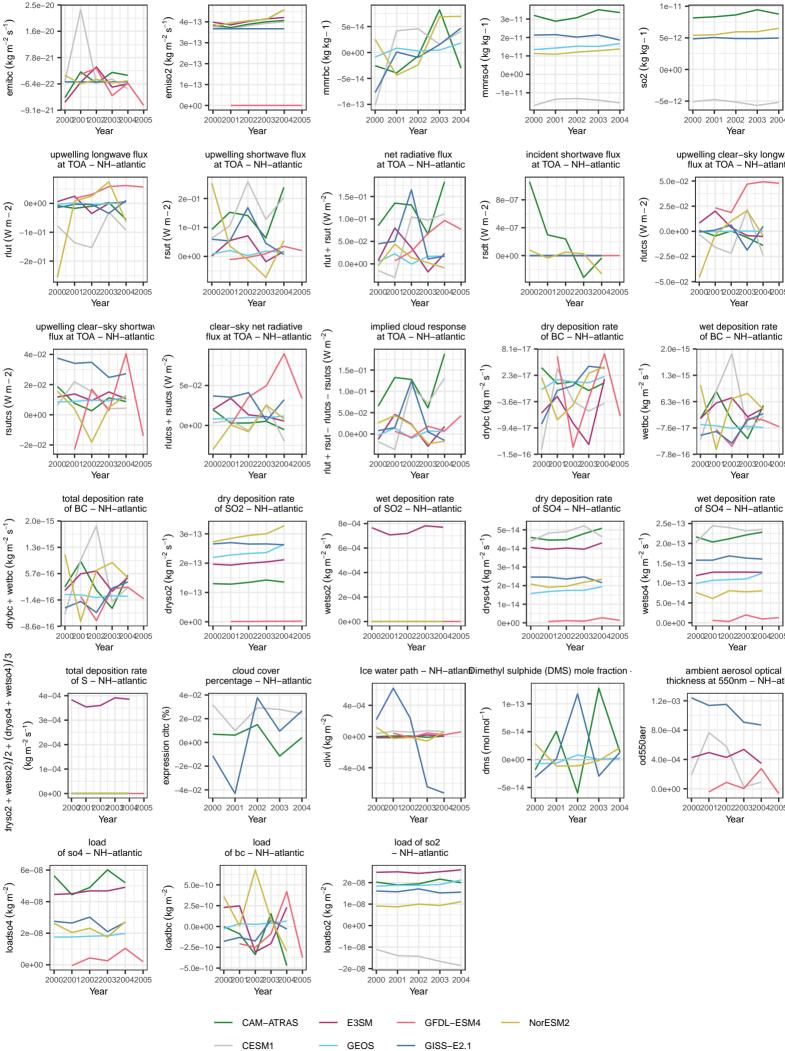
## shp-atl-shift-1950: absolute difference surface flux of SO2 – NH–atlantic surface concentration surface concentration of SO4 – NH–atlantic surface concentration of SO2 – NH-atlantic mmrso4 (kg kg – 1) nmrbc (kg kg – 1) so2 (kg kg-1) 0e+00 200020012002200320042005 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 Year Year Year Year upwelling shortwave flux at TOA – NH–atlantic net radiative flux at TOA – NH-atlantic upwelling clear–sky longwa flux at TOA – NH–atlanti incident shortwave flux at TOA – NH–atlantic $rsut (W m^{-2})$ rlutcs (Wm-2)2.5e-02 rsdt (Wm-2)5.0e-02 0e+00 0.0e+00 -5 0e-02 200020012002200320042005 200020012002200320042005 200020012002200320042005 200020012002200320042005 Year Year Year Year clear-sky net radiative flux at TOA - NH-atlantic implied cloud response dry deposition rate of BC – NH-atlantic wet deposition rate of BC – NH-atlantic $'m^{-2}$ ) at TOA – NH–atlantic 8 1e-17 2 0e-15 rsutcs (W 1.5e-01 wetbc (kg $\,\mathrm{m}^{-2}\,\mathrm{s}^{-1}$ drybc (kg m<sup>-2</sup> s<sup>-</sup> 5.0e-02 0.0e+00 rsutrlut + 200020012002200320042005 200020012002200320042005 200020012002200320042005 200020012002200320042005 Year Year Year Year dry deposition rate of SO2 – NH–atlantic wet deposition rate of SO2 – NH-atlantic dry deposition rate of SO4 – NH-atlantic wet deposition rate of SO4 – NH-atlantic 8e-04 wetso2 (kg m<sup>-2</sup> s<sup>-1</sup> vetso4 $(kg m^{-2} s^{-1}$ 2.0e-13 dryso4 (kg m<sup>-2</sup> s<sup>-1</sup> 5.0e-14 200020012002200320042005 200020012002200320042005 200020012002200320042005 200020012002200320042005 Year Year Year Year Ice water path - NH-atlan@imethyl sulphide (DMS) mole fraction cloud cover ambient aerosol optical thickness at 550nm – NH-atla percentage - NH-atlantic 1e-13 dms (mol mol<sup>-1</sup> clivi (kg m<sup>-2</sup>) 8.0e-04 0e+00 -4e-04 0.0e+00 200020012002200320042005 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 200020012002200320042005 Year Year Year Year load load of so2 - NH-atlantic of bc - NH-atlantic



surface flux of BC – NH–atlantic