

Make Your Research Matter

Dr. Chris Houser
Dean of Science



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Background



Assistant Professor 2004-06



Assistant Professor 2006-09
Associate Professor 2009-16
Undergraduate Chair 2011-14
Associate Dean 2014-16
Office of the Provost 2011-16



Professor 2016- present
Dean 2016- present





Coastal Geomorphologist



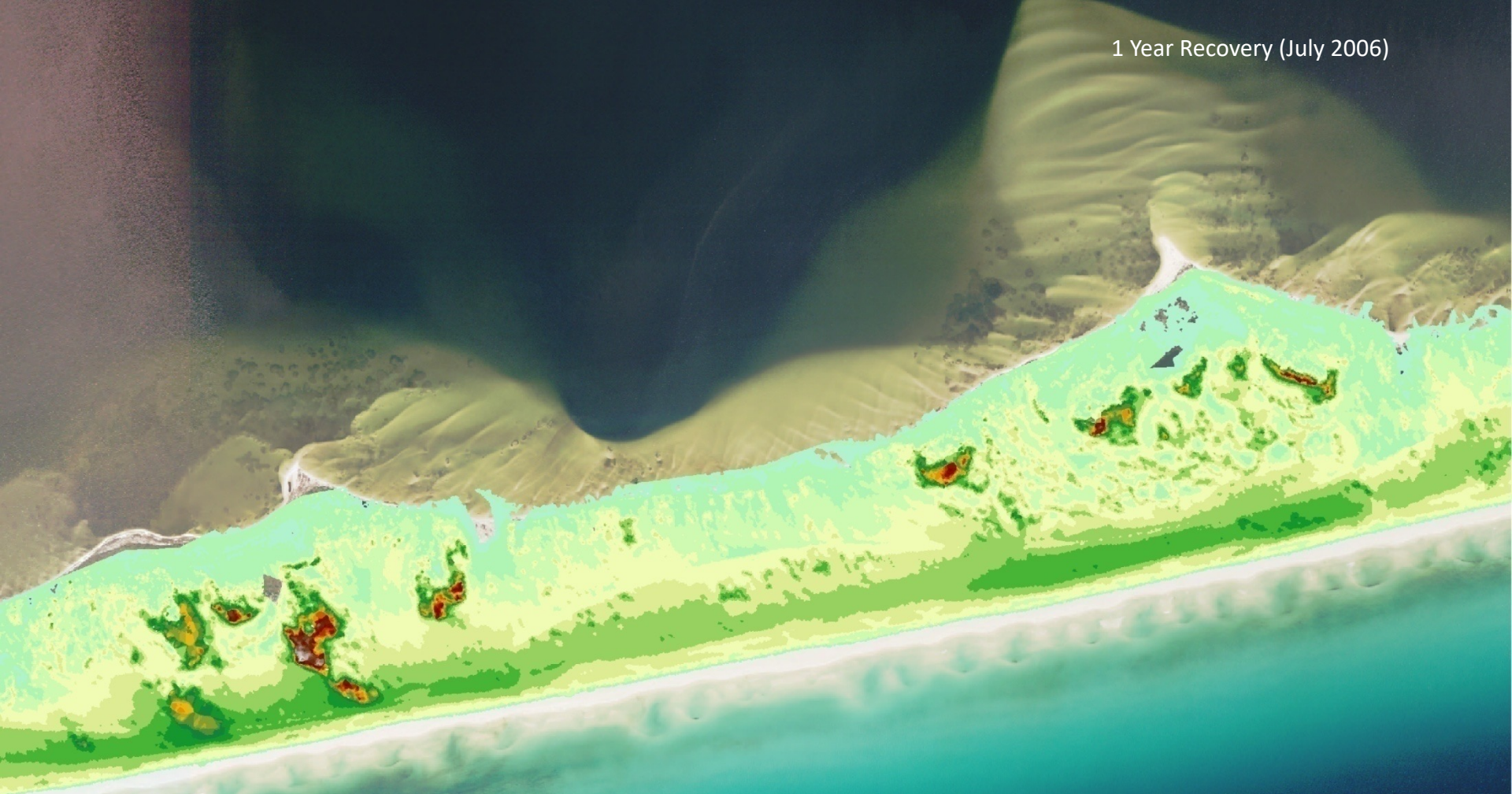
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Hurricane Ivan (2004)



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1 Year Recovery (July 2006)



