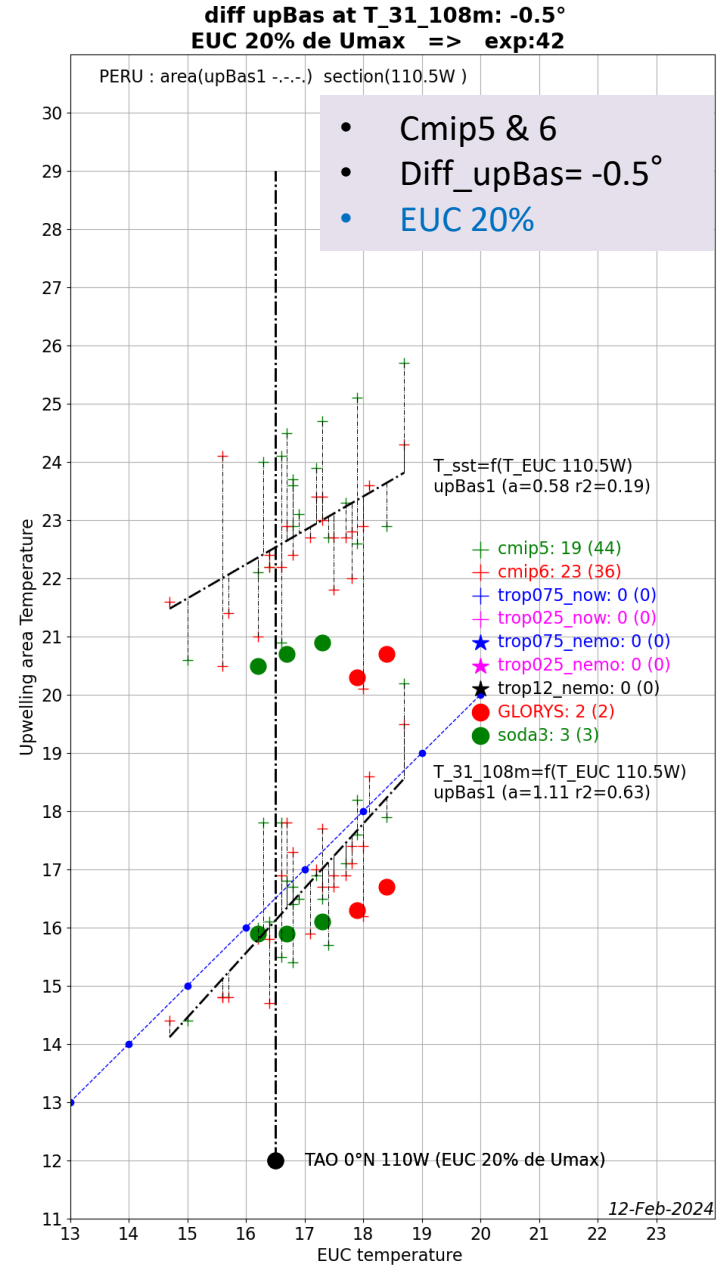
- Tous les couplés / Diff_upBas= -1°
- Cmip5 & 6 / Diff_upBas= -0.5°

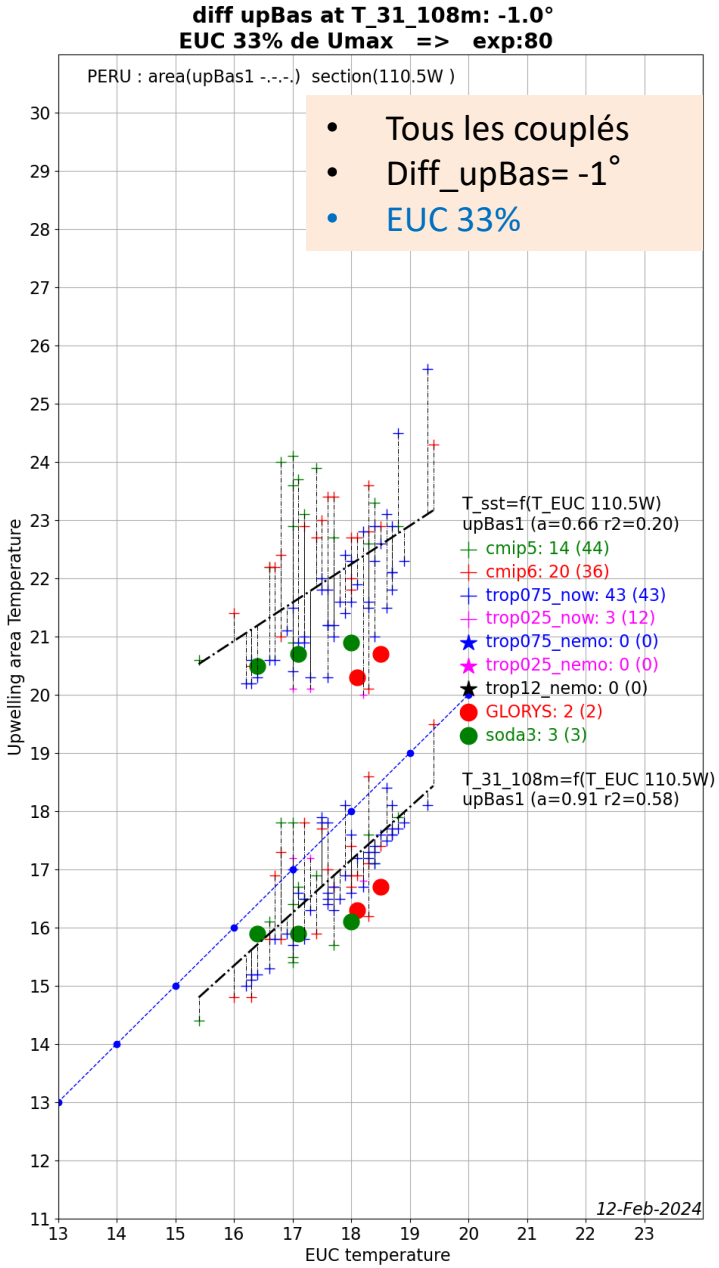
- Compare EUC 20% / 33% / 66% / uo max

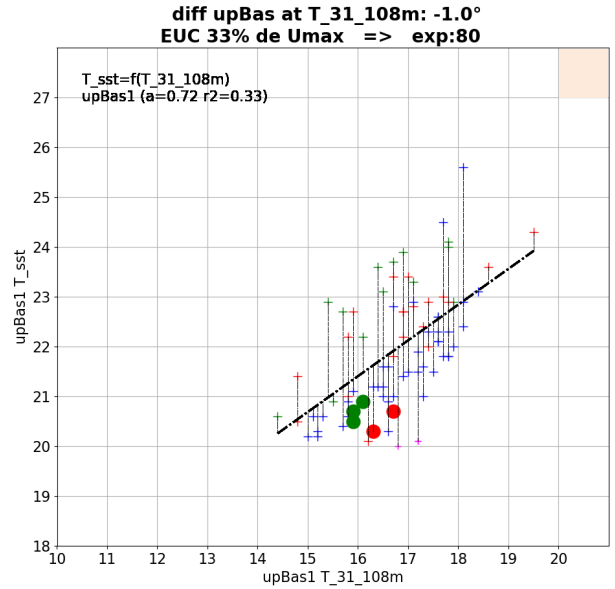

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• EUC 20%
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=0.99 r2=0.64)
TAO 0°N 110W (EUC 20% de Umax)
12-Feb-2024
Upwelling area Temperature
EUC temperature

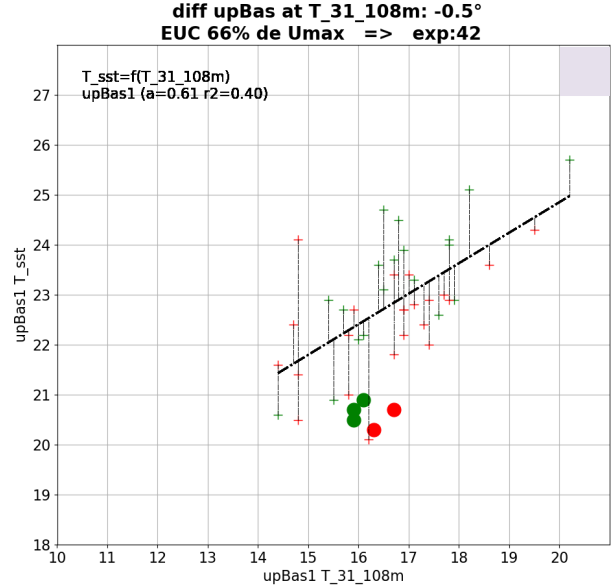

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_31_108m)
upBas1 (a=0.72 r2=0.33)
upBas1 T_sst
upBas1 T_31_108m

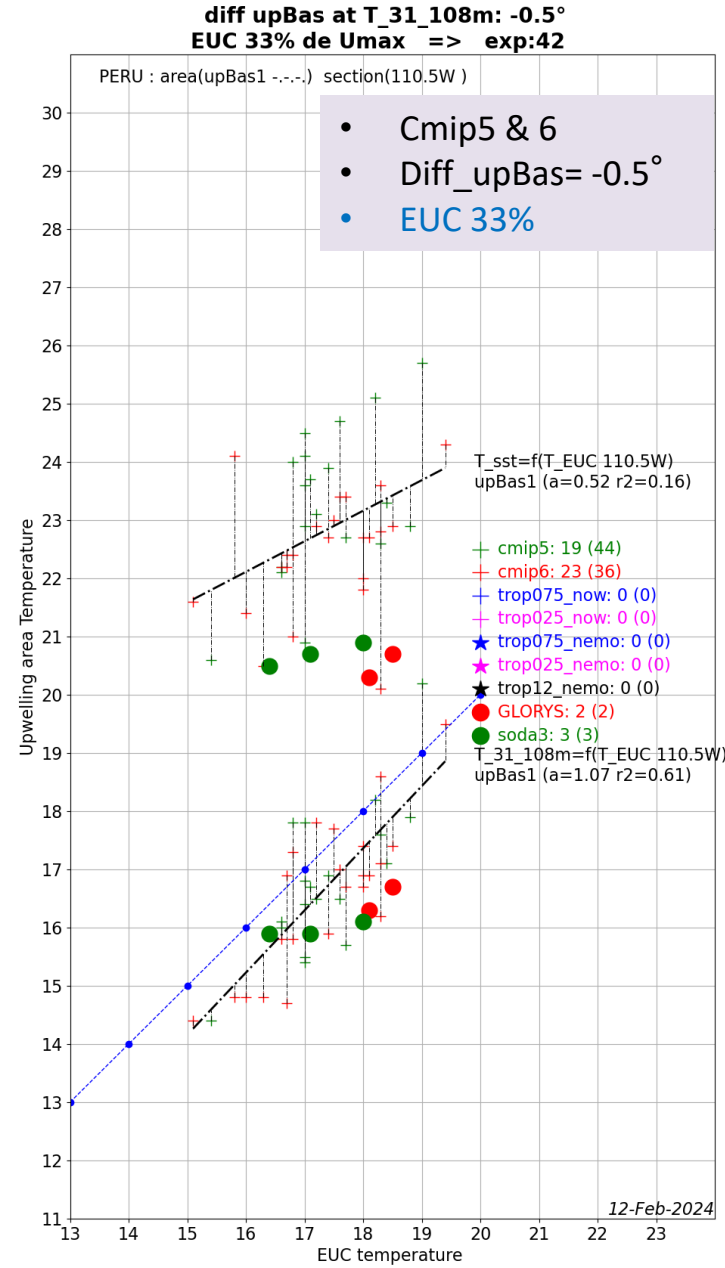

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_31_108m)
upBas1 (a=0.61 r2=0.40)
upBas1 T_sst
upBas1 T_31_108m

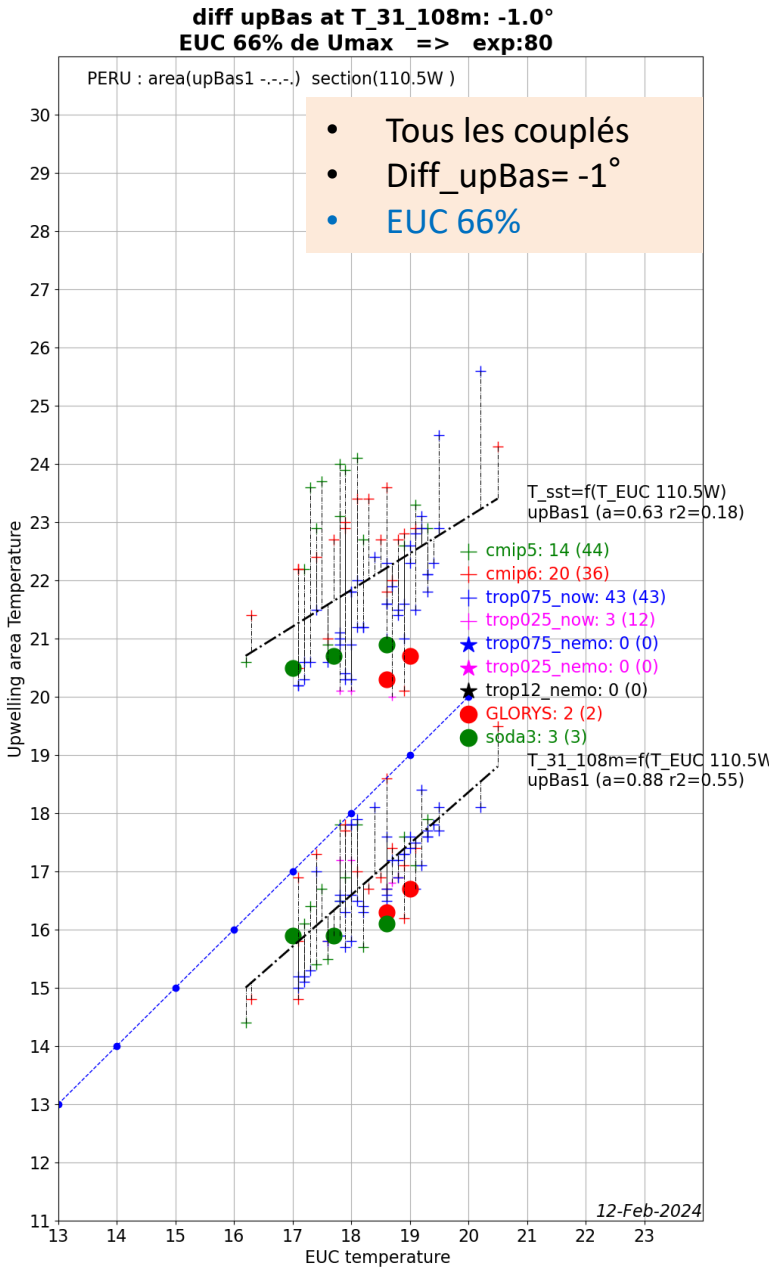

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• EUC 20%
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.11 r2=0.63)
TAO 0°N 110W (EUC 20% de Umax)
12-Feb-2024
Upwelling area Temperature
EUC temperature

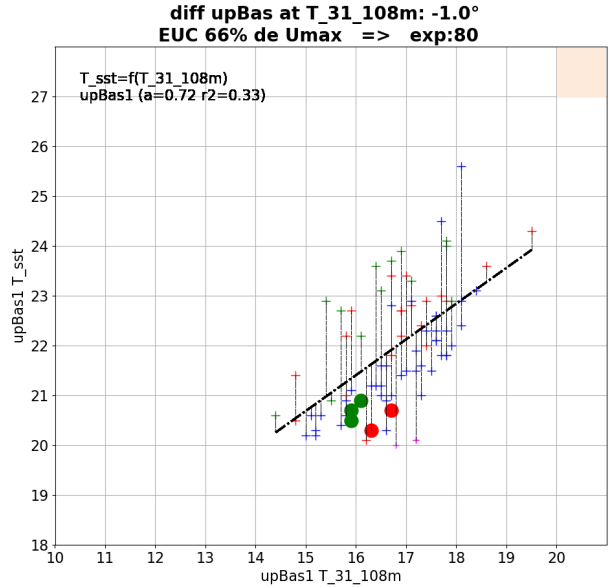

diff upBas at T_31_108m: -1.0°
EUC 33% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• EUC 33%
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.66 r2=0.20)
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=0.91 r2=0.58)
12-Feb-2024
Upwelling area Temperature
EUC temperature

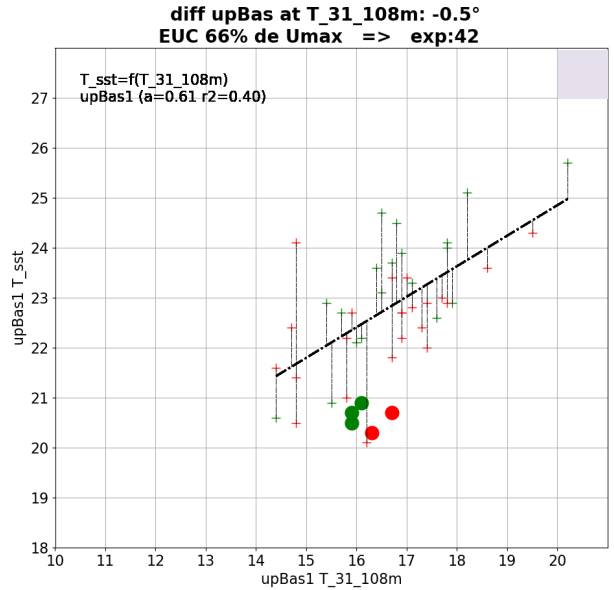

diff upBas at T_31_108m: -1.0°
EUC 33% de Umax => exp:80
T_sst=f(T_31_108m)
upBas1 (a=0.72 r2=0.33)
upBas1 T_sst
upBas1 T_31_108m

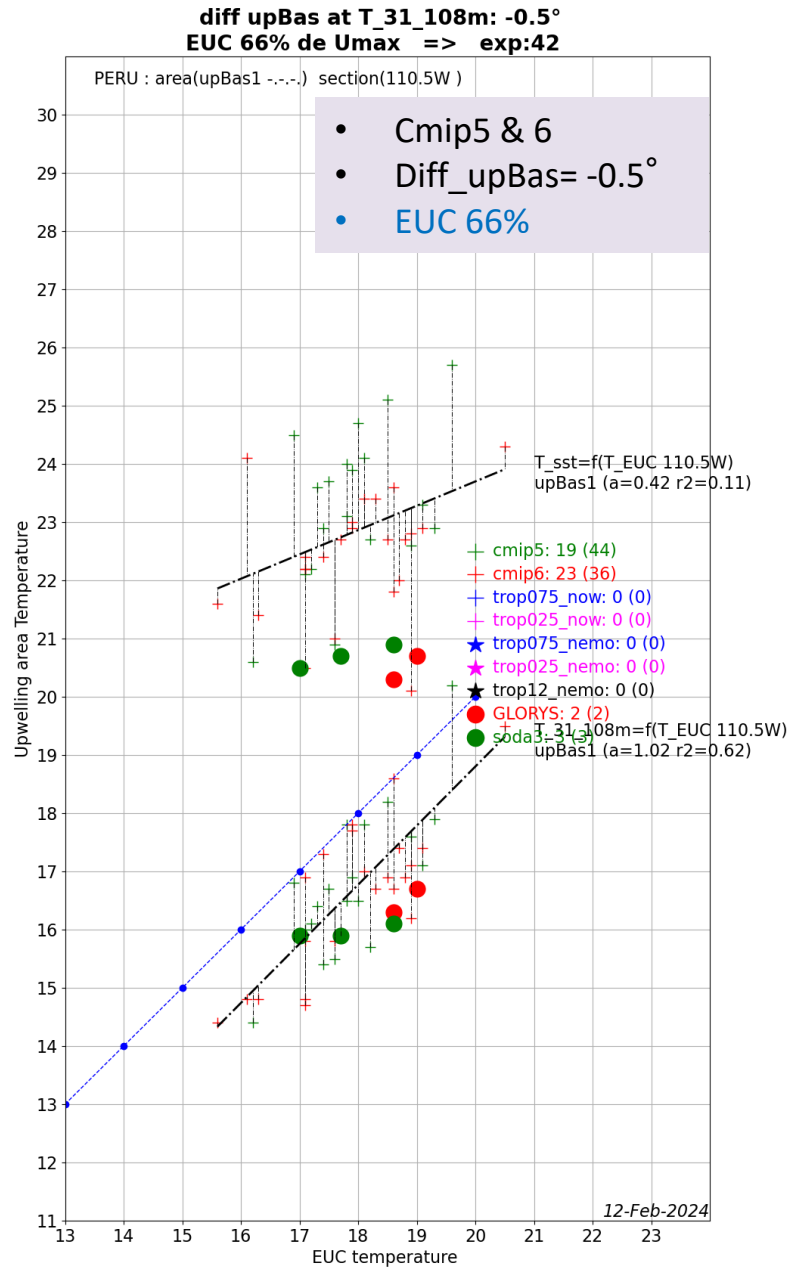

diff upBas at T_31_108m: -0.5°
EUC 66% de Umax => exp:42
T_sst=f(T_31_108m)
upBas1 (a=0.61 r2=0.40)
upBas1 T_sst
upBas1 T_31_108m

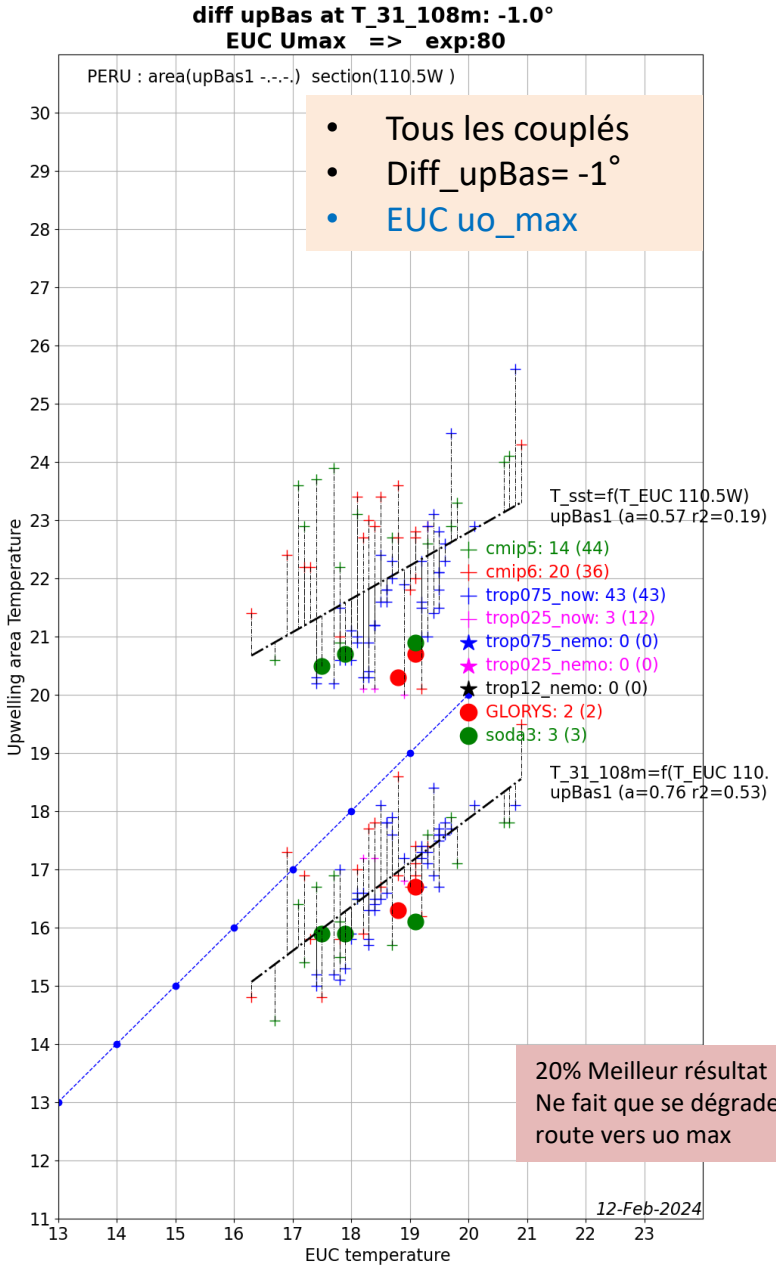

diff upBas at T_31_108m: -0.5°
EUC 33% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• EUC 33%
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.52 r2=0.16)
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.07 r2=0.61)
12-Feb-2024
Upwelling area Temperature
EUC temperature

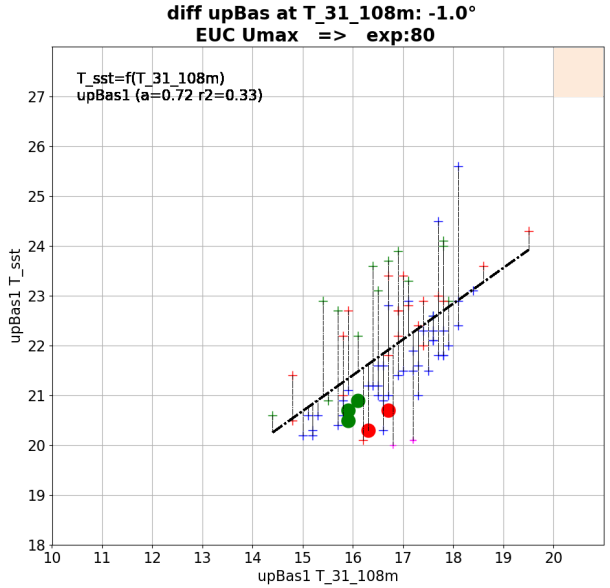

diff upBas at T_31_108m: -1.0°
EUC 66% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• EUC 66%
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.63 r2=0.18)
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_31_108m=f(T_EUC 110.5W
upBas1 (a=0.88 r2=0.55)
12-Feb-2024
Upwelling area Temperature
EUC temperature

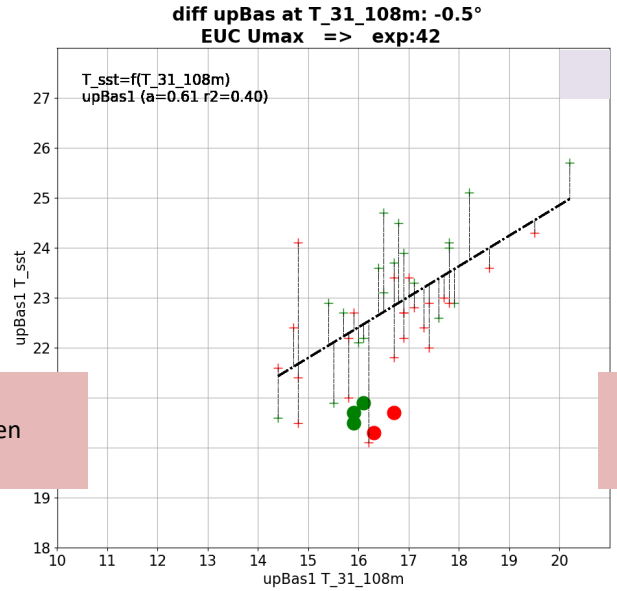

diff upBas at T_31_108m: -1.0°
EUC 66% de Umax => exp:80
T_sst=f(T_31_108m)
upBas1 (a=0.72 r2=0.33)
upBas1 T_sst
upBas1 T_31_108m


diff upBas at T_31_108m: -0.5°
EUC 66% de Umax => exp:42
T_sst=f(T_31_108m)
upBas1 (a=0.61 r2=0.40)
upBas1 T_sst
upBas1 T_31_108m

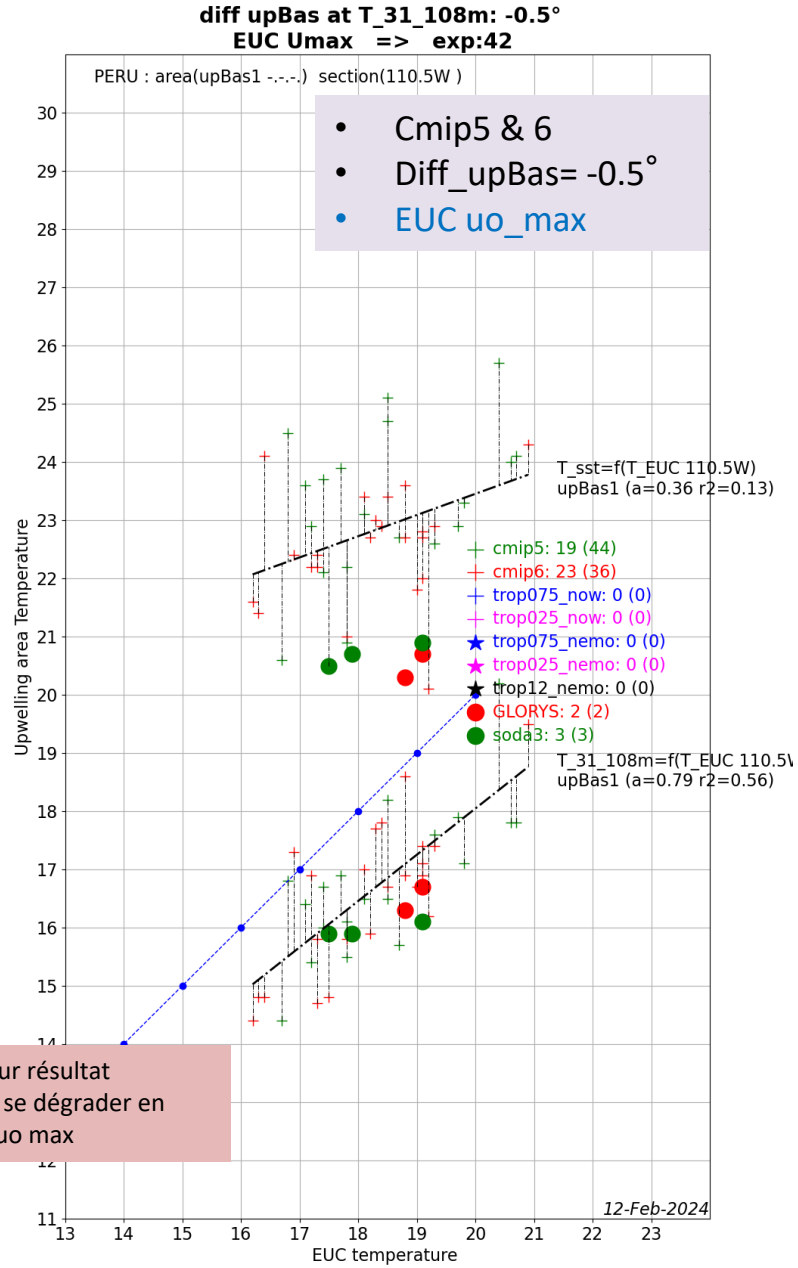

diff upBas at T_31_108m: -0.5°
EUC 66% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• EUC 66%
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.42 r2=0.11)
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.02 r2=0.62)
12-Feb-2024
Upwelling area Temperature
EUC temperature





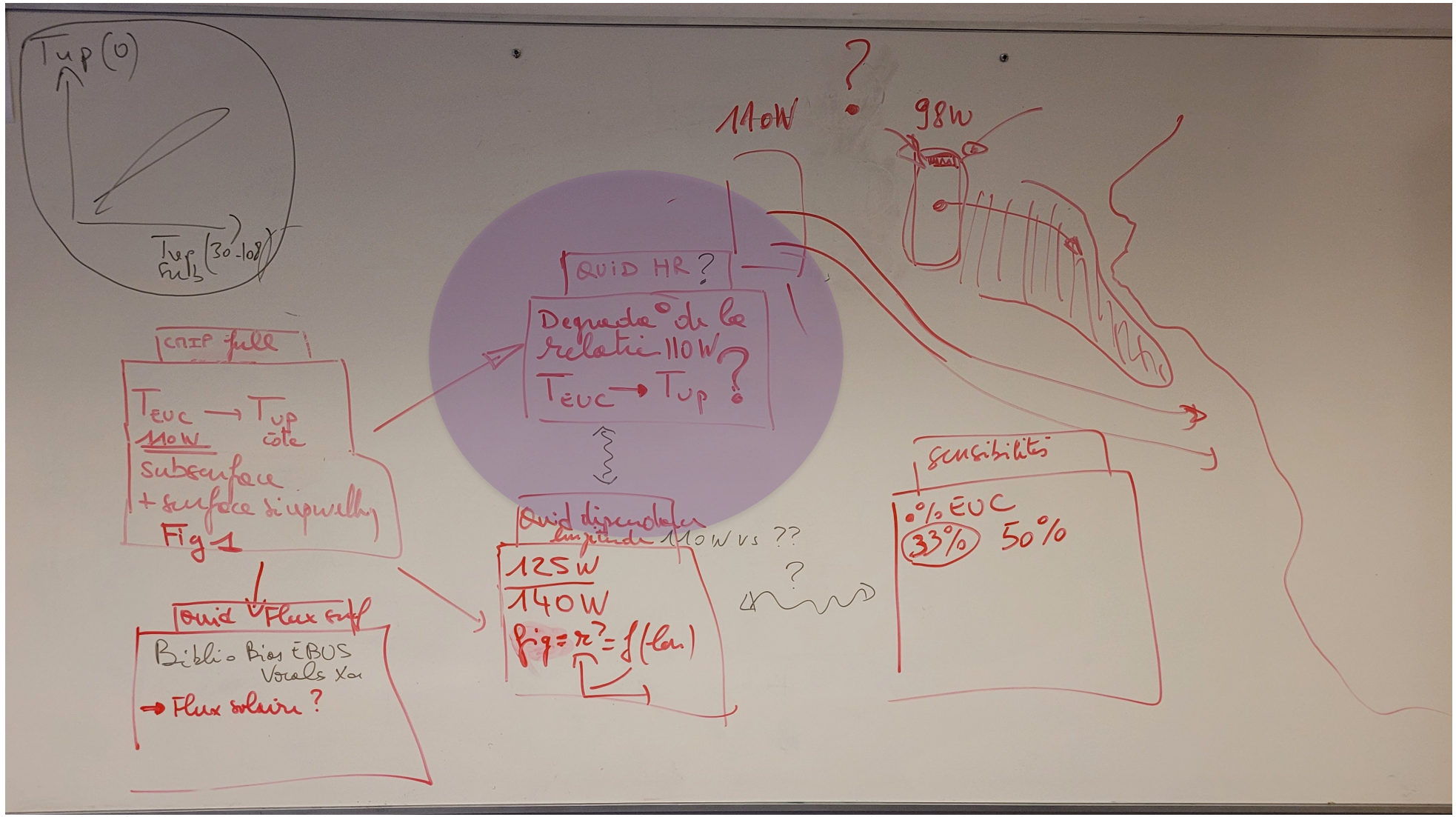


20% Meilleur résultat
Ne fait que se dégrader en route vers uo max



20% Meilleur résultat
Ne fait que se dégrader en route vers uo max

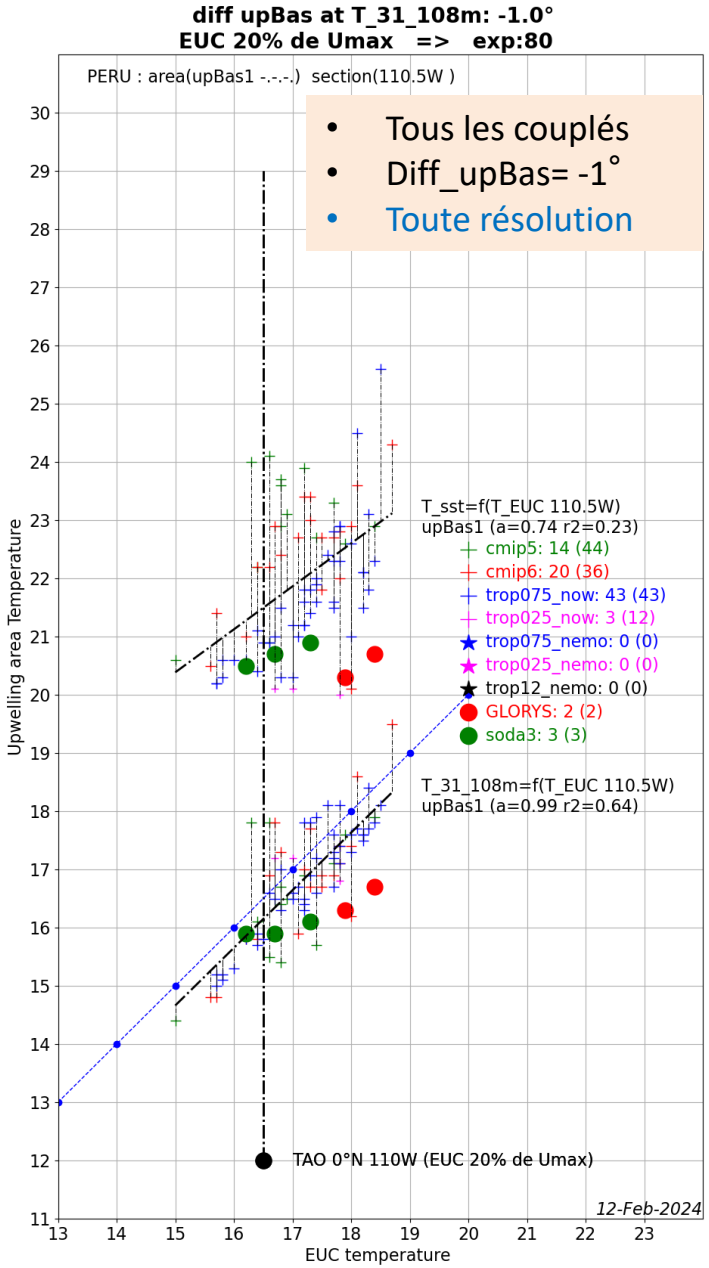
T_up=f(T_EUC, 110W, 20%, 31_108m) : dy False / >= 0.6

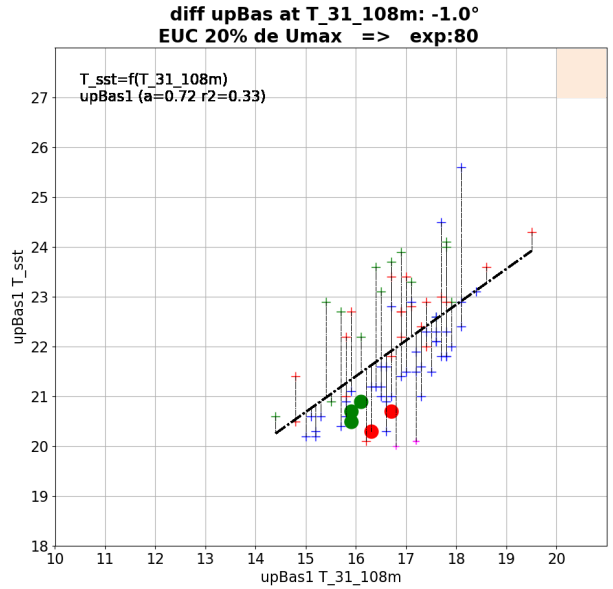


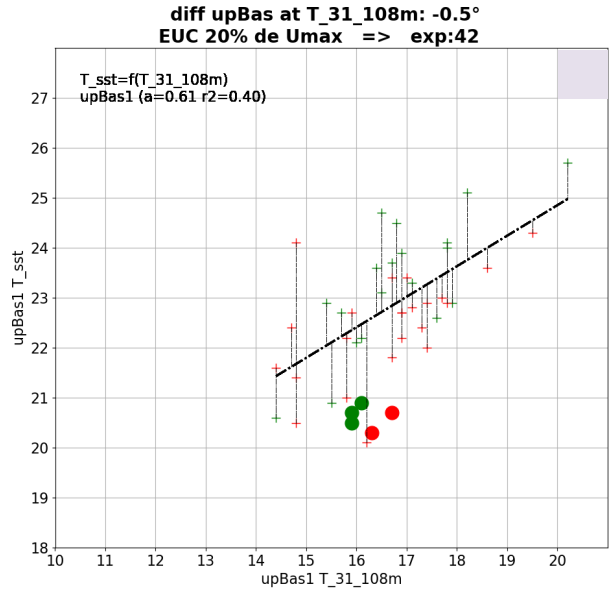
T_up=f(T_EUC, 110W, 20%, 31_108m) : dy False / >= 0.6

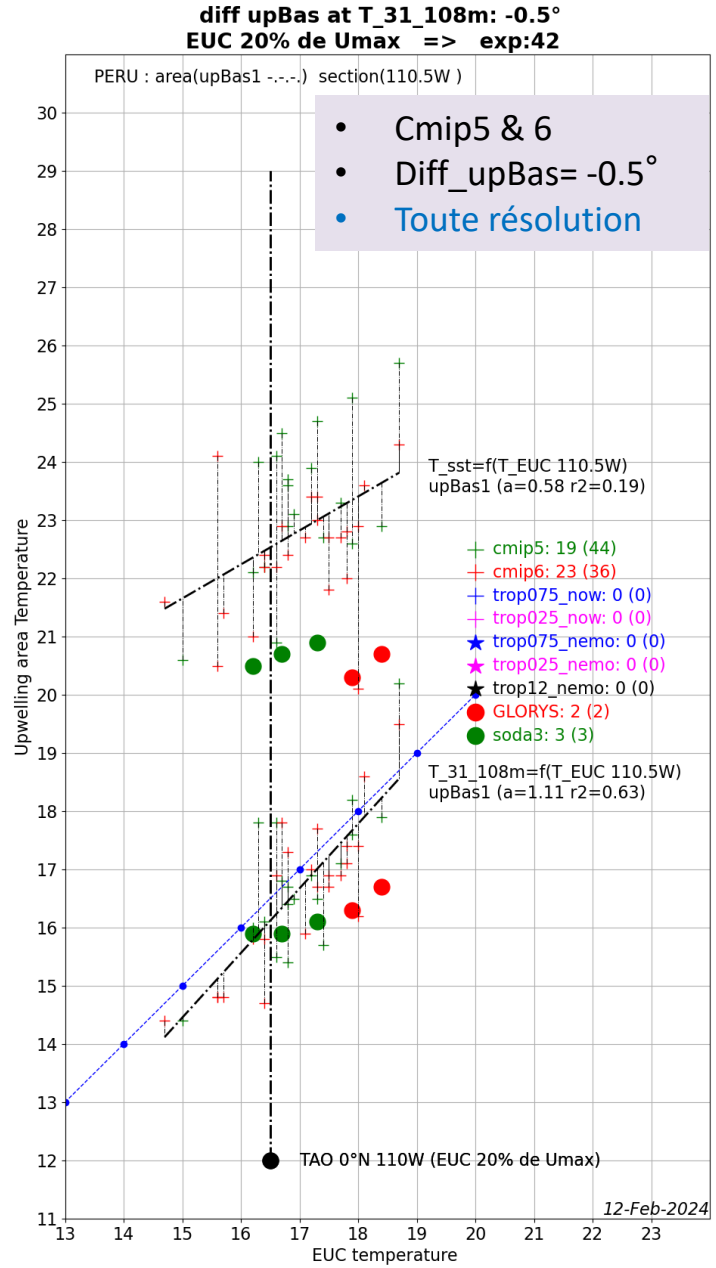
- Tous les couplés / Diff_upBas= -1°
- Cmip5 & 6 / Diff_upBas= -0.5°

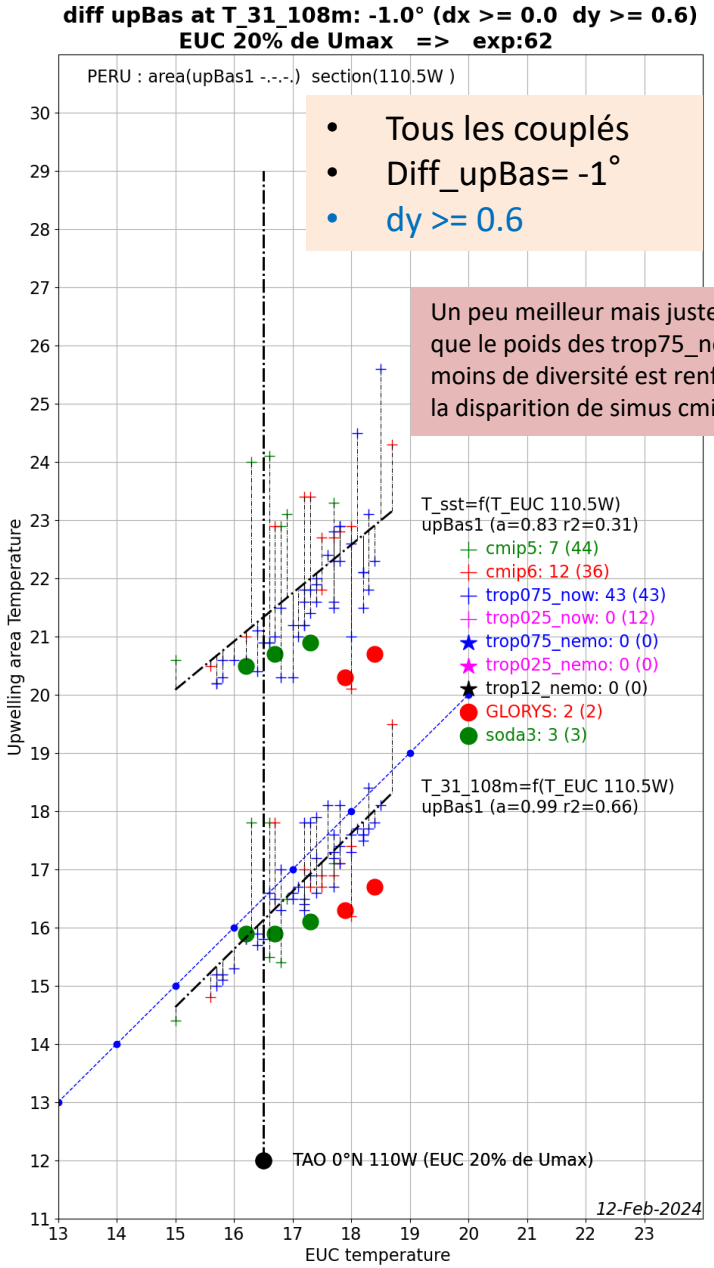
- Compare dy False / >= 0.6


diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• Toute résolution
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=0.99 r2=0.64)
TAO 0°N 110W (EUC 20% de Umax)
12-Feb-2024
Upwelling area Temperature
EUC temperature


diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_31_108m)
upBas1 (a=0.72 r2=0.33)
upBas1 T_sst
upBas1 T_31_108m

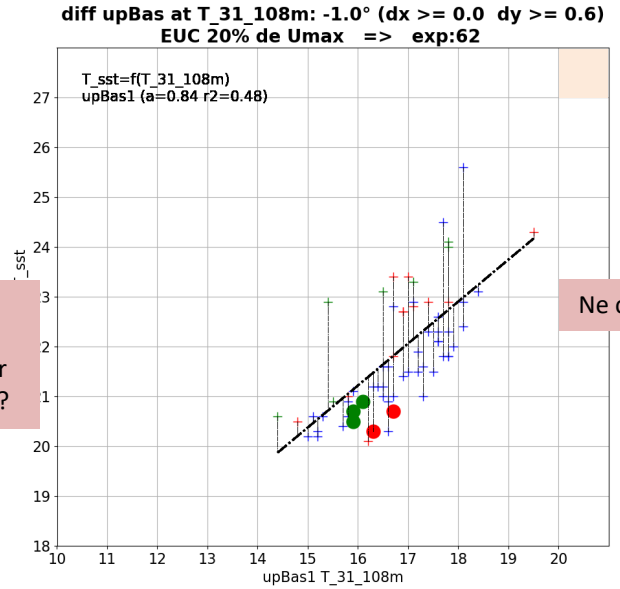

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_31_108m)
upBas1 (a=0.61 r2=0.40)
upBas1 T_sst
upBas1 T_31_108m

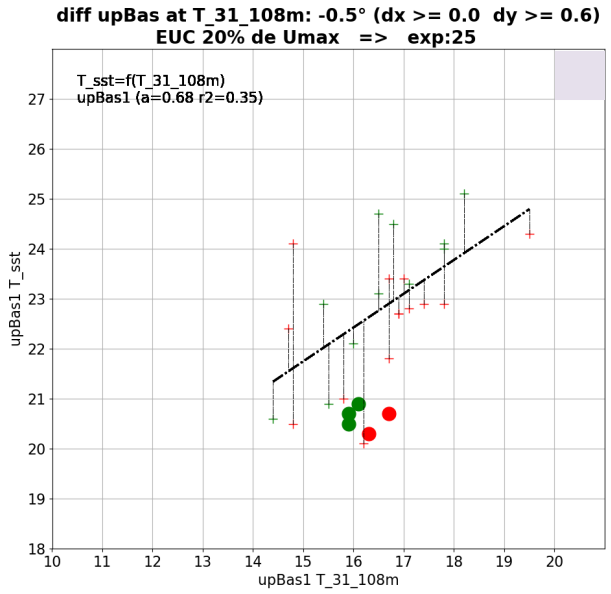

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• Toute résolution
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.11 r2=0.63)
TAO 0°N 110W (EUC 20% de Umax)
12-Feb-2024
Upwelling area Temperature
EUC temperature



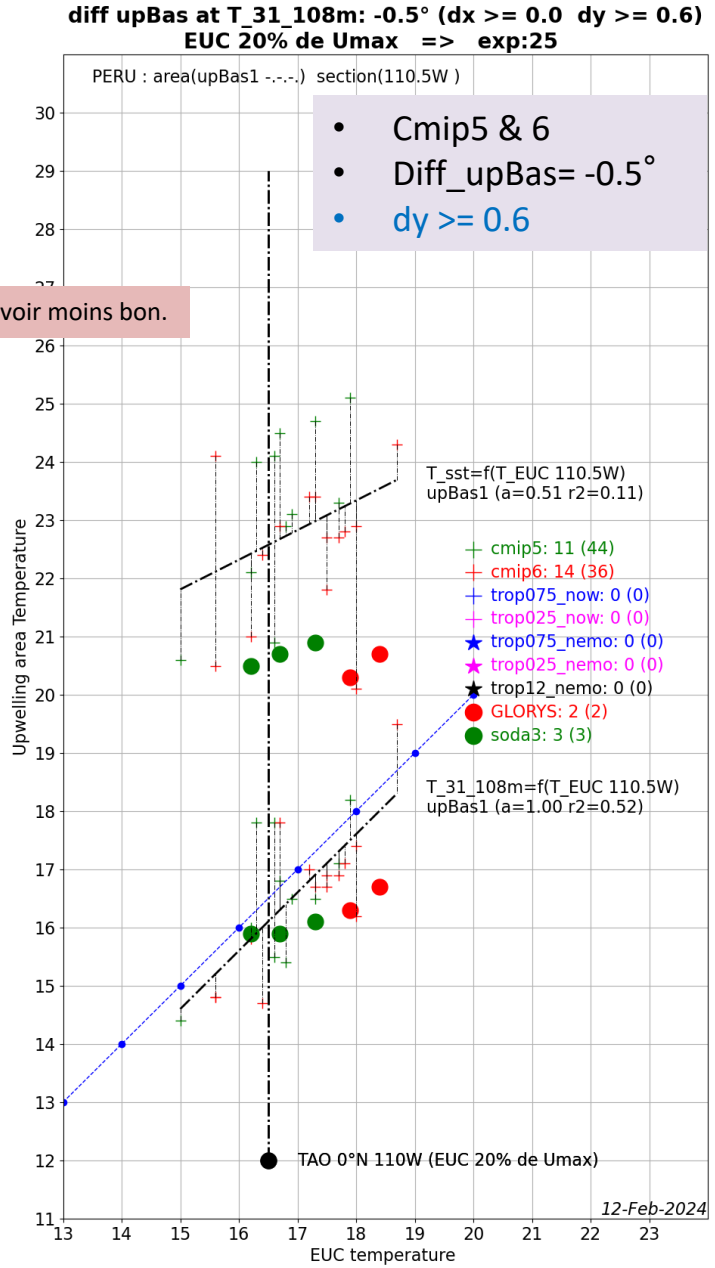
- Tous les couplés
- Diff_upBas= -1°
- dy >= 0.6

Un peu meilleur mais juste parce que le poids des trop75_now avec moins de diversité est renforcé par la disparition de simus cmip5 et 6 ?





