

Supporting Information for “On the role of wave climate temporal variability in bias correction of wave climate projections”

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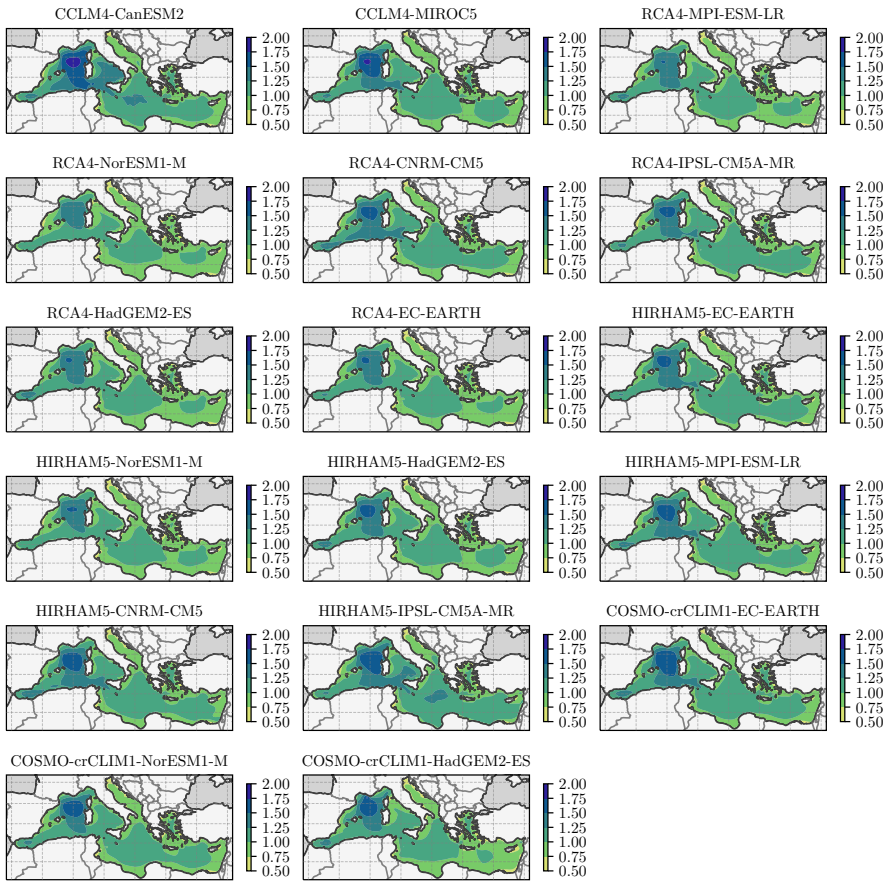
2 *Supporting Information*

Fig. 1 Root-mean-square error (*RMSE*) between the raw GCM-RCMs and hindcast of the significant wave height, H_s [m], during spring (March-May).

