Coastlines

NEW YORK STATE SEA GRANT INSTITUTE
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Liveaboards

Who They Are and How They're Regulated

by Stephen H. Lopez, New City

Liveaboards have been gaining increasing attention in recent years from boat builders, marinas and government regulators. The growth in liveaboard interest is apparently due to the housing crunch from the baby boom generation's demand for affordable space, coupled with the building industry's inability to meet demand on land due to high building costs. Strong interest also is due partly to the new generation's sanction of alternative life styles — a generation to whom the romantic notion of living at sea is especially appealing. But whatever the cause, interest is growing in builders to cash in on the market, in marinas to fill otherwise undesirable slips with high rentals, and in local governments to regulate the proliferation of liveaboards.

Liveaboard Vessels

It might be helpful to review first what a liveaboard is. From the standpoint of type of vessel, liveaboards may be found on anything from sail or power pleasure craft to traditional houseboats to floating homes (conventional appearing homes constructed on pontoons and typically without motor power.) A liveaboard may be very discreet and go generally unnoticed on a sail or power pleasure craft, especially if he or she doesn't hang the laundry out to dry on the deck. On the other hand, a floating home is very visible and is unquestionably a liveaboard situation even to the casual observer with no knowledge or other particular interest in vessels or marinas.

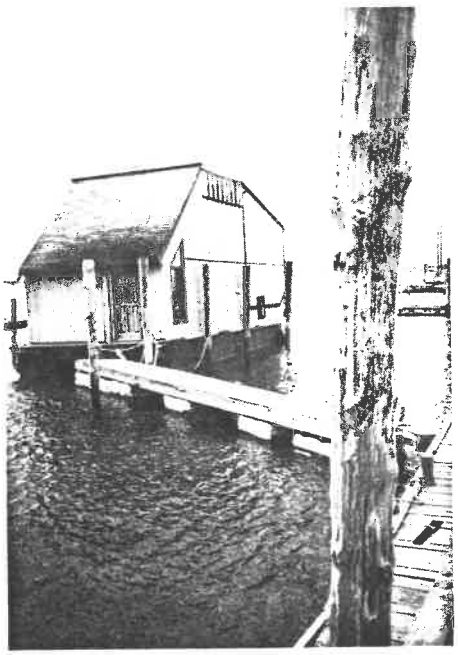
From government's standpoint, a liveaboard may be anyone who spends seasonal, or even weekend, time overnight on a moored craft. In some communities, a liveaboard may be required by local ordinance to obtain a permit for overnight stays. In other communities, overnight stays of any length may be strictly forbidden. Some communities have no regulations whatsoever but that doesn't mean they may not decide to regulate in the future. In marina concessions on federal property, liveaboards are excluded due to federal regulations against residences on park land.

Since public regulation is a very real hurdle for marina owners, boat builders and brokers to surmount, it may pay to review its genesis and legal clout. Local governments may raise objections regarding liveaboards, utilizing governments's purview over the general health, safety and welfare of the people. This is the legal basis for zoning — local government's regulation of private property — and many other ordinances.

Health & Welfare

Health and welfare issues tend to focus on sanitary waste disposal, fire and structural considerations. A marina without pump out facilities is an especially vulnerable target for public scrutiny. Attention on this issue alone can mobilize a community to attempt regulation of a local liveaboard.

Fire concerns typically rank next in importance. Lack of a convenient street hydrant, and difficulty reaching the end of docks with limited hose when hydrants are nearby,



Completed home on view at a City Island Marina.

make fire safety a real concern in many citizens minds. The fact that many marine fires often are not controllable with water and require chemical extinguishers somehow seems irrelevant to many landlubbers. Because fire protection is not well understood, public opinion is often mobilized against liveaboards on this score for all the wrong reasons.

Finally, structural considerations are problems. Because local building codes are not typically geared to the floating home, building permits must often be granted on a variance basis. This opens the whole process to individual scrutiny and inconsistency in regulation. Building code requirements in some instances have been fought successfully by builders who have established that they do not apply to floating homes by contending that they are vessels and not structures.

