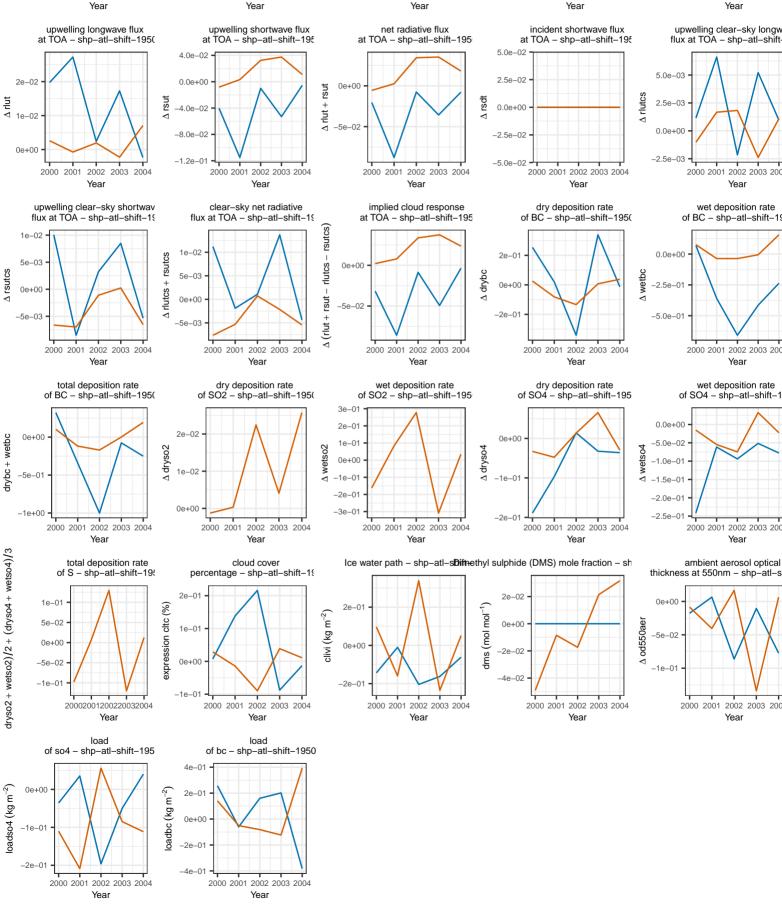
SH-sea: absolute difference surface flux surface concentration surface concentration surface concentration of BC - shp-atl-shift-1950 of SO2 - shp-atl-shift-1950 of BC - shp-atl-shift-195 of SO4 - shp-atl-shift-195 of SO2 - shp-atl-shift-195 1e-01 2.5e-01 0e+00 0e+00 -1e-01 0.0e+00 4e-03 -2e-01 -2 5e-01 0e+00 -3e-01 -5.0e-01 -4e-01 2002 2003 2002 2003 2004 2002 2003 2004 2000 2000 2001 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year upwelling shortwave flux at TOA – shp–atl–shift–195 incident shortwave flux at TOA – shp-atl-shift-195 upwelling clear–sky longwar flux at TOA – shp–atl–shift–1 net radiative flux at TOA – shp-atl-shift-195 5.0e-02 4.0e-025.0e-03 0.0e+0.00e+00 rsut rht+ 0.0e + 00_4 0e_02 -5e-02 0.0e+00 -8.0e-02 -2 5e-02 -2.5e-03 -1 2e-01 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year clear-sky net radiative implied cloud response dry deposition rate wet deposition rate flux at TOA - shp-atl-shift-19 at TOA - shp-atl-shift-195 of BC - shp-atl-shift-1950 of BC - shp-atl-shift-195 rsutcs) 1e-02 0.0e+00rlutcs + rsutcs rlutcs -00+00 5e-03 ∆ wetbo Δ drybα 0e+00 5e-02 -2e-01 -5.0e-01 (rlut + -03 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year dry deposition rate of SO2 – shp–atl–shift–1950 wet deposition rate of SO2 – shp-atl-shift-195 dry deposition rate of SO4 – shp–atl–shift–195 wet deposition rate of SO4 – shp-atl-shift-19 0.0e+00 2e-01 2e-02 1e-01 ∆ dryso4 0e+00 1e-02 -1e-0° -1e-01 -01 -2.0e-01 0e+00 -3e-01 -2 5e-01 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Ice water path - shp-atl-shiftnethyl sulphide (DMS) mole fraction - sh cloud cover ambient aerosol optical percentage - shp-atl-shift-19 thickness at 550nm - shp-atl-shi 2e-02 0e+00% clivi $(kg m^{-2})$ _lom lom) smb expression cltc 0e+00 ∆ od550ae 1e-01 -5e-02 0e+00 -2e-02 0e+00 -1e-01 -4e-02 -2e-0-1e-0 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year load of bc - shp-atl-shift-1950 4e-01



surface flux

0e+00

-4e-06

-8e-06

2000 2001