Supplement of North Atlantic Oscillation (NAO) in the Paleoclimate Modelling Intercomparison Project (PMIP)

Anni Zhao[1], Chris Brierley[2], Venni Arra[2], Xiaoxu Shi[3], and Yongyun Hu[1]

[1]Department of Atmospheric and Oceanic Sciences, School of Physics, Peking University, Beijing, 100871, China
[2]Department of Geography, University College London, London, WC1E 6BT, UK
[3]Southern Marine Science and Engineering Guangdoong Laboratory, Zhuhai, 519082, China

Correspondence: Yongyun Hu (yyhu@pku.edu.cn)

ESGF Digital Object Identifier (doi)

Digital Object Identifier (doi) for each simulation downloaded from the ESGF. The web address can be created manually by adding https://doi.org/ in front of each doi. Those simulations that are not the ESGF (no available doi) were required from the model group, and are marked as N/A here instead. Their corresponding citations can be found in Table 1 in the manuscript.

Table S 1. ESGF doi

Model	DOI		
	PI	MH	LIG
AWI-ESM-1-1-LR	10.22033/ESGF/CMIP6.9335	10.22033/ESGF/CMIP6.9332	10.22033/ESGF/CMIP6.9331
BCC-CSM1-1	10.1594/WDCC/CMIP5.BCB1pc	10.1594/WDCC/CMIP5.BCB1mh	
CCSM4	10.1594/WDCC/CMIP5.NRS4pc	10.1594/WDCC/CMIP5.NRS4mh	
CESM2	10.22033/ESGF/CMIP6.7733	10.22033/ESGF/CMIP6.7674	
CNRM-CM5	10.1594/WDCC/CMIP5.CEC5pc	10.1594/WDCC/CMIP5.CEC5mh	
CNRM-CM6-1	10.22033/ESGF/CMIP6.4163		10.22033/ESGF/CMIP6.4118
COSMOS-ASO	N/A		
CSIRO-Mk3-6-0	10.1594/WDCC/CMIP5.CQMKpc	10.1594/WDCC/CMIP5.CQMKmh	
CSIRO-Mk3L-1-2	N/A	N/A	
EC-EARTH-2-2	N/A	N/A	
EC-Earth3-LR	10.22033/ESGF/CMIP6.4847	10.22033/ESGF/CMIP6.4847	10.22033/ESGF/CMIP6.4798
FGOALS-f3-L	10.22033/ESGF/CMIP6.3447	10.22033/ESGF/CMIP6.12014	10.22033/ESGF/CMIP6.12013
FGOALS-g2	10.1594/WDCC/CMIP5.LSF2pc	10.1594/WDCC/CMIP5.LSF2mh	
FGOALS-g3	10.22033/ESGF/CMIP6.3448	10.22033/ESGF/CMIP6.3409	10.22033/ESGF/CMIP6.3407
FGOALS-s2	10.1594/WDCC/CMIP5.LIFSpc	10.1594/WDCC/CMIP5.LIFSmh	
GISS-E2-1-G	10.22033/ESGF/CMIP6.7380	10.22033/ESGF/CMIP6.7225	10.22033/ESGF/CMIP6.7223
GISS-E2-R	10.1594/WDCC/CMIP5.GIGRpc	10.1594/WDCC/CMIP5.GIGRmh	
HadGEM2-CC	10.1594/WDCC/CMIP5.MOGCpc	10.1594/WDCC/CMIP5.MOGCmh	
HadGEM2-ES	10.1594/WDCC/CMIP5.MOGEpc	10.1594/WDCC/CMIP5.MOGEmh	
HadGEM3-GC31-LL	10.22033/ESGF/CMIP6.6294	10.22033/ESGF/CMIP6.12129	10.22033/ESGF/CMIP6.12128
INM-CM4-8	10.22033/ESGF/CMIP6.5080	10.22033/ESGF/CMIP6.5077	10.22033/ESGF/CMIP6.5076
IPSL-CM5A-LR	10.1594/WDCC/CMIP5.IPILpc	10.1594/WDCC/CMIP5.IPILmh	
IPSL-CM6A-LR	10.22033/ESGF/CMIP6.5251	10.22033/ESGF/CMIP6.5229	10.22033/ESGF/CMIP6.5228
KCM1-2-2	N/A	N/A	
MIROC-ES2L	10.22033/ESGF/CMIP6.5710	10.22033/ESGF/CMIP6.5646	10.22033/ESGF/CMIP6.5645
MIROC-ESM	10.1594/WDCC/CMIP5.MIMEpc	10.1594/WDCC/CMIP5.MIMEmh	
MPI-ESM-P	10.1594/WDCC/CMIP5.MXEPpc	10.1594/WDCC/CMIP5.MXEPmh	
MPI-ESM1-2-LR	10.22033/ESGF/CMIP6.6675	10.22033/ESGF/CMIP6.6644	N/A
MRI-CGCM3	10.1594/WDCC/CMIP5.MRMCpc	10.1594/WDCC/CMIP5.MRMCmh	
MRI-ESM2-0	10.22033/ESGF/CMIP6.6900	10.22033/ESGF/CMIP6.6860	
NESM3	10.22033/ESGF/CMIP6.8776	10.22033/ESGF/CMIP6.8773	10.22033/ESGF/CMIP6.8772
NorESM1-F	10.22033/ESGF/CMIP6.11595	10.22033/ESGF/CMIP6.11591	10.22033/ESGF/CMIP6.11590
NorESM2-LM	10.22033/ESGF/CMIP6.8217	10.22033/ESGF/CMIP6.8079	10.22033/ESGF/CMIP6.8078
UofT-CCSM-4	N/A	N/A	

