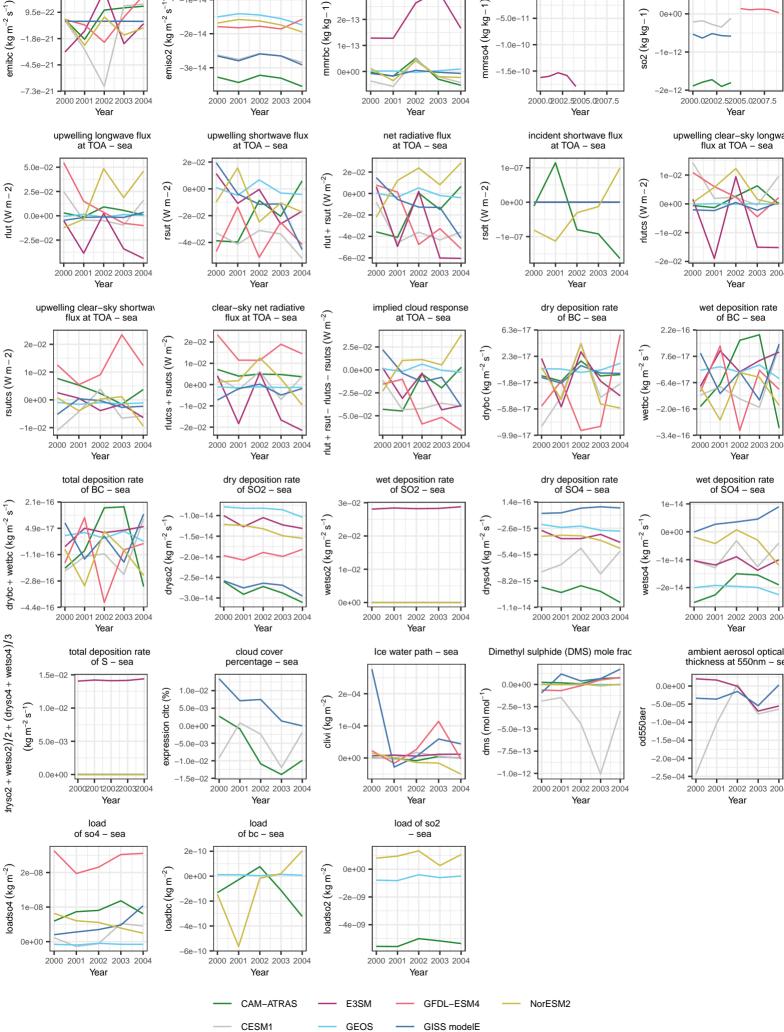
shp-ind-shift: absolute difference surface flux of SO2 – sea surface concentration surface concentration of SO4 – sea surface concentration of SO2 – sea 0.0e+00 (kg kg - 1)nmrbc (kg kg – 1) so2 (kg kg – 1) 1e-13 mmrso4 0e+00 2002 2003 2004 2000 2001 2002 2003 2004 2000.02002.52005.02007.5 2000.02002.52005.02007.5 2000 2001 Year Year Year Year upwelling shortwave flux at TOA – sea net radiative flux at TOA – sea upwelling clear-sky longway flux at TOA - sea incident shortwave flux at TOA – sea 2e-02 $rsut (W m^{-2})$ rlutcs (W m-2) rsdt (W m-2) 0e+00-1e-07 -6e-02 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 Year Year Year Year clear-sky net radiative flux at TOA - sea implied cloud response dry deposition rate of BC – sea wet deposition rate of BC – sea rsutcs $(W m^{-2})$ at TOA – sea 6.3e-17 2 2e-16 vetbc (kg $\mathrm{m}^{-2}\,\mathrm{s}^{-1}$ drybc (kg m⁻² s⁻ 0.0e+00 rsut--5 0e-02 rlut + 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 – sea wet deposition rate of SO2 – sea dry deposition rate of SO4 – sea wet deposition rate of SO4 – sea 3e-02 1 4e-16 1e-14 wetso2 (kg m⁻² s⁻¹. wetso4 (kg m⁻² s⁻¹) dryso4 (kg m^{-2} s⁻¹ 0e+00 2e-02 1e-02 -8 2e-15 0e+002000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year cloud cover Ice water path - sea Dimethyl sulphide (DMS) mole frac ambient aerosol optical thickness at 550nm – sea percentage - sea 0.0e+00 0.0e+00 clivi (kg m⁻²) mol mol 1e-04 2000 2001 2002 2003 2004 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2000 2001 2002 2003 2004 Year Year Year Year load load of so2 of bc - sea sea 0e+00 -2e-09 -4e-09



surface flux of BC – sea

3.7e-21

9 56-22