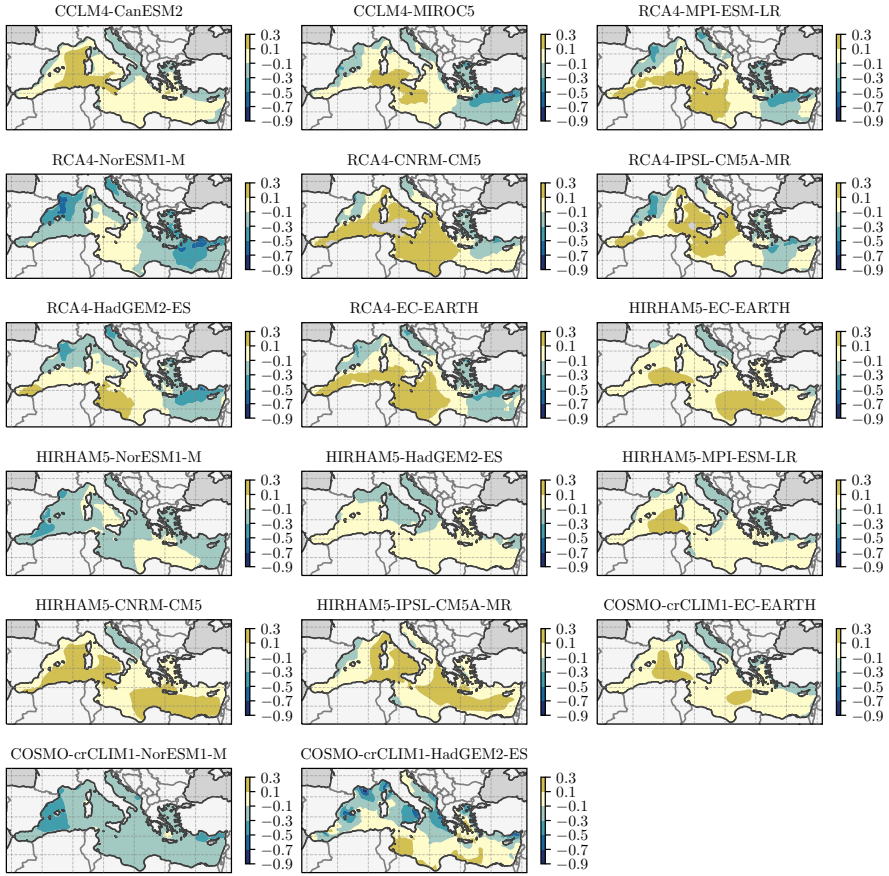


Fig. 2 Bias between the raw GCM-RCMs and hindcast of the significant wave height, H_s [m], during spring (March-May).

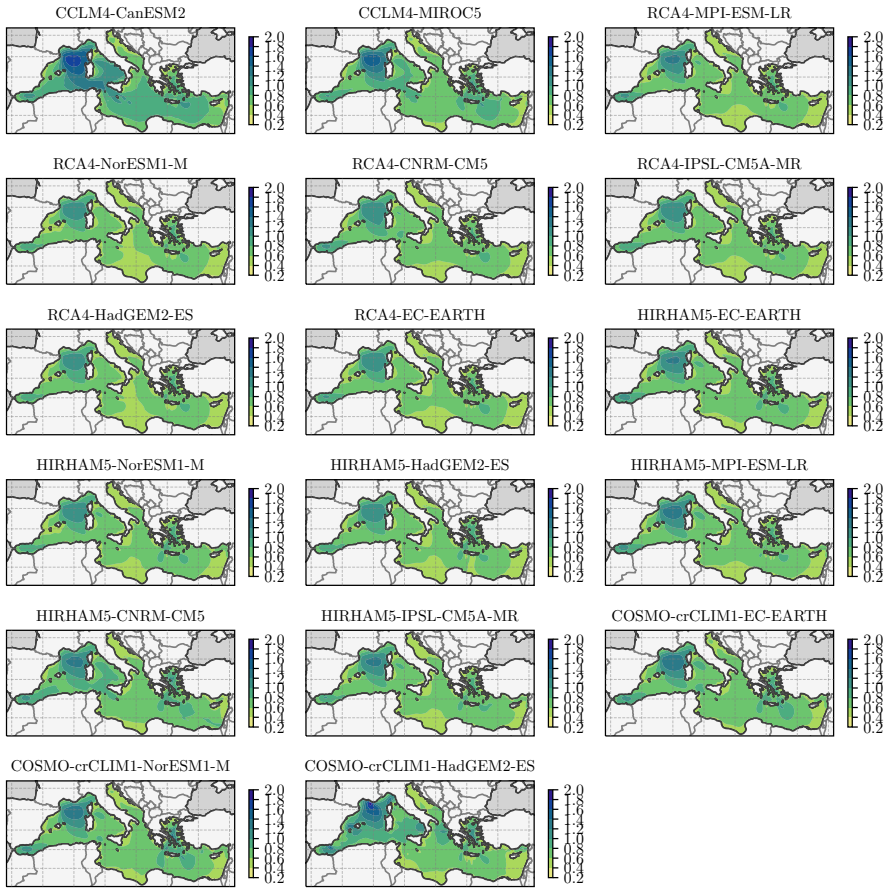


Fig. 3 Root-mean-square error ($RMSE$) between the raw GCM-RCMs and hindcast of the significant wave height, H_s [m], during summer (June-August).

