William Brewster Memorial Award, 2002: James N. M. Smith

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Awards

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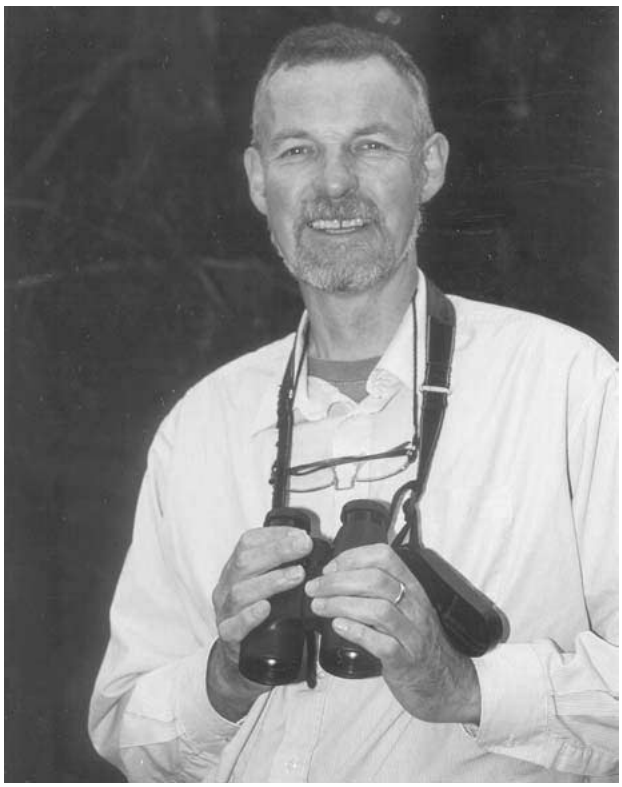

Islands have long provided insightful and important venues for ornithological research. Coupling the inherent advantages of island populations with long-term studies has been a very productive formula yielding deep insights into evolution and population biology. Following in that tradition, James N. M. Smith initiated what has become a 28 year study of the population ecology of Song Sparrows (*Melospiza melodia)* inhabiting Mandarte Island, British Columbia. Taking advantage of the isolation and small size of the 6 ha rocky islet, Smith, Peter Arcese, and several notable students and colleagues have made that population of Song Sparrows a model system for understanding the complexities of avian demography and population ecology. Work on Mandarte Island has focused on a series of critical demographic parameters including the causes and consequences of nestling condition, winter survivorship, population regulation, territoriality, and response to natural selection. In 1992, Smith ceded the direction of work on Mandarte to Peter Arcese. The Song Sparrows of Mandarte Island now provide one of the best examples of inbreeding depression in the wild, a model system for studying the demographic and genetic effects of natural population bottlenecks, and a textbook example of avian population viability analysis and source-sink dynamics.

Like many small passerines, Song Sparrows are parasitized by Brown-headed Cowbirds (*Molothrus ater*), a fortuitous situation that has provided Smith with an important alternative outlet for his creative energy since 1992. Starting with detailed analyses

of effects of cowbirds on the Mandarte Island Song Sparrows, and in continued collaboration with Peter Arcese and others, he broadened his studies to include the effects of brood parasitism at both the community and regional levels, expanding his work to encompass other nearby Song Sparrow populations and to study other cowbird hosts. Armed with both long-term data from Mandarte and studies on the continental mainland and several nearby islets, his work casting the demography of Song Sparrows in a metapopulation context stands out as one of the most thorough and extensive analyses of metapopulation dynamics ever produced.

For his success in unraveling the mysteries of avian demography, his pivotal role in initiating and guiding one of the most important long-term research projects in avian ecology, and his success in applying the resulting data to evolutionary problems of wide general interest, the American Ornithologists' Union is pleased to present the 2002 William Brewster Memorial Award to Dr. James N. M. Smith.

Award criteria.—The William Brewster Memorial Award consists of a medal and an honorarium provided through the endowed William Brewster Memorial Fund of the American Ornithologists' Union. It is given annually to the author or coauthors (not previously so honored) of the most meritorious body of work on birds of the Western Hemisphere published during the 10 calendar years preceding a given AOU meeting.

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Elliott Coues Award, 2002:

Jeffrey R. Walters

Conservation of endangered species often requires detailed, long-term studies of population and behavioral ecology. It is fitting that one of the first birds listed under the Endangered Species Act should benefit from the dedication and creativity required to perform such comprehensive and broad-based work. For nearly two decades, Jeffrey Walters has applied those qualities to innovative research on the Red-cockaded Woodpecker (*Picoides borealis*). The intriguing and complex social system of that species provided the original inspiration for Walters' work, and in 1988 he (with colleagues Jay Carter and Phil Doerr) published the most comprehensive study documenting its cooperative breeding system. Since then, he has published more than 40 papers related to Red-cockaded Woodpecker ecology, behavior, and conservation, including the recent book, *The Red-cockaded Woodpecker: Surviving in a Fire-maintained Ecosystem* (coauthored with Richard Connor and Craig Rudolph).

Walters' publications have ranged from describing parental behavior and the evolution of cooperative breeding, to one of the first molecular analyses of population structure and mating systems in a cooperative breeder, to defining dispersal patterns in a rare species. Employing the unique approach of following hundreds of groups over a remarkably large area rather than the more common approach of focusing on a relatively few groups within a small area, Walters' work has revealed details of dispersal, demography, and behavior previously considered virtually unattainable. The data obtained in that long-term and extensive research made possible one of the rare demonstrations of inbreeding depression in a wild population. These data also formed the basis for Walters' development (with colleagues Larry Crowder and Jeff Priddy) of population viability models that have been used to define the recovery goals for this species. Those individually