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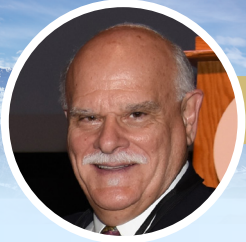
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THE COASTAL MONITOR

THE OFFICIAL NEWSLETTER OF CERCOM AT MOLLOY UNIVERSITY / CENTER FOR ENVIRONMENTAL RESEARCH AND COASTAL OCEANS MONITORING



From the Director's Desk...

Natures Effects of Scale

Stephen J. Gould's prophetic piece, "The Golden Rule: A Proper Scale for Our Environmental Crisis", noted that, "Patience enjoys a long pedigree of favor", which he elaborated, "usually involves a deep understanding of the fundamental principle... rarely grasped in daily life – the effects of scale." Scientists observe changes incessantly, in dimensions and time, from microscopic conditions of cellular biology to the inconceivable distances of galaxies and their influences on Earth.

In my incredibly small contributions in revealing the clarity of pollution concerns and human influences on natural processes, are foundational "measuring rods" as Gould has noted. Scientists today observe extreme events in a world with over 8 billion people, who are mostly living, working, and playing in, or close to, environments vulnerable to the periodic natural extent and range of ecological environmental phenomenon. They conclusively are aligned to feel the effects of fire in a fire chaparral ecology; the flooding associated with floodplains; and storm surges as a result of hurricanes path onto the shore. Truly extreme events are extremely rare. In addition to this fact, with the Earth's human population more than doubling in the 75 years I have been contributing CO₂ to the atmosphere, an "extreme" event occurs most naturally, with the massive infrastructure that is discriminated against, contributing significantly to loss of life and property. So, when another "opinion writer" and the author of "Uninhabitable Earth: Life After Warming", David Wallace-Wells' opinion piece, NY Times, July 16, 2023, "Yes Global Warming Is Accelerating", optimizes his non-scientific literary license that may attract readers who benefit from the exaggeration of scale associated with extreme climate events, and conditions. Of course, the Canadian forest fires were "not normal", and the note Wallace-Wells makes, "of millions had already acclimated to living in the path of fire and every year breathing in some amount of its toxic smoke," it's as if he lived in a vacuum for 50 years, not venturing out due to the air contaminants every day, 365 days a

year, and being exposed to automobile and industrial air pollution. His diatribe then goes to "supercharged rain and ravines disgorging landslides, that those in NYC watch with a mix of horror and false relief. It is always comforting (his words) to believe disasters are far away, unfolding elsewhere, but increasingly doing so means defining ever smaller increment of space as distant". The scale of arrogance in this statement is unparalleled!

I guess the NYTimes has run out of "USA" environmental "catastrophes" and most recently, due to the general disinterest in this print media's diatribe on the "existential threat" and "end of Earth as we know it" (as if we ever knew) on "climate change" which has been so overstated, misaligned with actual science, not with computer models based upon "projections, estimates and non-direct observations," that this "Thornberg environmental theorizing", has lost some of its draconian appeal! So, when the IPCC can't show conclusively that hurricanes are getting stronger but are certainly more damaging; that nitrogen is not the evil incarnate and like CO₂ is absolutely necessary for life on this planet especially green plants whose photosynthetic contributions of oxygen make the Earth habitable in the first place. Thus, the last 100 years has observed the Earth being ever so slightly warmer, greener to help feed in actuality the exponential human population growth, being greater than ever historically existing on Earth. These facts should help us all appreciate the scale of events in determining our existence.

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MY CORNER OF THE CIRCLE

SOME OPINIONS ON OPINIONS

By John T. Tanacredi, PhD.

NYTimes Editorial:

The Opinion piece in the NY Times, April 6, 2023, "The last of Us' is Right: Our Warming Planet Is a Petri Dish", Dr. Neil M. Vora, MD, a physician with Conservation International leads its efforts on pandemic prevention noted, that throughout his career, he has focused on the link between human health and the health of the planet! Especially as it relates to the increasing threat of "spillover" of viruses from animals to humans "because of the destruction of nature!" His self-admitting "horror superfan", the destruction, he identifies, is basic ecology. Dr. Vora served with US CDC as an Epidemic Intelligence Service officer and a Commander in the US Public Health Service. Deployed for CDC to Liberia in 2014 and to the Democratic Republic of the Congo in 2019 to assist in the responses to the two largest Ebola outbreaks ever. Dr. Vora noted that as a scientist "he worries that climate change and ecosystem destruction may be creating opportunities for fungal pathogens to grow more infectious, spread over larger distances and reach more people." Fungal infections have spread at "an alarming rate in health care facilities..." As a scientist that looks at natural variability and influences on ecological health, I find this statement alarmingly exaggerated primarily due to the level of vulnerability of older populations, crammed into a depauperate number of "health care facilities", that have played out over the last 4 years being dramatically influenced by the global pandemic of Covid-19, and with the global community dramatically unprepared.

This is not "ecosystem destruction"! The basic habitat and microbiological response is a natural result of human occupying larger and larger swaths of land and disease prevalence, facing no counter influence to control ever-present microorganism growth... ecologist understand this to be ingrained in population dynamics established in an ecosystem with its carrying capacity. Competition between a variety of species at all levels of trophic development increases. When resources, or exclusive habitats, decline, intra-species competition and habitat alterations, can certainly open ecological doors for growth and increased virulence.

If there is only a limited relationship, in any ecosystem level, to climate variability and if fungicides are not available to control initial spread, then the pharmacological industry needs to step up to address this threat to human health, rather than being as Dr. Vora notes as "a major threat to the multibillion-dollar banana industry". His example of "An infection of white nose syndrome has killed millions of bats across North America," but "humans have largely been exempted from fungal outbreaks as it appears because of our warm blood", which, he notes, is too warm for some fungi to survive; a fact in human evolution and adaptation.

It should not go unnoticed that "lab studies" have identified some fungal species as being accelerated in their resistance to heat and drug tolerance! Dr. Vora notes the direct link to human health which "may be influencing fungal evaluation", and "may also increase the survivability and transmission of fungal diseases on a global scale." Fungi species are everywhere - "hospitals, senior complexes and kitchens, backyard soils and in the air we breathe. We have always looked at petri dishes as the tool to find solutions to improving human health, and must always be recognized.