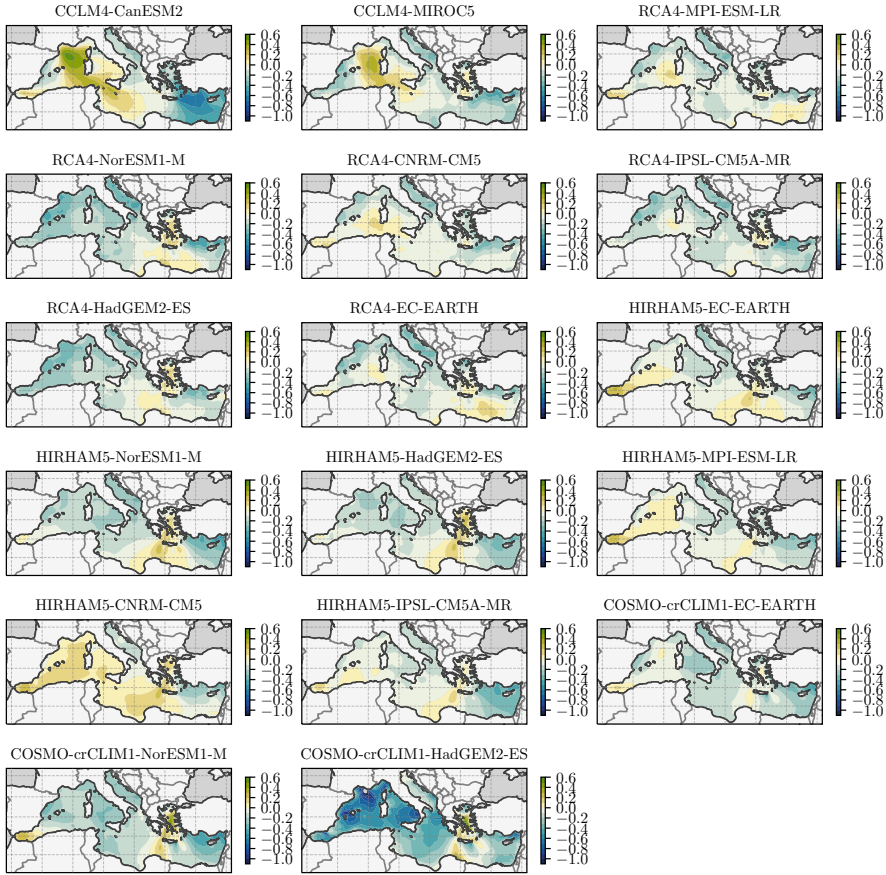


Fig. 4 Bias between the raw GCM-RCMs and hindcast of the significant wave height, H_s [m], during summer (June-August).

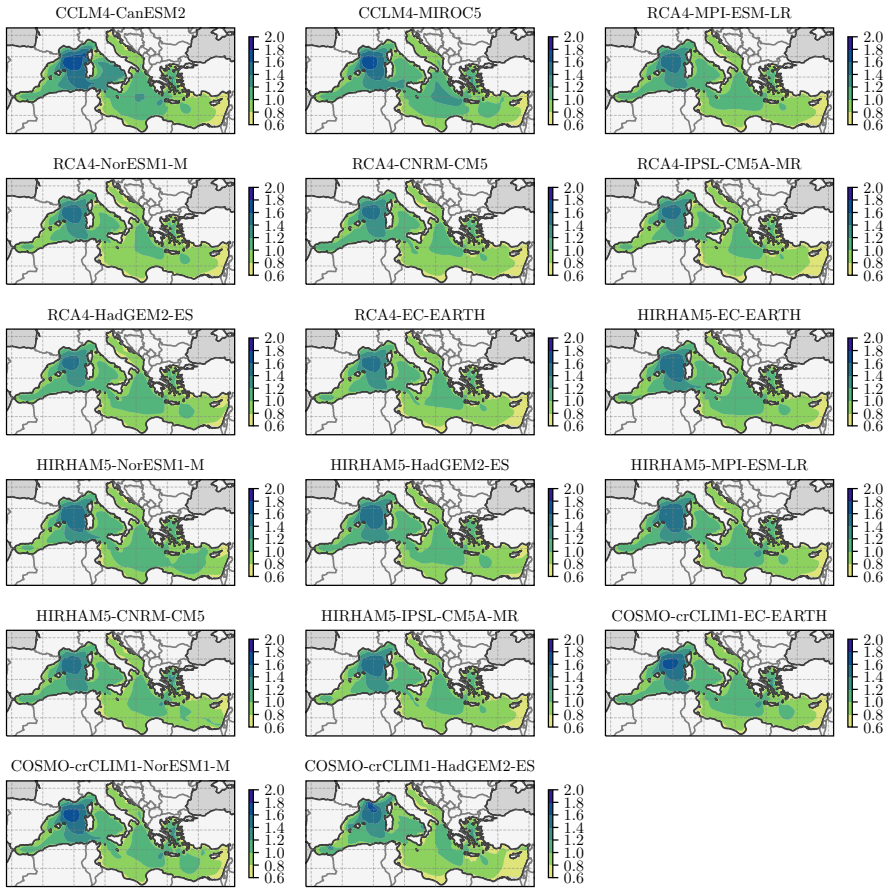


Fig. 5 Root-mean-square error ($RMSE$) between the raw GCM-RCMs and hindcast of the significant wave height, H_s [m], during fall (September-November).

