

## **RESOLUTION ON THE RETIREMENT OF**

# ***BENJAMIN DANE***

The faculty of the Department of Biology join others of the Faculty of Arts and Sciences to record our admiration and warm appreciation for our retiring colleague Benjamin Dane. Tufts University has benefited from his peerless contributions throughout the past 36 years – a span that encompasses the rebuilding of the Barnum building in which he played such a vital role after the disastrous fire of April 1975, the growth and rejuvenation of the Biology Department, and the teaching and advising of generations of undergraduate and graduate students.

Ben was born on the sequentially intriguing date of 11/22/33. The poet T.S. Eliot, a second cousin, was so charmed by the mischief of Ben and his two brothers that he wrote a poem about them called the Jum Jum Bears, a hand-written copy of which remains a family treasure. Since early childhood, Benjamin Dane has been spellbound by animals in their wild settings. In his pre-teen years, he so valued the chance to observe nature away from human influences that he built his own remote observation cabin. His talent and experience in design and construction have greatly benefited field research done by the Biology Dept, as well as Tufts University at large. Barnum Hall, rebuilt from the ashes of the 1975 fire, stands as a monument of Ben's commitment, foresight, and respect for tradition.

Ben earned his bachelors degree in biology from Harvard. He did his post-graduate work at Cornell on the social system of goldeneye ducks as expressed in their courtship behavior. After a post-doc at NYU School of Medicine, he taught at Stanford for three years, establishing fruitful collaborations with behaviorists at a time in which the foundations of ethology were being established and the field was emerging as a discipline in its own right. From Stanford, he was drawn to Tufts for a tenure-track post in 1966. At that time, he laid the foundation for a new detailed study of behavior in herds of environmentally sensitive ungulates (mountain goats).

Professor Dane's work on behavioral ecology in mountain goats spans over three decades, and has produced unprecedented results in animal behavior. By observing the same goat herd from his remote self-built outpost in the Canadian Coastal Range each summer, Professor Dane was able to chart family histories within the herd on an individual-by-individual basis. He documented social behaviors including aggression, play, mother-offspring relations, communication, herd division-cohesion, leadership, and response to predation. His work led to the startling discovery that entire herds can shift breeding strategy, going from biennial to annual reproduction by females. He showed that the reproductive shift correlates with cycles of population decline and recovery that he witnessed in his study herd. In the process, Professor Dane demonstrated the value of long-term field studies and posed new questions about the role of dietary minerals in reproductive ecology and regulation in wild ungulates.

Professor Dane's field expertise and keen attention to detail naturally drew graduate students. He supervised graduate research on diverse topics of basic importance to ethology, evolution, and population biology. Beyond that, his topics had applications in environmental policy, conservation biology, and wildlife management. Among Professor Dane's mentored graduate research topics have been color vision in birds, vocalizations in loons and frogs, play behavior in gerbils, nesting behavior in coastal turtles, and reproductive output in piping plovers. He was one of the first to recognize the potential of bioacoustics in the field of animal communication, urging graduate students to use newly developed equipment for analyzing sound. Research students know Ben for his proven ability to convey the essential elements of good science, his articulate criticism of flawed experiments, and his infectious enthusiasm for basic research. His mentoring led students to ask their own research questions and left them with an enduring enthusiasm for nature.

Undergraduates for years have commented on the exceptional level of energy, clarity, and information infused in Ben's teaching. His relentless pursuit of excellence was highlighted in many Senior Surveys as generating the best course taken at Tufts. Professor Dane supported his Animal Behavior course with updated graphics, animation, film, and readings from the current primary literature. He has a gift for getting to know his students even in large lecture courses, where his contribution in team teaching recruited countless students to major in Biology. At the podium Ben holds forth with such enormous enthusiasm, even on topics he has taught many times, that he projects the expectation that the material is so interesting that of course everyone would share his enthusiasm for it. Happily, most students do, and more than a few have gone on to brilliant research careers and top faculty positions of their own.

At the introductory level, Professor Dane has been a tireless advocate for maintaining the highest quality of courses for the beginning student. He is as deeply concerned about the student experience in introductory courses as he is about course content. A major course innovation of Ben's was to invent Biology 3 (Fundamentals of Biology), addressing the needs of novices who might otherwise be lost in the large introductory setting.

Throughout his professional life, Professor Dane has shown a willingness to serve in whatever capacity was needed, bringing to bear his insistence on high standards in university endeavors, and his unwavering personal integrity. He devoted countless hours to departmental and university building projects using his talent and experience in design and construction. Most notable is the reconstruction of Barnum Hall after the 1975 fire. The attractiveness and utility of the building, including the room in which we now sit, are due in large part to Professor Dane's efforts. In 1983, he received the Tufts Service Citation Award for his work on the Barnum Hall restoration. Later he served on the planning committee for the Olin building, with a mandate to ensure that it would be a "university building" in design and general function. He continued to play a vital role in recruiting new faculty to Tufts by renovating research facilities, the Burbank Reading Room, and the departmental instrument suite within Barnum and Dana Labs.

Professor Dane's counsel on scientific directions and long-range planning has been valued both inside and outside the University. He chaired the Biology Department from 1985-1990. Recently, he chaired the university Budget and Priorities Committee. Beyond Tufts, Professor Dane was a Trustee for the New England Aquarium for eight years, for Manomet Bird Observatory for fifteen years, and for Boston Horticultural Society for eleven years.

Professor Dane has been continuously engaged in research on his own projects and with students throughout his career. His impact has been felt in research mentorship, in the classroom, in discussions with colleagues, and on graduate committees. He has contributed enormously to the development of the Biology Department, and to the legacy of Biology in the eyes of our alumni.

We salute Professor Dane for his achievements at Tufts and in the community at large. We thank him for his devoted service, broad knowledge, and spirit. While younger faculty may succeed him, Ben Dane can never be replaced.

*Be it resolved that this resolution be spread on the minutes of the faculty of Arts, Sciences and Engineering and that a copy be handed to Professor Dane.*