

You've got the data, now tell the story.

David Poulson

MSU Knight Center for Environmental
Journalism

Michigan Clean Water Corp
Nov. 5, 2015



GREAT LAKES ECHO

Water ▾ Nearshore ▾ Land ▾ Recreation ▾ Wildlife ▾ Climate ▾ Energy ▾ Waste ▾ Air ▾

Hot Topics: Remote Sensing Law Chicago View Cold Beer Art Africa Echo Commentary

Wisconsin replicates Michigan's certified natural shoreline program

By: GREAT LAKES ECHO | May 14, 2013 | [EDIT THIS POST](#)

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By Leslie Mertz

Consider the plight of a turtle facing a cement seawall.



Many inland lakes are ringed with such
greatlakesecho.org

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[Great Lakes cities top some lists for park amenities](#)

Stream app turns Great Lakes citizens into scientists


By: CHELSEA MONGEAU | December 15, 2014 | [EDIT THIS POST](#)

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Primitive technologists and stories

Failure as story teller =

- Starvation
- **Death by woolly mammoth**

Today:

- Impact – peer review publications insufficient
- Grants – broader impacts (NSF, NIH, others)
- Citations –

140,000 papers

Titles: 1 to 55 words

- Each character added to title reduced citations 1.78 percent

Storytelling: What not to tell

- **The Elements of Style:**

Omit Needless Words

- **The Word of God:**

Upon hearing the news, in a rare and shocking display of deep emotion, Jesus of Nazareth, the traveling preacher proclaimed by some as the Messiah but described by himself only as the Son of Man, cried openly and inconsolably.

- The *real* Word of God:

Jesus wept.

- Dr. Seuss:

Shorth is better than length

It has often been said
there's so much to be read,
you never can cram
all those words in your head.

So the writer who breeds
more words than he needs
is making a chore
for the reader who reads.

That's why my belief is
the briefer the brief is,
the greater the sigh
of the reader's relief is.

And that's why your books
have power and strength.
You publish with shorth!
(Shorth is better than length.)

Deficit theory: If only we had more facts

Engagement theory: Facts aren't enough

What are the most technical stories?

- Economics?
- Energy Policy?
- Health care?
- Politics?
- Science?
- Environment?
- Nuclear physics

How about...

Sports?

Rose Bowl fact set

- Score: MSU 24, Stanford 20
- 1:46 left in the game.
- Stanford has the ball on its own 34-yard line.
- It's fourth down with 1 yard needed for a first down.
- Stanford goes for the first down.
- Stanford fullback Ryan Hewitt tries to dive over the line with the ball.
- MSU linebacker Kyler Elsworth stops him from getting the first down.
- MSU gets the ball back, runs out the clock and wins.

This highly technical paragraph could be understood by any casual football fan:

It was fourth and one on their own 34 when Stanford decided to go for it. But the Spartans stuffed Stanford at the line, took over on downs and ran out the clock for the win.

But without understanding the jargon...

- Fourth and one?
- On the 34 what?
- Go for it?
- Stuffed at what line?
- Took over on downs? What's a down?
- Ran out the clock?
- There is a clock?

Readers aren't dumb. They are capable of understanding complexity, if you find the common language that you share.

You are not a poor communicator. You are capable of explaining complexity, if you find the common language that you share with readers.

The **Midwest agricultural community** is adapting to **reduce environmental impacts. ?**