Barrier Island Recovery



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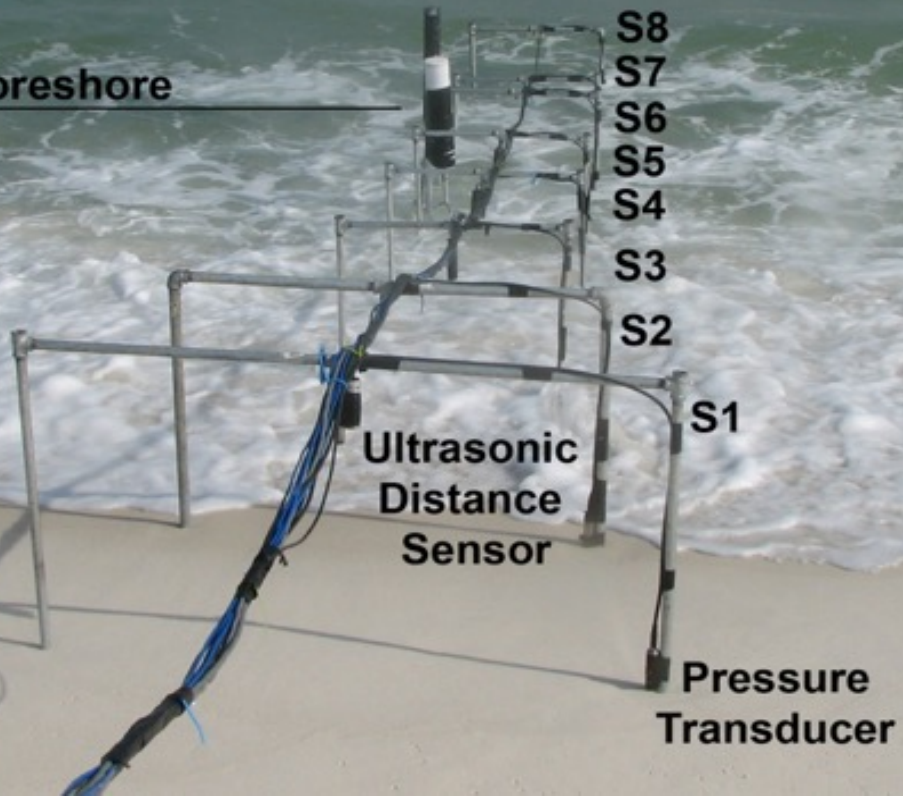
Controls on Dune Morphology



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Beach and Dune Recovery

Lower Limit of Foreshore



Florida island deemed worst in nation for beach drownings



Rip Currents



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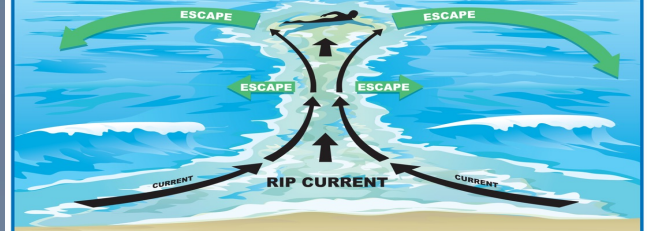
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RIP CURRENTS

Break the Grip of the Rip!



Rip currents are powerful currents of water moving away from shore. They can sweep even the strongest swimmer out to sea.

www.ripcurrents.noaa.gov

Rip Currents



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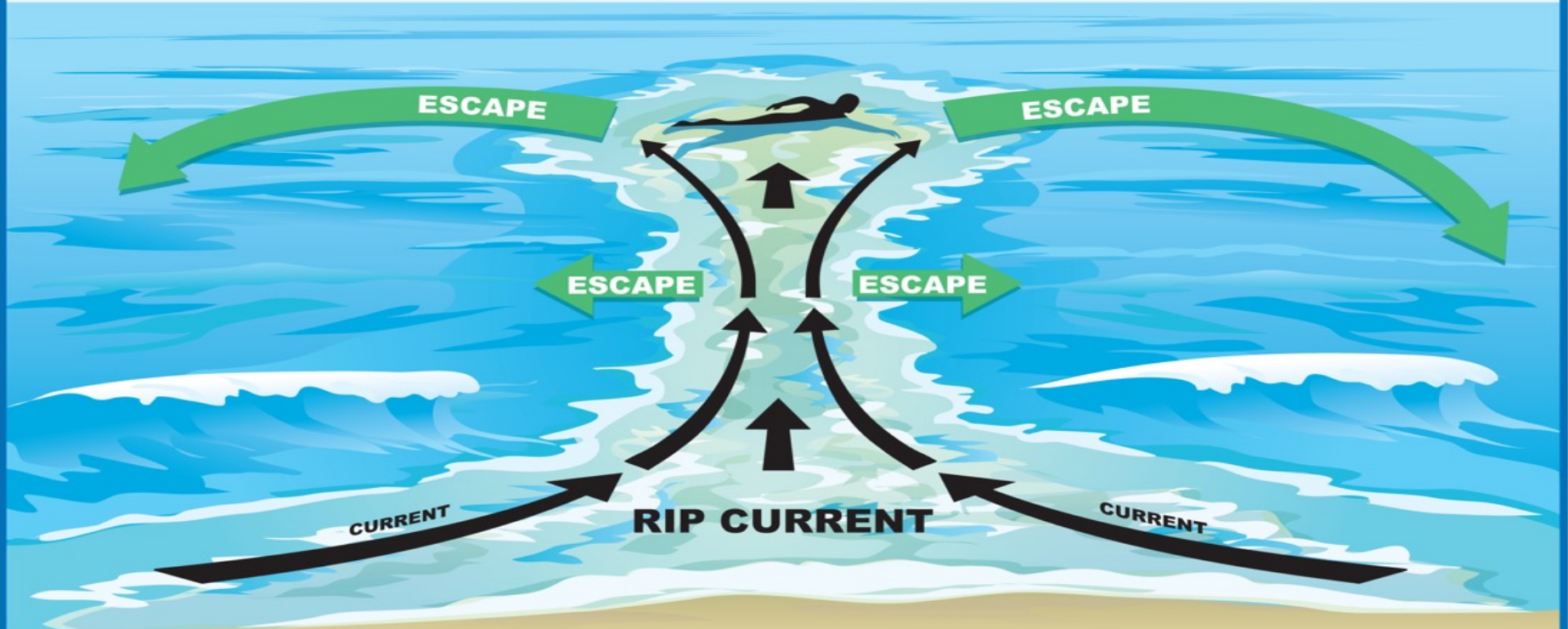
Crossing Boundaries