My Corner of the Circle

Other than a baseball game being rained out or delayed, there are far removed conditions in sports that should shake our resolve to "complete the game" despite the weather. Alan Blinder's July 17, 2022 New York Times Sports article, "As Planet Warms, Golf's Birthplace Confronts a Risky Future", laments that "The North Sea on a blustery edge of Scotland, heralded for,

and continues as golf's birthplace, may finally succumb from the 460 years this course has existed in the same location", to be lost to erosion. The Scottish Government notes that there are roughly 600 golf courses in Scotland, where 100 are coastal where erosion is more natural than a hole-in-one! Blinder notes that "golf has had, little choice but to start weighing its own role in climate change - most notably through the vast, lush and thirsty courses that sometimes take the place of trees and then require fertilizer and mowing - while puzzling over how to preserve fairways and greens around the world".

This NYTimes article is the epitome of news media climate hysteria. For a moment let's just look at Scotland and its 600 courses. Courses may be on an original grassland type ecosystem; a course may be on limestone surface soils which influence the natural endemic plant species that historically grow sparsely on these soils; or they are constructed in coastal communities such as in the USA where country clubs exist which use local native plants in their landscaping. This allows for natural barriers to exotic plant invasions from, for example, Phragmites australis, an exotic plant that would dominate the coastline of such golf courses if not, using native vegetation adapted to saltwater spray, as standard practice for coastal communities, especially golf courses.

I am not a golfer; I don't advocate cutting down existing terrestrial ecosystems to replace them with golf courses. However, if the courses of Scotland have survived, adapted, and established in an urbanizing landscape for 460 years in a world that has warmed for the last 19,000 years, the influence of golf courses on the Earth's climate is as relevant as being upset that the New York Mets don't win the next 5 World Series because they listen to Princeton, New Jersey's Climate Central about how wet the seasons may be. Very risky indeed!

My Corner Of The Circle

New York Times reporter Robert B. Semple, Jr.'s, June 13, 2023, opinion piece opening sentence to "We Can Reduce Farming's Climate Impact", is dismissive on a scale equivalent, and attuned, to his admitted astonishment of the fact that there are 900 million acres (about twice the area of Alaska) in the United States of land devoted to agricultural production of one sort or another. "USA agricultural exports, (let alone the incredible true Green Revolution of post-World War II, feeding all Americans), topped \$213 billion (about \$660 per person in the US) in 2022 which was concurrently one of the peak COVID-19 pandemic years!" Not to out-do this fact, he notes from USEPA "official figures", agriculture is "responsible for about" (such specific statistical language is impressive) one tenth of USA greenhouse gas emissions." So, his philosophical epiphany is that "for the first-time legislators have acknowledged the reality of the link between climate change and agriculture and have taken a major step in making sure that Americans' agricultural policy has a climate lens." Refutably simple questions remain to him as to whether the new Inflation Reduction Act includes, as he states, the necessary language "ensuring its \$19.5 billion will be spent exclusively on efforts to reduce, capture, avoid, or sequester carbon dioxide, methane, or nitrous oxide emissions".

Semple's fears of Congressional reconsiderations that support rescinding monies originally allocated to climate friendly programs, potentially resulting in no new funding for climate mitigation will result in, "a perverse outcome". What's perverse is suggesting "that farmers do not get what they need and that wetlands, water quality and the wildlife species that depend on healthy grasslands", along with climate, will suffer. I am afraid that what is perverse is the alarming overindulgence of a requested federal budget disregarding shared conservation strategies from other independent agencies

that must be applied to integrate climate activist's misguided concerns!

Fast forward to July 13, 2023, NYTimes, Linda Qiu's report, "US to Track Emissions from Agriculture, noted that the USDA is "establishing a monitoring and data collection network to measure greenhouse gas emissions to determine how much carbon can be captured using certain farming practices." This new network uses \$300 million in funding from the Inflation Reduction Act and ignores models to "address the scientific uncertainty", funding a "network" to better "measure agricultural conservation programs." The article goes on to note that building of the network will occur over the next eight years, and it will reinforce the credibility of the information being provided. Qui reports that this will create "greater development of markets, which in turn, results in greater adaptation and income, opportunities for farmers ranchers and producers, all of which helps create jobs in rural places". We have 8 years to see if this actually happens! Then, to add insult to injury a July 18th, 2023, New York Times International News item by Lisa Friedman, "Time is Slipping Away, Kerry Warns during Climate Talks with Beijing", only 5 days after Qiu's report notes for two super power nations to "avert a harrowing future brought on by global warming", since the new climate related vernacular of "atmospheric rivers", intensified "heat domes", "hyper-storms", "flooding of floodplain communities"; "punishing heat waves" and "raging wildfires", if believed by anyone, would most likely depress the most ardent optimist in believing that governments can't protect any natural resource. It is no longer just a climate crisis. It's a climate disaster on a global scale, with our agricultural infrastructure providing no way out!

Finally, just one day later, the July 19th, 2023, New York Times, in one of its most tragic news examples on this hyperbolic reporting, an editorial by Alan Yuhua, "Heat Waves Stifle 3 Continents as Climate Change Warms the Globe", mistakenly noted, "The planet has warmed about 2° Fahrenheit since the 19th century", which was only off by 0.6° Fahrenheit. In actuality, scientists have estimated a 1.4° Fahrenheit global temperature increase over the last 150 years. Yuhua then exclaims that "Canada, having burned a staggering 25 million acres so far this year, an area roughly the size of Kentucky", is somehow abnormal and a critical concern climate wise. The total forested area subject to naturally and man-made caused fires in Canada is 362 million hectares, or 894,521,481 acres (about twice the area of Alaska); or, 40% of Canadians landcover. The 25 million acres burned in 2023 is a statistically insignificant 2.7% of the total land area which is subject to fires in Canada annually! Yuhua's reporting concludes with selected climate changes' low-hanging fruit data, by noting 61,000 people died in 2022 summer in Europe and that Iran's airport reported temperature exceeded 150°F. Airport tarmac is always 10° to 20° degrees greater than vegetative lands such as forests, called a heat-island effect which is experienced in all cities of the world! So, all this reporting cavalierly never even hints at the specific variables or related references to put into perspective "extremes", that in the majority of cases, include mitigating factors that may appear to be correlated to climate standards, but are not actually the causative factors to these concerns, once one identifies the scientific facts! My climate science news review ends here with my difficulty in finding a way to instill with language any greater fear-mongering apocalyptic terms for the "climate disasters" interpreted by the Press... oh, wait, maybe "climates' ultimate destiny" or "climates destruction and ending of the world".