Table S 2. Continued

Model	DOI	
	LGM	abrupt4xCO2
AWI-ESM-1-1-LR	10.22033/ESGF/CMIP6.9330	
BCC-CSM1-1		10.1594/WDCC/CMIP5.BCB1c2
CCSM4	10.1594/WDCC/CMIP5.NRS4lg	10.1594/WDCC/CMIP5.NRS4c2
CESM2		10.22033/ESGF/CMIP6.7519
CNRM-CM5	10.1594/WDCC/CMIP5.CEC5lg	10.1594/WDCC/CMIP5.CEC5c2
CNRM-CM6-1		10.22033/ESGF/CMIP6.3916
COSMOS-ASO	N/A	
CSIRO-Mk3-6-0		10.1594/WDCC/CMIP5.CQMKc2
CSIRO-Mk3L-1-2		
EC-EARTH-2-2		
EC-Earth3-LR		
FGOALS-f3-L		10.22033/ESGF/CMIP6.3176
FGOALS-g2	10.1594/WDCC/CMIP5.LSF2lg	10.1594/WDCC/CMIP5.LSF2c2
FGOALS-g3		
FGOALS-s2		10.1594/WDCC/CMIP5.LIFSc2
GISS-E2-1-G		10.22033/ESGF/CMIP6.6976
GISS-E2-R	10.1594/WDCC/CMIP5.GIGRlg	10.1594/WDCC/CMIP5.GIGRc2
HadGEM2-CC		
HadGEM2-ES		10.1594/WDCC/CMIP5.MOGEc2
HadGEM3-GC31-LL		
INM-CM4-8	10.22033/ESGF/CMIP6.5075	10.22033/ESGF/CMIP6.4931
IPSL-CM5A-LR	10.1594/WDCC/CMIP5.IPILlg	10.1594/WDCC/CMIP5.IPILc2
IPSL-CM6A-LR		10.22033/ESGF/CMIP6.5109
KCM1-2-2		
MIROC-ES2L	10.22033/ESGF/CMIP6.5644	10.22033/ESGF/CMIP6.5410
MIROC-ESM	10.1594/WDCC/CMIP5.MIMElg	10.1594/WDCC/CMIP5.MIMEc2
MPI-ESM-P	10.1594/WDCC/CMIP5.MXEPlg	10.1594/WDCC/CMIP5.MXEPc2
MPI-ESM1-2-LR		10.22033/ESGF/CMIP6.6459
MRI-CGCM3	10.1594/WDCC/CMIP5.MRMClg	10.1594/WDCC/CMIP5.MRMCc2
MRI-ESM2-0		10.22033/ESGF/CMIP6.6755
NESM3		10.22033/ESGF/CMIP6.8719
NorESM1-F		
NorESM2-LM		10.22033/ESGF/CMIP6.7836
UofT-CCSM-4	N/A	

References

Boucher, O., Denvil, S., Caubel, A., and Foujols, M. A.: IPSL IPSL-CM6A-LR model output prepared for CMIP6 PMIP midHolocene, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.5229, 2018a.

Boucher, O., Denvil, S., Caubel, A., and Foujols, M. A.: IPSL IPSL-CM6A-LR model output prepared for CMIP6 CMIP piControl, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.5251, 2018b.

Boucher, O., Denvil, S., Levavasseur, G., Cozic, A., Caubel, A., Foujols, M.-A., Meurdesoif, Y., Braconnot, P., Contoux, C., Kageyama, M., and Khodri, M.: IPSL IPSL-CM6A-LR model output prepared for CMIP6 PMIP lig127k, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.5228, 2018c.

Boucher, O., Denvil, S., Levavasseur, G., Cozic, A., Caubel, A., Foujols, M.-A., Meurdesoif, Y., Cadule, P., Devilliers, M., Ghattas, J., Lebas, N., Lurton, T., Mellul, L., Musat, I., Mignot, J., and Cheruy, F.: IPSL IPSL-CM6A-LR model output prepared for CMIP6 CMIP abrupt-4xCO2, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.5109, 2018d.

Braconnot, P., Denvil, S., Foujols, M.-A., Caubel, A., Marti, O., Dufresne, J.-L., Bopp, L., Cadule, P., Ethé, C., Idelkadi, A., Mancip, M., Masson, S., Mignot, J., Musat, I., Balkanski, Y., Bekki, S., Bony, S., Brockman, P., Codron, F., Cozic, A., Cugnet, D., Fairhead, L., Fichefet, T., Flavoni, S., Guez, L., Guilyardi, E., Hourdin, F., Ghattas, J., Kageyama, M., Khodri, M., Labetoulle, S., Lefebvre, M.-P., Levy, C., Li, L., Lott, F., Madec, G., Marchand, M., Meurdesoif, Y., Rio, C., Schulz, M., Swingedouw, D., Szopa, S., Viovy, N., and Vuichard, N.: IPSL-CM5A-LR model output prepared for CMIP5 midHolocene experiment, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.IPILmh, 2016.

Cao, Jian; Wang, B.: NUIST NESMv3 model output prepared for CMIP6 CMIP abrupt-4xCO2, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.8719, 2019a.

Cao, J.: NUIST NESMv3 model output prepared for CMIP6 PMIP midHolocene, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.8773, 2019b.

Cao, J.: NUIST NESMv3 model output prepared for CMIP6 PMIP lig127k, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.8772, 2019c.

Cao, J. and Wang, B.: NUIST NESMv3 model output prepared for CMIP6 CMIP piControl, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.8776, 2019.