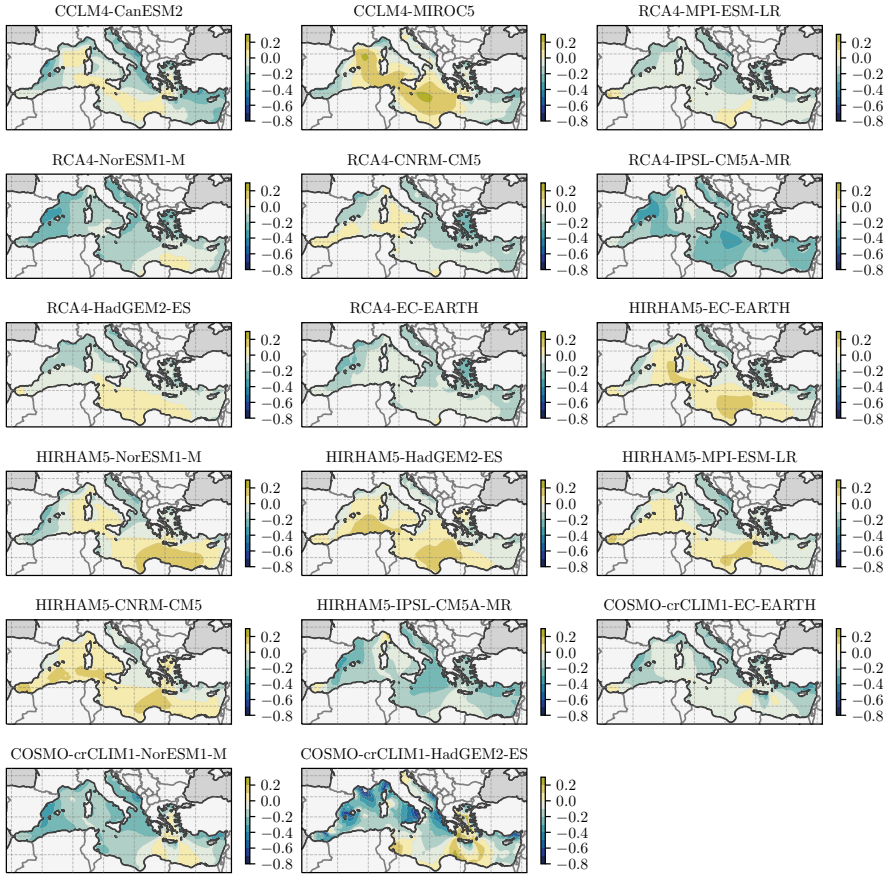


Fig. 6 Bias between the raw GCM-RCMs and hindcast of the significant wave height, H_s [m], during fall (September-November).

