APPENDIX A.

Abundance and biomass indices from NEFSC spring and autumn bottom trawl surveys

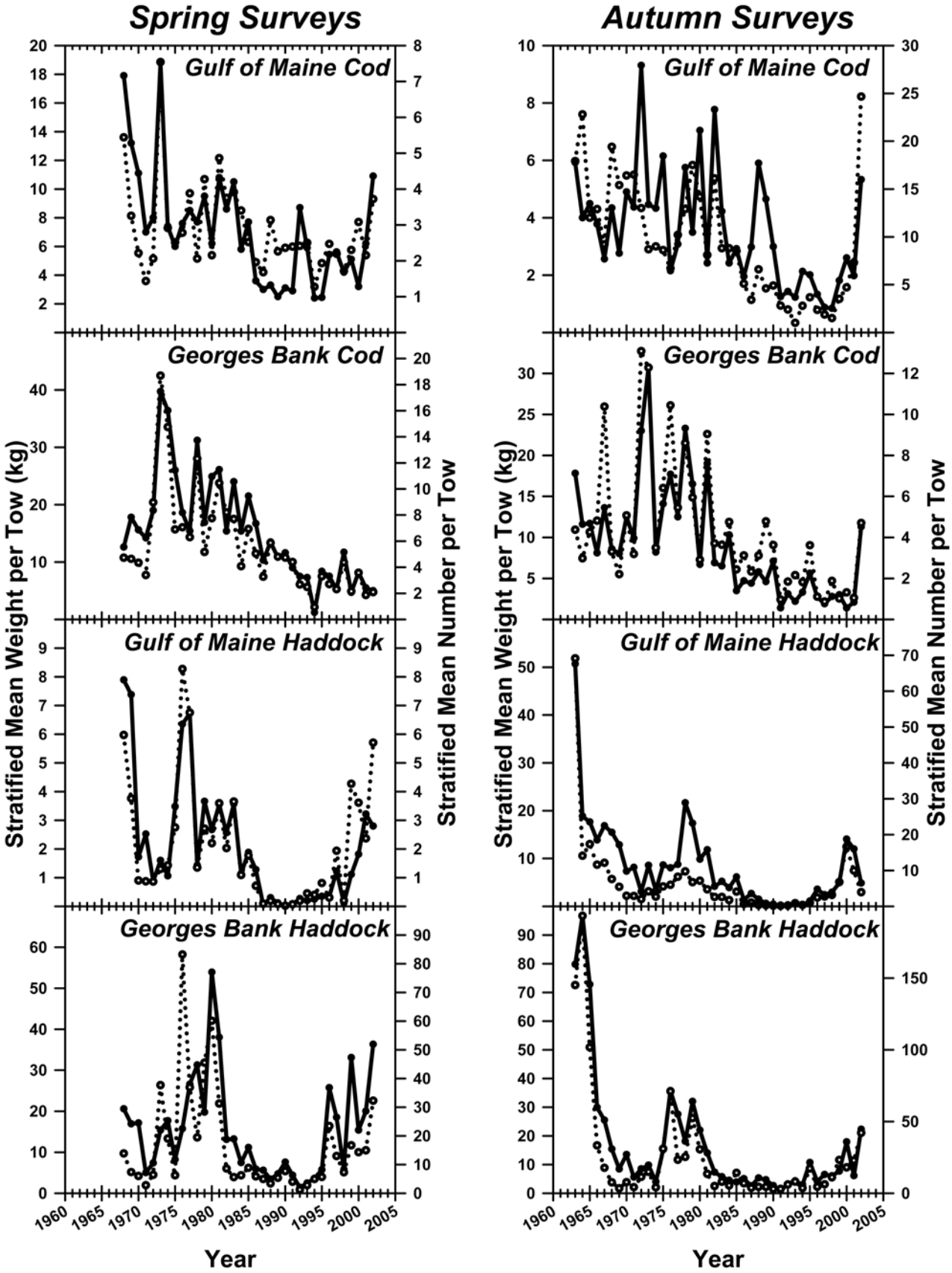

Figure A1. Abundance (dashed line) and biomass (solid line) indices for Gulf of Maine cod, Georges Bank cod, Gulf of Maine haddock, and Georges Bank haddock from the NEFSC spring and autumn surveys, 1963-2002.

