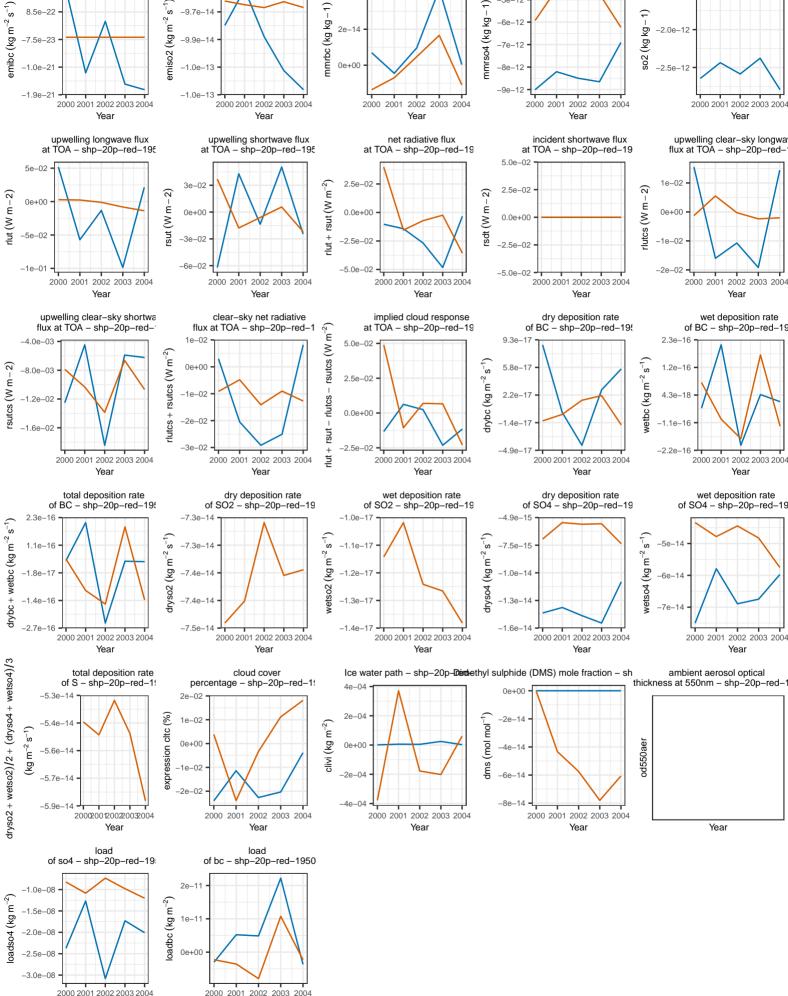
NH-sea: absolute difference surface flux surface concentration surface concentration surface concentration of SO2 - shp-20p-red-19 of BC - shp-20p-red-1950 of SO4 - shp-20p-red-195 of SO2 - shp-20p-red-19 -5e-12 nmrso4 (kg kg – 1) nmrbc (kg kg – 1) so2 (kg kg – 1) -2.0e-12 0e+00 -2.5e-12 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year upwelling shortwave flux at TOA – shp–20p–red–195 upwelling clear-sky longway flux at TOA - shp-20p-red-1 net radiative flux incident shortwave flux at TOA – shp–20p–red–19 at TOA - shp-20p-red-19 5.0e-02 $rsut(W m^{-2})$ 2.5e-02 2 rsdt (Wm-2)rlutcs (W m -0.0e+00 0.0e + 0.0-2.5e-02 -1e-02 -2 5e-02 -5.0e-02 -2e-02 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year implied cloud response dry deposition rate wet deposition rate clear-sky net radiative flux at TOA - shp-20p-red-1 at TOA - shp-20p-red-19 of BC - shp-20p-red-19 of BC - shp-20p-red-19 rsutcs (W m⁻²) 5.0e drybc (kg m^{-2} s⁻¹ 5.8e-17 wetbc (kg $\mathrm{m}^{-2}\,\mathrm{s}^{-1}$ 1.2e-16 2.5e-02 2.2e rlutcs 0.0e+00 rsut – rt H _4 9e_1 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 SO4 – shp–20p–red–19 dry deposition rate of SO2 – shp–20p–red–19 wet deposition rate of SO2 – shp–20p–red–19 wet deposition rate of SO4 – shp–20p–red–19 -4.9e-15 wetso2 (kg $\mathrm{m}^{-2} \mathrm{s}^{-1}$ dryso4 (kg m⁻² s^{-′} wetso4 (kg m⁻² : -1.0e-14 -1.6e-14 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Ice water path - shp-20p-Dantethyl sulphide (DMS) mole fraction - sh cloud cover ambient aerosol optical percentage - shp-20p-red-19 thickness at 550nm - shp-20p-red-1 2e-04 -2e-14 clivi (kg m⁻²) _lom lom) smb 0e+00 od550aeı -2e-04 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 Year Year Year Year



surface flux

of BC - shp-20p-red-19

Year

8.5e-22

Year