Caubel, A., Denvil, S., Foujols, M.-A., Marti, O., Dufresne, J.-L., Bopp, L., Cadule, P., Ethé, C., Idelkadi, A., Mancip, M., Masson, S., Mignot, J., Musat, I., Balkanski, Y., Bekki, S., Bony, S., Braconnot, P., Brockman, P., Codron, F., Cozic, A., Cugnet, D., Fairhead, L., Fichefet, T., Flavoni, S., Guez, L., Guilyardi, E., Hourdin, F., Ghattas, J., Kageyama, M., Khodri, M., Labetoulle, S., Lefebvre, M.-P., Levy, C., Li, L., Lott, F., Madec, G., Marchand, M., Meurdesoif, Y., Rio, C., Schulz, M., Swingedouw, D., Szopa, S., Viovy, N., and Vuichard, N.: IPSL-CM5A-LR model output prepared for CMIP5 piControl experiment, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.IPILpc, 2016.

Danabasoglu, G.: NCAR CESM2 model output prepared for CMIP6 PMIP midHolocene, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.7674, 2019a.

Danabasoglu, G.: NCAR CESM2 model output prepared for CMIP6 CMIP abrupt-4xCO2, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.7519, 2019b.

Danabasoglu, G., Lawrence, D., Lindsay, K., Lipscomb, W., and Strand, G.: NCAR CESM2 model output prepared for CMIP6 CMIP piControl, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.7733, 2019.

Danek, C., Shi, X., Stepanek, C., Yang, H., Barbi, D., Hegewald, J., and Lohmann, G.: AWI AWI-ESM1.1LR model output prepared for CMIP6 CMIP piControl, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.9335, 2020.

EC-Earth Consortium (EC-Earth): EC-Earth-Consortium EC-Earth3-LR model output prepared for CMIP6 CMIP piControl, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.4847, 2019.

EC-Earth Consortium (EC-Earth): EC-Earth-Consortium EC-Earth3-LR model output prepared for CMIP6 PMIP midHolocene, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.4801, 2020a.

EC-Earth Consortium (EC-Earth): EC-Earth-Consortium EC-Earth3-LR model output prepared for CMIP6 PMIP lig127k, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.4798, 2020b.

Foujols, M.-A., Denvil, S., Caubel, A., Marti, O., Dufresne, J.-L., Bopp, L., Cadule, P., Ethé, C., Idelkadi, A., Mancip, M., Masson, S., Mignot, J., Musat, I., Balkanski, Y., Bekki, S., Bony, S., Braconnot, P., Brockman, P., Codron, F., Cozic, A., Cugnet, D., Fairhead, L., Fichefet, T., Flavoni, S., Guez, L., Guilyardi, E., Hourdin, F., Ghattas, J., Kageyama, M., Khodri, M., Labetoulle, S., Lefebvre, M.-P., Levy, C., Li, L., Lott, F., Madec, G., Marchand, M., Meurdesoif, Y., Rio, C., Schulz, M., Swingedouw, D., Szopa, S., Viovy, N., and Vuichard, N.: IPSL-CM5A-LR model output prepared for CMIP5 abrupt4xCO2 experiment, served by ESGF , WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.IPILc2, 2016.

Gent, P.: CCSM4 coupled simulation for CMIP5 with pre-industrial forcings (1850), served by ESGF, WDCC at DKRZ, http://doi.org/10.1594/WDCC/CMIP5.NRS4pc, 2014.

Guo, C., Bentsen, M., Bethke, I., Ilicak, M., Tjiputra, J., Toniazzo, T., Schwinger, J., and Otterå, O. H.: NCC NorESM1-F model output prepared for CMIP6 PMIP midHolocene, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.11591, 2019a.

Guo, C., Bentsen, M., Bethke, I., Ilicak, M., Tjiputra, J., Toniazzo, T., Schwinger, J., and Otterå, O. H.: NCC NorESM1-F model output prepared for CMIP6 CMIP piControl, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.11595, 2019b.

Guo, C., Bentsen, M., Bethke, I., Ilicak, M., Tjiputra, J., Toniazzo, T., Schwinger, J., and Otterå, O. H.: NCC NorESM1-F model output prepared for CMIP6 PMIP lig127k, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.11590, 2019c.

Hajima, T., Abe, M., Arakawa, O., Suzuki, T., Komuro, Y., Ogura, T., Ogochi, K., Watanabe, M., Yamamoto, A., Tatebe, H., Noguchi, M. A., Ohgaito, R., Ito, A., Yamazaki, D., Ito, A., Takata, K., Watanabe, S., Kawamiya, M., and Tachiiri, K.: MIROC MIROC-ES2L model output prepared for CMIP6 CMIP piControl, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.5710, 2019a.

Hajima, T., Abe, M., Arakawa, O., Suzuki, T., Komuro, Y., Ogura, T., Ogochi, K., Watanabe, M., Yamamoto, A., Tatebe, H., Noguchi, M. A., Ohgaito, R., Ito, A., Yamazaki, D., Ito, A., Takata, K., Watanabe, S., Kawamiya, M., and Tachiiri, K.: MIROC MIROC-ES2L model output prepared for CMIP6 CMIP abrupt-4xCO2, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.5410, 2019b.

Hardiman, S., Butchart, N., Hinton, T., Osprey, S., Gray, L., Jones, C., and Hughes, J.: HadGEM2-CC model output prepared for CMIP5 piControl, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.MOGCpc, 2014.

Japan Agency for Marine-Earth Science and Technology (JAMSTEC); Atmosphere and Ocean Research Institute, the University of Tokyo (AORI); National Institute for Environmental Studies (NIES): MIROC-ESM model output prepared for CMIP5 abrupt4xCO2, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.MIMEc2, 2015a.

Japan Agency for Marine-Earth Science and Technology (JAMSTEC); Atmosphere and Ocean Research Institute, the University of Tokyo (AORI); National Institute for Environmental Studies (NIES): MIROC-ESM model output prepared for CMIP5 lgm, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.MIMElg, 2015b.