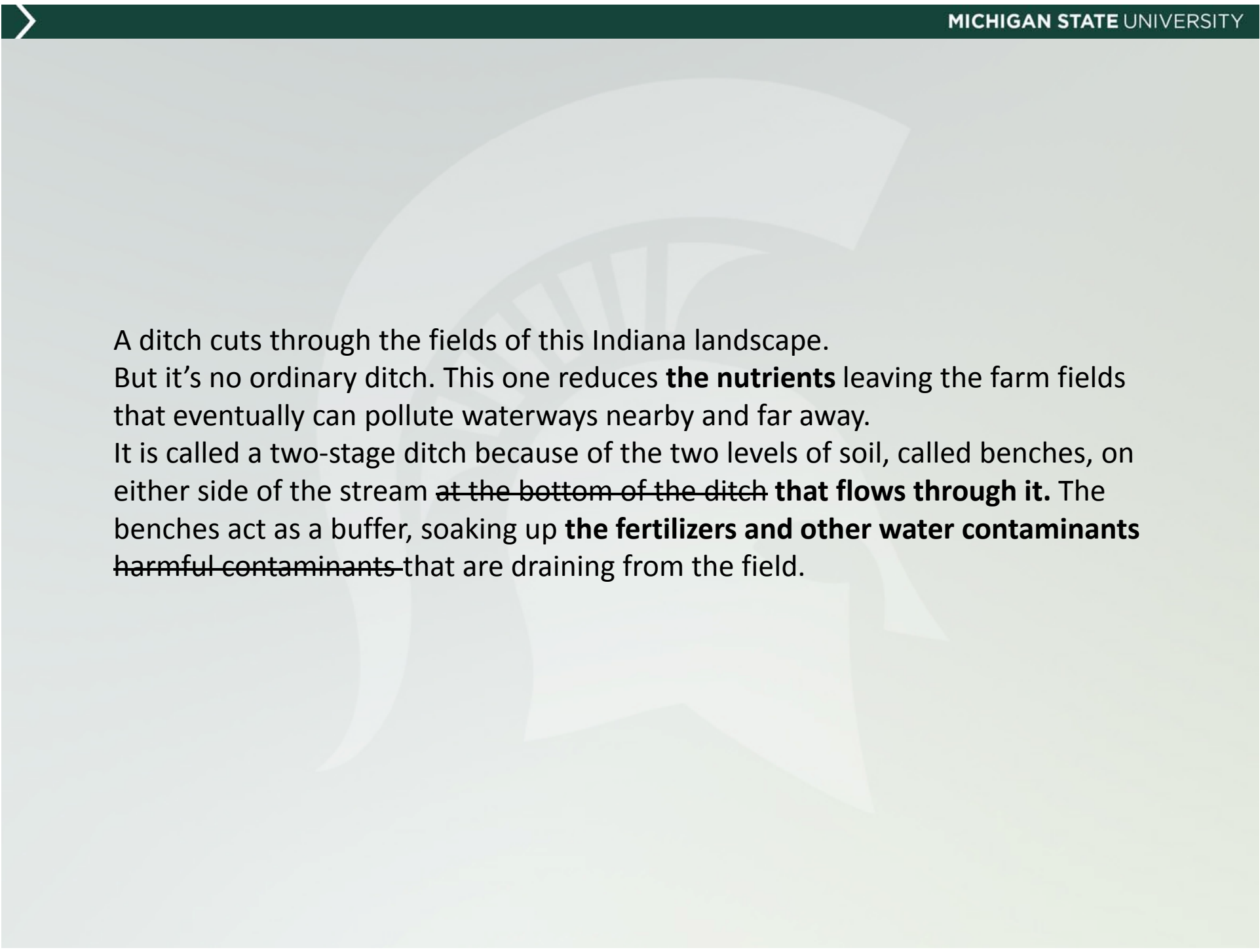
Farmers are using an advanced technique to increase water quality. It is called a Two-Stage Ditch. Standard, channeled ditches in fields export excess **phosphorus and nitrogen sediments**, which contaminate drinking water, **harm water inhabitants** and **fuel algal blooms** downstream. A Two-Stage Ditch is constructed with **multiple banks**, which reduce those sediments.

Planted in the middle of rolling farm fields, runoff is collecting at the bottom of a ditch. The ditch cuts through the fields, **affecting** the watershed nearby. However, this isn't just a regular trench in the ground.

It is called a two-stage ditch. The system consists of two benches on either side of the stream at the bottom of the ditch. The benches act as a buffer for the sediments that are draining from the farm field.

WARSAW, Ind. – A ditch cuts through the fields of the Indiana landscape. But it's no ordinary ditch. This one reduces the environmental impacts that the farm fields have on the surrounding watershed. It is called a two-stage ditch. It has **two benches** on either side of the stream at the bottom of the ditch. The benches act as a buffer, soaking up the sediments that drain from the field.

Paragraph 3: It is called a two-stage ditch because of the **two levels of soil, called benches, on either side of the stream** at the bottom of the ditch. The benches act as a buffer, soaking up the harmful contaminants that are draining from the field.