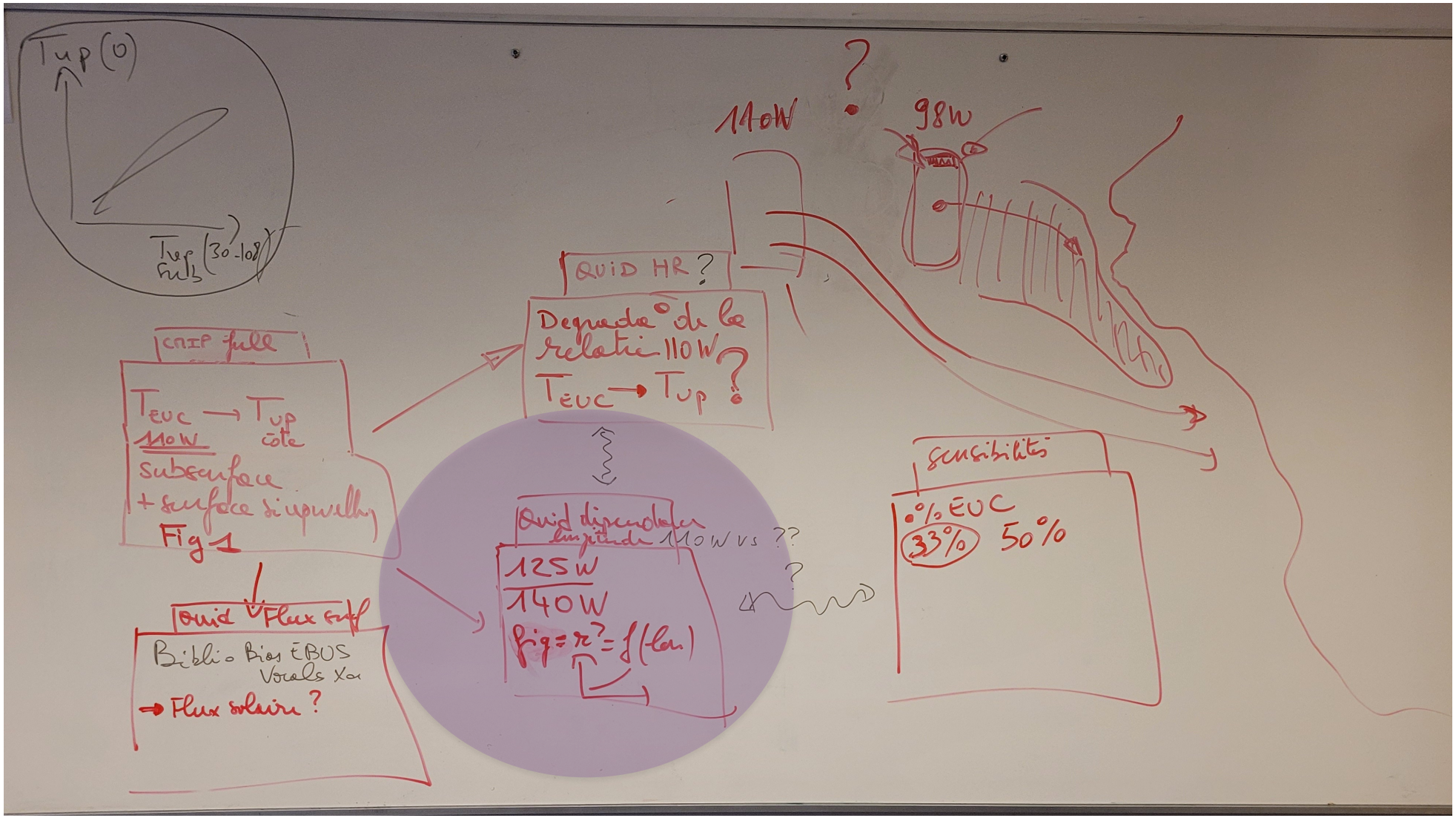
Ne change pas voir moins bon.



- Cmip5 & 6
- Diff_upBas= -0.5°
- dy >= 0.6

Enlever les simus HR (dy >= 0.6) n'a rien de concluant. La HR ne perturbe pas la relation T_up=f(T_EUC) comme on l'espérait?

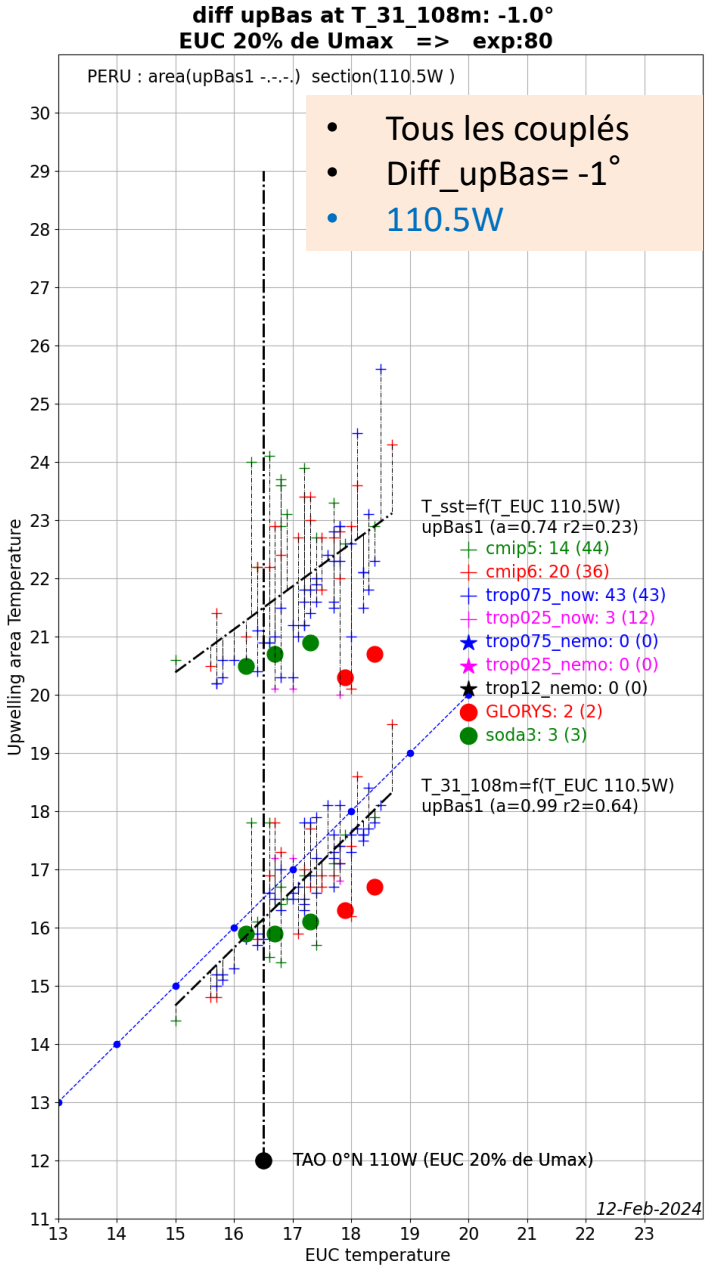
T_up=f(T_EUC, 110W, 20%, 31_108m) : 85W, 98.5W, 110.5W, 120.25W, 130W, 140.5W, 170.5W

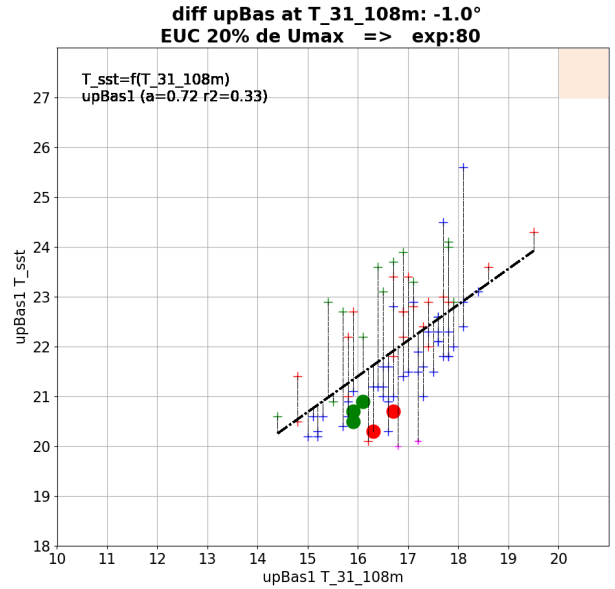


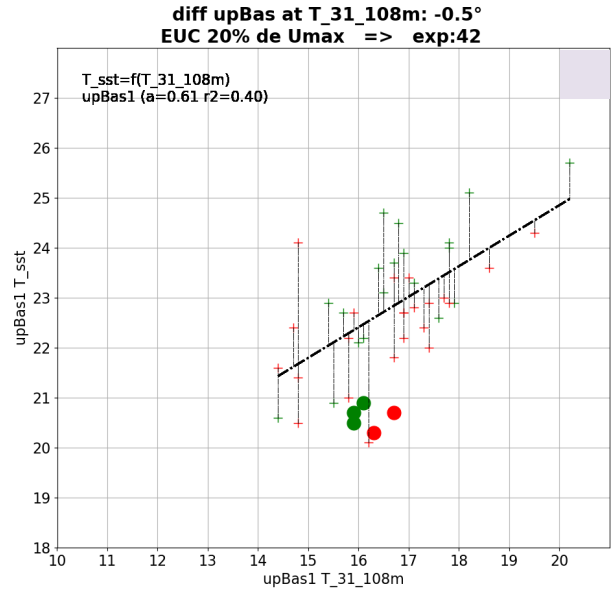
T_up=f(T_EUC, 110W, 20%, 31_108m) : 85W, 98.5W, 110.5W, 120.25W, 130W, 140.5W, 170.5W

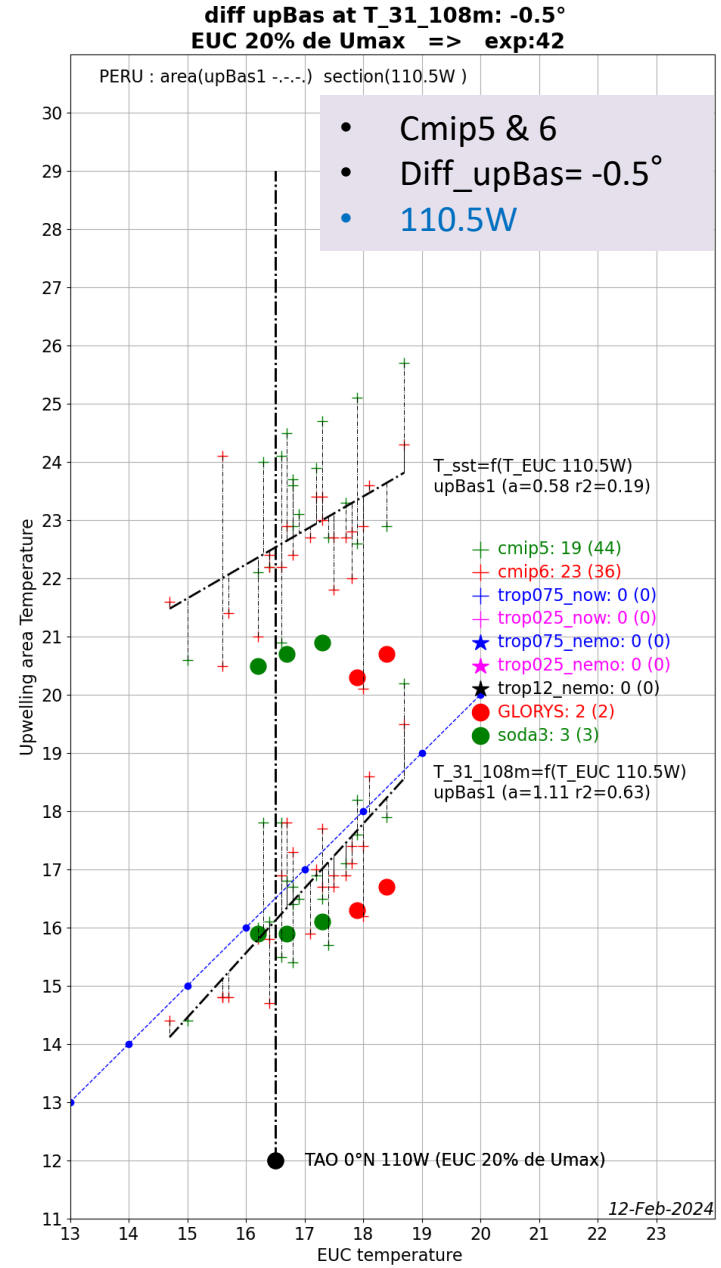
- Tous les couplés / Diff_upBas= -1°
- Cmip5 & 6 / Diff_upBas= -0.5°

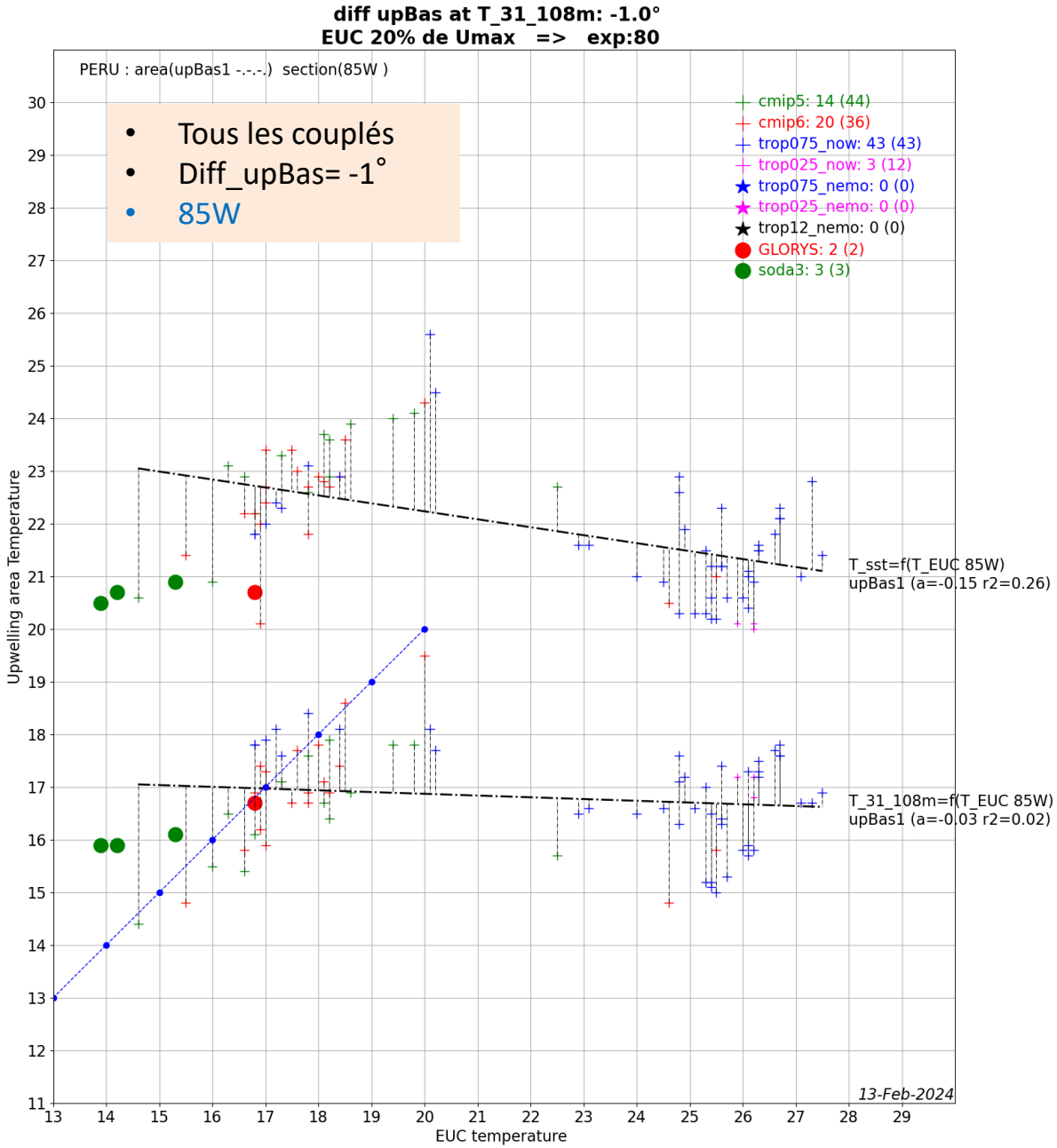
- 85W, 98.5W, 110.5W, 120.25W, 130W, 140.5W, 170.5W

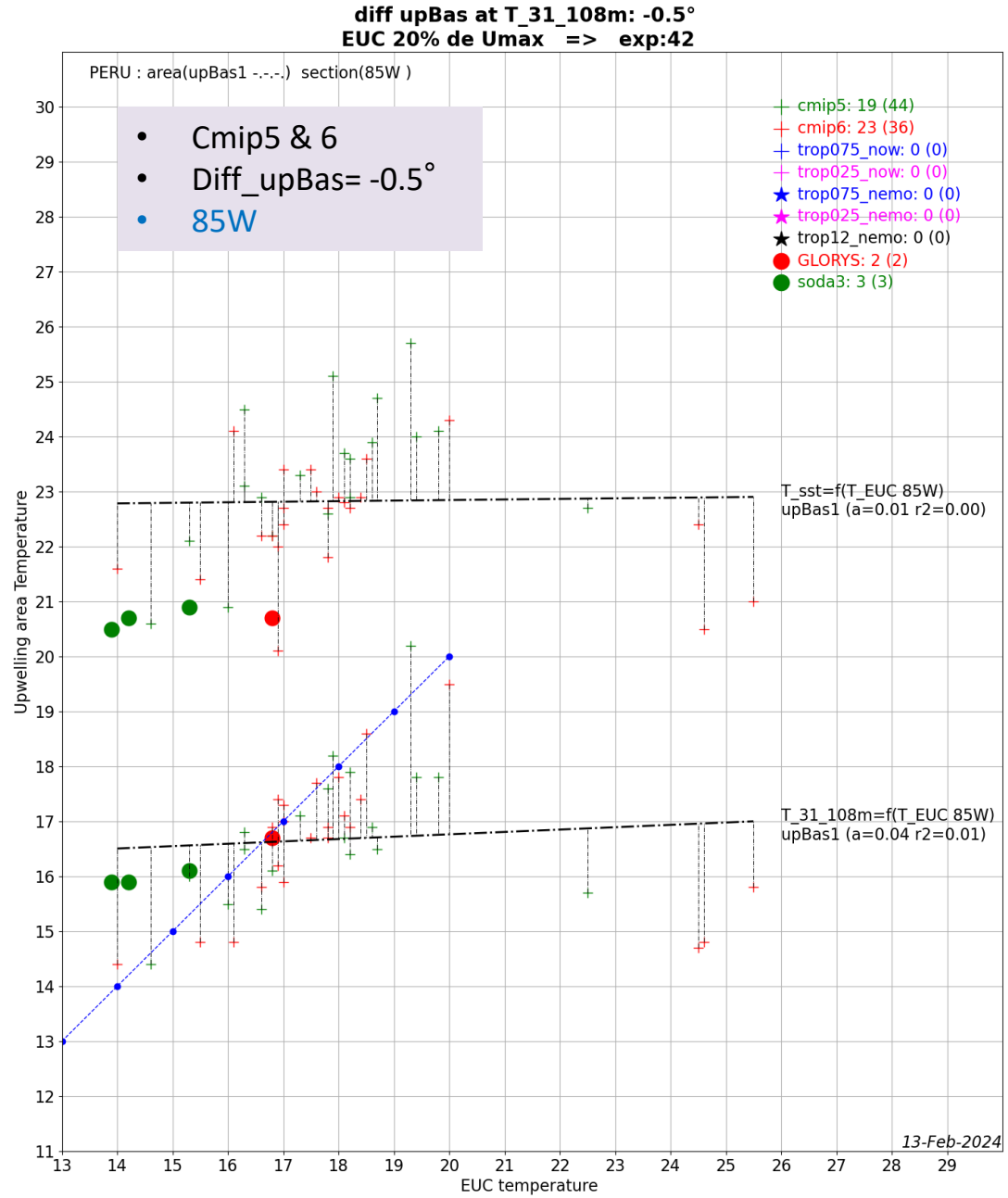

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 110.5W
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=0.99 r2=0.64)
TAO 0°N 110W (EUC 20% de Umax)
12-Feb-2024
Upwelling area Temperature
EUC temperature

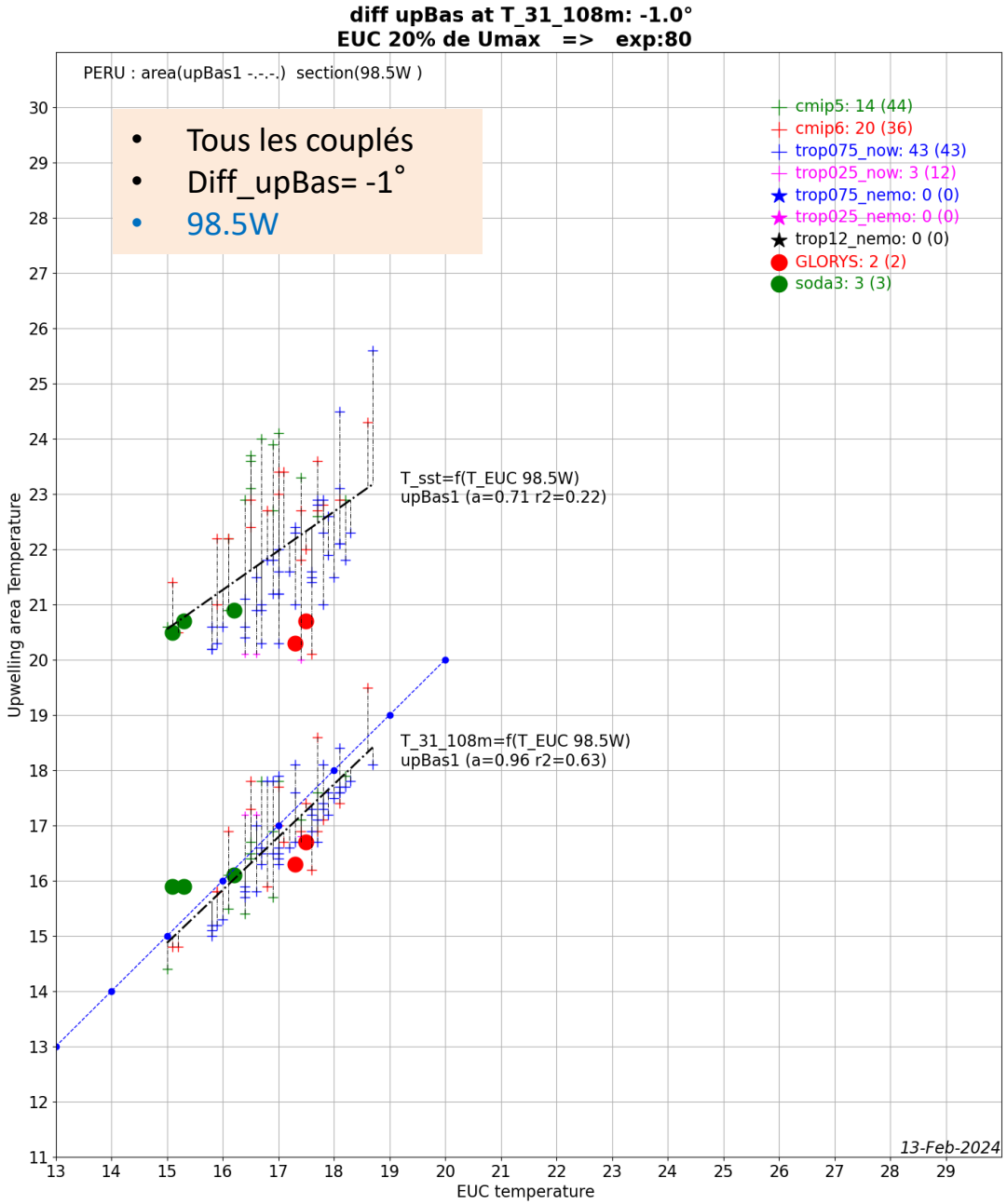

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_31_108m)
upBas1 (a=0.72 r2=0.33)
upBas1 T_sst
upBas1 T_31_108m

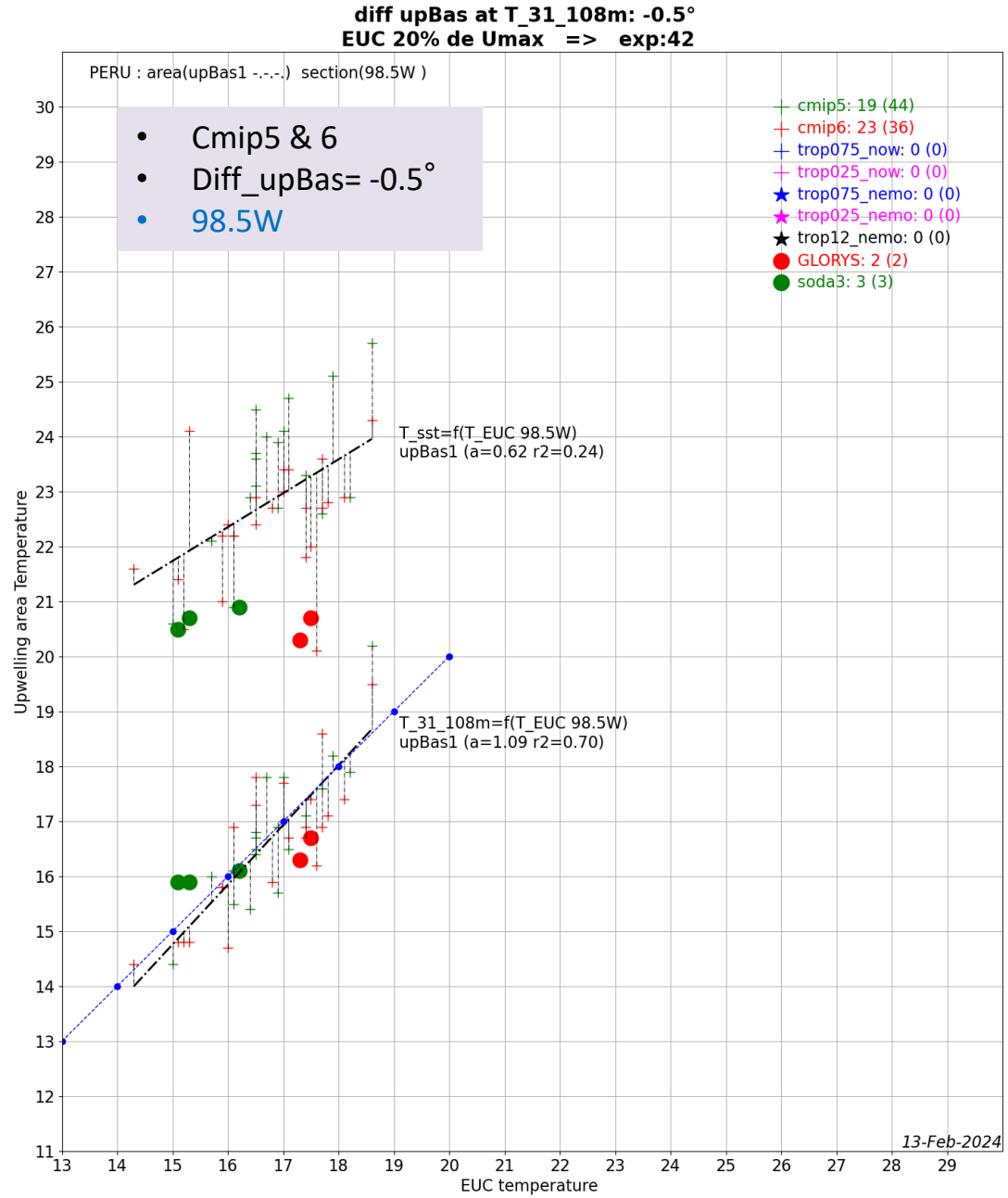

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_31_108m)
upBas1 (a=0.61 r2=0.40)
upBas1 T_sst
upBas1 T_31_108m

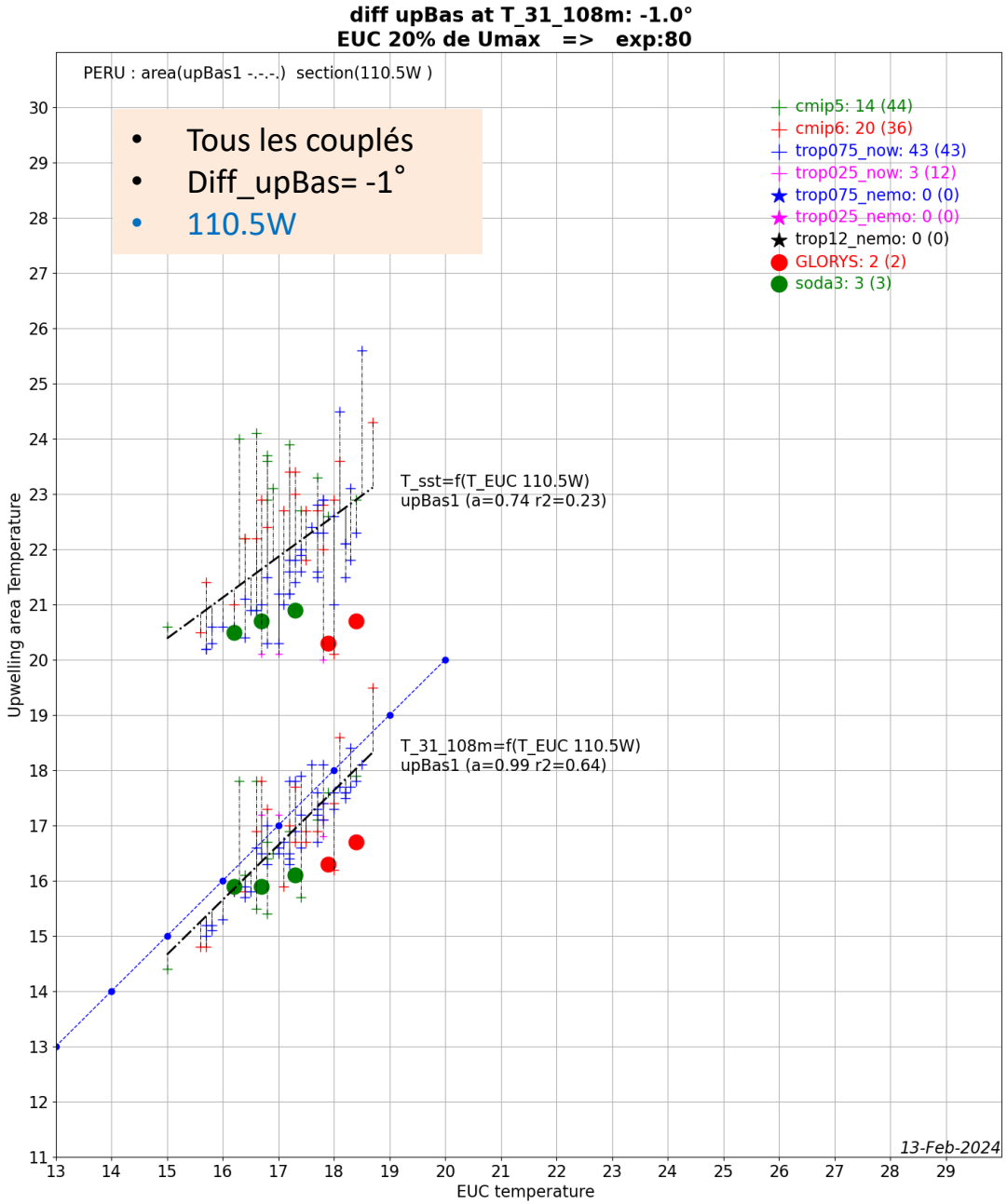

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 110.5W
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.11 r2=0.63)
TAO 0°N 110W (EUC 20% de Umax)
12-Feb-2024
Upwelling area Temperature
EUC temperature

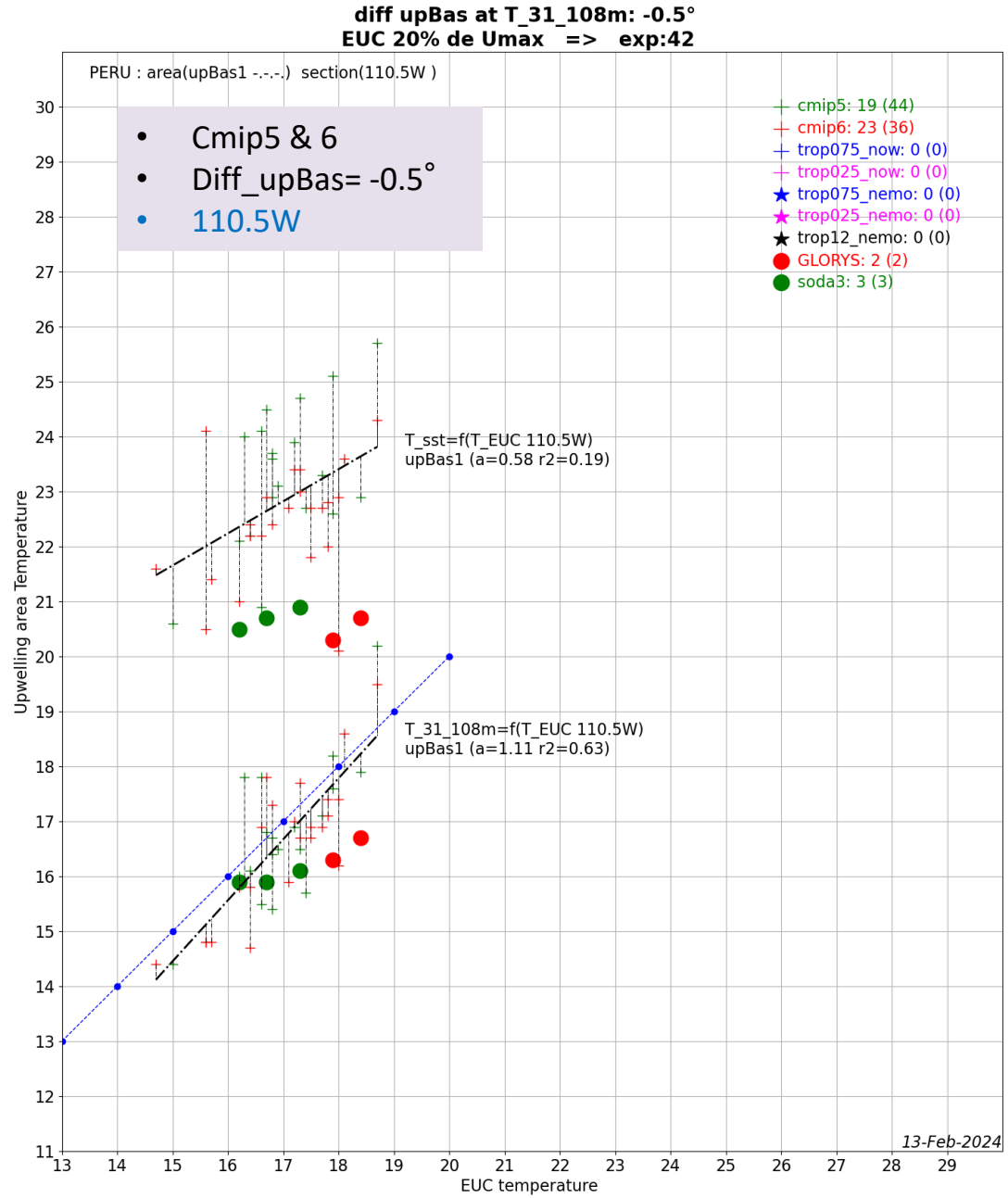

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(85W)
• Tous les couplés
• Diff_upBas= -1°
• 85W
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 85W)
upBas1 (a=-0.15 r2=0.26)
T_31_108m=f(T_EUC 85W)
upBas1 (a=-0.03 r2=0.02)
13-Feb-2024
Upwelling area Temperature
EUC temperature

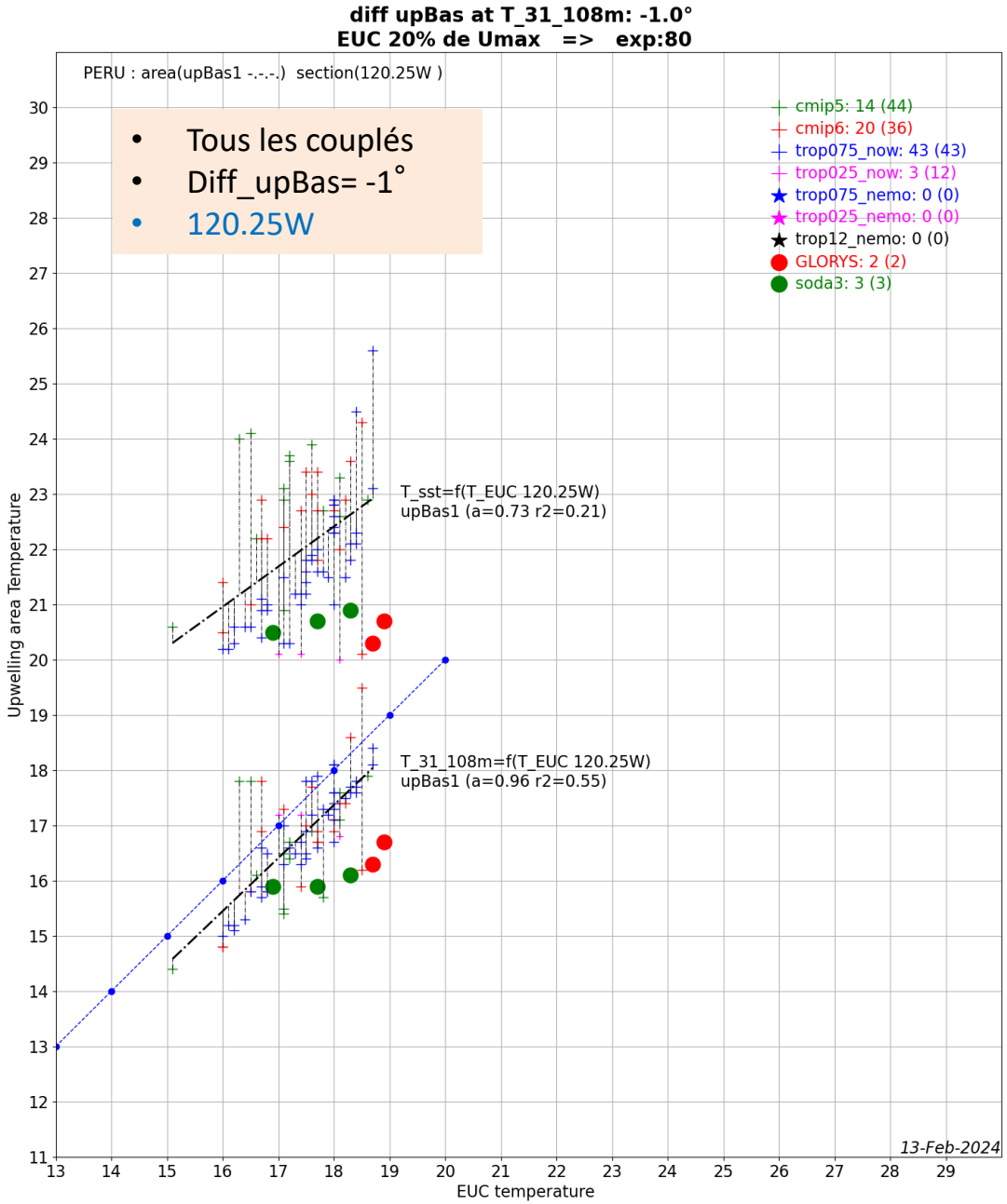

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(85W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 85W
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 85W)
upBas1 (a=0.01 r2=0.00)
T_31_108m=f(T_EUC 85W)
upBas1 (a=0.04 r2=0.01)
13-Feb-2024
Upwelling area Temperature
EUC temperature

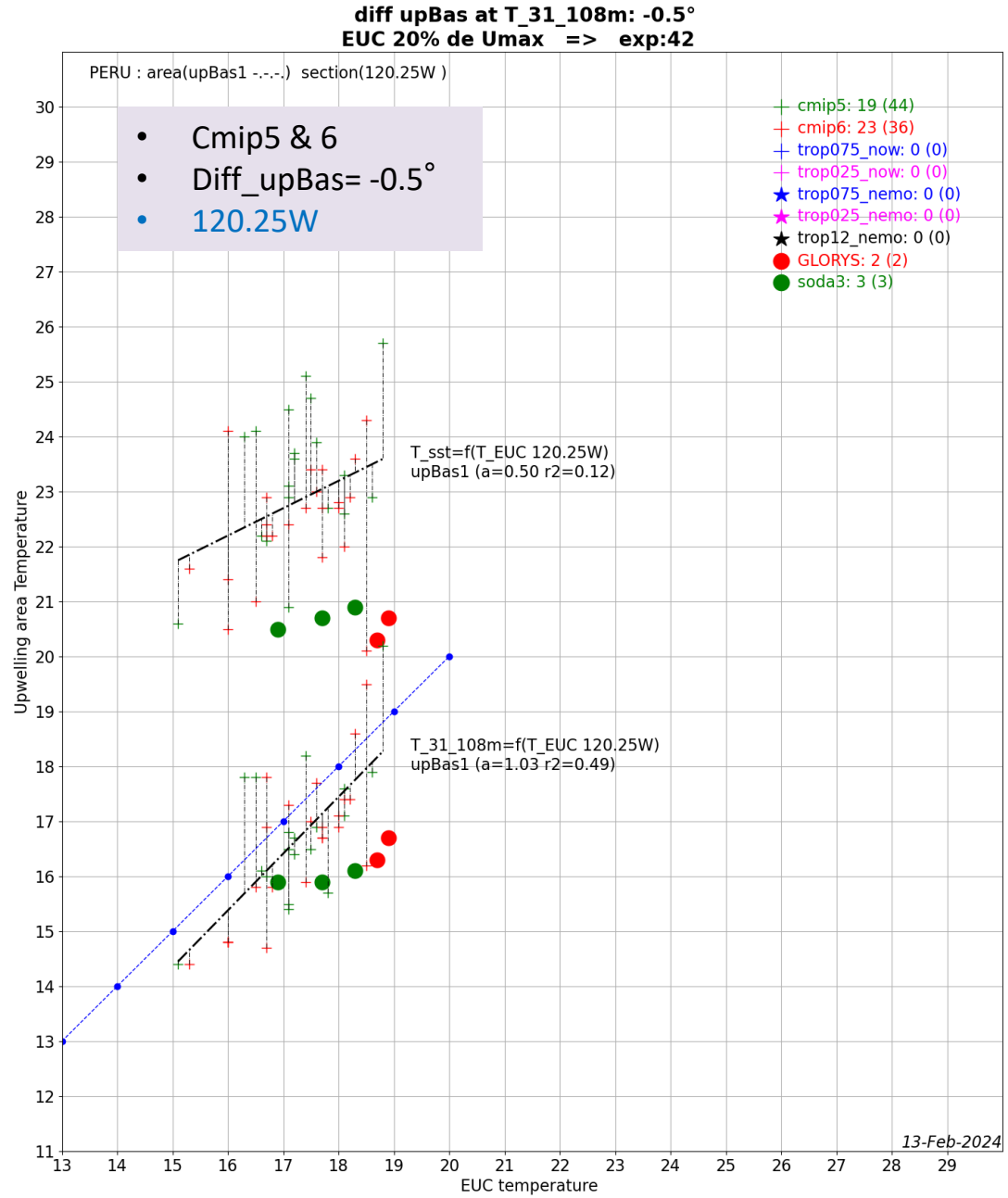

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(98.5W)
• Tous les couplés
• Diff_upBas= -1°
• 98.5W
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 98.5W)
upBas1 (a=0.71 r2=0.22)
T_31_108m=f(T_EUC 98.5W)
upBas1 (a=0.96 r2=0.63)
13-Feb-2024
Upwelling area Temperature
EUC temperature

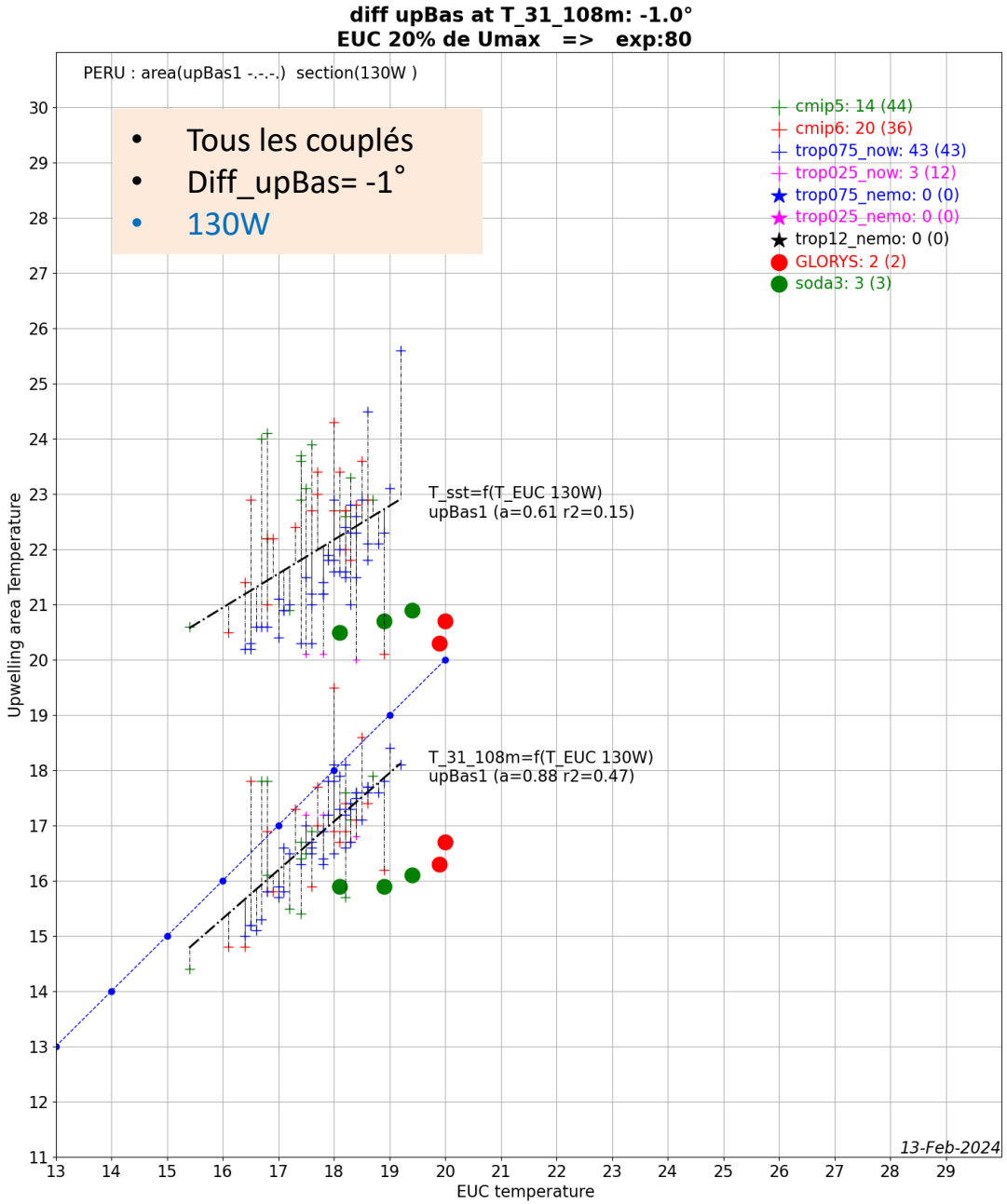

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(98.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 98.5W
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 98.5W)
upBas1 (a=0.62 r2=0.24)
T_31_108m=f(T_EUC 98.5W)
upBas1 (a=1.09 r2=0.70)
13-Feb-2024
Upwelling area Temperature
EUC temperature

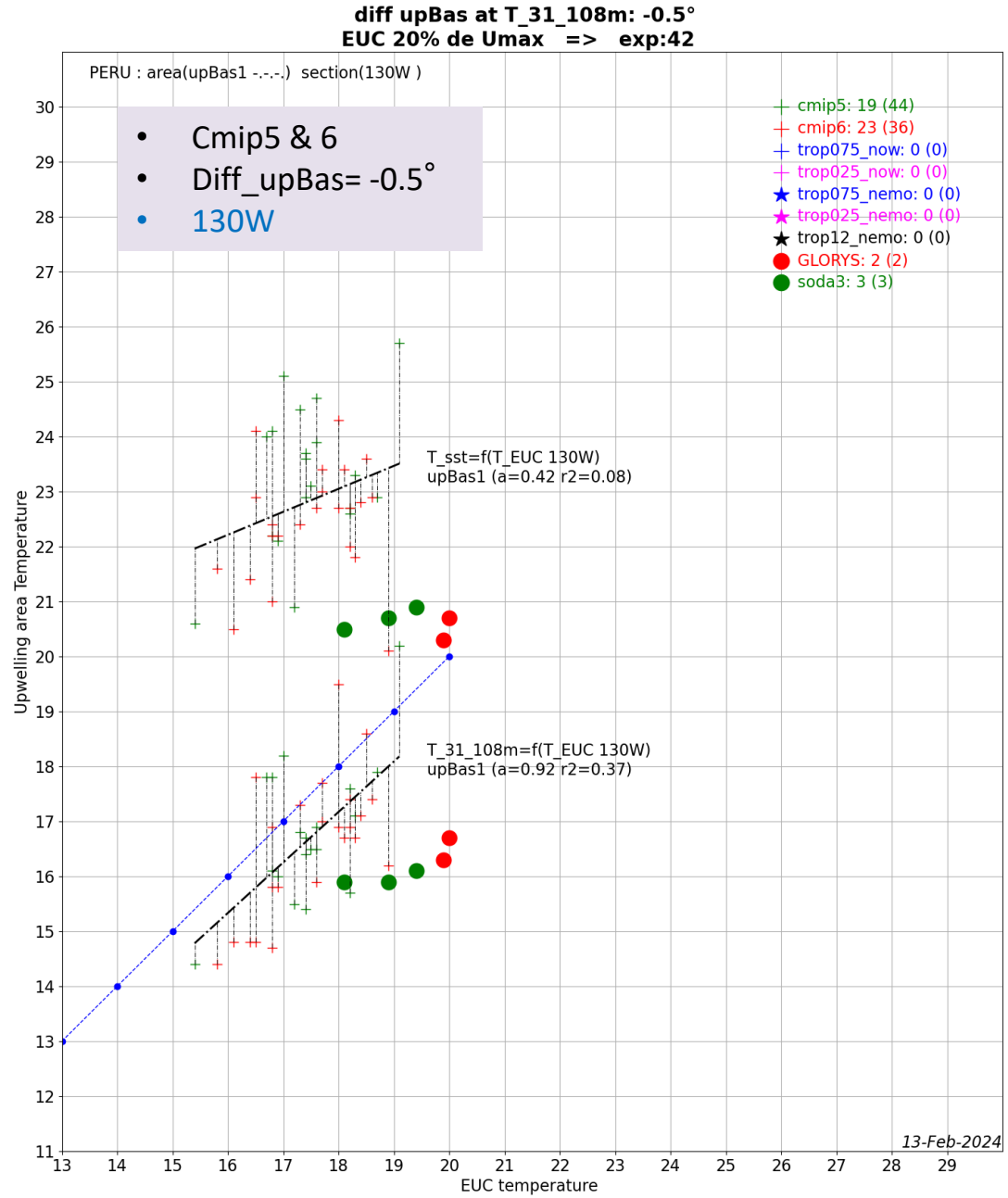

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 110.5W
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=0.99 r2=0.64)
Upwelling area Temperature
EUC temperature
13-Feb-2024

