

OSCAR ELTON SETTE: FISHERY BIOLOGIST

PATRICIA POWELL¹

The twentieth century marked a turning point in the development and advancement of many scientific disciplines. Pioneer leaders at this time turned to research, focusing their explorations on ways and means of increasing man's knowledge about himself and of the world in which he lives. Within a lifetime, these leaders made an impact on society that changed social and economic structures and continues to do so. Oscar Elton Sette, fishery biologist, is one of this select group. His contributions to marine fisheries and his astute administration of fishery research places him among the foremost of his contemporaries. He pioneered research in two oceans. He was among the first to expand the concept of fishery biology to include other disciplines, and succeeded in integrating this science with those of oceanography and meteorology, elevating it to a major status and advancing its economic importance worldwide.

A midwesterner by birth, Sette spent his early years in an environment quite different from that which was to hold his attention for more than fifty years. His parents, Martin and Louise, lived in Clyman, Wisconsin, where his father owned a retail lumber business. On March 29, 1900, their fourth child Oscar Elton Sette was born. The Settes also had two daughters and another son. A few years after Elton's birth, the family moved to a small town of Juneau, Wisconsin, for business reasons.

It was in Juneau that Elton, as he preferred to be called, learned reading, writing, and arithmetic; and developed a lasting love of nature, together with a scientific curiosity concerning all living things. He says his great love was for "natural history studies," particularly those of butterflies. At a very early age, he collected butterflies which he classified, and had a truly remarkable collection of Lepidoptera by the time

he finished high school. He has continued to collect these insects throughout his life, and when work pressures were great in later years, claims this hobby afforded the release he needed to prevent ulcers. He also collected stamps.

Martin Sette always wanted to retire on a lemon ranch, and with this in mind bought five acres near Chula Vista, California. Later he bought another five acres. When some of his investments went "sour," he decided to live on the ranch and grow lemons. The family moved to southern California in 1910. During some lean years that followed, Elton's mother, who firmly believed in the principle of "waste not, want not," instilled a sense of frugality in her children. This quality, which Mr. Webster defines as "careful management of resources," has been reflected in her son's thinking down the years.

Between the ages ten and sixteen, Elton was kept busy with school activities and the pursuit of his hobbies. He graduated from the eighth grade when he was twelve, then attended high school in National City, California, for four years. He was an outstanding student and planned to enter college, expecting to get a degree from the University of California at Berkeley in Entomology. However, fate, by the name of Elmer Higgins, stepped into the picture in 1916. Owing to a chain of circumstances in which Dr. Higgins played a part, Elton's plans for college did not materialize. Instead of becoming a "bug-hunter," his interest was diverted from butterflies to fisheries. His first encounter with this gentleman came during his senior year in high school. The following is a quote from an anecdotal review of Elton Sette's career as written by Elmer Higgins:

"My first contact with Elton Sette occurred in September, 1916, when a trim, compact, boy in knickers and shirt filed into my chemistry classroom and laboratory with a couple dozen other students in National City (Calif.) High School. I was a 'freshman' science

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teacher on my first job after receiving my secondary school teacher's certificate and in my zeal I must have borne down rather heavily on my students, but most of them took it and seemed to like it.

"Came the end of the first 'advisory period' and I reported three or four students to the Principal as failing to make satisfactory grades. Among them was Elton Sette. The next day, the Principal came to me with a worried expression to ask what was the trouble, explaining that Elton was starting his senior year and everyone expected him to graduate with honors. I agreed that Elton was learning chemistry (witness the very good grades he earned in the frequent little written quizzes), but he seldom was prepared to recite on the day's assigned section in the textbook and, moreover, his laboratory notebook was quite incomplete.

"Elton apparently had acquired the habit of listening intently in class to the recitations and discussions of his more diligent classmates, sorting and storing the pertinent facts in his retentive and discerning mind, and instantly recalling them to write an excellent examination paper. The Principal gravely agreed to speak to Elton. Elton's performance immediately improved, and he went on to graduate as the Valedictorian of his class."