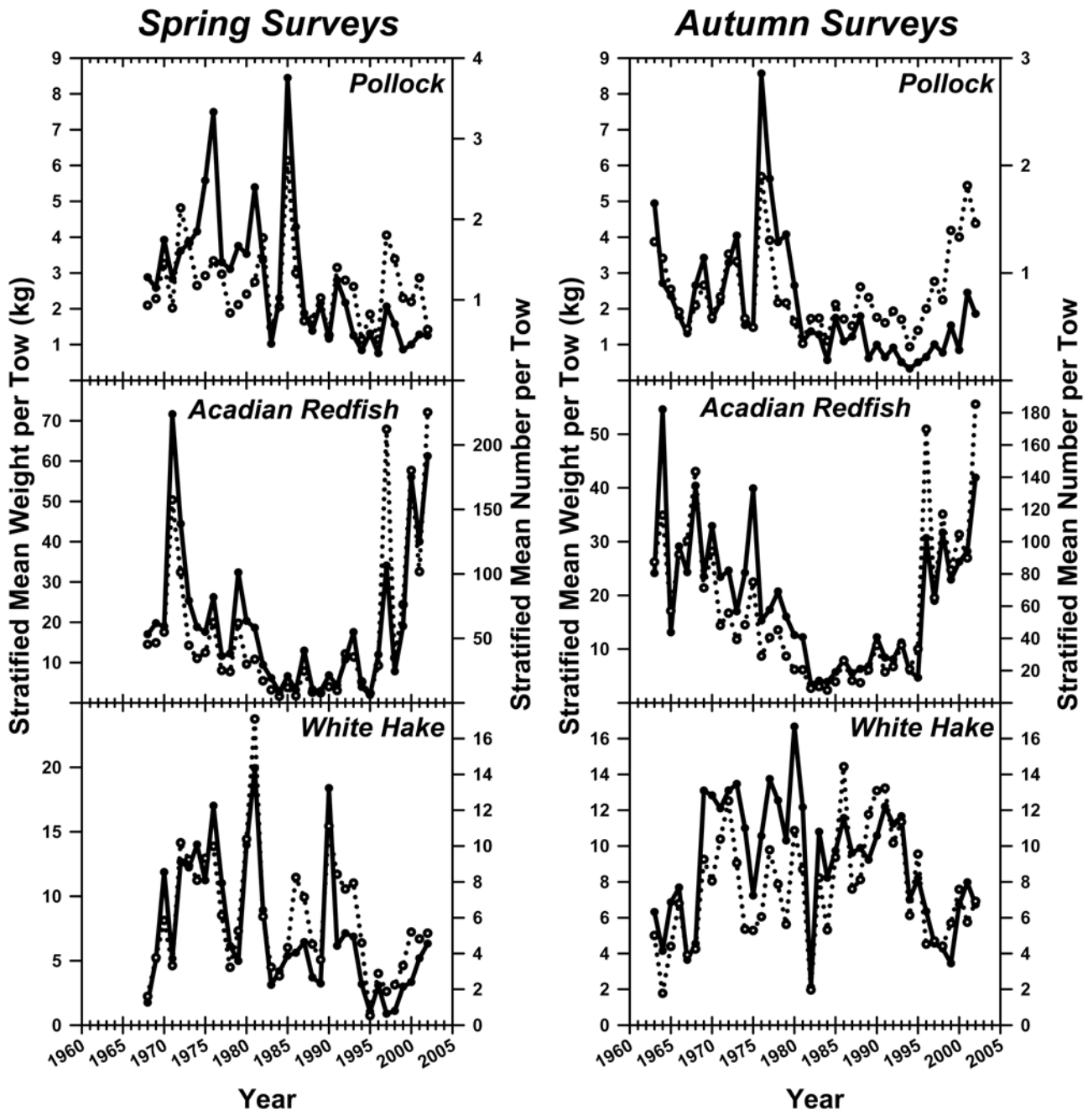

Figure A2. Abundance (dashed line) and biomass (solid line) indices for pollock, Acadian redfish and white hake from the NEFSC spring and autumn surveys, 1963-2002.