Helping a species of Horseshoe Crab? In Situ Success!

An example of a small and positive example resulting from the Horseshoe Crab breeding activities in Hong Kong City University for one Horseshoe Crab species (Tachypleus tridentatus). My response on social media to this one small step in the possibility of captive breeding of Horseshoe crabs and their release into coastal mudflats all along their range. "This is so important a find. Natural recruitment has always been where the attention lies with breeding in labs for subsequent release to mud flats getting short shrift, primarily due to complexity of the HSC productive process. Here in New York State, we are not allowed to release ANY juveniles, eggs, larvae or even the original adults collected from Long Island waters where they originally came from. Yet, 150,000 animals will be collected for bait, thus never contributing to the possible natural recruitment for these animals. New York State has been classified by the Atlantic States Marine Fisheries Commission as "poorly managed" the last five years for the Horseshoe Crab resources of Long Island; your find gives me hope! This species is one of the three Asian species of Horseshoe Crabs. The fourth and last of the four species of Horseshoe Crabs is indigenous to North America only: (Limulus polyphemus). Learn more about Horseshoe crabs in "Limulus In the Limelight" by Dr. Tanacredi.

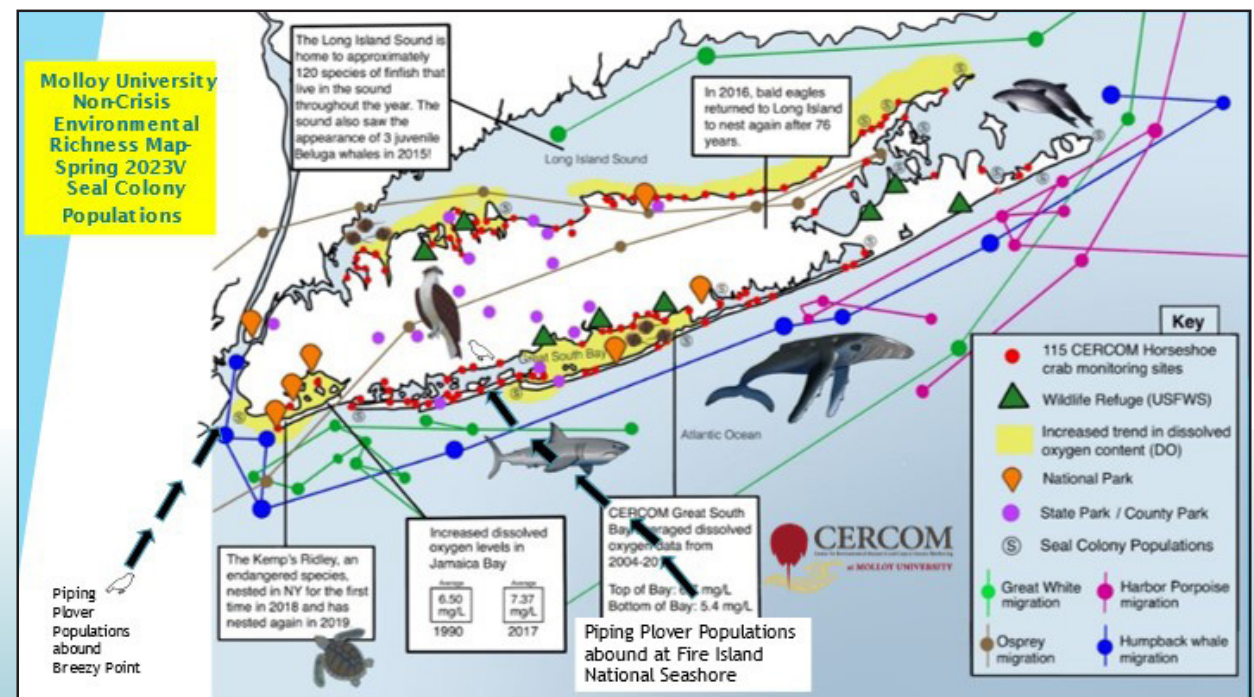


Limulus in the Limelight
A Species 350 Million Years in the Making and in Peril?
Edited by John T. Tanacredi

Post Pandemic Great News:

2023 Molloy University Non-Crisis Environmental Richness Map

Just the map to reveal the overall amazing biological productivity and the dramatic improvement in environmental health including water quality and species biodiversity! For details contact Dr. Tanacredi at jtanacredi@molloy.edu.



Long Island Water Quality: The best in 21 years
(Collectively=NY Harbor, Jamaica Bay, LI Sound, Great South Bay and Peconic)

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Whale Watching from Brooklyn, New York?!

Yes! CERCOM (Center for Environmental Research & Coastal Oceans Monitoring) hosted a Whale Watching event from Sheepshead Bay Brooklyn to see Humpback Whales on May 13th. For all who attended, it was an incredibly special experience. Forty-two Molloy University students, administrators, faculty, alumni, and their guests had a short but exciting time observing humpback whales coming to the surface. CERCOM cooperator, conservation NGO, Gotham Whale, helped to coordinate this event with the ship The American Princess which sailed from Jamaica Bay, through New York Harbor, passed the Verrazano- Narrows Bridge, to the New Jersey shore off Sandy Hook.

The guides and the ship's captain provided a unique experience revealing the incredible biodiversity of the NY-NJ coastal shore environment which supports over 25 species of marine mammals. The increasing population of Humpback Whales reveals the amazing biodiversity supported by the dramatically improved coastal water quality of Long Island.