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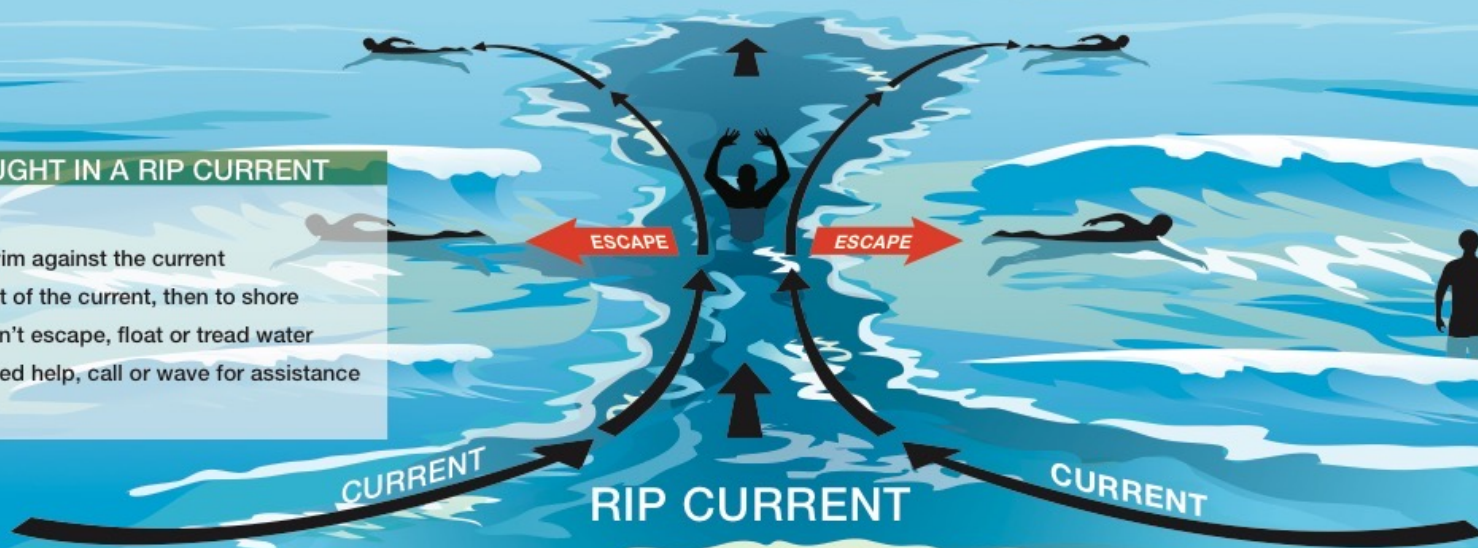
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RIP CURRENTS