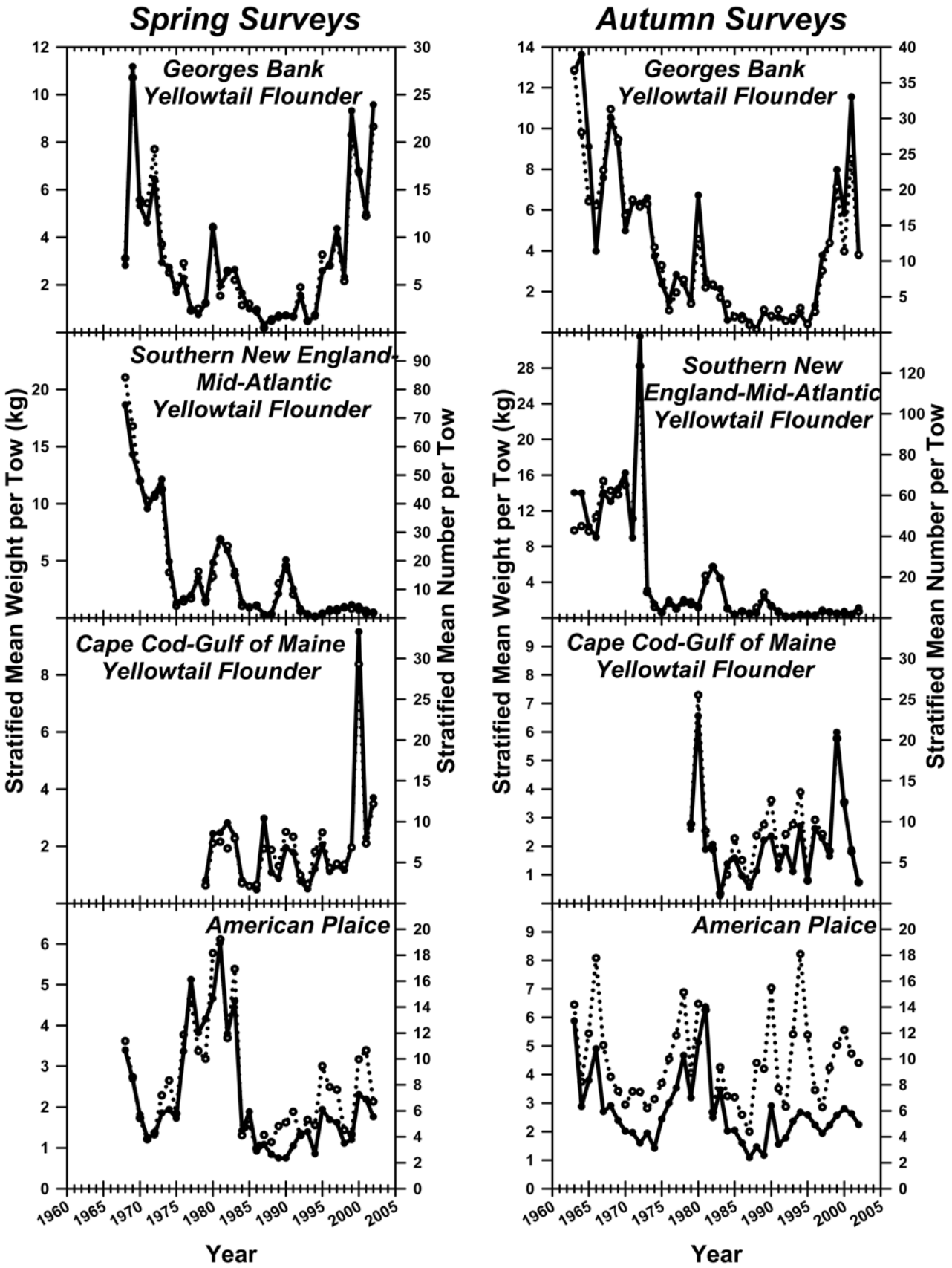

Figure A3. Abundance (dashed line) and biomass (solid line) indices for Georges Bank yellowtail flounder, Southern New England-Mid-Atlantic yellowtail flounder, Cape Cod-Gulf of Maine yellowtail flounder, and American plaice from the NEFSC spring and autumn surveys, 1963-2002.