Japan Agency for Marine-Earth Science and Technology (JAMSTEC); Atmosphere and Ocean Research Institute, the University of Tokyo (AORI); National Institute for Environmental Studies (NIES): MIROC-ESM model output prepared for CMIP5 midHolocene, served by ESGF , WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.MIMEmh, 2015c.

Japan Agency for Marine-Earth Science and Technology (JAMSTEC); Atmosphere and Ocean Research Institute, the University of Tokyo (AORI); National Institute for Environmental Studies (NIES): MIROC-ESM model output prepared for CMIP5 piControl, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.MIMEpc, 2015d.

Jeffrey, S., Rotstayn, L., Collier, M., Dravitzki, S., Hamalainen, C., Moeseneder, C., Wong, K., and Syktus, J.: CSIRO-Mk3-6-0 model output prepared for CMIP5 abrupt4xCO2, served by ESGF , WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.CQMKc2, 2016a.

Jeffrey, S., Rotstayn, L., Collier, M., Dravitzki, S., Hamalainen, C., Moeseneder, C., Wong, K., and Syktus, J.: CSIRO-Mk3-6-0 model output prepared for CMIP5 midHolocene, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.CQMKmh, 2016b.

Jeffrey, S., Rotstayn, L., Collier, M., Dravitzki, S., Hamalainen, C., Moeseneder, C., Wong, K., and Syktus, J.: CSIRO-Mk3-6-0 model output prepared for CMIP5 piControl, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.CQMKpc, 2016c.

Jones, Chris; Hughes, J. J. G. C. N. L. F. S. A. W. M. B.-S. A. T. Y. M. G.: HadGEM2-ES model output prepared for CMIP5 piControl, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.MOGEpc, 2014.

Jungclaus, J., Giorgetta, M., Reick, C., Legutke, S., Brovkin, V., Crueger, T., Esch, M., Fieg, K., Fischer, N., Glushak, K., Gayler, V., Haak, H., Hollweg, H.-D., Kinne, S., Kornblueh, L., Matei, D., Mauritsen, T., Mikolajewicz, U., Müller, W., Notz, D., Pohlmann, T., Raddatz, T., Rast, S., Roeckner, E., Salzmann, M., Schmidt, H., Schnur, R., Segschneider, J., Six, K., Stockhause, M., Wegner, J., Widmann, H., Wieners, K.-H., Claussen, M., Marotzke, J., and Stevens, B.: CMIP5 simulations of the Max Planck Institute for Meteorology (MPI-M) based on the MPI-ESM-P model: The abrupt4xCO2 experiment, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.MXEPc2, 2012d.

Jungclaus, J., Giorgetta, M., Reick, C., Legutke, S., Brovkin, V., Crueger, T., Esch, M., Fieg, K., Fischer, N., Glushak, K., Gayler, V., Haak, H., Hollweg, H.-D., Kinne, S., Kornblueh, L., Matei, D., Mauritsen, T., Mikolajewicz, U., Müller, W., Notz, D., Pohlmann, T., Raddatz, T., Rast, S., Roeckner, E., Salzmann, M., Schmidt, H., Schnur, R., Segschneider, J., Six, K., Stockhause, M., Wegner, J., Widmann, H., Wieners, K.-H., Claussen, M., Marotzke, J., and Stevens, B.: CMIP5 simulations of the Max Planck Institute for Meteorology (MPI-M) based on the MPI-ESM-P model: The lgm experiment, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.MXEPlg, 2012c.

Jungclaus, J., Giorgetta, M., Reick, C., Legutke, S., Brovkin, V., Crueger, T., Esch, M., Fieg, K., Fischer, N., Glushak, K., Gayler, V., Haak, H., Hollweg, H.-D., Kinne, S., Kornblueh, L., Matei, D., Mauritsen, T., Mikolajewicz, U., Müller, W., Notz, D., Pohlmann, T., Raddatz, T., Rast, S., Roeckner, E., Salzmann, M., Schmidt, H., Schnur, R., Segschneider, J., Six, K., Stockhause, M., Wegner, J., Widmann, H., Wieners, K.-H., Claussen, M., Marotzke, J., and Stevens, B.: CMIP5 simulations of the Max Planck Institute for Meteorology (MPI-M) based on the MPI-ESM-P model: The midHolocene experiment, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.MXEPmh, 2012b.

Jungclaus, J., Giorgetta, M., Reick, C., Legutke, S., Brovkin, V., Crueger, T., Esch, M., Fieg, K., Fischer, N., Glushak, K., Gayler, V., Haak, H., Hollweg, H.-D., Kinne, S., Kornblueh, L., Matei, D., Mauritsen, T., Mikolajewicz, U., Müller, W., Notz, D., Pohlmann, T., Raddatz, T., Rast, S., Roeckner, E., Salzmann, M., Schmidt, H., Schnur, R., Segschneider, J., Six, K., Stockhause, M., Wegner, J., Widmann, H., Wieners, K.-H., Claussen, M., Marotzke, J., and Stevens, B.: CMIP5 simulations of the Max Planck Institute for Meteorology (MPI-M) based on the MPI-ESM-P model: The piControl experiment, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.MXEPpc, 2012a.

