The Watershed

The Oyster Pond Environmental Trust Newsletter

Fall, 1996

Vol. 1, No. 3

Second Annual Meeting- July 13th

Celebrating successes...

OPET's second Annual membership meeting was held on July 13th at the Sea Education Association, in the middle of Hurricane Bertha! About 30 members were present despite the nasty weather and lack of electricity. We missed those who could not attend because of the weather.

Committee Reports

The committee reports were given in the last newsletter. A lively discussion of the Pond Management plan showed how valuable new active members can be.

Election of Officers

The membership re-elected the same set of officers as last year, however, it is the view of the officers and directors that the organization will be best served if there is a regular turn-over in officers and directors. Therefore OPET is actively soliciting members who would like to serve on the board and have an effect on OPET's direction.

Virginia Valiela's talk

Jelectman Virginia Valiela, our keynote speaker, gave us wonderful insights into how the town works. She praised us for our efforts, and gave us permission to make mistakes, as long as we make critical assessments of our own efforts to improve Oyster Pond.

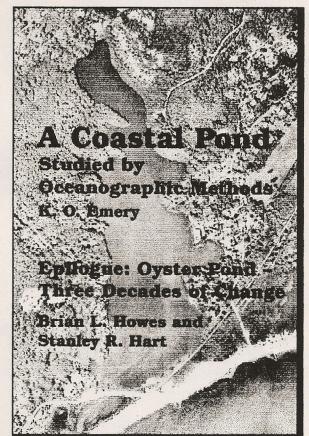
Good news on the White Perch Front

Over the Columbus Day weekend John Dowling and Bob Wilsterman caught 8 white perch in about an hour and 15 minutes near dusk in the cove between the Loewenstein and Dowling properties. Seven were good size (5-7 inches), probably spawned last year; one was tiny and probably was spawned this past spring. The fish were all returned to the pond. The white perch are returning! - J. Dowling

In memoriam.

It is always a great loss when a family member passes away, and we at OPET feel such loss keenly with the passing of Don Zinn, who was a member of OPET's board of directors. His great smile, knowldge and wisdom, diplomatic skill and energy as well as his sheer love of nature will be missed.

OPET reprinting "A Coastal Pond..." by K.O. Emery; order your copy!



Order your copies now!

OPET's board is spending \$7000 to reprint this important book which describes the physical, chemical, plant and animal characteristics of Oyster Pond in spectacular detail. We hope the book will help inform OPET members and others of the history of this coastal pond and of the changes that have occurred during the past 30 years. To order your copy, fill out the enclosed order form and send it to OPET, P.O. Box 496, Woods Hole, MA 02543. You can also purchase the book from the Market Bookshop. Copies will be ready for the holidays

Help support this undertaking by ordering now! Proceeds from the sale of this book will first repay the board members who have footed the printing bill. Thereafter they will directly benefit OPET.

Can you help?

This important study has relevance far beyond the Oyster Pond area. Can you help us get this book into the hands of the appropriate distribution paths? Please call Birgit Rose at 289-7258 (daytime) or 548-5984 (evenings) with suggestions.

The Weir Design Report

The following are quotes taken from Hydrodynamic Study and Weir Design, Oyster Pond, MA September, 1996 by Aubrey Consulting, Incorporated. The Pond Management Committee is presenting this by way of an update of the progress for the design and installation of the planned weir. If you would like to see the entire report, Barry Norris (540-7345) and Carl Breivogel (457-9695) each have a copy. [To improve readability, water levels have been converted here to mean ocean level (MOL)].

"The rationale behind the proposed pond management strategy is to return Oyster Pond to the ecologically stable system that existed prior to man-induced changes in the early 1980s. As the first step of the pond management, a weir has been designed to inhibit tidal exchange between Vineyard Sound and Oyster Pond for all but the higher Spring tide conditions. The intent of this structure is to stabilize the salinity conditions within the Pond and maintain a long-term average value between 2 and 4 ppt. In addition, dredging activities required in the Trunk River channel will allow tidal waters to enter the lagoon during most high tides. Allowing an increase in tidal action through this region will prevent fine sediment deposition and should improve water quality in this region.