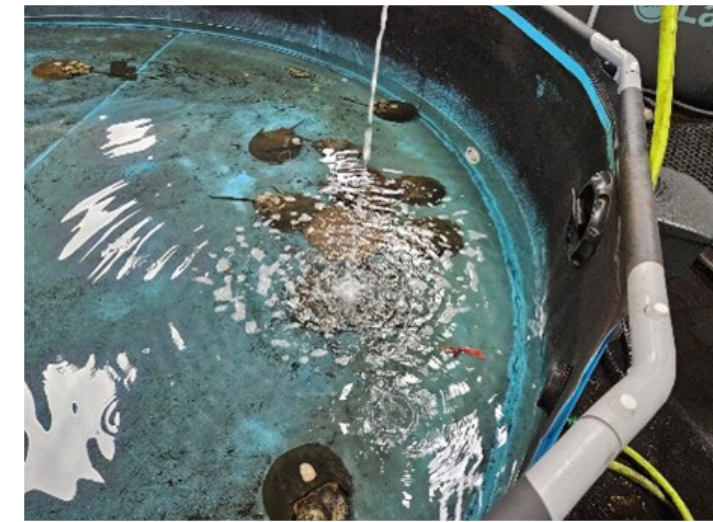
CERCOM Director, Dr. Tanacredi noted to all that Gotham Whale is a collaborator and a contributor to the experiences of all Molloy University students. Check out their link at <https://gothamwhale.org/> to learn more and see the calendar of other Whale Watching Events. If you want to organize a group from Molloy University, send an email to cercom@molloy.edu to arrange a special time for your group at a special rate.



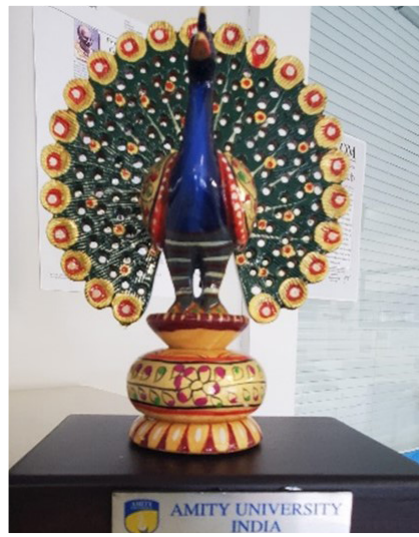
Professor Tanacredi Sabbatical Fall 2022

Understanding effects of decreasing pH trends on coastal and estuarine biomes that are biologically productive, addresses the extensive and measurable impacts to ecosystem services. Most research on the effects of acidification on marine habitats has focused on CO₂ induced acidification in fully marine waters. Little attention has been devoted to lower salinity estuaries and temperate nearshore ecosystems, which in general may experience more acute impacts from decreased pH. The critical element in this sabbatical is understanding that Horseshoe crab (HSC) development may be affected by declining pH and thus on their survival. Horseshoe crabs (HSC) are unique among marine invertebrates in nesting on beaches, where their eggs are an essential food source for migrating shore birds and many estuarine species. An extract from the blood of HSCs is a globally

utilized endotoxin detecting pharmaceutical, even more important today in response to the Covid-19 pandemic that protects millions of lives each year in detecting microbial contamination. Declining populations on Long Island and their reduced prime habitat have exhibited their vulnerability. Although HSC embryos are exposed to multiple environmental changes in the micro-environment below the sediment surface where their eggs incubate and develop, the effects of lowered pH in sediment pore waters and on their development is poorly understood. Results of this investigation will help identify those coastal estuarine beaches most productive in having breeding conditions necessary to reduce the threat to their survival. Long Island estuary ecosystems are prime breeding habitats for HSCs (*Limulus polyphemus*). Due to the HSC consistent site fidelity for breeding purposes, an observed decline in breeding sites over a 20-year inventory and monitoring program of over 115 sites on Long Island conducted by CERCOM, have revealed a lowering in pH that may have influenced HSC larval and juvenile development. (Tanacredi & Portilla, 2015). Identifying beaches and effective management actions that can provide the best environmental pH conditions and functions assessed as either worsening or improving, may have a significant influence on this seminal species' long-term survival.

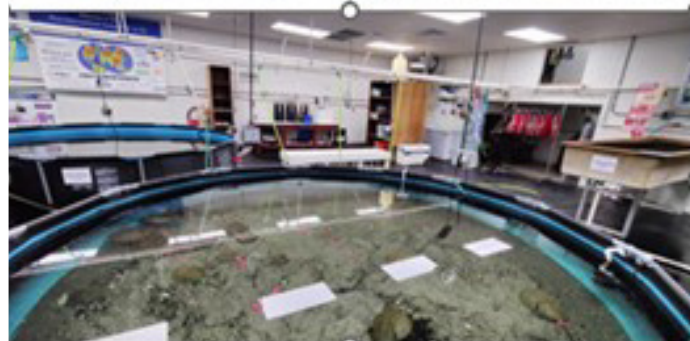
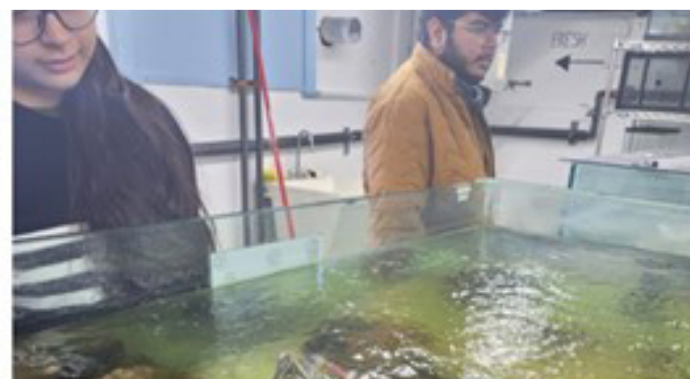


Students from Amity University, India – Gift to CERCOM a statue of India’s National Bird the Peacock



Horseshoe Crab Breeding Biotechnologies at CERCOM and Visiting Students from Amity University, India

On May 17, 2023, it was the 8th year that a dozen Biotechnology students from Amity University in India, on their annual visit to the United States and a cooperative academic program with Adelphi University, stopped by CERCOM for a lecture and tour of CERCOM by Dr. Tanacredi. Here are some photos and kind comments from their Professor Dr. Sohini Singh, Amity University Uttar Pradesh, Noida, India.

