

Overcoming Obstacles to Change

by Glenna Ryan, Ithaca

Many theories attempt to explain how people change. One suggests that if knowledge changes, then attitudes will change and finally behavioral change will occur. Others suggest that one's attitude must change first and then knowledge will be sought. Still others insist that enforcing a behavior change first will effect a knowledge and attitude change. A learning experience directed toward all three areas then would have the potential of producing the most change.

"Seafood Sense" was a series of five regional inservices held in New York State in the spring of 1982. The two-day workshops combined lecture-type instruction with hands-on experiences in an atmosphere of enthusiasm and novelty. The sessions began with an introductory period including a "getting-to-know-you" quiz based on seafood related experiences such as finding someone who has eaten raw fish or Japanese sushi, or someone who has gone smelting or smoked fish at home. Participants were asked to share their experiences and soon "experts" in the audience were identified. The "getting-to-know-you" introduction was followed by a brief seafood knowledge questionnaire and then the action began.

First, lecture-type instruction on purchasing and utilization of seafoods was presented including an explanation of size and nomenclature for different kinds of shellfish. An unusual lunch followed with mock lobster salad (monkfish), tana marsalada (roe), molded fish salad (minced fish), sauteed shark steak, and skate wings. Afterward, more buying information was provided.



Once sufficiently familiar with species of fish and shellfish and with the tastes of some unusual fish, the time came for personal involvement. A movie and demonstration of fish filleting technique preceded one of the most exciting portions of the workshops. Up to 40 participants in any given session actually filleted their own flat fish and round fish. Flounder was selected as the flat fish, while a variety of unusual species were used for round fish. Porgies, bluefish, weakfish, cod, haddock, and mackerel were all used over the course of the five workshops.

Next came the opportunity to handle mollusks and crustaceans. Demonstrations on how to clean squid, open clams and oysters, pick crabs, and cream and cook mussels were followed by a squid cleaning session. Each person was provided with a fresh raw squid to disassemble and prepare for cooking.

That's exactly what followed. The hands-on experience extended into dinner as participants were grouped together to prepare fried squid rings, mussel rice casserole, baked clams, fish gumbo, broiled bluefish, and fish quiche. Equipment, ingredients, and

recipes were supplied for each group. After a seafood feast, the group reconvened for a discussion of how the different meals met different needs either for convenience, economy, low-calorie, kid appeal, gourmet and nutritious, that is, meeting the dietary guidelines. An evening of slide shows on preservation methods ended the activities of day one of the workshop.

Day two opened with a discussion on the nutritive value of seafood followed by a demonstration of how to fillet freshwater fish to reduce the level of environmental contaminants. An explanation of minced fish production paved the way for a cooking demonstration with minced fish. When the Aberdeen curry, seafood chowder, and Joe's chili were done, lunch was served. Once again participants got to taste and sample seafood prepared in a new and innovative way.

A "use of the media" discussion followed in which those attending committed themselves to certain types of media outreach either radio, newspaper, or public service announcements. Time was also provided

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Boat Sales Up

"Beyond our wildest expectations!"

That's how Robert Wegman, owner of a Rochester area boat dealership, described sales into May of 1983. His sentiments are similar to those of other boat dealers in upstate New York and, for the most part, across the country.

Despite a recessionary economy that only lately has shown signs of recovery, the consumer has been invading boat showrooms at a record pace since fall of last year. The bigger boat shows, held in cities like New York, Chicago and Philadelphia, are seen in the industry as barometers of annual sales. All have reflected a nationwide upswing in the boat market.

Along Lake Ontario, dealers were reporting sales well ahead of last year, which for many was a record-setter in its own right. "1982 was the best year ever for us in terms of sales," Wegman explained, "but so far in 1983, the market is hotter than I ever imagined it could be."

Wegman, who owns Rochester Marine Inc. and is vice-president of the Genesee Region Marine Trades Association, noted that demand has so outstripped the supply of some models, parts and accessories that shortages and delivery problems are feared during the balance of the year.