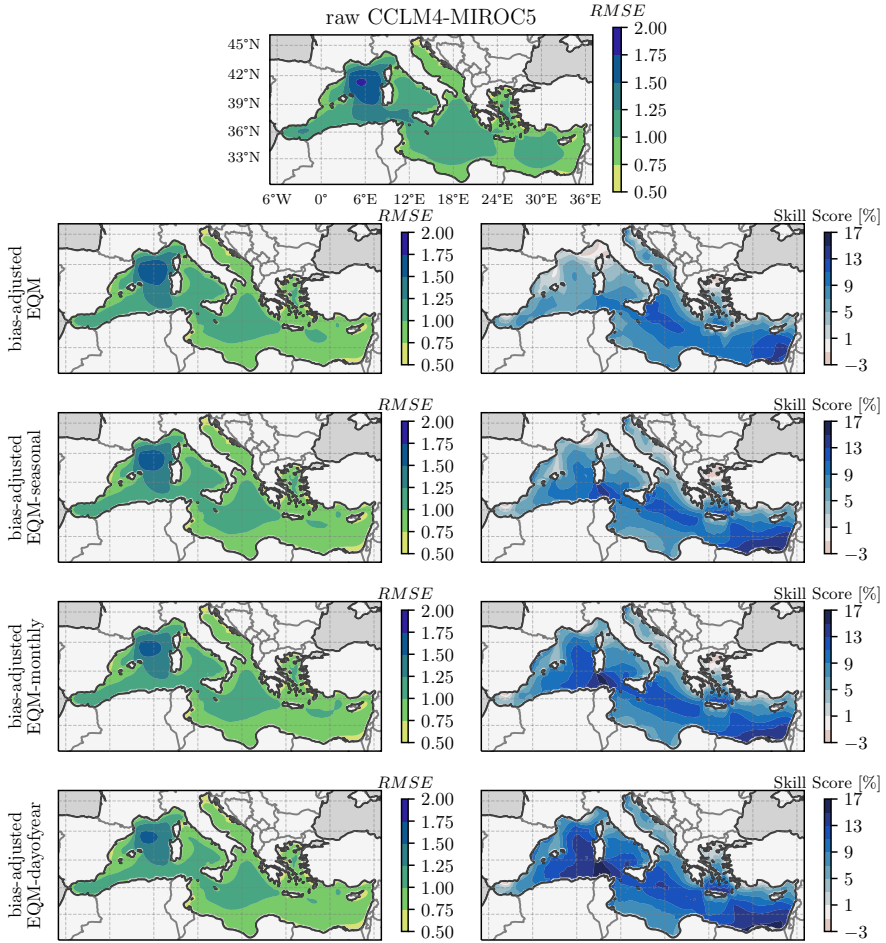


Fig. 7 Spring (March-May) $RMSE$ of the significant wave height, H_s [m], between the raw CCLM4-MIROC5 and hindcast (top row) and different bias-adjustment methods (subplots-left) and Skill Score using the raw model as reference (subplots-right): bias-adjusted EQM (2nd row), bias-adjusted EQM-seasonal (3rd row), bias-adjusted EQM-monthly (4th row) and bias-adjusted EQM-dayofyear (5th row).