Jungclaus, J., Mikolajewicz, U., Kapsch, M.-L., D'Agostino, R., Wieners, K.-H., Giorgetta, M., Reick, C., Esch, M., Bittner, M., Legutke, S., Schupfner, M., Wachsmann, F., Gayler, V., Haak, H., de Vrese, P., Raddatz, T., Mauritsen, T., von Storch, J.-S., Behrens, J., Brovkin, V., Claussen, M., Crueger, T., Fast, I., Fiedler, S., Hagemann, S., Hohenegger, C., Jahns, T., Kloster, S., Kinne, S., Lasslop, G., Kornblueh, L., Marotzke, J., Matei, D., Meraner, K., Modali, K., M uller, W., Nabel, J., Notz, D., Peters, K., Pincus, R., Pohlmann, H., Pongratz, J., Rast, S., Schmidt, H., Schnur, R., Schulzweida, U., Six, K., Stevens, B., Voigt, A., and Roeckner, E.: MPI-M MPI-ESM1.2-LR model output prepared for CMIP6 PMIP midHolocene, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.6644, 2019.

Kageyama, M., Denvil, S., Foujols, M.-A., Caubel, A., Marti, O., Dufresne, J.-L., Bopp, L., Cadule, P., Ethé, C., Idelkadi, A., Mancip, M., Masson, S., Mignot, J., Musat, I., Balkanski, Y., Bekki, S., Bony, S., Braconnot, P., Brockman, P., Codron, F., Cozic, A., Cugnet, D., Fairhead, L., Fichefet, T., Flavoni, S., Guez, L., Guilyardi, E., Hourdin, F., Ghattas, J., Khodri, M., Labetoulle, S., Lefebvre, M.-P., Levy, C., Li, L., Lott, F., Madec, G., Marchand, M., Meurdesoif, Y., Rio, C., Schulz, M., Swingedouw, D., Szopa, S., Viovy, N., and Vuichard, N.: IPSL-CM5A-LR model output prepared for CMIP5 lgm experiment, served by ESGF , WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.IPILlg, 2016.

LASG, Institute of Atmospheric Physics, Chinese Academy of Sciences (IAP-LASG) : FGOALS-g2 model output prepared for CMIP5 lgm, served by ESGF , WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.LSF2lg, 2015.

LASG, Institute of Atmospheric Physics, Chinese Academy of Sciences (IAP-LASG): FGOALS-g2 model output prepared for CMIP5 abrupt4xCO2, served by ESGF , WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.LSF2c2, 2015a.

LASG, Institute of Atmospheric Physics, Chinese Academy of Sciences (IAP-LASG): FGOALS-g2 model output prepared for CMIP5 midHolocene, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.LSF2mh, 2015b.

LASG, Institute of Atmospheric Physics, Chinese Academy of Sciences (IAP-LASG): FGOALS-g2 model output prepared for CMIP5 piControl, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.LSF2pc, 2015c.

LASG, Institute of Atmospheric Physics, Chinese Academy of Sciences (IAP-LASG): FGOALS-s2 model output prepared for CMIP5 abrupt4xCO2, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.LIFSc2, 2015d.

LASG, Institute of Atmospheric Physics, Chinese Academy of Sciences (IAP-LASG): FGOALS-s2 model output prepared for CMIP5 midHolocene, served by ESGF , WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.LIFSmh, 2015e.

LASG, Institute of Atmospheric Physics, Chinese Academy of Sciences (IAP-LASG): FGOALS-s2 model output prepared for CMIP5 piControl, served by ESGF , WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.LIFSpc, 2015f.

Li, L.: CAS FGOALS-g3 model output prepared for CMIP6 CMIP piControl, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.3448, 2019.

Marzin, Charline; Kahana, R. J. C.: HadGEM2-CC model output prepared for CMIP5 midHolocene, served by ESGF , WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.MOGCmh, 2014a.

Marzin, Charline; Kahana, R. J. C.: HadGEM2-ES model output prepared for CMIP5 midHolocene, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.MOGEmh, 2014b.

Meehl, J.: CCSM4 model run for CMIP5 with abrupt quadrupling of CO2, served by ESGF , WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.NRS4c2, 2014.

NASA Goddard Institute for Space Studies (NASA/GISS): NASA-GISS GISS-E2.1G model output prepared for CMIP6 CMIP abrupt-4xCO2, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.6976, 20.

NASA Goddard Institute for Space Studies (NASA/GISS): NASA-GISS: GISS-E2-R model output prepared for CMIP5 abrupt 4XCO2, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.GIGRc2, 2014a.

NASA Goddard Institute for Space Studies (NASA/GISS): NASA-GISS: GISS-E2-R model output prepared for CMIP5 last glacial maximum, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.GIGRlg, 2014b.

NASA Goddard Institute for Space Studies (NASA/GISS): NASA-GISS: GISS-E2-R model output prepared for CMIP5 mid-Holocene, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.GIGRmh, 2014c.

NASA Goddard Institute for Space Studies (NASA/GISS): NASA-GISS: GISS-E2-R model output prepared for CMIP5 pre-industrial control, served by ESGF , WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.GIGRpc, 2014d.

NASA Goddard Institute for Space Studies (NASA/GISS): NASA-GISS GISS-E2.1G model output prepared for CMIP6 CMIP piControl, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.7380, 2018.

NASA Goddard Institute for Space Studies (NASA/GISS): NASA-GISS GISS-E2.1G model output prepared for CMIP6 PMIP midHolocene, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.7225, 2019a.

NASA Goddard Institute for Space Studies (NASA/GISS): NASA-GISS GISS-E2.1G model output prepared for CMIP6 PMIP lig127k, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.7223, 2019b.

Ohgaito, R., Abe-Ouchi, A., Abe, M., Arakawa, O., Ogochi, K., Hajima, T., Watanabe, M., Yamamoto, A., Tatebe, H., Noguchi, M. A., Ito, A., Yamazaki, D., Ito, A., Takata, K., Watanabe, S., Kawamiya, M., and Tachiiri, K.: MIROC MIROC-ES2L model output prepared for CMIP6 PMIP midHolocene, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.5646, 2019a.