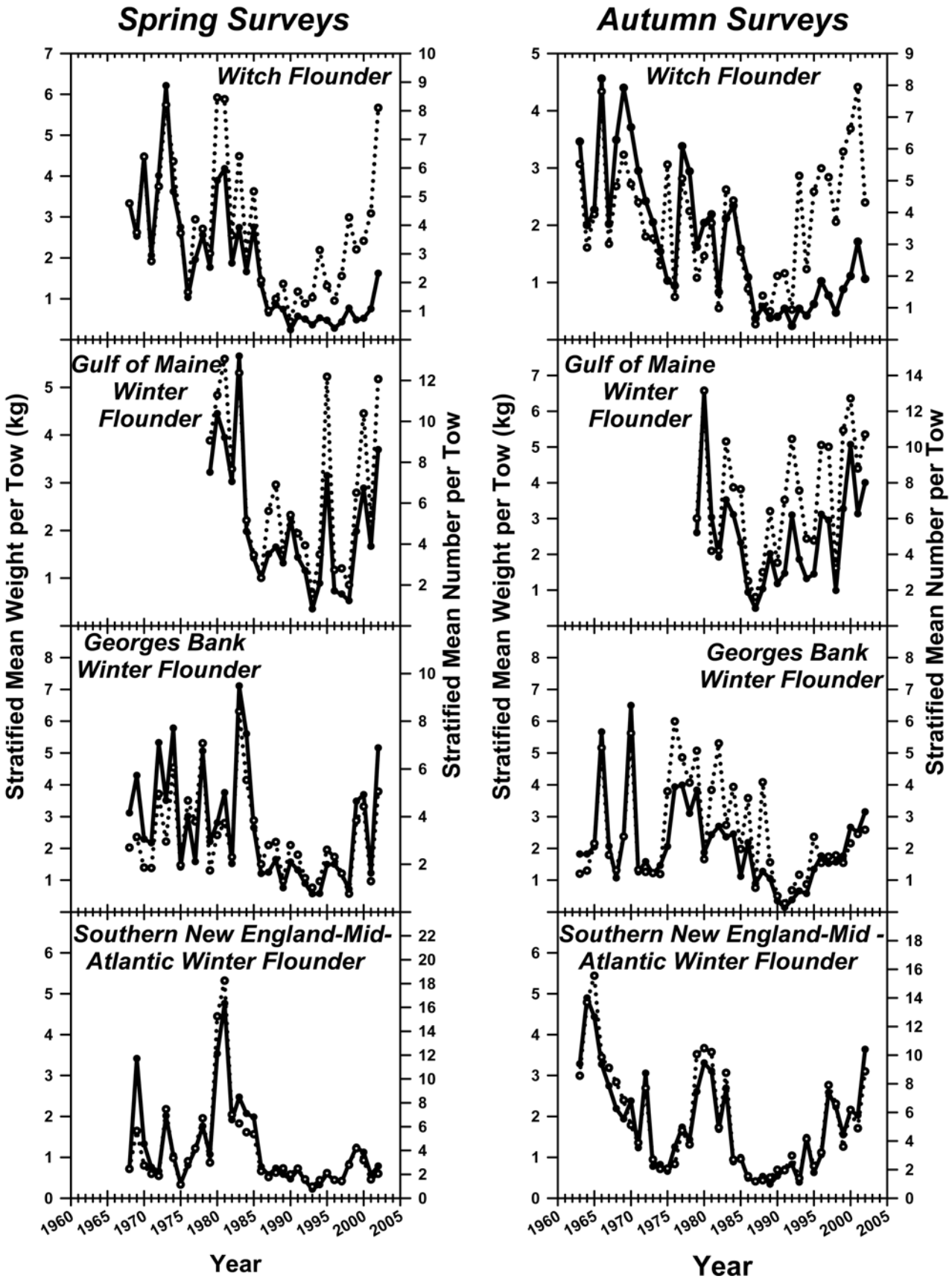

Figure A4. Abundance (dashed line) and biomass (solid line) indices for witch flounder, Gulf of Maine winter flounder, Georges Bank winter flounder, and Southern New England-Mid-Atlantic winter flounder from the NEFSC spring and autumn surveys, 1963-2002.

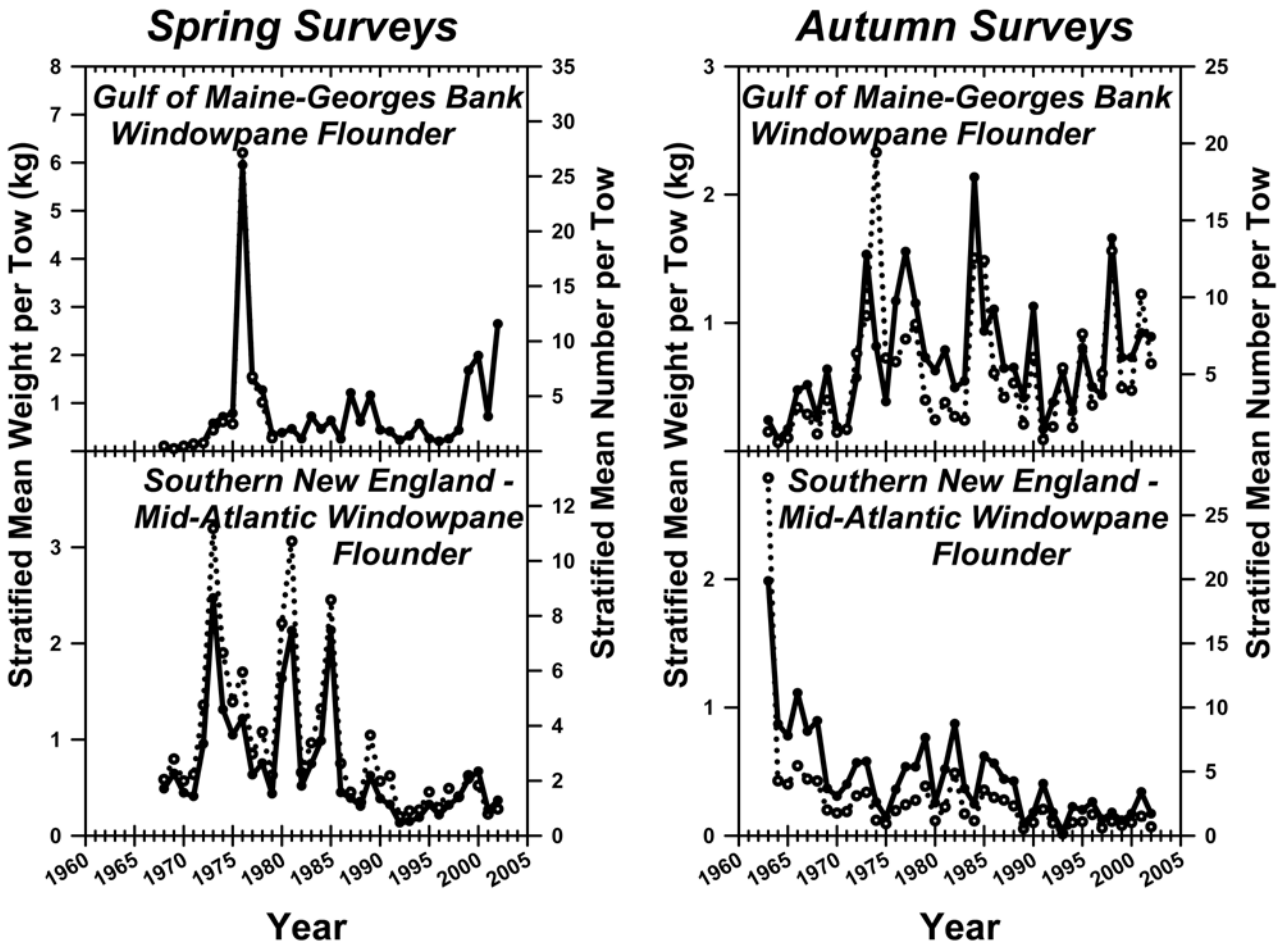

Figure A5. Abundance (dashed line) and biomass (solid line) indices for Gulf of Maine-Georges Bank windowpane flounder and Southern New England-Mid-Atlantic windowpane flounder from the NEFSC spring and autumn surveys, 1963-2002.