Almost two years passed before Sette encountered Elmer Higgins again. He had been attending San Diego Junior College, with definite plans to enter the University of California in the fall of 1918. Then, one day as he was walking down a street in San Diego, they happened to meet. Higgins invited Elton to accompany him on an exploratory trawling trip. When Elton saw what came up in the nets, he was fascinated. He knew right then he wanted to become a fishery biologist. Elmer Higgins was now working at the California State Fisheries Laboratory in San Pedro as a scientific assistant. Dr. Wm. F. Thompson, Director of the Laboratory and in charge of fishery investigations in southern California, was especially interested in the albacore fishery, and needed observations of landings from San Diego. He asked Higgins if he knew of any former student who could be recruited for summer work. Higgins immediately wrote Sette who agreed to check the canneries for albacore landings. So, Elton Sette, through the chance intervention of Elmer Higgins, began his career working with fisheries at 18.

He did not enroll at the University in Berkeley that fall as planned. Instead, he joined other

young men his age and served in the U.S. Army. World War I was in the final stages. Upon his discharge in 1919, he joined the staff of the State Fisheries Laboratory.

A definite program of scientific investigation concerning the sardine was inaugurated in 1920 by Dr. Thompson. The increasing commercial importance of this fishery made it necessary to learn about sardine habits and determine the effects of fishing on the resource. Elton Sette was assigned to this investigation from the beginning. He was sent to Monterey, the center of the great sardine canning industry.

In his first report, Sette wrote "Hopkins Marine Station courteously granted the Fish and Game Commission use of quarters and facilities." Other accounts described his office as "a day-dreamer's paradise, punctuated with bird watching, and girl watching, in the picturesque cove below." In spite of distractions, he states the investigation was carried on "energetically." His first article was published in *California Fish and Game* in October 1920. In this publication he described the Monterey fishery, his work, and expressed a prophetic interest in the yearly fluctuations in abundance and sizes of the fish as well as concern for the fishery unless "intelligent conservation measures" were adopted. This early interest in the underlying causes of fluctuations in pelagic fish abundance and what can be done to prevent the depletion of these resources has remained with him throughout the years.

In September 1920, he took a leave of absence to attend Stanford University to finish college. His two years there were rich ones, for under David Starr Jordan's guidance Stanford was the center of fisheries research on the west coast. Many Stanford graduates became outstanding leaders in various aspects of fishery science. It was a great peer group, and lifelong associations were formed in the inspiring, informal gatherings where ichthyology and research problems were discussed. But it was not all work or talk. Sette found time to play tennis and collect butterflies on Jasper Ridge. He graduated with a Bachelor of Arts in Zoology in June 1922.

After graduation Sette continued his work with the State Fisheries Laboratory, as a scien-

tific assistant, alternating between Monterey during the sardine fishing season and the San Pedro Laboratory to work on tuna investigations in other months. His first major contribution to fishery literature reported his analysis of the sardine data he collected at Monterey as well as various sampling systems he used. It was submitted for publication in April 1924.

Sette used an increasing amount of statistical analysis in his study of the sardine fishery. This came to the attention of U.S. Commissioner of Fisheries, Henry O'Malley, who persuaded him to move to Washington, D.C. and join the U.S. Bureau of Fisheries as Chief of the Division of Fishery Industries. He held this position from 1924 to 1928. Managing this division included supervising research in fishery technology, particularly the canning and preservation of fishery products, and the distribution of technological and production information to the public. He also was given the special task of improving the Federal Government's system of collecting and publishing statistics. During this time, his own publications were confined to annual statistical and economic reports of United States fisheries, and articles concerning commercial fisheries for Bureau publications or trade journals.

The year 1924 was one of change and growth for Elton. Living in the capital city was quite different from that of the west coast, the new job was entirely different from that of his previous experience, and he relinquished his bachelorhood. He had met and fallen in love with Elizabeth G. Jackson whom he married December 20 of that year.

The new job was stimulating, but Sette never lost his interest in fishery biology, nor in the challenge to manage large fluctuating fish resources. So he began on his own to study the Atlantic mackerel which had yielded widely different catches over a period of years. Once again Elmer Higgins entered his life. Higgins had been appointed Chief of the Division of Scientific Inquiry, U.S. Bureau of Fisheries, and was stationed in Washington, D.C. He encouraged Elton in his mackerel research and offered him a position in his Division as full-time investigator. Sette decided to accept in 1928. Meanwhile, increased appropriations from Congress

made it possible to establish regional research teams to investigate important fisheries, or types of fisheries. Because of his experience and personal competence, Sette was made Chief of the North Atlantic Fishery Investigations, a position he held until 1937.