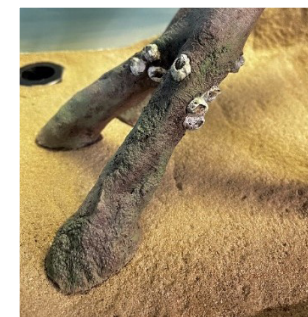


LI Aquarium – Riverhead, Long Island, NY - Molloy Alumna Highlight

Dr. Tanacredi and some MU students visited LI Aquarium in Riverhead last spring. Molloy University alumna, Drew O’Conner (pictured in the blue sweatshirt) has been working at the Long Island Aquarium for a year now. Here she is showing what goes on behind the scenes.

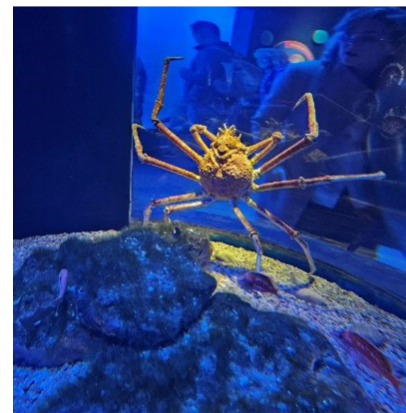
Drew graduated in May of 2021 with a degree in environmental studies and minors in studio art, chemistry, and Spanish. She began as an aquarist intern at the Long Island Aquarium and was then hired after graduation.

As an aquarist she worked with animals such as sand tiger sharks, seahorses, moon jellyfish and giant pacific octopuses. She eventually switched departments to where she currently works in exhibit design. As an exhibit designer she sculpts, and paint exhibits to resemble the natural habitats of the species that live at the aquarium. It is a fun job with a lot of creative freedom, and she loves being able to practice her artistic skills every day and was lucky enough to do two murals throughout the aquarium. One mural is of a sea turtle, and it was done for the New York Marine Rescue Center, which resides inside of the aquarium. This mural highlights their conservation efforts and shows the importance of rehabilitation and release of injured/sick animals. The second mural is in front of the aquarium! The mural is huge with two big sharks swimming through the water. It is a thrill for her to see her own art both on the walls of the aquarium and inside the habitats.



Wildlife Conservation Society NY Aquarium

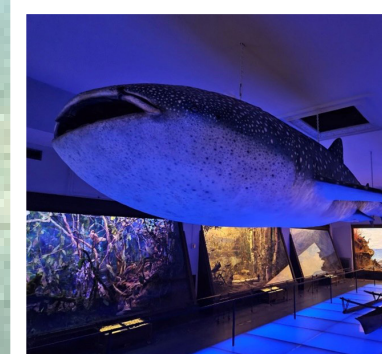
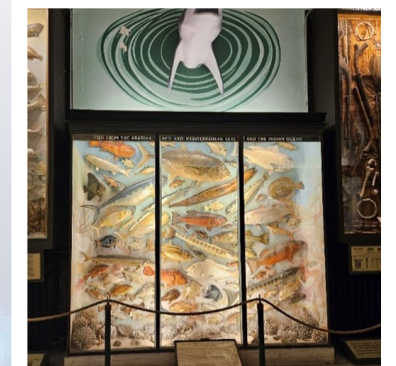
Earth & Environmental Science students partake in the unique field experiences supporting their academic degree requirements. The students visited the NY Aquarium in Coney Island, Brooklyn and were able to partake in a guided tour of the new exhibits on Sharks and Glovers Reef Coral Reef Atoll. Dr. Tanacredi has conducted three expeditions to Belize, one with a NY Aquarium scientist at the time. Dr. Tanacredi worked with Dr. Meryl Kafka for years in a collaboration with WCS, processing individuals who may have received violation of their fishing permits and were required to take a short one day orientation seminar on the importance of conservation biology.



Special Tour of the Vanderbilt Museum in Centerport, Long Island for MU Earth & Environmental Science Students

Dr. Tanacredi, Professor and Director of CERCOM has been offering special tours of the Vanderbilt Museum and took his students to view a world-renowned exhibition of marine species, whale shark and, of course, a horseshoe crab metal sculpture. William Vanderbilt II (1878- 1944) lived at the Eagles's Nest in Centerport on a 43-acre estate. The entrance to the museum property has two eagle statues that were part of the original Grand Central Terminal in Manhattan, New York. Vanderbilt was a United States Navy Lieutenant who commanded the US Tarantula at the Brookly Navy Yard. This vessel was a yacht that was owned by Vanderbilt and leased to the US Navy for the duration of WWI.

Vanderbilt traveled the world and collected over 13,000 samples of special marine species that are presently on exhibit. He did expeditions for the American Museum of Natural History and has included the largest exhibition of Galapagos Islands invertebrates of which a majority of voucher specimens were given to the American Museum of Natural History (AMNH). Dr. Tanacredi was a visiting scientist at the AMNH in the Invertebrate Zoology Department from 1988 until his retirement in 2000 from the National Park Service. It was during that period that Dr. Tanacredi made the connection to Vanderbilt by having all his student going with him on these special visits. Any interest in the Vanderbilt connection, contact Dr. Tanacredi at jtanacredi@molloy.edu.



SOME OPINIONS

By John T. Tanacredi, PhD.

My Opinions on Opinions

First Opinion

The NYTimes columnist Paul Krugman's June 9, 2023 piece, "Orange Skies, Red Alerts and the Future" exceeds all journalistic license contributing to a depressed state with his "local catastrophes" noting that "wildfire pollution" in the Western United States... was indeed a harbinger of eventual climate-related disaster, and should have been seen as such", and then, demystifies the observation, "that air pollution in Asian cities has been created by local conditions." So, our "pandemic" disaster scenario, he laments, "has disrupted life for tens of millions and "will no doubt turn out to have taken a serious toll on health, including a fair (it's never fair) number of premature deaths". "Climate scientists have been saying for decades that global warming would lead to a proliferation of wildfires", couldn't be any more naive a statement, primarily due to his not understanding fire ecologies, fire management, and a dramatic ignorance of historic drought conditions resulting in "the experts" not actually predicting this week's particular conflagration. Nor could anyone predict the actual occurrence of any unpredictable natural event! Of course, my crystal ball was clouded by the smoke generated similarly in Beijing, China just before the 2008 Summer Olympics when all traffic to its downtown was totally prevented for more than two months. The skies were blue again in time for the opening ceremonies.