Ron Randall, a sales representative with the Thompson Boat Company of Michigan, said that his firm has had to resort to overtime and extra crews to keep up. "We're building all the boats we can as fast as we can to meet our orders," Randall said "We've begun experiencing some delays on receiving parts like windshields, and have been put on a quota by our engine manufacturer."

Sue Zahno of Zahno Marine near Lewiston, N.Y. said that business was the best it has been since the opening of their dealership in 1974. "Each

year since 1980 sales have risen, with 1983 certain to exceed our earlier hopes," Zahno said. "We're sure that the improved fishing found upstate has been the key behind our increased trade."

In addition to enhanced fishing opportunity, most dealers pointed to "triggering factors" as the cause of the hot boat market. These include an improved outlook and confidence in the economy, the appreciating value of a boat over time, lower interest rates, the milder winter locally, and little fear about shortages or higher prices for fuel.

"All the factors seem to be pointing in one direction for the consumer and that's 'buy a boat,' reports Marsh Seager of Seager Marine in Canandaigua. "And on top of all the good economic reasons has been the phenomenal response of the public to fishery development on Lake Ontario. Without our fishing boat lines, it would be a great year. But with them, sales have been absolutely fantastic."

—Contact Mike Voiland, Brockport.

Float Plans

Many of you are planning a summer of boating, including some who will be taking a boat trip as a vacation. A successful boating trip is a safe boating trip.

One essential part of a safe boating trip, be it in coastal waters or on the Great Lakes, is the filing of a float plan. This estimate of when you'll be where, should be given to a friend, the local authorities or the Coast Guard.

What should be in a complete float plan? It should consist of everything that would allow someone to locate you in the case of an emergency.

- 1.) Name and phone number of operator.
- 2.) Boat description.
- 3.) Power with fuel capacity and estimated range.
- 4.) Communication capabilities — radio and channel often monitored.
- 5.) Persons on board.
- 6.) Automobile information — type, license number, trailer license and where parked.
- 7.) Your home dock.
- 8.) Enroute information — start time, proposed routes, planned stops and return time.

9.) When authorities should be notified if not returned.

Any additional information about your trip that could help locate you and/or save your life should be included. Boating on our coastal waters is fun only if you return safely!

—Contact: D. Greene, East Aurora

Caught in New York

The most apparent marketing need facing New York's seafood industry is recognition. Because of New York's better-known business and manufacturing base, its commercial fishing industry has long suffered and struggled to establish its cultural and economic significance in New York State.

Almost every segment of New York's commerce has been promoted, through the familiar "I Love New York", "Made in New York", and "Produced in New York" campaigns just to name a few. Now, through the efforts of Long Island commercial fishermen, Mrs. Helen Cook, recently retired Deputy Commissioner of NYS Ag & Markets, Suffolk County officials and Sea Grant Extension specialists, an advertising program promoting New York caught seafoods is underway. Using the theme "Caught in New York", a promotional program similar to those undertaken for agricultural products such as wine and apples is being launched by the NYS Department of Ag & Markets. The "Caught in New York" slogan is incorporated in logos, poster, and other points of sale materials that will be useful in the marketplace.

What began as an effort to create identity for Long Island Bay Scallops in the marketplace has evolved into a full-fledged promotional program directed at all New York-harvested seafoods. For example, a more involved program of promotion and high quality standards is now under development by the hard clam industry to establish consumer confidence in a product that is wholesome when properly harvested and handled.

This more general approach will strengthen the identity of New York caught, high-quality, boxed and iced finfish and locally caught shellfish to be the "catch of the day" in any marketplace.

—Contact J. Scotti, Riverhead

Research in Short



Great South Bay Study

In May 1983, the New York Sea Grant Institute concluded a four-year, \$750,000 study of Great South

Bay and its precious hard clam resource. Termed the Great South Bay Study, this set of more than 20 individual research projects has produced much new information on the major oceanographic processes in the Bay and how these interact with the hard clam resource.