He established headquarters at the Museum of Comparative Zoology at Harvard University, and recruited a handpicked staff to study the life histories of marine fish important to the New England coast as well as the effect of fishing on their abundance. At the same time, Sette concentrated his own attention on the Atlantic mackerel. The published results of this study represent a significant contribution to fisheries research and is a classic in the literature. During the summer months he acted as Director of the Bureau's Fisheries Station at Woods Hole. He also found time to continue his studies, at the graduate level, and obtained his Master's Degree in Biology at Harvard in 1930. Of Sette and his staff, Dr. Higgins wrote:

".... (they) worked in a sort of happy symbiosis with the staff of the M.C.Z., the Faculty, and graduate students, many of whom were employed by the Bureau on temporary appointments. Thus, the haddock investigations began, the cod investigations wound up, the weakfish studies of the mid-Atlantic coast were extended, and oceanographic examination of the Gulf of Maine was brought to a virtual completion. All of these efforts resulted in a number of significant papers."

One of Sette's most endearing qualities to those who worked under him, especially students and young men starting their careers in marine science, was his ability to meet with them and discuss work at their level, to draw them out, and inspire them to put forth their best effort. One such student was Dr. Daniel Merriman, present Director of Sears Foundation for Marine Research. He worked part time for Sette in the summer of 1930 while he was taking an invertebrate course at the Marine Biological Laboratory. He has written:

"I cannot imagine how I got the job unless it was through the good offices of Dr. Henry Bigelow, a close family friend. My record at Harvard had nothing

to commend me, and the only thing I can think of was a teen-age association with Dr. A. G. Huntsman at St. Andrews, New Brunswick. In all events, I sorted mackerel eggs and larvae to a fare-thee-well. But the point is, the work never became tedious under Sette's watchful eye. I thoroughly enjoyed it and him, and in vicarious fashion I learned a lot; it was by far my most rewarding summer to date. Bigelow, Huntsman and Sette: three men who nudged an aimless youngster into a happy and rewarding career. I shall always be eternally grateful to O. E. S. for his patience and his stimulus."

Forty years later another young man, just starting his career, has written:

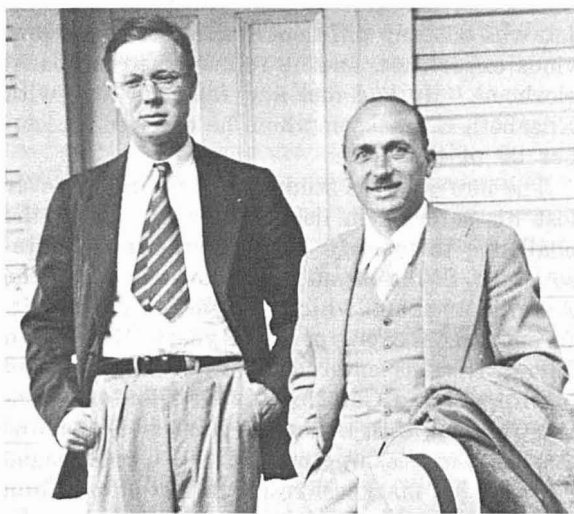
"During the summer of 1965 I worked in Dr. Sette's Lab as a seasonal aid type. I learned more in 2½ months working with Dr. Sette and his staff than I did in the 4 years at the College of Fisheries. The people who work with Dr. Sette work as a team. Each individual has his own talents and Dr. Sette augments these talents. Somehow through empathy and compassion he frees you to your limitations and helps you to work beyond your own ability. Each specialist from secretary to oceanographer is fully aware of the entire effort.—there are far too few Dr. Settes."

So wrote Richard A. Winnor, Associate Marine Biologist, California Department of Fish and Game, in 1972.

