Although Antarctic sea ice has undergone a small increase in overall extent over the past 30 years, major regional changes have occurred in sea ice coverage in response to changing patterns of large-scale atmospheric circulation. Most notable are opposite-sign changes in sea ice seasonality (annual coverage duration) in the Bellingshausen-eastern Amundsen Seas and Western Ross Sea sectors (negative and positive respectively). Change in sea-ice seasonality is important because it affects ocean-atmosphere interaction, floating ice-sheet margin exposure to open ocean conditions, and ecosystem structure and function. In addition to examining trends and regional patterns/anomalies (including new East Antarctic results for both pack ice and landfast ice), we evaluate the importance of extreme events and their effects with case-study examples. These show that the biological effects can be both positive and negative, for example. Extreme events tend to be overlooked relative to trend analyses. Emphasis is also placed on the importance of interactions between various elements of the marine and terrestrial cryosphere in determining the regional “icescape” (particularly in the coastal zone). While sea ice distribution and characteristics exhibit considerable complexity, certain large-scale patterns recur. The disruptive effect of abrupt change events such as major iceberg calvings (e.g. of the Mertz Glacier tongue in 2010) is also examined. This overview concludes with a discussion of key current unknowns (including sea-ice and snowcover thickness distributions), and possible future scenarios related to predicted increases in high-latitude storminess and snowfall and more icebergs.