Some prescription burns, and proper protective masks, reduced travel and filtered air conditioning for the temporary inconveniences of this considerably infrequent event, could have been a sane response to, as much as Mr. Krugman might understand, is a natural phenomenon. When smoke and haze wafted across the continental United States after the eruption of Mt. St. Helens in 1980, would Krugman use that atmospheric condition, for more than a week, as "validation of mainstream climate science"? When for 5 days ash blanketed 3 states exposing over a million people to unprecedented high levels of particulate air pollution, could that have been predicted also?

If Krugman's adjunct climate analysis wasn't enough, he then continues in his column with his mocking undisclosed Republicans as "climate denialists conspiracy theories of the causes of the Canadian fires." But he doesn't really belabor this foolishness too long, yet immediately goes into the existential diatribe that "the damages from climate change will gradually build as formerly freakish disasters become bigger and more frequent, resulting in once-in-a-century floods, fires and droughts happening every few years, affecting even more people. The climate crisis will get much worse, but it is in fact already well underway." These "crystal ball" statements and predictions from a journalist, based on the most limited understanding of historic context or science, or, just plain ignoring the number of people in harm's way that exist on Earth these days, with the Earth's human population having more than doubled in my lifetime from 3.4 billion to over 8.04 billion! Lastly, a, scientific meteorological fact, is that extreme phenomena have not gotten greater in frequency, occurring in more areas or have become more intense! What has gotten much greater is infrastructure damage and increase anxiety by all who read opinion pieces such as Mr. Krugman's harangue. "Don't look up" ...just keep looking ahead!

Second Opinion

As a trained and accomplished ecological scientist for over 50 years, it is a rare event that a new field or approach to conservation or environmental protection develops that may in some form enlighten the world to advance the quality of life on Earth. But then, for me the New York Times publishes an article with hysteria that disassembles all relevancy of efforts to preserve and protect, natural resources.

Ellen Barry's, February 7, 2022, "Anxiety Over Climate Change Land's on the Therapists Couch", opens with someone who can only be defined as slightly unhinged! A 37-year-old woman is described as not being able to handle giving her child a "wrapped in plastic" treat of nuts that she imagined "leaving her home and traveling to a landfill, where it would remain through her lifetime and the lifetime of her children". To use a Millennial text-convenient stock response ... OMG! Ah, but a Google search has found this person a possible cure of her apprehensiveness, "climate anxiety" serviced by, as The New York Times describes it, a "psychologist who specializes in climate." Are we running low on psychoses to treat? Are we really substituting or alluding to "care for the Earth" over "care for your children"? Check out a little history for goodness's sake. Pandemics, pestilence, hurricanes, droughts, floods, mass extinction, tsunamis, blizzards, meteorites, (I guess she watched "Don't Look Up") have existed in human history over longer and more drier times (they were even called the Dark Ages!), so that comparatively, we have it pretty good in these modern times. We just hear about extreme and catastrophic events everywhere instantaneously through expanded media outlets and of course through the worldwide web. A web is an infecting trap, catching us in pseudo-dystopia. We all need to seek out a place or event that realigns our arduous, laborious, off-track, adult imposing existence of life.

There must not be enough occupancy of therapeutic couch sitting these days... one can get 24/7 help even online. The "professor of psychology at Wooster College" has drummed up a

"new idea" that describes in the media "climate change". The climate changes all the time, so unfortunately this term represents all climatic changing events with special emphasis on the draconian, cataclysmic Earth ending hyperbole which are events that are unmanageable for the majority of humanity, primarily because there is a disappointing ignorance level of the basic science and its supporting principles! "Eco-anxiety" falls into "eco-therapy" which escalates into "ecopsychology", so Dr. Doherty capitalizes on the gaslighting with blatant overly sensitive descriptions of climate changes "being an existential threat", "climate stuff is really scary", or by "there will be good days." These infantile statements no matter how therapeutic, reveal the intimate ignorance of the basic sciences, both physical, biological and especially atmospheric sciences by the truly uninformed.

The news item gets even more distressing when it references the IPCC reports because they are all concentrated mostly on highly presumptive models and political rhetoric, ever since its first report was released. Subsequently, for more than 30 years now these IPCC Reports have noted what has been described as a "new apocalyptic threat not unanimously accepted by all scientists", and, trust most of the "IPCC report writers" were selected not solely for their scientific experience but due to their being either an NGO-representative or a Third World Country pointing fingers at the US's energy policy. Dr. Doherty is a perfect example of the self-proclaimed "Climate scientist" with extremely limited training that morphs into full-fledged ability to "deflect frightening thoughts, from his gullible, hypersensitive clients", as he attempts to represent as a pseudo-authority of atmospheric science and conservation ecology.

Finally, Dr. Doherty's outrageous use of "logotherapy or existential (there's that term again and again!) therapy, a field founded by a neurologist who "survived Nazi Concentration camps and then wrote "Man's Search for Meaning" which described" how prisoners in "Auschwitz were able to live fulfilling lives", goes so far beyond the pale in association to climate issues today, that it is exasperating that the NYTimes even entertains this "expert".

Bottom line is that all these people identified in this NYTimes article do not need therapy... they need to take some basic undergraduate science courses, (15 - 30 credits should do it), which would be much less expensive than therapy fees they are paying right now, and into the foreseeable future.

Ref. 1 "The Redesigned Earth", by John T. Tanacredi (2019) Springer-Nature.