KNOW YOUR OPTIONS

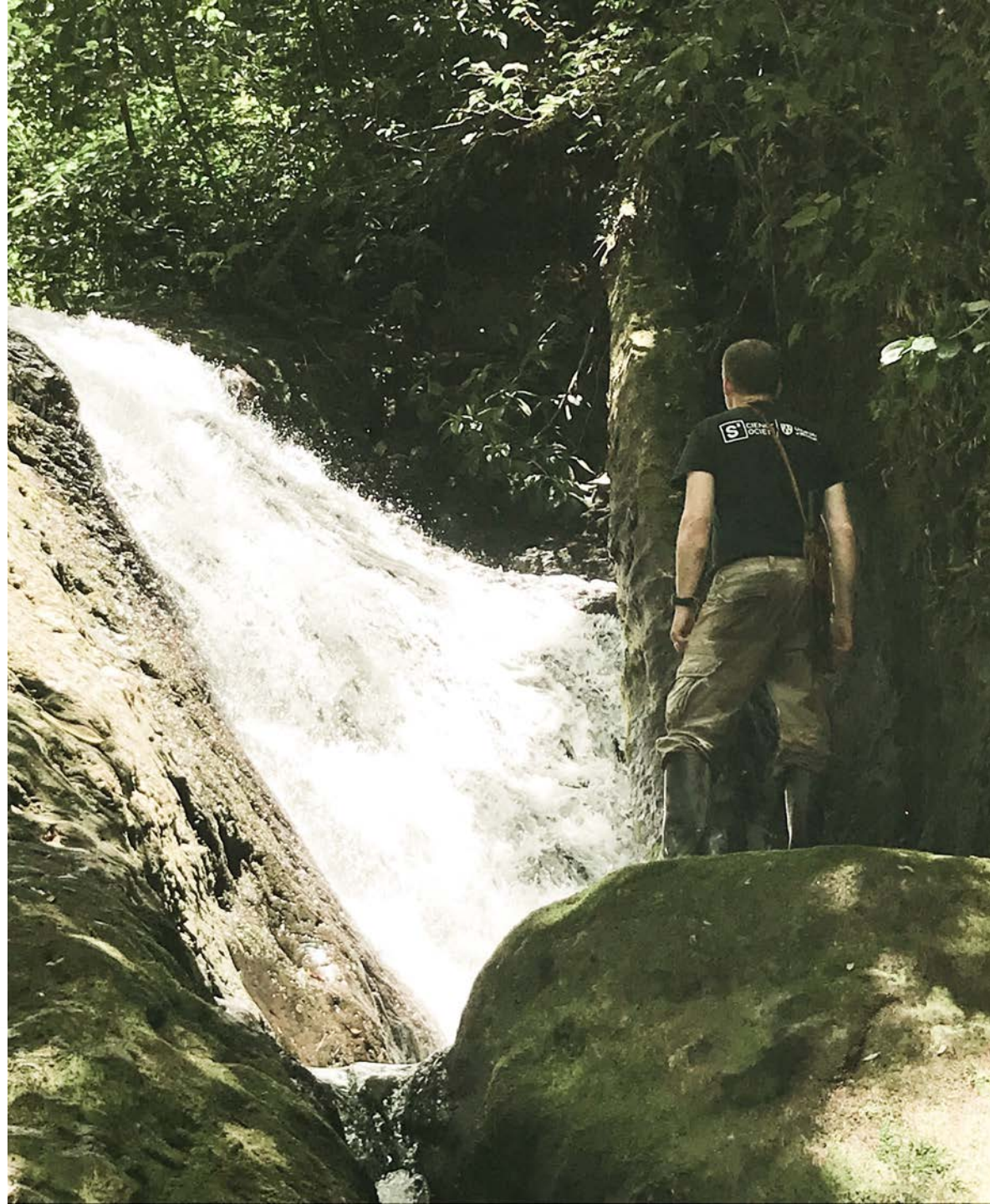
IF CAUGHT IN A RIP CURRENT

- Relax
- Don't swim against the current
- Swim out of the current, then to shore
- If you can't escape, float or tread water
- If you need help, call or wave for assistance



RIP currents are powerful currents of water moving away from shore. They can sweep even the strongest swimmer out to sea.

I saved more lives on the beach
when I started going to the jungle



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Costa Rica, 2009



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Texas A&M University Soltis Center



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NSF Research Experience for Undergraduates



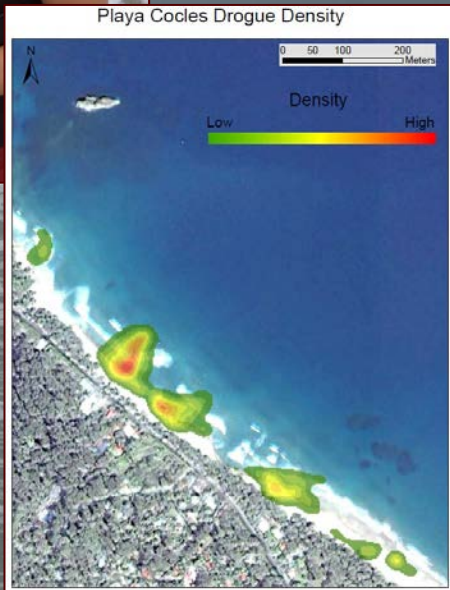
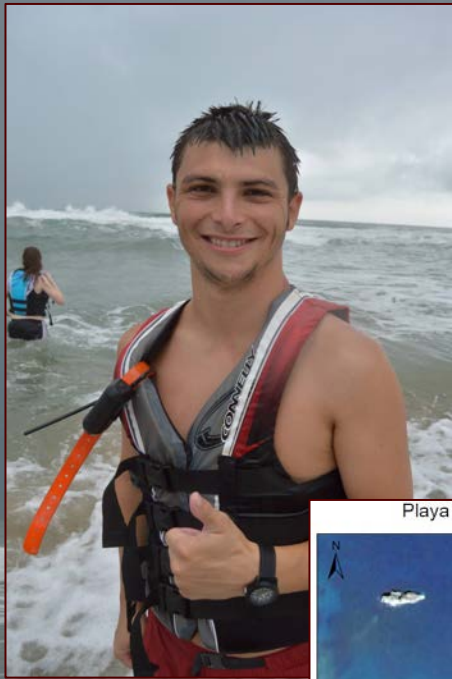
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Playa Cocles, Costa Rica