The study has revealed much about the basic biology of hard clams in Great South Bay, including factors governing clam distribution, reproduction, natural mortality and other parameters affecting the health of clam stocks. Traditional methods for artificially enhancing the clam population were evaluated. Some were found to be ineffective, while recommendations to make others more effective were developed.

The sources of inorganic nutrients to the Bay were identified as were the routes by which these compounds, essential to the phytoplankton of the Bay on which clams feed, circulate between the sediments, water and living organisms of the Bay. The factors governing the circulation of water in Great South Bay were determined and a computer model was constructed to allow shellfish managers to predict where free floating clam larvae would be carried during their planktonic existence.

The first estimates were made of the magnitude of underground fresh water inflow to the Bay. The im-

portance of groundwater inflow in maintaining the salinity of the Bay was assessed. The distribution of surficial sediments of the Bay was mapped. The extent to which those sediments are contaminated was determined. Where contaminated sediments occur, their probable source was identified. Water quality data for the entire Great South Bay were computerized and the impact of rain-storm events on coliform levels in the Bay was determined.

The final results of the Great South Bay Study will be compiled in a non-technical book, to be published in 1984.

Several towns bordering the Bay have used Study results to modify, and hopefully make more effective, their shellfish management program. To resurrect hard clam stocks in the Bay to their former levels of abundance will require that management measures incorporate the most up-to-date knowledge of the Bay ecosystem. This is the body of knowledge produced by the Great South Bay Study.

—Contact: W. Wise, Albany

Editor's note: Nearly a dozen technical reports were completed as the Great South Bay Study progressed. Should you be interested in such reports; a complete listing can be obtained from either the Ithaca or Albany office.

I Want More!

I. From Coastal Living

- _____ **Angling for Underutilized Fish in New York's Great Lakes Waters.** 1980. R. Buerger. Fact Sheet. 5 pp., 15¢.
- _____ **1983 Lake Ontario Sportfishing Information Annual 1983.** M. Voiland. Newspaper. 32 pp., \$1.50.
- _____ **The National Sea Grant Advisory Service.** 1983. L. Weimer (ed.). Univ. of Wisconsin Sea Grant Pamphlet. 28 pp., Free.
- _____ **Shellfish Related Illness.** 1983. New York Sea Grant and Department of Health Pamphlet. 6 pp., Free.

II. Technical Reports

- _____ **Burbot Convenience Foods.** 1982. R. C. Baker and D. S. Kline. Development of Products from Underutilized Species of Fish: Booklet 11. 34 pp., 75¢.
- _____ **Extending Shelf-Life of Fresh Wet Red Hake and Salmon Using CO₂-O₂ Modified Atmosphere and Potassium Sorbate Ice at 1°C.** 1982, M. S. Fey and J. M. Regenstein. Sea Grant Reprint Series. 7 pp., \$1.50.
- _____ **University Involvement in the Commercialization of New Products.** 1982. J. M. Regenstein and O. R. Noyes. Sea Grant Reprint Series. 3 pp., \$1.50.
- _____ **Stability of Layered Dredged Sediment Deposits at Subaqueous Sites.** 1981. H. J. Bokuniewicz and J. T. Liu. Sea Grant Reprint Series. 3 pp., \$1.50.

Plan Now for Plantings

Farmers have been doing it for years. Now shoreline residents are turning to it as a lower-cost method of stabilizing coastal bluffs and beaches. "It" is using vegetation to hold erodable soil in place.

Vegetation is not a "cure-all," but can be very useful in cases of slight to moderate erosion problems. But a landowner can't just throw some grass seed at an eroding slope and hope to have it stabilize the soil effectively. Planning is called for.

What factors need to be considered? Appropriate plant materials, soil types (fertility, acidity, texture, drainage), climate, amount of sun/shade, steepness of the slope, use of seeds or transplants, sources of materials, and best time of year for planting should all be considered.

