

Geographically Isolated Wetlands: What We've Learned since SWANCC

Scott G. Leibowitz

US Environmental Protection Agency, National Health and Environmental Effects Research Laboratory, Western Ecology Division, Corvallis, Oregon, USA

The 2001 *SWANCC* and 2006 *Rapanos* US Supreme Court decisions created a need for research on geographically isolated wetlands (GIWs). In 2003, a special issue on isolated wetlands was published in *Wetlands*. That issue contained fifteen papers that reviewed and summarized the literature on GIWs, including their functions, descriptions of specific GIW types, legal and regulatory history, and state responses to the Court's decisions. Since the special issue, much more research has been published on these types of wetlands. However, the information needs have also become more specific, with the *Rapanos* decision requiring an understanding of how these wetlands contribute to the integrity of navigable waters. Here I provide a review of what we have learned about GIWs since *SWANCC*. I discuss general functions of isolated wetlands, and how isolation affects their ecology. In addition, I focus on an EPA report that assesses connectivity and effects of GIWs on downstream waters. Finally, I discuss several recent publications that provide important new perspectives on isolated wetlands. While much has been learned about GIWs since *SWANCC*, much is still unknown about how these wetlands interact with other aquatic resources as functioning components of watersheds.