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# Fred-Talks

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## Introduction to this Newsletter Issue

Hello again! Welcome to my newsletter.

I hope you enjoy my newsletter, or at least find it amusing. Or, perhaps, even irritating? I think that I am funny, but no one laughs with me. I'm becoming more verbose. Sorry.

If you do not wish to receive more issues, please let me know via email. You can just write STOP for the subject.

I occasionally bring up issues that are someone else's point of view, but are points that I think should be discussed.

If you have other views, I would be happy to consider including your comments in the next Fred-Talk, with or without your by-line, as you wish. Send me an email.

### Inside This Issue:

Introduction	1
Human Population Dynamics	1
Cynic's Corner What is humor and luck?	2
Potable Water (Where is it?)	3
Fred's Academic Philosophy	4
Gross Commercialism	5

## John Steinbeck / Human Population Dynamics

John Steinbeck has been one of my heroes for decades. My introduction to his works occurred during the summer of 1964, which I spent at the University of Oregon's Marine Station at Charleston, Oregon.

Someone suggested I read *Cannery Row*. I read the book and became fascinated with the "Doc" character. "Doc", I found out later, was based on a real person, Ed Ricketts. Ricketts wrote a book titled *Between Pacific Tides*, a guide to the organisms living along the seacoast between low and high tides. My single, modest claim to scientific fame is that some of the research I did that summer is cited in a newer edition of this book.

Recently I re-read Steinbeck's book *Travels with Charlie*. Part of this book tells of Steinbeck's return visit to his childhood home in Salinas, California. He expresses amazement at the population growth of Salinas in particular, and California in general. Everything had changed since his childhood, and many of his old friends and associates had passed on.

This change made him realize that the old adage, "You can't go back", is probably true. The past is not a real place to which you can return. Furthermore, everything changes with time. While Steinbeck mused about the increasing human population, logic told him that the numbers of living people can't increase forever.

Paul Ehrlich wrote a book (*The Population Bomb*) about human dynamics in 1968. He suggested that something would eventually stop human numerical growth. That something could be lack of food, lack of drinking water, environmental pollution, disease, war, or a combination of them. Many Americans thought Ehrlich was wrong. They had faith that better technology would solve future problems. Ehrlich's admonition has been criticized and largely ignored. Yet, no one really believes that the population of humankind can increase infinitely.

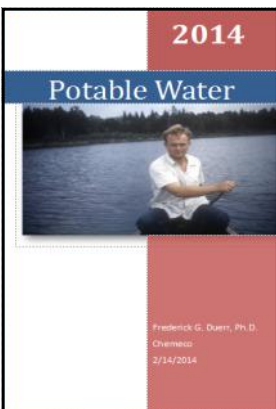
Currently, humans argue over whether global warming is real. If it is real, is it a result of man's activities? The Earth has been irregularly warming since the last ice age. I do not think that Mother Nature is so simple that global warming is the result of any single action by man, the Sun, or the Earth itself. If global warming is real, it probably is a result of many actions, by many sources. I wonder if anyone has compared atmospheric emissions of volcanoes with that of factories or motor vehicles?

### Website

[www.chemeco.com](http://www.chemeco.com)

### Newsletter Archive

[www.chemeco.com/Newsletter.htm](http://www.chemeco.com/Newsletter.htm)



*We get old too soon, and wise too late.*

Attributed to B. Franklin

## Cynic's Corner (Humor ?)

Last week I saw this cartoon in "How-To-Geek".

It reminded me of the time my wife asked why I was wearing head phones while I was playing the piano.

I actually told her that it was because I did not wish to disturb her intellectual activities with my noise.



*"I've invented a cloak of invisibility.  
I just put it over your head and you  
can't see me."*

## Cynic's Corner (Luck ?)

This reminds me of one of the reasons I have trouble taking life too seriously.

I visited the Naval Air Training Center in Memphis, TN in 1862 to study their education methods. The Navy was to transport me from Sioux City, IA, house me at their BOQ, and return me to Sioux City after training.

The trip was delayed some because the left inboard engine of the airplane caught fire, melted off the wing of the airplane, and destroyed the planes hydraulic system and much of its electric system in the process.

Thus the plane had no functional flaps, main wheel brake, and couldn't bank. It

was a smooth ride, however, and as they say, "Any landing is a good one".

Oh! The engine was found in a cornfield across the Missouri River in Nebraska.