Underlying community concerns present other difficult issues as well.

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Theft-Proofing Boats

Each year, Americans invest more than $5 billion in pleasure boats and marine equipment. Many people are turning to the ocean, and to bays, lakes and ponds across the country for recreation and relaxation. With summer rapidly approaching, boaters will be coming out in force.

Unfortunately, this is an excellent hunting ground for thieves. With the increase in value of marine equipment in the past few years, there is good reason for a few tips on securing boats and gear:

- Batten down every means of entry into your boat, not just the hatches. On all doors, replace or supplement spring locks with dead-bolt locks. Latch ports snugly from the inside. Sliding windows should have solid inside bolts or a length of metal or wood rod laid in the tracks.
- Marine engines are susceptible to hot-wiring or jump-starting just as cars are. Prevent your boat from being stolen by draining the motor, removing the gas tank, and taking out a spark plug.
- Small craft are more likely to be stolen than larger craft, because they can be taken more quickly and hidden in a garage or under a tarp. To prevent theft, use hardened steel chains, instead of rope, for mooring or dock lines. Make sure that what you chain your boat to is as secure as what you chain it with.
- Boats, especially those on trailers, are most vulnerable when out of the water. They aren't safe just because they are parked in your driveway. If possible, keep the boat in your garage or behind your house, where it won't be seen easily. To increase

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Computing in the Marine Trades

A strong interest in use of computers in marine trades has arisen with the increasing power and falling cost of computer systems. However, the selection of appropriate hardware and software for business applications is a critical decision that will determine the future uses and efficiency of the investment. Many businesses are asking how the decision whether or not to buy, and if so what to buy, can be made intelligently.

The answers to computer investment questions are not standard. They require careful and thoughtful consideration of business record keeping, communication and analysis needs. With the results of this exercise, identifying a system that meets the criteria of the business can proceed.

The first step in the process of deciding on computer systems, is to determine what computers can do for the business. Computers can save time over manual record keeping, they can improve accuracy, they can expand the sophistication of record keeping and communication, and they can assist greatly in financial analysis. These are very powerful tools for the business that is concerned with maximizing profits and minimizing waste.

If a business is so small or uncomplicated that record keeping or financial analysis is not a problem that justifies investment in a computer system, then the best decision for that business is obviously not to buy one. If a business does have need for record keeping, communication and business analysis and currently employs someone to do it, relies on the proprietor or a family member to do it, or simply does not do it but would like to do it, then serious consideration of a computer system is in order.

For those who decide to consider a computer system, the next step will be to identify what it might be used for. Common examples are billing, inventory, payroll, trip records (especially for charter boat operators), job costing, and financial modeling. Any one of these functions, or a combination of functions, may be of sufficient value to make an investment profitable.

Evaluating profit on an investment will require careful analysis. Profit can arise from several areas to offset initial investment and ongoing costs. Profit is commonly in the form of reduced clerical time required for record keeping (and therefore savings in salaries or increased productivity); increased overall efficiency in operation resulting in improved cash flow, and more sophisticated financial modeling leading to more profitable business decisions.

The investment costs that need to be amortized are hardware and software costs, and the start up staff training. Figures of $5,000-$15,000 for purchase of a complete computer system are common today for marine trade businesses. Staff training time will be an additional cost. Systems might also be leased or time-shared with substantial savings over purchasing equipment.

Once the business has identified what its needs are and what costs it can justify in an investment, serious shopping can begin. There are several companies now offering package deals of hardware and integrated software for marina businesses with training as well. These packages tend to be expensive but offer the convenience of a pre-configured system. They are most appropriate for medium and larger size businesses with several or more applications. Be very careful that these systems meet all the business needs and that the business is not paying for unusable features.

Component shopping is more time consuming but may be more rewarding. If pursuing this route, visit computer stores to visually examine equipment. Ask for demonstrations of equipment and software that might suit your business needs. Ask what level of sophistication (this will affect cost) your business needs demand and which configurations would be the most reliable and flexible to meet future needs. Collect product literature and study it. Speak to others who have some experience with various products and solicit their ideas. Inquire about product support services. In short, thoroughly investigate your options before committing your investment.