A ditch cuts through the fields of this Indiana landscape. But it's no ordinary ditch. This one reduces **the nutrients** leaving the farm fields that eventually can pollute waterways nearby and far away. It is called a two-stage ditch because of the two levels of soil, called benches, on either side of the stream ~~at the bottom of the ditch~~ **that flows through it**. The benches act as a buffer, soaking up **the fertilizers and other water contaminants** ~~harmful contaminants~~ that are draining from the field.

- [How an upstream ditch limits downstream algae](#)
- 82 Tweets
- 52 Facebook likes

- How much phosphorus was there before and after the construction of the two stage ditch?

- Hi, Sandy. Good question! Thanks for asking. The Nature Conservancy reports that initial phosphorus levels were not taken before construction of the two stage ditch. However, in a control area of the stream where no change was made, there were 53 more tons of sediment than in the two-stage ditch. Taking into account the cover crop in the field, there is nearly 40 percent less nitrogen deposited into the water in the two-stage ditch in Mentone, Indiana. However, every system is unique. I hope this helps! – Jenna Chapman, Great Lakes Echo reporter.

Good Morning Jenna,

I would like to share your article on “How an upstream ditch limits downstream algae.” I read the article on the GLIN News. I tried to share the article, but the site would not let it happen. I have worked with Laura Lindemann some on the Hardin County ditches. The Army Corp of Engineers would like to install several miles of two stage ditches in the watershed. ***Is it OK. to copy and distribute the article.*** Thank you for your time.

Phil Martin

Blanchard River Watershed Coordinator

Hi David,

The Blanchard River watershed is located about 45 miles south of Toledo. The Blanchard River flows into the Auglaize River which flows into the Maumee R.. We are a part of the Western Lake Erie Basin. The Nature Conservancy has installed 2 two-stage ditches in the southern part of the watershed. I have work with Laura Lindeman some on these projects. The Army Corp of Engineers would like to build more two-stage ditches in our watershed. I have also worked with Dr. Ward from The Ohio State University on finding locations. ***I thought Jenna's article was well written and easy to understand. I wanted to post it on our Facebook page, website and use it our quarterly newsletter.***

Tips for killing jargon

- Tell a spouse, parent, friend
(Don't fake that. Really tell a spouse, parent, friend)
- Avoid bureaucratic names and acronyms
- Write first with the jargon
- Now rewrite, focusing on translating the jargon

Planting dates for crops are strongly dependent on the timing of rainfall as well as the temperature range. (18)

Planting dates depend on rain and temperature. (7)

GCFSI is seeking proposals that would help to reduce the vulnerability and increase capacity of smallholder farmers to adapt to climate variability and climate change in water-stressed regions in developing countries. (32)

We seek ways to help small farmers adapt to climate change and variability in dry regions of developing countries. (19)

Passive voice

- Bill received a bullet shot from the gun that Ellen fired. (11 words)
- Who is doing something? Ellen.
- Make Ellen the subject and give her a strong verb to complete the action.
- Ellen shot Bill. (3 words)

The volleyball team was congratulated by Tom Izzo.
Tom Izzo congratulated the volleyball team.

Bicycles are the mode of transportation for millions of Chinese.
Millions of Chinese ride bicycles.

It is a common occurrence to see two or three people on one bike.
Two or three people often ride one bike.

Tears poured from his eyes and ran down his cheeks.
He cried.

Avoid obscuring with jargon and vague language

It has long been known.

I haven't bothered to look up the reference.

It is believed.

I think.

It is generally believed.

A couple of other guys think so too.

Avoid obscuring with jargon and vague language

It is not unreasonable to assume.

