

WILLIAM S. COOPER AWARD

The William S. Cooper Award is given by the Society as a memorial to one of the founders of modern ecology; it was established to honor the author or authors of an outstanding contribution in geobotany, physiographic ecology, plant succession, or the distribution of organisms along environmental gradients. The 1996 recipient is Dr. W. Carter Johnson for his 1994 paper, "Woodland expansion in the Platte River, Nebraska: patterns and causes," which appeared in *Ecological Monographs* 64:45–84. W. S. Cooper also wrote about rivers, an environment that has occupied the attention of Carter Johnson since his doctoral dissertation research on the Missouri in the early 1970s.

Carter was attracted to the Platte partly because it provides critical habitat for Whooping Cranes, Sandhill Cranes, the Piping Plover, and the Least Tern, and also because the observed increase in woodland vegetation along the Platte was in sharp contrast to the woodland decline documented for many western rivers. Using historic records, along with data on plant demography, seed dispersal, environmental variation, and land use changes, he was able to explain the reasons for woodland expansion. He found that, while wood-



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land expansion did indeed occur from about 1900 to 1970, that trend has now ceased because the geomorphology of the channel has readjusted to water flow changes caused by reservoir construction and irrigation in the early part of the century. His award-winning monograph explains the way flooding, ice scouring drought, and water diversions have interacted with factors affecting tree seedling recruitment and mortality, thereby creating a new landscape mosaic. More than a paper about the Platte, this paper is a model for other riparian studies and an important reference for scientists wanting to learn about the differences between braided and meandering streams. Notably, Carter's research was supported with funds from the irrigation districts and electric power

utilities of Nebraska, thereby providing another example of the high-quality research that is possible working in collaboration with agriculture and industry.

Carter Johnson is a professor in the Department of Horticulture, Forestry, Landscape and Parks at South Dakota State University in Brookings. He received his B.S. degree from Augustana College, Sioux Falls, South Dakota, and his Ph.D. from North Dakota State University in Fargo.

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