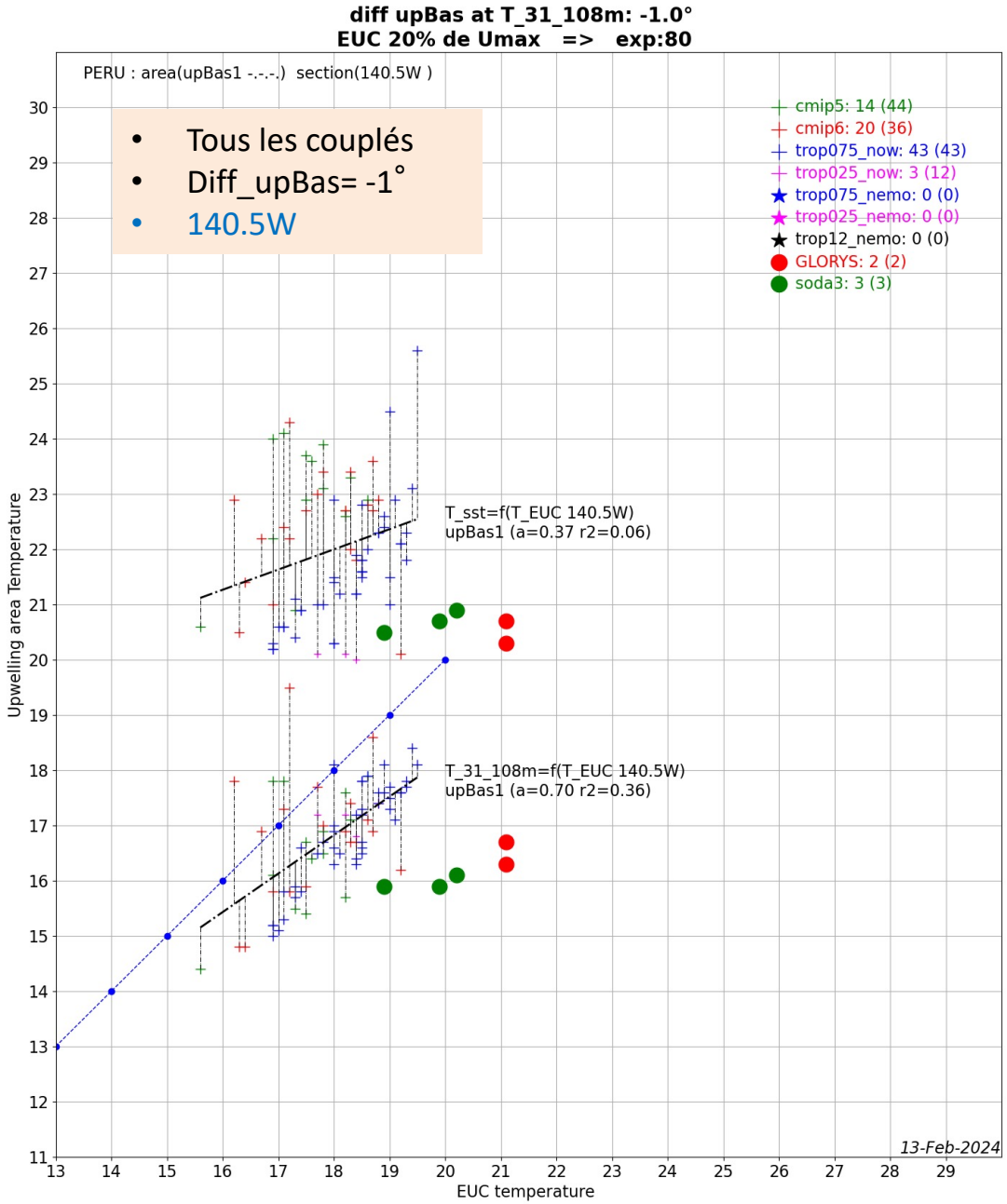

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 110.5W
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.11 r2=0.63)
Upwelling area Temperature
EUC temperature
13-Feb-2024

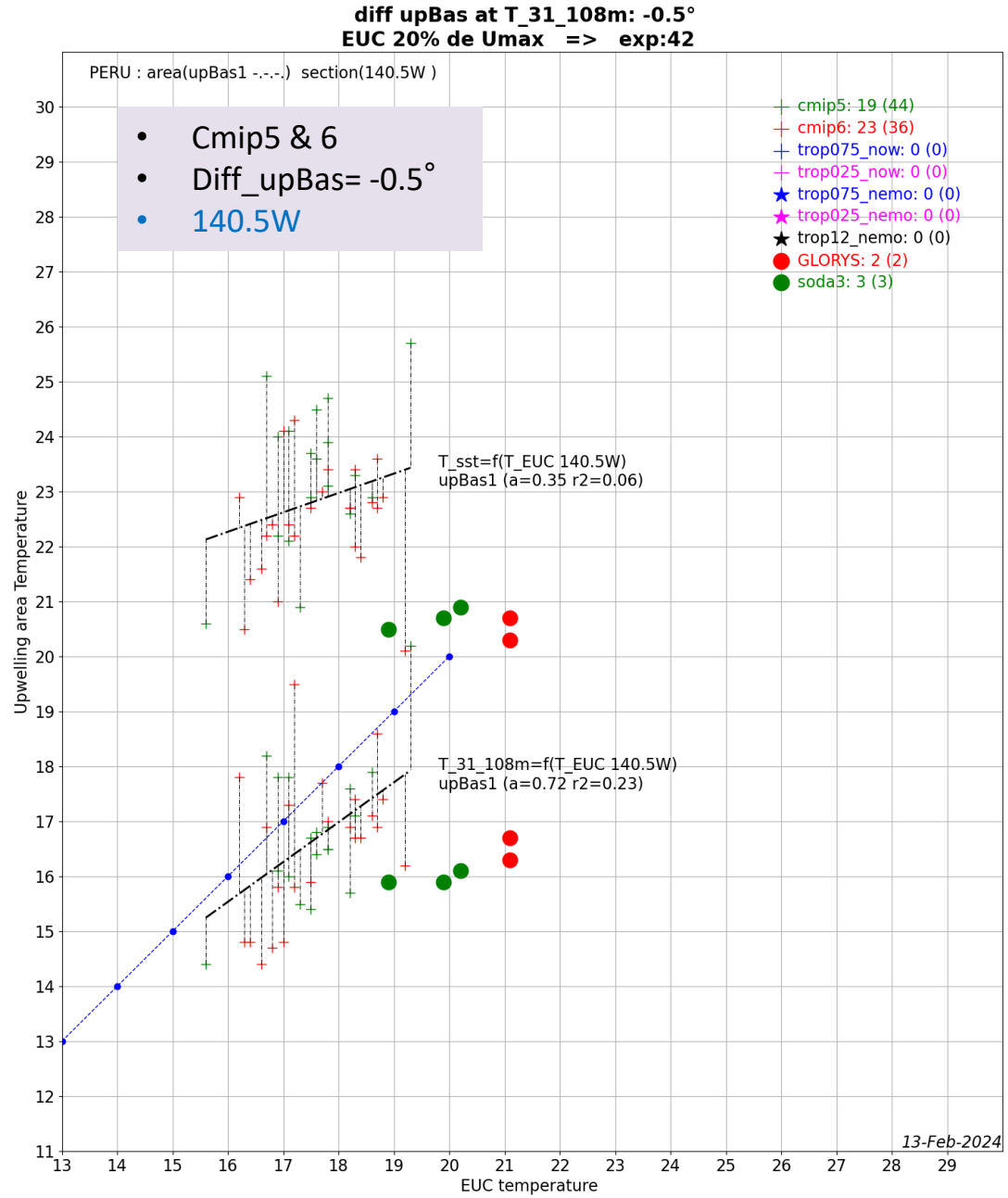

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(120.25W)
• Tous les couplés
• Diff_upBas= -1°
• 120.25W
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 120.25W)
upBas1 (a=0.73 r2=0.21)
T_31_108m=f(T_EUC 120.25W)
upBas1 (a=0.96 r2=0.55)
13-Feb-2024
Upwelling area Temperature
EUC temperature

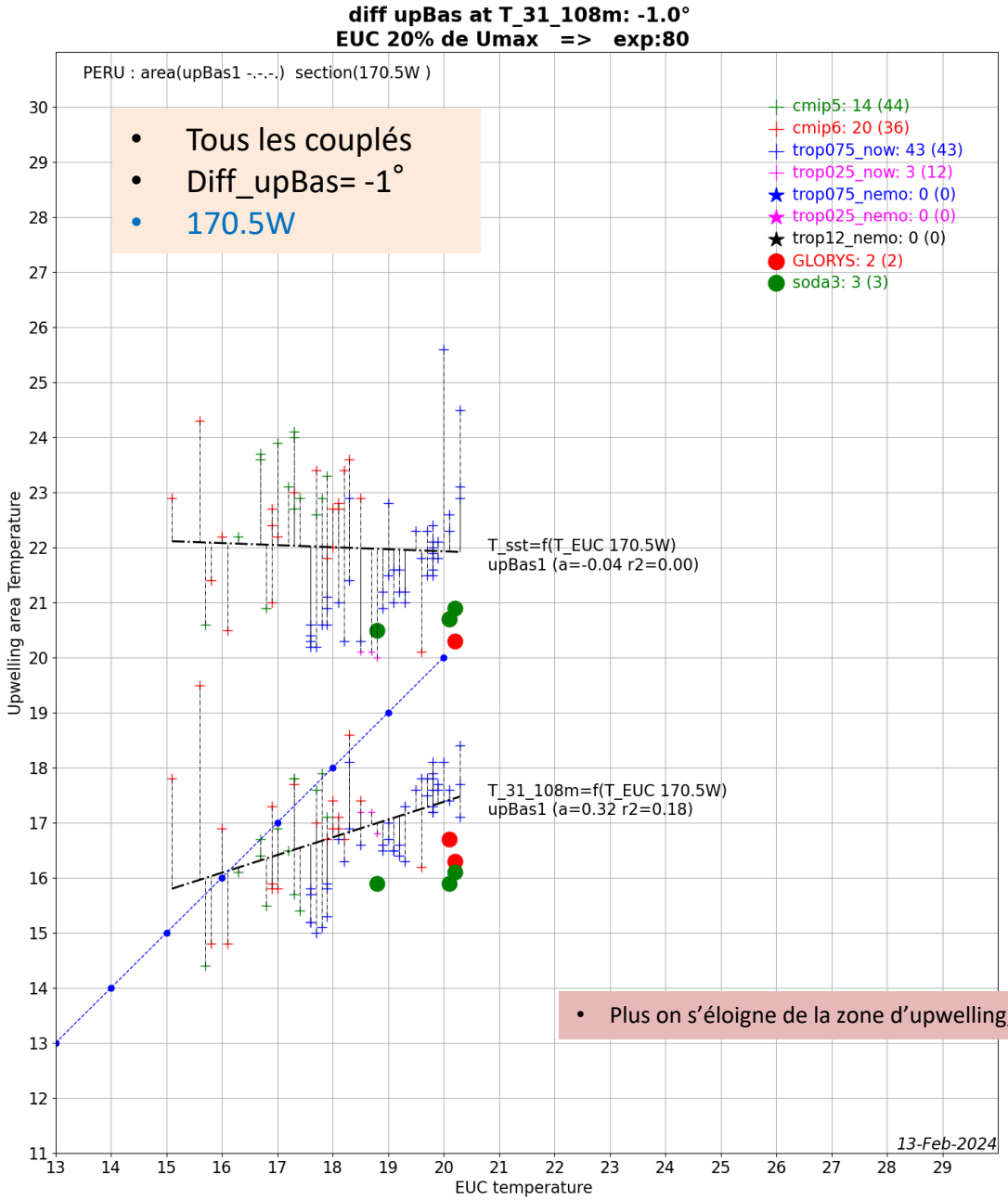

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(120.25W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 120.25W
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 120.25W)
upBas1 (a=0.50 r2=0.12)
T_31_108m=f(T_EUC 120.25W)
upBas1 (a=1.03 r2=0.49)
13-Feb-2024
Upwelling area Temperature
EUC temperature

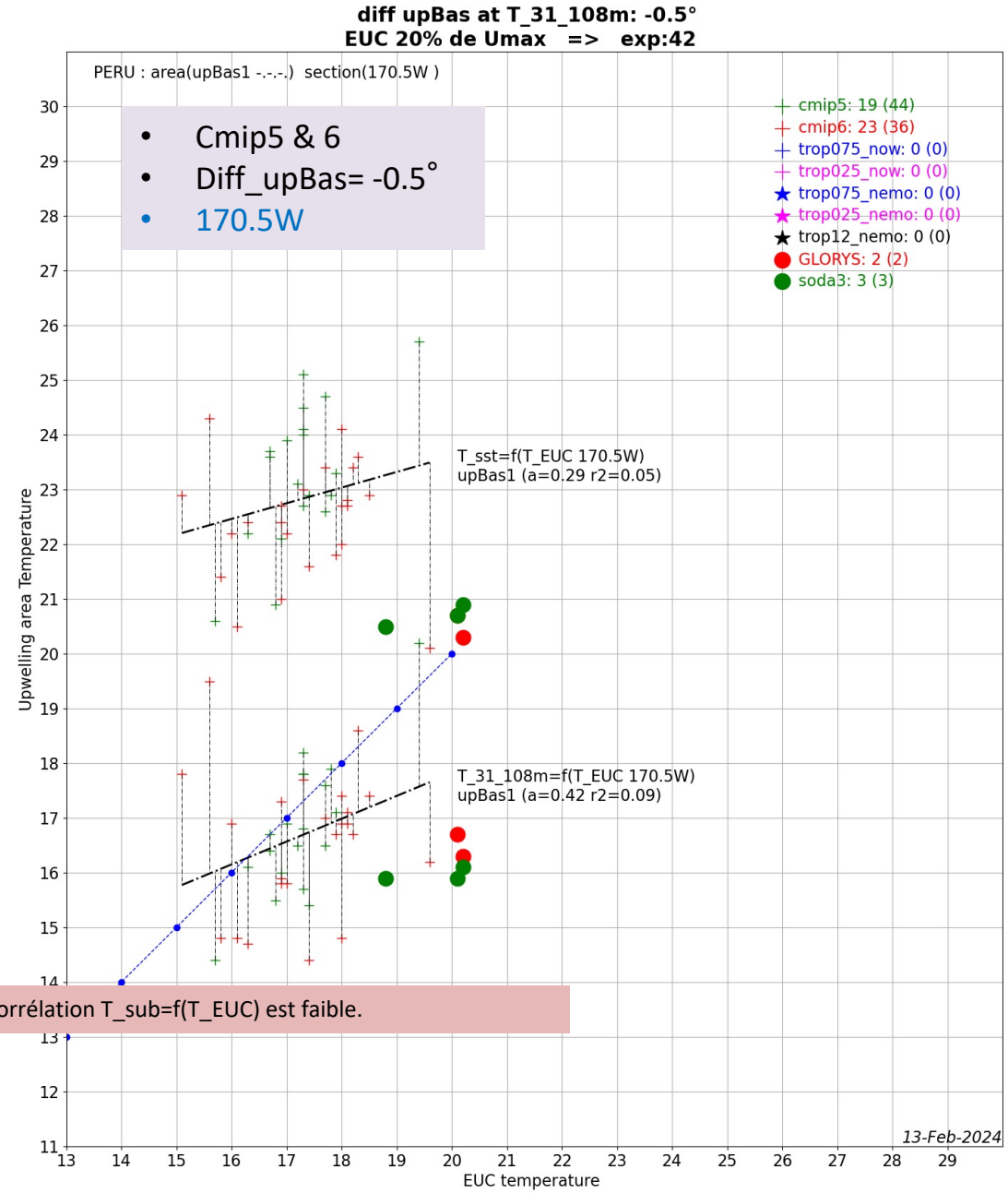

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(130W)
• Tous les couplés
• Diff_upBas= -1°
• 130W
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 130W)
upBas1 (a=0.61 r2=0.15)
T_31_108m=f(T_EUC 130W)
upBas1 (a=0.88 r2=0.47)
13-Feb-2024
Upwelling area Temperature
EUC temperature


diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(130W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 130W
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 130W)
upBas1 (a=0.42 r2=0.08)
T_31_108m=f(T_EUC 130W)
upBas1 (a=0.92 r2=0.37)
13-Feb-2024
Upwelling area Temperature
EUC temperature


diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(140.5W)
• Tous les couplés
• Diff_upBas= -1°
• 140.5W
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 140.5W)
upBas1 (a=0.37 r2=0.06)
T_31_108m=f(T_EUC 140.5W)
upBas1 (a=0.70 r2=0.36)
13-Feb-2024
Upwelling area Temperature
EUC temperature


diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(140.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 140.5W
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 140.5W)
upBas1 (a=0.35 r2=0.06)
T_31_108m=f(T_EUC 140.5W)
upBas1 (a=0.72 r2=0.23)
13-Feb-2024
Upwelling area Temperature
EUC temperature





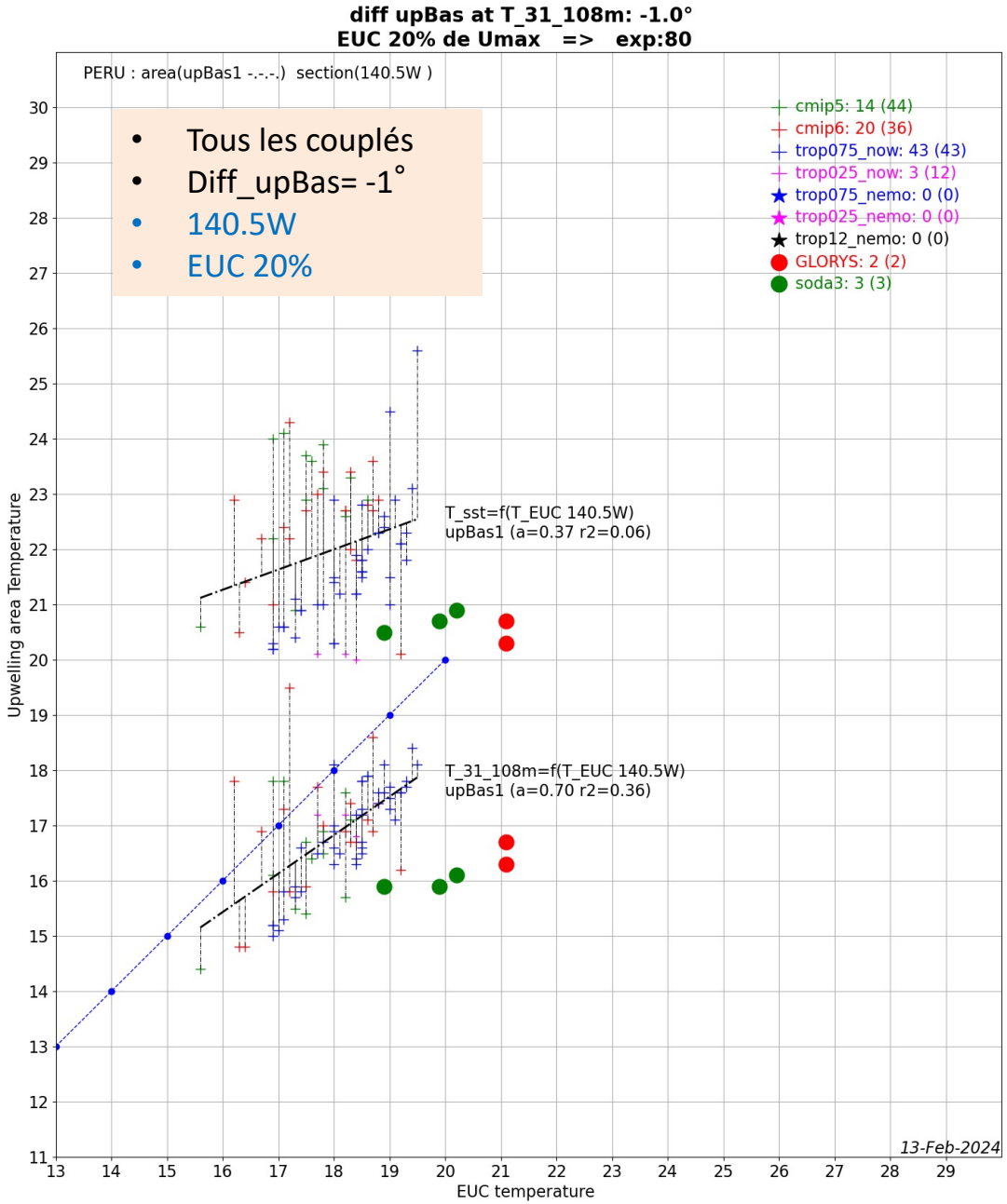
- Plus on s'éloigne de la zone d'upwelling, plus la corrélation T_sub=f(T_EUC) est faible.

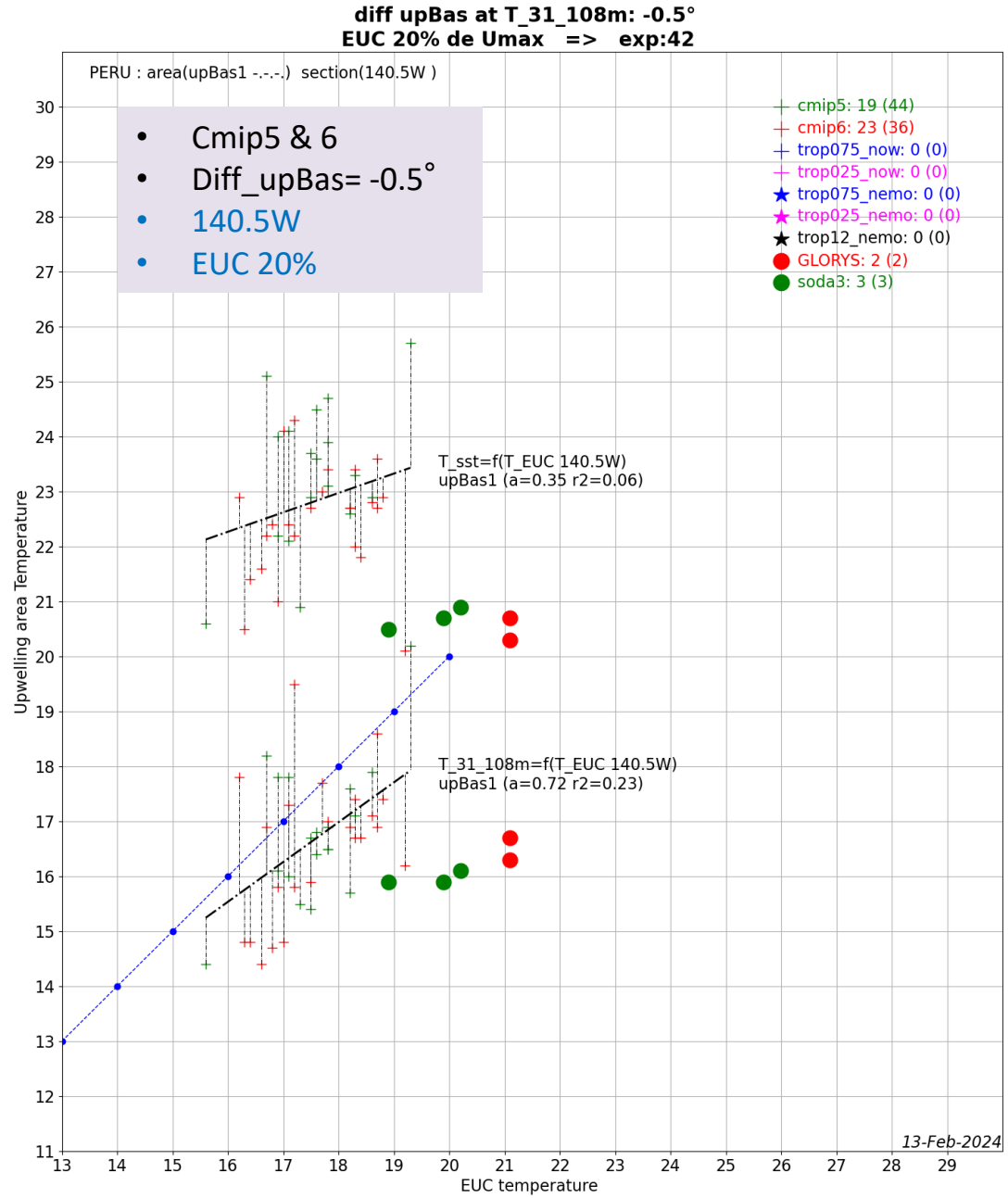
T_up=f(T_EUC, 110W, uo_max, 31_108m) : 140.5W, 170.5W

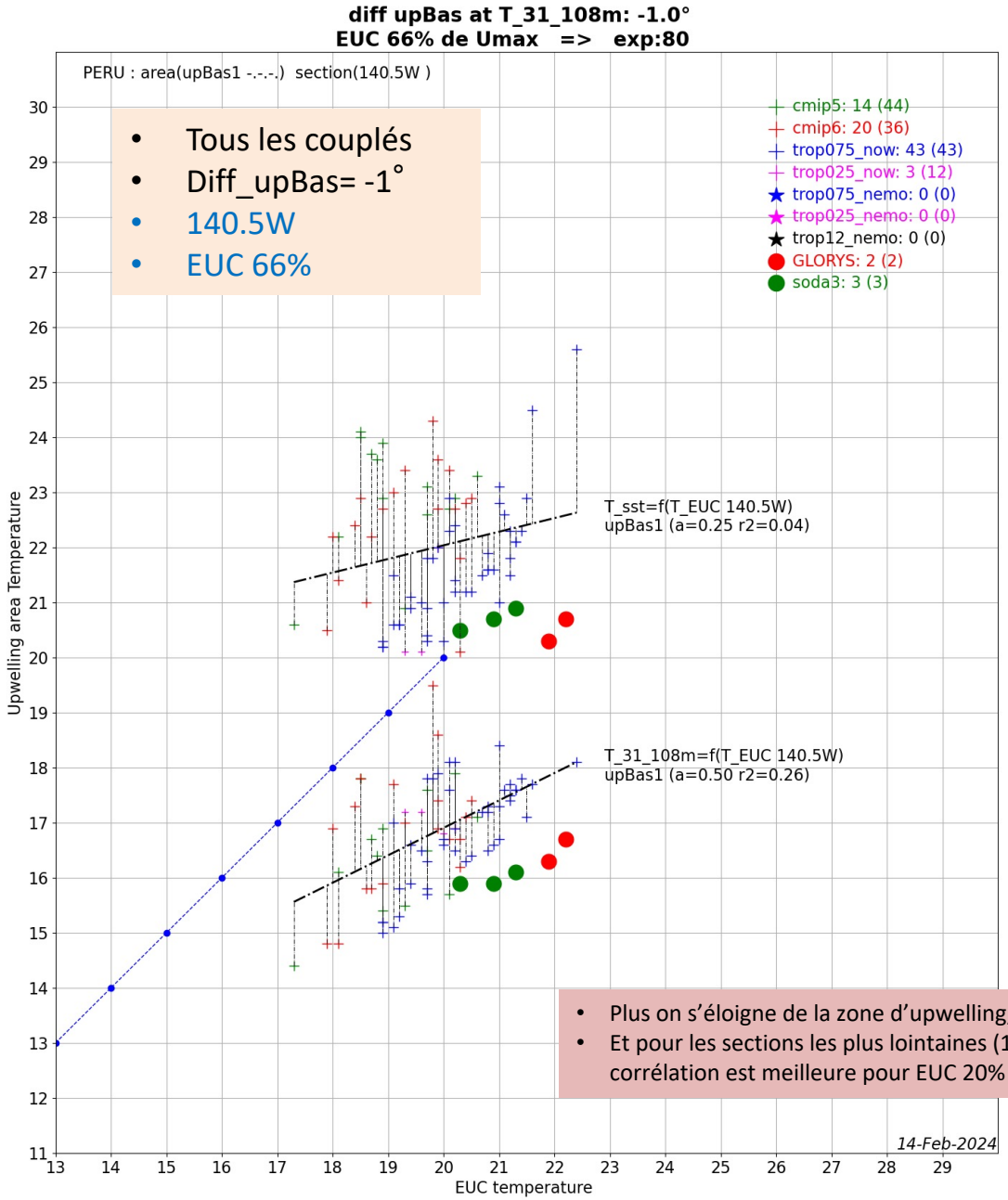
- Tous les couplés / Diff_upBas= -1°
- Cmip5 & 6 / Diff_upBas= -0.5°

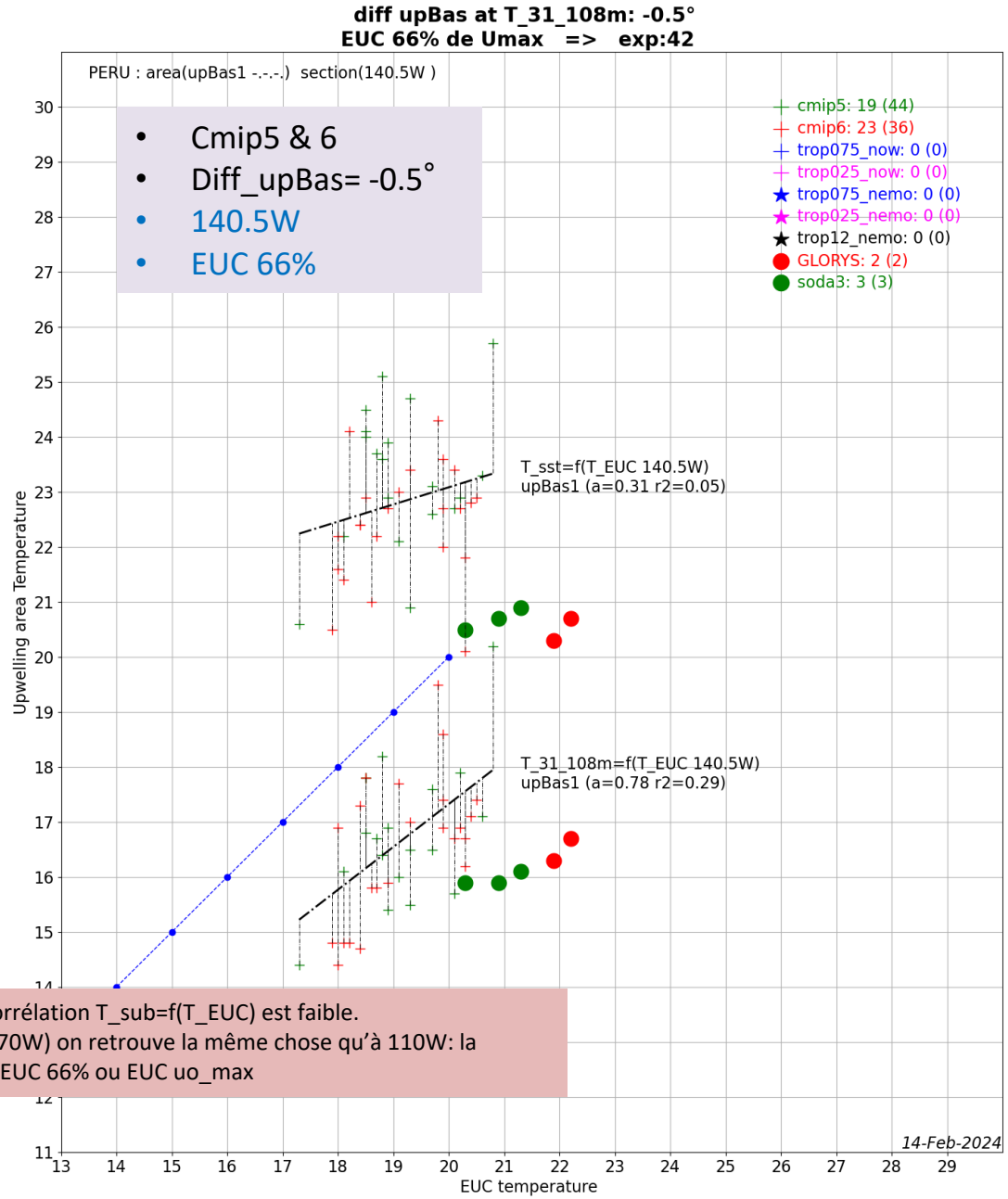
- Retour sur le cœur de l'EUC pour les sections lointaines
- Pour 140.5W, 170.5W
- Test EUC 20%, EUC 66%, EUC uo_max

- *Souvenir qu'au loin la corrélation était meilleure pour EUC uo_max…*

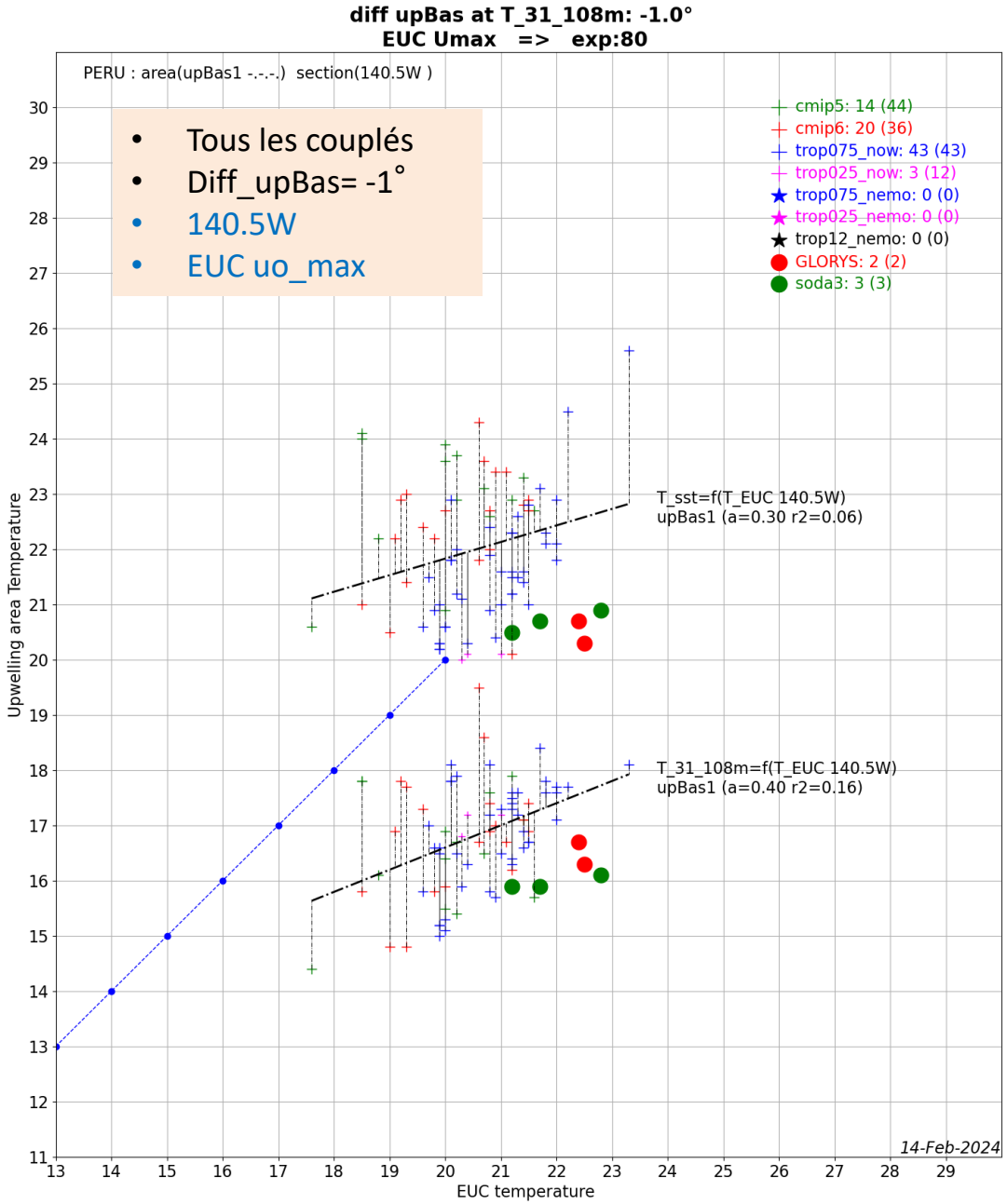

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(140.5W)
• Tous les couplés
• Diff_upBas= -1°
• 140.5W
• EUC 20%
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 140.5W)
upBas1 (a=0.37 r2=0.06)
T_31_108m=f(T_EUC 140.5W)
upBas1 (a=0.70 r2=0.36)
13-Feb-2024
Upwelling area Temperature
EUC temperature

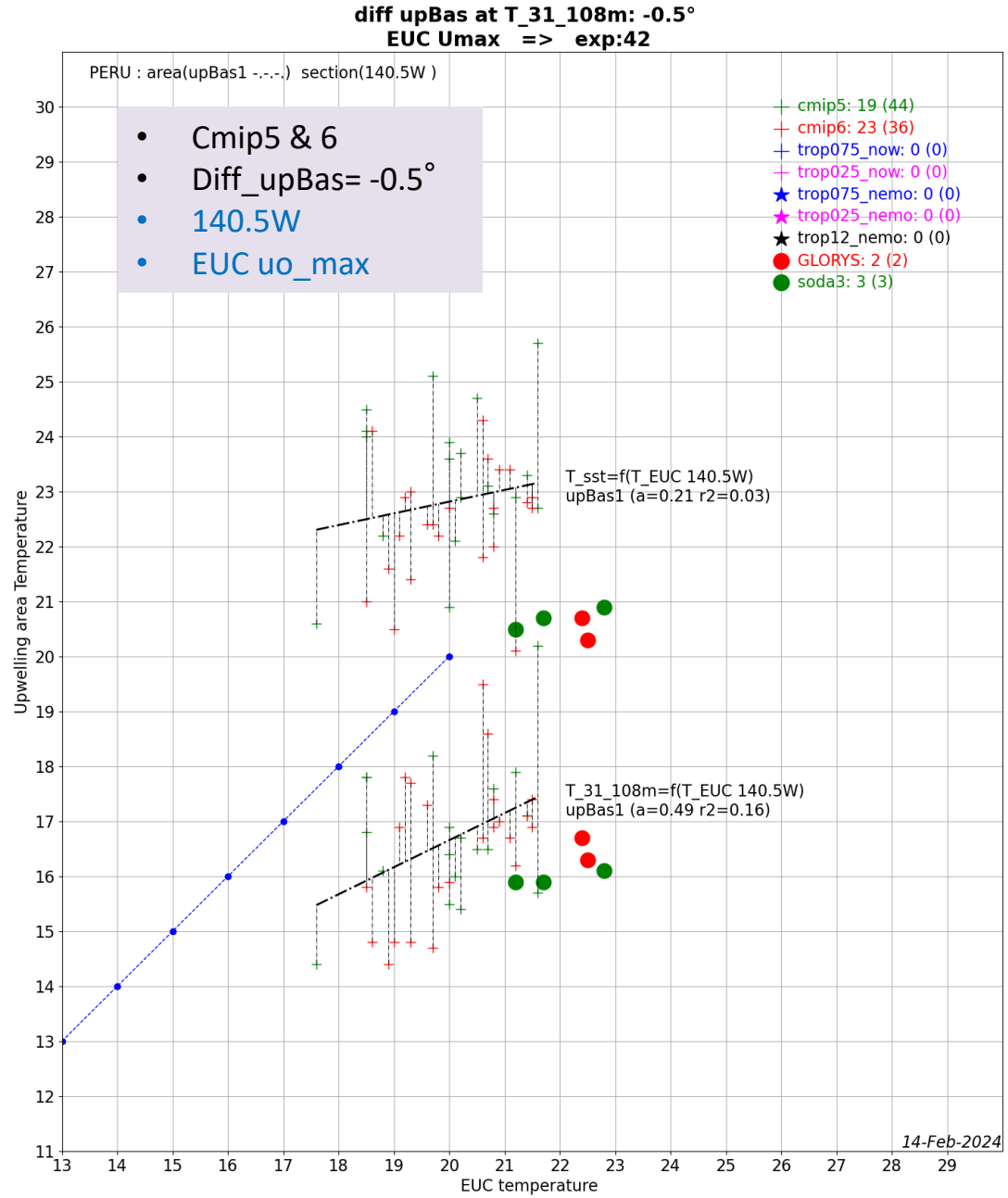

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(140.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 140.5W
• EUC 20%
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 140.5W)
upBas1 (a=0.35 r2=0.06)
T_31_108m=f(T_EUC 140.5W)
upBas1 (a=0.72 r2=0.23)
13-Feb-2024
Upwelling area Temperature
EUC temperature

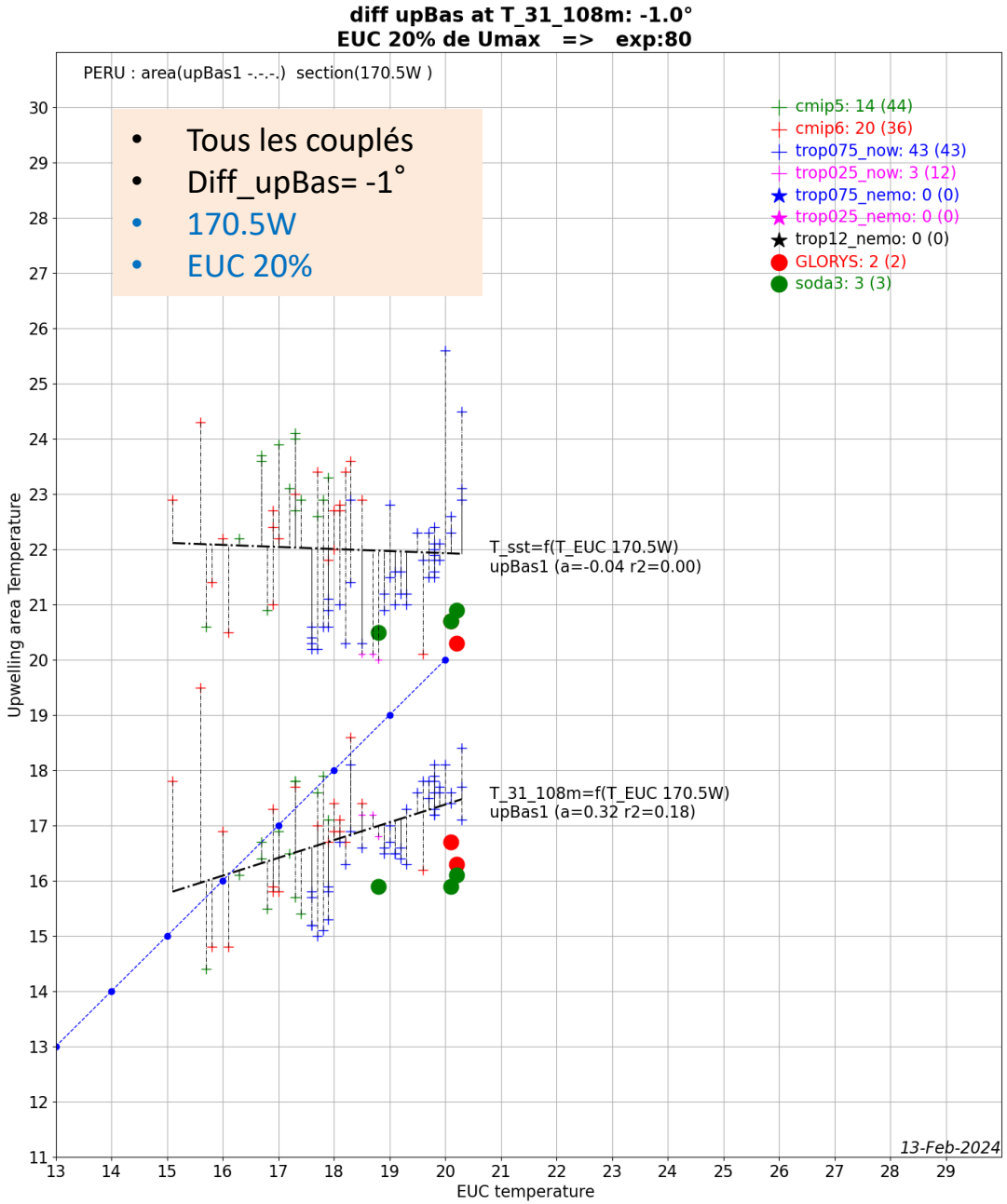


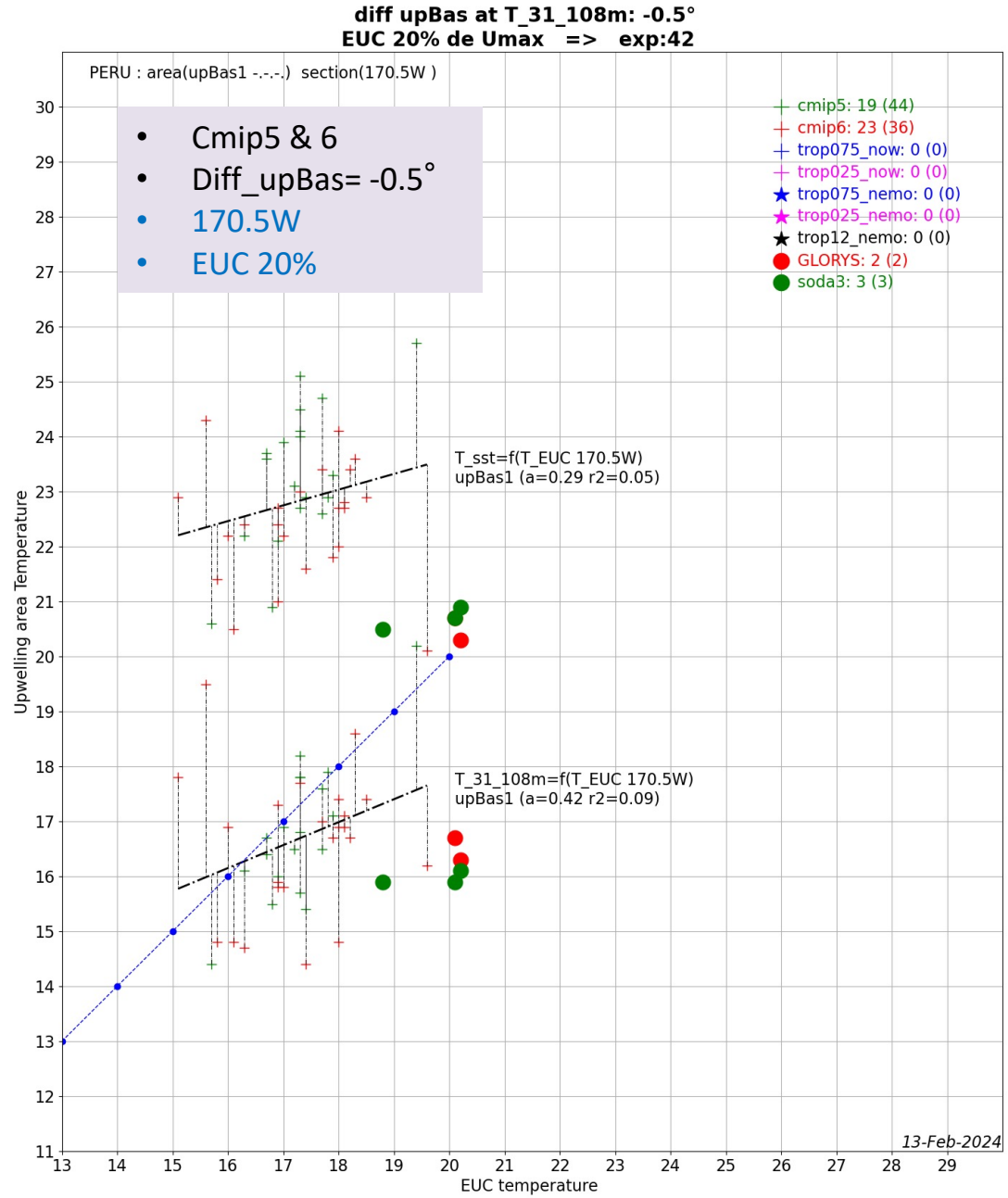


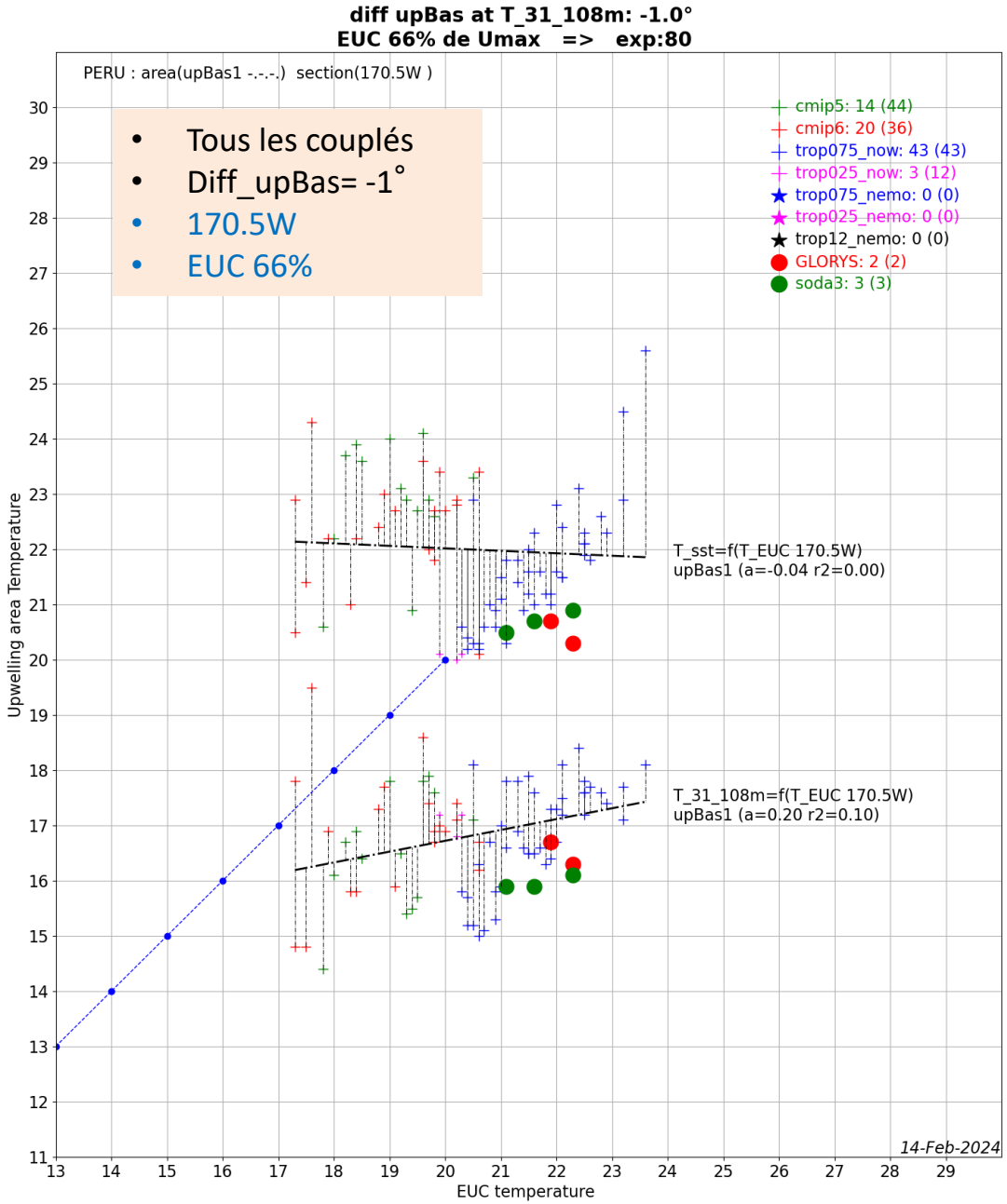
- Plus on s'éloigne de la zone d'upwelling, plus la corrélation T_sub=f(T_EUC) est faible.
- Et pour les sections les plus lointaines (140W et 170W) on retrouve la même chose qu'à 110W: la corrélation est meilleure pour EUC 20% que pour EUC 66% ou EUC uo_max