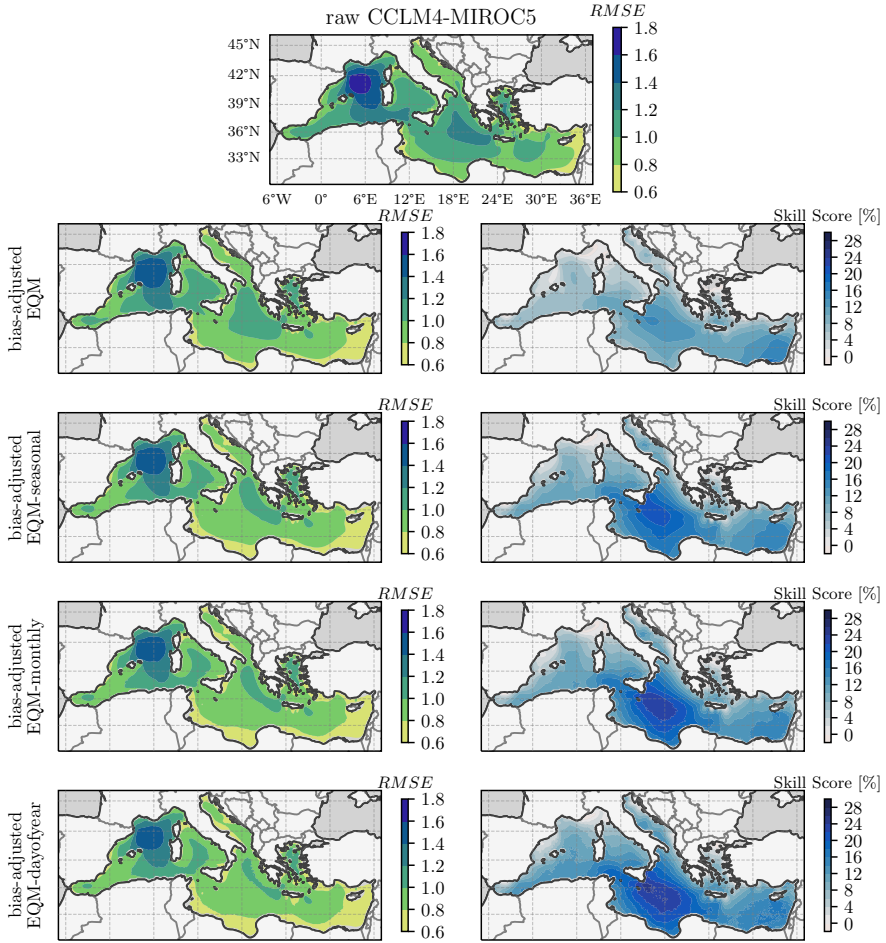


Fig. 8 Fall (September–November) $RMSE$ of the significant wave height, H_s [m], between the raw CCLM4-MIROC5 and hindcast (top row) and different bias-adjustment methods (subplots-left) and Skill Score using the raw model as reference (subplots-right): bias-adjusted EQM (2nd row), bias-adjusted EQM-seasonal (3rd row), bias-adjusted EQM-monthly (4th row) and bias-adjusted EQM-dayofyear (5th row).

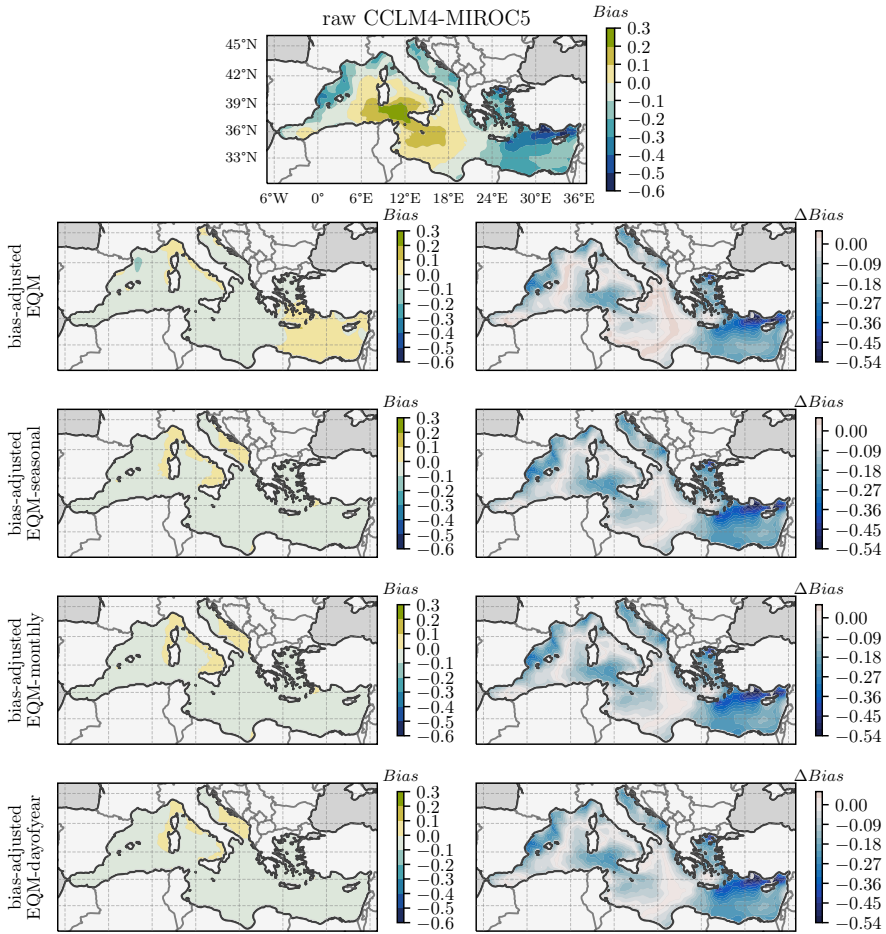


Fig. 9 Spring (March-May) *Bias* of the significant wave height, H_s [m], between the raw CCLM4-MIROC5 and hindcast (top row) and different bias-adjustment methods (subplots-left) and delta, $\Delta Bias$, using the raw model bias as reference (subplots-right): bias-adjusted EQM (2nd row), bias-adjusted EQM-seasonal (3rd row), bias-adjusted EQM-monthly (4th row) and bias-adjusted EQM-dayofyear (5th row).

