EDITORIAL

How Journal of Climate Evolved from Monthly Weather Review

As part of the 150th volume of Monthly Weather Review, we are telling stories from its 150-yr history in a series of editorials. This month’s editorial describes how Monthly Weather Review helped to found the Journal of Climate, which is now one of the leading journals in its field and is celebrating its 35th year.

Climate modeling had its birth in the 1960s within the pages of Monthly Weather Review with the seminal work by Joseph Smagorinsky and Nobel Prize-winner Syukuro Manabe (e.g., Smagorinsky 1963; Smagorinsky et al. 1965; Manabe et al. 1965; Manabe 1969) (see section 5d of Schultz and Potter 2022). Pioneering studies on observations of climate-scale phenomena were also published in Monthly Weather Review—notably, the northeastern U.S. drought of 1962–65 (Namias 1966), El Niño–Southern Oscillation (e.g., Bjerknes 1969; Horel and Wallace 1981; Rasmusson and Carpenter 1983), and Northern Hemisphere teleconnections such as the North Atlantic Oscillation, North Pacific Oscillation, and the Pacific–North American pattern (e.g., Wallace and Gutzler 1981).

In the 1980s, changes were afoot in the American Meteorological Society (AMS) journals, reflecting this growing interest in climate. In 1982, Monthly Weather Review discontinued its monthly article “Weather and Circulation” and replaced it with a quarterly seasonal climate summary written by the Climate Analysis Center (now the NOAA/NWS/Climate Prediction Center) (Pielke 1982). In 1983, the Journal of Applied Meteorology (JAM; 1962–82) became Journal of Climate and Applied Meteorology (JCAM; 1983–87). An editorial in JCAM described the new journal as one that would publish “papers on both basic and applied aspects of climate research” (Hecht and Bergman 1983).

Then, the intense El Niño of 1982/83 happened, furthering interest in climate-scale phenomena. Monthly Weather Review led with the seasonal climate summary by Quiroz (1983) followed by 21 articles between October 1983 and May 1988. (In contrast, only three articles on El Niño–Southern Oscillation were published in JCAM during this period.) Many of these Monthly Weather Review articles, as well as others on climate variability, were handled by Editor Kevin Trenberth. Also starting in 1984, funding to climate science was increasing as a result of the formation of the Tropical Ocean and Global Atmosphere Project (TOGA), the first project of the World Climate Research Programme. This funding led to more research, which led to more papers, creating a demand for a new climate-focused journal. As Trenberth notes in his memoirs, he (as well as others) had argued for AMS to create a new journal that would consolidate climate-related articles from Monthly Weather Review, Journal of the Atmospheric Sciences, and JCAM into a single journal, with JCAM becoming JAM again.

In 1986, Richard Rosen had succeeded Trenberth as the editor handling climate-related manuscript submissions at Monthly Weather Review (Klemp and Rotunno 1986). To help start this new Journal of Climate, Rosen agreed to transfer his position to the new journal, serving as the only editor under Chief Editor Alan Hecht, who was previously the co-chief editor of JCAM for climate (Hecht 1988). To build the first issues of Journal of Climate, Rosen asked authors if they would transfer their manuscripts from Monthly Weather Review to the new journal. The initial manuscripts that Rosen handled for Journal of Climate were, “those that had been transferred from Monthly Weather Review, and the sort of papers that continued to appear in Journal of Climate were in the style of those that had been in Monthly Weather Review” (R. Rosen 2022, personal communication). For example, Kung’s (1988) spectral energetics of the general circulation became Journal of Climate’s first paper, although it had been originally submitted to Monthly Weather Review. Rosen also noted “the large number of Monthly Weather Review articles that are referenced in papers in the first volume of Journal of Climate, although there is an occasional JCAM reference as well.”

The story of the formation of Journal of Climate in 1988 was one in which Monthly Weather Review was crucial. As Rosen (2022, personal communication) wrote, “An important part of MWR’s history is the central role it played in serving the climate research community prior to the launch of Journal of

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Climate." This new journal was “the child of MWR," with “a bit of JCAM in its genes as well” (R. Rosen 2022, personal communication).

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David M. Schultz
Chief Editor

REFERENCES