Ref. 2 "Climate Change, Torn between Myth and Fact", by Constantin Cranganu (2021) Cambridge Scholars Publishing

Third Opinion

Raymond Zhong's, NYTimes piece back on Dec. 15, 2021, "Climate Report on the Arctic has a Warning for Warmer Places", reported on a document of the "vulnerabilities of the Arctic" by the University of Colorado, Boulder's National Snow and Ice Data Center, expressing that "these are similar vulnerabilities that we're going to see unfold for our entire planet in the decades to come." What does this mean? Well, just another crystal ball prognosticator looking at "blockbuster record-breaking changes in the regions climate." A decade of monitoring that reveals "snow cover and sea ice to be below average", was a "report card" on Greenland's ice sheet, Eurasian Arctic snow cover and "extreme melt" summer conditions producing an entire panopoly of "increased likelihood" of landslides, tsunamis, and the thawing of permafrost", all impacting the "Arctic regions residents." Showing trends in extremes of environmental conditions is always important, and is the key reason that monitoring data over longer periods of time is critically important. This NOAA "Report Card" overly exaggerated the "potential harbinger" of tundra fires, tsunamis, floods, drought, etc., as vulnerabilities in the Arctic (these vulnerabilities are global in nature) but "does not recount blockbuster, record-breaking changes in the region's climate". So, what's the problem? Snow and sea-ice were below average resulting in growth in shipping traffic and therefore, "a rise in garbage and noise pollution that COULD (conjecture again) be affecting the movement of marine mammals". The article continues to note the proverbial threat that has lasted over 50 years of "the thawing of permafrost, accelerating global warming!" Polar bears are adapting to the minor changes to the landscape in Alaska, so "local indigenous communities have helped produce this assessment". The local populations have been included in assessing the impacts to these observable trends. As this normal news report reveals, natural systems are continuing to adapt, as they have always done overall time immemorial.

Fourth Opinion

The one thing I have learned about the coverage of "climate change" in the press, you can undoubtedly get a chuckle or two periodically from the fear mongering amazingly exaggerative "news" coverage on what appears to be everything that can be associated with climate conditions. "The BLOB that Threatened Florida... is Disappearing", New York Times July 9, 2023, by Livia Albeck-Ripka brought me back to 1958, when a science fiction movie in theaters was first shown, "The BLOB" terrorized Steve McQueen and friends and started his movie career as a lead! The sargassum seaweed (Sargassum natans) native to Florida's coastal

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waters had an exceptional bloom year which occurs periodically. The tropical Sargassum seas predictably return to continue providing oxygen and a vast Atlantic Ocean habitat for a host of marine organisms such as "fish, crabs and sea turtles". But the BLOB will never get a five-star rating from human coastal inhabitants' review. This is because it competes with the constantly growing coastal populations craving coastal communities with all the "natural" elements without being plagued by the natural tangle of rotting seaweed. The reporter goes on with advancing causation to "avoid touching or swimming near the seaweed... noting research that suggested the bloom may contain bacteria." I can guarantee you that there would be bacteria in the decaying groves and as decomposing plants, especially marine algae, will smell from hydrogen sulfide's rotten egg odor.

I am afraid that the cure that resulted in the theatrical "The BLOB", Sci-fi film, would not be the panacea for the Sargassum BLOB piling up on Florida's coastline, unfortunately. For freezing the Sargassum would "kill" this marine alga which thrives in the tropical warm temperatures, coastal waters that are so attractive to all those who see it. You might even say this is a positive aspect to "global warming."

Fifth Opinion

Rupert Darwall's May 25, 2022 NY Post News, item, "A Green Purge: Banker Canceled for Talking Climate Sense", is right on target as repeatedly in all mass media, and especially on the local community scale, telling the truth, or actual describing observations of environmental conditions, is much more dangerous (the senior banker Stuart Kirk formally of HSBC, was suspended for telling the truth about being deluged "in an avalanche of climate-risk reporting") than "playing it safe by recycling routine falsehoods about climate risk and existential threats." As Darwall's reporting for this one travesty identified, "Distorted, alarmist climate reporting is the norm- and getting worse." The following recent news item covered by the New York Times, noted that the TIMES, coupled with the Associated Press have fostered a three-year, "\$8 million deal with climate activists, (most activists are NOT true scientists), including the Rockefeller Foundation, to fund 20 climate journalists", may help bring home the point that the "climate change catechism" is hyperbole on steroids!

William Alexander's, NYTimes article, 6-23-2022 "That Tomato on your Burger is Warming the Planet" is such an urban legend report, it clearly exhibits the disconnect that most people have that all food products are automatically, without hiccups, in the production processes of farming, (known as agriculture), readily and precisely predictable as to product quality and quantity! At no time in human history has there been the level of agricultural richness and product diversity that exists today (primarily due to the foundational contribution of fossil fuel argon-technology) to the entire global human population... exceeding 8 billion individuals probably within this decade. Alexander identifies the indoor farming potential with "controlled environmental agriculture", nothing really new as greenhouse networks for decades have fostered year-round products, for example for florists, and polar climates. Canada and China lead the world in greenhouse agriculture with; Spain, Netherlands, and Italy, are close behind. I never have tomatoes on my burgers!

Sixth Opinion

Emily Anthes, NYTimes July 17, 2022, article, "Andropause' During Pandemic Healed Nature, but Hurts It, too" contemplates humanity's influence on ecological processes during the pandemic years, absence of "people bumbling about" threatening some wildlife and "being custodians for our environment."

This anthropomorphizing diatribe by Anthes disconnects all human history commencing with Australopithecines scanning the grassland horizon for predators or potential food sources, to the pandemic lockdown and isolation of 4.4 billion people, which certainly put the brakes on air, land and water travel that resulted in nature progressing normally undisturbed. Emily Anthes notes that one of Hawaii's popular snorkeling destinations was closed for nine months, resulting in "water clarity improved by 56 percent." "Mountain lions that live in the Santa Cruz Mountains of California, ... became more likely to select habitats near the urban edge," attributable by a Dr. Wilmer who found that the "human soundscape" or noise, reduced "audio stimuli" that normally kept mountain lions away, is another attempt at anthropomorphizing by this journalist to exclude a non-human animals, adaptation to changing environmental conditions, which is absolutely normal.