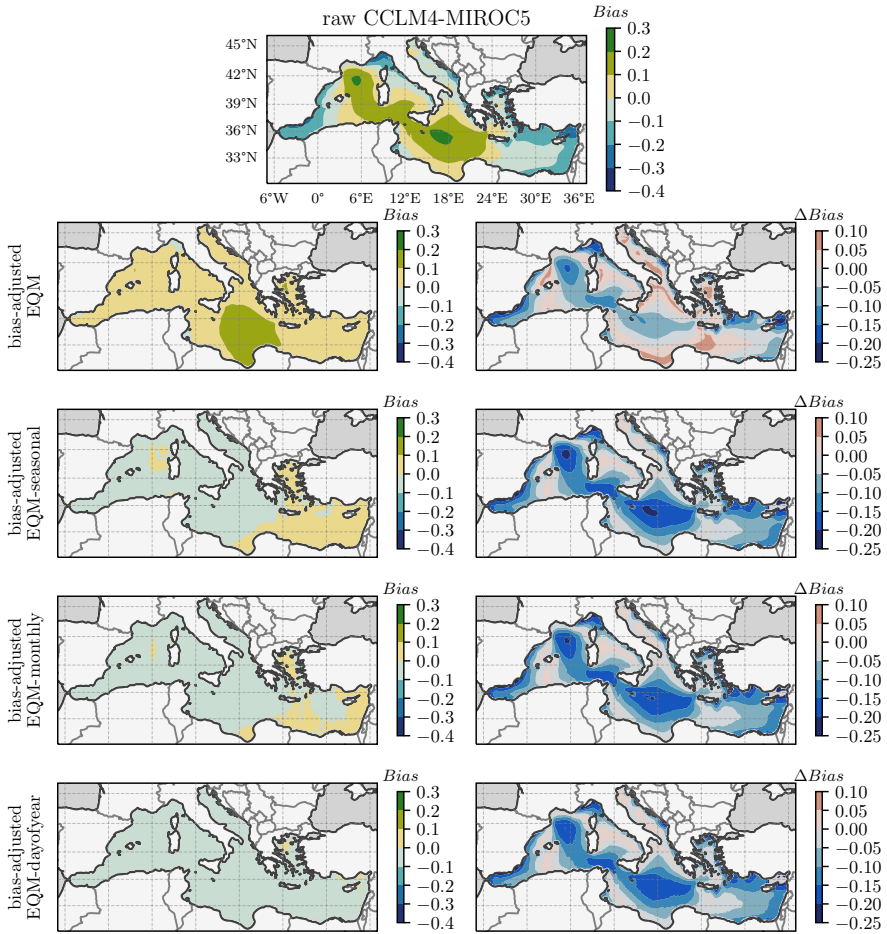


Fig. 10 Fall (September–November) *Bias* of the significant wave height, H_s [m], between the raw CCLM4-MIROC5 and hindcast (top row) and different bias-adjustment methods (subplots-left) and delta, $\Delta Bias$, using the raw model bias as reference (subplots-right): bias-adjusted EQM (2nd row), bias-adjusted EQM-seasonal (3rd row), bias-adjusted EQM-monthly (4th row) and bias-adjusted EQM-dayofyear (5th row).