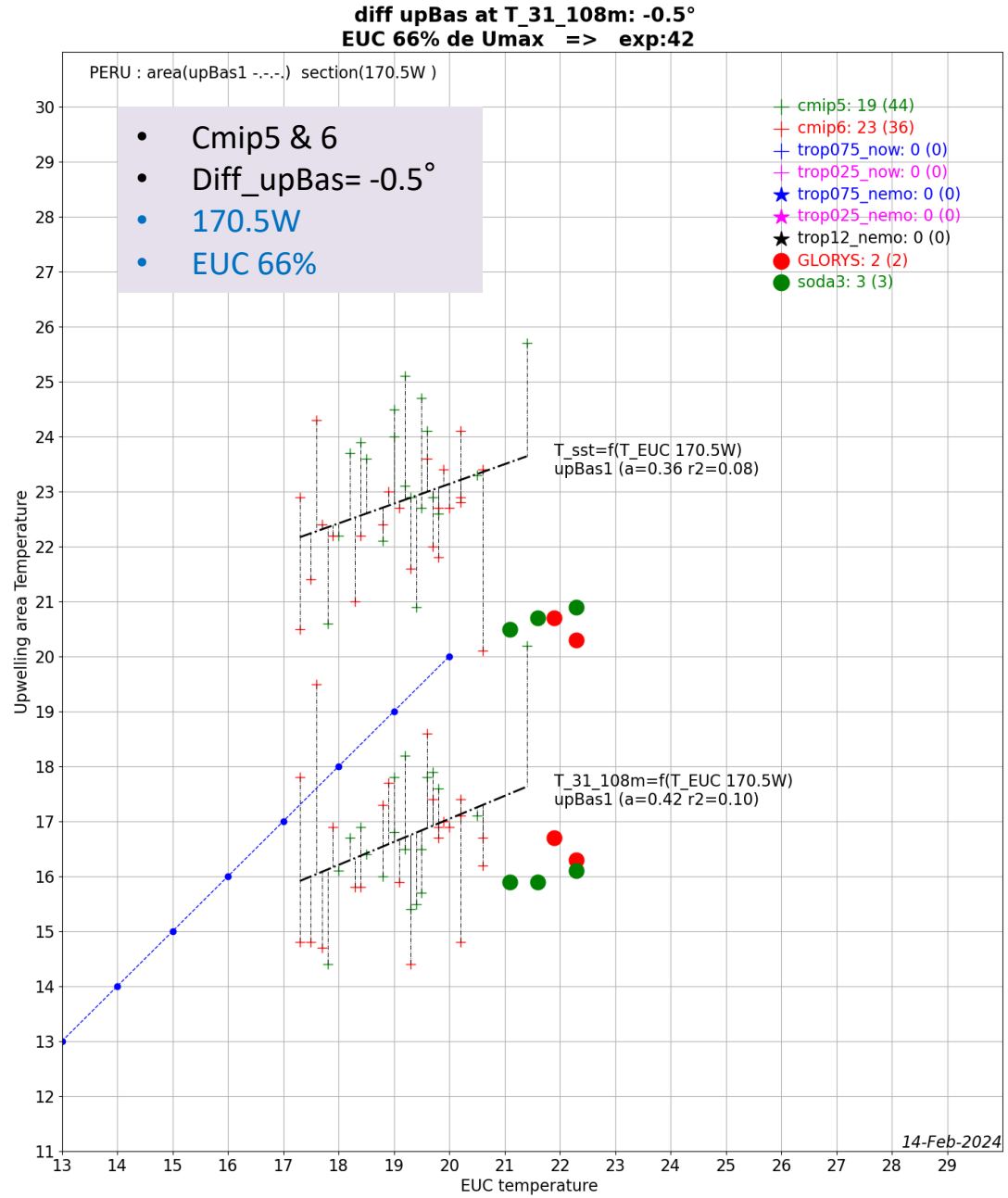

diff upBas at T_31_108m: -1.0°
EUC Umax => exp:80
PERU : area(upBas1 -.-.-.) section(140.5W)
• Tous les couplés
• Diff_upBas= -1°
• 140.5W
• EUC uo_max
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 140.5W)
upBas1 (a=0.30 r2=0.06)
T_31_108m=f(T_EUC 140.5W)
upBas1 (a=0.40 r2=0.16)
14-Feb-2024
Upwelling area Temperature
EUC temperature

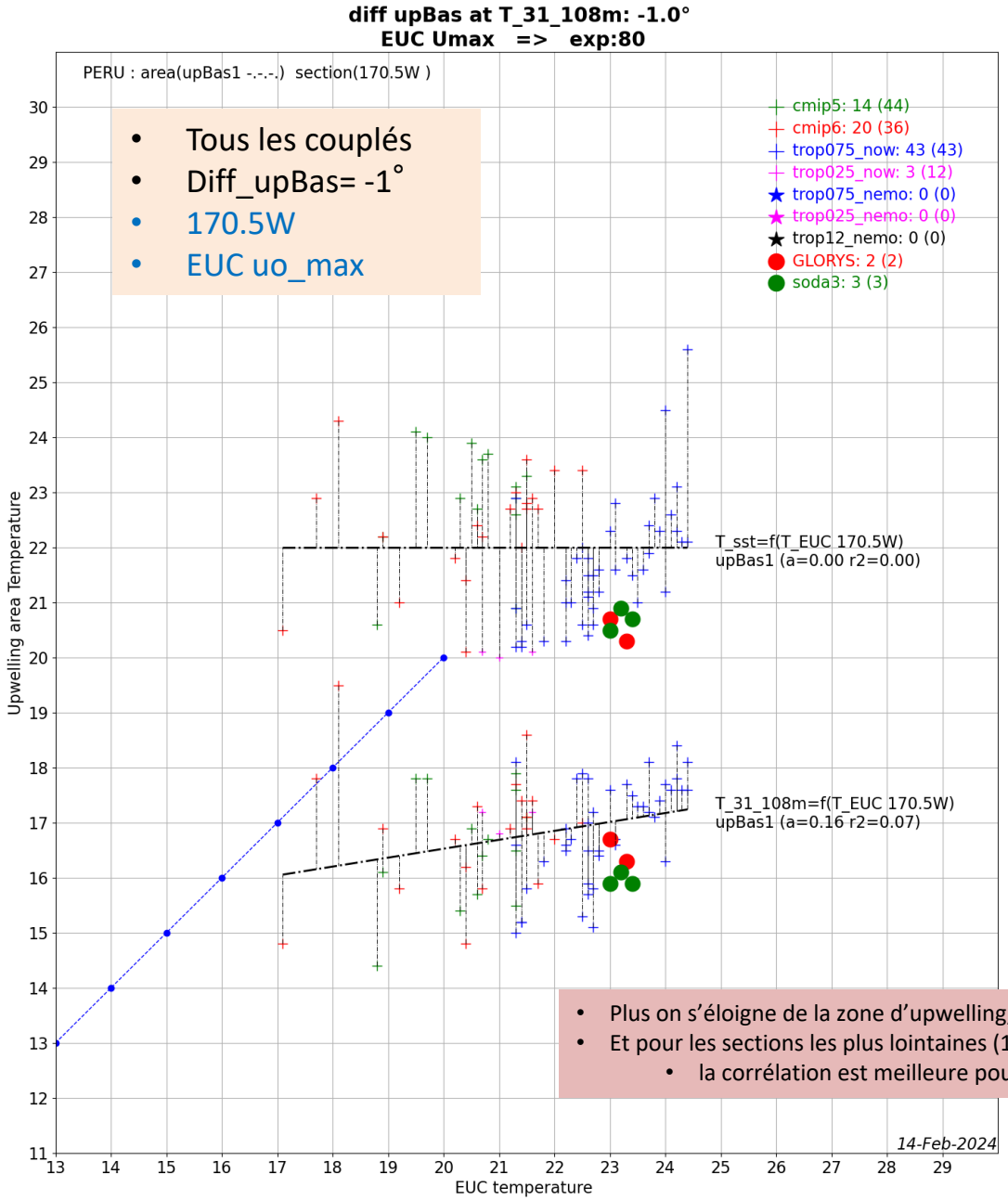

diff upBas at T_31_108m: -0.5°
EUC Umax => exp:42
PERU : area(upBas1 -.-.-.) section(140.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 140.5W
• EUC uo_max
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 140.5W)
upBas1 (a=0.21 r2=0.03)
T_31_108m=f(T_EUC 140.5W)
upBas1 (a=0.49 r2=0.16)
14-Feb-2024
Upwelling area Temperature
EUC temperature

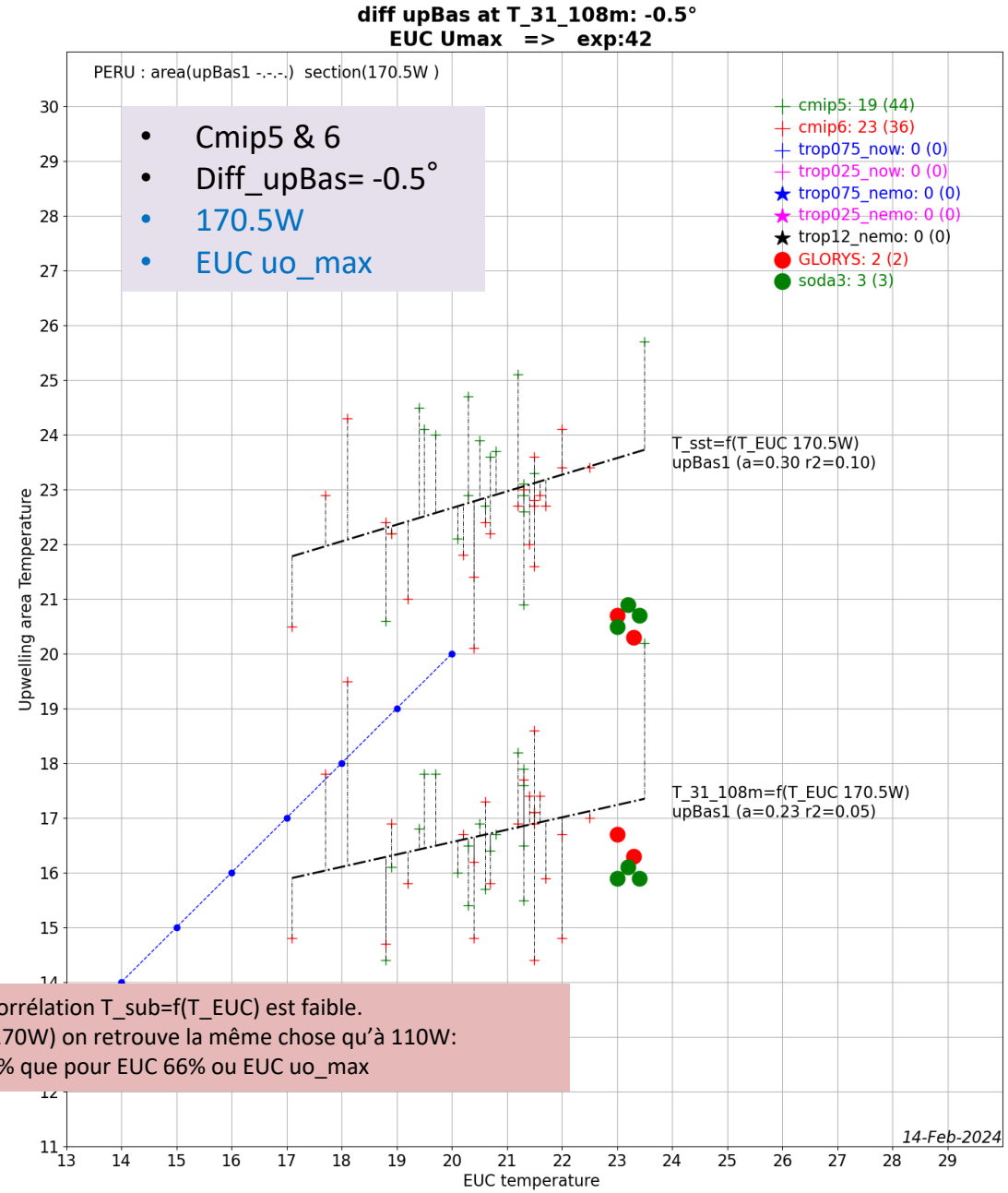

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(170.5W)
• Tous les couplés
• Diff_upBas= -1°
• 170.5W
• EUC 20%
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 170.5W)
upBas1 (a=-0.04 r2=0.00)
T_31_108m=f(T_EUC 170.5W)
upBas1 (a=0.32 r2=0.18)
Upwelling area Temperature
EUC temperature
13-Feb-2024


diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(170.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 170.5W
• EUC 20%
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 170.5W)
upBas1 (a=0.29 r2=0.05)
T_31_108m=f(T_EUC 170.5W)
upBas1 (a=0.42 r2=0.09)
Upwelling area Temperature
EUC temperature
13-Feb-2024


diff upBas at T_31_108m: -1.0°
EUC 66% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(170.5W)
• Tous les couplés
• Diff_upBas= -1°
• 170.5W
• EUC 66%
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 170.5W)
upBas1 (a=-0.04 r2=0.00)
T_31_108m=f(T_EUC 170.5W)
upBas1 (a=0.20 r2=0.10)
14-Feb-2024
Upwelling area Temperature
EUC temperature


diff upBas at T_31_108m: -0.5°
EUC 66% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(170.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 170.5W
• EUC 66%
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 170.5W)
upBas1 (a=0.36 r2=0.08)
T_31_108m=f(T_EUC 170.5W)
upBas1 (a=0.42 r2=0.10)
14-Feb-2024
Upwelling area Temperature
EUC temperature





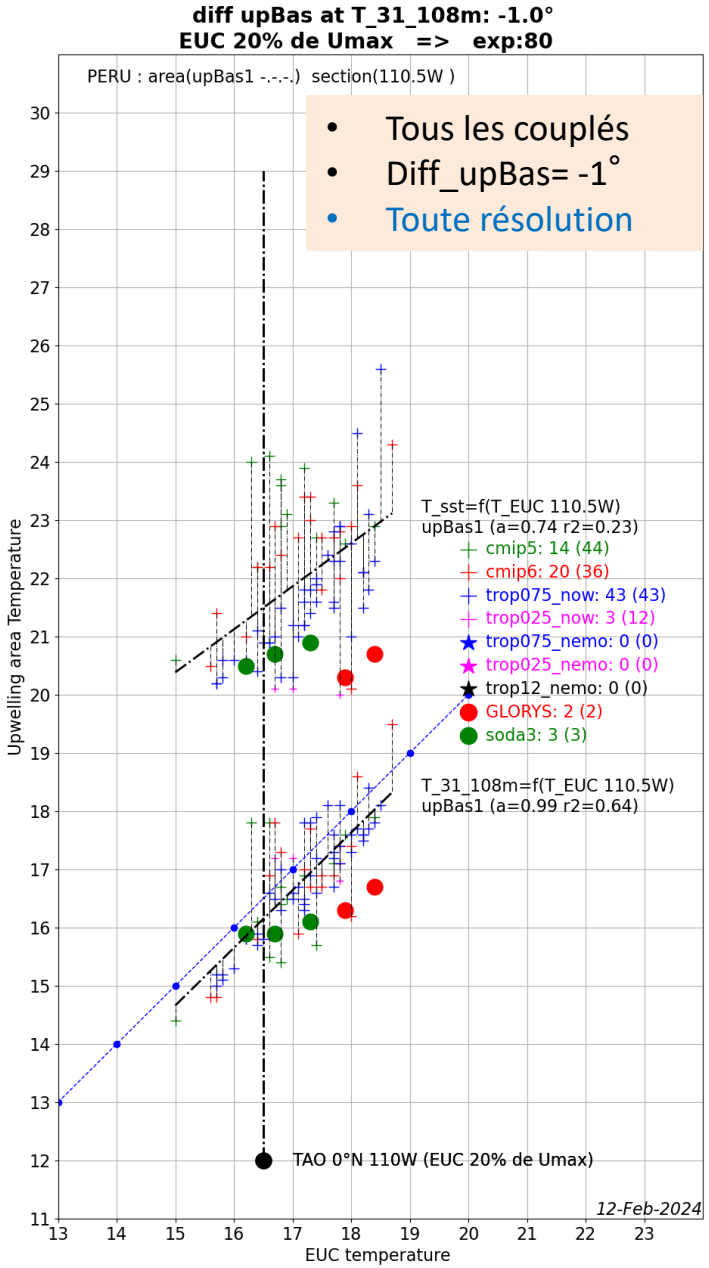
- Plus on s'éloigne de la zone d'upwelling, plus la corrélation T_sub=f(T_EUC) est faible.
- Et pour les sections les plus lointaines (140W et 170W) on retrouve la même chose qu'à 110W:
  - la corrélation est meilleure pour EUC 20% que pour EUC 66% ou EUC uo_max

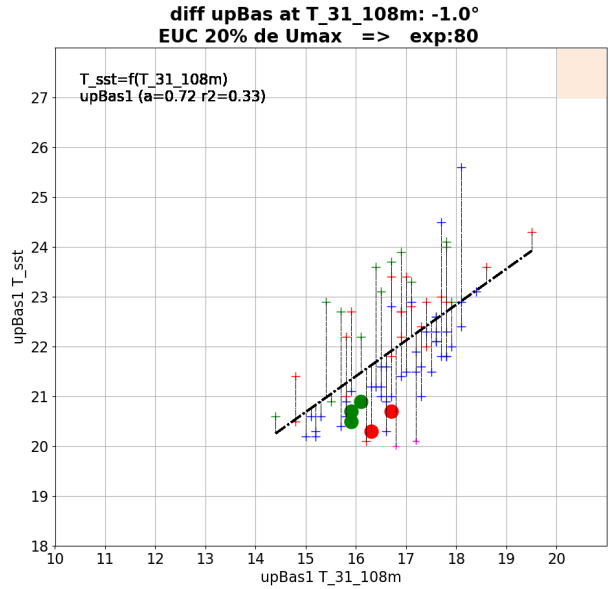
T_up=f(T_EUC, 110W, 20%, 31_108m) : dy False / >= 0.6

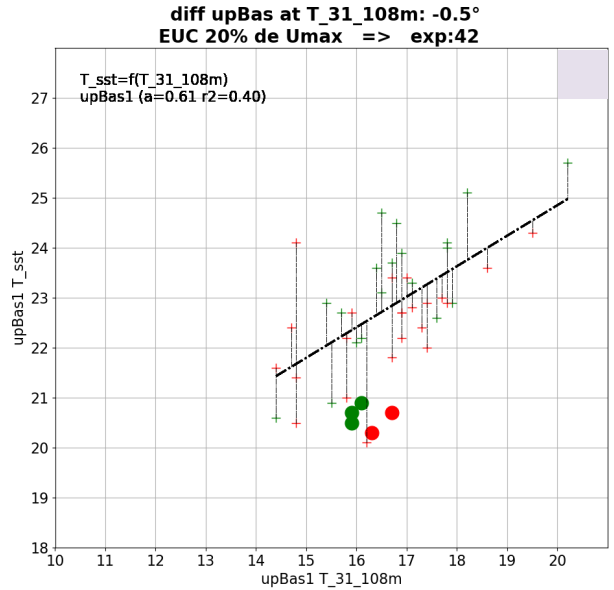
- **RETOUR SUR LA RESOLUTION DECEVANTE:**

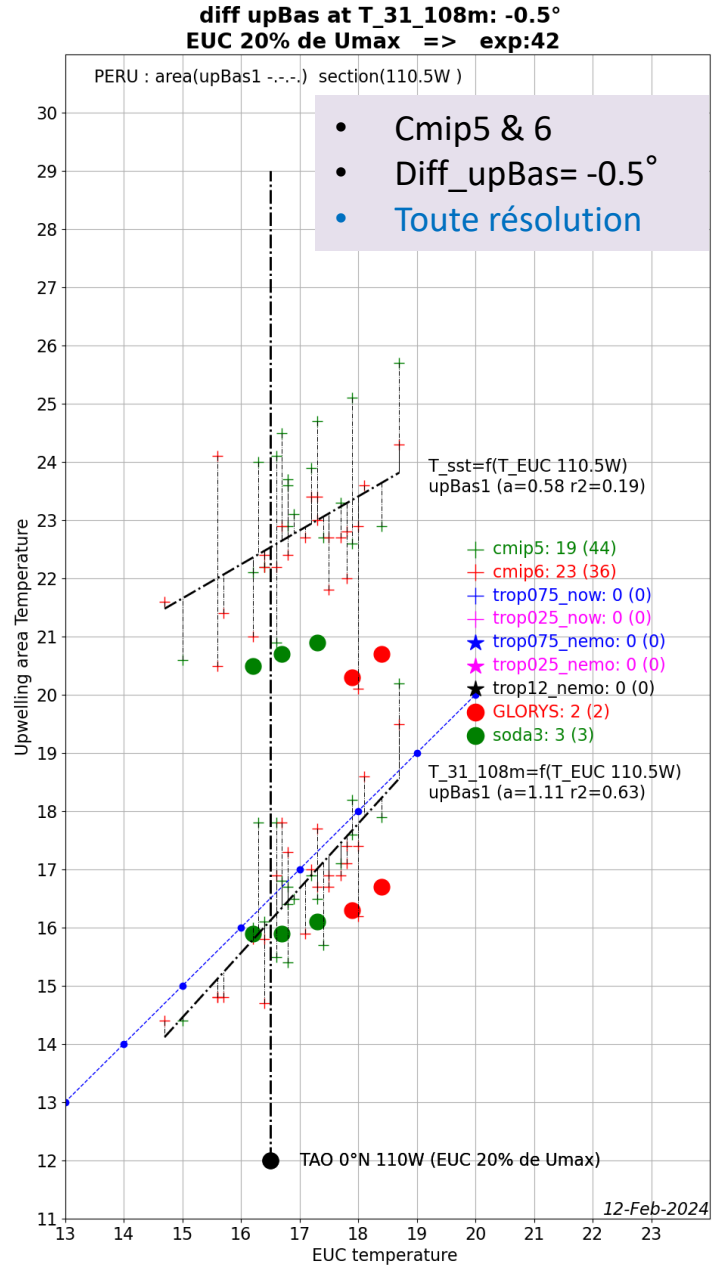
- Tous les couplés / Diff_upBas= -1°
- Cmip5 & 6 / Diff_upBas= -0.5°

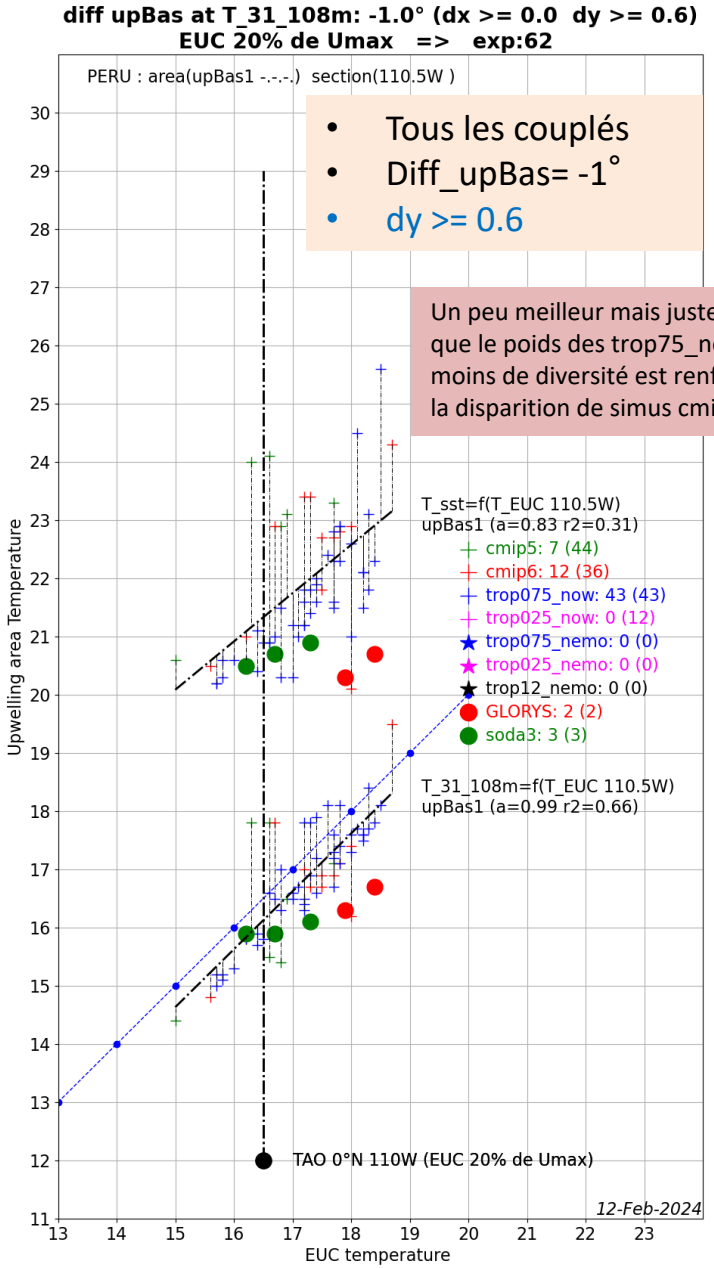
- Compare dy False / >= 0.6
- Ajout de dy <= 0.4


diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• Toute résolution
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=0.99 r2=0.64)
TAO 0°N 110W (EUC 20% de Umax)
12-Feb-2024
Upwelling area Temperature
EUC temperature


diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_31_108m)
upBas1 (a=0.72 r2=0.33)
upBas1 T_sst
upBas1 T_31_108m

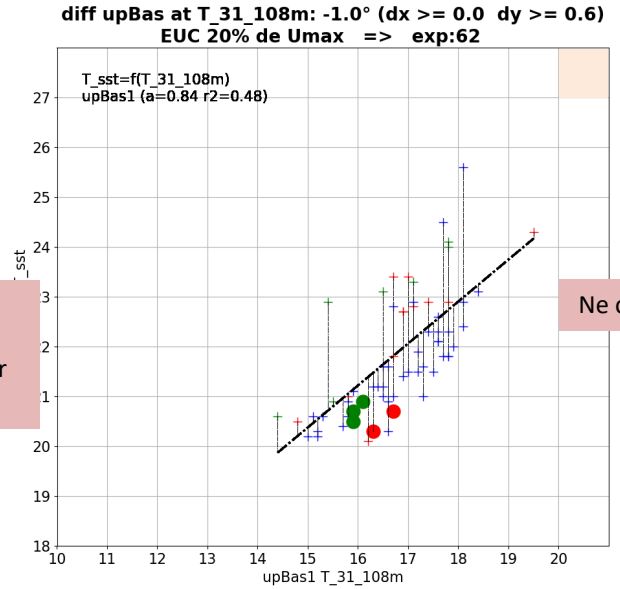

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_31_108m)
upBas1 (a=0.61 r2=0.40)
upBas1 T_sst
upBas1 T_31_108m

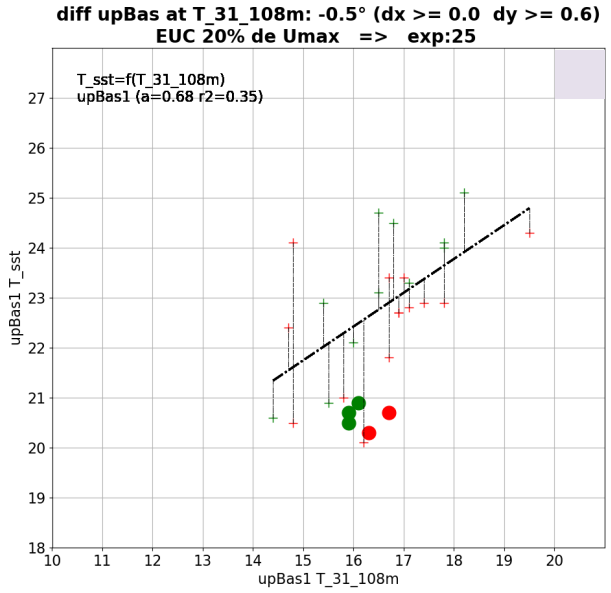

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• Toute résolution
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.11 r2=0.63)
TAO 0°N 110W (EUC 20% de Umax)
12-Feb-2024
Upwelling area Temperature
EUC temperature



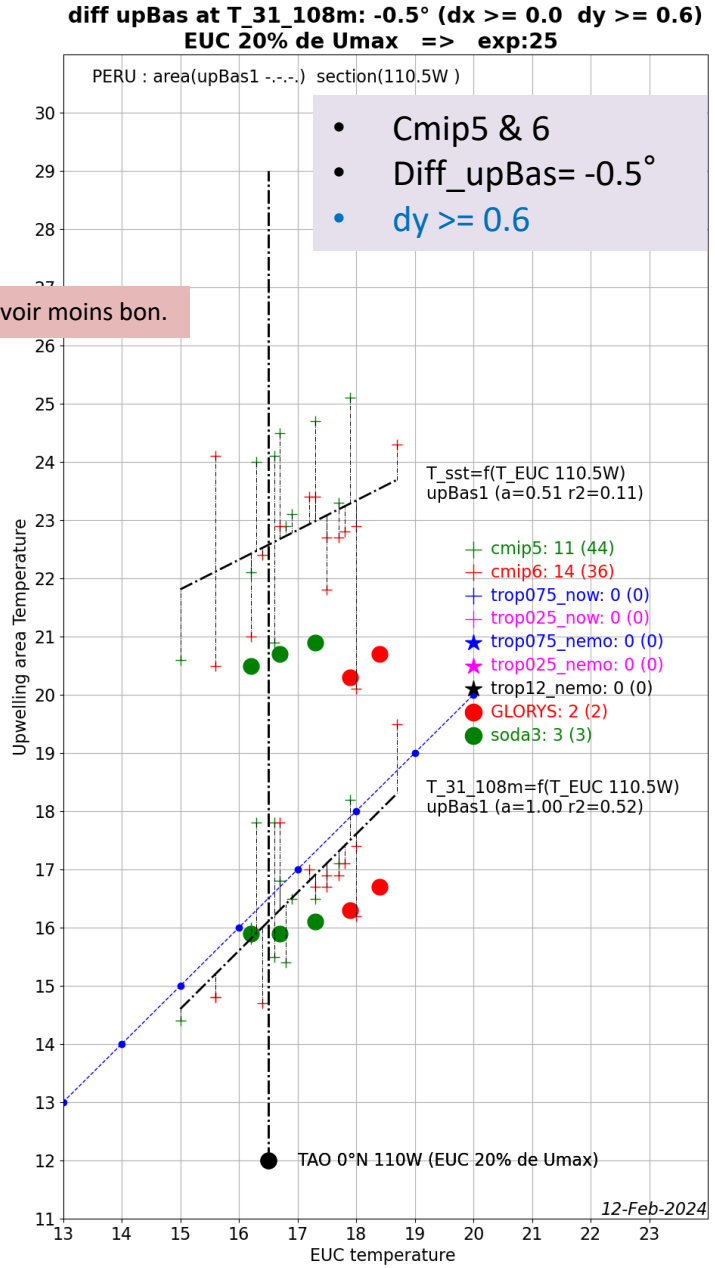
- Tous les couplés
- Diff_upBas= -1°
- dy >= 0.6

Un peu meilleur mais juste parce que le poids des trop75_now avec moins de diversité est renforcé par la disparition de simus cmip5 et 6



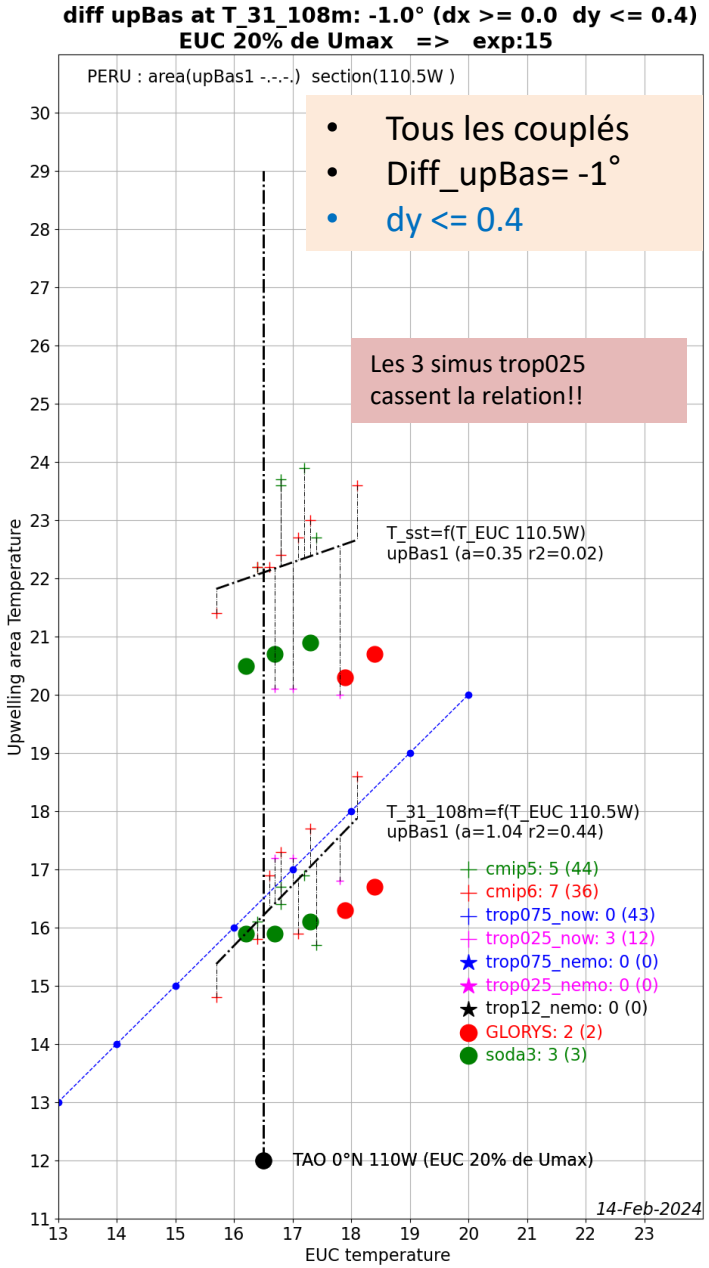


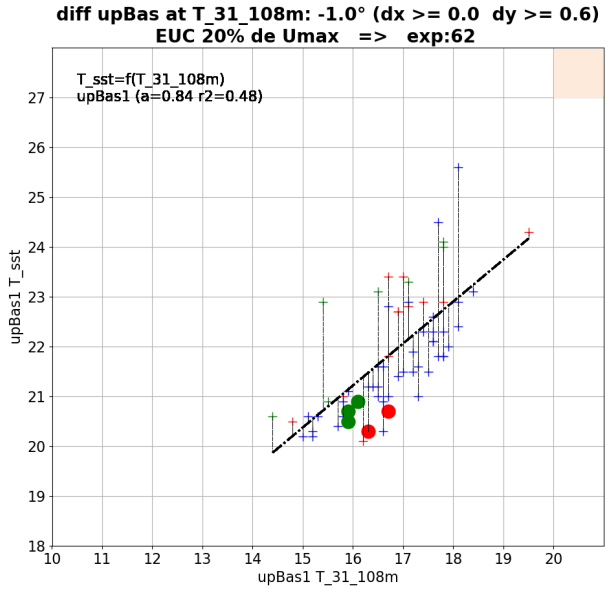
Ne change pas voir moins bon.

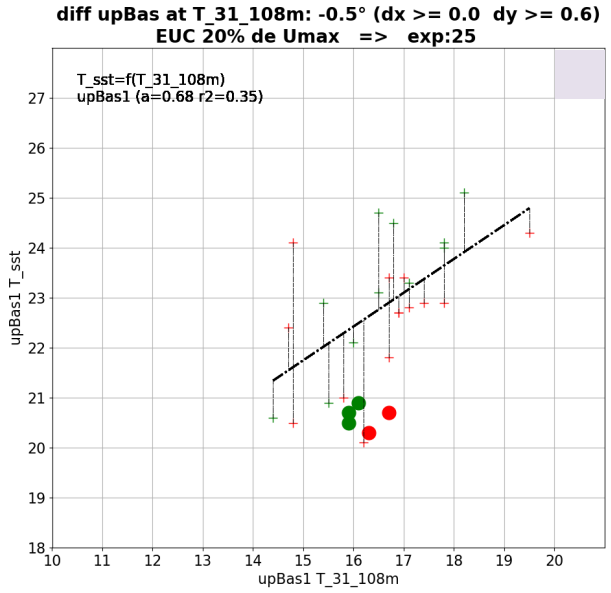


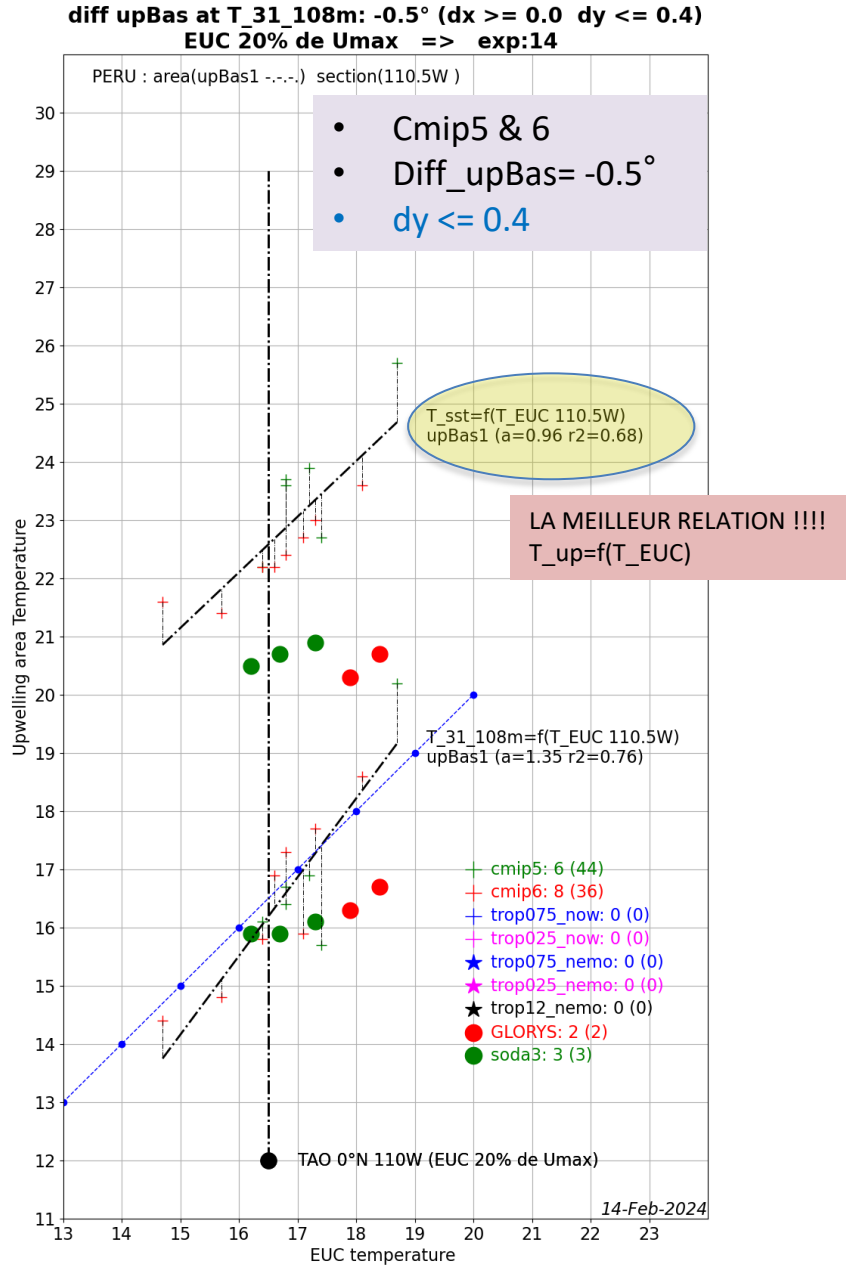
- Cmip5 & 6
- Diff_upBas= -0.5°
- dy >= 0.6

Enlever les simus HR (dy >= 0.6) n'a rien de concluant. La HR ne perturbe pas la relation T_up=f(T_EUC) comme on l'espérait.


diff upBas at T_31_108m: -1.0° (dx >= 0.0 dy <= 0.4)
EUC 20% de Umax => exp:15
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• dy <= 0.4
Les 3 simus trop025 cassent la relation!!
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.35 r2=0.02)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.04 r2=0.44)
cmip5: 5 (44)
cmip6: 7 (36)
trop075_now: 0 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
TAO 0°N 110W (EUC 20% de Umax)
14-Feb-2024
Upwelling area Temperature
EUC temperature


diff upBas at T_31_108m: -1.0° (dx >= 0.0 dy >= 0.6)
EUC 20% de Umax => exp:62
T_sst=f(T_31_108m)
upBas1 (a=0.84 r2=0.48)
upBas1 T_sst
upBas1 T_31_108m


diff upBas at T_31_108m: -0.5° (dx >= 0.0 dy >= 0.6)
EUC 20% de Umax => exp:25
T_sst=f(T_31_108m)
upBas1 (a=0.68 r2=0.35)
upBas1 T_sst
upBas1 T_31_108m

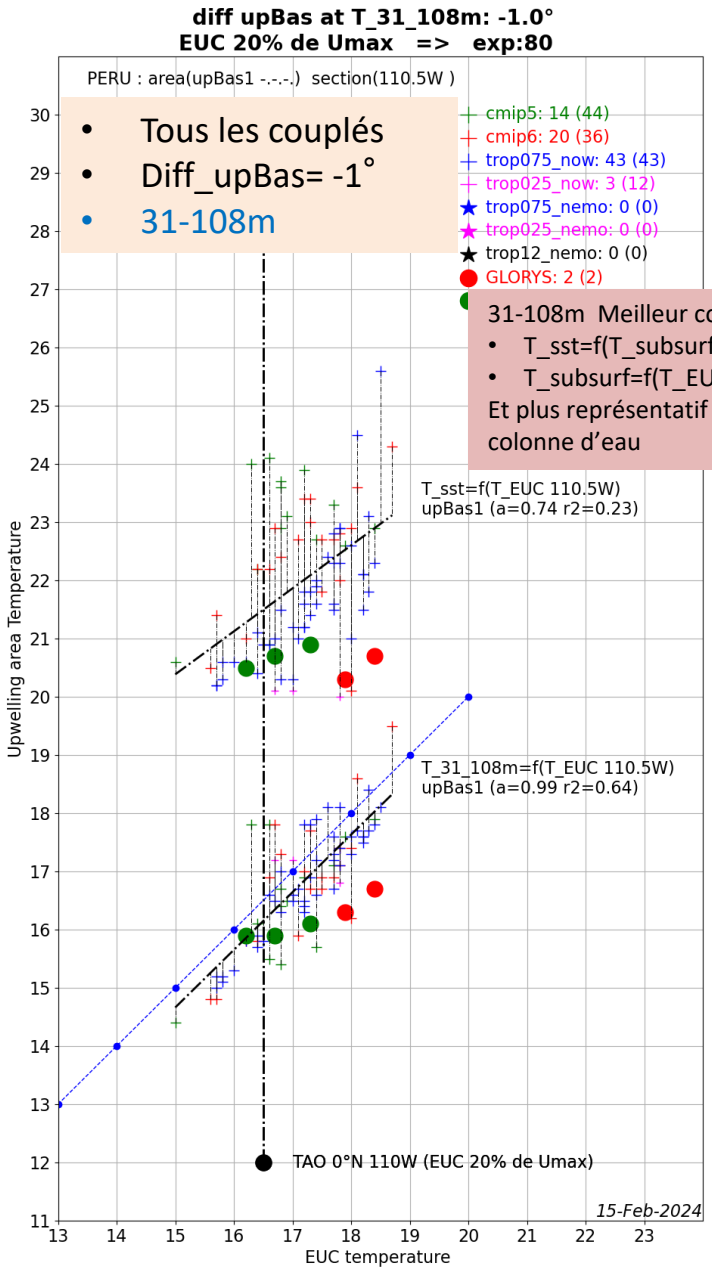

diff upBas at T_31_108m: -0.5° (dx >= 0.0 dy <= 0.4)
EUC 20% de Umax => exp:14
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• dy <= 0.4
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.96 r2=0.68)
LA MEILLEUR RELATION !!!!
T_up=f(T_EUC)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.35 r2=0.76)
cmip5: 6 (44)
cmip6: 8 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
TAO 0°N 110W (EUC 20% de Umax)
14-Feb-2024
Upwelling area Temperature
EUC temperature

T_up=f(T_EUC, 110W, 20%, 31_108m) : 31_108m / 54m / 87m / 120m / 181m

- **RETOUR SUR les couches d'upwelling les plus sensibles à l'EUC:**

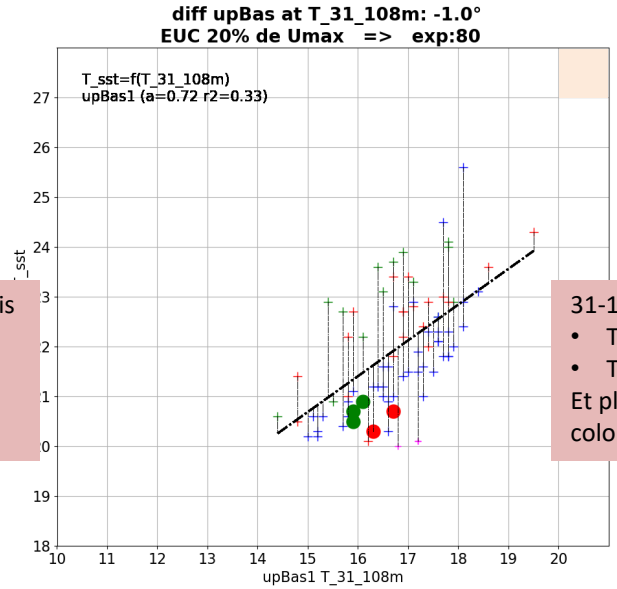
- Tous les couplés / Diff_upBas= -1°
- Cmip5 & 6 / Diff_upBas= -0.5°

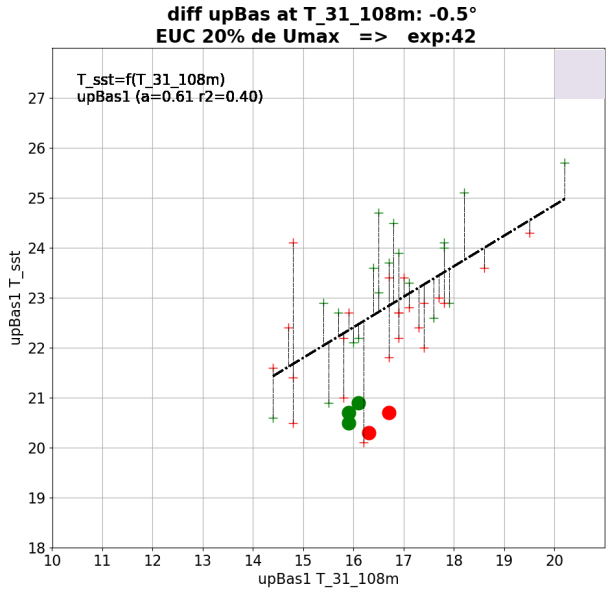
- Compare 31_108m / 54m / 87m / 120m / 181m
- + tous les niveaux intermédiaire pour définir la meilleur couche cumulée à prendre en compte
- 27m / 36m / 54m / 61m / 69m / 78m / 87m / 97m / 108m / 120m / 133m / 147m / 163m / 181m



31-108m Meilleur compromis
- T_sst=f(T_subsurf)
- T_subsurf=f(T_EUC)

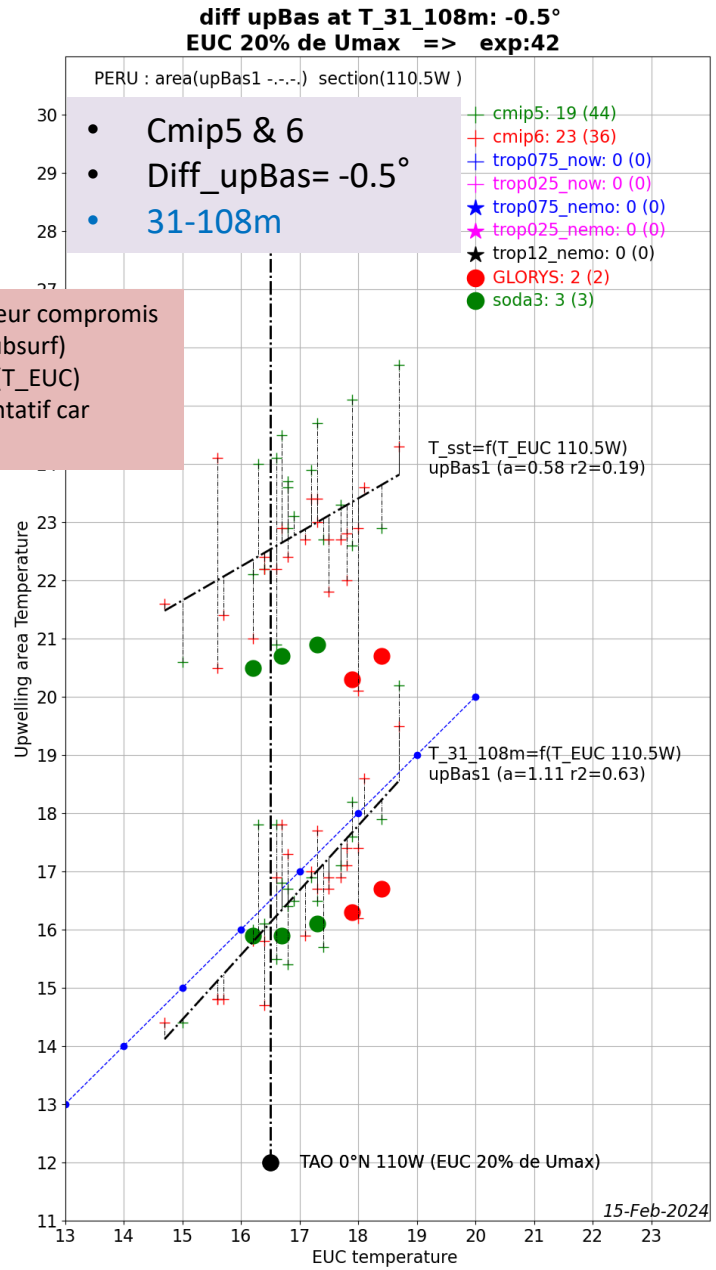
Et plus représentatif car colonne d'eau

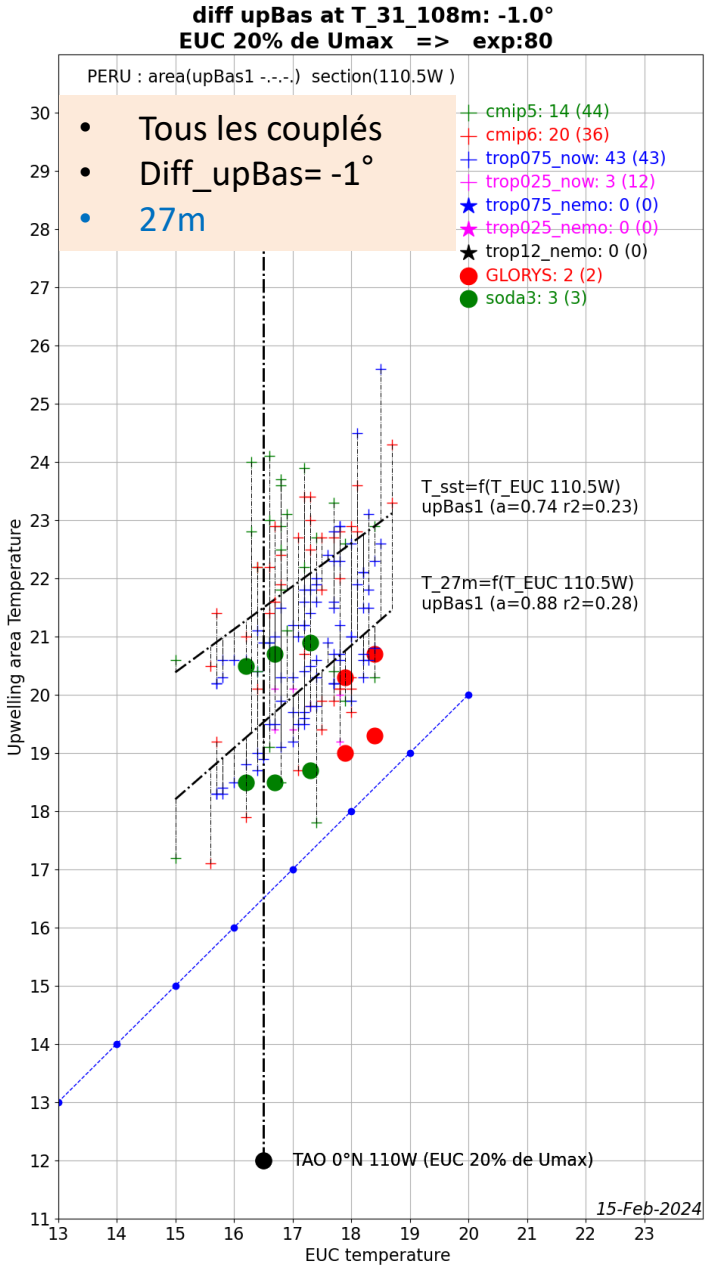


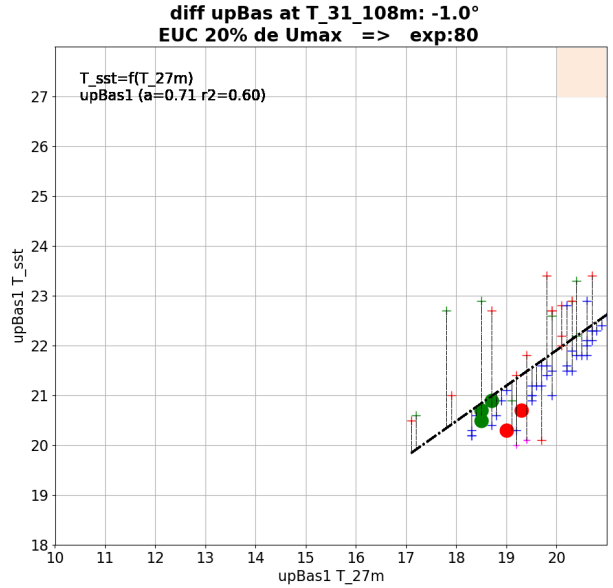


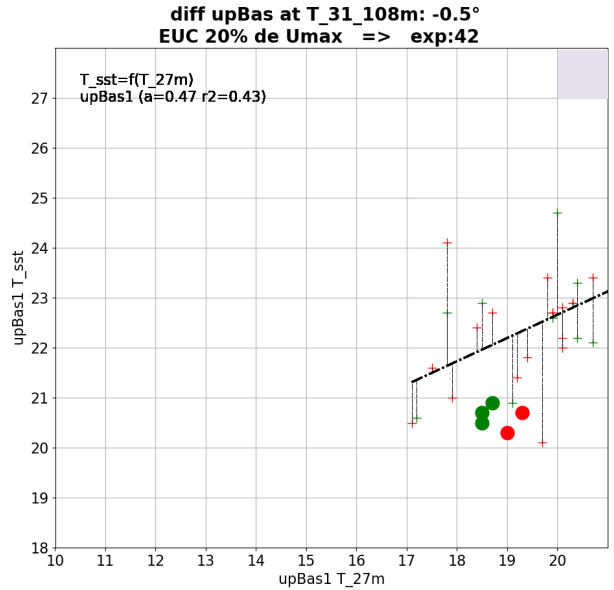
31-108m Meilleur compromis
- T_sst=f(T_subsurf)
- T_subsurf=f(T_EUC)