Ohgaito, R., Abe-Ouchi, A., Abe, M., Arakawa, O., Ogochi, K., Hajima, T., Watanabe, M., Yamamoto, A., Tatebe, H., Noguchi, M. A., Ito, A., Yamazaki, D., Ito, A., Takata, K., Watanabe, S., Kawamiya, M., and Tachiiri, K.: MIROC MIROC-ES2L model output prepared for CMIP6 PMIP lgm, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.5644, 2019b.

O'ishi, R., Abe-Ouchi, A., Ohgaito, R., Abe, M., Arakawa, O., Ogochi, K., Hajima, T., Watanabe, M., Yamamoto, A., Tatebe, H., Noguchi, M. A., Ito, A., Yamazaki, D., Ito, A., Takata, K., Watanabe, S., Kawamiya, M., and Tachiiri, K.: MIROC MIROC-ES2L model output prepared for CMIP6 PMIP lig127k, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.5645, 2019.

Otto-Bliesner, B.: CCSM4 coupled simulation for CMIP5 with last glacial maximum conditions, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.NRS4lg, 2014a.

Otto-Bliesner, B.: CCSM4 coupled simulation for CMIP5 with mid-Holocene conditions, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.NRS4mh, 2014b.

Ridley, J., Menary, M., Kuhlbrodt, T., Andrews, M., and Andrews, T.: MOHC HadGEM3-GC31-LL model output prepared for CMIP6 CMIP piControl, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.6294, 2018.

Seland, o., Bentsen, M., Oliviè, D. J. L., Toniazzo, T., Gjermundsen, A., Graff, L. S., Debernard, J. B., Gupta, A. K., He, Y., Kirkevåg, A., Schwinger, J., Tjiputra, J., Aas, K. S., Bethke, I., Fan, Y., Griesfeller, J., Grini, A., Guo, C., Ilicak, M., Karset, I. H. H., Landgren, O. A., Liakka, J., Moseid, K. O., Nummelin, A., Spensberger, C., Tang, H., Zhang, Z., Heinze, C., Iversen, T., and Schulz, M.: NCC NorESM2-LM model output prepared for CMIP6 CMIP piControl, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.8217, 2019a.

Seland, , Bentsen, M., Oliviè, D. J. L., Toniazzo, T., Gjermundsen, A., Graff, L. S., Debernard, J. B., Gupta, A. K., He, Y., Kirkevåg, A., Schwinger, J., Tjiputra, J., Aas, K. S., Bethke, I., Fan, Y., Griesfeller, J., Grini, A., Guo, C., Ilicak, M., Karset, I. H. H., Landgren, O. A., Liakka, J., Moseid, K. O., Nummelin, A., Spensberger, C., Tang, H., Zhang, Z., Heinze, C., Iversen, T., and Schulz, M.: NCC NorESM2-LM model output prepared for CMIP6 CMIP abrupt-4xCO2, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.7836, 2019b.

Shi, X., Yang, H., Danek, C., and Lohmann, G.: AWI AWI-ESM1.1LR model output prepared for CMIP6 PMIP midHolocene, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.9332, 2020a.

Shi, X., Yang, H., Danek, C., and Lohmann, G.: AWI AWI-ESM1.1LR model output prepared for CMIP6 PMIP lgm, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.9330, 2020b.

Shi, X., Yang, H., Danek, C., and Lohmann, G.: AWI AWI-ESM1.1LR model output prepared for CMIP6 PMIP lig127k, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.9331, 2020c.

Sénési, S., Richon, J., Franchistéguy, L., Tyteca, S., Moine, M.-P., Voldoire, A., Sanchez-Gomez, E., Salas y Mélia, D., Decharme, B., Cassou, C., Valcke, S., Beau, I., Alias, A., Chevallier, M., Déqué, M., Deshayes, J., Douville, H., Madec, G., Maisonnave, E., Planton, S., Saint-Martin, D., Szopa, S., Alkama, R., Belamari, S., Braun, A., Coquart, L., and Chauvin, F.: CNRM-CM5 model output prepared for CMIP5 abrupt4xCO2, served by ESGF , WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.CEC5c2, 2014a.

Sénési, S., Richon, J., Franchistéguy, L., Tyteca, S., Moine, M.-P., Voldoire, A., Sanchez-Gomez, E., Salas y Mélia, D., Decharme, B., Cassou, C., Valcke, S., Beau, I., Alias, A., Chevallier, M., Déqué, M., Deshayes, J., Douville, H., Madec, G., Maisonnave, E., Planton, S., Saint-Martin, D., Szopa, S., Alkama, R., Belamari, S., Braun, A., Coquart, L., and Chauvin, F.: CNRM-CM5 model output prepared for CMIP5 lgm, served by ESGF , WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.CEC5lg, 2014b.

Sénési, S., Richon, J., Franchistéguy, L., Tyteca, S., Moine, M.-P., Voldoire, A., Sanchez-Gomez, E., Salas y Mélia, D., Decharme, B., Cassou, C., Valcke, S., Beau, I., Alias, A., Chevallier, M., Déqué, M., Deshayes, J., Douville, H., Madec, G., Maisonnave, E., Planton, S., Saint-Martin, D., Szopa, S., Alkama, R., Belamari, S., Braun, A., Coquart, L., and Chauvin, F.: CNRM-CM5 model output prepared for CMIP5 midHolocene, served by ESGF , WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.CEC5mh, 2014c.