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Lifeguarding Association



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Drowning in the Great Lakes





Media



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Charlottetown mother advises extra caution swimming after getting caught in rip current with son

'I was so concerned about my little boy'

Gail Harding - CBC News - Posted: Jul 23, 2017 6:14 PM AT | Last Updated: July 25, 2017



N.B. man drowns in St. Margarets, P.E.I. after being caught in high surf conditions

RCMP urge caution when swimming in high surf conditions

Gail Harding · CBC News · Posted: Jul 23, 2017 11:15 AM AT | Last Updated: July 23, 2017

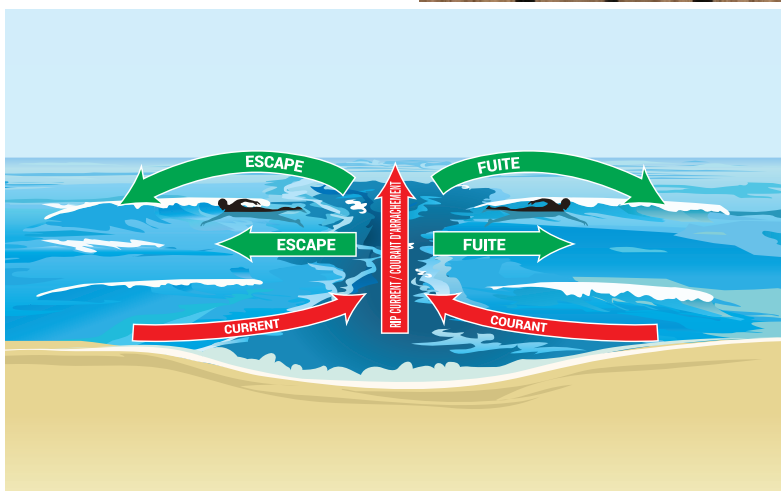


A New Brunswick man drowned after being caught in the high surf on P.E.I.'s north shore. (Kevin Yarr/CBC)



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PEI Rip Current Advisory Team



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Be CoastSmart.
RIP CURRENTS can drag you out to sea

Connaissez les risques côtiers.
LES COURANTS D'ARRACHEMENT peuvent vous emporter dans la mer

Rip currents are powerful, fast-moving currents that can pull you away from shore. Do not swim against the current.

Did you know that even in moderate surf, a rip current can move 1.5 meters/second?

Les courants d'arrachement, rapides et puissants, entraînent les nageurs loin des côtes. Ne nagez pas contre le courant.

Saviez-vous que même quand la force des vagues est modérée, un courant d'arrachement peut parcourir 1,5 mètre/ seconde.

Caught in a rip current?

- Stay Calm. Attract Attention. Conserve Energy.
- Tread Water. Waves can assist you back to shore.
- If that doesn't work, swim parallel to shore out of the current toward the breaking waves.

Si un courant d'arrachement vous entraîne :

- Restez calme. Tentez d'attirer attention. Conservez votre énergie.
- Nagez sur place. Les vagues vous aideront à regagner la rive.
- Si ça ne marche pas, nagez parallèlement au rivage pour sortir du courant vers les vagues.

When in doubt, don't go out!

- Never swim alone
- Observe surf conditions.
- Follow lifeguard advice.
- If surf is present, beware of rip currents
- Rip currents may have calmer water with fewer breaking waves
- They can be found between sandbars
- Swim between the red and yellow flags

Si vous avez des doutes, restez sur la terre ferme.

- Ne vous baignez jamais seul.
- Étudiez la force des vagues et suivez les conseils des sauveteurs.
- S'il y a des vagues, faites attention aux courants d'arrachement.
- Les courants d'arrachement on l'apparence de zone d'eau calmes out se forment peu de vagues.
- On les trouve entre des barres de sable.
- Baignez-vous entre les drapeaux rouges et jaunes.

Working in collaboration to help ensure a safe, memorable beach experience for all our visitors.
Nous collaborons pour offrir une expérience sûre et mémorable aux visiteurs sur nos plages.