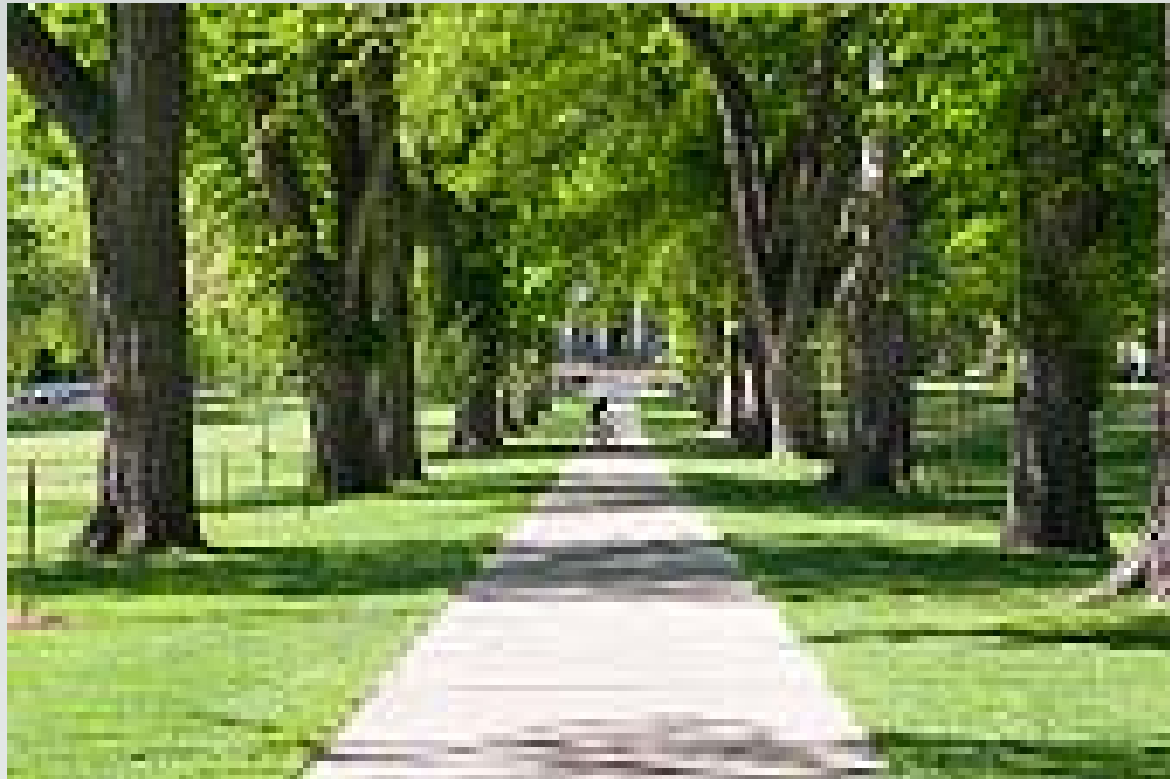
If you believe this, you'll believe anything.

Correct within a magnitude of X

Wrong





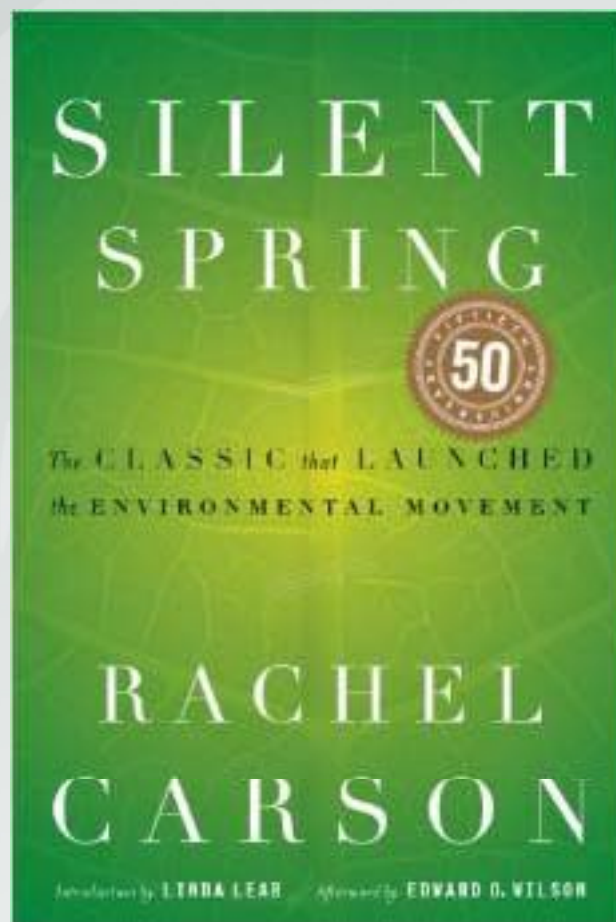




Story hooks

- Picture
- Audience identification
- Word picture
- Anecdote
- Conflict
- Cliffhanger









The researcher provided the ammunition to change the world

But it was the communicator who lit the fuse.



