

Abstract for JASM (Joint Aquatic Sciences Meeting) meeting to be held in Portland OR, May 18-23 2014. Contributed talk, for session #102 "Assessing the ecologic condition of wetlands at national, regional, and state scales: results from the National Wetland Condition Assessment and associated studies".

NATIONAL PATTERNS IN WETLAND WATER QUALITY FROM THE 2011 NWCA

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Water quality (WQ) is central to understanding ecological condition of lakes, streams, and coastal waters but less often assessed in wetlands. The utility of national-scale wetland WQ data was examined in the 2011 National Wetland Condition Assessment, which covered 48 USA states and a broad range of wetland types. Water chemistry was analyzed from 631 sites (55%). Conductivity ranged from very dilute to sea-water strength (~1/3 of wetlands were estuarine). Most wetlands had circumneutral pH but some were quite acidic (pH<5). Chlorophyll, TN, and TP varied by 4 orders of magnitude, with nutrient levels highest in the temperate and southern plains but chlorophyll also high in the coastal plains and upper midwest. Appalachian and western mountain wetlands had the most oligotrophic waters. Nutrient ratios varied from strongly N-limited to strongly P-limited in both tidal and inland wetlands. Despite temporal variability, rank order of nutrients and chlorophyll was largely maintained across the subset of wetlands visited twice. WQ classification and relationships to soil chemistry, vegetation, and landscape setting will be discussed.