

JEFFERSON EDUCATIONAL SOCIETY

Quick, Timely Reads
On the Waterfront

Trees Redux
One Person Can Do Amazing Things

By David Frew, Scholar in Residence
December 2023



Second of a Three Part Series

Shortly after my Jefferson essay on trees (“Our Biggest Friends: The Neighborhood Trees,” April 4, 2022) first appeared a former graduate student,

Ken Fromknecht, called to ask if I would be interested in visiting his Millcreek property to see his trees. After a lifetime of tree-loving and several decades of gathering, planting, and caring for trees on his large lot southwest of Erie, Ken currently enjoys one of the most diverse collections of native tree species.

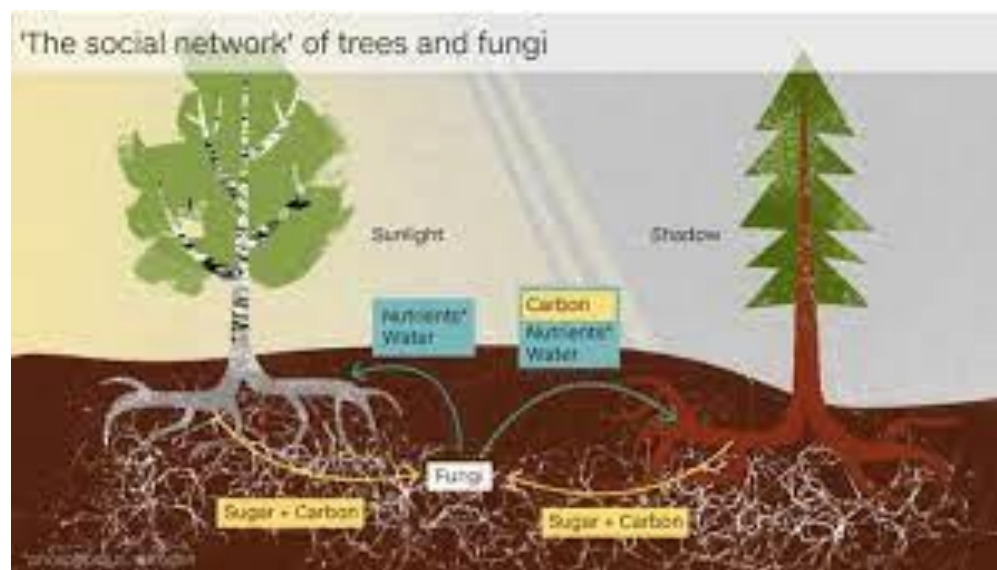
The Jefferson essay was based upon a series of books and articles that described and argued for a growing scientific consensus that trees live within interconnected communities. In most tree communities there is at least one “mother tree,” an older and generally larger tree, whose root system covers and dominates the area where other smaller and younger trees grow. These groups of trees are not only aware of each other, but they work together to support, protect and nurture each other. The key to success for communities of trees is diversity, both in terms of species and maturity. Individual trees communicate both through their complicated root systems and through the chemical composition of the earth that they share, including the fungi that commonly grow in the shady areas under a forest canopy.



A typical tree canopy

While the most visually apparent property of a community of trees is the canopy that covers and shades the floor of the forest, the root system is even more massive and much more complicated. Given the passage of time, the root system takes over the forest floor as roots from individual trees connect and begin to communicate with each other. Breakthroughs in the study of tree communication have mostly happened over the past 10 years and scientists have learned to intercept information that is regularly sent between trees. Current working hypotheses suggest that the mother trees know when community members are “in trouble” with respect to nutrients or water and send help. They constantly monitor the entire community of trees and listen for signs of trouble. These

mother trees are incredibly important to the entire tree community and should be exempt from removal, even when they age and begin to decline.



Interconnected root systems

Mary Ann and I drove to Ken's home one morning and he provided a guided tour of his large lot. Walking slowly around his home he stopped dozens of times to describe each of the many trees that were growing there. He began with the largest, some of which had already been there when Ken moved to the property. These large original trees had evolved into Ken's "mother trees." Then, one by one, he introduced us to the medium and small ones, taking time to remove the plastic and steel tubes that were there to protect vulnerable saplings from the many critters that share the Fromknecht sanctuary. In addition to creating a beautiful tree sanctuary, Ken has slowly built an ecosystem that supports every imaginable small animal in addition to the rich community of trees and shrubs.

In introducing the trees, Ken told the detailed story of each of them, including where he obtained it, how old it was, and the special issues that confronted it as it grew. It was quite like listening to a parent introducing beloved children, and often the story of a tree involved one or more people, including members of Ken's family.