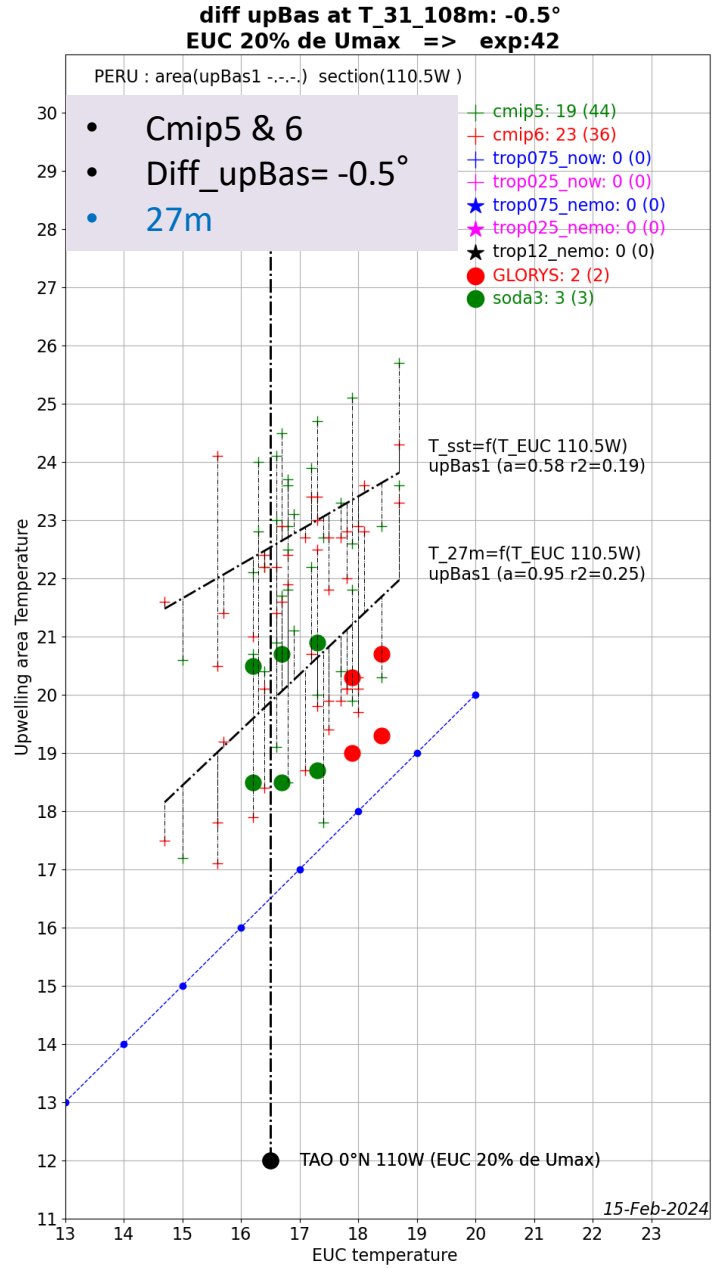
Et plus représentatif car colonne d'eau

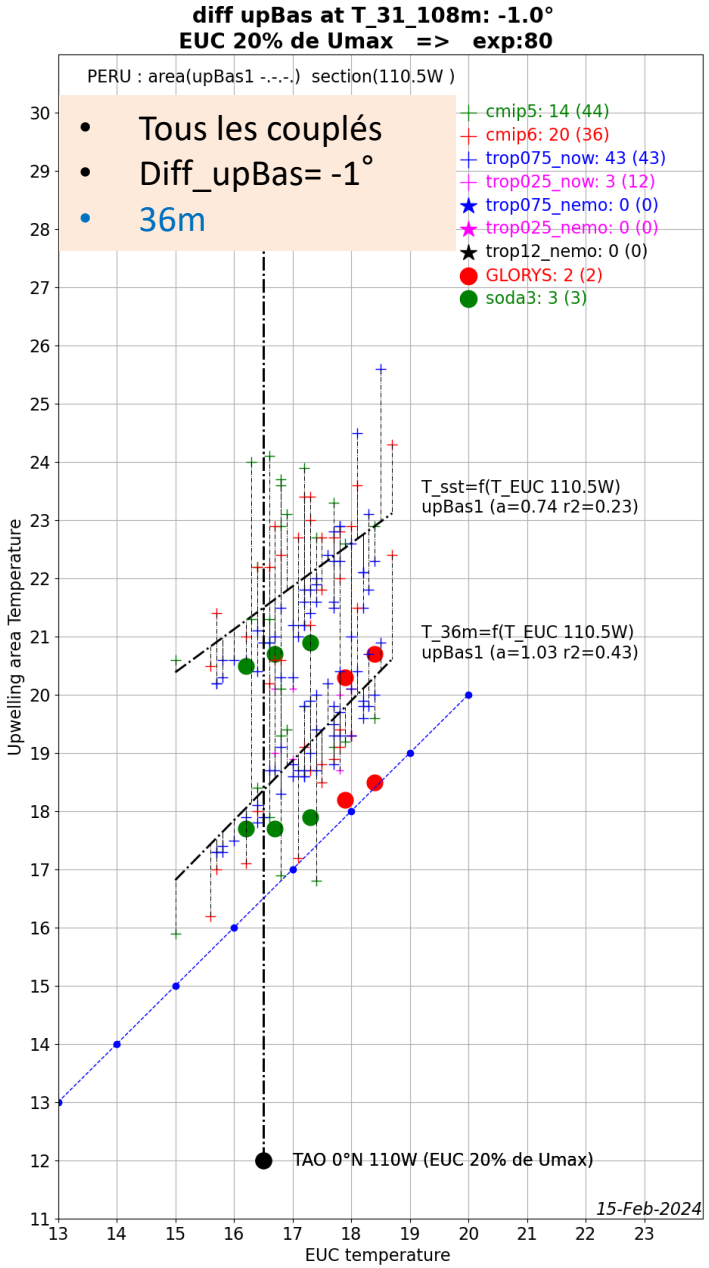


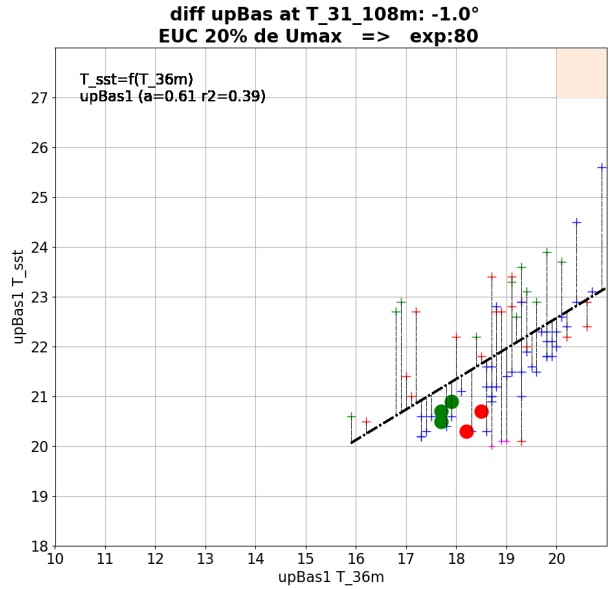

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 27m
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_27m=f(T_EUC 110.5W)
upBas1 (a=0.88 r2=0.28)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

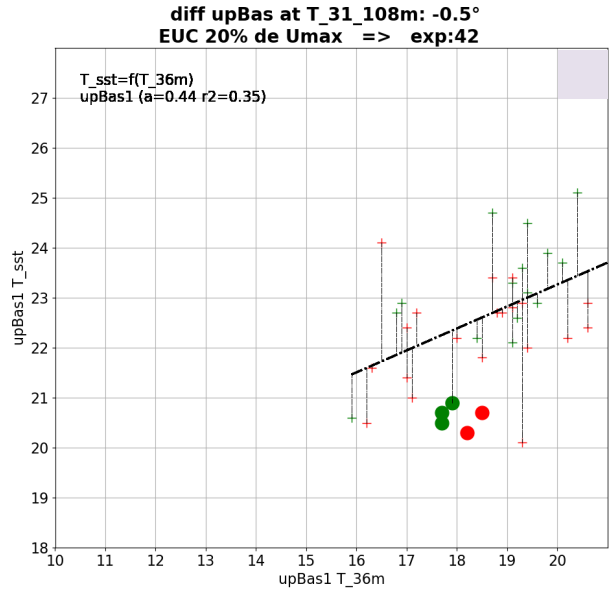

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_27m)
upBas1 (a=0.71 r2=0.60)
upBas1 T_sst
upBas1 T_27m

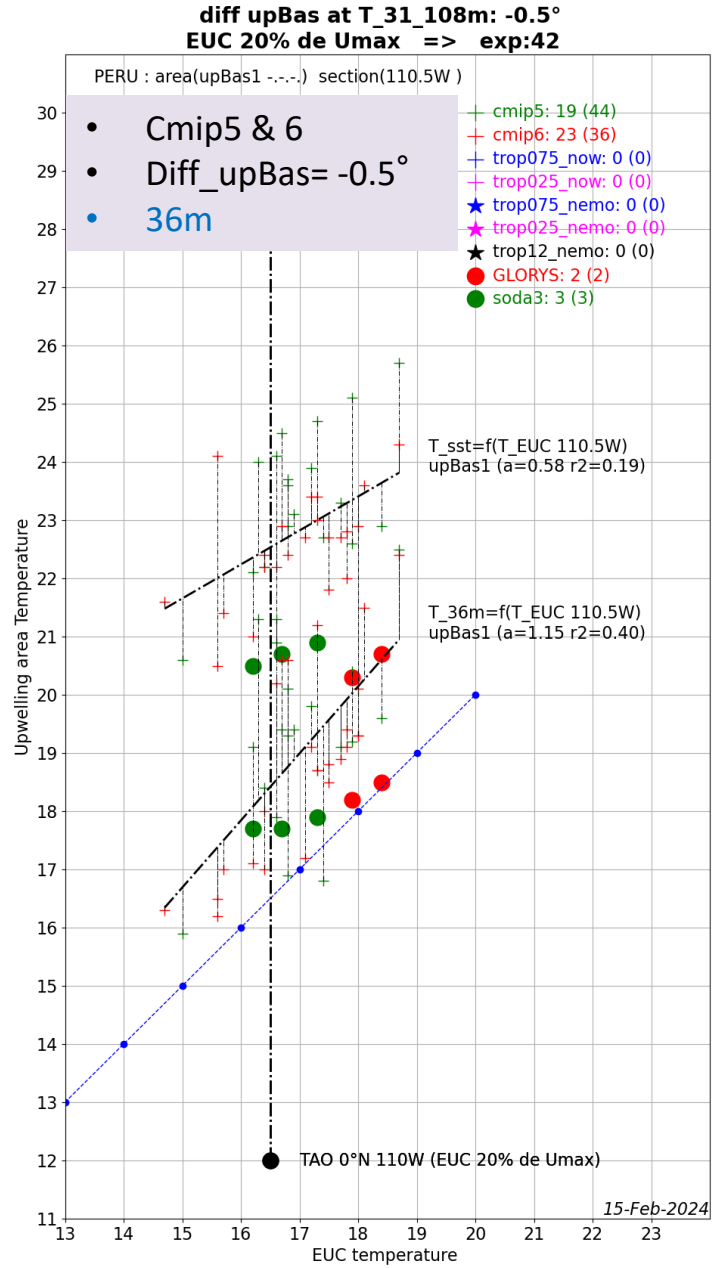

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_27m)
upBas1 (a=0.47 r2=0.43)
upBas1 T_sst
upBas1 T_27m

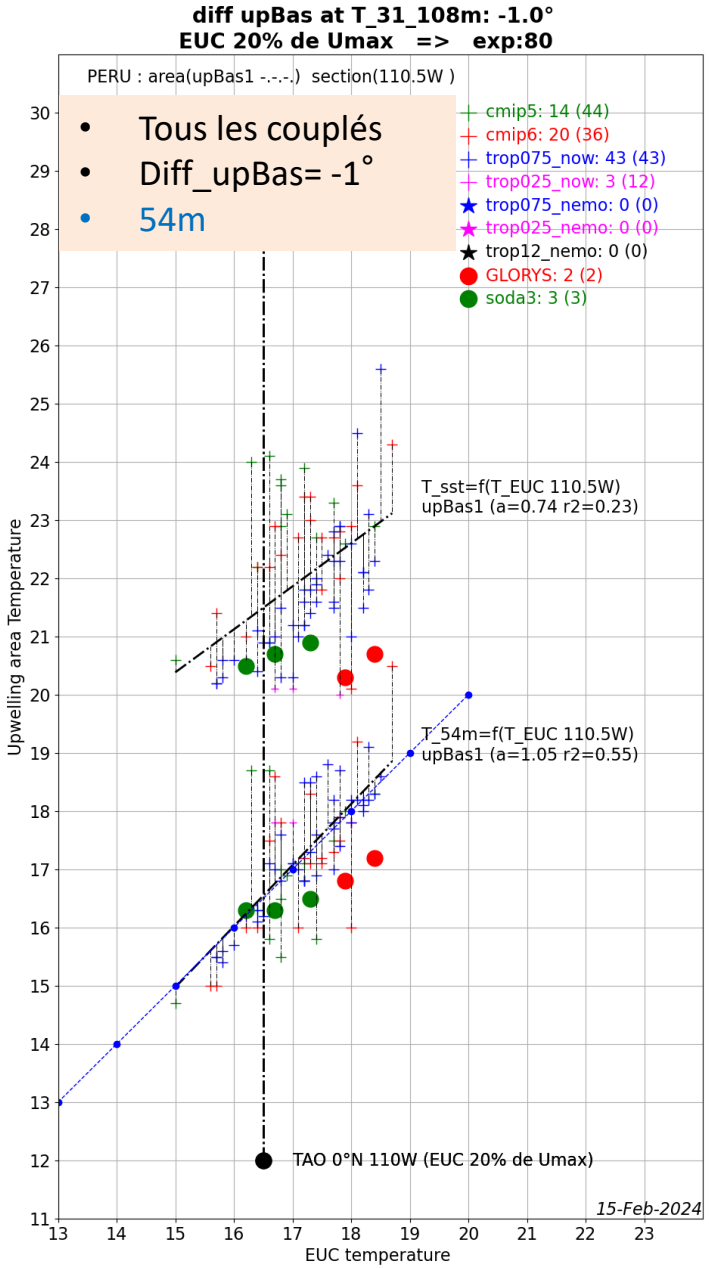

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 27m
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_27m=f(T_EUC 110.5W)
upBas1 (a=0.95 r2=0.25)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

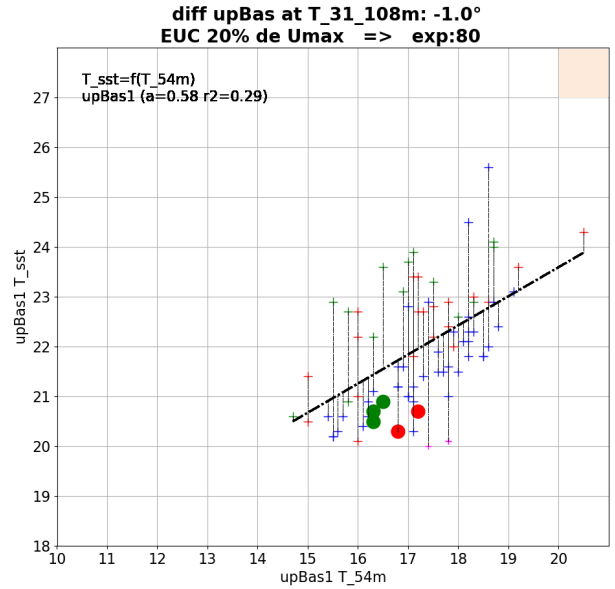

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 36m
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_36m=f(T_EUC 110.5W)
upBas1 (a=1.03 r2=0.43)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

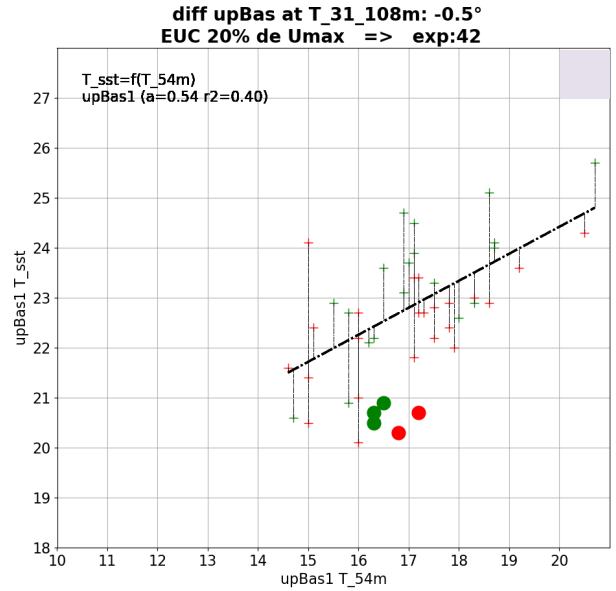

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_36m)
upBas1 (a=0.61 r2=0.39)
upBas1 T_sst
upBas1 T_36m

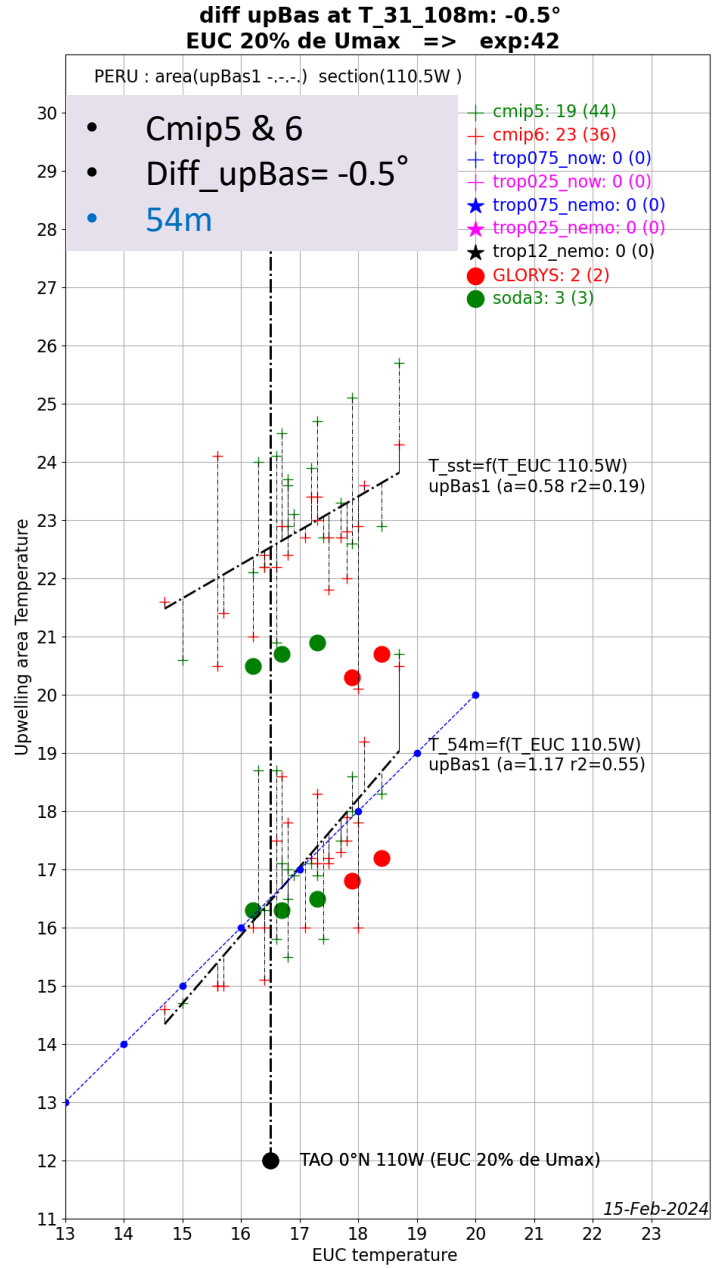

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_36m)
upBas1 (a=0.44 r2=0.35)
upBas1 T_sst
upBas1 T_36m

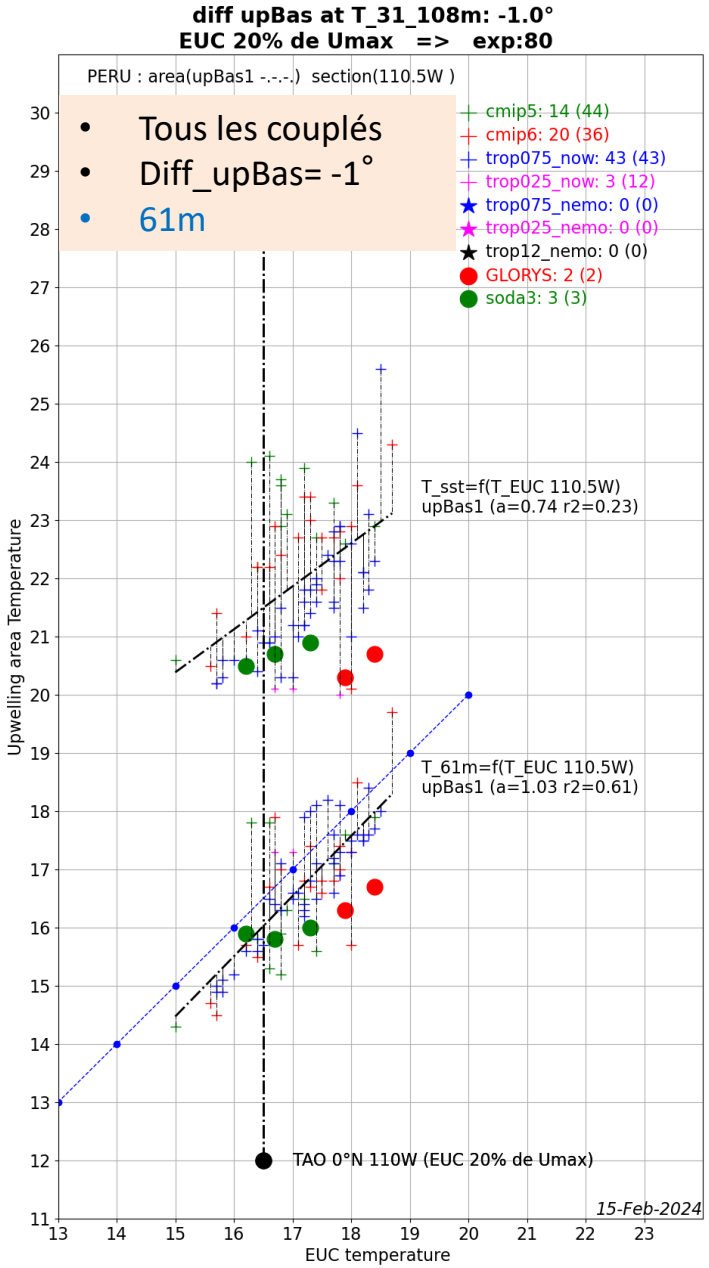

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 36m
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_36m=f(T_EUC 110.5W)
upBas1 (a=1.15 r2=0.40)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

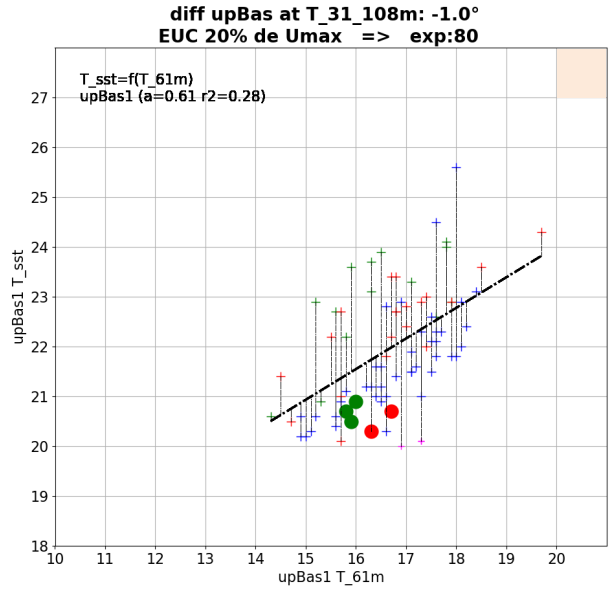

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 54m
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_54m=f(T_EUC 110.5W)
upBas1 (a=1.05 r2=0.55)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

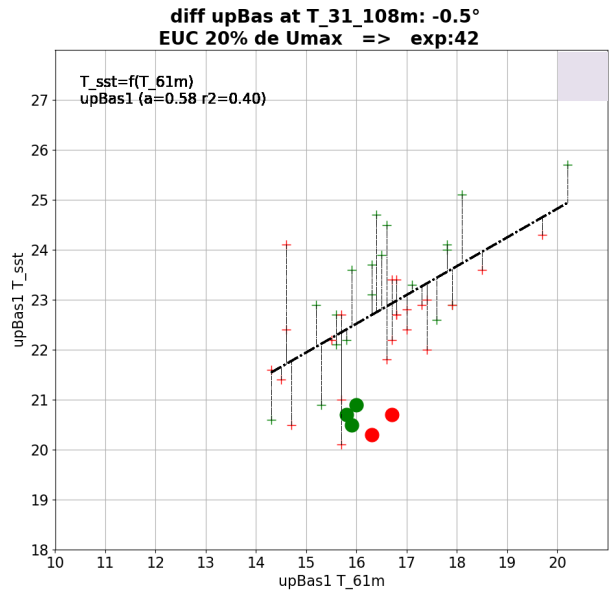

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_54m)
upBas1 (a=0.58 r2=0.29)
upBas1 T_sst
upBas1 T_54m

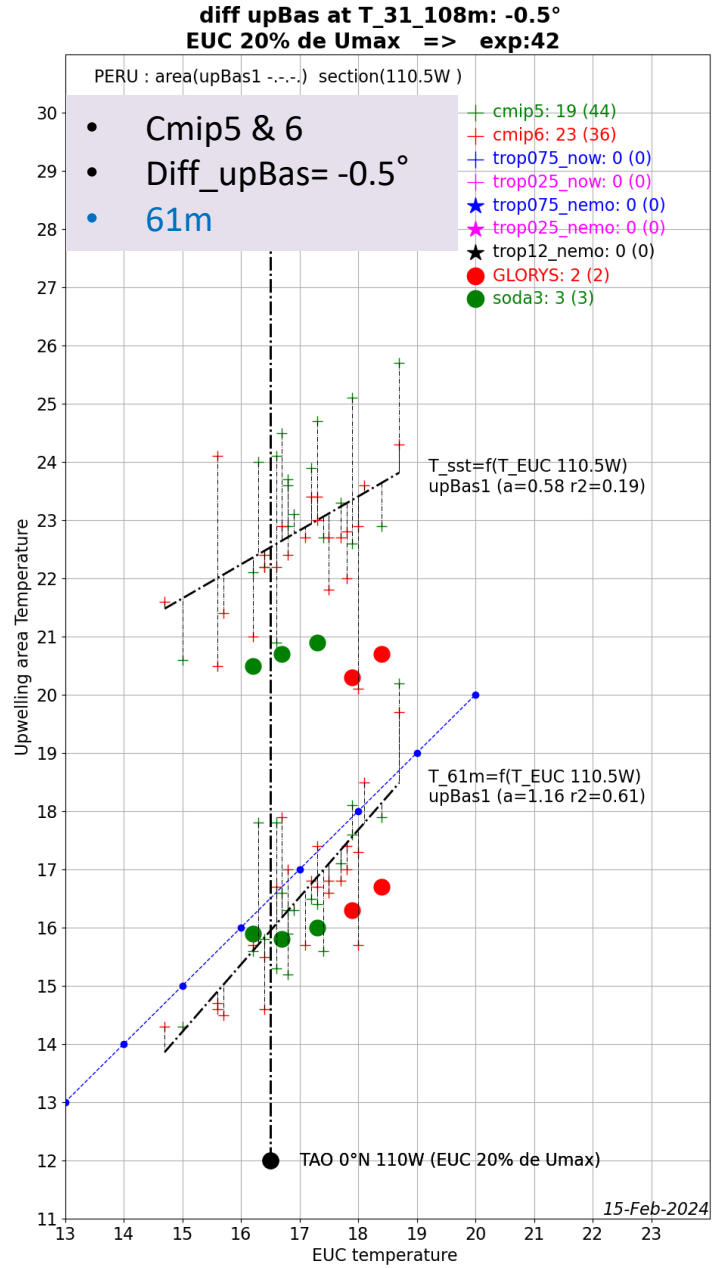

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_54m)
upBas1 (a=0.54 r2=0.40)
upBas1 T_sst
upBas1 T_54m

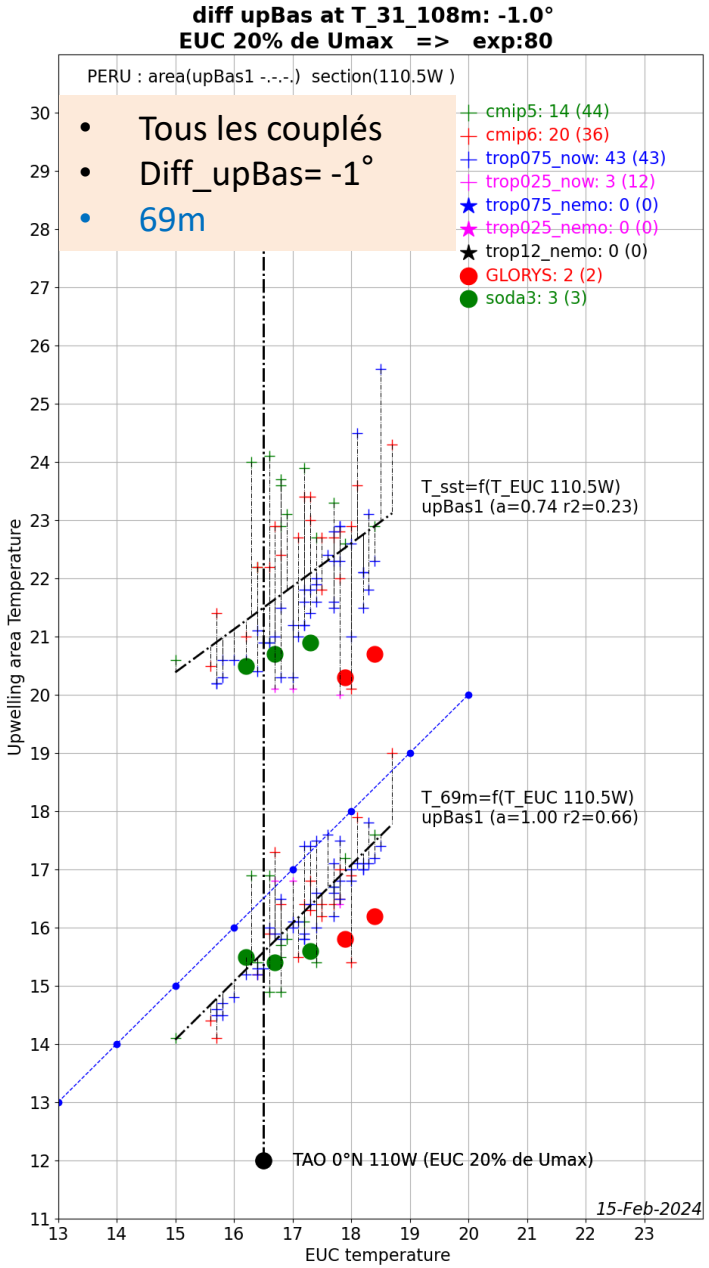

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 54m
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_54m=f(T_EUC 110.5W)
upBas1 (a=1.17 r2=0.55)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

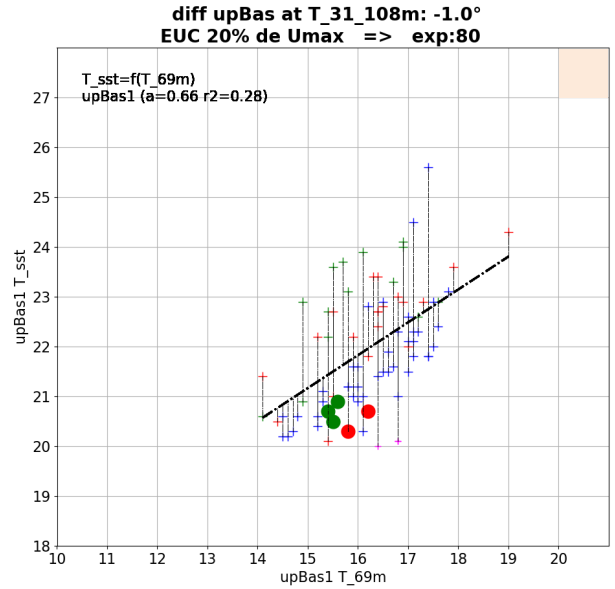

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 61m
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_61m=f(T_EUC 110.5W)
upBas1 (a=1.03 r2=0.61)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

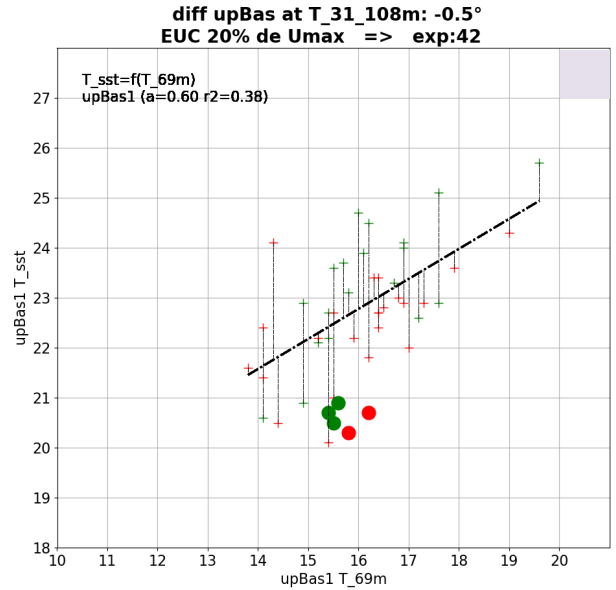

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_61m)
upBas1 (a=0.61 r2=0.28)
upBas1 T_sst
upBas1 T_61m

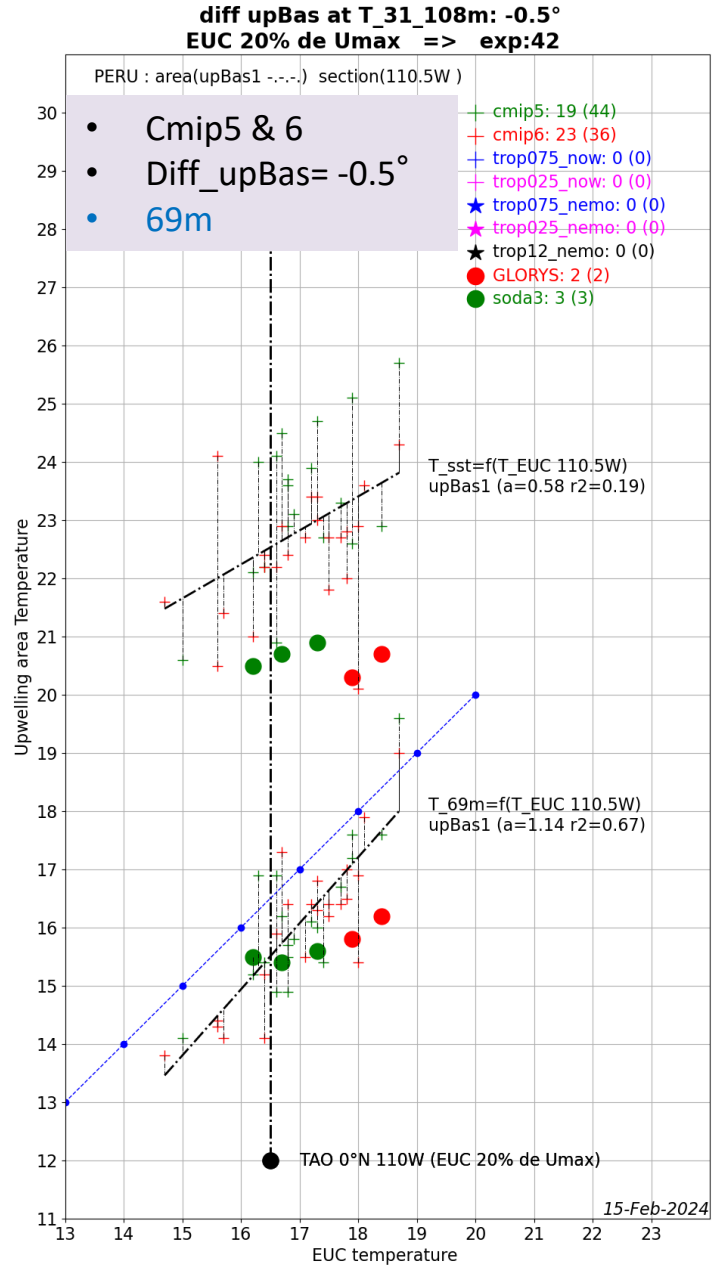

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_61m)
upBas1 (a=0.58 r2=0.40)
upBas1 T_sst
upBas1 T_61m

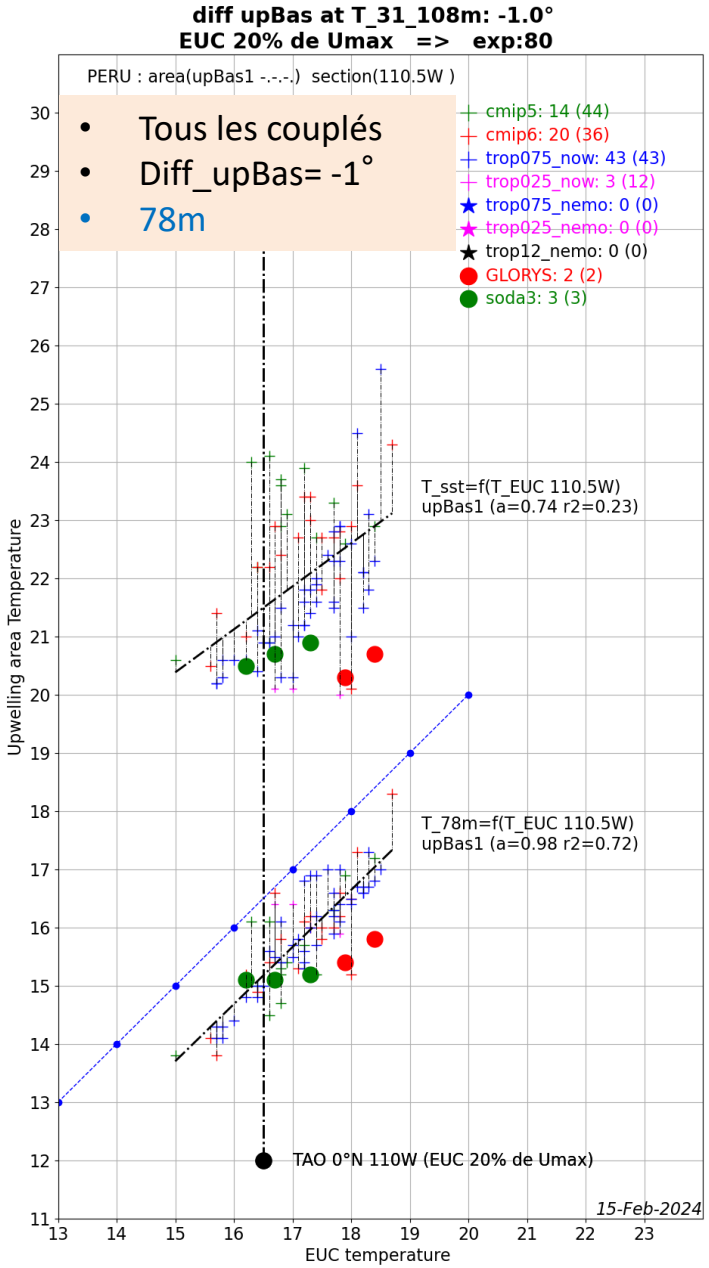

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 61m
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_61m=f(T_EUC 110.5W)
upBas1 (a=1.16 r2=0.61)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

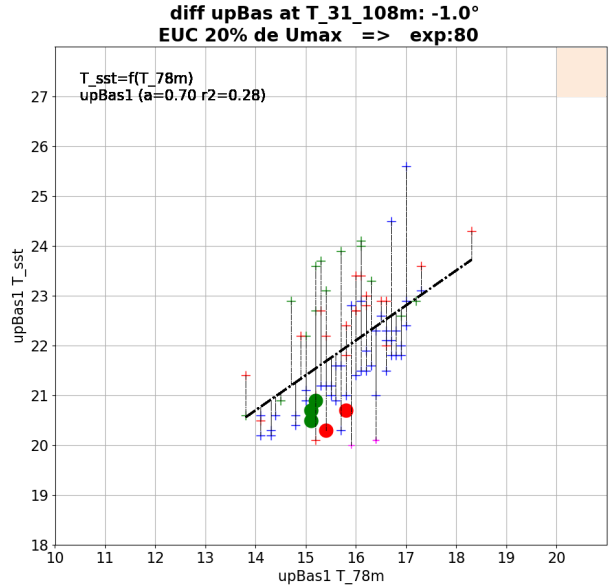

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 69m
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_69m=f(T_EUC 110.5W)
upBas1 (a=1.00 r2=0.66)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

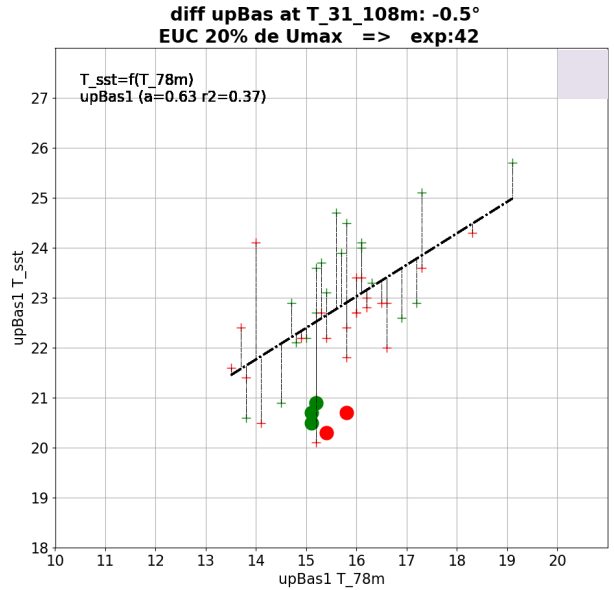

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_69m)
upBas1 (a=0.66 r2=0.28)
upBas1 T_sst
upBas1 T_69m

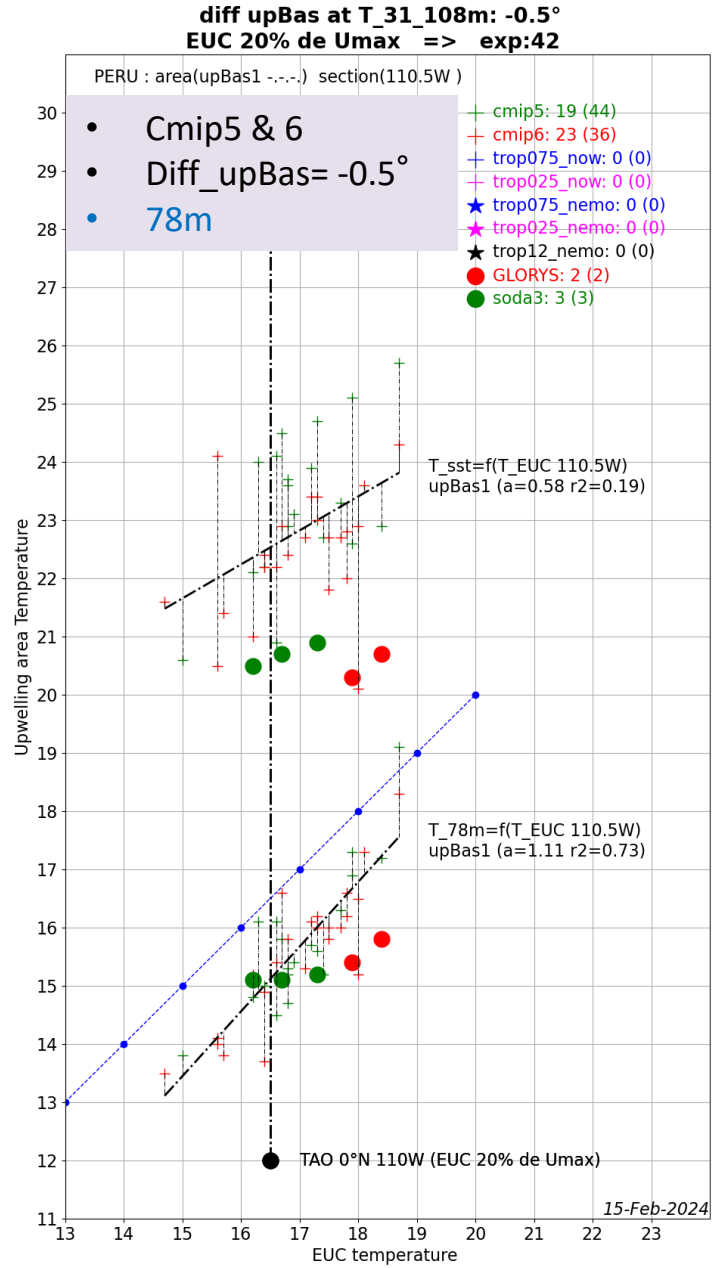

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_69m)
upBas1 (a=0.60 r2=0.38)
upBas1 T_sst
upBas1 T_69m

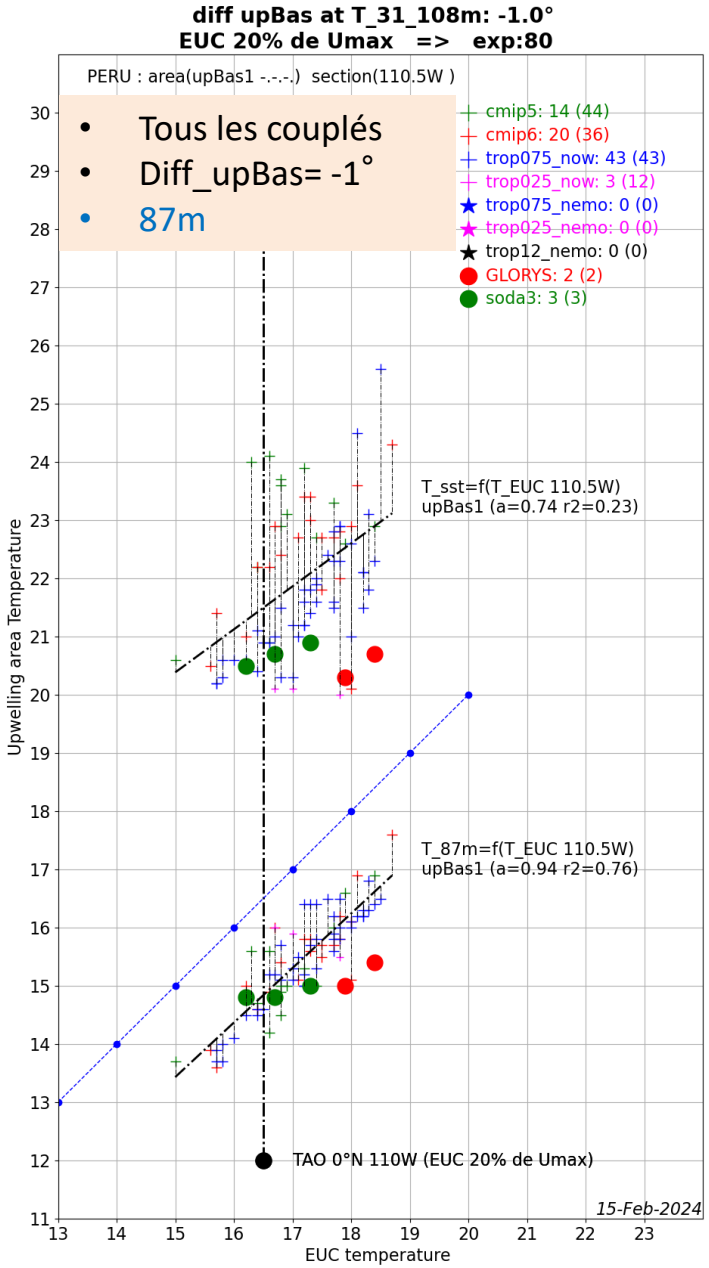

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 69m
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_69m=f(T_EUC 110.5W)
upBas1 (a=1.14 r2=0.67)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