Goals:

- Primary: Demonstrate storytelling tools
- Secondary: How biomagnification works
- Tertiary: How science works

Some story tools

- Write a single sentence with the goal of your piece. You don't have to use that sentence, but keep it in mind as a guidepost for focus. ***Remember, you are not telling everything you've discovered in your research.***
- What is the most interesting aspect of your research? Start there.
- Why is your research important to people. Be very specific.
- Can you find a personal anecdote? Something interesting that happened to you that will work as a little story within the big story?
- Can you write an analogy, metaphor or simile – paint a picture with words?
- Are there elements of conflict in your story?
- Is there a cliffhanger that you can hint at throughout your story and deliver at the end?

Making healthy cereals

[Microbes fight pollution](#)

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Re-defining an environmental news
community as a watershed

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Pushback:

- What's a watershed?

What is the best beer brewed with Great Lakes water?

MAY 15 2012

GREAT LAKES ECHO

28 COMMENTS

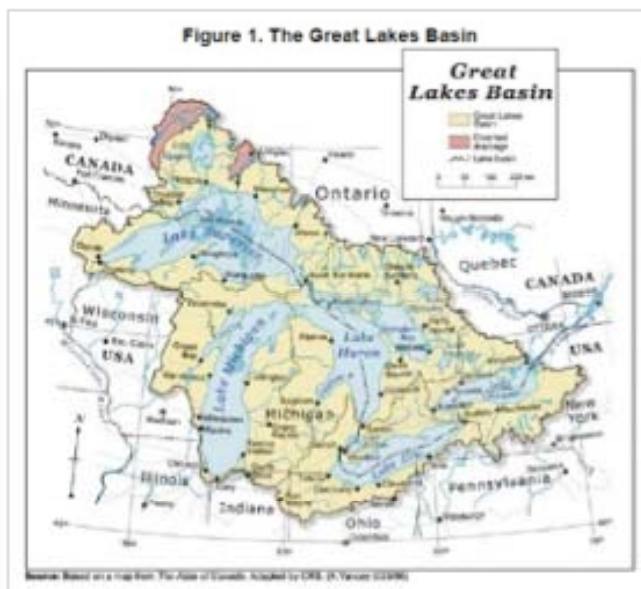
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+1 0

Share 6

Outside Magazine recently released a [list of the top 10 canned beers](#) of 2012.



The magazine claims these as the best of 100 brands sampled. Apparently they were sampled at once and by very few judges. How else to explain the impaired judgment resulting in a selection containing only two beers brewed in Great Lakes states: [Sly Fox Pikeland Pils](#) from Pottstown, Pa., and [Sixpoint Resin Ale](#) in Brooklyn, N.Y.

And those two aren't even in the Great Lakes watershed.

Sorry *Outside*. Every beer lover – at least those who read Echo – should know that

the best beer is brewed from the waters comprising or draining into 20 percent of the world's fresh surface water.

So here's the challenge, Echo readers: What is the best beer made from water derived from within the Great Lakes watershed?



GREAT LAKES ECHO

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He compared the relationship between climate and weather to the relationship between a parent and a child.

***“If you’re a parent, you have this long-term influence on your child, but you don’t drive their decisions every day,” said Arndt. “If the kid makes a good or bad decision, it’s based on different factors.”
In the same way, long-term climate patterns influence day-to-day weather, but don’t have complete control over it.***