Ken is active with Lake Erie Arboretum at Frontier (L.E.A.F.), where he helps interpret the wonderful array of trees at Frontier Place and helps visitors to understand their importance. In his "spare time" he has written a wonderful book, "Old Trees of Erie County," which encourages readers to go on a pilgrimage to visit trees that he calls witnesses, ancient specimens that have been with us for

hundreds of years. One nearby example of witness trees is a pair that graces West Eighth Street near the Shriners Hospital (Shriners Children's Erie).



This pair of old oak trees shades the lawn at Shriners Hospital

What Ken has done with his property over the past several decades is a sterling example for all of us. He has carefully avoided the use of chemicals. Neither insecticides nor pesticides have been spread on his property. Leaves have been allowed to fall and remain in place, becoming natural organic mulch. His practices stand in stark contrast to typical forest clearcutting or real estate development. The standard practice in both of those applications is to remove all of the trees, and as that is happening the machinery used to take the trees down and clear away brush, simultaneously removes and or destroys the top layer of earth, robbing it of its rich biological composition. Then if new trees are planted, they are often non-native species, of all the same type and left to fend for themselves in subpar soil.

In contrast to these dysfunctional practices, Ken Fromknecht has systematically created a property that is characterized by the richest, most productive soil imaginable. No wonder his trees grow so well. And in the midst of this amazing oasis of growth he spends a significant amount of time making, rooting, and planting tree cuttings. He starts the young cuttings in small pots and gives them away to people who are interested in growing them.

The pathway by which the April 2022 essay on trees reached Ken is illustrative of the Jefferson's quiet impact both in and beyond the Erie community. While Ken

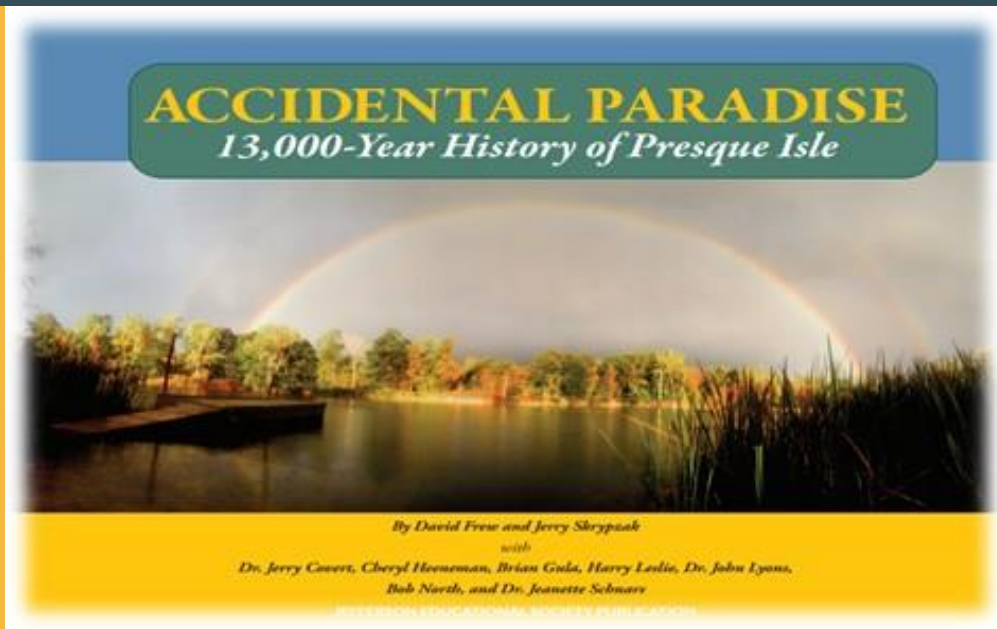
is not a member, the essay was forwarded to him by a mutual friend, John Vanco. I am grateful for that.

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Accidental Paradise
by Dr. David Frew and Jerry Skrypzak



The beautiful book on Presque Isle published by authors David Frew and Jerry Skrypzak – “**Accidental Paradise: 13,000-Year History of Presque Isle**” – is on sale at the Tom Ridge Environmental Center’s gift shop and through a special website, AccidentalParadise.com.

The book, priced at **\$35 plus tax and shipping**, can be ordered now through the website sponsored by the TREC Foundation, AccidentalParadise.com.

Presque Isle Gallery and Gifts on the main floor of TREC, located at **301 Peninsula Drive, Suite #2, Erie, PA 16505** will also handle sales *daily from 10 a.m. to 4 p.m.*

For more information, send an email to aperino@TREC.org.

To watch "Accidental Paradise: Stories Behind The Stories" click [here](#).

ABOUT THE AUTHOR

Historian and author David Frew, Ph.D., is a Scholar-in-Residence at the JES. An emeritus professor at Gannon University, he held a variety of administrative positions during a 33-year career. He is also emeritus director of the Erie County Historical Society/Hagen History Center and is president of his own management consulting business. Frew has written or co-written 35 books and more than 100 articles, cases, and papers.



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