Many plants suitable for along the Great Lakes, such as crownvetch, flatpea, Virginia creeper, willow, and American beachgrass are also adaptable to the shores of Long Island. Others, such as weeping lovegrass and shore juniper may not be able to withstand the more severe northern winters. All plants don't need the same amount of moisture, sunlight, or acidity to thrive. When planning erosion control plantings, it's a good idea to consult with a Sea Grant Extension, Cooperative Extension, or Soil Conservation Service professional to find out what plants are most suitable for your specific case.

Most plants can be seeded or transplanted in very early spring. Some can also be started in autumn, but as a rule-of-thumb it's best to steer clear of the hot, dry summer months. When planning a vegetation project for either spring or fall, don't assume all plants will be available on short notice. Frequently, plants are only supplied for sale at certain times of the year. It is also probable that nurseries will commit their stocks of particular erosion control plants months in advance of harvest (this seems to be particularly true for crownvetch and beachgrass). So it's not unreasonable to think of planning a project now for this fall — or even for next spring.

As with any coastal erosion project, advance planning, taking into consideration all alternatives will help make a vegetative stabilization project a good one.

—Contact: C. O'Neill, Brockport



The Lake Ontario Sportfishing Exhibition proved to be a resounding success. For details, contact R. Buerger, Oswego.

Marine Advisory Services

Many inquiries are received each year asking about potential employment in the New York Sea Grant Extension Program or its companion programs around the nation. Other people simply are curious what Sea Grant educational programs outside of New York look like.

A new publication entitled "The National Sea Grant Advisory Service" helps to answer both types of question. It includes a brief history and describes major program emphases and approaches of the 31 programs nationwide. If interested, see "I WANT MORE!"

—Contact: M. Duttweiler, Ithaca

L. Ontario Fishing Annual

The "1983 Lake Ontario Sportfishing Information Annual" now is available. This 32 page newspaper is a compilation of sportfishing information for anglers and boaters on Lake Ontario. The annual, through its business contributions, raised over \$7,000 towards the "EV-Ontario" educational vessel project. 35,000 copies are being distributed free to the public through sponsors' places of business along the lakeshore.

Copies can be obtained by mail for \$1.50. See "I Want More!"

—Contact: M. Voiland, Brockport



Sheepshead!?

New York's Great Lakes waters are known for excellent sportsfishing. Trophy salmon, trout, and bass attract thousands of anglers to the region each year. What many fishermen do not know is that New York's Great Lakes and connecting bays and tributaries offer an abundance of other less pursued fish. These underutilized species offer plenty of sport, good eating and, in most cases, they are fairly easily caught.

For instance, freshwater drum, commonly called sheepshead, are found in all of New York's Great Lakes coastal waters with the heaviest concentration in eastern Lake Erie. This bottom feeder will provide anglers with plenty of action. Average drum weigh between one and five pounds, although larger fish up to ten pounds are not uncommon.

During late spring and early summer freshwater drum congregate in pools and below obstructions in Great Lakes tributaries. Bottom fishing with soft-shelled crayfish, minnows, or worms using medium tackle might pay off with exciting days fishing and a new table fare upon returning home.

Freshwater drum is only one of many underutilized fish that are readily available to Great Lake's anglers. The New York Sea Grant Extension Program has prepared a fact sheet entitled, "Angling for Underutilized Fish in New York's Great Lakes Waters" which presents tips on where and how to catch these lesser known Great Lakes fish. To obtain this publication, see "I Want More".

Contact: R. Buerger, Oswego

COASTLINES is published quarterly by the New York Sea Grant Extension Program. This program is funded by the National Oceanic and Atmospheric Administration, the State of New York, and the New York Sea Grant Institute. Subscriptions to Coastlines are free for New York residents. Two-year out-of-state subscriptions are \$4. Request Coastlines from Sea Grant Extension Program, Fernow Hall, Cornell University, Ithaca, N.Y. 14853.

O'Dierno Cited

The Mid-Atlantic Fisheries Development Foundation recently designated specialist Linda O'Dierno a "seafood ambassador" in recognition for her consumer education programs related to seafood use. The photo below shows Linda receiving her certificate from Kerry Muse, Executive Director of the Foundation.