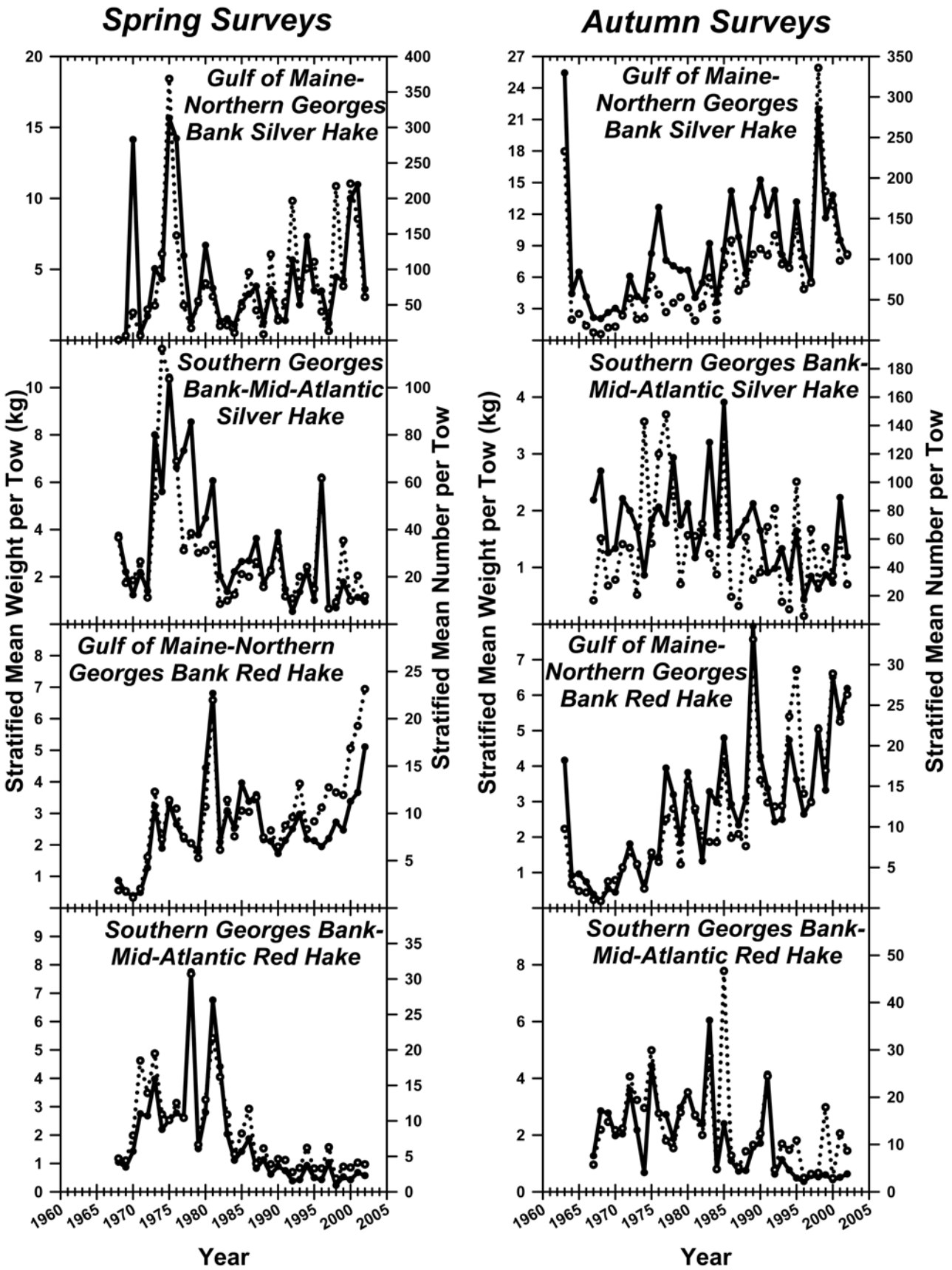

Figure A6. Abundance (dashed line) and biomass (solid line) indices for Gulf of Maine- Northern Georges Bank silver hake, Southern Georges Bank-Mid-Atlantic silver hake, Gulf of Maine-Northern Georges Bank red hake, and Southern Georges Bank-Mid-Atlantic red hake from the NEFSC spring and autumn surveys, 1963-2002.