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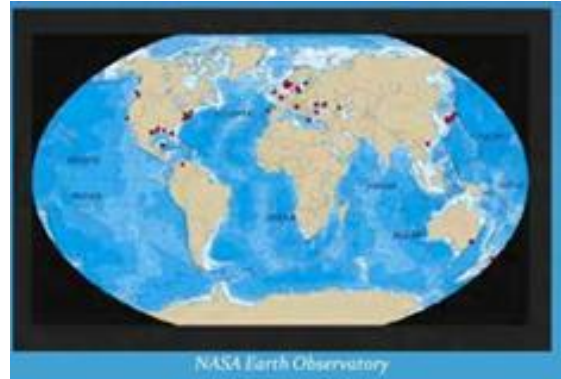
**Things which matter most must never be at the mercy of things  
which matter least.**

**Johann Wolfgang von Goethe**

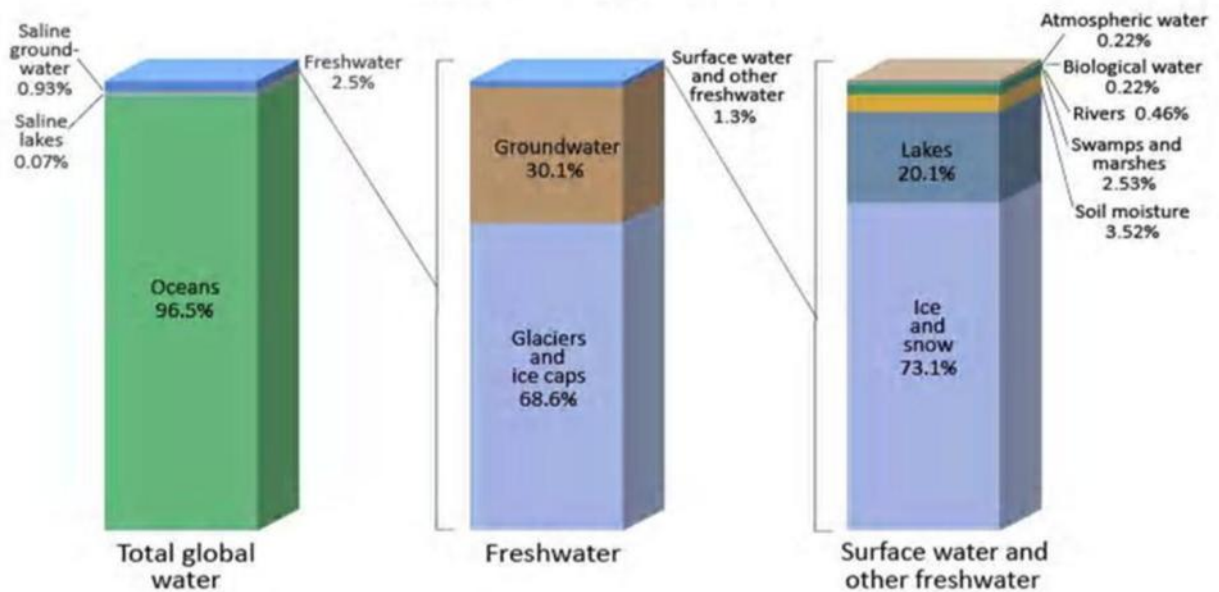
## Potable Water (Where is it?)

Water covers approximately 71% of the Earth. Perhaps it would have been more accurate for ancient peoples to name our planet HYDRA instead of EARTH. Most of this water is in the four main oceanic basins, the Atlantic, Pacific, Indian, and Arctic.

Of this water, less than 1% is suitable for agriculture and other human needs.



## Distribution of Earth's Water



Source: Igor Shiklomanov's chapter "World fresh water resources" in Peter H. Gleick (editor), 1993, *Water in Crisis: A Guide to the World's Fresh Water Resources*.

Charles Fishman, in a post "Five Myths about Water, *Washington Post*," stated that 45,000 gallons of water is available to every person on Earth via rain, rivers, lakes, etc. He suggests that any danger of us running out of water is a myth.

Unfortunately, he did not mention that water sources are not distributed equally around the Earth. Many places on Earth do not have enough available water for human needs such as drinking and agriculture.

**I've spent half my money on gambling, alcohol, and wild women. The other half, I wasted.**

*W. C. Fields*

## Fred's Academic Philosophy

I have been a university/college teacher for 60 of my nearly 80 years of age. I have observed much about academia during this time. As I look at the conditions of today's academic world, I am confused as to why things have changed so much over the past 60 years.

When I was a student, I paid for my education from my own pocket. Tuition at the University of Minnesota was \$37.50 per quarter, my housing was \$45 per month, my summer full time salary was \$200 per month, and the money I earned doing part-time work during the academic year was sufficient for myself, family and children.

I studied to be a Zoo-Physiologist and planned to teach at the university level after I earned my Ph.D. degree. Requirements for earning the Ph.D. degree included:

1. Classes in Comparative Anatomy, Cytology, Embryology, Invertebrate Zoology, Genetics, Evolution, Ecology, Histology, Parasitology, Physiology, Botany, two years of Chemistry, two years of Mathematics, and Physics.
2. Proficiency in two foreign languages.
3. A two-week long comprehensive written preliminary examination.
4. Thesis Dissertation
5. Oral Preliminary examination
6. A final defense of the Thesis.
7. A summer at a Marine Station.

