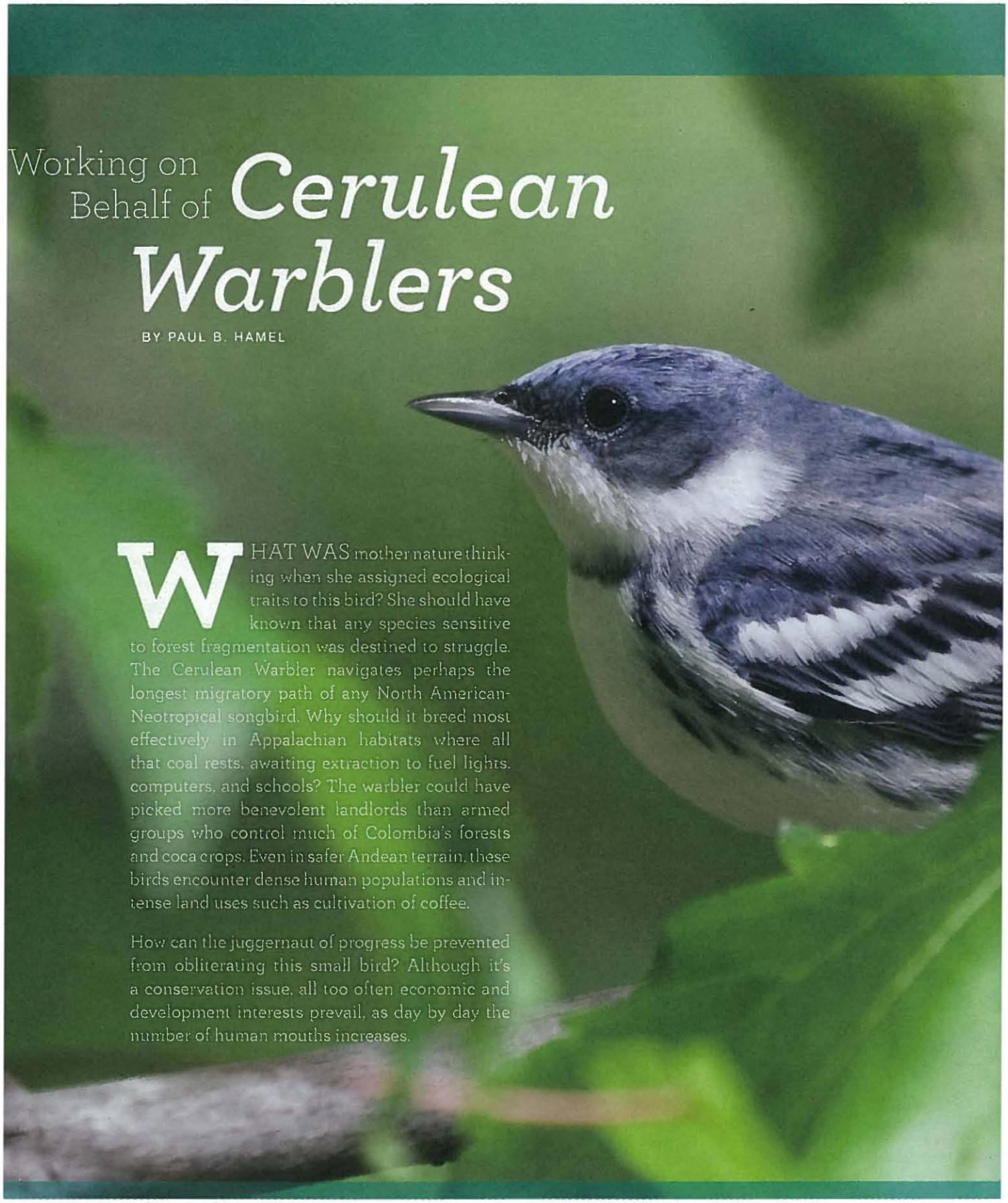
# Working on Behalf of *Cerulean Warblers*

BY PAUL B. HAMEL



WHAT WAS mother nature thinking when she assigned ecological traits to this bird? She should have known that any species sensitive to forest fragmentation was destined to struggle. The Cerulean Warbler navigates perhaps the longest migratory path of any North American-Neotropical songbird. Why should it breed most effectively in Appalachian habitats where all that coal rests, awaiting extraction to fuel lights, computers, and schools? The warbler could have picked more benevolent landlords than armed groups who control much of Colombia's forests and coca crops. Even in safer Andean terrain, these birds encounter dense human populations and intense land uses such as cultivation of coffee.