Photoshop Your carp blues away

Before



Swimmers enjoy a peaceful Lake Michigan

After





Before



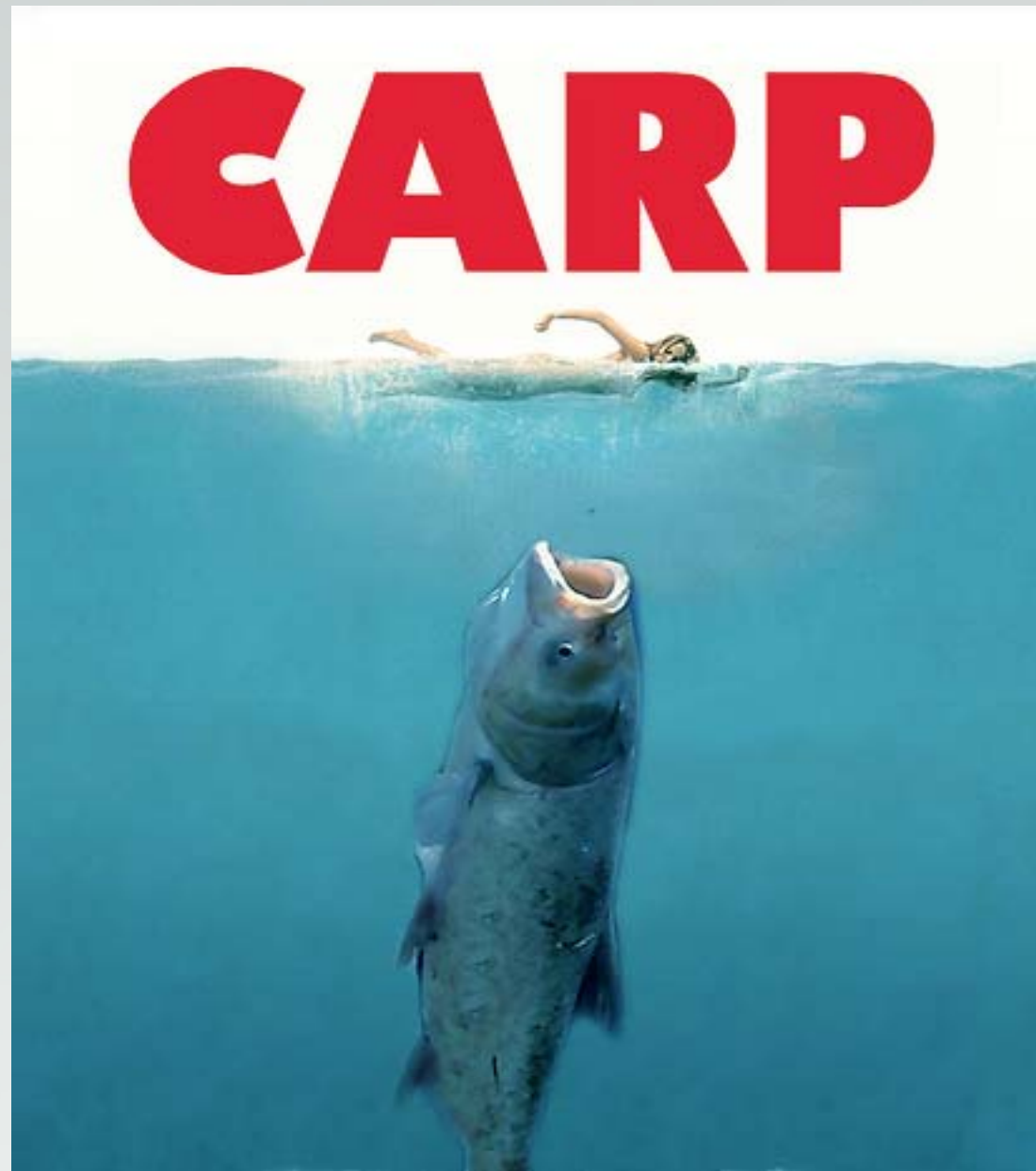
Swimmers enjoy a peaceful Lake Michigan

After



CHIGAN STATE UNIVERSITY











Controlling the carp: Now's the time

3 Ingham County Community News

You know how some people, like an obnoxious relative or an overly talkative co-worker, might be OK in their native habitat — just not in yours?

Think of the Asian carp as your overbearing brother-in-law that visits every Sunday afternoon and eats every last morsel of food out of your refrigerator, even the rancid cole slaw.

This fish species has been found in the Illinois River, a connector between the Mississippi River and Lake Michigan.

Now how did the Asian carp get all the way from its native China to a U.S. river? Did it hitch a ride on a cruise ship and survive by feasting on the midnight buffet, masquerading as a smoked salmon and nibbling on hors d'oeuvres when no one was looking?

No, the Asian was carp was imported to the United States on purpose. According to the Environmental Protection Agency, two species of Asian carp, the big-head and the silver, were imported by catfish farmers in the 1970s to remove algae and suspended matter out of their ponds.