"That, to me, is one of the most important aspects of life: That we can choose, day after day, week after increasingly hectic week, to share whatever we know with anyone who asks. That little bit we can do — one-to-one — may be large in someone else's life. And that's just ... cool."

Jennifer Pierce, University of Iowa



The Conversation



THE CONVERSATION
Academic rigour, journalistic flair

Search analysis, research, academics...

Arts Business + Economy Culture + Society Education Environment + Energy **Health + Medicine** Politics Science + Technology

En français

STRONG CURRENTS

Why your tourist brain may try to drown you

March 5, 2019 5:13pm EST

Recent studies suggest that tourists believe that beach access points and resorts are located adjacent to safe swimming areas, but that isn't always true. (Dutterstock)



How coronavirus self-isolation fatigue may lead to more beach drownings this summer

July 2, 2020 4:14pm EDT

A lifeguard keeps watch over a packed beach in Huntington Beach, Calif., on June 28, when the number of new cases of COVID-19 in the state have been climbing. (AP Photo/Marcia Jose Sanchez)

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685

The easing of physical distancing restrictions can't come soon enough for those tired of self-isolation, and for many the beach represents a welcome therapy after an extended time indoors and alone.

In Australia, [popular beaches in Sydney](#), including the iconic Bondi Beach, were completely closed to public access during the government-imposed lockdown period. When they reopened under restricted conditions in late April (fall in the

Authors



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Professor of Earth and Environmental Science, and
Dean of Science, University of Windsor



Rob Brander
Professor, UNSW



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Having to cope with COVID-19 rules could make people reckless on beach

CBC News · Posted: Jul 17, 2020 6:00 AM AT | Last Updated: July 17



Swimming in the P.E.I. National Park was prohibited due to dangerous surf conditions two days ago. (John Robertson/CBC)

HOME > LOCAL NEWS

COVID-19: How self-isolation fatigue may lead to more beach drownings this summer

The easing of physical distancing restrictions can't come soon enough for those tired of self-isolation, and for many the beach represents a welcome therapy after an extended time indoors and alone

Jul 16, 2020 8:55 PM By: The Conversation



The Weather Network

How COVID-19 fatigue can lead to an increase in summer drownings

THE CONVERSATION

The easing of physical distancing restrictions can't come soon enough for those tired of self-isolation, and for many the beach represents a welcome therapy after an extended time indoors and alone.

COVID-19 can live in water, but are you at risk while swimming?

Experts say COVID-19 can survive in water, but Mia Gordon and Mara Czurylowicz explore whether or not the virus presents a risk of aquatic transmission.

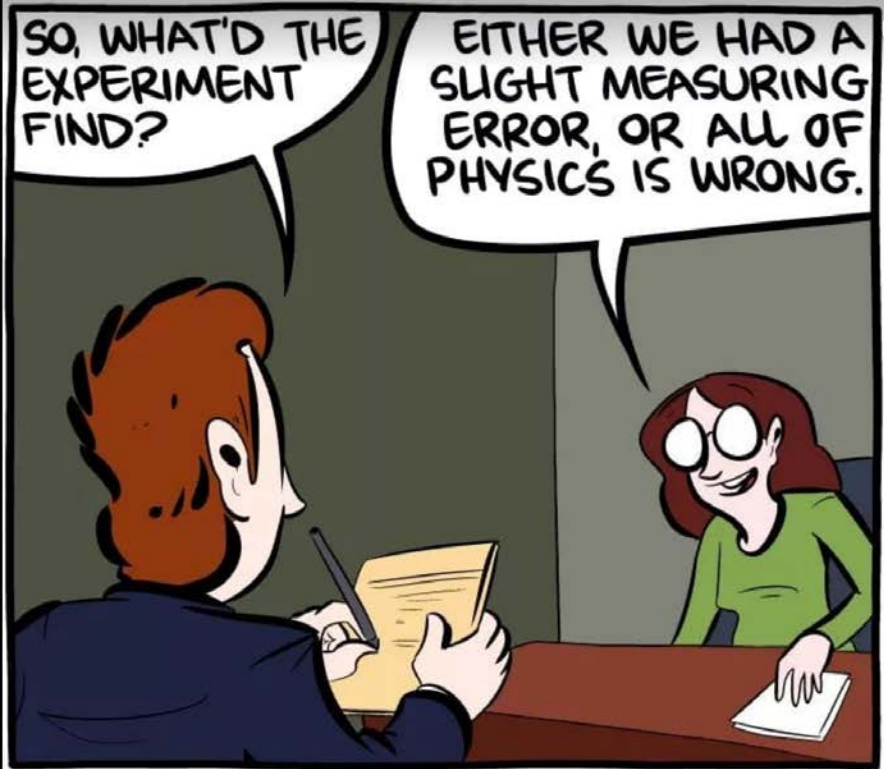


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Don't be Afraid



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One of my favorites from SMBC Comics See More