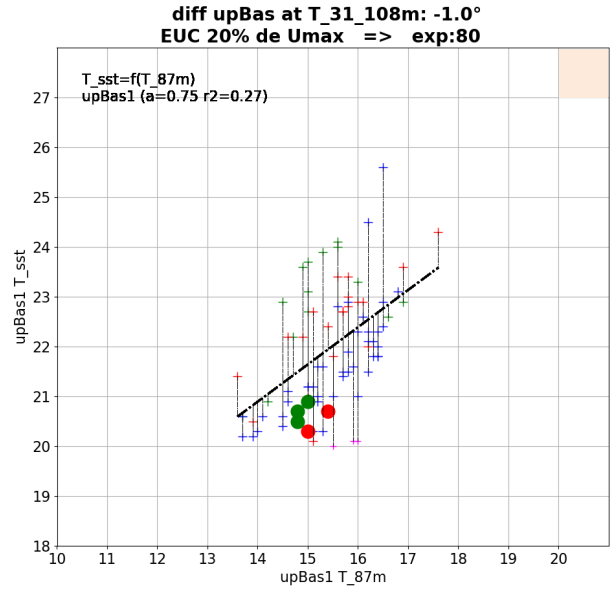

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 78m
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_78m=f(T_EUC 110.5W)
upBas1 (a=0.98 r2=0.72)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

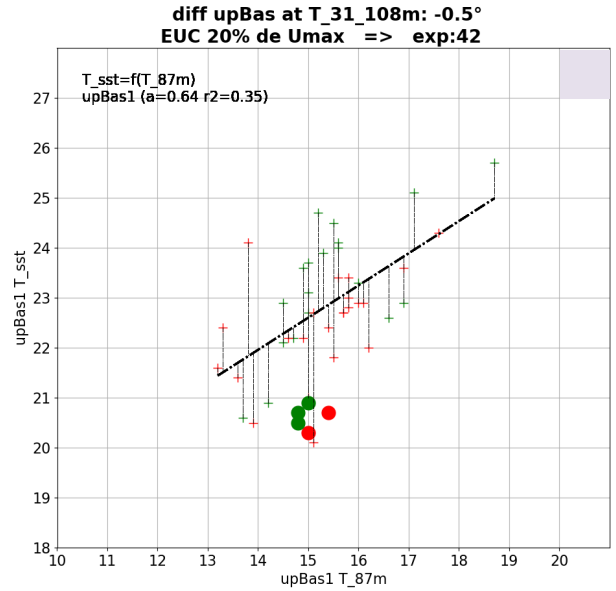

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_78m)
upBas1 (a=0.70 r2=0.28)
upBas1 T_sst
upBas1 T_78m

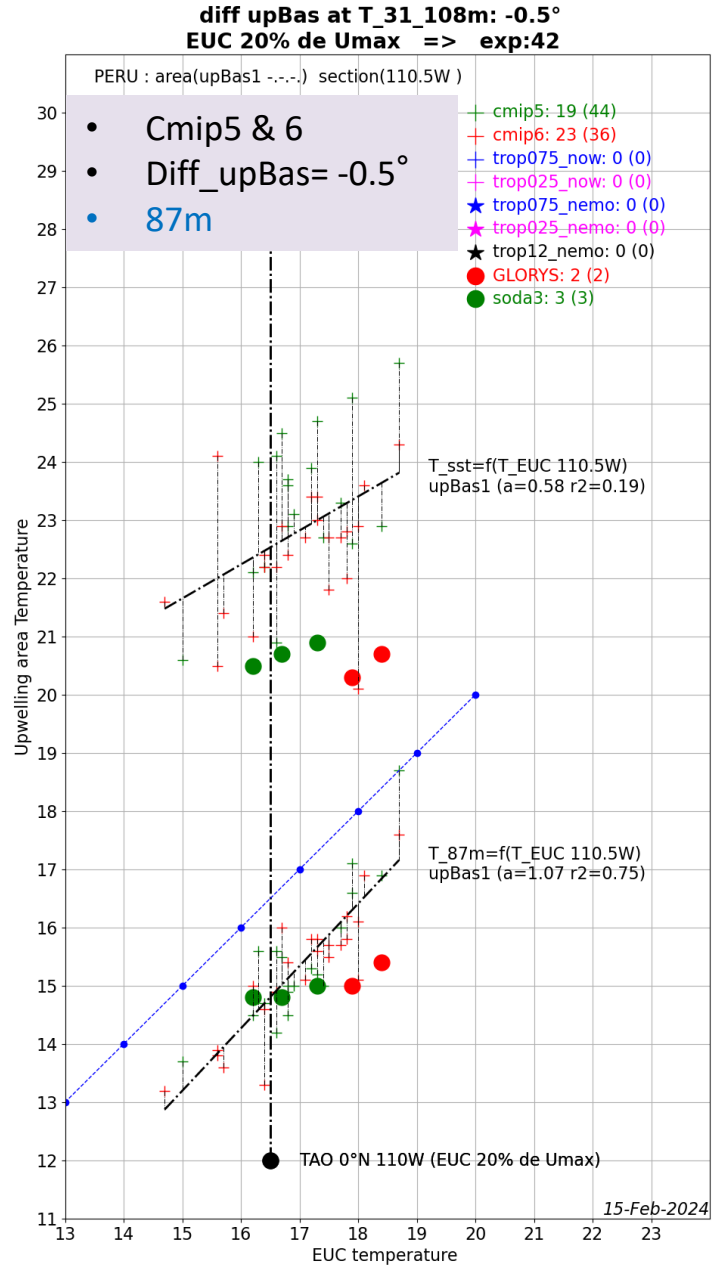

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_78m)
upBas1 (a=0.63 r2=0.37)
upBas1 T_sst
upBas1 T_78m

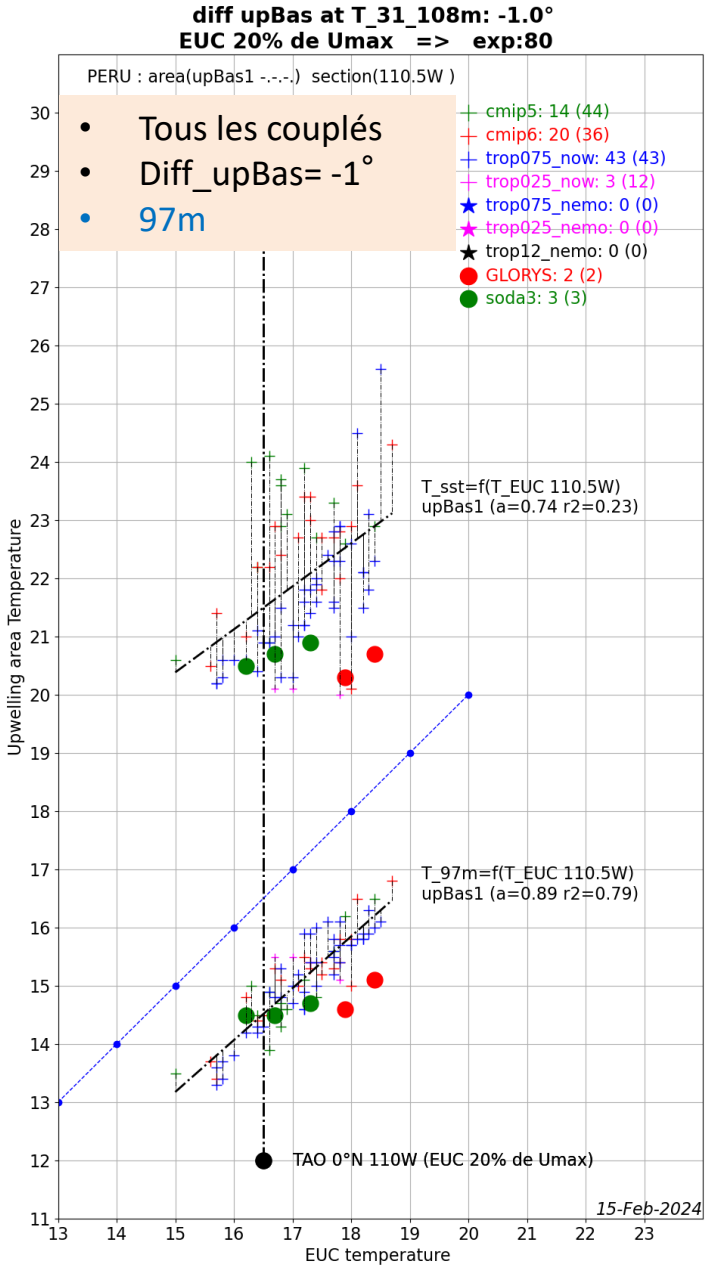

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 78m
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_78m=f(T_EUC 110.5W)
upBas1 (a=1.11 r2=0.73)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

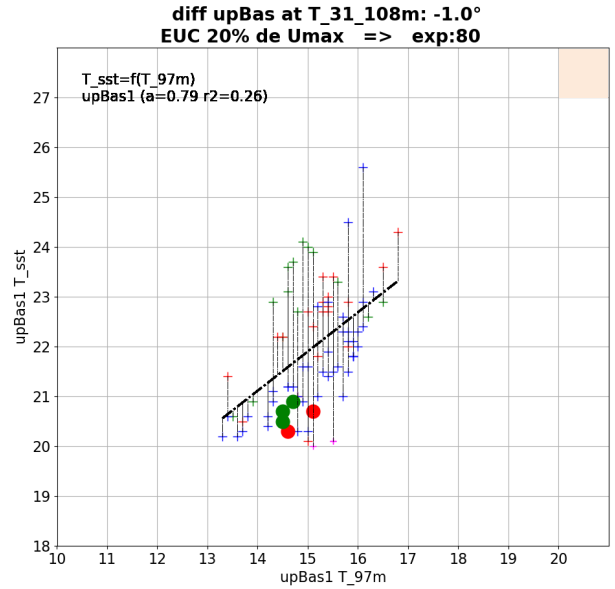

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 87m
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_87m=f(T_EUC 110.5W)
upBas1 (a=0.94 r2=0.76)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

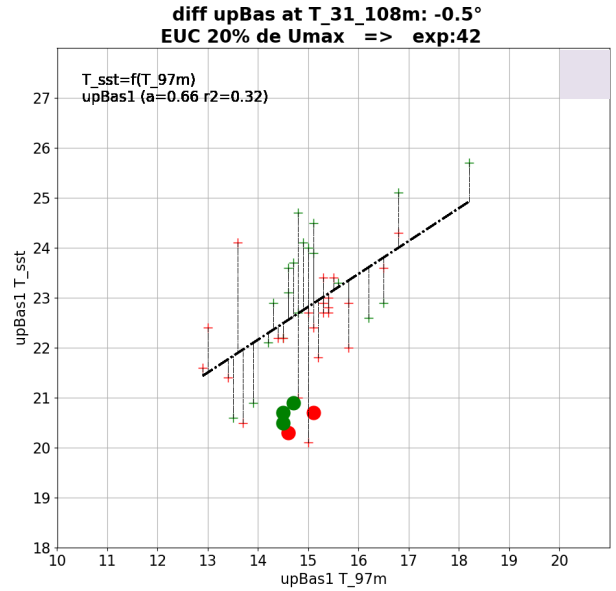

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_87m)
upBas1 (a=0.75 r2=0.27)
upBas1 T_sst
upBas1 T_87m

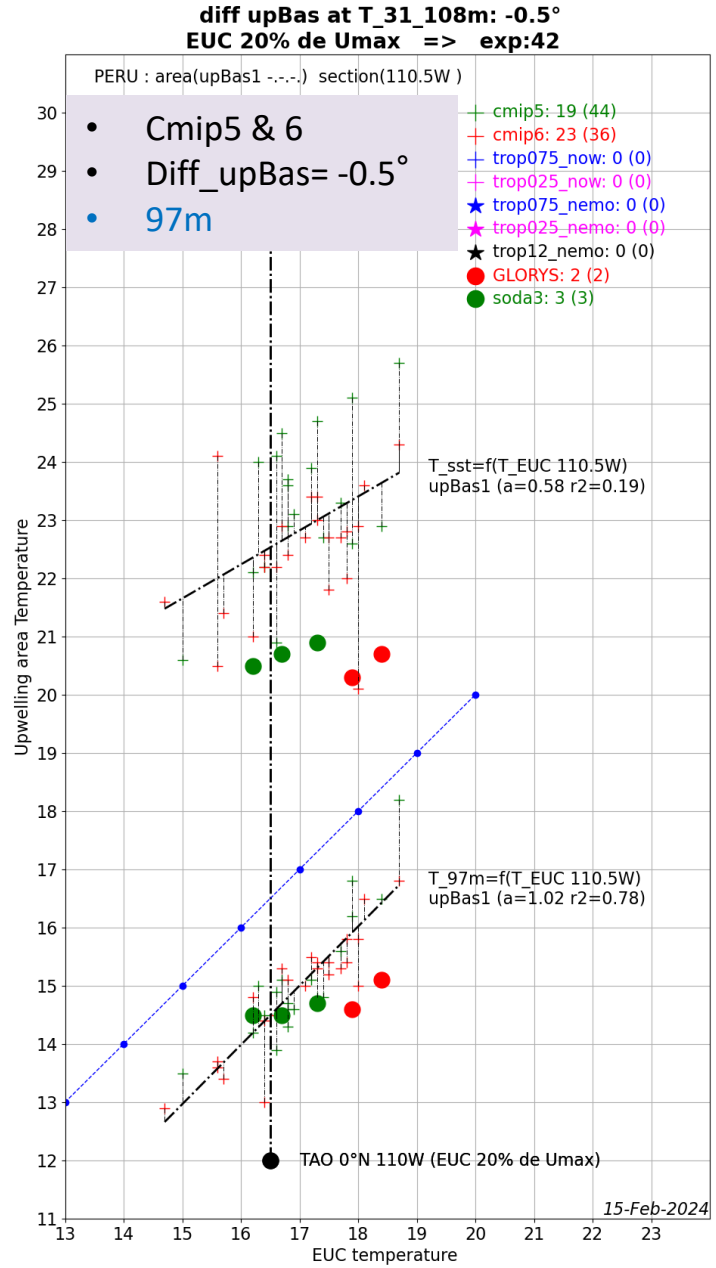

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_87m)
upBas1 (a=0.64 r2=0.35)
upBas1 T_sst
upBas1 T_87m

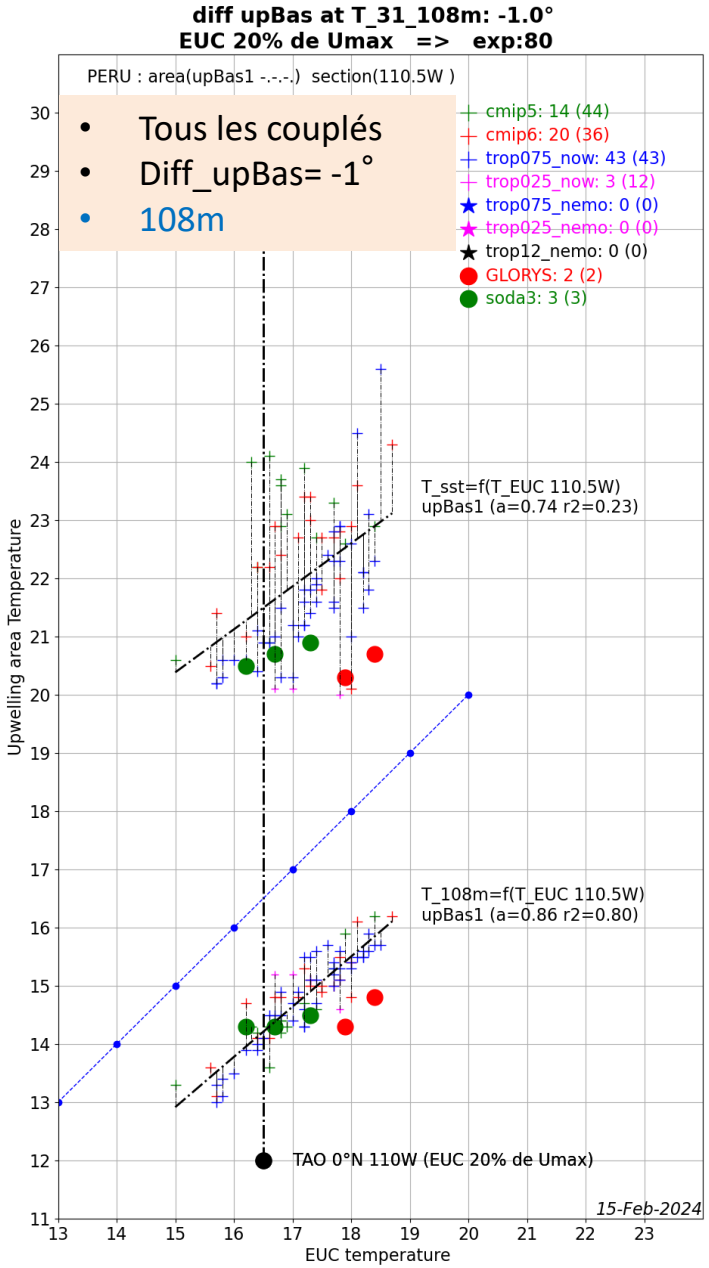

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 87m
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_87m=f(T_EUC 110.5W)
upBas1 (a=1.07 r2=0.75)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

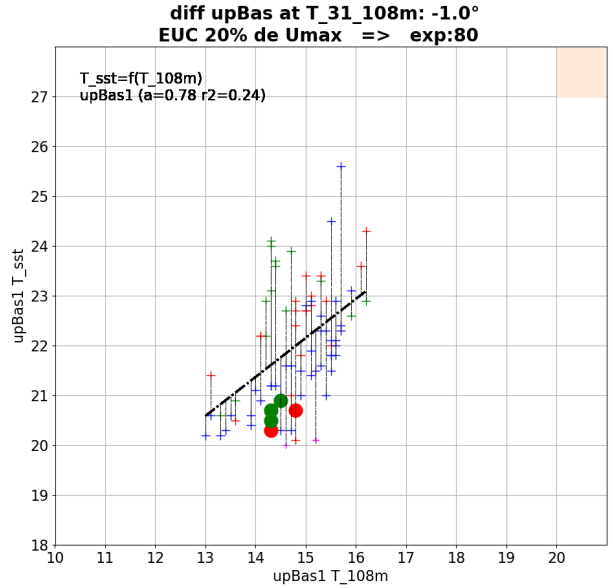

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 97m
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_97m=f(T_EUC 110.5W)
upBas1 (a=0.89 r2=0.79)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

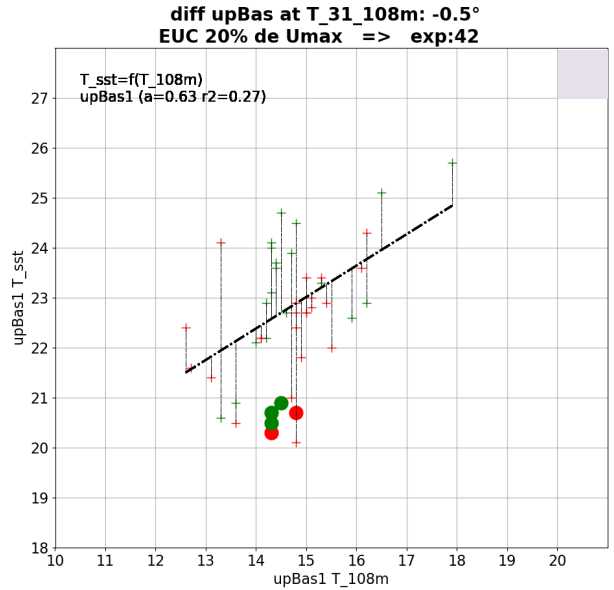

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_97m)
upBas1 (a=0.79 r2=0.26)
upBas1 T_sst
upBas1 T_97m

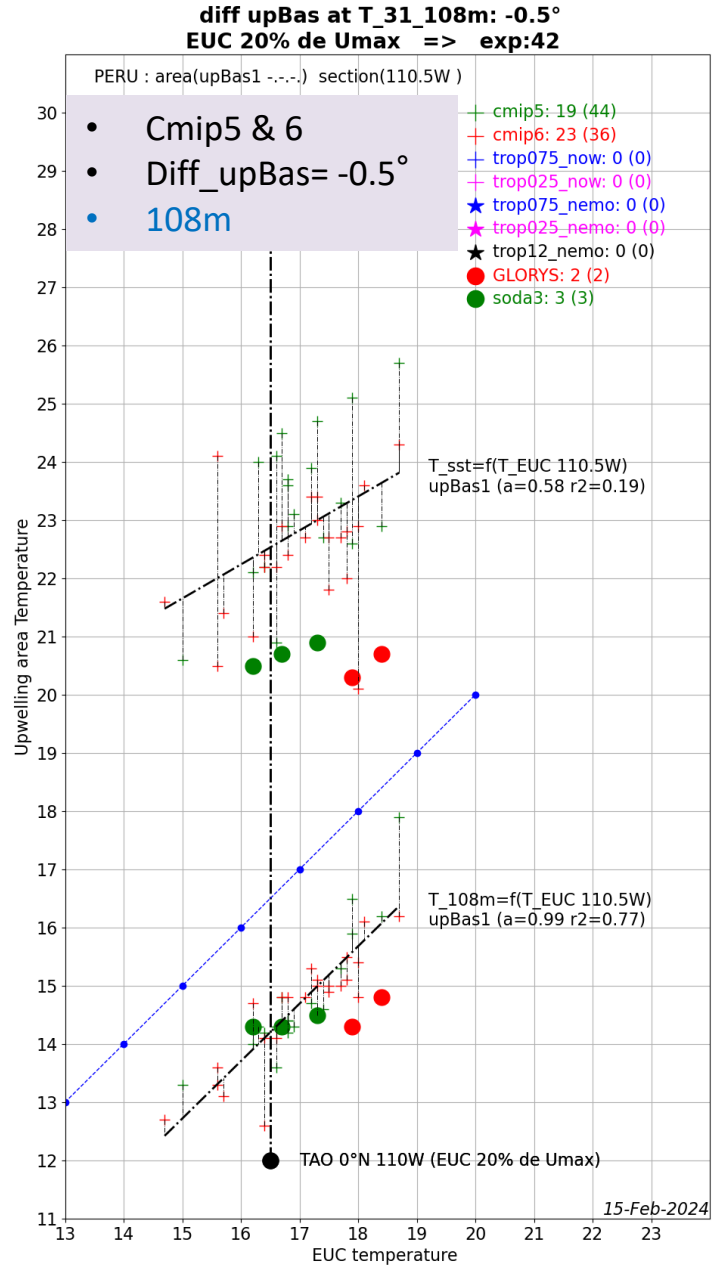

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_97m)
upBas1 (a=0.66 r2=0.32)
upBas1 T_sst
upBas1 T_97m

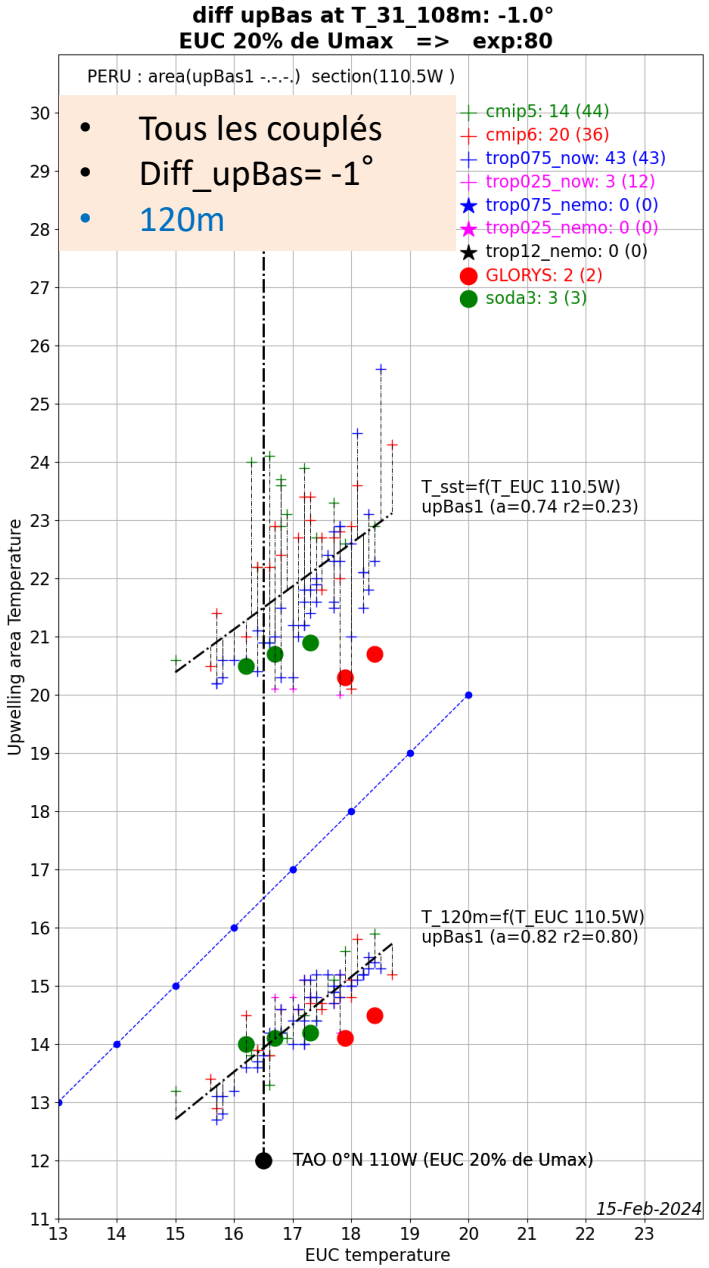

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 97m
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_97m=f(T_EUC 110.5W)
upBas1 (a=1.02 r2=0.78)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

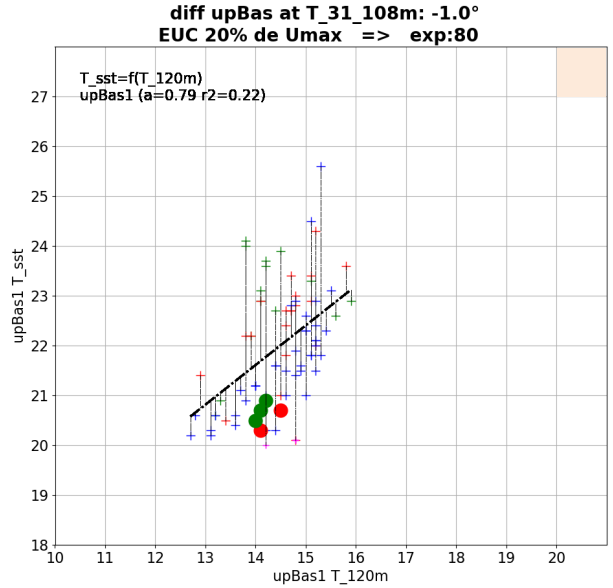

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 108m
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_108m=f(T_EUC 110.5W)
upBas1 (a=0.86 r2=0.80)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

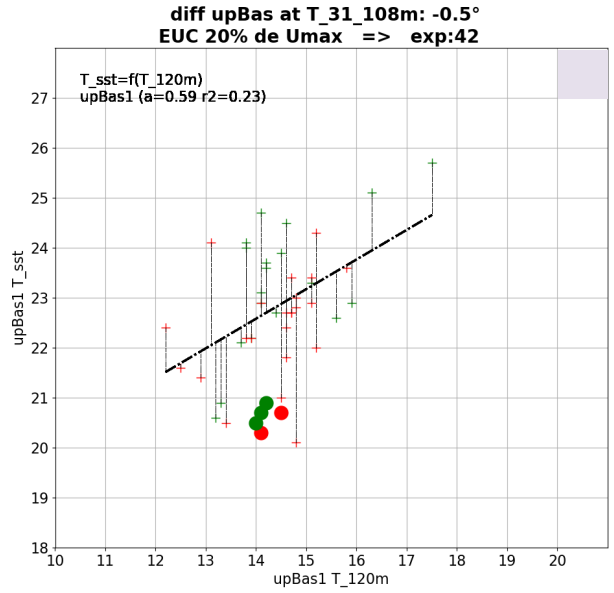

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_108m)
upBas1 (a=0.78 r2=0.24)
upBas1 T_sst
upBas1 T_108m

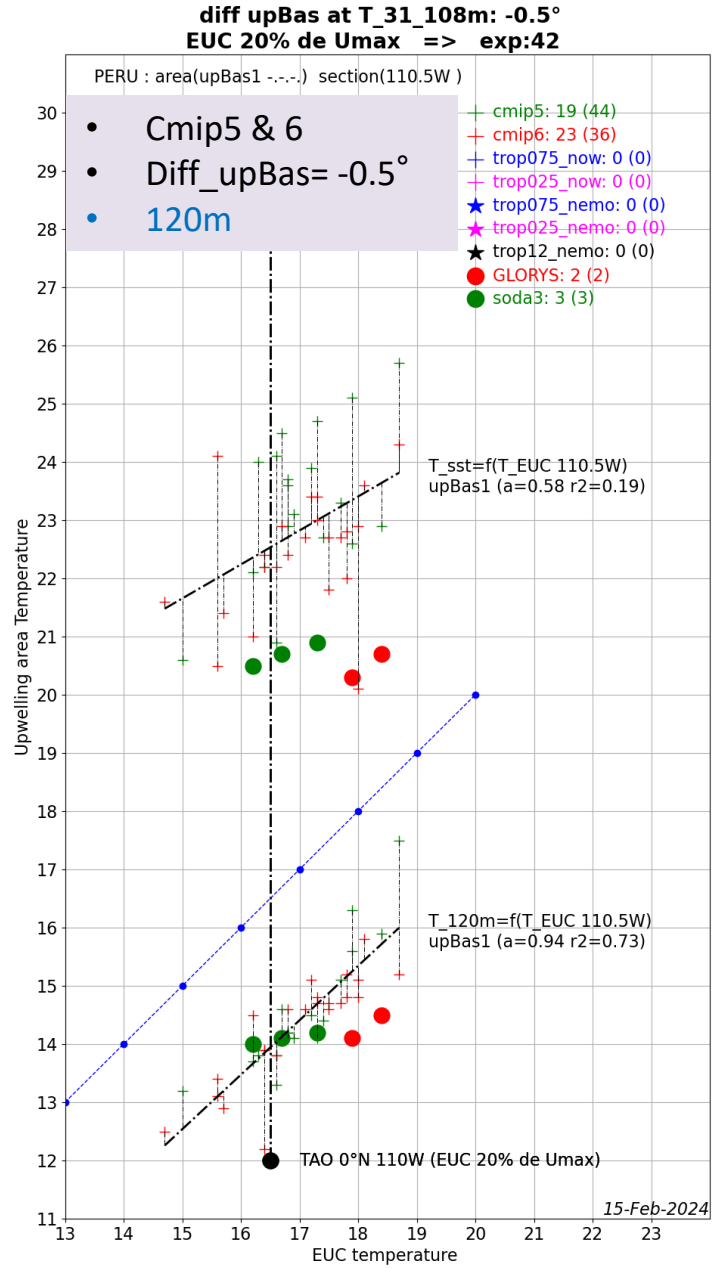

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_108m)
upBas1 (a=0.63 r2=0.27)
upBas1 T_sst
upBas1 T_108m

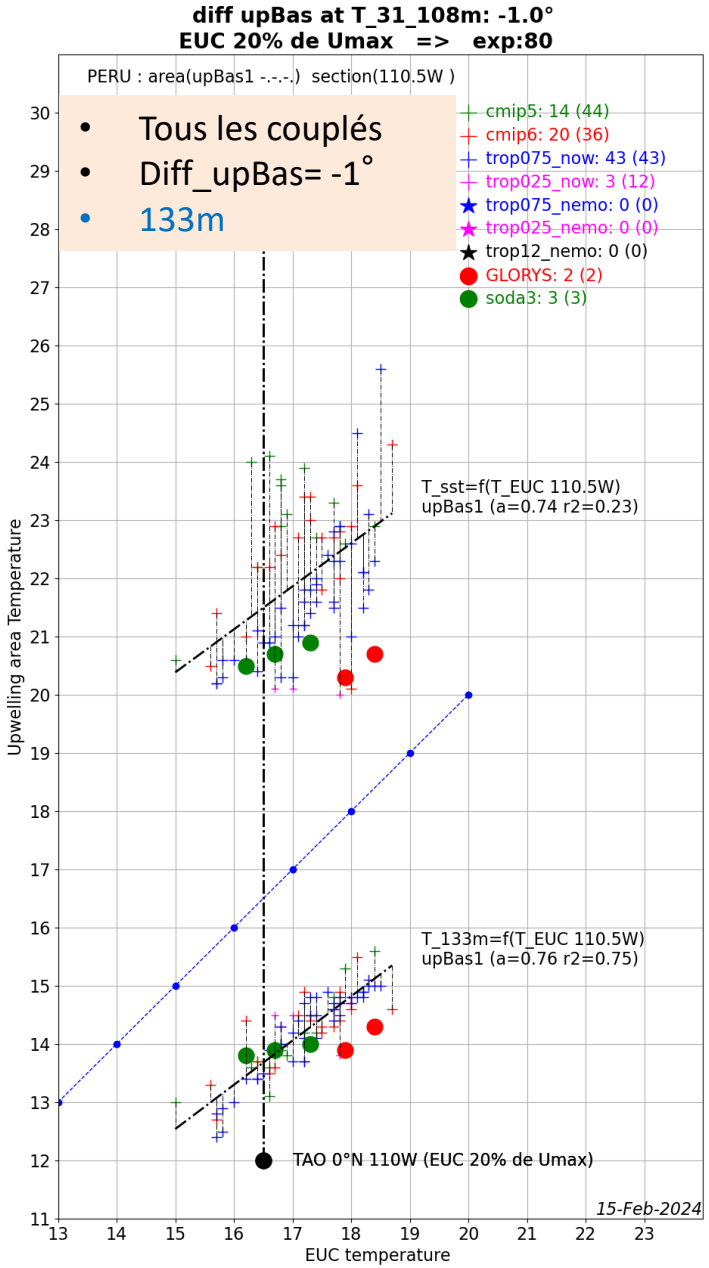

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 108m
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_108m=f(T_EUC 110.5W)
upBas1 (a=0.99 r2=0.77)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

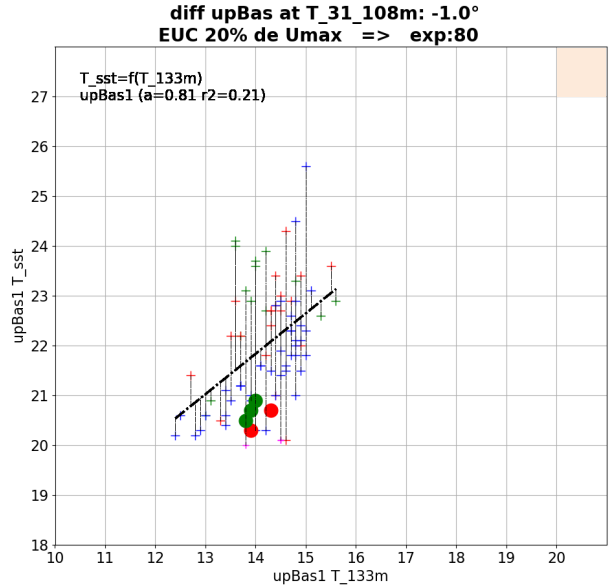

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 120m
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_120m=f(T_EUC 110.5W)
upBas1 (a=0.82 r2=0.80)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

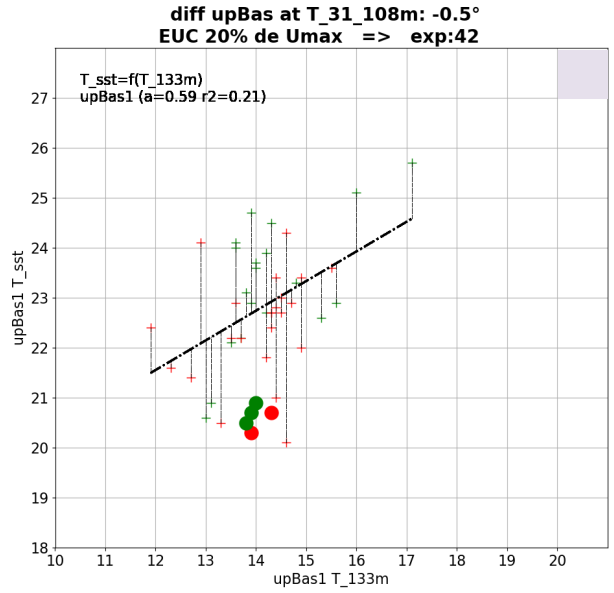

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_120m)
upBas1 (a=0.79 r2=0.22)
upBas1 T_sst
upBas1 T_120m

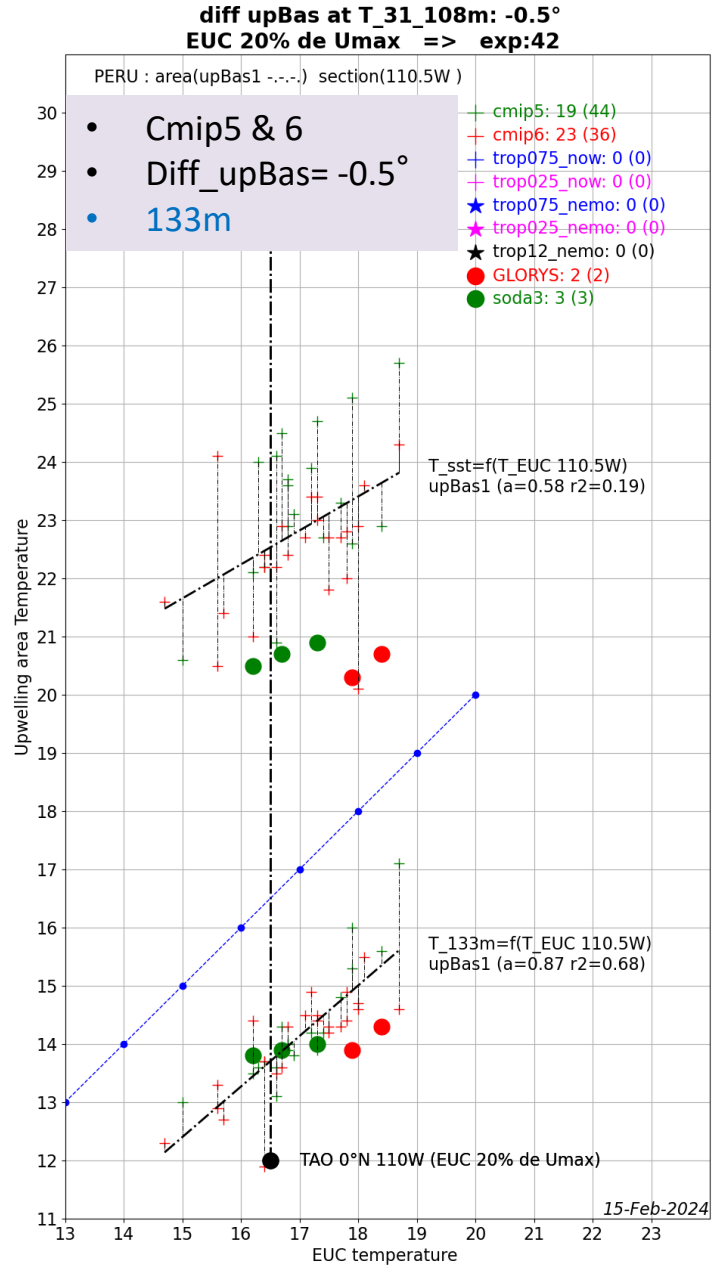

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_120m)
upBas1 (a=0.59 r2=0.23)
upBas1 T_sst
upBas1 T_120m

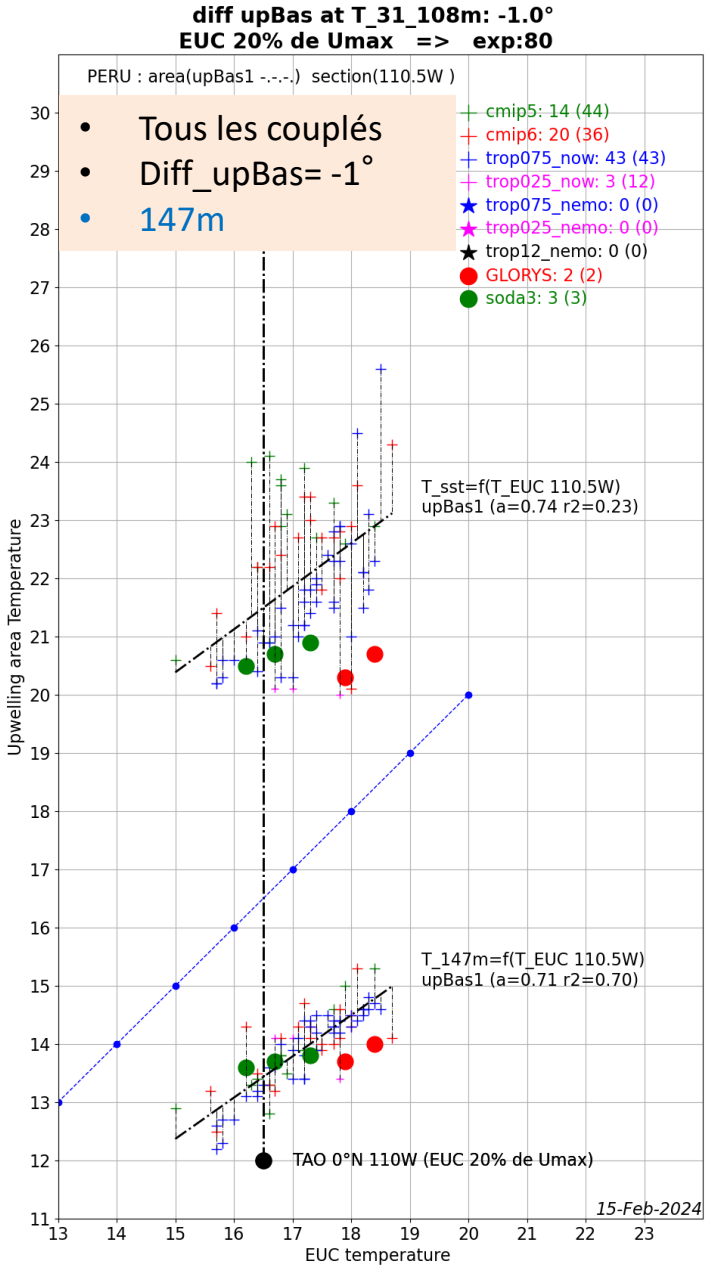

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 120m
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_120m=f(T_EUC 110.5W)
upBas1 (a=0.94 r2=0.73)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

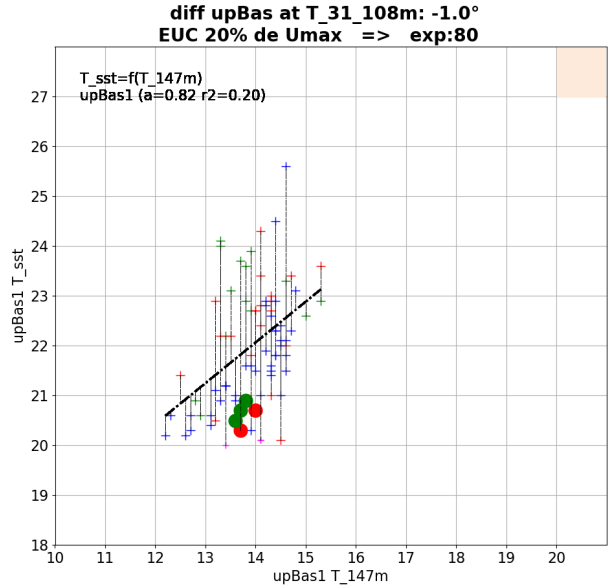

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 133m
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_133m=f(T_EUC 110.5W)
upBas1 (a=0.76 r2=0.75)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

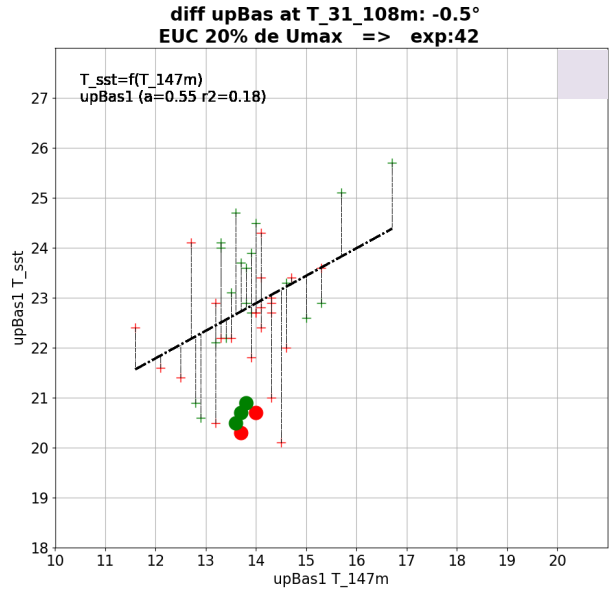

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_133m)
upBas1 (a=0.81 r2=0.21)
upBas1 T_sst
upBas1 T_133m

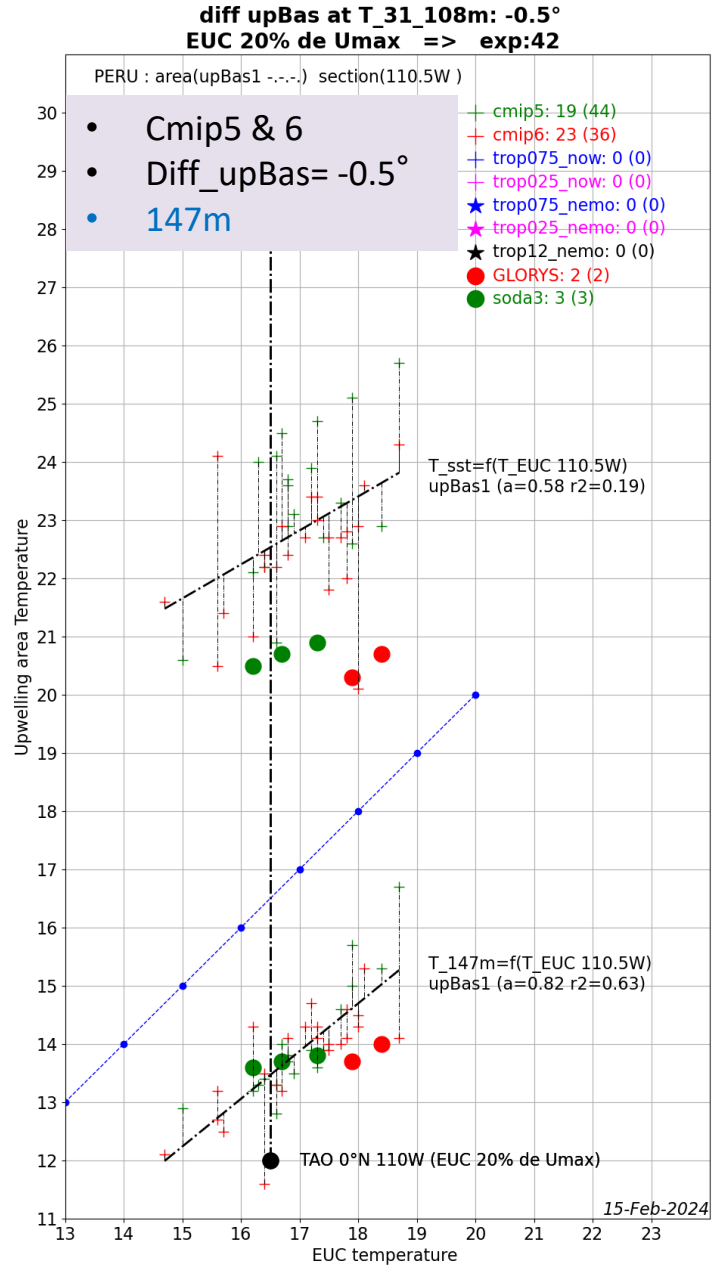

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_133m)
upBas1 (a=0.59 r2=0.21)
upBas1 T_sst
upBas1 T_133m

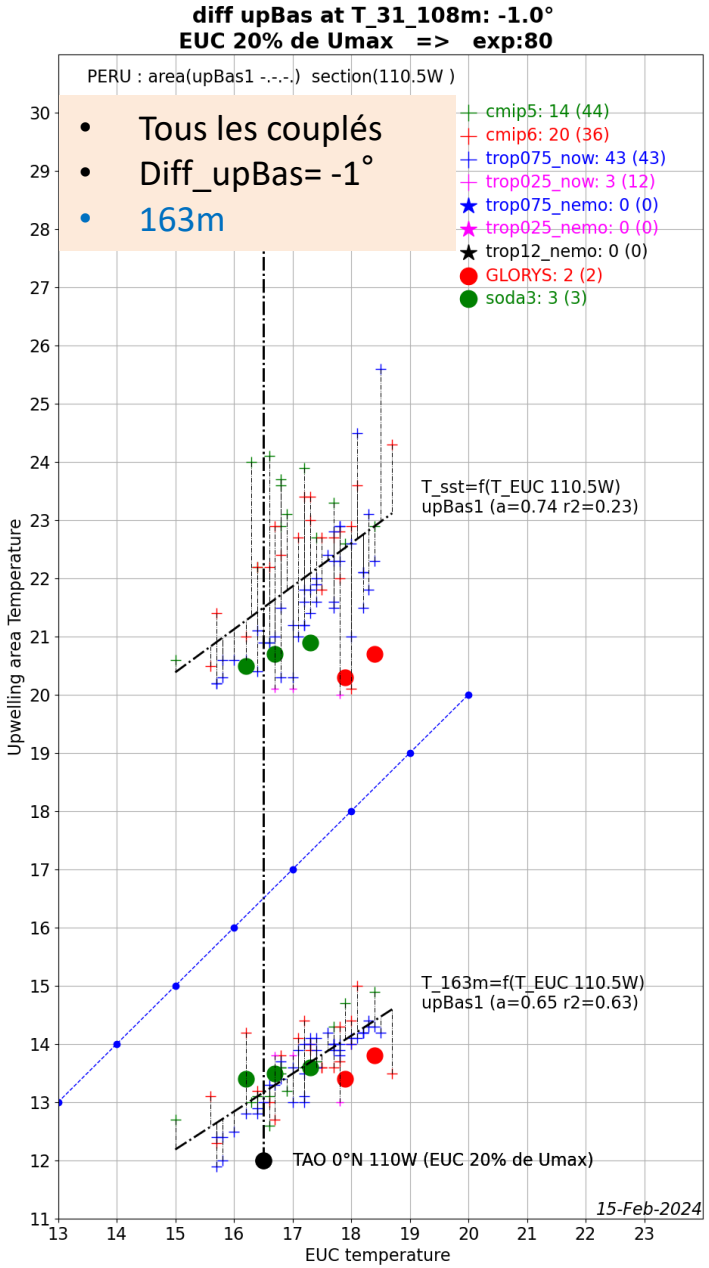

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 133m
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_133m=f(T_EUC 110.5W)
upBas1 (a=0.87 r2=0.68)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