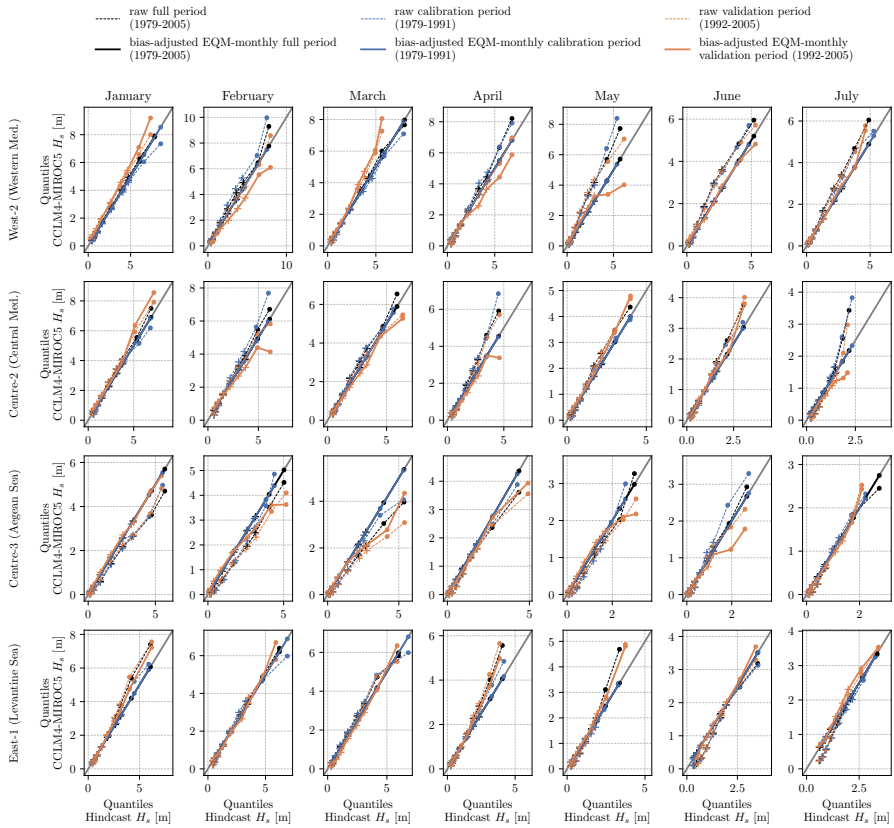


Fig. 11 Monthly Q-Q plots (columns) of hindcast versus CCLM4-MIROC5 significant wave height H_s [m] for the locations: West-2 (Western Mediterranean), Centre-2 (Central Mediterranean), Centre-3 (Aegean Sea) and East-1 (Levantine Sea). The ‘+’ markers represent the 5, 10, 25, 50, 75, 90 and 95th quantiles whereas the ‘o’ markers correspond to the 99 and 99.9th quantiles. The colours represent the different CCLM4-MIROC5 calibration and validations sets: full period (1979 – 2005, black), calibration (1979 – 1991, blue), validation (1992 – 2005, orange)

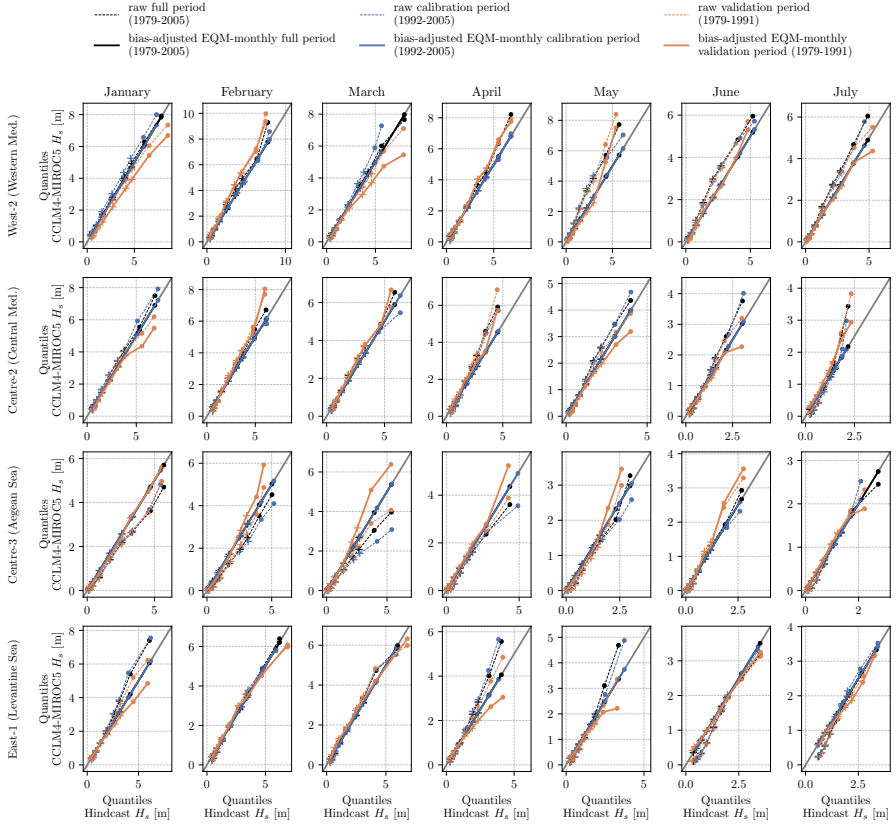


Fig. 12 Monthly Q-Q plots (columns) of hindcast versus CCLM4-MIROC5 significant wave height H_s [m] for the locations: West-2 (Western Mediterranean), Centre-2 (Central Mediterranean), Centre-3 (Aegean Sea) and East-1 (Levantine Sea). The ‘+’ markers represent the 5, 10, 25, 50, 75, 90 and 95th quantiles whereas the ‘o’ markers correspond to the 99 and 99.9th quantiles. The colours represent the different CCLM4-MIROC5 calibration and validations sets: full period (1979 – 2005, black), calibration (1992 – 2005, blue), validation (1979 – 1991, orange)