As with any sound business decision, when you are comfortable that you have identified the best solution for your business need through careful research, then you are ready to make the investment commitment.

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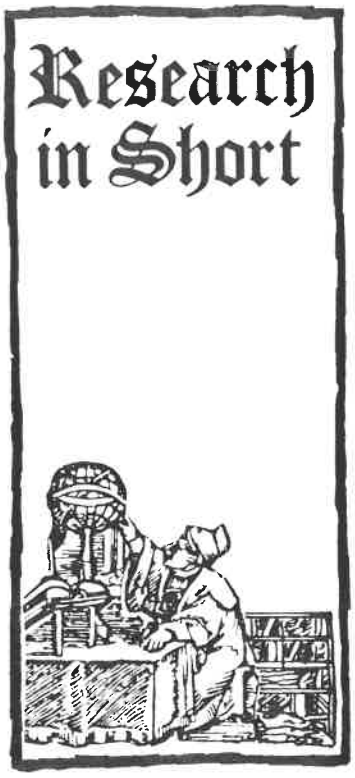

Sea Grant Researchers Study Fish's Role in Heart Disease

by Ruth Fein, Albany

For some time, Americans have been told to cut down on their consumption of cholesterol and replace their rich and fatty diets with polyunsaturated fats. Epidemiological studies show that one potent source of polyunsaturated fatty acids — credited with minimizing the lethal effects of coronary heart disease — is found largely in fish oils and tissue.

Research conducted within the Department of Food Science, SUNY College of Agriculture & Life Sciences at Cornell University, is aimed at determining the relative potencies of the two major unsaturated fatty acid components in fish oils. From this information researchers will assess the quantities of oil, or fish portions, necessary to achieve the most beneficial results in the human vascular system.

It is generally accepted that seafoods are good for the health and well-being of American consumers — as a protein source high in essential nutrients, and because of evidence that fish lipids have an ameliorating affect on coronary heart disease. But this project's potential benefits go beyond providing new data to encourage increased consumption of fish.

Dr. John Kinsella, principle investigator for the Sea Grant funded project explains, "there is a potential market for fish polyunsaturated fatty acids as a supplementary dietary agent."

The idea of reducing coronary heart disease by use of dietary supplements derived from fish oils is one that could be of commercial interest. "With information generated by this and other related studies it is conceivable that a market can be developed for producing and encapsulating highly purified and therapeutic polyunsaturated fish oils for use in biomedical applications," Kinsella said. "But more research is still needed to elicit optimal beneficial effects in humans." Caution and education will be important factors, he adds, since the intake of EPA (the beneficial component of the fish oil) should be balanced with other factors, such as vitamin E intake.

A limited market already has been established in health food stores. "But what these stores are marketing is nothing more than cleaned up cod liver oil," Kinsella explains, "with non-healthful lipids as well as EPA."

The availability of EPA about which Kinsella speaks, as a clean dietary supplement for commercial sale, could be dependent upon another Sea Grant funded project, a collaborative effort between Kinsella's work and that of Dr. S.S. Rizvi, also in the Food Science Department. Rizvi is developing extraction methods to more selectively refine the specific, desirable fatty acids (such as EPA) from fish oil. The result of one promising extraction method, using a supercritical carbon dioxide process, is quite visible. A laboratory observer can witness extremely cloudy fish oil, resembling muddy water, that after supercritical extraction has become so clear it is indistinguishable from the purest light vegetable oil.

I Want More!

To order, please send to the Ithaca Sea Grant Extension Office along with your check made payable to Cornell University.

_____ **Angling for Smallmouth Bass in Lake Erie.** 1984. M. Malchoff. 9 pp., illustrated. $0.50.

$2 Million Grant Awarded to New York Sea Grant Program

To help New Yorkers make better and wiser use of their coastal resources in 1985, the New York Sea Grant Institute will receive a $2,058,000 grant from the National Oceanic and Atmospheric Administration for its annual program. New York Sea Grant is a cooperative effort of the State University of New York and Cornell University.