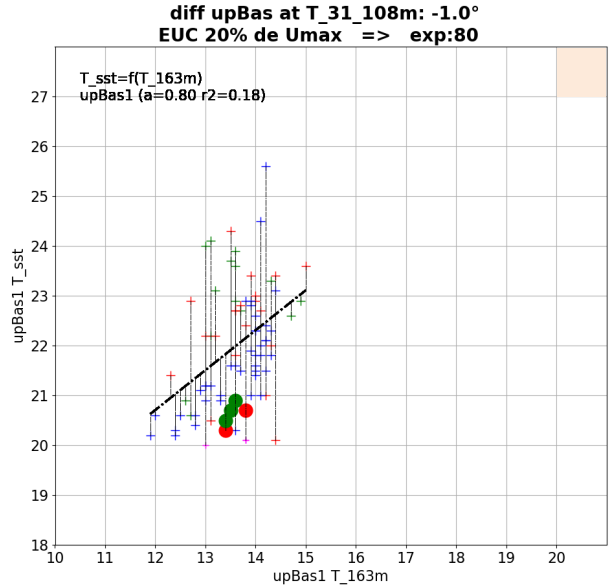

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 147m
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_147m=f(T_EUC 110.5W)
upBas1 (a=0.71 r2=0.70)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

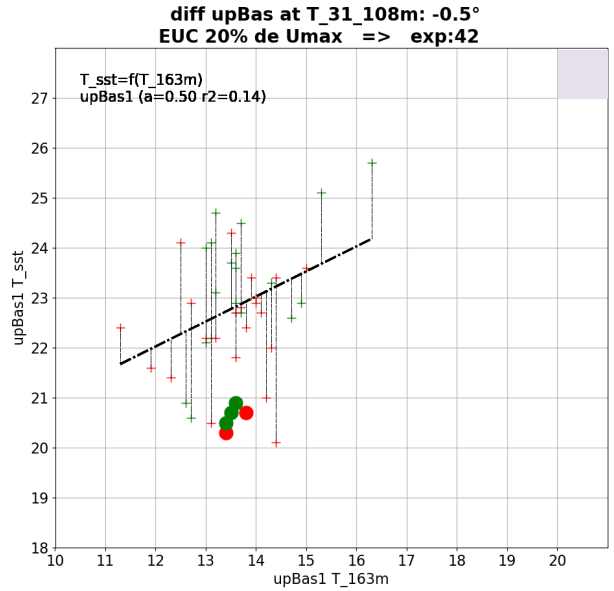

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_147m)
upBas1 (a=0.82 r2=0.20)
upBas1 T_sst
upBas1 T_147m

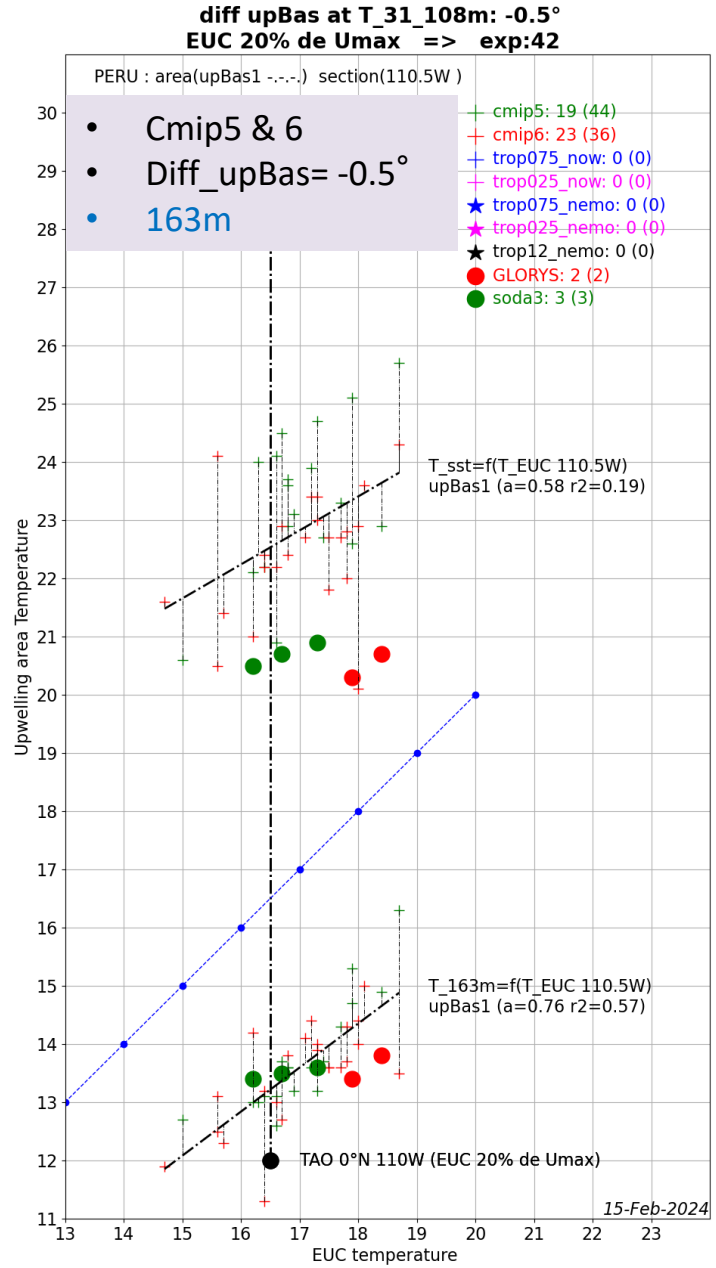

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_147m)
upBas1 (a=0.55 r2=0.18)
upBas1 T_sst
upBas1 T_147m

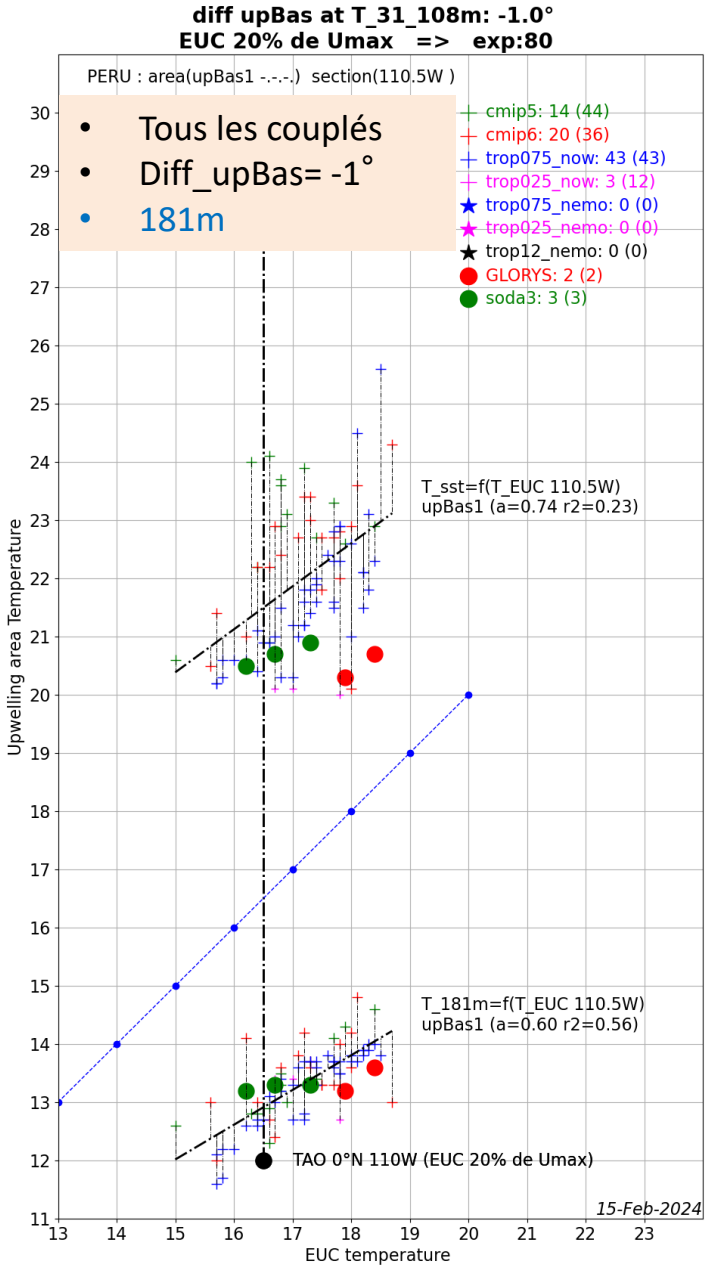

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 147m
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_147m=f(T_EUC 110.5W)
upBas1 (a=0.82 r2=0.63)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

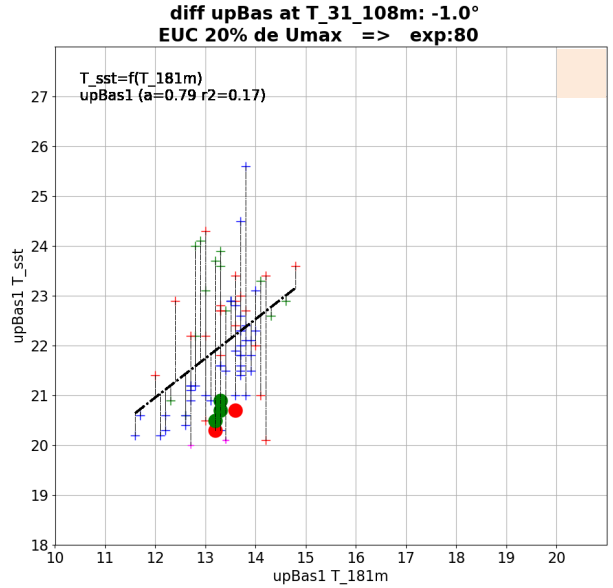

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 163m
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_163m=f(T_EUC 110.5W)
upBas1 (a=0.65 r2=0.63)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

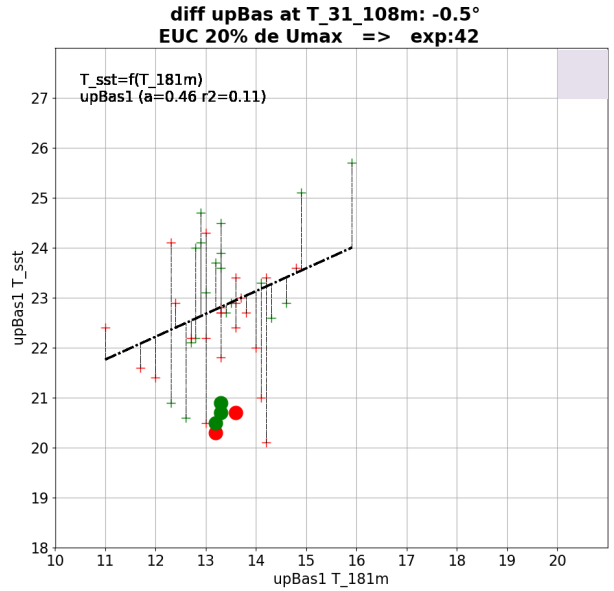

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_163m)
upBas1 (a=0.80 r2=0.18)
upBas1 T_sst
upBas1 T_163m

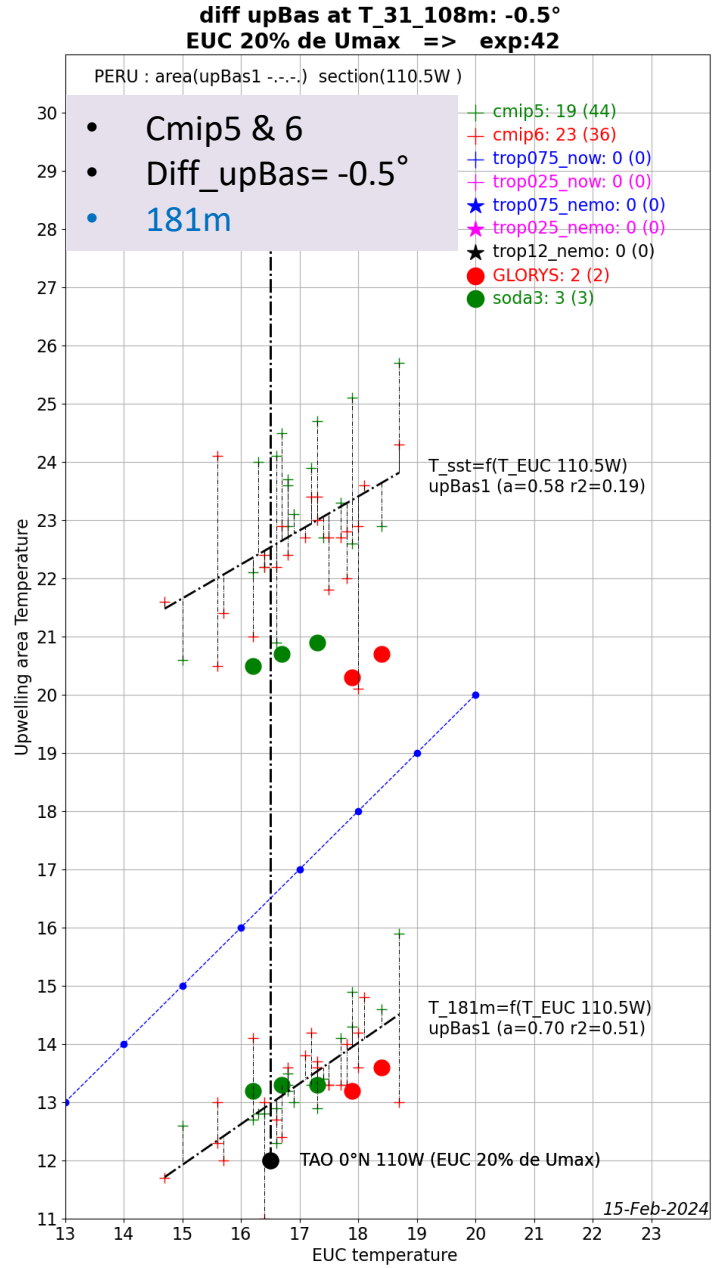

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_163m)
upBas1 (a=0.50 r2=0.14)
upBas1 T_sst
upBas1 T_163m

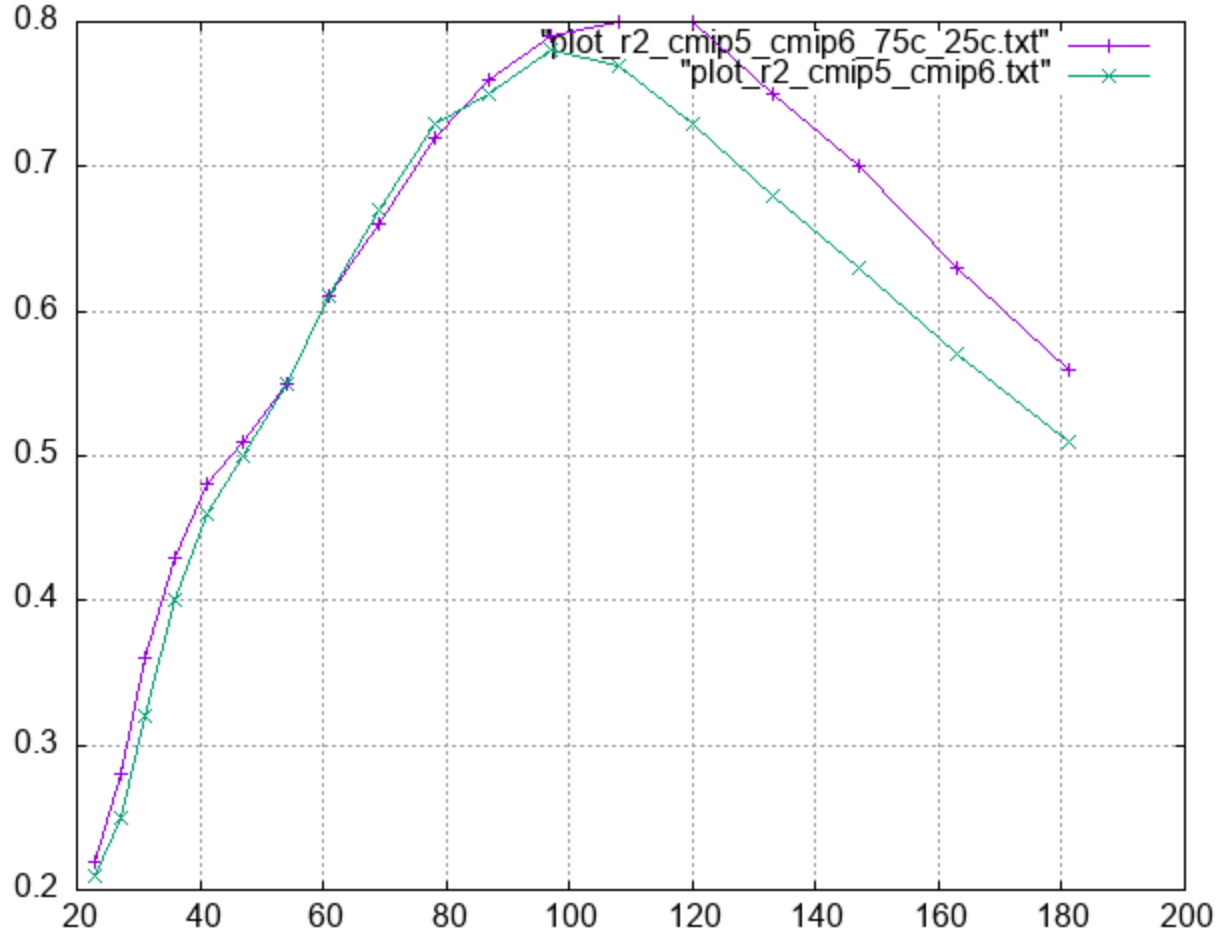

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 163m
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_163m=f(T_EUC 110.5W)
upBas1 (a=0.76 r2=0.57)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

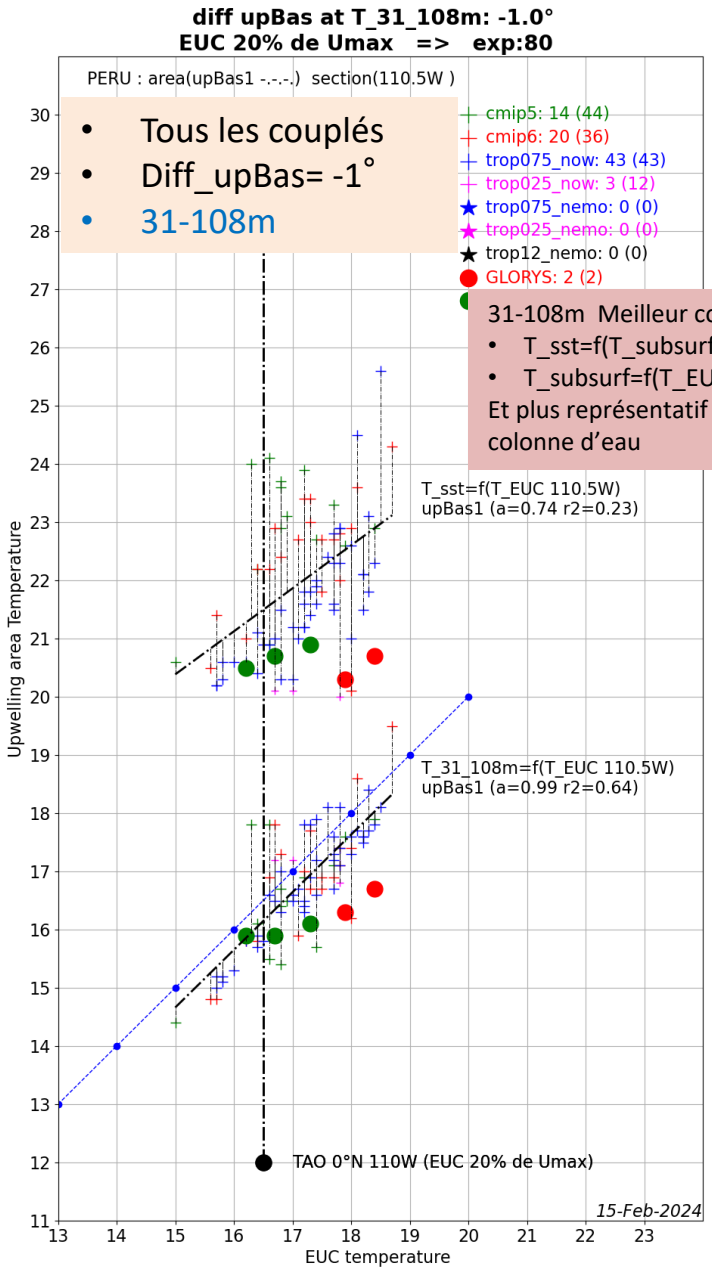

diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• 181m
cmip5: 14 (44)
cmip6: 20 (36)
trop075_now: 43 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.74 r2=0.23)
T_181m=f(T_EUC 110.5W)
upBas1 (a=0.60 r2=0.56)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature


diff upBas at T_31_108m: -1.0°
EUC 20% de Umax => exp:80
T_sst=f(T_181m)
upBas1 (a=0.79 r2=0.17)
upBas1 T_sst
upBas1 T_181m


diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
T_sst=f(T_181m)
upBas1 (a=0.46 r2=0.11)
upBas1 T_sst
upBas1 T_181m

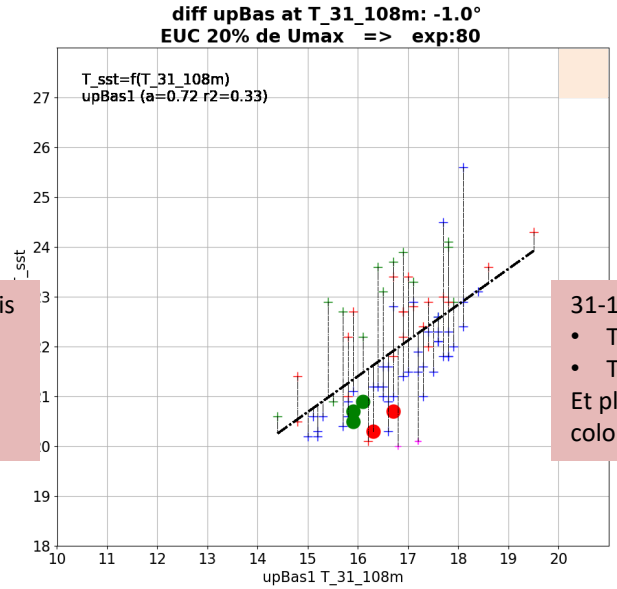

diff upBas at T_31_108m: -0.5°
EUC 20% de Umax => exp:42
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• 181m
cmip5: 19 (44)
cmip6: 23 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.58 r2=0.19)
T_181m=f(T_EUC 110.5W)
upBas1 (a=0.70 r2=0.51)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

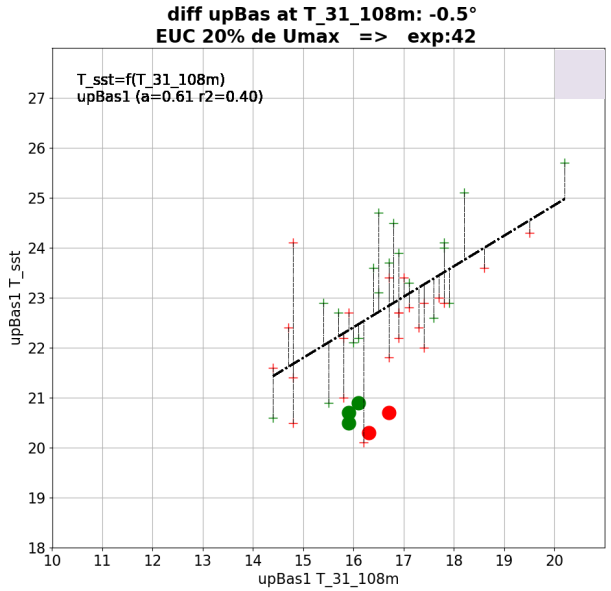

"plot_r2_cmip5_cmip6_75c_25c.txt"
"plot_r2_cmip5_cmip6.txt"
0.8
0.7
0.6
0.5
0.4
0.3
0.2
20
40
60
80
100
120
140
160
180
200



31-108m Meilleur compromis
- T_sst=f(T_subsurf)
- T_subsurf=f(T_EUC)

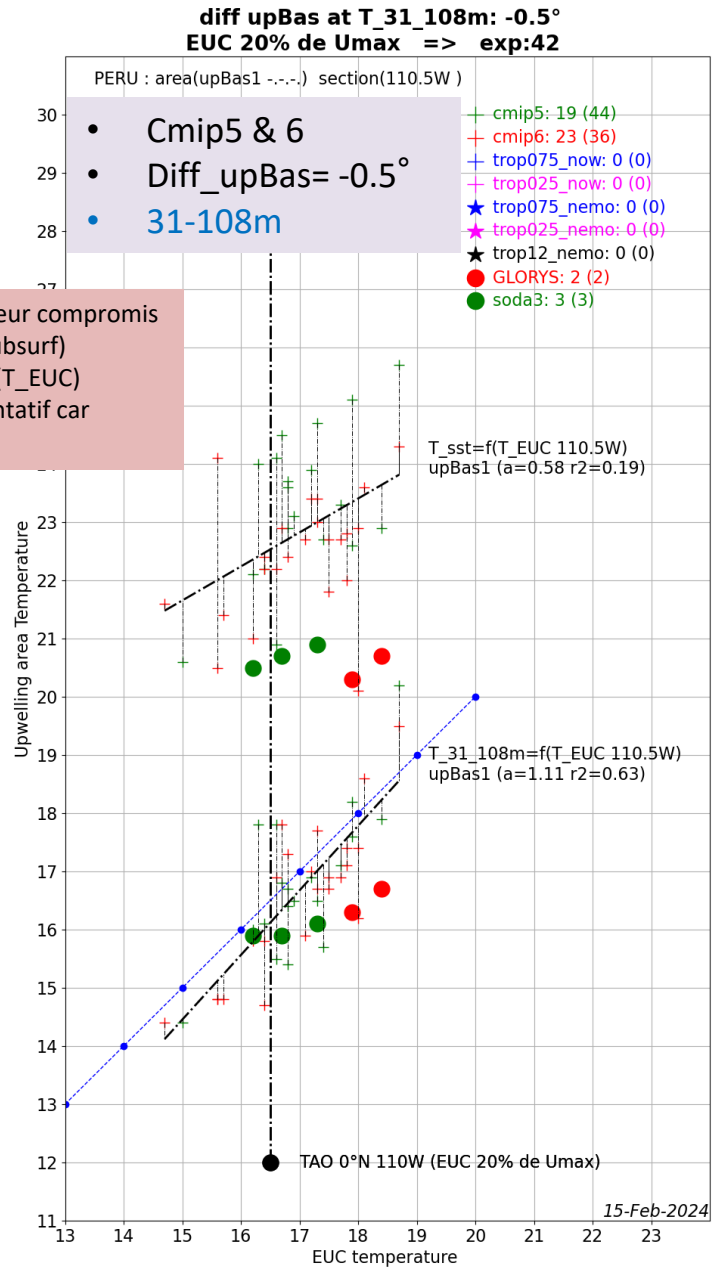
Et plus représentatif car colonne d'eau

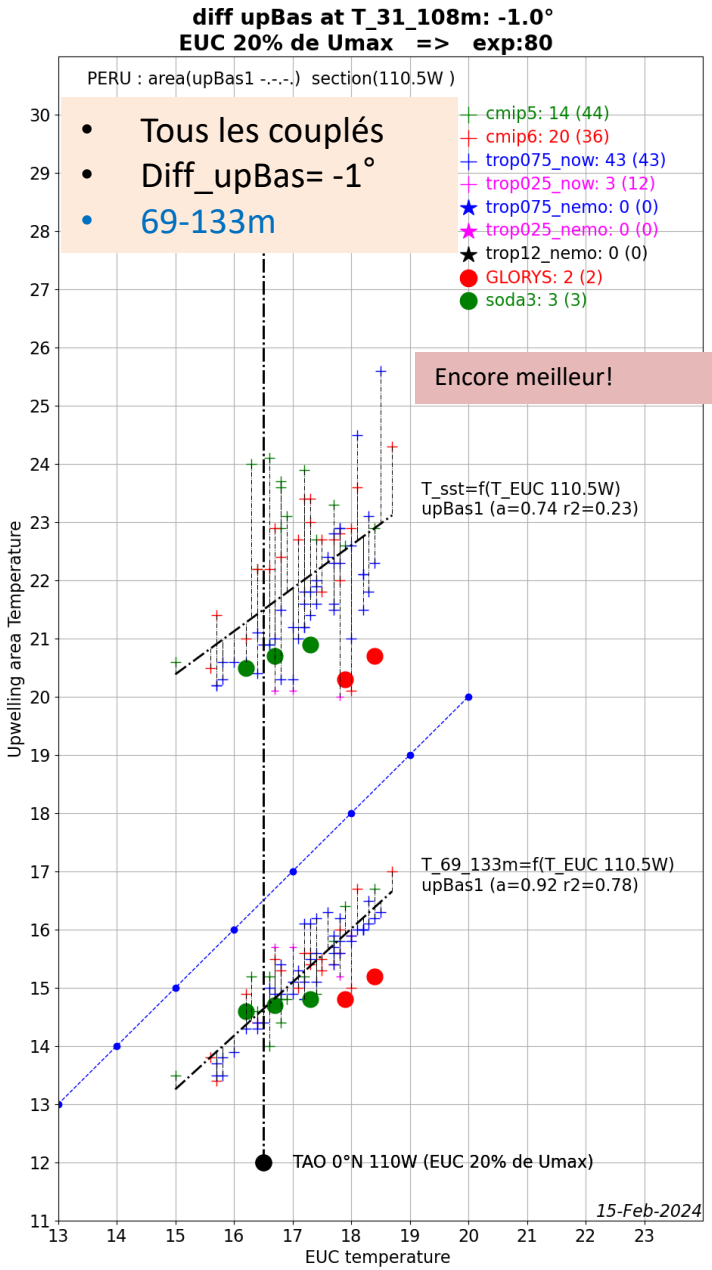




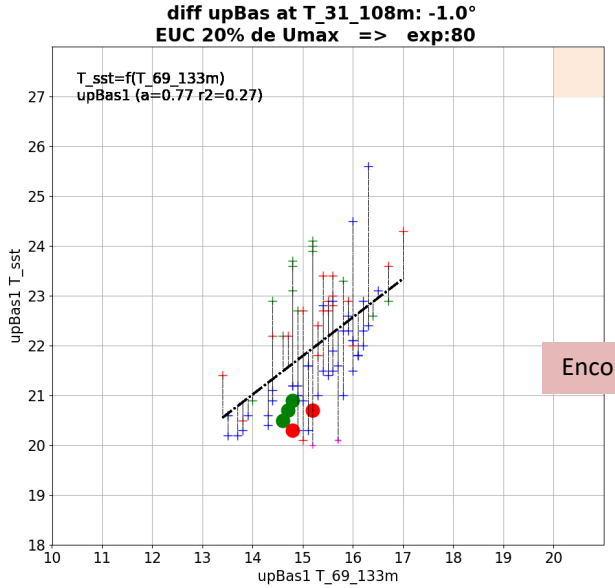
31-108m Meilleur compromis
- T_sst=f(T_subsurf)
- T_subsurf=f(T_EUC)

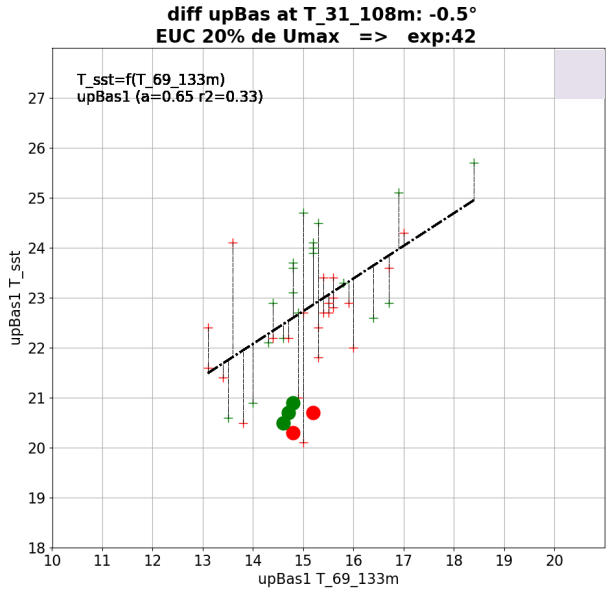
Et plus représentatif car colonne d'eau



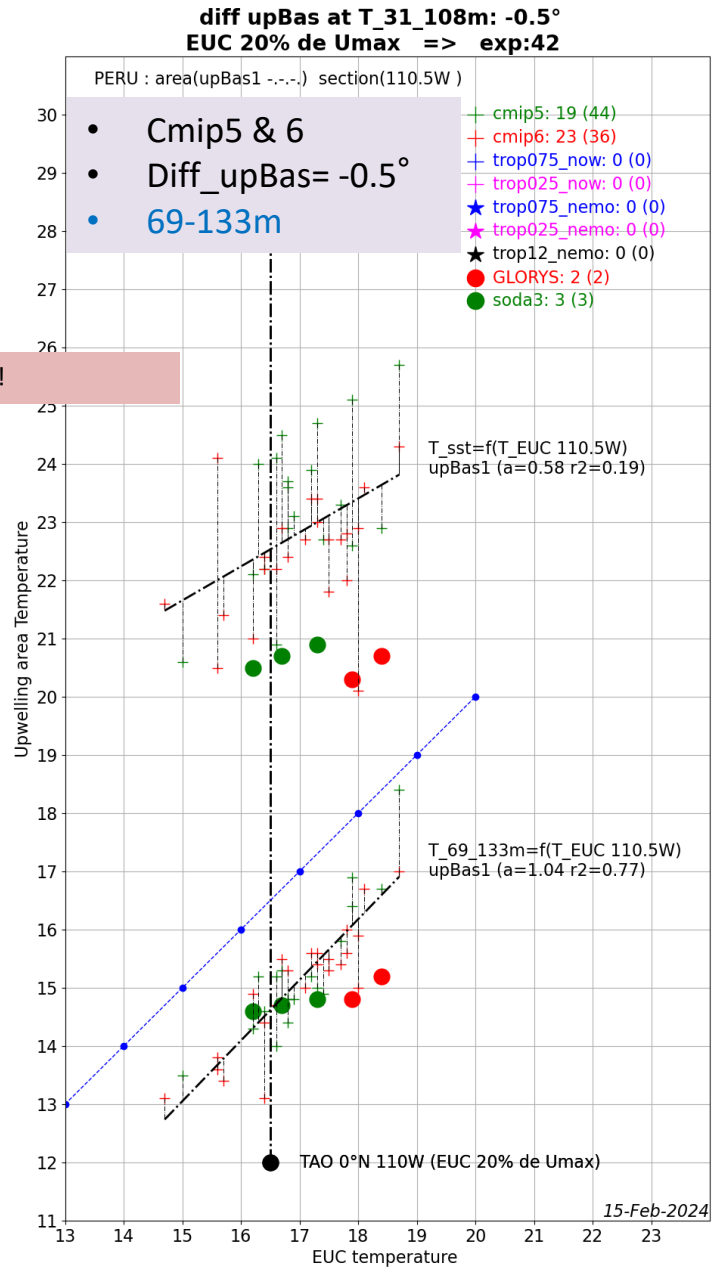


Encore meilleur!





Encore meilleur!

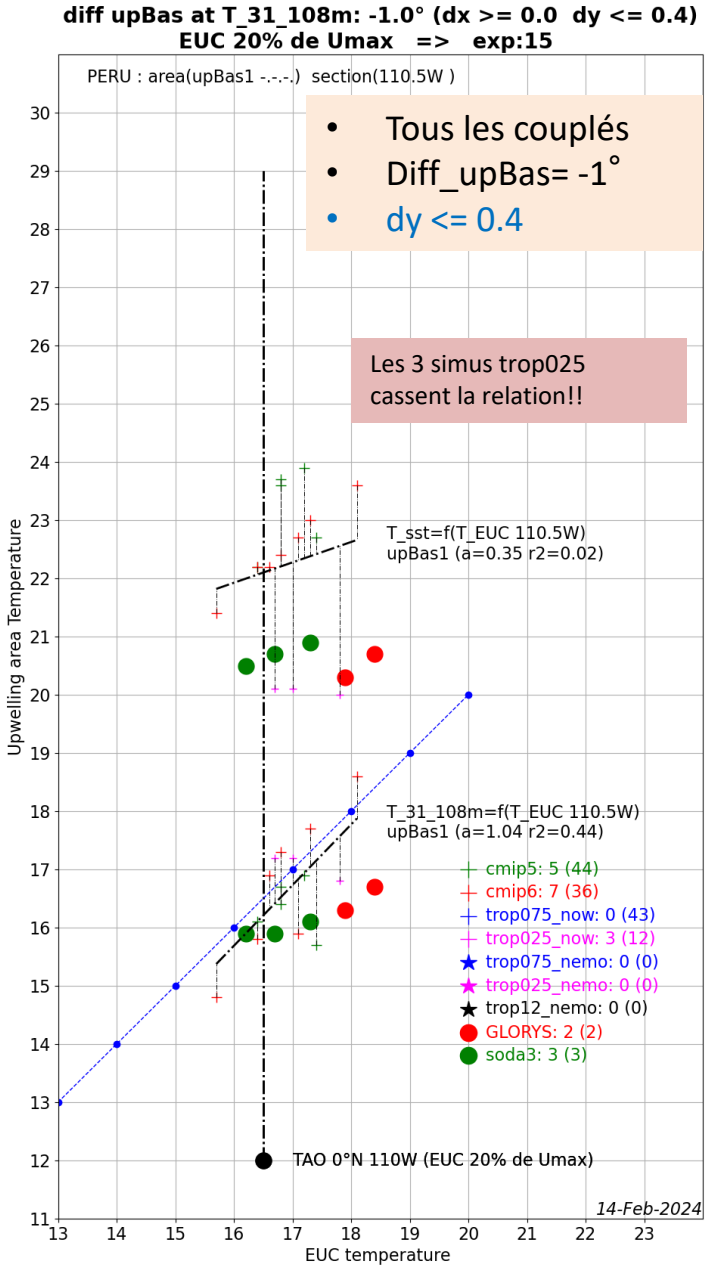


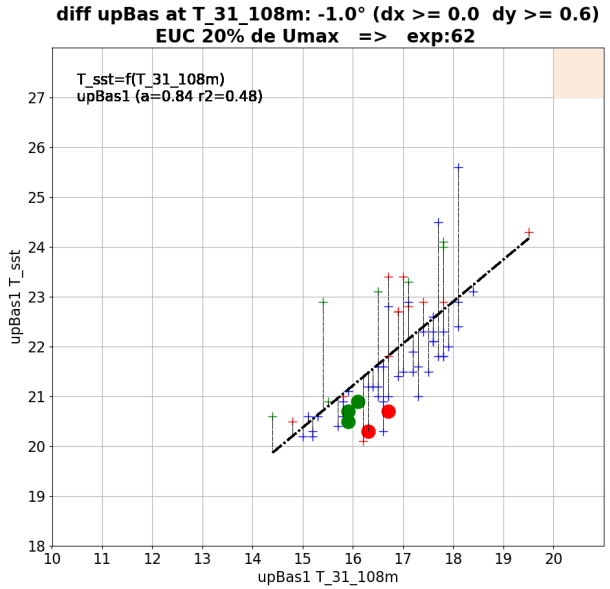
T_up=f(T_EUC, 110W, 20%, 31_108m) : dy False / >= 0.6

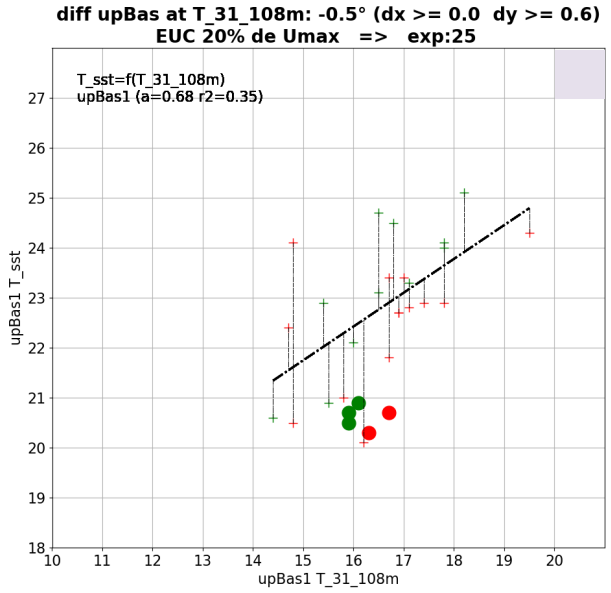
- **RETOUR SUR LA RESOLUTION DECEVANTE:**

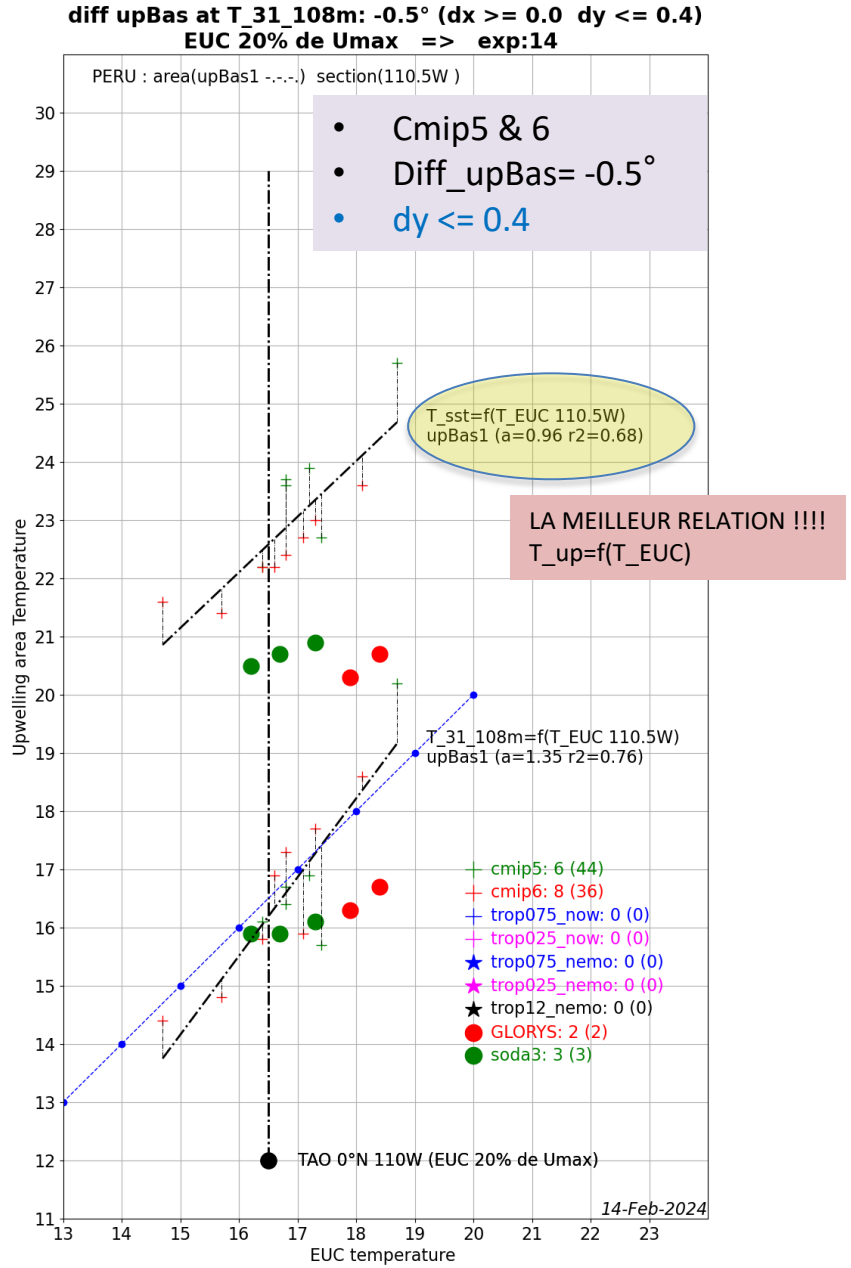
- Tous les couplés / Diff_upBas= -1°
- Cmip5 & 6 / Diff_upBas= -0.5°

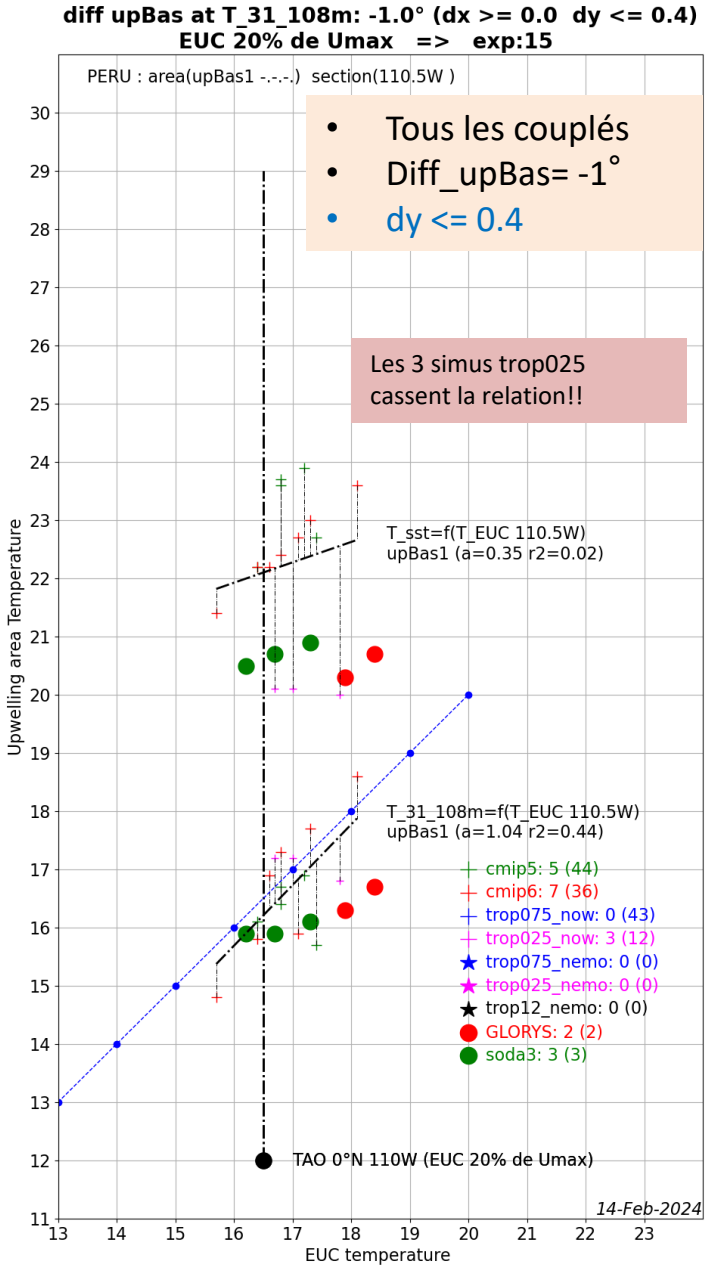
- Sur 69_133m au lieu de 31_108m
- Ajout de dy <= 0.4

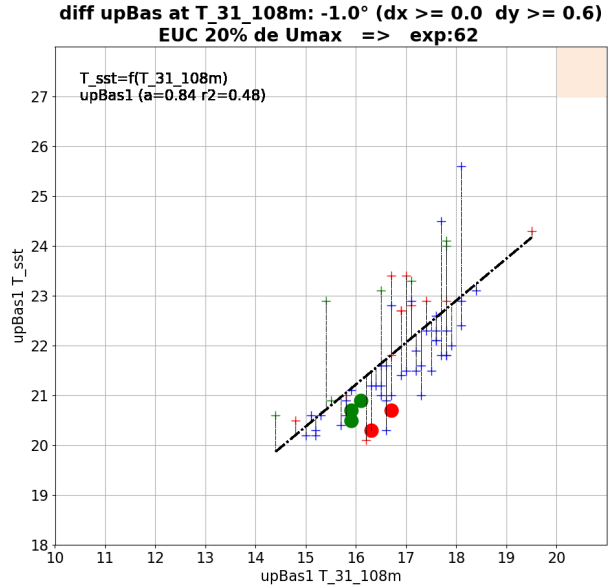

diff upBas at T_31_108m: -1.0° (dx >= 0.0 dy <= 0.4)
EUC 20% de Umax => exp:15
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• dy <= 0.4
Les 3 simus trop025 cassent la relation!!
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.35 r2=0.02)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.04 r2=0.44)
cmip5: 5 (44)
cmip6: 7 (36)
trop075_now: 0 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
TAO 0°N 110W (EUC 20% de Umax)
14-Feb-2024
Upwelling area Temperature
EUC temperature

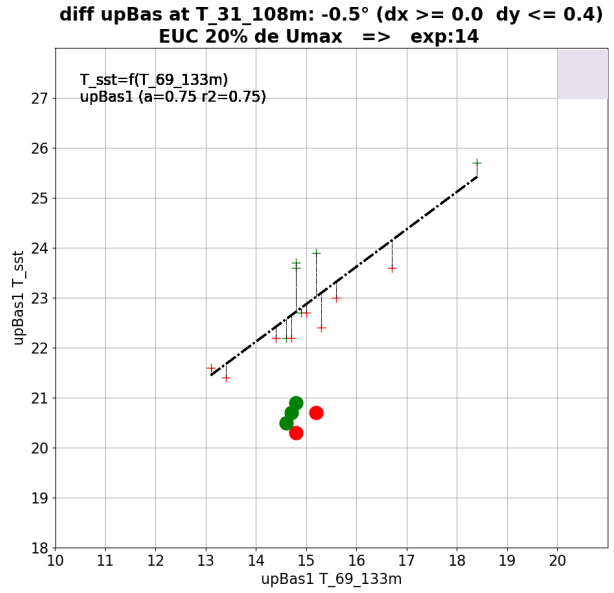

diff upBas at T_31_108m: -1.0° (dx >= 0.0 dy >= 0.6)
EUC 20% de Umax => exp:62
T_sst=f(T_31_108m)
upBas1 (a=0.84 r2=0.48)
upBas1 T_sst
upBas1 T_31_108m

