

Washington state weighs

By Kirk Johnson New York Times

SEATTLE >> Leslie Christian recently added unusual language to her living will: After death, she hoped her remains would be reduced to soil and spread around to help out some flowers, or a tree. In essence, compost.

"It seems really gentle," said Christian, 71, a financial adviser. "Comforting and natural."

A bill before the Washington state Legislature would make this state the first in the nation — and probably the world, legal experts said — to explicitly allow human remains to be disposed of and reduced to soil through composting, or what the bill calls recomposition.

The prospect has drawn no public opponents in the state capital as yet, but it is a concept that sometimes raises eyebrows. Funeral directors say a common reaction to the idea, which has been explored and tested in recent scientific studies, is to cringe.

"There's almost a revulsion at times, when you talk about human composting," said Brian Flowers, managing funeral director at Moles Farewell Tributes, a company north of Seattle that supports the bill.

In truth, composting is an ancient and basic method of body disposal. A corpse in the ground without embalming chemicals or a coffin, or in a quickly biodegradable coffin, becomes soil over time.

But death certificates in many states include a box that must be checked for burial or cremation, with no other options. Aboveground composting, through a mortuary process that requires no burial or burning of remains, is a new category without regulation about how it should be done or what can be done with the compost. What that means is that hardly any funeral director — even in states where laws about human remains are loosely worded - would risk offering it without state permission.

In America, there are regional patterns to what comes of bodies after death. In the South and Midwest, where religious or cultural traditions run deep, more families opt for caskets and concretes vaults, and fewer choose cremation, experts say. In the Northeast, where family roots sometimes extend back centuries, people often favor burial in local cemeteries alongside ancestors.

IN THE Pacific Northwest, by contrast, death is treated somewhat differently, for reasons that sociologists and religious experts have long pondered. It's a region where transient newcomers have defined the culture since pioneer days. Church attendance is among the lowest in the nation. Preservation of the environment is a central concern.

In Washington state, a larger percentage of residents are cremated than in any other state. Washington has more "green cemeteries," which encourage a return to nature without manicured lawns and chemicals, than most states; only California and New York have more. And laws allowing physicians to help terminally ill patients hasten their deaths, known as "death with dignity," were pioneered in the Pacific North-



human composting

"It's this interesting combination of environmental sensibility and individual choice," David Sloane, a professor of public policy at the University of Southern California, said of the Northwest region. Now the prospect of legalized human composting, he said, puts many of those regional impulses in a spotlight. "It's a test case for seeing how people think," he said.

JAMIE PEDERSEN, a Democratic state senator from Seattle, is leading efforts to pass the legislation to permit a composting process after death.

Democrats control both chambers of the Legislature, and Pedersen, the bill's sponsor, said he had enlisted support from Republicans as well. Gov. Jay Inslee, a Democrat, has taken no position, a spokeswoman said.

At a hearing this month, no one spoke in opposition, though a state association of funeral directors said that it hoped clearer information could be added to the bill about where composted remains could be distributed. It was uncertain, too,

whether such a measure would be seen as a priority during a legislative session crowded with issues that may be easier for politicians to talk about and win points

People are drawn to the idea of above-ground decomposition mainly for environmental reasons, Pedersen said. There's no coffin, no chemicals, none of the fossil fuels that would be needed for cremation, and no expensive cemetery plot required. Some religious traditions also favor ideas of simplicity and of earth returning to earth.

Though the process sounds simple, it would not be cheap. Preliminary estimates suggest it could cost at least \$5,000 - less, perhaps, than an elaborate burial service, but more than the most basic cremation.

IN A STUDY last year at Washington State University, six bodies donated for the research were placed in a closed container, wrapped in organic materials like alfalfa, then bathed in a stream of air warmed by microbes, and periodically turned. Lynne Carpenter-Boggs, a professor of soil science and sustainable agriculture and the lead researcher in the study, said that after about 30 days, the bodies essentially became

Fears that composted remains might smell bad or contain toxic elements from dental fillings, for example, or pharmaceutical residues — were allayed, Carpenter-Boggs said. She said the heat generated by microorganisms broke down organic matter and pathogens, and levels of pollutants like cadmium and mercury were within federal limits.

Christian, the woman who is hoping recomposition will be an option after she dies, says she has long been uncomfortable with the other choices. She has ruled out burial. And she does not like the idea of cremation because of environmental costs - emissions and climate impacts of fossil fuels used in the burning process. But her friends remain divided on the issue.

"The vast majority are like. 'That is so cool.'" she said. "And then the other response is, 'Oh, gross.'"

Flowchart PAY 01/0 ISLAND OF OAHU PUF PROTOCOL FOR SEA TURTLE STRANDING RESPONSE BY THE MARINE OPTION PROGRAM ON WEEKENDS, HOLIDAYS AND AFTER HOURS 12/2 Page or Phone Call From: OTHER AGENCY 12/2 DOCARE PRIVATE PERSON 01/1 Sea Turtle Turtle is on a Provide outer Stranding Report Neighbor Island island strand #. phone 983-5730 Turtle is Inappropriate to on Oahu Respond 01/ Phone 983-5730 Insufficient Conduct Careful Phone Information to Interview with Primary Respond Reporter of Stranding Respond to a Dead If night, Respond to a If night, Turtle without Tags Respond to a Defer to Dead Turtle with phone 2.41 Live Turtle sunrise Tags GHB and defer to .al pa 2.41 sunnise Transport to and impossible to put into NMFS Freezers -Purch Impossible to Transport to Makai Transport or Transport or Animal Clinic (MAC). Load Measure and ID Phone Dr. Morris Load Dec 23 50.00 Label Dec 24 50.00 Measure, Photo, Record Tumors Obtain Tags, No Space in Measure, Photo, Freezers Wait at MAC 1.5 Record Tumors and Other Hours if no Staff Jan 09 Findings and Other \$5.60 is Present **Findings** Mark with Remove Frozen Total pr 05.60 Flagging Tape Turtle and After 1.5 hours and Supply Dead Replace with Transport to