According to the Institute director, Don Squires, Ph.D., the annual grant, which is matched with state, community and university funds, will enable the Institute to carry out its statewide program in marine and Great Lakes research, education, training and advisory services. The 1985 grant is a 2.5% increase over 1984's award.

Senator Alphonse D'Amato (R-NY), upon notification of the grant, said, "Sea Grant projects generated by this grant have the potential to enhance economic development in the State, while serving our coastal communities and helping to solve problems for related industries in New York and the nation."

Many new and continued Sea Grant projects for 1985 are in the following areas:

- Sportfishery development in the Great Lakes region.
- Expansion of aquaculture industry (controlled growing of seafoods — aquatic animals and plants) and aquaculture research in NY state.
- Research and extension services in seafood science.
- Marine biotechnology (applying new technologies in genetics, microbiology, chemistry and engineering to the production of marine products), i.e., for production of seaweeds as energy source of pharmaceutical use.
- Sponsorship of Sea Grant professorship at SUNY Agricultural and Technical College at Farmingdale in engineering studies related to marine trades.

In addition, in collaboration with Cooperative Extension, Sea Grant extension specialists, located in nine coastal offices in the state, help coastal users, businesses and industry to be aware of new ideas and technologies and to make better decisions on coastal matters.

The Sea Grant Institute — part of a network of Sea Grant programs in 29 states — is a unique non-profit organization with the capability to tap university resources to convert ideas into action. Working with other groups, industry, local and state agencies, Sea Grant's projects are funded, planned and directed cooperatively.

Contact: R. Fein, Albany

Environmental Activists Liable to State for Rescue Costs

In *State of New York* v. *Willis*, No. 45684 (Third Department, March 8, 1984), defendants were environmental activists who protested river pollution by rapelling down Terrapin Point at Niagara Falls to a ledge on a gorge wall, in an area closed to the public due to deteriorating rock conditions. Signs and a snow fence warned the public not to enter the area. Despite being importuned by Niagara Frontier State Park Police to climb up, they remained overnight. After 24 hours, they ascended, unaided.

In the interim, the Niagara Frontier rescue team had been mobilized. When the defendants came out of the gorge, they were arrested and charged with disorderly conduct, refusing the lawful and reasonable request of the police officers, and interfering with government administration. They pleaded guilty to criminal trespass and paid the fines assessed by the court.

Relying on §13.30 of the New York Parks, Recreation and Historic Preservation Law, which provides that "[i]n addition to any other remedy which may exist, a person whose negligent, willful or reckless conduct results in an expenditure by the office [of parks, recreation and historic preservation] for the purpose of effectuating a rescue shall be liable for the amount of such expenditure and shall reimburse the office therefor," the State brought a civil suit to recover the expenses of mobilizing the rescue team. The court awarded summary judgment to the state on the issue of liability.

Liveaboards

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Many local government officials feel that liveaboards don't carry their weight in paying property taxes. They view liveaboards as free loaders on the services they utilize such as schools, sanitation, police and fire protection. Parallels might be drawn between marina owners and apartment landlords though that argument has not been widely used and may affect a marina's tax rate. In Long Island's Nassau and Suffolk counties in New York State, local officials are moving ahead with a plan to identify liveaboards and put their vessels on the tax roles as real property. They will then be taxed at the same rate as upland property.

Government Control

Riparian rights will often determine the extent and type of control local government can exert. If underwater lands do not fall within local government jurisdiction, local government cannot regulate a vessel moored on them. The reality, though, is that most private marina slips are constructed on property under the jurisdiction of local government.

With all these regulatory concerns, builders and marina owners should be asking the obvious question: Why bother? Is this market really worth pursuing? To some businesses already conditioned to government involvement in dredging or marine construction permits, the potential regulatory issue described above may not seem unusual — just the cost of doing business in the coastal zone. To others, the specter of additional regulatory scrutiny and potential legal battles may seem too much to bear at any price. Part II of this article (to appear in *Coastlines* Summer issue) will examine the profit incentives for investing in liveaboard vessel construction and/or accommodation.