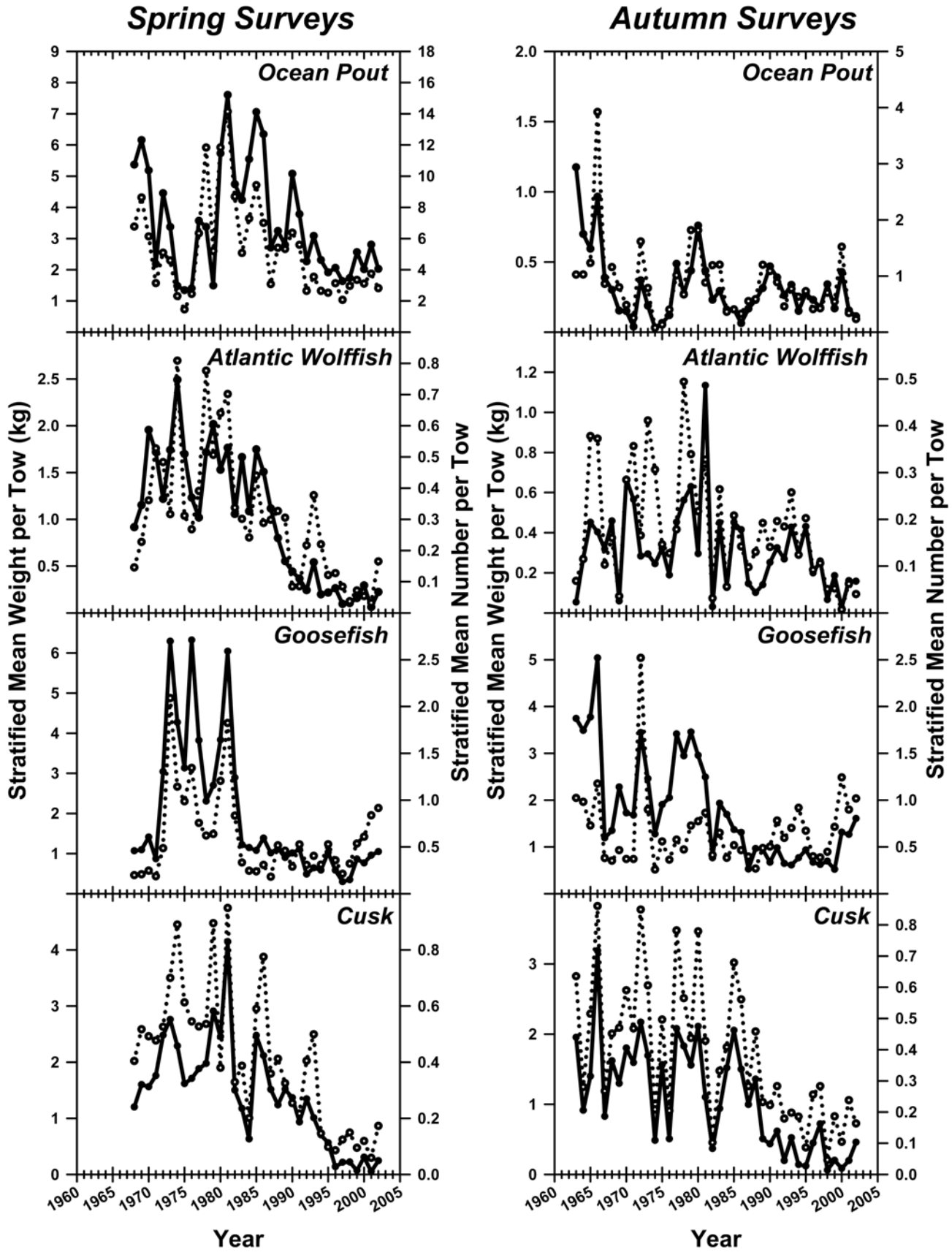

Figure A7. Abundance (dashed line) and biomass (solid line) indices for ocean pout, Atlantic wolffish, goosefish, and cusk from the NEFSC spring and autumn surveys, 1963-2002.

