



Assessment of meteorological drought in the Danube river basin by means of various indices

Marius-Victor Birsan, Alexandru Dumitrescu, and Ion-Andrei Nita

Meteo Romania, Department of Climatology, Bucharest, Romania (maris.birsan@gmail.com)

Drought is a complex recurring phenomena with slow manifestation involving various climatic, hydrological and pedological components.

In order to investigate the drought variability in the Danube river basin, several drought indices, like Standardized Precipitation Index (SPI), Standardized Precipitation Evapotranspiration Index (SPEI), and the self-calibrated Palmer Drought Severity Index (scPDSI) were computed.

The Mann–Kendall nonparametric test has been applied to the drought indices in order to find significant long-term changes at monthly, seasonal and annual time scales.

The influence of large-scale atmospheric circulation was also tackled by means of teleconnection indices, like North Atlantic Oscillation, East Atlantic, or Eurasia-2 pattern (East Atlantic / West Russia).

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