Birds singing at lower frequencies and being "sexier in their songs;" reduced numbers of wildlife killed by cars; emboldened invasive species like Eastern Cottontail rabbits in Italy; and, disrupted efforts to control giant predatory mice from Gough Island, a critical habitat for seabirds; all covered in this article as "impacts" to natural systems during these pandemic years. Learning to restrict human access to natural systems to reduce or eliminate disruptions to natural processes in these eco-systems, is what ecologists have always attempted to establish for all natural systems where humans recreate or exist; the natural systems carrying capacity! What is news here is not that the pandemic provided a global experiment to learn about sustainability of ecological processes; but that all the observed events are subject to our under-

standing of how humanity is part of all natural systems, and that if carrying capacities are not considered, many more discouraging end results in nature will continue to be observed. We do not "heal or hurt" nature; we experience and appreciate it!

Seventh Opinion

Hyperbole has been traditionally the nature of politicians and snake oil salesmen, probably both, however in today's world the news media has taken the lead. The following assessment of news articles proves this point, capitalizing on some extreme meteorological or natural systems situations covered by the writers using all the new redefined terms of normally identified extreme events that occur.

Raymond Zhong's November 1, 2022 New York Times article, "Many Thousand Facing Risk If Floods In LA Are Extreme", noted that "hundreds of thousands of people in Los Angeles could experience at least a foot of flooding during a 100 year disaster", and then to anthropomorphize a natural meteorological event known as "precipitation" with the citizen attuned advisement that... "because hotter air can carry more moisture, global warming is also causing fiercer winter rain storms -----(there is no scientific research or even observations that this statement is accurate in particular, the ocean born storms (for California that is ALL their storms ultimately) known as "atmospheric rivers", so named for their "sinuous shape and the prodigious amount of water they convey," flaunts journalistic word extravagance and ends with the dramatic output of global warming having doubled the odds of California (a basic Chaparral ecology) with an intense rainy season in winter with dry or virtual drought conditions in July and August. The highly dependent ecosystem which is using fire necessary to sustain the growing season, creates a natural succession of the Southern California biome that has experienced week long "mega storms" and heavy "atmospheric river" driven precipitation events for thousands of years. Of course, the only difference to Mr. Zhang's harangue that "climate change" has as two scientists from academia who have commented on relating weather to "disadvantage community disparity", does nothing to stem the tidal flood along the coastlines or flood plains, because the majority of people in the USA live in and along these coastal areas. The risk factor of being in harm's way will never be minimized. It can only be recovered from! Jin Yu Young's article in the New York Times for June 30, 2023, "South Korea Braces For Deadly Monsoon, Potentially The Heaviest In 80 Or More Years", which prefaces the monsoon season, which is a distinct annual natural phenomenon contributing, as reporter Young noted, "much of Korea's annual rainfall". The projected increase in rainfall during this time prompted President Yeol to vow to take action against this "climate intensity to the city of Seoul to ban basement apartments", which due to recent "normal" flooding had resulted in one family drowning. Flood prone developments will unfortunately always contribute to the increased risks associated with a calamitous outcome. Being aware of unintended consequences of living in harm's way must continuously be anticipated and corrected.

I saved the most asinine news item for last; "Friends Don't Let Friends Set Fires", by Clare Frank, New York Times Opinion, June 10 2023, which starts with a sobering piece of data; "while many of the current fires in Canada were caused by lightning that landed on dry forests, here in the States lightning is rarely the culprit. An astonishing 80% are caused by human carelessness". It appears that Frank never heard of the iconic Smokey the Bear and the national program promoting fire prevention and safety. Smokey the Bear's classic slogan, "only you can prevent forest fires"; every example listed in this article belies the main cause in all forest fires; the total human ignorance of these prophetic words. So, what is just galling to me is that her immediate reflexive response, skipping over the "disregard for the dangerous fire conditions that are clearly becoming more frequent from climate change". She makes no mention of fire management, prescription burns to reduce forest leaf litter, and the dramatic increased housing development in forest regions that are built in fire ecologies. It is clear that what has become more prevalent is the lack of enforcement, non-elimination of sprawl, so, when all else fails, only "you can" evacuate until conditions are hopefully under control.

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Public Health Students at Molloy University visit CERCOM

Molloy University, Nursing Professor, Dr. Normadeane Armstrong visited CERCOM brought her Public Health students to CERCOM in late September, many of whom will become nurses. They learned about Horseshoe Crabs, and the human health protection with LAL from HSC blood, and also participated in CERCOM field data collection exercises. CERCOM extends the invitation to all Molloy University faculty to visit CERCOM with their class for field experience. Reach out to the office at cercom@molloy.edu or 516.323.3594.

Virtual SATURDAY SCIENCE *for* STUDENTS with the Explorer's Club

Register by emailing CERCOM@molloy.edu by noon on Friday before each event. An online link will be sent to all registrants by 5 P.M. (est) the day before the event airs.

All lectures begin at 10:00 A.M. & end around 11:30 A.M. and are *free* and open to the public.

All presentations are Pre-recorded and Archived

Molloy University's Professor Dr. Li Li, Assistant Professor, Biology, Chemistry and Environmental Sciences, presented a virtual lecture on her career as a Molecular Geneticist.

If you missed this presentation, reach out to CERCOM@molloy.edu to get a free link to the video!

DATES FOR THE 2023-2024 ACADEMIC YEAR
NOVEMBER 11TH, 2023 (Virtual) *Dr. John T. Tanacredi, "Coastlines Under Siege"*

DECEMBER 2ND, 2023 (Virtual) *Dr. Arnold Gordon, Columbia University LDEO*

SSFS RESUMES IN PERSON LECTURES IN 2024

FEBRUARY 10TH, 2024 *Presenter Dr. John T. Tanacredi*

MARCH 9TH, 2024 *Presenter Dr. Mark Ringenary, NPS, Ret.*

APRIL 13TH, 2024 *Presenter Dr. Pamela Monaco, Molloy University*

Save the Dates:

Annual Earth Day Event: Tentative Thursday, April 18, 2024

Irving & Margalit Like Virtual Conservation Award and Fundraiser for Earth &

Environmental Scholarships Event: Thursday, May 9, 2024. 2024 Awardee, Dr. Carl Safina, Ph.D., Director of Safina Center.

For any questions regarding any of these events, please reach out to CERCOM at cercom@molloy.edu or call 516.323.3594. Check out our Instagram and Facebook pages for details on all our events as they unfold.

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