Then fate intervened when in the early 1990s, many catfish ponds over-

Christie's chronicles

Christie Bleck



flowed their banks during floods, and carp, ever the opportunists, made their way into local waterways in the Mississippi River basin. The carp then started a northward trek.

This would be OK except for two big factors: (1) Invasive species, lacking predators, tend to take over a new area, and (2), Asian carp are big. Really big.

An Asian carp can weigh up to 100 pounds, which would be more acceptable if it were a 5-foot, 1-inch Olympic gymnast. To maintain its 100-pound frame, the Asian carp has to consume vast amounts of food (which was the reason it was imported in the first place).

Were Mr. Carp to enter the Great Lakes, researchers believe it would disrupt the food chain that supports native fish.

Now what?

But just look at that face. Who wouldn't want that che-rubic piscivore in their back-

yard ponds?

However, there's not much Asian-carp love going around. Even though it has its own Web site, www.asiancarp.org, that site is devoted mainly to eradicating it, or maybe more gently put, "controlling it."

Also, the U.S. Army Corps of Engineers, EPA, the state of Illinois, the International Joint Commission, the Great Lakes Fishery Commission and the U.S. Fish and Wildlife Service are combining forces to install and maintain a permanent electric barrier between the Asian carp and Lake Michigan.

I see their point. If 4-foot, 100-pound invasive fish are hogging all the Lake Michigan food, what's left for the rest of the fish population? It might not be feasible to hold massive air drops of Quaker Oats flakes or frozen brine shrimp to supplementally feed all the starving fish.

So, as a Mason resident, you are asking yourself, "How does this affect me? If I'm walking along the Hayhoe Riverwalk, do I have to worry about being gobbled by a monster fish? I mean, we're pretty far from a Great Lake here in Mason."

True. But consider that Sycamore Creek is a tribu-

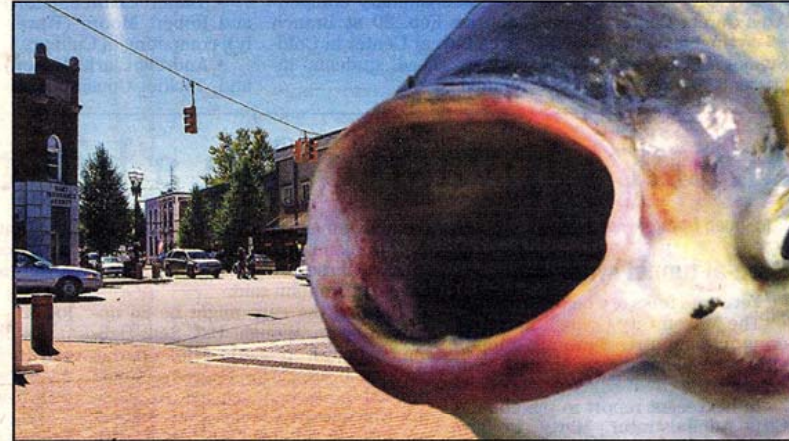


Photo by Christie Bleck

Carp diem! Even an inland community like Mason might not be safe from the invasive Asian carp. This "carp bomb" was created by Great Lakes Echo. Various pictures of the carp are superimposed on unsuspecting people in photographs, with amusing results.

tary of the Red Cedar River, which is a tributary of the Grand River, which flows into Lake Michigan. Connect

the dots, and you might have a problem.

Or not. Maybe the Asian carp will never be a threat

here in the semi-desert that is mid-Michigan.

Continued on next page

Bait ban

State Reps. Rick Jones, R-Grand Ledge, and Bob Genetski, R-Saugatuck, have introduced legislation to ban Asian carp as fishing bait to help prevent the species from entering the Great Lakes watershed. House Bill 5986 prohibits removing minnows from known Asian carp-infested waters and bans the use of Asian carp as bait. Two University of Michigan scientists have requested legislation to plug a gap in current law, reporting that the fish will eventually gain entry as bait unless legally excluded. Gerald Smith studies fish distribution and John Vandermeer studies ecological systems at U-M.



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GREAT LAKES SMACKDOWN!