How can the juggernaut of progress be prevented from obliterating this small bird? Although it's a conservation issue, all too often economic and development interests prevail, as day by day the number of human mouths increases.

articipants in the combined Cerulean Warbler/Golden-winged Warbler Summit held in Bogotá, Colombia, October 2008 © Diana Balcázar Niño, ssistant director of communications, ProAves-Colombia.

lthough the conservation challenges seemed overwhelming nd the solutions unmanageable, a few dedicated persons recgnized that a concerted, sustained effort by people of diverse ackgrounds and expertise could make a difference. In 2001 group led by Pat Keyser, then at Mead-Westvaco and now t the University of Tennessee, Deanna Dawson of the U.S. eological Survey, and Ben Wigley of the National Council or Air and Stream Improvement (a forest industry group) ade an open-ended invitation: help develop high-quality iological information about the bird, which could be applied assess ecological limitations and creatively redress threats. am one of those with the opportunity and institutional suport enabling me to serve in this effort. We say, "Leave your genda outside the door, and open your mind to what works," s we seek economically productive and socially responsible onservation solutions. While that has at times been a difficult charge, it has proven to be a wise one. Our common focus as allowed us to provide substantial information to the U.S. ish & Wildlife Service in its evaluation of the bird (Federal egister 71[234]:70717-70733. 2006).

he Cerulean Warbler Technical Group has progressed vigorusly in science, in land management, and in linking diverse artners. It has assembled high quality information about how manage landscapes for Cerulean Warbler use. Results such s those of Rogers (Wilson Journal of Ornithology 118:145-51, 2006) in Michigan are especially useful. None of us could o this work individually. Like the proverbial blind observers f a pachyderm, each of us could contribute only part of the tory. So we produced a joint evaluation of population status Journal of Wildlife Management 72:646-653, 2008). We collabrate on a common experimental protocol to determine how ne birds actually respond to land use changes in the breedng range. This experiment will produce a blueprint for breedng habitat management. Partnerships with the coal industry hould advance knowledge of the reclamation of mined lands or forest habitats. Those partners working in Latin American onbreeding habitats face even greater difficulties, for they are fewer, the lands are more inaccessible, and those armed and dangerous groups are present. Yet the greater energy and excitement may well be found among those Latin American biologists who agreed to include these birds in their overfull dance cards of conservation activities.

Meeting first in Ecuador, then in Venezuela, and most recently in Colombia, these biologists, known as El Grupo Cerúleo, developed a predictive model for Cerulean Warbler occurrence and organized a rigorous test of that model. After two years, initial results suggest that a strong understanding of the nonbreeding distribution of the bird will result from the model, including knowledge of survivorship during the nonbreeding stationary period (what we call winter, although it's not winter where the birds are). Already ProAves–Colombia and American Bird Conservancy have established a Cerulean Warbler Reserve in Colombia.

Three insights suggest guidance for the future. First, adult survivorship may well exert the strongest effect on population size and thus the ultimate persistence of the birds. Second, migration is likely the toughest season, yet our knowledge of this period is embarrassingly scant. Maybe you can help study this. Third, the Cerulean Warbler Technical Group is developing a coal-coffee-Cerulean partnership that includes the Appalachian Regional Reforestation Initiative. This effort links industries that are important to the birds.

Ultimately, the efforts of the Cerulean Warbler Technical Group lead me to suggest that rather than seeking conservation strategies simply to protect those birds that remain, perhaps working to produce more birds might put us into a posture healthier for both the birds' future and our own.

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