"...the maximum elevation between the upstream and downstream water levels (at the weir) is 0.30 feet, with a mean difference of 0.18 feet. [due to a slight tidal effect in the lagooned]

"...The formation of the sill (at Trunk River) inhibits the exchange of tidal waters between Vineyard Sound and the Oyster Pond system. To change the hydraulic control from this sill to the proposed weir, dredging of the Trunk River channel to an elevation of 0.6 ft above MOL or below will be required. Having the hydraulic control moved upstream to the Oyster Pond outlet will allow the lagoon to maintain the existing salt marsh plant species...

"The weir also will prevent storm surge flood waters from entering Oyster Pond until the water elevation in Vineyard Sound exceeds 0.9 above MOL. During typical storm conditions, the weir will prevent pond flooding more effectively than the existing Trunk River system. However, severe storm surge conditions can overwash the barrier beach separating Oyster Pond from Vineyard Sound. During these severe conditions, the weir could inhibit the super-elevated pond from draining rapidly. Therefore, the weir has been designed with a removable gate to enhance relaxation of flood waters following severe storm conditions.

"Concerns about anadromous fish also were considered. The weir design will cause a maximum height differential between the pond and lagoon of 0.3 ft. This differential is within the range of typical fish ladder steps utilized for herring runs along the south shore of Cape Cod...

"...This system will emulate the Oyster Pond conditions prior to the man-induced changes in the early 1980's. Once the weir is installed and the Trunk River channel is dredged, the following changes can be expected:

* The mean pond elevation will drop approximately 0.5 ft from the observed elevation in July, 1996 (from 1.5 ft above MOL to approximately 1.0 ft above MOL). This will return the pond to an elevation similar to the pre-1995 level.

Trunk River and the lagoon area will be subjected to more frequent tidal exchange with Vineyard Sound, where nearly half the high tides will cause some flow reversal in Trunk River.

* Flushing will improve in the lagoon, preventing additional accumulation of fine-grained sediments and possibly scouring existing areas of sediment build-up.

* Aesthetics of the lagoon should be improved by the increased tidal action, since the tidal currents should decrease detrital accumulation.

* Salinity levels within Oyster Pond should stabilize between 2 and 4 ppt.

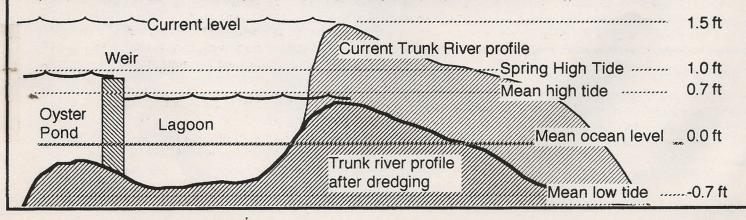
* No adverse impacts to fish migration should result from the project.

"...Once a stable salinity regime has been established, seasonal and/or post-storm review of salinity data should be utilized to adjust the weir elevation..."

-B. Norris

In other words:

Recent storms have clogged Trunk River, limiting the flow from the pond and the lagoon. Both the pond and the lagoon will continue to get fresher. Dredging Trunk River will allow some flow from the ocean to the lagoon every day. The weir will prevent the salt water from entering the pond except during the spring and fall extreme high tides.



Activities of the Land Acquisition Committee

Beyond the OPET Parcel

Now that the Fischer Parcels are sebly in OPET's hands (transfer of title DPET was achieved just in time before the Annual Meeting on July 13, the day hurricane Bertha bore down on Cape Cod) the Land Conservation and Acquisition Committee has been busy identifying the next most urgent objective. The result was the laving of plans for the creation of an Ovster Pond Conservation Area. Such a Conservation Area ideally should be a tract of contiguous, undeveloped land large enough to serve as a safe (rain) water catchment and recharge area for Ovster Pond. A "natural" for this is the pond's headwaters area containing the main spring that feeds Oyster Pond, between Fells and Ransom Rd.