NAME _____

Invaders battle to destroy the ecosystem

E-MAIL _____

FIRST ROUND

Quagga Mussel

Zebra Mussel

Curry-Leaf Pondweed

Eurasian Watermilfoil

Round Goby

Sea Lamprey

Alewife

White Perch

SECOND ROUND

1A

2A

3A

4A

FINAL ROUND

1B

2B

CHAMPION!

Final

Which Great Lakes invasive species is the worst? Find out in the Great Lakes Smack Down. Fill out the bracket advancing the species that **you think are the most ecologically destructive to the Great Lakes based on sound scientific principles**. You can also vote based on **personal vendettas, bad feelings and general contempt for a certain species**.

Round 1 will be introduced **Tuesday, Oct. 12th on www.greatlakesecho.org**, where you can submit your comments and vote for the winners. Make sure to tune in for the rest of the month as the competition heats up.

GREAT LAKES ECHO

E-mail entries to greatlakesecho.org@gmail.com or drop it off at the Knight Center in the MSU Comm Arts Building room 381 before **Oct. 15th, 2010**.

Straits pipeline



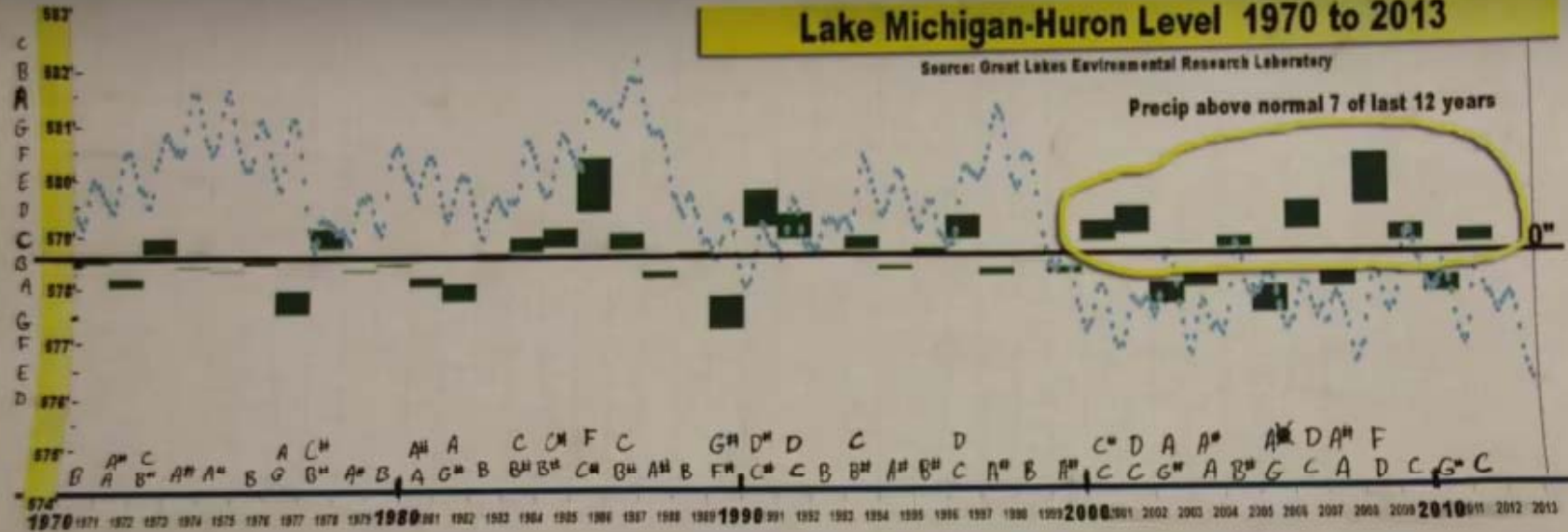
SCIENTISTS PREDICT OUR PLANET WILL WARM
BY AT LEAST ANOTHER 1.8 DEGREES CELSIUS BY
THE END OF THE CENTURY.

THIS ADDITIONAL WARMING WOULD PRODUCE
A SERIES OF NOTES BEYOND THE RANGE OF
HUMAN HEARING.

Lake Michigan-Huron Level 1970 to 2013

Source: Great Lakes Environmental Research Laboratory

Precip above normal 7 of last 12 years



Lake Michigan-Huron Level 1970 to 2013

Source: Great Lakes Environmental Research Laboratory

