

REUBEN LASKER, FISHERY BIOLOGIST

by Roger Hewitt, Director, Fisheries Research Division, SWFSC

Reuben Lasker was a guiding light to hundreds of students and colleagues until cancer consumed him at the height of an already productive career. He continues to be an inspiration since his untimely death almost two decades ago at the age of 58. The drive and single-mindedness he brought to his research in no way diminished him as a warm colleague and friend. He spoke ill of nobody, and where others might have seen the work of colleagues as competition, he delighted in their success and took every opportunity to assist their careers and research.

From postgraduate studies at Stanford, Reuben Lasker followed a consistent search for generalization in the energy balance of small organisms. His research interests shifted from the nitrogen balance of insects to the metabolism of marine invertebrates after his recruitment to the Bureau of Commercial Fisheries laboratories in San Diego in 1958. His studies of the energy budgets of clupeid fishes in relation to their planktonic food supply have deservedly become classics, and they soon led him on to what was to occupy him until his death: the physiological and ecological factors determining year-class strength in pelagic fish. Reuben Lasker most unusually combined the skills of an experimental physiologist with those of a biological oceanographer, and it was this combination that led him to formulate the first comprehensive hypothesis for what might determine year-class strength.

He was the first to point out what should have been obvious long before: that larval fish food is not uniformly distributed in the sea and is only likely to be in abundance higher than some critical threshold if it is aggregated in layers in a stratified water column.

“Lasker events,” quiet periods when the coastal sea stratifies and the food organisms of larval fish are concentrated in layers sufficiently abundant to support the growth of young anchovies, gained wide currency in the literature of the late twentieth century, just as Hjort’s “critical period” dominated the literature for the previous half century. Reuben Lasker was always the first to note that the general problem of recruitment had not been solved by his model and indeed might not be susceptible to a general solution. Nevertheless, his concept is now the basis of several models that successfully predict recruitment in various clupeid stocks – e.g., a “recruitment window” for sardines has been shown to occur off the west coast of Africa when coastal wind stress produces a critical balance between upwelling and stability.

The small team of experimental biologists who grouped themselves around Reuben Lasker from the late sixties onwards became a powerhouse of research on the behavior, physiology, and ecology of larval fish, and rapidly became appreciated worldwide, attracting a stream of visiting workers to the NMFS lab in La Jolla. Reuben Lasker was also closely associated with the Scripps Institution of Oceanography, where he held an adjunct professorship, and where he taught, supported graduate students, and participated in faculty committee work. He was an enthusiast for the potential offered to both

laboratories by their close association and he played a crucial part in fostering creative collaboration between Scripps and the federal laboratory on the hill just above it.

Along the way, his qualities were recognized not only informally by all he met, but also formally by the awards and grants he received. Among his many honors were a Silver Medal from the Department of Interior, a Gold Medal from the Department of Commerce, the Huntsman Medal from Canada, and the Lalor Faculty Fellowship from Scripps.