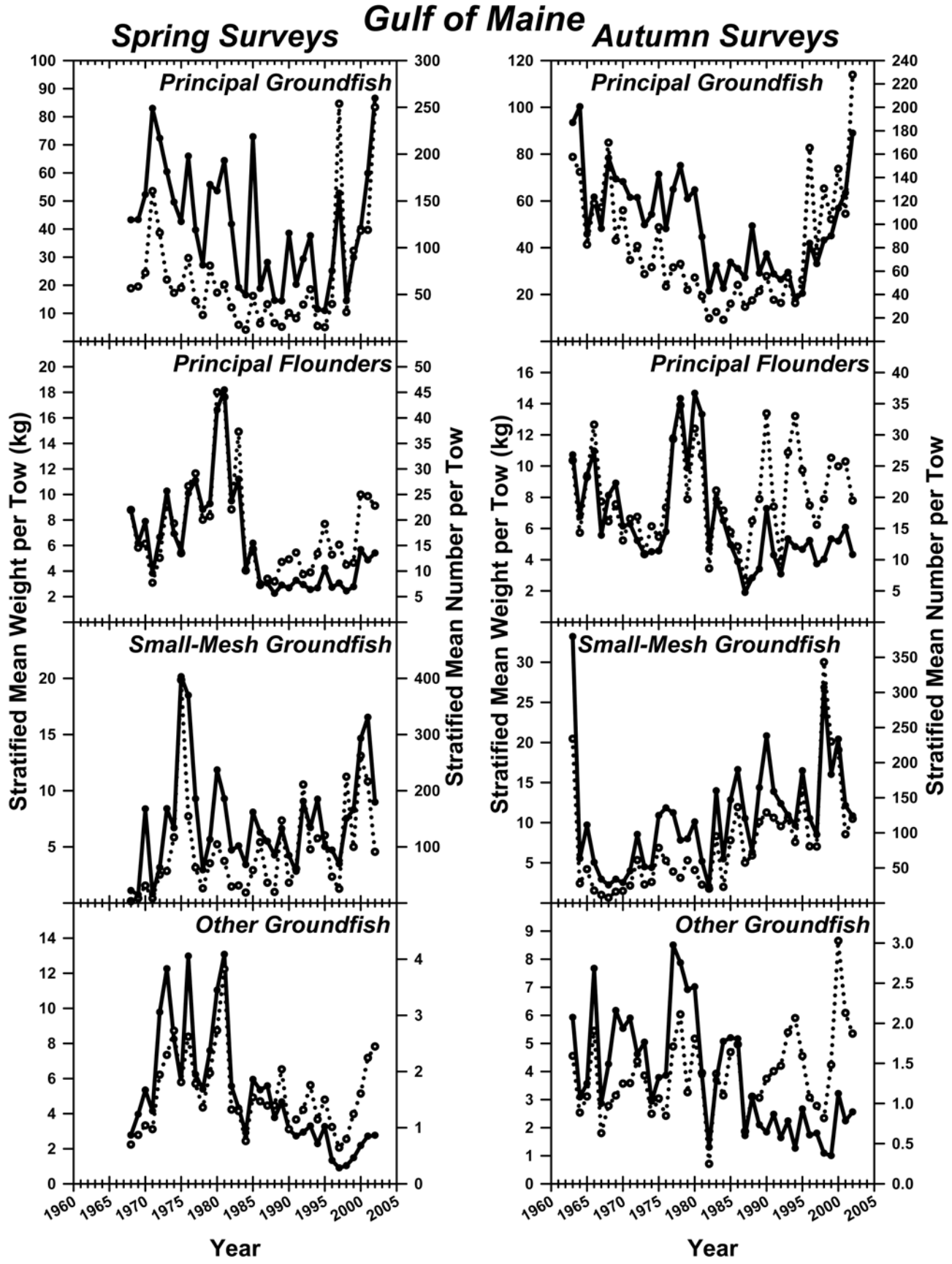

Figure A8. Abundance (dashed line) and biomass (solid line) indices for principal groundfish (Atlantic cod, haddock, pollock, Acadian redfish, and white hake), principal flounders (yellowtail flounder, American plaice, witch flounder, winter flounder, and windowpane flounder), small-mesh groundfish (silver hake, red hake, and ocean pout) and other groundfish (Atlantic wolffish, goosefish, and cusk) from the NEFSC spring and autumn surveys in the Gulf of Maine, 1963-2002.