Sette's pleasant days at Harvard and Woods Hole lasted nine years, in which time knowledge of fishery resources on the Atlantic coast was advanced significantly. Meanwhile a crisis was developing on the Pacific coast. The sardine fishery, which gave indications of mushrooming back in the early twenties, had expanded beyond all expectations within two decades. From 1916 through 1939, the catch more than doubled each six years, and reached its maximum in 1936 with a billion and a half pounds landed. State fishery biologists were concerned and warned against overfishing. Nationally, concern for the nation's food supply was developing, and demands were being made for a better scientific basis of fishery management. Since the state was unable to control the fishing industry through legislation, a Congressional investigation was made. Because of his proven ability to manage a fishery resource, his past experiences with the sardine fishery, and his contacts with the industry, Sette was sent to California by Congressional mandate,

to head a sardine research program inaugurated by the Bureau, a position of great responsibility. He was made Chief of the new South Pacific Fisheries Investigations, with headquarters on the Stanford campus. His duty statement proclaimed "he was to direct and perform research on the nature and causes of fluctuations in pelagic fish populations." This fooled no one. N. B. Scofield, Chief of the State Bureau of Marine Fisheries, resented federal intervention in California fisheries investigations and openly remarked the best thing Sette could do was to pack his bags and go back to Washington. The industry also wanted no federal intervention and regarded Sette's operations with suspicion. However, his mild and friendly personality had won him many friends among the industry in the early twenties. Those who did not know him had a great respect for his work and his personal honesty, as did the biologists with the Division of Fish and Game, many of whom were old friends. His marked success in handling this delicate situation is an example of Sette's personal tact and diplomacy.

For several years strong disagreements existed between the industry and the Fish and Game Commission. Cannerymen were critical of techniques used by the State's biologists and of



John L. Hart, Fisheries Research Board of Canada, and O. E. Sette.

their evaluation of the sardine data. As a result, the San Francisco Sardine Association and the California Sardine Products Institute engaged Sette as a paid consultant from 1942-1947. Their respect for his judgement was so great they followed his advice without question when he said he could not conscientiously recommend industry requests for additional tonnage. Julian Burnette, a prominent business man who was active in industry affairs during that time, commented that Sette never spoke unless he had something to say, and when he did, people listened.

Marine fishery research was practically eliminated during World War II owing to a manpower shortage and the use of fishing vessels for the war effort. Between 1943 and 1945, Sette served as Area Coordinator of Fisheries for California. He applied strict control on all plants and vessels that were operating in the California fisheries. He assigned boats to different plants and shifted them around so all plants would be in operation and no waste would occur. Controlling a fiercely competitive industry was an especially difficult assignment. His success was rewarded by a meritorious promotion in 1944, in his capacity as Chief of the South Pacific Fisheries Investigations where he remained until 1949.

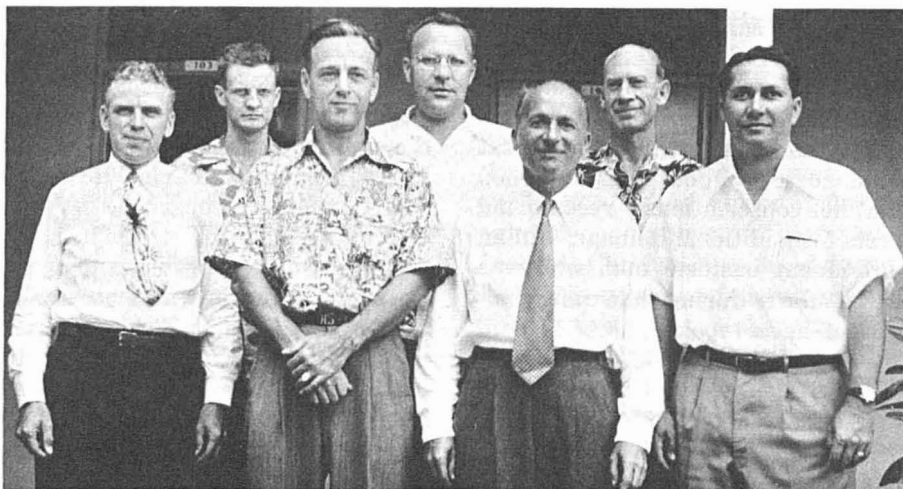
The post-war years witnessed a boom in commercial fishing and ushered in a period of expansion in fishery research. The search for new sources of protein to meet the demands of a growing population, as well as the economic aspects of harvesting large pelagic fish stocks attracted monied interests internationally. The need to discuss mutual problems and exchange information between scientists engaged in fishery research in other countries resulted in a series of international meetings. Sette attended several of these as an official representative for the United States.

