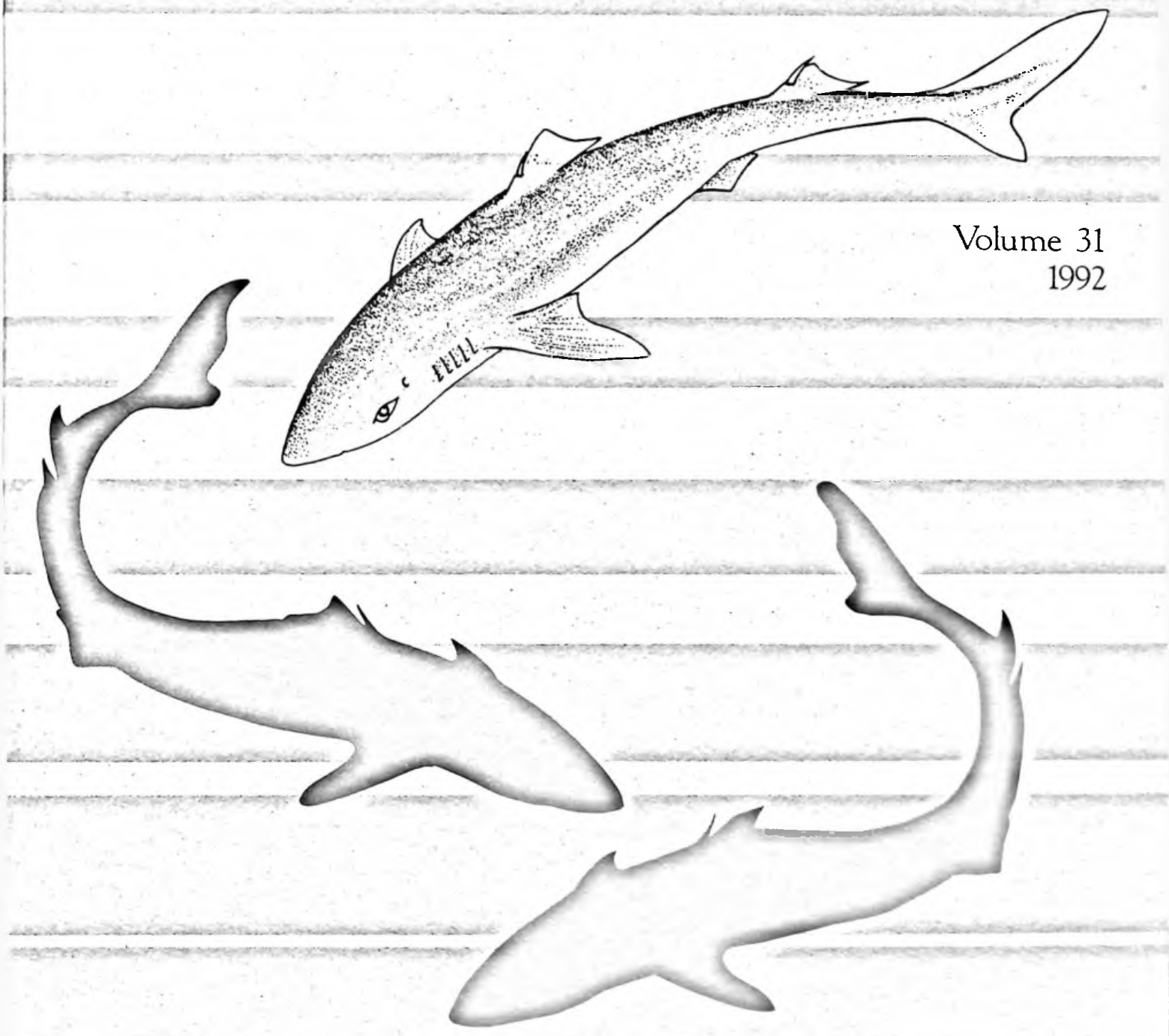
THE BULLETIN

Mount Desert Island Biological Laboratory



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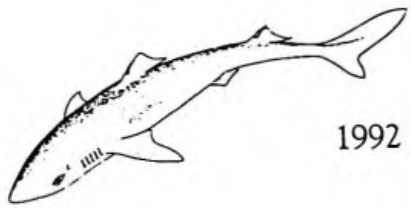

1992

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A TRIBUTE TO JOHN BOYLAN
SCIENTIST
BULLETIN EDITOR
FRIEND

We want to commemorate here the life of our dear friend, John Boylan, who died last August at the age of 76 after a most productive, fulfilling and happy life as a physician and renal and electrolyte physiologist.

