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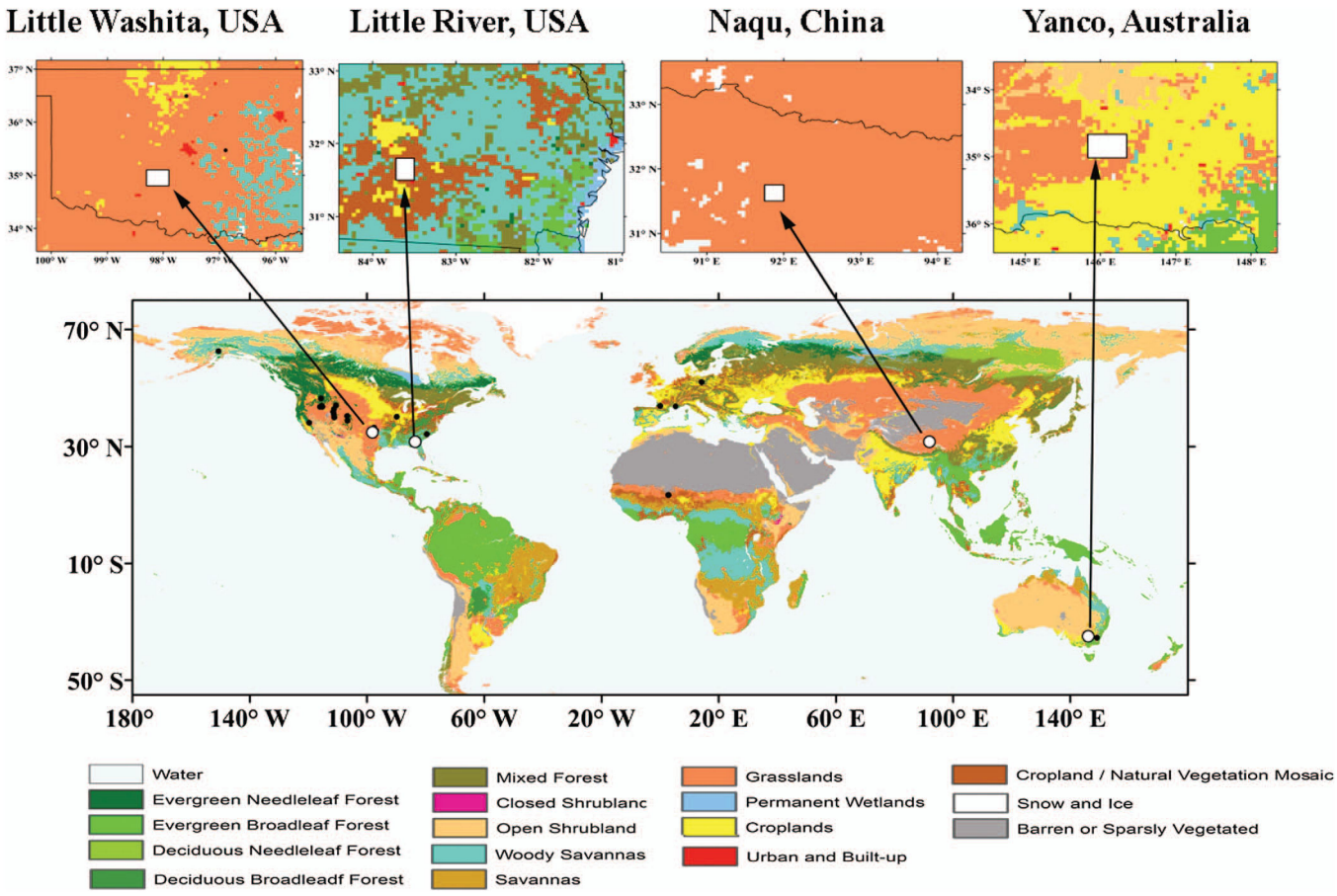

Spatial distribution of the soil moisture network sites used for developing and validating the University of Montana AMSR-E soil moisture retrieval algorithm based on dynamic vegetation scattering properties. Background images represent the MODIS IGBP global land cover map.

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About the Cover: The cover shows the spatial distribution of the selected (solid black circles) International Soil Moisture Network (ISMN) sites used for developing the revised University of Montana (UMT) AMSR-E soil moisture retrieval algorithm; (solid white circles) independent validation site network locations are also denoted, whereas inset maps show detailed subregions surrounding the (white polygons) four soil moisture validation networks used in this study; background images represent the MODIS IGBP global land cover map. Unlike the major AMSR-E retrieval algorithms that assume fixed scattering albedo values over the globe, the revised UMT algorithm adopts a weighted averaging strategy for soil moisture estimation based on a dynamic selection of albedo values that are empirically determined. The resulting soil moisture retrievals demonstrate more realistic global patterns and seasonal dynamics relative to the baseline UMT soil moisture product. Quantitative analysis of the new approach against *in situ* soil moisture measurements over the four regional networks indicates improved performance over the baseline UMT algorithm. The retrieval strategy is also applicable to other passive microwave sensors, including lower frequency (L-band) observations from the Soil Moisture Active Passive (SMAP) mission. For more information please see ''Passive Microwave Remote Sensing of Soil Moisture Based on Dynamic Vegetation Scattering Properties for AMSR-E,'' by Du *et al.*, which begins on page 597.