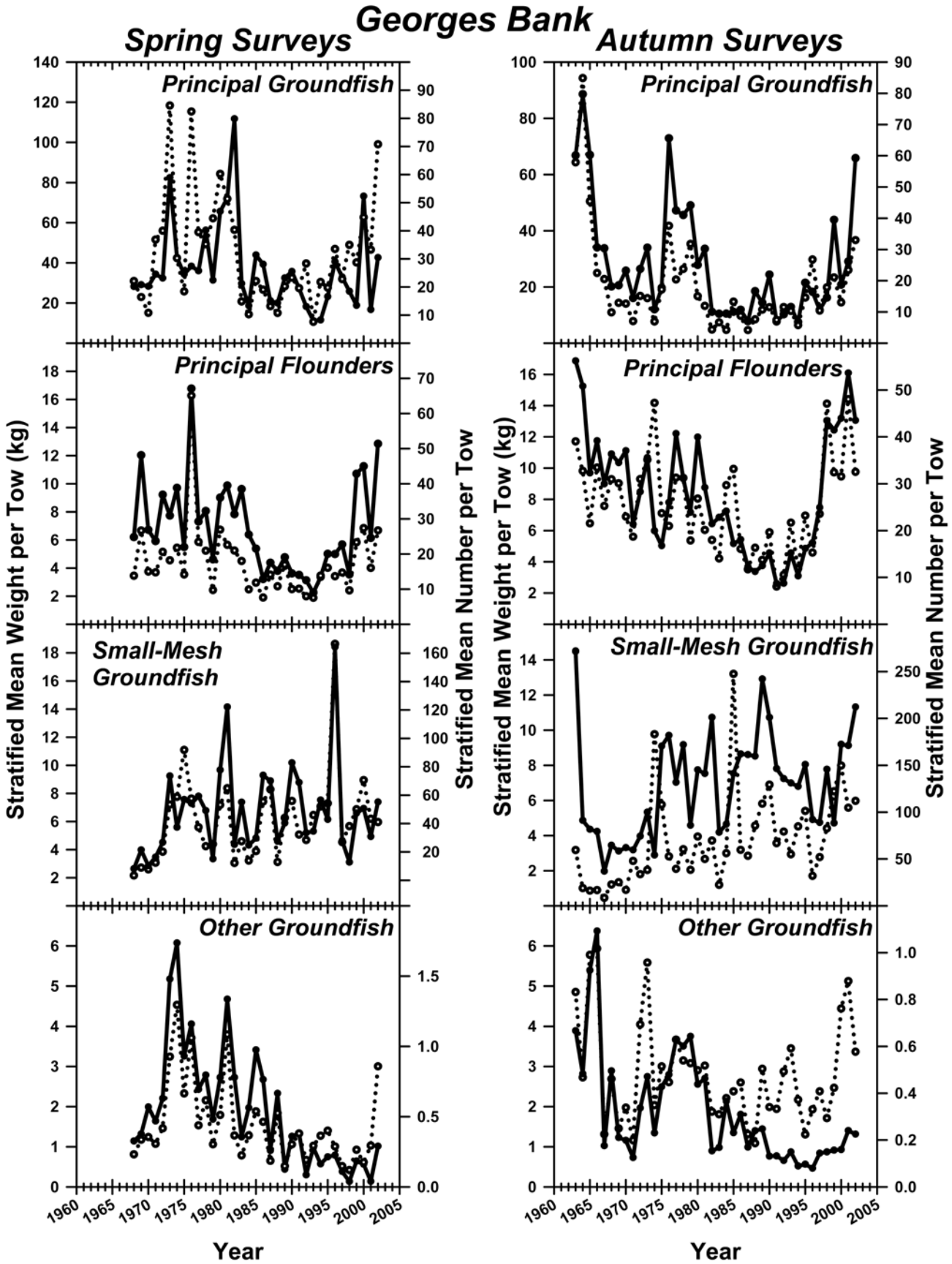

Figure A9. Abundance (dashed line) and biomass (solid line) indices for principal groundfish (Atlantic cod, haddock, pollock, Acadian redfish, and white hake), principal flounders (yellowtail flounder, American plaice, witch flounder, winter flounder, and windowpane flounder), small-mesh groundfish (silver hake, red hake, and ocean pout) and other groundfish (Atlantic wolffish, goosefish, and cusk) from the NEFSC spring and autumn surveys on Georges Bank, 1963-2002.

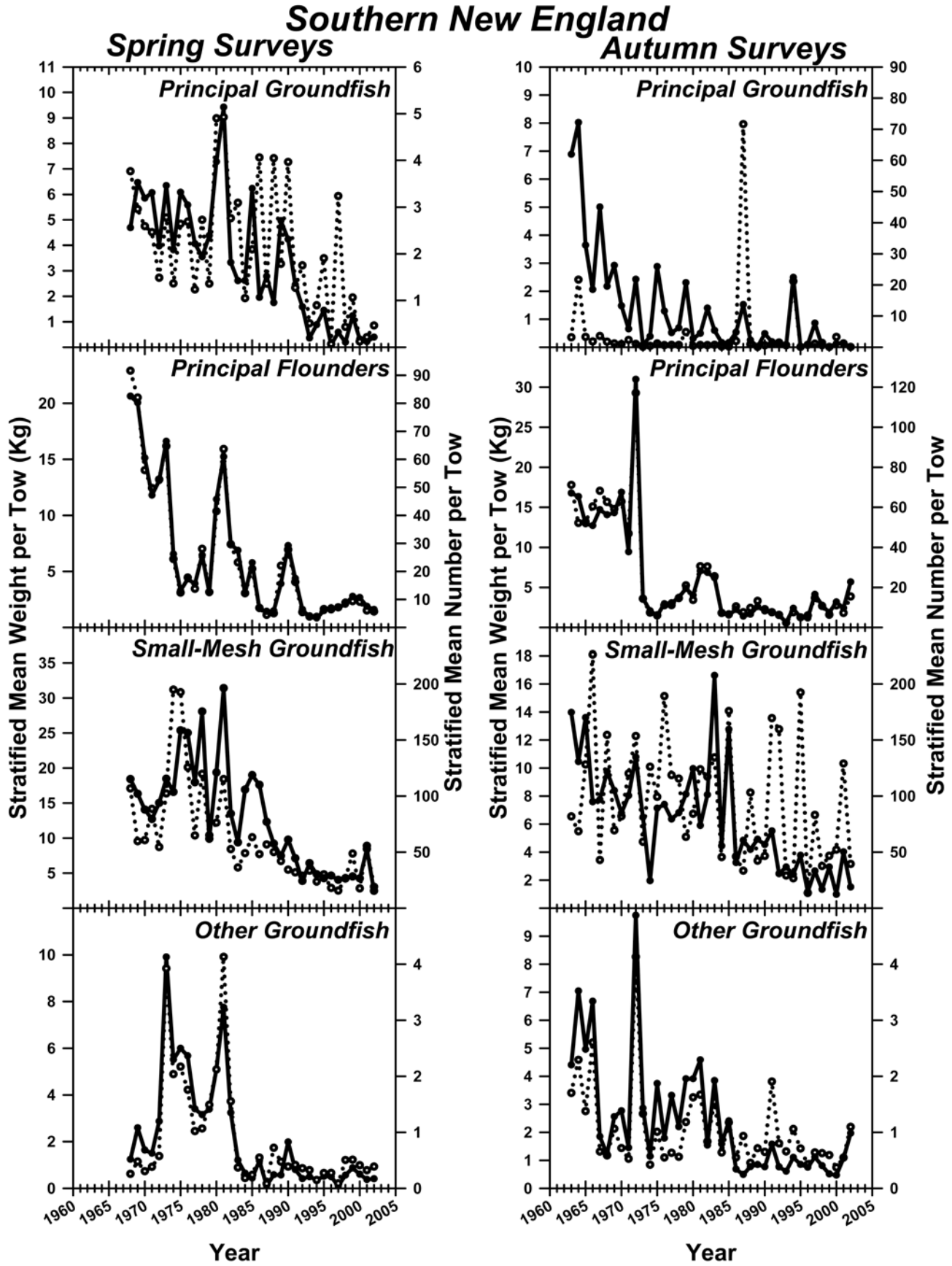

Figure A10. Abundance (dashed line) and biomass (solid line) indices for principal groundfish (Atlantic cod, haddock, pollock, Acadian redfish, and white hake), principal flounders (yellowtail flounder, American plaice, witch flounder, winter flounder, and windowpane flounder), small-mesh groundfish (silver hake, red hake, and ocean pout) and other groundfish (Atlantic wolffish, goosefish, and cusk) from the NEFSC spring and autumn surveys in Southern New England, 1963-2002.