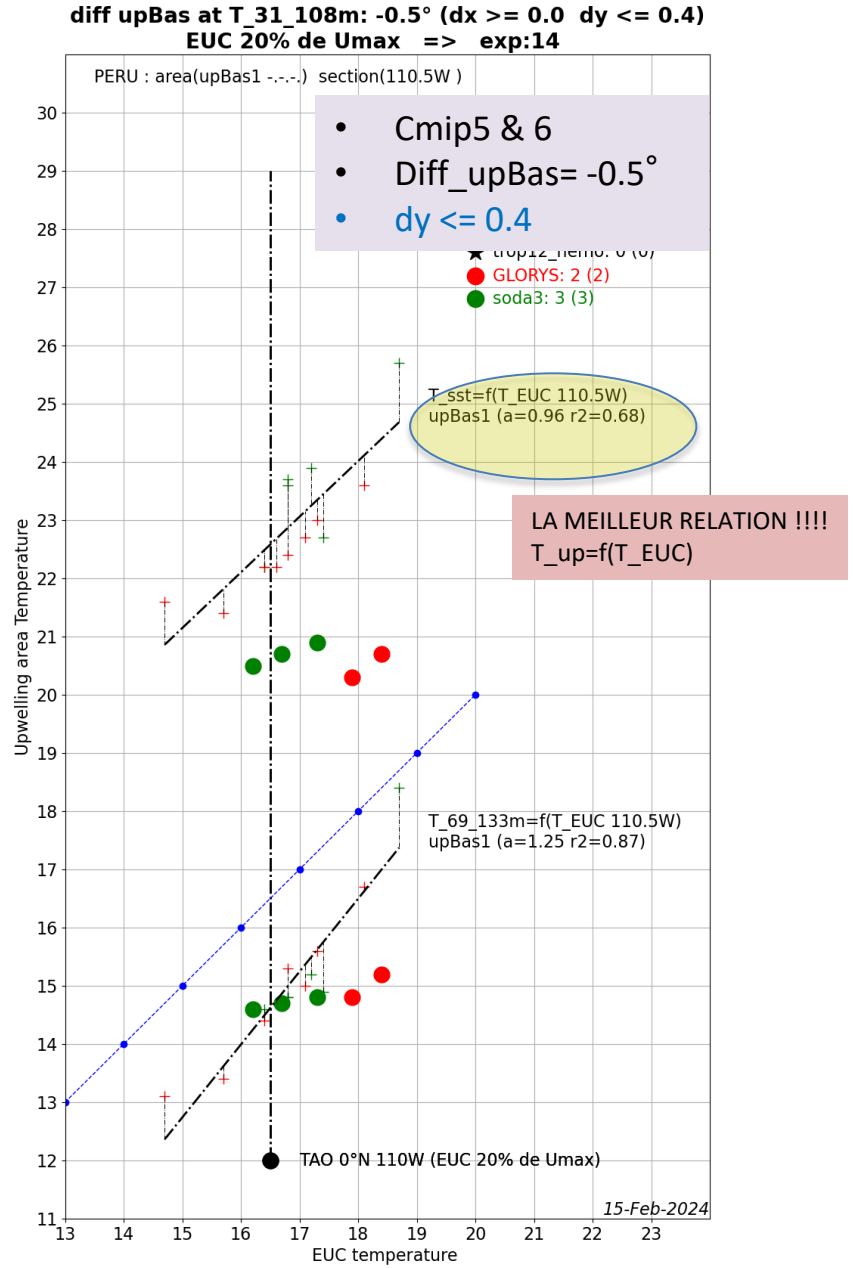

diff upBas at T_31_108m: -0.5° (dx >= 0.0 dy >= 0.6)
EUC 20% de Umax => exp:25
T_sst=f(T_31_108m)
upBas1 (a=0.68 r2=0.35)
upBas1 T_sst
upBas1 T_31_108m


diff upBas at T_31_108m: -0.5° (dx >= 0.0 dy <= 0.4)
EUC 20% de Umax => exp:14
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• dy <= 0.4
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.96 r2=0.68)
LA MEILLEUR RELATION !!!!
T_up=f(T_EUC)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.35 r2=0.76)
cmip5: 6 (44)
cmip6: 8 (36)
trop075_now: 0 (0)
trop025_now: 0 (0)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
TAO 0°N 110W (EUC 20% de Umax)
14-Feb-2024
Upwelling area Temperature
EUC temperature

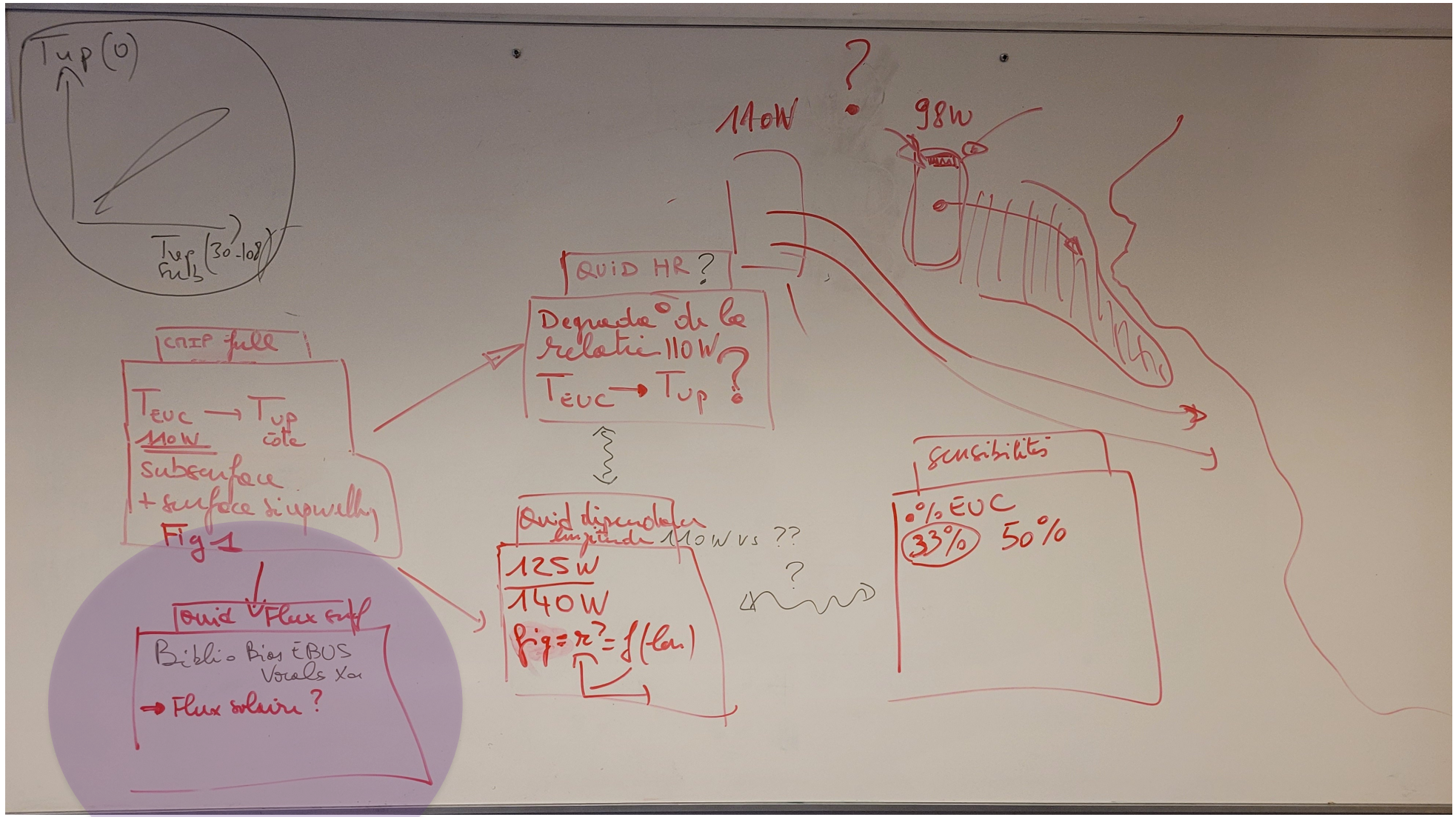

diff upBas at T_31_108m: -1.0° (dx >= 0.0 dy <= 0.4)
EUC 20% de Umax => exp:15
PERU : area(upBas1 -.-.-.) section(110.5W)
• Tous les couplés
• Diff_upBas= -1°
• dy <= 0.4
Les 3 simus trop025 cassent la relation!!
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.35 r2=0.02)
T_31_108m=f(T_EUC 110.5W)
upBas1 (a=1.04 r2=0.44)
cmip5: 5 (44)
cmip6: 7 (36)
trop075_now: 0 (43)
trop025_now: 3 (12)
trop075_nemo: 0 (0)
trop025_nemo: 0 (0)
trop12_nemo: 0 (0)
GLORYS: 2 (2)
soda3: 3 (3)
TAO 0°N 110W (EUC 20% de Umax)
14-Feb-2024
Upwelling area Temperature
EUC temperature


diff upBas at T_31_108m: -1.0° (dx >= 0.0 dy >= 0.6)
EUC 20% de Umax => exp:62
T_sst=f(T_31_108m)
upBas1 (a=0.84 r2=0.48)
upBas1 T_sst
upBas1 T_31_108m


diff upBas at T_31_108m: -0.5° (dx >= 0.0 dy <= 0.4)
EUC 20% de Umax => exp:14
T_sst=f(T_69_133m)
upBas1 (a=0.75 r2=0.75)
upBas1 T_sst
upBas1 T_69_133m


diff upBas at T_31_108m: -0.5° (dx >= 0.0 dy <= 0.4)
EUC 20% de Umax => exp:14
PERU : area(upBas1 -.-.-.) section(110.5W)
• Cmip5 & 6
• Diff_upBas= -0.5°
• dy <= 0.4
GLORYS: 2 (2)
soda3: 3 (3)
T_sst=f(T_EUC 110.5W)
upBas1 (a=0.96 r2=0.68)
LA MEILLEUR RELATION !!!!
T_up=f(T_EUC)
T_69_133m=f(T_EUC 110.5W)
upBas1 (a=1.25 r2=0.87)
TAO 0°N 110W (EUC 20% de Umax)
15-Feb-2024
Upwelling area Temperature
EUC temperature

T_up=f(T_EUC, 110W, 20%, 31_108m) : hfdsO

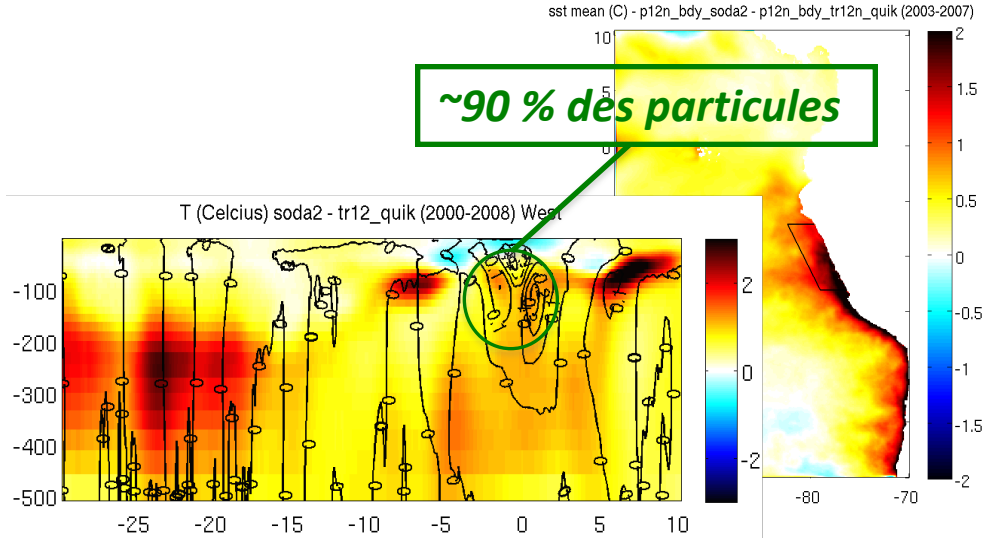


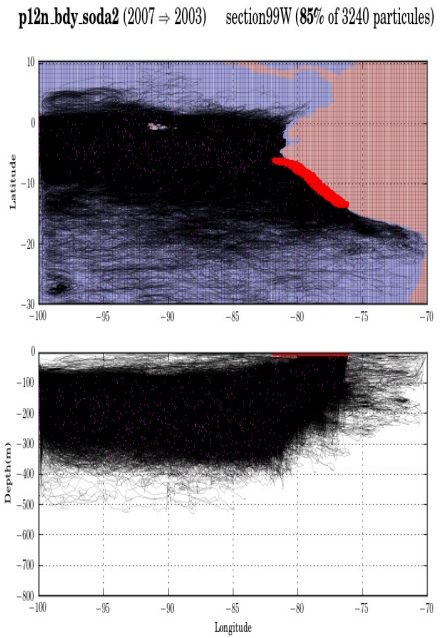
T_up=f(T_EUC, longitude & %EUC)

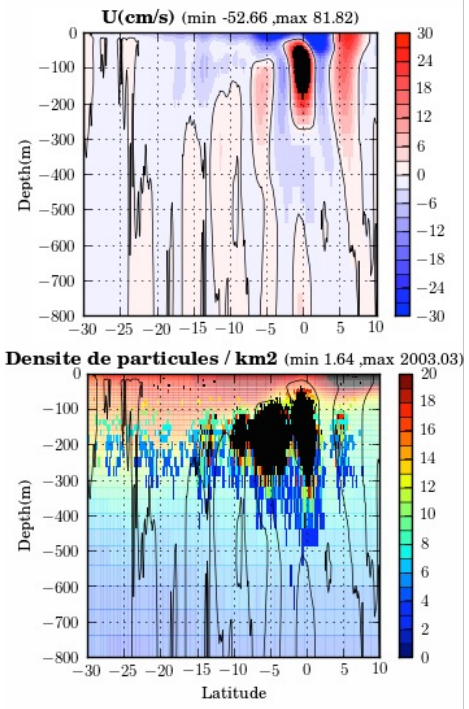
- Quand on voit les profils U et T à l'Equateur, sans doute mieux de prendre **33%**

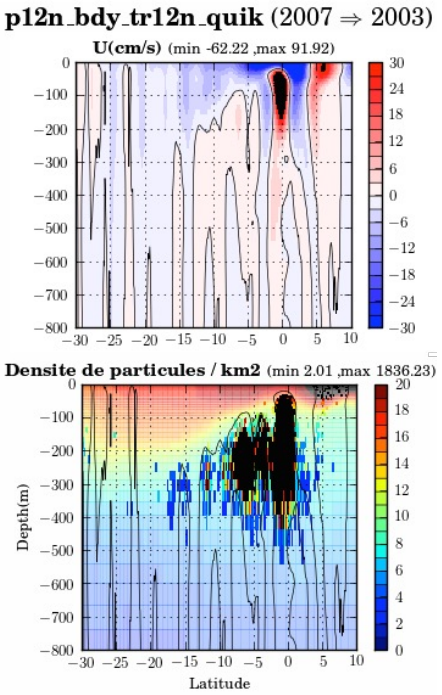
- **Si les plots sont intéressants à montrer,** ajouter **TAO**
  - paramétrer en fonction de la section dans plot...py
  - vérifier la dispo. Seulement 110W 140W et 170W

Alimentation du PCUS / essentiellement EUC









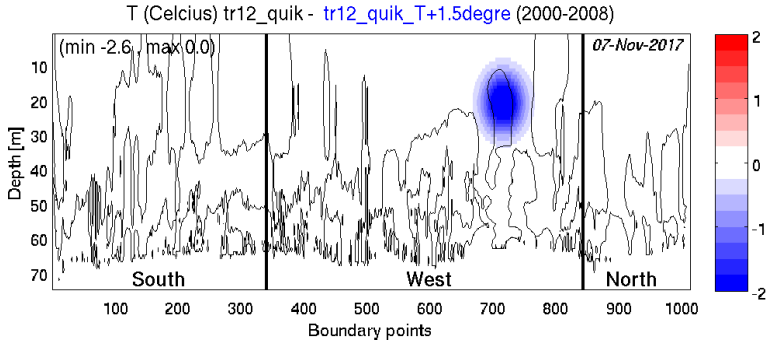
Simulation régionale / biais en température

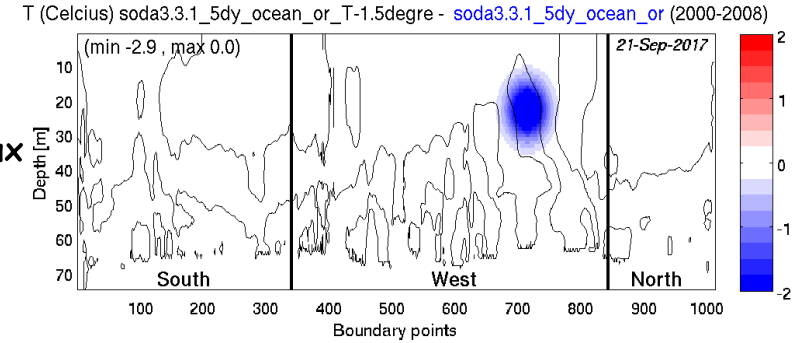
Tr12_quik+1.5° / soda3-1.5°

Tr12_quik - tr12_quik+1.5°

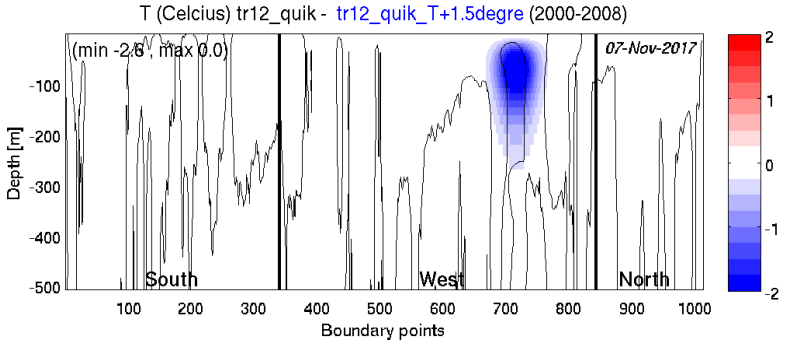
Soda3-1.5° - soda3

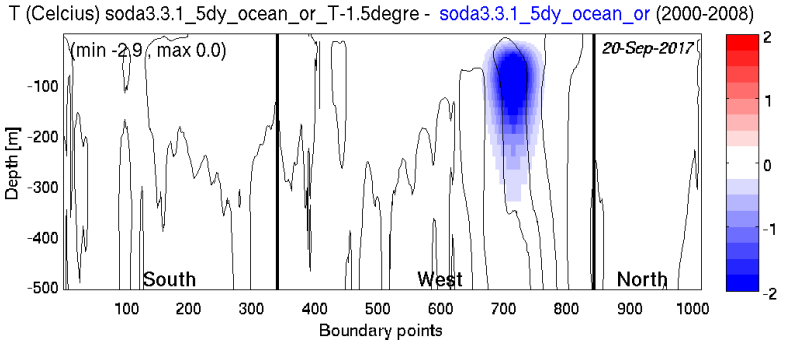
Les 75 niveaux (debug)



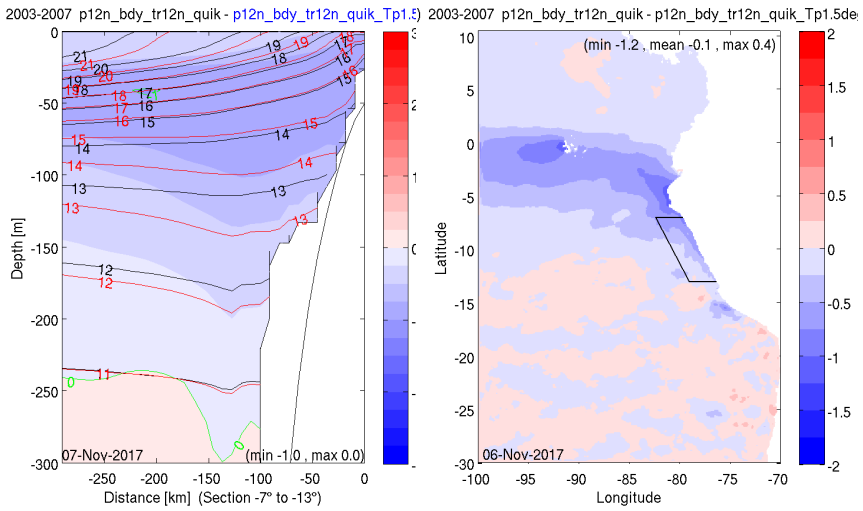


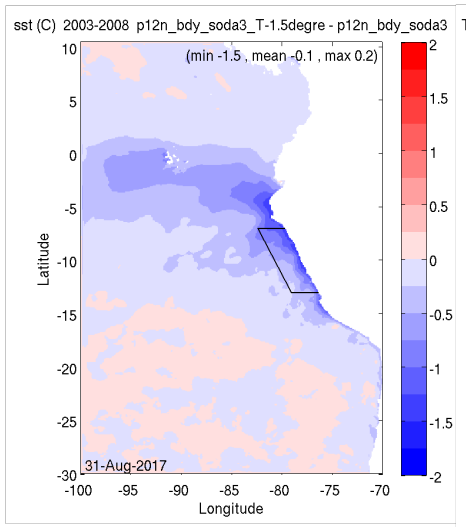
500 m

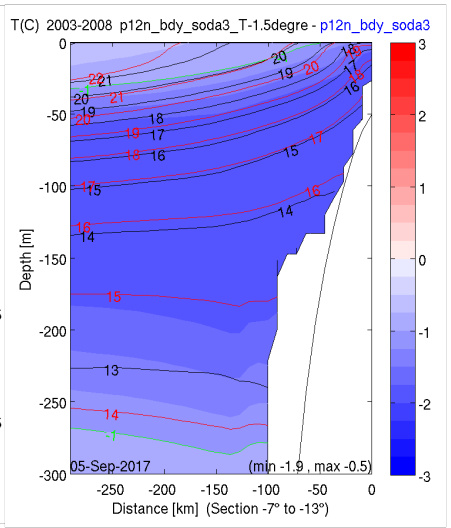




300 m

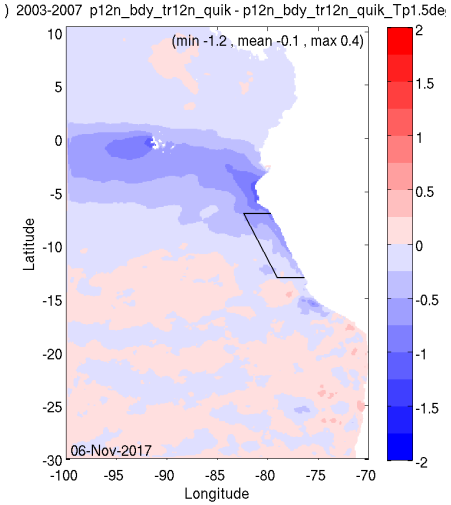


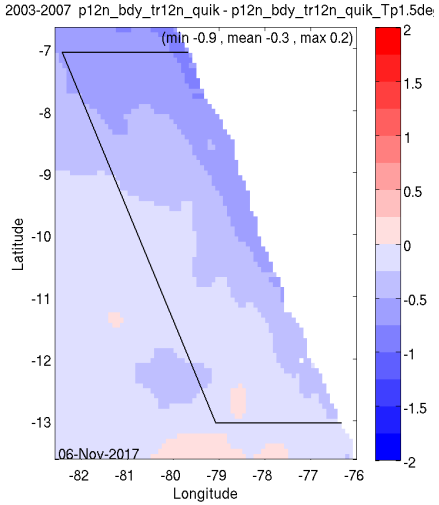


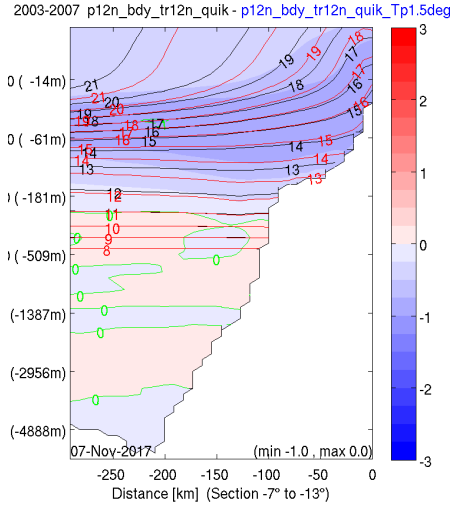


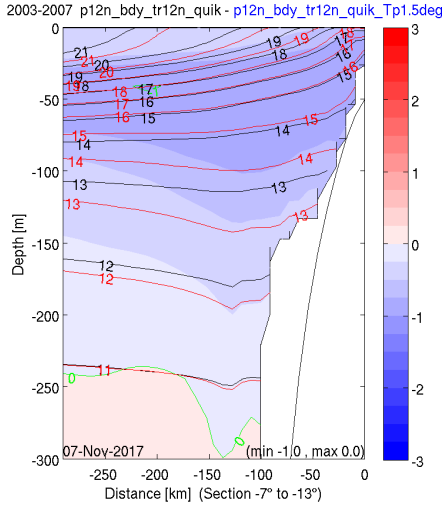
Tr12_quik+1.5° / soda3-1.5°

Tr12_quik - tr12_quik+1.5°

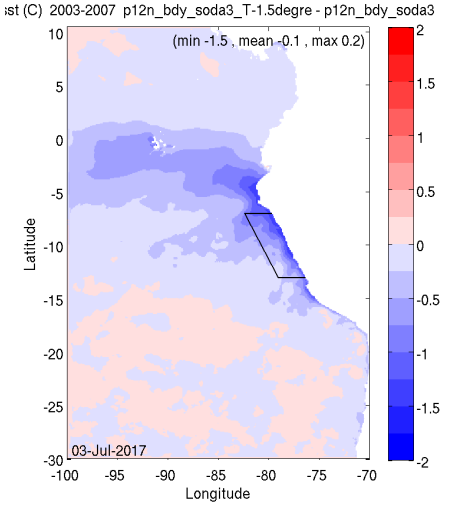


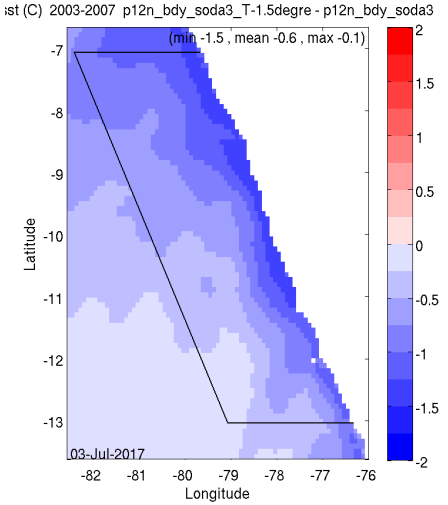


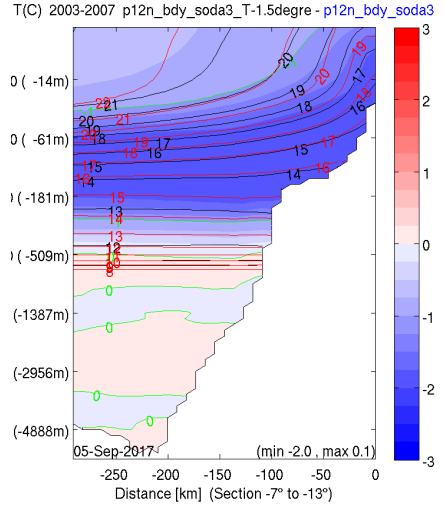


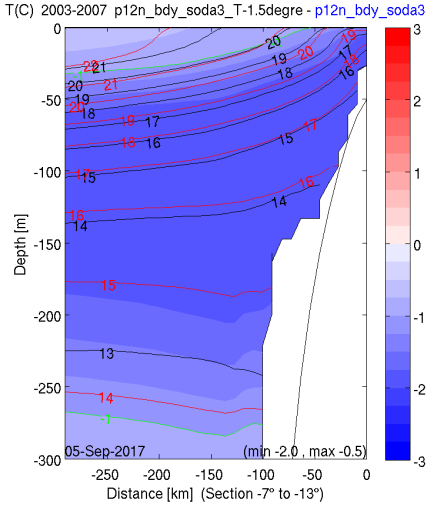


Soda3-1.5° - soda3







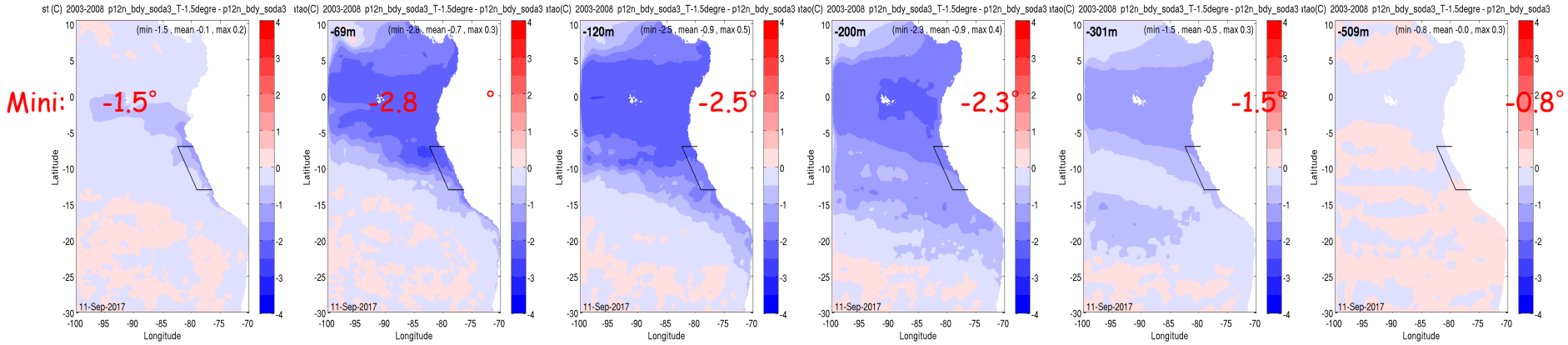


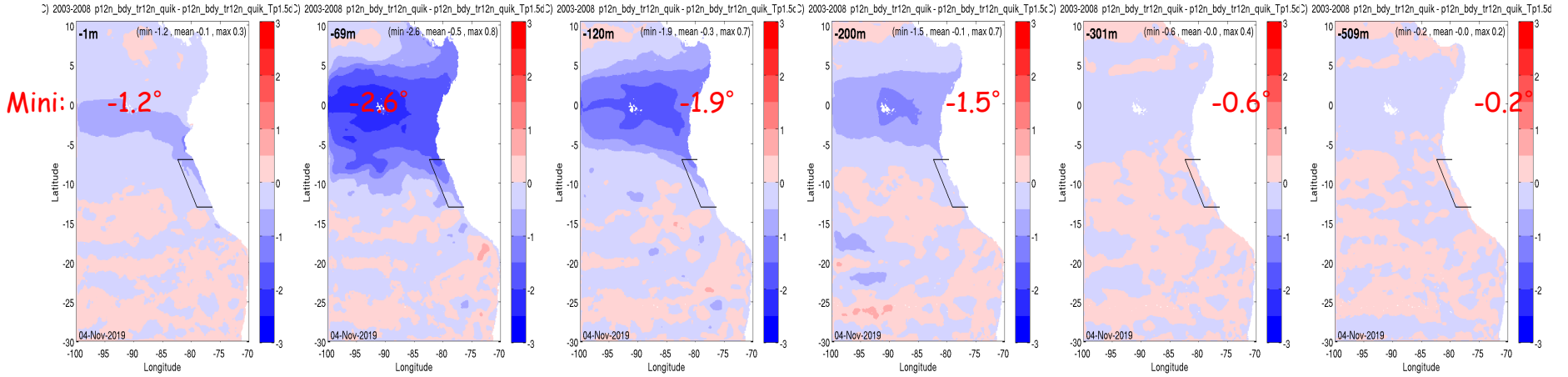
La même perturbation en température dans le cœur de l'EUC a des conséquences ~2 fois plus fortes dans le run soda3 que dans le run tr12_quik

IV – Refroidissement grande échelle sur l'ensemble du domaine

Plus précisément sur les 500 premiers mètres de l'ensemble du domaine…
Echelle plus large (-4° / +4°)

soda3-1.5° - soda3





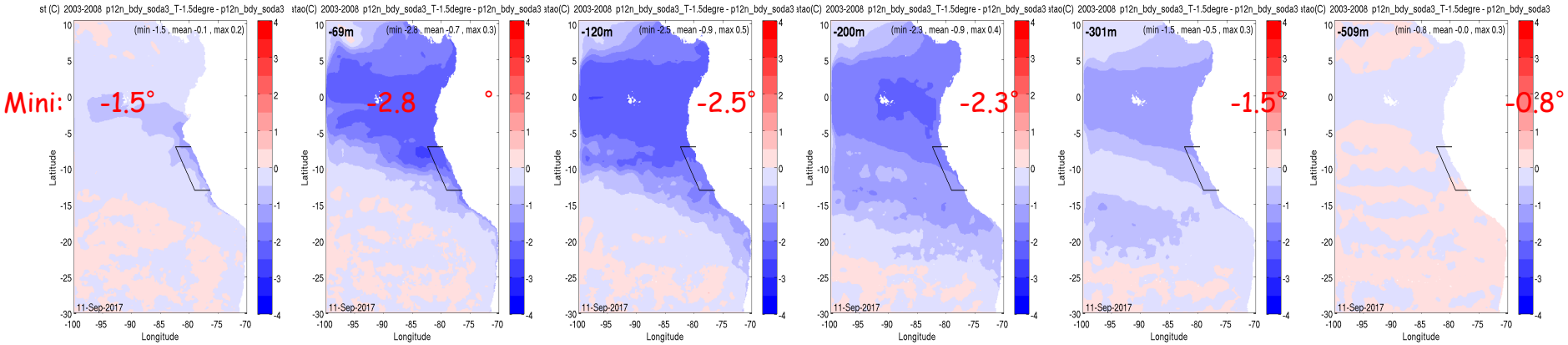
tr12n_quik + 1.5° - tr12n_quik

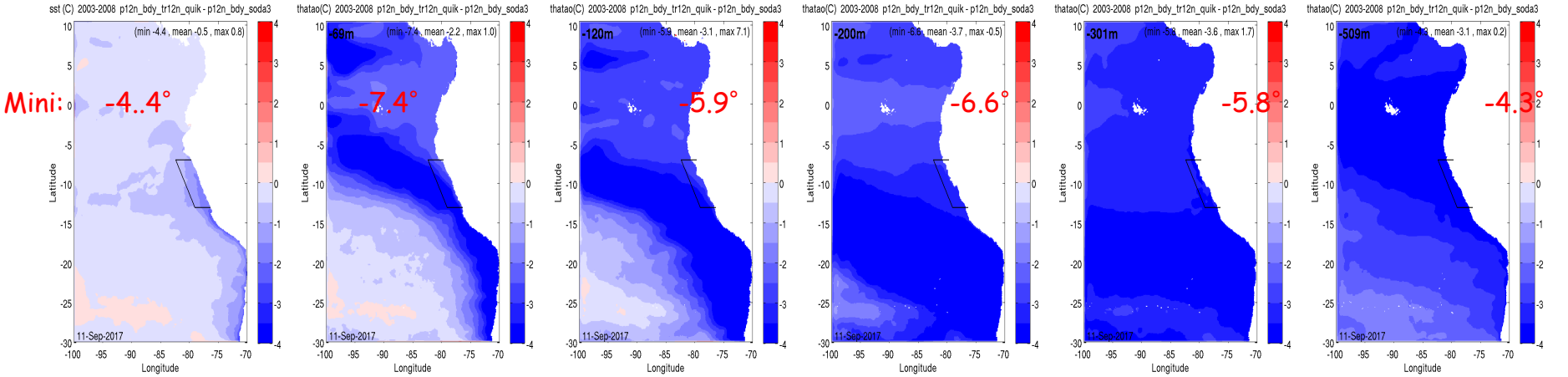
On voit l'importance des termes de rappel en surface (faible différence entre les SST)
Alors que très fortes différences en profondeur
=> nécessité de regarder en profondeur cette alimentation

IV – Refroidissement grande échelle sur l'ensemble du domaine

Plus précisément sur les 500 premiers mètres de l'ensemble du domaine…
Echelle plus large (-4° / +4°)

soda3-1.5° - soda3 Global:-130 PW EUC=-233PW

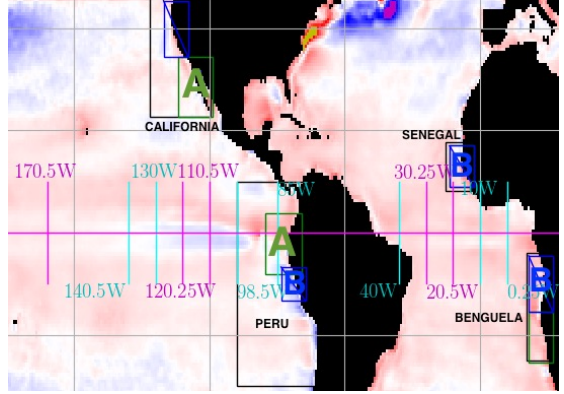




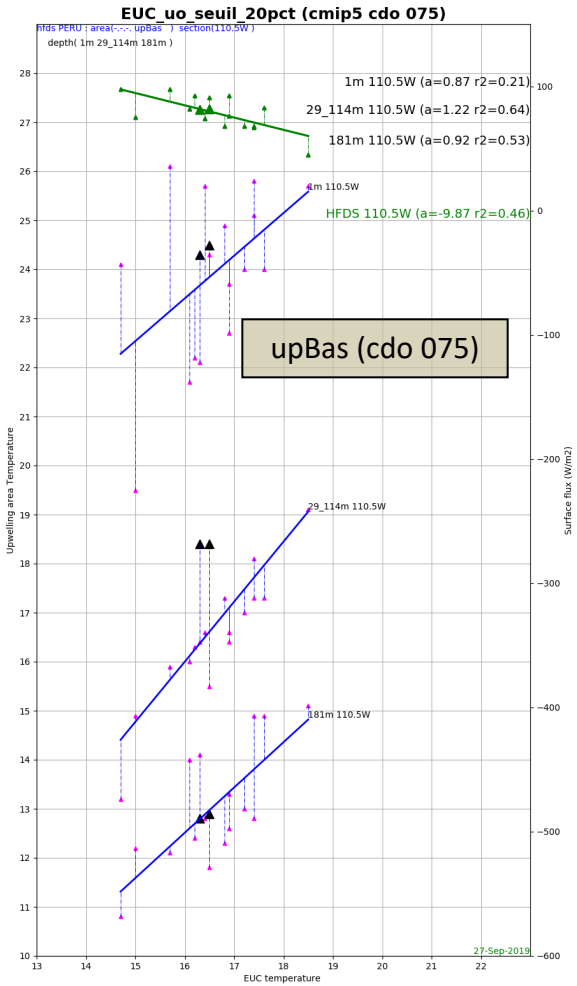
tr12n_quik – soda3 Global:+22PW EUC=-138PW

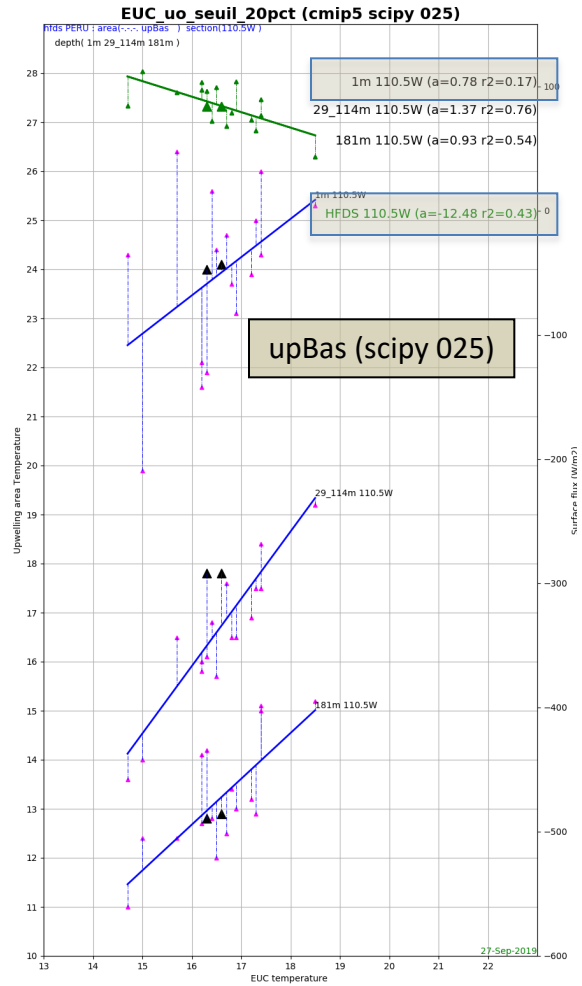
On voit l'importance des termes de rappel en surface (faible différence entre les SST)
Alors que très fortes différences en profondeur
=> nécessité de regarder en profondeur cette alimentation

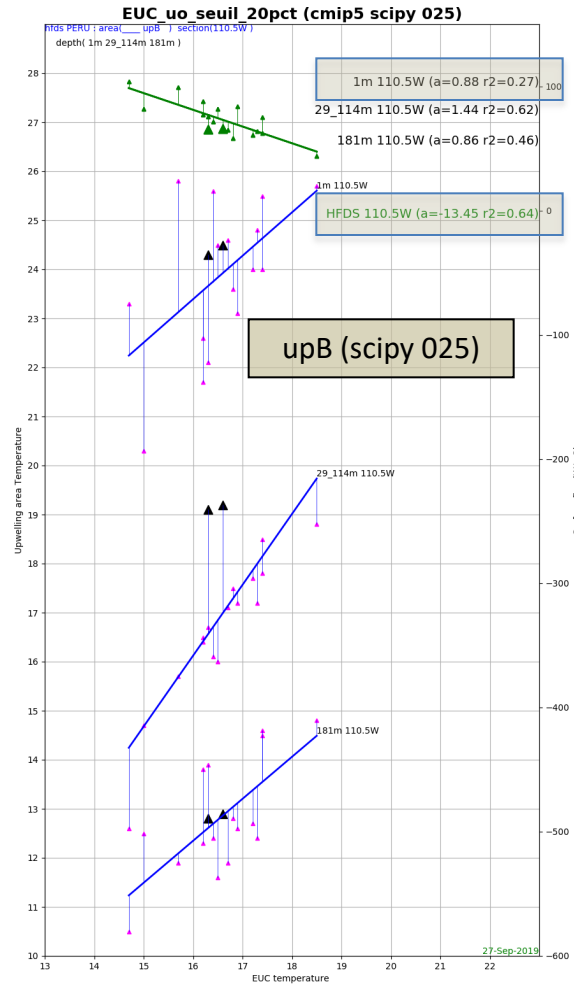
PERU (Pulsation + CMIP5)



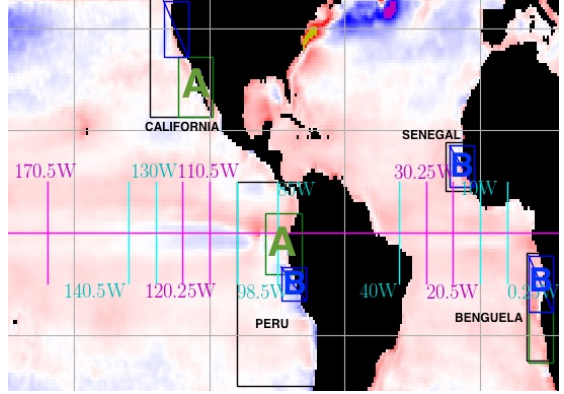
- **Pour le PERU On retient :**
  - **ZONES upA et upBas**
  - **Profondeur 120m**
  - **Section 110.5W**



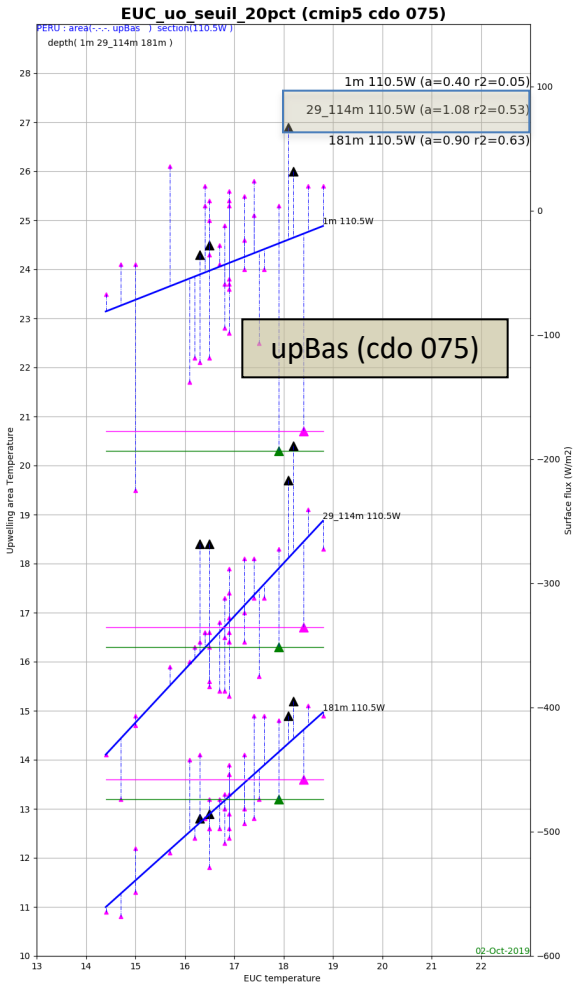


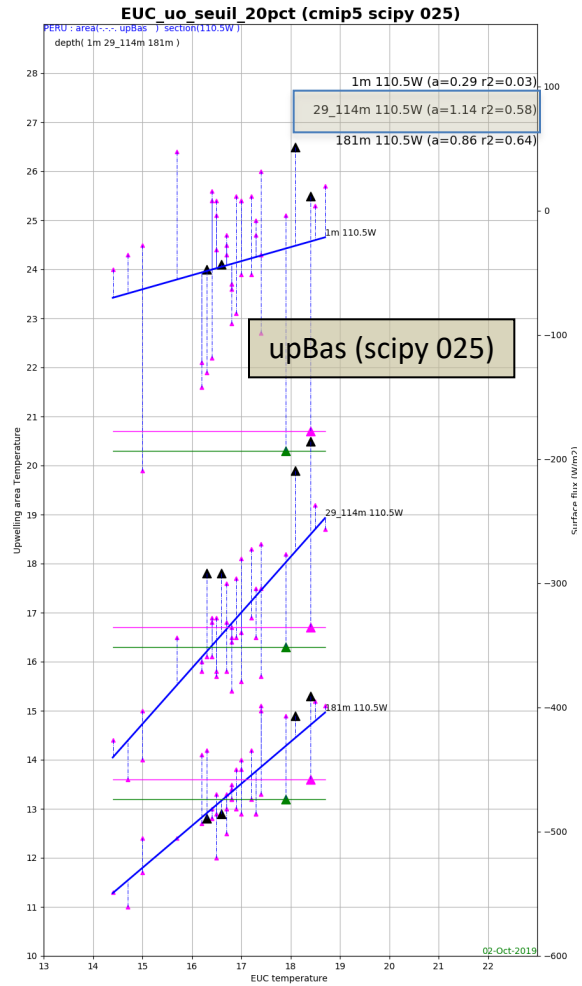


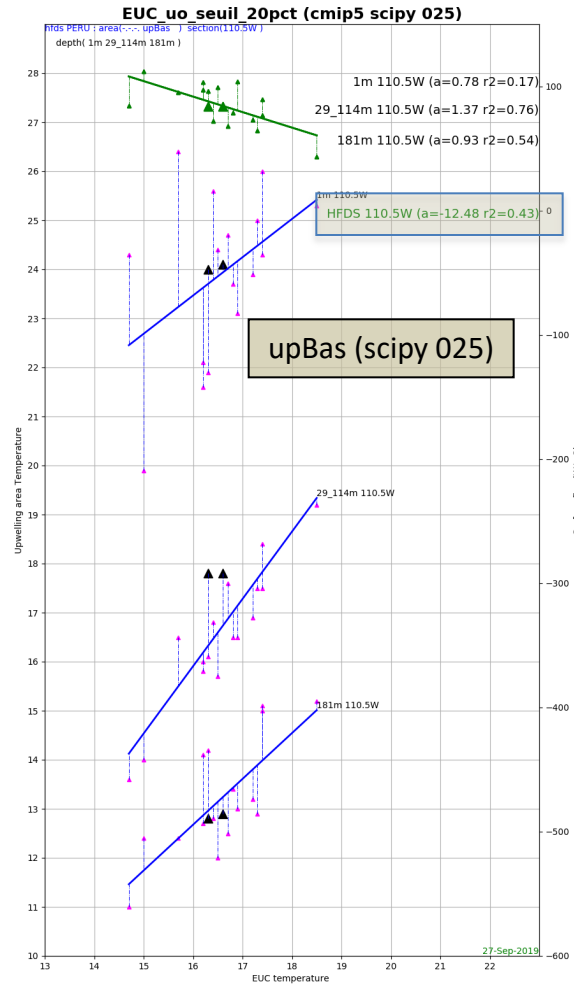
PERU (Pulsation + CMIP5)



- **Pour le PERU On retient :**
  - **ZONES upA et upBas**
  - **Profondeur 120m**
  - **Section 110.5W**







CONCLUSIONS

Messages principaux

- L'EUC est une source d'alimentation prédominante pour upwelling cotier Peruvien. (biblio (Yvonne mais lagrangien < shoot temperature + experience)
- Dépendance à la longitude
- Les biais en temperature de l'EUC (5° sur tout CMIP à 110W) ont une influence sur les biais dans la zone d'upwelling.
- Ces biais ont une manifestation réduite/négligeable sur la SST, mais une influence (modeste) sur les flux de chaleur OA

Points discut:

- Si continuer à améliorer la représentation du système d'upwelling côtier, très petite échelle, est indispensable, il faut aussi sans doute s'intéresser à son alimentation.
- En ce qui concerne le système d'upwelling du Pérou/Chili, la principale source de l'alimentation semblant être le l'EUC, pour améliorer la représentation de l'upwelling du Pérou, il faut sans doute améliorer la représentation de la circulation pacifique équatoriale.
- Or dans le tunning des modèles de climat, en cherchant à refroidir les zones d'upwelling de bord est, on impacte les échanges OA du reste du pacifique, avec sans doute des répercussions sur l'EUC et donc sur la zone d'upwelling.

CONCLUSIONS

Globalement, l'extension de la zone Pérou aux 4 régions d'upwelling de bord Est, à 38 simulations CMIP5 nous conforte plutôt dans l'existence d'une relation forte entre la température des régions de bord est et la température du cœur de l'EUC. L'extension de cette relation à des sections plus éloignées de la côte dans le Pacifique va également dans ce sens.

- Cette relation impacte la SST à priori essentiellement dans les périodes d'upwelling. Refaire les nuages de points en sélectionnant pour chacune des régions sa **période d'upwelling**. Surtout pour le Sénégal qui à une période de l'ordre de 3 mois contrairement au Pérou où l'upwelling a lieu presque toute l'année.
- Voir si c'est la dynamique qui crée le biais ou si la dynamique est bonne mais T et S se compensent pour donner la bonne densité aux masses d'eau parce que la dynamique est bonne. => **Cartes de Salinité**

PACIFIC & PERU :

- **Sections EUC plus au large de la côte Péruvienne** : Comme on pouvait s'y attendre, plus on prend une section EUC éloignée de la côte, plus la corrélation température (cœur EUC, zone upwelling) diminue. Mais cette corrélation diminue lentement et reste correcte de 100W à 130W, puis on note un saut pour les sections 140W et 170W. La pente est de l'ordre de 1!
  - Faire même diagnostique mais à 170W et 140W avec la température du max uo de l'EUC et non du cœur avec un seuil à 20%. Il nous avait semblé à première vue que la corrélation qui n'est plus du tout vraie à 170W avec le seuil à 20% l'était beaucoup plus avec la température du max de uo. Si c'est le cas, ça pourrait renforcer l'idée que le biais chaud de la zone d'upwelling, s'il est lié en partie à une température d'EUC trop chaude, soit lié en partie à la formation des eaux alimentant l'EUC à l'ouest du pacifique. (ce qui n'empêche des changements dans le chemin qui les amène de l'ouest à l'est ;-)

- **Introduction des CMIP5 en vrac:**
- On récupère tous les runs CMIP5 disponibles pour la période 1989-2005. Pas le temps de vérifier les interpolations donc méfiance…
- Les simus IPSL montrent un biais froid par rapport à Glorys. (reprendre les observations pour vérifier le biais froid IPSL!)
- On passe de 22 simulations Pulsation à 22+38=60 simulations.
- **Toutes les simulations CMIP5 ont un EUC marqué** donc on les ajoute!
- **Pérou**: Pour la zone A du Pérou anciennement et à tort nommée « cold tong » et la zone B alongshore, on voit qu'à 120 mètre de profondeur, on a une pente quasi de 1 et un coefficient de corrélation de l'ordre de 0.6. On voit en surface pour la zone A que si on retire les quelques simulations extrêmement froides comme CSIRO-Mk3-6-0, on retrouve quasiment la même pente avec l'ensemble des simulations que celle qu'on avait avec les simulations Pulsation uniquement!
  - Pourquoi certaines simulations semblent sortir complètement des clous? A première vue ce sont les simulations de très basse résolution dans l'eau.