Nearing graduation, I applied for twenty university positions (all west of the Mississippi river) and was offered an Assistant Professorship at six of them.

My first academic position was at the University of South Dakota. I taught General Zoology, Comparative Vertebrate Zoology, Embryology, Cell Physiology, Invertebrate Zoology, and History of Science during my first year.

My point in all the above is that my broad knowledge of bioscience has enabled me to find work up to this day. After retiring from full time university teaching, I taught chemistry, general biology, physics, and microbiology at Oregon Coast Community College. I am currently giving lectures on tide pools and on potable water at Oregon State University's Hatfield Marine Science Center.

Since I left the University of Minnesota, the university decided that an eight to nine year average for a student to earn a Ph.D. was too long. They reduced the Language requirement to one year (with the option of substituting computer science or statistics for a foreign language). They grant a non-dissertation Ph.D. They reduced the major concentration in Zoology to one subdivision with a minor on Botany. They reduced the time to get a Ph.D. degree to four years by

reducing requirements. The result was and is to turn out more Ph.D. graduates with a considerably reduced knowledge base and a narrow specialization.

The second major change in academia over the past 60 years is the dependence of the university on a federal influx of money and on increased student tuition fees to pay the rapidly increasing cost of education. College administrators seem to have diligently studied *The Peter Principle*. The increase in the numbers of Vice-, Assistant-, Sub-Assistant-, and other Vice- Administrators, all receiving large salaries and doing little or no work, certainly points out that most of them are achieving their *Level of Incompetence*.

The supplier of federal moneys frequently allocates research moneys earmarked for special problems. This leads to competition by the many for the limited research funds. It also leads to narrow research papers jointly written by many authors, including the dishwasher and janitor. Worse than that, it encourages universities and colleges to hire teachers based on their ability to acquire this funding. As an example, I have a daughter who spends as much time writing new and grant extensions for continued funding as she does on her research.

As a rule, I do not pay attention to research papers with more than three authors. My hero is the research artist who takes all the published bits of information, puts them together, and concentrates on the meaning of the whole puzzle. I like reviews.

It also distresses me that many recent Ph.D.'s are not considered competent until they have completed more schooling as a Post Doc in some expert's laboratory for several additional years. Even so, I have found marine scientists and educators who do not know that echinoderms and mollusks fundamentally differ from each other, both architecturally and metabolically starting from the fertilized egg, and yet work as experts in water balance and kidney functions in larval salmon.

The third major change in academia over the past 60 years is that there are fewer and fewer of the Professorial rank teaching the students. This work is delegated to Adjunct Professors, Post Docs, and graduate students.

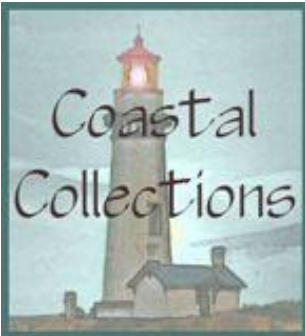
Where will the trend in teaching by the least educated end? I do not know. I am a bit cynical about it. I do believe, however, that knowledge will always increase, and education must never end. I think it is better to learn more about many things, than to learn a lot about fewer things.

*I guess it is a good thing that we have our life to learn it all...*

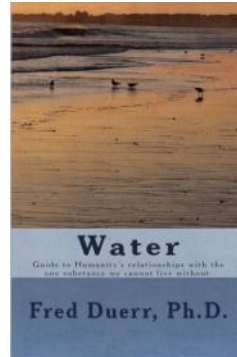
*Dr. Wierd*

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## BOOKS-BOOKS-BOOKS



Diana and I have somehow acquired several thousand books on a multitude of subjects. Click on the image at left to take you to our website, where you can search our inventory of books for sale at Biblio.com



I have written a small, 54 page primer on water. It is designed to give basic information to the general public. It is available at Amazon.com as a paperback book (**Water**, by Fred Duerr), **ISBN: 1482773872** and as a Kindle, **ASIN: BOOCM13KSA**

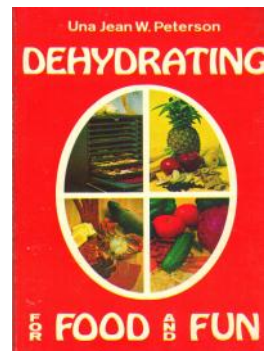
Click on the book image to the left to take you to my page on Amazon.com.

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## Free Book on Dehydrating Foods

I have a few copies of Una Jean W. Peterson's book "Dehydrating for Food and Fun". These are my own personal copies, and I am willing to give these books away.

Send me an email, and you can pick up a free copy from me.



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## Free Potable Water Manual

I have written a very brief pamphlet on how to find potable water. You may obtain your free copy by clicking [here](#).



**Who/What's a drip?**



**Unthinking respect for authority is the greatest enemy of truth.**

*[Albert Einstein](#)*