John was born in Plattsburg, New York, and was raised and schooled in Rochester where his father was an executive with the telephone company. John received his bachelor's degree from Georgetown University and his medical degree from the Long Island College of Medicine. Following an assignment to the medical corps in World War II, he settled with his growing family in Buffalo where he became Professor of Internal Medicine and Physiology. He spent several most profitable years abroad, first with R. A. McCance in Cambridge, then with Kurt Kramer in Göttingen and later in Munich associating closely with other notable German physiologists, Thurau, Deetjen, Ullrich and Gertz. John was interested in young people and used his teaching of physiology as a link between medicine and science. His scholarship was not limited to science. He was keenly interested in poetry, and he and his wife, Jean, shared a passion for Irish literature, their heroes being Joyce and Yeats. I think he liked to regard himself at least as a cousin to Blazes Boylan, the convivial rake in Ulysses. John's radiant personality has been greatly appreciated and loved by generations of medical students.

John was different from most of us in research. He was not competitive and truly loved knowledge and his own data for its own sake. His papers had hallmarks of excellence and penetration into basic physical concepts as they illuminated physiology. In 1959 Homer Smith invited him to our laboratory challenging him to prove whether gill membranes were or were not permeable to urea. Since this small molecule was almost a prototype of a highly diffusible substance and since the elasmobranch fish had a concentration of 300 mM in body fluids, this paradox posed a most interesting question in both physiology and physical chemistry. John worked in the kidney shed (before the rectal gland was dreamt of) and set up complex and awe-inspiring apparatus to perfuse fish gills at various temperatures, pressures and salinity to answer the basic question about the permeability of urea. He made major findings with respect to the permeability of not only urea but water and sodium, and with his usual modesty, published these important data only once, in the volume *Sharks, Skates and Rays*, the monograph of a symposium at Bimini published by the Johns Hopkins Press in 1967, edited by Gilbert, Mathewson and Rall. Rereading John's short and brilliantly-written chapter in this book is a rare treat for the physiologist. He concluded that the dogfish gill membrane is indeed impermeable to urea compared to other membranes such as bladder and skin (a difference of some hundred fold), and at the same time less permeable also to water and sodium. I recall very well his doing these experiments over a period of some five years. They gave him great pleasure, and his technical virtuosity was inspiring. He had a group of young physicians and technicians working with him, and it was about at this time that he began to bring fellows from Germany to work.

He did another remarkable series of experiments related to the work of Homer Smith and the writer. John showed that increasing plasma HCO_3^- in the elasmobranch by 20 fold (!) caused no change in urinary electrolyte excretion. This had important implications in our work, but rather than publish it himself, John simply gave the data to us.

John and Jean Boylan were stars of our community here in their elegant good looks, their unassuming culture, their love for their six children, and friendship which radiated to all of us. Not surprising, with his large family and large spirit, he had a big and powerful motorboat

which he used to traverse Frenchman's Bay while he and Jean recited Yeats to each other. He was for many years on our Editorial Board, where his fine science and literacy was greatly appreciated.

In the early '70s John retired from active laboratory work here and then moved from the University of Buffalo to the University of Connecticut where he was professor of medicine. In 1979 he became Chief of Staff at the Newington Veterans Hospital in Connecticut. In 1979 he embarked on a new career which wed his close friendship with German scientists and his interest in medical education. He organized an exchange program for medical students between German and American schools which has involved by now several hundred young people with exchanges in both directions. His influence, therefore, will continue to live in the hearts and minds of these people, many of whom he took into his home and laboratory and by example gave his gentle and thoughtful character as model for their lives.

Alas, we do not only mourn for our friend but a certain way of life that is passing by. We refer to that of the true physician/scholar and the humanist scientist, who bridges with pleasure the usual gaps between science and medicine on the one hand and also science and humanities on the other.