Sea Grant Provides "Thermal Clues" to Anglers

Research, Extension Efforts Improve Trout Catches, Extend Peak Spring Fishing Season

by Mike Voiland, Brockport

Research and extension activities carried out on Lake Ontario since 1981 have paid off in improved angler harvest of rainbow trout during late spring, and has added a new and broader dimension to the lake's developing salmonid fishery.

In 1981, Dr. James Haynes of the SUNY College at Brockport began Sea Grant-supported research that involved radio-telemetric tracking and offshore netting of trout and salmon species in the lake. The purpose was to determine the whereabouts and movement of salmonid species during the late spring and summer, when anglers could no longer find fish close to shore (see *Coastlines*, October-December 1982).

Among many aspects of lake fish movements brought to light by Haynes' work was the important role played by the springtime warming process of Lake Ontario waters and certain related thermal features. The study suggested that rainbow trout in particular were likely to be contained nearshore of the lake's spring "thermal bar," a vertical zone separating colder (less than 39 degrees F.) offshore waters from warmer (more than 39 degrees F.) inshore waters. A second finding also hinted that rainbow might be aggregating near major surface temperature gradients — called "thermal breaks" or "fronts" — occurring between the thermal bar and shore.

Beginning in 1982, Sea Grant extension efforts were stepped up to transfer study findings, in the form of practical angling technique suggestions, to lake fishermen via publications, public presentations and organized "boat trolls." Boat anglers were encouraged to fish further offshore, near the surface, and to watch for surface temperature changes occurring at the thermal bar and at thermal breaks. Also, they were taught the basic limnologic processes involved with spring-warming, and were advised to look for other water characteristic clues, such as visual changes in turbidity, ripple patterns, and assemblages (or, in fishing jargon, "slicks") of flotsom, all of which were typically associated with thermal gradient surface manifestations.

The positive effects of the research-extension-user connection was widely evident on the lake by 1984. Boat anglers and charter skippers who applied the new information reported improved catches of rainbow trout, and even Pacific salmon species, during these months extended the productive spring fishery well past its traditional April peak. Many anglers adopted a two-pronged strategy to springtime fishing trips: if brown trout weren't taken closer to shore on a particular day, one could opt to seek rainbow and maybe salmon offshore "on the bar" or "on the breaks," or vice-versa.

An offshore trolling event among 26 boats out of Hamlin, New York in June 1984 rendered further proof of the value of the new thermal information. The troll, coordinated by Sea Grant Educational Vessel *Ontario* Project, resulted in a fleetwide catch of rainbow and salmon that, just a few years ago would have been unheard of, and provided the first documentation of the "mechanics" of the new offshore late spring fishery.

For more information on Sea Grant activities relating to salmonid movements and their thermal relationships, contact the Brockport office.

A 10-pound Lake Ontario steelhead (rainbow) trout, typical of many now caught by anglers using surface water temperature guidelines generated through Sea Grant research and extension effort.

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.

Theft-Proofing

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your protection, chain down the boat and remove or lock the motor and prop.

- As another protective measure, permanently inscribe all communicating equipment and electronic instruments with your driver's license number and state. This permits quick identification by law enforcement networks.

Taking these few steps may keep your boating season from ending before it has begun.

Angling for Smallmouth Bass in Lake Erie

Despite renewed awareness of Lake Erie's fishing opportunities, its smallmouth bass fishery remains very much overshadowed by traditional interest in walleyes and more recent interest in the heavily managed trout and salmon fishery. A newly released publication, "Angling for Smallmouth Bass in Lake Erie," was developed to increase people's awareness of this resource and promote its wise use.

The nine page booklet provides information about habitat, specific locations, and techniques of interest to the potential bass angler. The material presented is of use to anglers fishing other smallmouth bass waters, but is primarily intended for use along New York's Lake Erie shoreline.

Although walleyes will likely reign supreme in the eyes of many Lake Erie anglers, it is hoped that more anglers (and tourism interests) will come to appreciate the excellent sport and taste provided by smallmouth bass in eastern Lake Erie. See **"I Want More"** to order.

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