Meanwhile the sardine fishery in California experienced an alarming decline. Concern over the depletion of this resource gave rise to public demand for answers from fishery biologists to explain what caused the fluctuation of this once great fishery. The answer to this problem already had challenged Sette's thinking for a

quarter of a century. It was obvious that such answers could be sought only through the cooperation of various agencies working together on a multidisciplinary research program. In 1947 the California State Legislature established the industry-financed Marine Research Committee. The Committee, consisting largely of industry members, and with Sette as its scientific advisor, inaugurated the California Cooperative Sardine Research Program which became the California Cooperative Oceanic Fisheries Investigations, or CalCOFI. Five agencies participated at the Federal, State, and University levels. Sette's fine hand was evident throughout the planning stages. He was largely instrumental in integrating the disciplines of fishery biology with those of oceanography and meteorology as this program developed. His personal contributions to the program and his participation in symposia at annual meetings were significant.

The fishing pressure exerted on tuna stocks throughout the Pacific ocean prompted the federal government to initiate tuna research in the mid-Pacific in 1949. Money was appropriated to build a large, well equipped laboratory adjacent to the University of Hawaii campus and to purchase two vessels designed for this specific program. Sette was appointed Director of the new Honolulu Laboratory and made Chief of the Pacific Oceanic Fishery Investigations, or POFI as it was called. Here, under his leadership, an exceptional research staff was assembled. The team, consisting of fisheries biologists, oceanographers, and meteorologists, jointly launched another pioneer program to study environmental phenomena and their relationship to oceanic fishes. In their studies of tuna resources along the equator, a subsurface current was detected. The name of this current honors its discoverer, Townsend Cromwell. The masses of other data published provided a great source of new information about the central Pacific Ocean.

While in Hawaii, Sette was an enthusiastic gardener and he took great pride in his flowers, fruits, and vegetables. He recycled matter for his own compost long before recycling became a popular conservation measure. His zeal for composting caused a family crisis. Apparently his wife, Elizabeth, thought the compost was



Staff of Pacific Oceanic Fishery Investigations, Honolulu, Hawaii. Left to right: Walter M. Bosworth, Administrative Assistant; Keith Elliott, Statistician; Harold T. Smither, Administrative Officer; Donald L. McKernan, Assistant Director; O. E. Sette, Director; Harry B. Hinkle, Operations Officer; Albert K. Akana, Marine Operations Superintendent.

(Photograph courtesy of *National Fisherman*)

responsible for breeding centipedes, which reach considerable size in Hawaii. Often they found their way into the house where Mrs. Sette received several bites. These she was quick to blame on her husband and his compost.

He was also an avid tennis player, and a good one. While at POFI he encouraged and organized tennis tournaments at the Lab. When a tournament was held, it was mandatory that a player show up for the matches, no matter how severe the hangover.

Representatives of the tuna industry did not think Hawaii was the right location for the Bureau's tuna investigations. They wanted this research centered in California near the tuna canneries and the fishing fleet. Charles Carry, Director of the Tuna Research Foundation and spokesman for the industry, often gave Sette a bad time about this and other matters. In this connection, Carry tells about an incident that happened in Santiago, Chile, where he and Sette were attending an international fisheries meeting in 1955. In all of Carry's frequent trips to the Honolulu laboratory, he had never seen Elton take a drink, and knew it was because he suffered from stomach ulcers. But in Santiago,

Elton drank with the rest of the group. Carry asked why. Sette replied, "I have learned not to take myself too seriously, nor you, Charlie."

Each new assignment in Sette's life was an expansion of his original interest. For five years at POFI, his primary responsibilities were to direct research and exploration on potential fishery resources. Then in 1955, a new program called Ocean Research came off the Bureau's drawing board, and once more Sette was called to pioneer a new direction in fishery research. He was returned to the Stanford campus as Chief of Ocean Research and director of another new laboratory broadly chartered to examine all available data concerning the oceans and relate these to the abundance and distribution of fish. He set about the herculean task of analyzing masses of sea surface temperature data, weather observations, and all known information concerning fish availability. With the help of a small but highly skilled team of biologists, oceanographers, and meteorologists, an atlas containing 168 monthly mean sea surface temperature charts for the Pacific Ocean north of latitude 20°, covering the years 1949-1962, was published. This remarkable man still found time to complete

his graduate work, receiving his Doctorate in Biology from Stanford University in 1957; to give lectures at the University; to continue collecting butterflies on Jasper Ridge as he had done in his student days; and to publish on a species of Lepidoptera from central California.