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👍 Like

💬 Comment

🔗 Share

25 Comments

Local News

UWindsor prof worries more beachgoers could lead to more drownings

Mary Caton

Jul 09, 2020 • Last Updated 17 days ago • 3 minute read

The media will occasionally
get your story wrong



Machine learning analysis of lifeguard flag decisions and recorded rescues



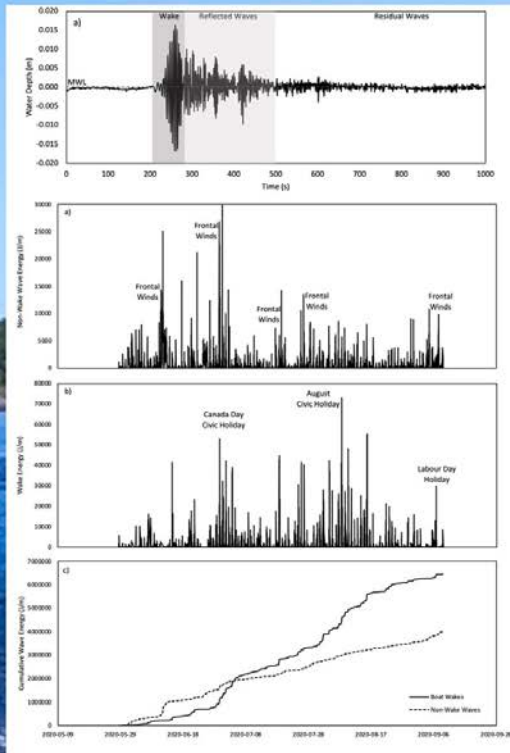
Beach users may be discounting lifeguard warnings if the flag colour is not consistent with how they perceive the surf hazard or the regional forecast

Don't stick your head in the sand:
listen to lifeguards
and pay attention to warning
flags and signs!



Relative importance of recreational boat wakes on an inland lake

Recreational boat wakes represent a significant source of wave energy on inland (cottage) lakes



Chris Houser, Alex Smith, Jamie Lilly
Lake and Reservoir Management, *In press*



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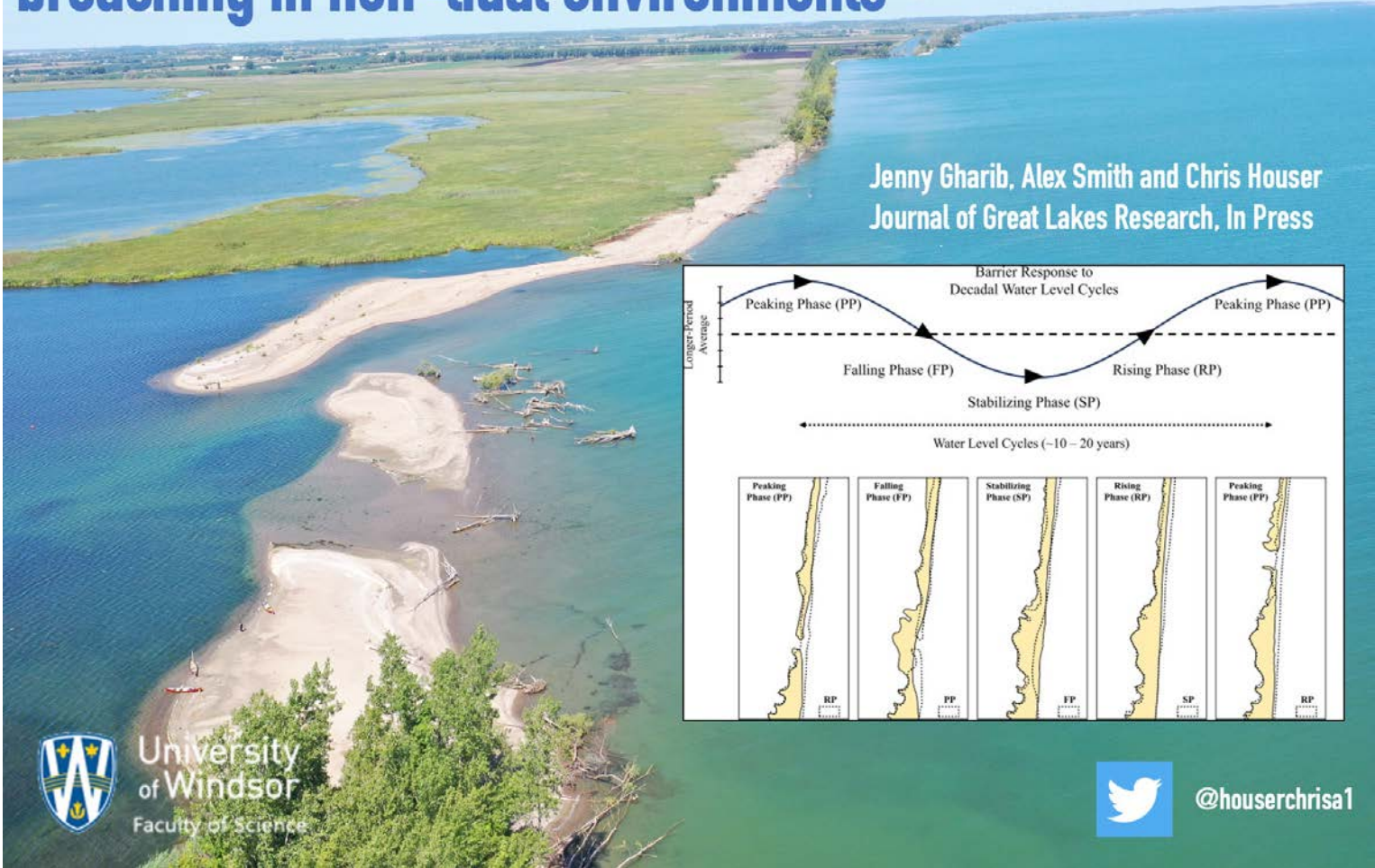
@houserchris1