—Contact: B. Wilkins, Ithaca



Nutrients in Seafood

The National Food Processors Association final report on "Determination of Effects of Processing and Cooking on the Nutrient Composition of Selected Seafoods" has been released.

The objectives of the 14-month study were to determine the effects of cooking and processing on the nutrient composition of several species of finfish and shrimp; to develop information on the fatty acid profile, cholesterol level and trans-fatty acid content after processing and cooking; to evaluate the nutritional effect of sodium tripolyphosphate application; and to use cooking yield data to calculate protein contribution of seafood portions used in Class A school lunch programs.

Results indicated that "nutrient retention in home prepared and canned seafoods range from 75 to 100% of the levels in the raw (frozen) product."

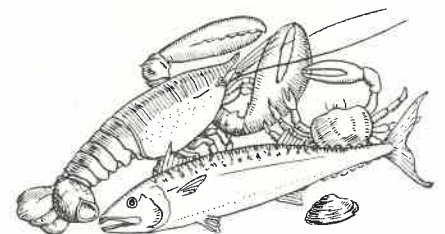
—Contact: G. Ryan, Ithaca

Shellfish Related Illness

Recent outbreaks of shellfish related illnesses have generated many questions among seafood consumers. A new, free pamphlet entitled "Shellfish Related Illness" produced by the New York Sea Grant Institute and the New York Health Department addresses many of these concerns.

Topics include: how contamination occurs, descriptions of the major illnesses involved and steps that consumers can take to prevent shellfish related illnesses. To order, see "I WANT MORE!".

—Contact: M. Duttweiler, Ithaca



Obstacles (from page 1)

for program planning, that is, small group discussions by those attending on how they could share what they learned with others. Materials such as a "Seafood Products Resource Guide" from Virginia Polytechnical University, recipe pamphlets, posters from the Mid-Atlantic Foundation, and fact sheets, were provided to help the participants get started. On this note the workshops ended.

What was the result? Of the 120 county Cooperative Extension home economists, 4-H agents, and EFNEP (Expanded Food and Nutrition Education Program) agents attending, 60 returned post-test seafood knowledge questionnaires distributed six months after completion of the inservices. These showed a significant increase in their knowledge score when compared to their scores on the same test before the workshop from an average of 12 out of 23 to 17 out of 23.

No formal measure of attitude was employed. However, some of the comments of those who participated even six months after the program indicated important changes in atti-

tude. A couple of anecdotes help illustrate the point.

"I thoroughly enjoyed the workshop and have since eaten a lot more fish and have had a lot of fun sharing what I have learned with friends."

"I still tell associates how impressed I was with the Seafood Sense workshops and it has made me try to include more fish in menu planning."

"Have become more adventuresome in fish preparation since the workshop. My husband is becoming a 'convert' — while not in the 'fish lover' category at least he has tried to admit that he liked a couple of fish dishes and would try squid if I prepared it!"

"Since the Inservice my consumption and preparation of fish at home has increased. My attitude also changed — before I hated fish — now I find it tolerable, eventually I may even learn to like it! My skill level in cooking, filleting has also tripled . . . I never would have considered teaching a fish program before, and now I feel more confident to do one."

In terms of behavior, do these people buy and eat more seafoods? In the pretest questionnaire, a list of

unusual species was included and attendees were asked which they had used at home. The post-test included the same question. The results indicate an increase in home use of squid, mussels, whiting, pollock, bluefish, and monkfish.

In addition, one year later at least 10 other workshops reaching about 30 people each, have occurred throughout the state along with widespread media campaigns reaching over 700,000 people. In both home use and in educational programs of Cooperative Extension agents, a change toward using seafoods has occurred.

There are many ways that people change and the process is not well understood. However, a learning experience which provides many modes of instruction has the potential to reach many different types of learners whether passive and observational or active and involved. "Seafood Sense" attempted to do this and to a certain degree was successful in changing knowledge, attitude and behavior of those who came to learn about seafoods.

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