Sette always has been a firm believer in the value of informal meetings. He was instrumental in organizing the Pacific Tuna Conferences; he helped structure and actively participated in the CalCOFI Conferences as he had in the Sardine Meetings from their beginning in 1920. He chaired, or was a committee member of, numerous planning and steering committees throughout the years. EPOC was a natural outgrowth of his experience working with groups.

In 1954 at a meeting of the Oceanography Fisheries Meteorology Committee, Sette proposed that various groups engaged in related investigations in the eastern Pacific join together to coordinate the planning and execution of work at sea, and to exchange information on research program results. His proposal was acted upon in the Committee's 1955 meeting, and EPOC, or the Eastern Pacific Oceanic Conference, was born. EPOC held its first meeting in 1956 with Elton Sette as chairman and Joseph L. Reid, Jr., as Secretary. For fifteen dedicated years both men served EPOC and the entire ocean science community. They made possible a forum for discussion of oceanographic research and provided a medium by which the farflung investigations of diverse academic and governmental agencies could be coordinated.

Dr. Sette's administration of international oceanographic investigations to study stocks of fishes that recognize no political boundaries, brought him in close contact with scientists of other countries who also were interested in these pelagic resources. He attended many international meetings to discuss common problems. He was an official United States delegate to the Indo-Pacific Fisheries Council in Singapore in 1949 and to the International Technical Conference on the Living Resources of the Sea in Rome in 1955. He acted as Advisor to the U.S. Delegation at a Fisheries Conference, Santiago, Chile, in 1955, and at the Law of the Sea Conference, Geneva, 1958. He participated in numerous

other meetings as a committee member, council correspondent, or by presenting a paper.

He has served as a consultant on oceanography to the Director of the Bureau of Commercial Fisheries and as special consultant to the Atomic Energy Commission. He was a member of the Ocean Resources Panel of the National Academy of Sciences and is an advisor to the University of California, Institute of Marine Sciences.

Numerous professional and technical societies have his support as an active member, including Phi Beta Kappa and Sigma Xi. He is a founding member of the American Institute of Fishery Research Biologists, and a Fellow of the American Association for the Advancement of Science. Others include: American Fisheries Society; American Institute of Biological Sciences; American Society of Ichthyologists and Herpetologists; American Society of Limnology and Oceanography; American Wildlife Society; Biometric Society; California Academy of Sciences; Oceanographic Society of the Pacific; and, Western Society of Naturalists.

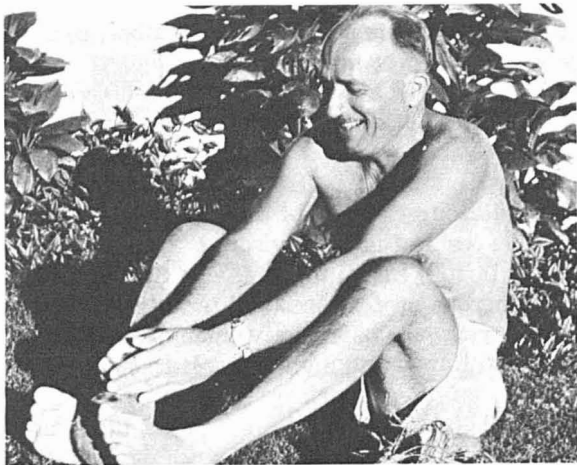
For outstanding service to the Federal Government, Oscar E. Sette was presented the U.S. Department of Interior's gold medal award for distinguished service on January 16, 1961. The medal and citation delivered by Assistant Secretary Leffler before an audience of several hundred reads in part as follows:

"... In recognition of his important contributions to the scientific program of the Bureau of Commercial Fisheries and his eminent career in Government, the Department of the Interior bestows upon Dr. Sette its highest honor, the Distinguished Service Award.

FRED A. SEATON
Secretary of the Interior."

It seems more than coincidental that sitting on the stage beside Dr. Sette that day was Dr. Elmer Higgins, who also received the Distinguished Service Award for outstanding achievement.