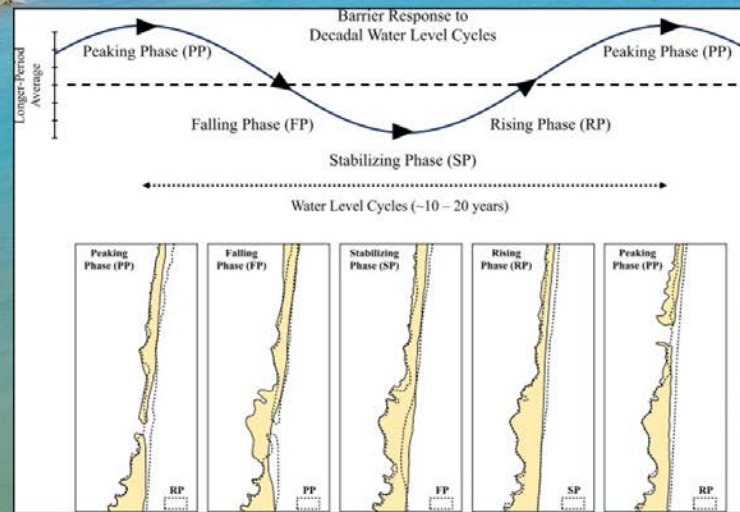
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Social Media

Barrier Beaches and Breaches: A new model of barrier breaching in non-tidal environments



Jenny Gharib, Alex Smith and Chris Houser
Journal of Great Lakes Research, In Press



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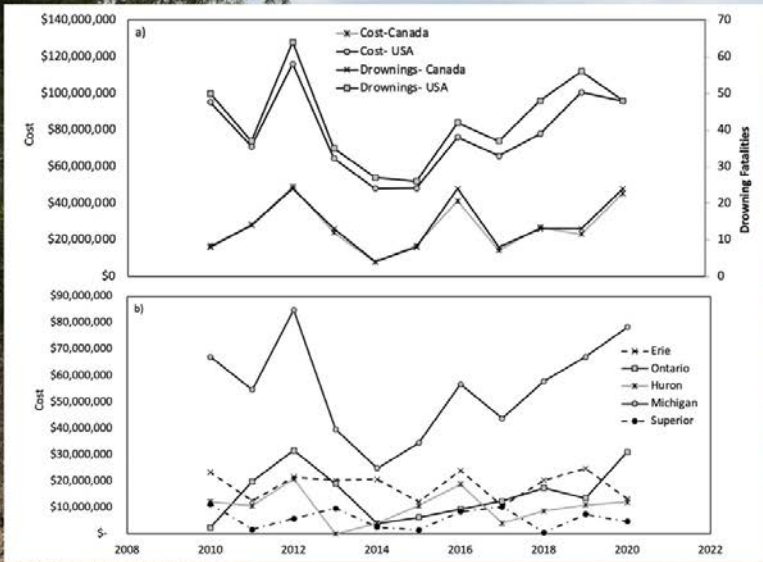


@houserchris1



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Social Media



Surf-related drowning fatalities cost \$1.1 billion (USD) between 2010 and 2020 in the Great Lakes Region



Be Visible

Narration
J.V. Martin

Rip Current Scientist and Content Consultant
Professor Rob Brander, UNSW Sydney

Great Lakes Rip Current Science
Professor Chris Houser, University of Windsor

 **RIP CURRENT RESCUE FULL ONLINE**



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Word of Caution

Some will believe that promotion is unbecoming as a faculty member

Some will be jealous

Understand the culture of your department

Take all advice with a grain of salt





Integrate Teaching and Research



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HQP and Research Success

Reputation

Enrollment

Budget



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