Sénési, S., Richon, J., Franchistéguy, L., Tyteca, S., Moine, M.-P., Voldoire, A., Sanchez-Gomez, E., Salas y Mélia, D., Decharme, B., Cassou, C., Valcke, S., Beau, I., Alias, A., Chevallier, M., Déqué, M., Deshayes, J., Douville, H., Madec, G., Maisonnave, E., Planton, S., Saint-Martin, D., Szopa, S., Alkama, R., Belamari, S., Braun, A., Coquart, L., and Chauvin, F.: CNRM-CM5 model output prepared for CMIP5 piControl, served by ESGF, WDCC at DKRZ, http://doi.org/10.1594/WDCC/CMIP5.CEC5pc, 2014d.

Voldoire, A.: CMIP6 simulations of the CNRM-CERFACS based on CNRM-CM6-1 model for CMIP experiment piControl, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.4163, 2018a.

Voldoire, A.: CMIP6 simulations of the CNRM-CERFACS based on CNRM-CM6-1 model for CMIP experiment abrupt-4xCO2, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.3916, 2018b.

Voldoire, A.: CNRM-CERFACS CNRM-CM6-1 model output prepared for CMIP6 PMIP lig127k, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.4118, 2020.

Volodin, E., Mortikov, E., Gritsun, A., Lykossov, V., Galin, V., Diansky, N., Gusev, A., Kostrykin, S., Iakovlev, N., Shestakova, A., and Emelina, S.: INM INM-CM4-8 model output prepared for CMIP6 PMIP midHolocene, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.5077, 2019a.

Volodin, E., Mortikov, E., Gritsun, A., Lykossov, V., Galin, V., Diansky, N., Gusev, A., Kostrykin, S., Iakovlev, N., Shestakova, A., and Emelina, S.: INM INM-CM4-8 model output prepared for CMIP6 CMIP piControl, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.5080, 2019b.

Volodin, E., Mortikov, E., Gritsun, A., Lykossov, V., Galin, V., Diansky, N., Gusev, A., Kostrykin, S., Iakovlev, N., Shestakova, A., and Emelina, S.: INM INM-CM4-8 model output prepared for CMIP6 CMIP abrupt-4xCO2, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.4931, 2019c.

Volodin, E., Mortikov, E., Gritsun, A., Lykossov, V., Galin, V., Diansky, N., Gusev, A., Kostrykin, S., Iakovlev, N., Shestakova, A., and Emelina, S.: INM INM-CM4-8 model output prepared for CMIP6 PMIP lgm, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.5075, 2019d.

Volodin, E., Mortikov, E., Gritsun, A., Lykossov, V., Galin, V., Diansky, N., Gusev, A., Kostrykin, S., Iakovlev, N., Shestakova, A., and Emelina, S.: INM INM-CM4-8 model output prepared for CMIP6 PMIP lig127k, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.5076, 2019e.

Webb, M., Williams, J., Andrews, T., Bodas-Salcedo, A., Tsushima, Y., Hughes, J., and Jones, C.: HadGEM2-ES model output prepared for CMIP5 abrupt4xCO2, served by ESGF , WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.MOGEc2, 2014.

Wieners, K.-H., Giorgetta, M., Jungclaus, J., Reick, C., Esch, M., Bittner, M., Legutke, S., Schupfner, M., Wachsmann, F., Gayler, V., Haak, H., de Vrese, P., Raddatz, T., Mauritsen, T., von Storch, J.-S., Behrens, J., Brovkin, V., Claussen, M., Crueger, T., Fast, I., Fiedler, S., Hagemann, S., Hohenegger, C., Jahns, T., Kloster, S., Kinne, S., Lasslop, G., Kornblueh, L., Marotzke, J., Matei, D., Meraner, K., Mikolajewicz, U., Modali, K., Müller, W., Nabel, J., Notz, D., Peters, K., Pincus, R., Pohlmann, H., Pongratz, J., Rast, S., Schmidt, H., Schnur, R., Schulzweida, U., Six, K., Stevens, B., Voigt, A., and Roeckner, E.: MPI-M MPI-ESM1.2-LR model output prepared for CMIP6 CMIP piControl, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.6675, 2019a.

Wieners, K.-H., Giorgetta, M., Jungclaus, J., Reick, C., Esch, M., Bittner, M., Legutke, S., Schupfner, M., Wachsmann, F., Gayler, V., Haak, H., de Vrese, P., Raddatz, T., Mauritsen, T., von Storch, J.-S., Behrens, J., Brovkin, V., Claussen, M., Crueger, T., Fast, I., Fiedler, S., Hagemann, S., Hohenegger, C., Jahns, T., Kloster, S., Kinne, S., Lasslop, G., Kornblueh, L., Marotzke, J., Matei, D., Meraner, K., Mikolajewicz, U., Modali, K., Müller, W., Nabel, J., Notz, D., Peters-von Gehlen, K., Pincus, R., Pohlmann, H., Pongratz, J., Rast, S., Schmidt, H., Schnur, R., Schulzweida, U., Six, K., Stevens, B., Voigt, A., and Roeckner, E.: MPI-M MPI-ESM1.2-LR model output prepared for CMIP6 CMIP abrupt-4xCO2, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.6459, 2019b.

Williams, C., Lunt, D., Singarayer, J., and Guarino, M. V.: NERC HadGEM3-GC31-LL model output prepared for CMIP6 PMIP mid-Holocene, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.12129, 2021.

Williams, Charlie; Lunt, D. S. J. G. M. V.: NERC HadGEM3-GC31-LL model output prepared for CMIP6 PMIP lig127k, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.12128, 2021.

Wu, T. and Xin, X.: bcc-csm1-1 model output prepared for CMIP5 piControl experiment, served by ESGF, WDCC at DKRZ, http://doi.org/10.1594/WDCC/CMIP5.BCB1pc, 2015.

Wu, Tongwen; Xin, X.: bcc-csm1-1 model output prepared for CMIP5 abrupt4xCO2 experiment, served by ESGF , WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.BCB1c2, 2015a.

