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Editorial Comment

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In this 12th issue of *Chelonian Conservation and Biology*, we provide a special focus section on the North American freshwater Blanding's turtle, *Emydoidea blandingii*. This section encompasses about half of the contents of this issue, with the remainder devoted to regular contributions on all types of turtles and tortoises. The Blanding's turtle section is the outgrowth of a special workshop held on the species in Minnesota in 1998 at which researchers from throughout the range of Blanding's turtle in the USA and Canada attended.

The contributions presented in this focus section represent an important array of new data on the species, including the long-awaited and much-anticipated results of the long-term studies carried out at Weaver Dunes, southern Minnesota, site of what must surely be the world's largest population of these turtles. Since the species is classified as Near Threatened by the IUCN 1996 Red List of Threatened Animals, data gained from such long-term studies can be critically important in helping to understand aspects of the conservation biology of the species. Studies are also presented from both short- and long-term monitoring programs

in central and east-central Minnesota, southern Michigan, western Nebraska, southern New York, southern Maine, and southern Nova Scotia.

This Nova Scotia site deserves special mention as it represents the most isolated of all the small, disjunct eastern populations of the species and represents a real success story in the management of a threatened species within the confines of a National Park (Blanding's turtle being classified as Threatened nationally in Canada and Endangered provincially in Nova Scotia). The expanding work on Blanding's turtle performed in Kejimikujik National Park over the years is a testament to the value of working with endangered species *in situ* to attempt to understand their demography, behavior, life history, and survival prospects, leading ultimately to increased knowledge and the resultant protection that such information can provide. Several papers in this volume report research results from this Nova Scotian population.

The special focus section is organized along vague lines of subject matter. We start with the major study from Weaver Dunes focusing on multiple characteristics of the ecology of the species there. The following seven papers focus on increasingly restricted aspects of the reproductive ecology, movements and habitat selection, growth, and thermoregulation of Blanding's turtles. The next three papers deal with conservation and management issues, specifically nest protection, threats of wetland drawdowns, and mitigation restoration of wetlands. The last paper is a real eye-opener regarding the costs of such mitigation work and puts a lot of other conservation efforts in real perspective, leading perhaps

to questions of how we should best prioritize our limited conservation resources. Two shorter notes on limited aspects of morbidity in Nova Scotia follow, and we close with a review of some evidence for the levels of commercial exploitation of Blanding's turtles in the live animal trade.

Combined, all these papers serve to further enhance and focus our body of knowledge on Blanding's turtle. We've come a long way since Holbrook's original

description of the species in 1838 based on a single specimen collected by Dr. William Blanding in Illinois. Holbrook classified the new species as a land tortoise and summed up the "known" ecology as follows: "it is known to be a land animal, and found about the meadows and prairies of the west....the animal from which this description was taken was a female, and had, when examined, sixty eggs in different stages of development." It took a while before we even learned that Blanding's turtles were emydid turtles and that females make extensive and long overland nesting forays but are basically aquatic.

Science progresses in small steps, each building on the former. Tiny drops combine through time to form a mighty torrent. The input provided by each of us through our research efforts enriches the accumulated body of knowledge of our world. Those who take those steps and add to that treasure-store of knowledge are worthy of respect and recognition.



Adult female Blanding's turtle, *Emydoidea blandingii*, from east-central Minnesota. Photo by Carol Dorff Hall.

Those of us who work in the world of chelonian conservation and biology have long recognized that “turtle people” come from all walks of life, and that there is really no such thing as a “professional board-certified chelonologist.” The profession, in short, is an amalgamation of individuals with widely varying backgrounds and experiences, and with vastly different levels of interest, input, and impact. I see the profession as being composed of three basic layers or broad sub-groupings of individuals, categorized primarily based on their background. In general, I see these groups as the (1) “professionals,” (2) “para-professionals,” and (3) “dedicated enthusiasts.”

Coming closest to representing “professional” chelonologists are the academically-trained specialists with advanced degrees in organismal biology who have come to make the study and/or management of turtles their life’s work, and usually get paid to do so, whether they work in the academic, governmental, or private sector. In general, these are the people who stand out as the leaders within our field and who in most other advanced professions would be the only individuals “certified” to practice their trade.