In our plan the Oyster Pond Conservation Area would extend from OPET's property to the Spohr Gardens, including the land in between the Park and Gardens, marked WHOI in the drawing at the right. This land was recently given to WHOI by Holger and

Friederun Jannasch, and although there are no plans for any slopment in the near future, we feel it is very important that some of this property be secured now for conservation. This parcel also contains the connecting path between Ransom Road and Fells Road that the Jannasches have allowed people to use for many years. This path is the only direct connection from Tree Tops and Ransom Road to the Spohr Gardens and the bicycle path. OPET is currently discussing its plan for an Oyster Pond Conservation Area with the owners of



the property as well as with the 300 Committee, and hopes to interest the Town of Falmouth in this undertaking.

THANK YOU THANK YOU!

We want to express our special thanks to several individuals who have made significant (\$1000 or more) contributions to OPET during the past year and thereby made possible our continuing payments of the remaining mortgage on the OPET property: Elizabeth Davis, James Ferguson, Eleanor Garfield, Arthur Pardee and Ruth Sager, Werner and Birgit Loewenstein.

Memorial gifts

Memorial gifts in honor of James "Spike" Coles and Donald Zinn, totaling \$1250.00 were gratefully received by OPET. They are "living" tributes to the memory of these two men who each made important contributions to their respective worlds. Spike Coles was president of Bowdoin College, Maine, and of the Research Corporation (the latter created a James Coles professorship at Bowdoin in recognition of Spike's invaluable contribu-

tions to both Bowdoin and the Reseach Corporation). Spike was very concerned about Oyster Pond which he loved dearly, and he and his wife Cecily Selby (Co-president of OPET) have been most generous supporters of OPET. Don Zinn was a biologist of note and an avid nature lover. He has served on the board of Salt Pond Areas Sanctuaries as well as on OPET 's board of directors and was for many years a volunteer Pond Watcher on Oyster Pond.

Lower your taxes -- make a donation to OPET!

A donation to OPET's Land Conservation Fund may be the wisest investment you can make at this time! If you are a property owner around Oyster Pond, this is where you need to invest -- in the future of a healthy pond. The value of your property is inextricably linked to the quality of its environment, in this case Oyster Pond. OPET is hard at work to ensure that Oyster Pond will become the best it can be -- a healthy ecosystem that can sustain itself even though surrounded by development. To achieve this, controlling the salinity level in the pond (by construction of the weir) is not enough. We also must preserve open space in the Oyster Pond Watershed area to guarantee that fresh water feeding the pond indeed is "fresh" and not loaded with road runoff, phosphates (from fertilizers), pesticides, and nitrogen and toxins (from septic tanks). We need to act now while such open space is still there. Make a generous donation to the Land Conservation Fund.

For those of you who love to walk or bike to the beach or to work via the footpath that connects Ransom to Fells Road, or who use the path for jogging or walking the dog, here is another reason for contributing to OPET: the property through which this path meanders has changed ownership, and we are hard at work to secure this property for conservation and thus to guarantee the continued existence of this pathway to and from the beach and Shining Sea bicepath. We need your generous financial support NOW.

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From the Membership Desk

OPET is alive and growing! OPET's board of directors had high hopes for a membership of 100 in this year, and you have made it happen! Thanks to all who joined as members for the 1996/97 membership year (June 1 1996 to May 31 1997), we now are 102 members strong (27 sustaining and 75 regular members). This impressive membership count is an indication of the high level of concern for Oyster Pond among the residents in the Pond's watershed. However, we must not stop here if we want to achieve our objectives -- a healthy future for Oyster Pond. And so we ask you who already are members, to talk your neighbors and friends into joining OPET, and to urge those of you who are not yet members to become involved and to join OPET. Membership dues are tax deductible. They cover expenditures such as the legal fees incurred for the incorporation of OPET as a tax-exempt organization and for title transfer of the Fischer parcels to OPET, mailing expenses, stationery, copying, printing of educational materials and, and, and..... Most importantly, however: become an active member, contribute your skills, knowledge, knowhow or time and join one of OPET's committees, or just share the concerns you have about the Pond and its environs. Let us hear from you so that we can work together towards a healthy Oyster Pond.

P.S. We have created a new membership category: Lifemember \$5000.00 -- any takers?

-B. Rose

OPET Sustaining Members 1996/97

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