Wu, Tongwen; Xin, X.: bcc-csm1-1 model output prepared for CMIP5 midHolocene experiment, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.BCB1mh, 2015b.

Yu, Y.: CAS FGOALS-f3-L model output prepared for CMIP6 CMIP abrupt-4xCO2, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.3176, 2019a.

Yu, Y.: CAS FGOALS-f3-L model output prepared for CMIP6 CMIP piControl, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.3447, 2019b.

Yukimoto, S., Adachi, Y., Hosaka, M., Sakami, T., Yoshimura, H., Hirabara, M., Tanaka, T., Shindo, E., Tsujino, H., Deushi, M., Mizuta, R., Yabu, S., Obata, A., Nakano, H., Koshiro, T., Ose, T., and Kitoh, A.: MRI-CGCM3 model output prepared for CMIP5 abrupt4xCO2, served by ESGF , WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.MRMCc2, 2015a.

Yukimoto, S., Adachi, Y., Hosaka, M., Sakami, T., Yoshimura, H., Hirabara, M., Tanaka, T., Shindo, E., Tsujino, H., Deushi, M., Mizuta, R., Yabu, S., Obata, A., Nakano, H., Koshiro, T., Ose, T., and Kitoh, A.: MRI-CGCM3 model output prepared for CMIP5 lgm, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.MRMClg, 2015b.

Yukimoto, S., Adachi, Y., Hosaka, M., Sakami, T., Yoshimura, H., Hirabara, M., Tanaka, T., Shindo, E., Tsujino, H., Deushi, M., Mizuta, R., Yabu, S., Obata, A., Nakano, H., Koshiro, T., Ose, T., and Kitoh, A.: MRI-CGCM3 model output prepared for CMIP5 midHolocene, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.MRMCmh, 2015c.

Yukimoto, S., Adachi, Y., Hosaka, M., Sakami, T., Yoshimura, H., Hirabara, M., Tanaka, T., Shindo, E., Tsujino, H., Deushi, M., Mizuta, R., Yabu, S., Obata, A., Nakano, H., Koshiro, T., Ose, T., and Kitoh, A.: MRI-CGCM3 model output prepared for CMIP5 piControl, served by ESGF, WDCC at DKRZ, https://doi.org/10.1594/WDCC/CMIP5.MRMCpc, 2015d.

Yukimoto, S., Koshiro, T., Kawai, H., Oshima, N., Yoshida, K., Urakawa, S., Tsujino, H., Deushi, M., Tanaka, T., Hosaka, M., Yoshimura, H., Shindo, E., Mizuta, R., Ishii, M., Obata, A., and Adachi, Y.: MRI MRI-ESM2.0 model output prepared for CMIP6 PMIP midHolocene, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.6860, 2019a.

Yukimoto, S., Koshiro, T., Kawai, H., Oshima, N., Yoshida, K., Urakawa, S., Tsujino, H., Deushi, M., Tanaka, T., Hosaka, M., Yoshimura, H., Shindo, E., Mizuta, R., Ishii, M., Obata, A., and Adachi, Y.: MRI MRI-ESM2.0 model output prepared for CMIP6 CMIP piControl, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.6900, 2019b.

Yukimoto, S., Koshiro, T., Kawai, H., Oshima, N., Yoshida, K., Urakawa, S., Tsujino, H., Deushi, M., Tanaka, T., Hosaka, M., Yoshimura, H., Shindo, E., Mizuta, R., Ishii, M., Obata, A., and Adachi, Y.: MRI MRI-ESM2.0 model output prepared for CMIP6 CMIP abrupt-4xCO2, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.6755, 2019c.

Zhang, Z., Bentsen, M., Oliviè, D. J. L., Seland, o., Toniazzo, T., Gjermundsen, A., Graff, L. S., Debernard, J. B., Gupta, A. K., He, Y., Kirkevåg, A., Schwinger, J., Tjiputra, J., Aas, K. S., Bethke, I., Fan, Y., Griesfeller, J., Grini, A., Guo, C., Ilicak, M., Karset, I. H. H., Landgren, O. A., Liakka, J., Moseid, K. O., Nummelin, A., Spensberger, C., Tang, H., Heinze, C., Iversen, T., and Schulz, M.: NCC NorESM2-LM model output prepared for CMIP6 PMIP midHolocene, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.8079, 2019a.

Zhang, Z., Bentsen, M., Oliviè, D. J. L., Seland, , Toniazzo, T., Gjermundsen, A., Graff, L. S., Debernard, J. B., Gupta, A. K., He, Y., Kirkevåg, A., Schwinger, J., Tjiputra, J., Aas, K. S., Bethke, I., Fan, Y., Griesfeller, J., Grini, A., Guo, C., Ilicak, M., Karset, I. H. H., Landgren, O. A., Liakka, J., Moseid, K. O., Nummelin, A., Spensberger, C., Tang, H., Heinze, C., Iversen, T., and Schulz, M.: NCC NorESM2-LM model output prepared for CMIP6 PMIP lig127k, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.8078, 2019b.

Zheng, Weipeng; He, B.: CAS FGOALS-f3-L model output prepared for CMIP6 PMIP lig127k, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.12013, 2019a.

Zheng, Weipeng; Dong, L.: CAS FGOALS-g3 model output prepared for CMIP6 PMIP lig127k, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.3407, 2019b.

Zheng, W. and Dong, L.: CAS FGOALS-g3 model output prepared for CMIP6 PMIP midHolocene, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.3409, 2019.

Zheng, W. and He, B.: CAS FGOALS-f3-L model output prepared for CMIP6 PMIP midHolocene, Earth System Grid Federation, https://doi.org/10.22033/ESGF/CMIP6.12014, 2019.