But the turtle world is different, we are inclusive rather than exclusive, and we are fortunate to also include in our ranks people of other persuasions and levels of training. The second grouping of turtle people is what I term the “para-professionals” — these are individuals with advanced degrees in scientific fields outside of biology who have crossed over from their own profession to work part-time in the turtle world, usually without getting paid to do so. They come from a long list of science-related specialists, including veterinarians, physicians (my own group), mathematicians, engineers, geneticists, molecular biologists, computer technologists, zoo professionals, anatomists, histologists, chemists, pathologists, paleontologists, parasitologists, physiologists, anthropologists, archaeologists, conservationists, and others who have come to view turtles as worthy of professional interest, sometimes from within their own particular field, sometimes from a more traditional biological approach. Without the energies and input of these numerous professionals, the turtle world would be significantly less diverse and more prone, perhaps, to the kind of parochial narrowness of vision that sometimes exemplifies the other more restricted and so-called “exclusive” professions (physicians and lawyers spring to mind for no particular reasons except personal ones). Let us thank our good fortune that the turtle world remains inclusive rather than exclusive.

The third major group of turtle people is the broad and encompassing category of what I call the “dedicated enthusiasts.” These are the so-called amateurs (though amateurs they are not) who have entered the world of turtle studies out of interest and passion for the animals, without formal advanced biological or scientific training. They are the turtle lovers, who embody the passion that most of us feel about these animals. They are the support-team that often provides the “professionals” with the necessary manpower and critical mass to help accomplish advancement within the field. They are, if you will, the infantry in our army’s struggle to help understand and preserve the

animals we all care for with such passion. Without them we would be a smaller, less effective group, and the poorer for the loss. They are often the backbone of conservation issues and their numbers help give our profession the mass and groundswell of support we need if we are to succeed in reaching a balance between preservation and development. Many are leaders within the conservation community or active in the political arena and help us bridge the gulf that often separates biologists from politicians. They also often serve as a touchstone to reality and the issues that concern the population at large. They come from all walks of life and demonstrate their interest in countless ways. They are the volunteers on sea turtle beaches, the herpetoculturists and pet-keepers, the nature-lovers and conservationists with a place in their heart for turtles and their troubles. They deserve our thanks and gratitude for the support and insight they provide regarding turtle issues of all types.

When individuals in this third category of “dedicated enthusiasts” produce scientific research efforts and inputs of a caliber more usually demonstrated by the other “professional” groups, they deserve special mention and recognition. Such is the case in this special focus issue on Blanding’s turtle, where the lead-off article is the result of many years of hard work by two non-professionals (they cannot be called amateurs), Michael J. Pappas and Bruce J. Brecke. Starting back in the early 1970s, inspired primarily by their passion and love of Blanding’s turtles, they initiated, pursued, and accomplished a major long-term ecological study of the species at Weaver Dunes. Neither Pappas, a restaurateur, nor Brecke, a sometime stockbroker and musician, had any formal training in the sciences. For guidance on how to pursue their studies, they turned to the major 1971 publication by Ed Moll and John Legler on the life history of the neotropical slider, and then sought out professional advice from various academic leaders in the field, including Don Tinkle, Phil Regal, Dick Vogt, and Jack McCoy. With time-consuming dedication and intensive effort over about 6 years they succeeded in marking nearly 2500 individual Blanding’s turtles and began to paint an accurate scientific portrait of the population’s ecology and demographics. Eventually they also enlisted the guidance and hands-on input of Justin Congdon to help them pull together and add to the huge amounts of data gathered over the years. Currently their studies are continuing, now collaborating in some aspects with Jeff Lang, as their population becomes increasingly important to our understanding of long-lived organisms and the particular threats they face.

The efforts and inputs by these “non-professionals” are worthy of our praise and should help us to remember that each of us, irregardless of background or level of training, has the capacity to contribute to the world in a meaningful way. The world of turtles owes much to their dedication.

Your life marks the record of your passage, inscribed for eternity in history’s ledger — respect and honor your personal legacy, pursue your vision undaunted, with pride, and follow your heart each day of your life. If we all work together, we can accomplish anything.