Instead of the usual requiem, "We shall not see his like again." I would rather end by saying that from his example we hope indeed that we shall see his like again.

Thomas H. Maren

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Twenty-five years ago I made my first call in the United States via a public phone, trying to explain to my new adviser and tutor, John Boylan, Professor of Medicine and Physiology in Buffalo, that I had arrived in Washington and in a little while would be in Buffalo. This was our first direct contact. So far, he only knew me by correspondence. Thus he probably suddenly realized that my English was not as fluent as that in my letters, which had been helpfully polished by an Australian friend. Due to his patience and special ability to cope with unexpected situations, my stubborn English, and despite the nervousness of the operator demanding more dimes in the pay phone, our initial problem was overcome. It was at that time that we started a dialog which has continued ever since. As John Boylan would say, "Hilmar, there are certain things in life which grow on you." I began to realize that this man had a secret "...ein Geheimnis..." which was worthwhile looking at. After studying John Boylan for so many years, I think I can summarize this secret—his goal was to increase his knowledge in order to enrich his wisdom, as opposed to the modern trend where all too often we are rich in knowledge but poor in wisdom.

I discovered another of John Boylan's secrets—in order to achieve the enrichment of wisdom through a scholarly approach, he showed almost no competitive attitude. He didn't need to because he had already his own identity. Thus he could relax and not be offended by other opinions or life styles. Because of this attitude, a Catholic American with a strong Irish background felt comfortable with a non-Christian German of Prussian background. We collaborated not only in research but also in a struggle to find the right paragraphs and translation in Homer's Iliad and Odyssey.

After some time, need for an exchange between the U.S. and the former West Germany became clear to both of us, and we began our venture in 1979. Since that time over 600 participants have been able to learn more about themselves and about a different culture. The

goal remains that of fostering understanding between North America and Europe while also fostering academic careers in the biomedical sciences. It is a two-way bridge, with the exchange to date about 2:1 of German to American students or young scientists. At John's retirement Dr. Robert Massey, the former Dean of the University of Connecticut, School of Medicine, in Farmington, assumed his role. The site of the U.S. office of the Exchange Program is the Mount Desert Island Biological Laboratory in Salsbury Cove.

A focus on what John Boylan described as the RED THREAD "den roten Faden" of each of us. "What does that mean, the red thread? One recognizes in an idea or a situation some affinity with one's self. The origin of this affinity is often lost in your history; it may even be genetic. A note is struck and something in you responds. You recognize the thread and you follow it." And "No matter what plans you had or what you anticipated or what you were determined to do, the greatest benefit to you will be unexpected. What will be worth remembering in your life, as a result of this experience is at the present time completely unknown." There is a thread backward and forward. The thread backward for John Boylan was that he finished training in internal medicine, had finished with the army, had finished a year of pathology and had taken a position as director of an outpatient department in a university hospital. Here he wanted to teach medicine to medical students. He started by teaching physiology because, "The perceived need was to supply a bridge for the student between pre-clinical and clinical years," and "In the rediscovery of the fascination of physiology and how it relates to medicine, I found my place."

In 1953 he met Dr. McCance from Cambridge and went some years later to England with a special fellowship award from the NIH and "... with five small children and a Ford station wagon." Another trip to Europe, again with his family, was to the Institute of Physiology in Göttingen. The chairman, Dr. Kurt Kramer, Professor of Physiology, became one of his closest friends. Later on, he visited Kurt Kramer in Munich on several occasions as visiting scientist.

The "red thread has several branches." We are hearing more of these branches from others. One which I would like to emphasize, however, is the warm hospitality which I always experienced. This is probably the strongest branch, going directly to Jean Boylan, his wife and mother of their six children.

Hilmar Stolte

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A C K N O W L E D G M E N T S

The Mount Desert Island Biological Laboratory is indebted to the National Institutes of Health for substantial support. Contributions to operating costs have greatly improved the efficiency of research activities. The individual research projects at the Laboratory are funded by various private and government agencies; all of these projects have benefited from NSF and NIH grants to the Laboratory.

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REPORT TITLES