Dr. Sette's accomplishments are legion. It would be difficult to select any one as the most outstanding. He modestly sums up what he considers to be his major achievements in two succinct statements. These are: contributions to knowledge regarding pelagic sea fish and fisheries; and, the planning, organization, and



Opening a coconat, Hawaii.

directing through their formative years, the four research programs he administered for forty-two years. Equally significant, and perhaps greater, is the sustaining influence he exerted throughout the years as Chairman of EPOC and a guiding member of CalCOFI and other such research groups. Here, his uncanny ability to foresee a problem situation and sidestep the issue before it became a crisis was especially valuable. Also important are the untold hours of service rendered government agencies, the scientific community, the industry, and others as a technical advisor, special consultant, official delegate, leader, and friend. Over and above all is the remarkable contribution of the man himself through his personal warmth, his unusual ability to inspire, his patience and perception as a teacher, his gift of enthusiasm for his own work and that of others, and most of all, his genuine interest in and love of people.

There is an impressive list of publications to Sette's credit, in spite of his time-consuming administrative responsibilities. Several have been mentioned above. Other important papers include: *Estimation of the abundance of the eggs and larvae of the Pacific pilchard off southern California during 1940 and 1941* (Sette and Ahlstrom, 1948); *Considerations of midocean fish production as related to oceanic circulatory systems* (1955); *Problems in fish population fluctuations* (1961); *Ocean environment and fish distribution and abundance* (1966); and

A perspective of a multi-species fishery (1969).

Sette also found the time to keep up with current literature in his own fields as well as that of others which intrigued his scholarly or scientific interests. His own library is extensive, and he, personally, has indexed most of the material pertaining to ocean sciences. Sette's memory is retentive, and when asked, he can call to mind papers on specific subjects, although the article may have been written years ago.

When asked his choice of a place to live, he chose California, with its long coastline and mild sunny climate. He and Mrs. Sette make their home in Los Altos where they have resided for many years. They are a devoted family, and enjoy having their only daughter, Josephine Helene Barnes, and her family live nearby in San Jose. The Robert F. Barnes have two young sons, ages four and seven, who are a source of great pleasure to their grandparents.

Needless to say, the Settes' garden is a place of beauty, as well as a practical source of food. Planned with the precision of a research program, the yard is planted in rotation to produce a continuous supply of fresh vegetables and flowers from early spring throughout the fall months; and, they enjoy a succession of fruit in season from the many varieties he has cultivated or skillfully grafted to parent trees. The flowers attract the butterflies Sette loves, and have given rise to a backyard investigation, in his spare time, of a subtropical species *Agraulis vanillae*, which appeared early in 1960, enticed by the passion flower plants growing in the garden. Hoping to keep the small population alive during the winter months, Sette started growing passion flowers in the lathe house to protect the eggs and larvae from unaccustomed cold. He began to study the fluctuation of their populations, observing the time of emergence and the relationship to warmth and sunshine. This correlation to warm, sunny spring days fostered an interest in amateur meteorology, which has developed into another hobby. Daily he observes the humidity and the barometric pressures and follows the passing lows and highs with interest. This keen sense of awareness of his surroundings is a delightful part of his personality.

On paper, in compliance with government regulations, Dr. Oscar Elton Sette, Senior Scientist, "retired" in March 1970. He was immediately rehired as an "annuitant" which is permissible in Federal service, to continue his research and prepare for publication a backlog of data. The Ocean Research program was concluded in June 1970, and the laboratory at Stanford was closed. He is presently attached to the Tiburon Laboratory, National Marine Fisheries Service, in charge of the Ocean Ecology unit, headquartered in Menlo Park. With the assistance of a secretary-librarian his keen mind is busily engaged with many of the unsolved problems facing fishery researchers. He is working on several papers, one of which is the analysis of the Alaska herring fishery. His duty statement on his appointment papers fill two typed pages, single spaced. They end with "a high degree of confidence is placed on his productivity, competence, and judgement. He is recognized as a top authority and distinguished scientist in his field." It is interesting to note that his present title is: Fishery Biologist (Research).

For more than half a century Dr. Oscar Elton Sette, fishery biologist, leader of leaders, has continued to pioneer the development and advancement of fishery research as an outstanding scientist, a great humanitarian, and a warm and sincere friend to all of his associates.

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