Phone GHB

G. Balazs cell: 286-2899

C. Hooven cell: 286-4377

S. Murakawa cell: 286-4359

and 983-5730

NMFS and Store

in Tray

Marine Turtle Research Program PITSC NOAA Fisheries 2570 Dole Street Honolulu, HI 96522-2396 Ph: 983-6730 or 983-6733 Fax: 983-5730 or 983-6733 Revision Feb. 2005

Animal Disposal

Phone Number

New Turtle

Note: Illegal activities involving sea turtles should be reported to DOCARE (587-0077).

Phone

and/or NMFS Law Enforcement (541-2727)

983-5730



COURTESY JUAN OLIPHANT / ONEOCEANDIVING.COM

Conservationist Ocean Ramsey swims with a great white shark, a species rare in Hawaiian waters, off Oahu's South Shore on Tuesday. She noted that great whites swim with their mouths slightly agape because they

Fiji leader orders release o

AFP, WELLINGTON

Fiji's prime minister yesterday intervened after police locked up a New Zealand news crew reporting on a Chinese resort development accused of flouting environmental protection measures in the Pacific nation.

Blaming the journalists' arrest on "rogue officers," Fijian Prime Minister Vorege Bainimarama said that he demanded the crew's immediate

· release and would personally apologize for their treatment.

"A full investigation into why these officers would use such heavy-handed tactics will be undertaken," he said in a statement.

New Zealand's online news outlet Newsroom said that a threeperson team was arrested on Wednesday after entering the Suva office of Chinese-owned developer Freesoul, which is building a resort

on Malolo Island.

Freesoul - which is facing charges over environmental damage allegedly caused by the development — declined to give interviews and told the journalists to leave, which they did, Newsroom said.

However, a short time later they were arrested by police and held overnight in a Suva police station before being released yesterday.

The arrests demonstrated the

Great white shark thrills divers off Oah

By Mindy Pennybacker tion after swimming with the mpennybacker@staradvertiser.com

The surprise arrival at the feast was big and regal and as wide as your grandmother's hot rod Lincoln, and when she cruised onto the scene the other diners fled - as was only natural, for she was a great white shark, said Ocean Ramsey, a Hawaii naturalist who studies sharks, advocates for their conservation and leads educational, cage-free shark diving tours on Oahu's North Shore.

On Tuesday, Ramsey and her team had taken their dive boat to monitor tiger sharks feeding off a dead and decomposing sperm whale that the National Oceanic and Atmospheric Administration had towed 15 miles offshore from Sand Island, where it had washed up, attracting sharks, when, to her astonishment, the female great white appeared.

"We saw a few tigers and then she came up and all the other sharks split, and she started brushing up against the boat," Ramsey said in a phone interview that evening, her voice trembling with exhilaration and exhausshark all day. "She was just this big beautiful gentle giant wanting to use our boat as a scratching post. We went out at sunrise, and she stayed with us pretty much throughout the day."

Great white sharks, classified as a vulnerable species, are very rare in Hawaii, where the water is too warm, compared with the cold Pacific coast of California where they feed on sea lions and elephant seals, Ramsey said. And this individual, she added, was rarer still given her near-record size, which Ramsey estimated as more than 20 feet long and eight feet high.

Not only that, but "She looks like she may be pregnant: She's shockingly wide."

Hunger and need for nutrients in pregnancy may have explained the shark's presence in Hawaii, where, one theory has it, pregnant great whites follow whales.

One thing that surprised Ramsey was the presence of dolphins, who usually avoid great whites. "There were two rough-tooth dolphins escorting her, nudging on her fins, twirling around her nose. These guys wouldn't



Video is available at staradvertiser.com.

leave her alone - they were having so much fun!"

She was especially thrilled because, based on the shark's size and markings, she tentatively identified her as Deep Blue, a shark she has swum with on research trips to Guadalupe Island, Mexico. "I'm without words; it's heartwarming; she's probably the most gentle great white I've ever seen. Big pregnant females are actually the safest ones to be with, the biggest oldest ones, because they've seen it all - including us." (Sharks only bite humans when they're curious/testing or mistake us for their natural prey, she said.) "That's why I kind of call her, like, a grandma shark.'

But gentle, Ramsey quickly cautioned, is relative when it comes to sharks, who are apex predators and unpredictable. She warned recreational boaters and divers to stay away from the dead sperm whale site, where her

team was working with a permit from NOAA.

That day, for instance, the great white went up to one of the recreational boats "and she sort of gently mouthed their inflatable (fastened to the side of the boat) and popped it, and those people left shortly after that.

The Department of Land and Natural Resources said Wednesday there are reports that people are climbing on top of the whale and removing its teeth. Taking of a marine mammal's remains may be against both state and federal laws, DLNR said.

The vulnerable shark's island visit couldn't have been better timed, Ramsey said, to help her drum up support for a bill prohibiting the intentional killing of sharks that she is seeking to have introduced in the state Legislature this month. While Hawaii was the first state to ban shark finning in 2010, "that doesn't mean you can't kill sharks," she said, noting that two to three sharks are killed every second.

Sharks foster healthy marine ecosystems by picking up dead and injured animals, which keeps disease from spreading, Ramsey said.

New Zealand news crew

power in Fiji of developers from China, which has ramped up its activities in the Pacific in recent years to the alarm of Australia and the US, Newsroom coeditor Tim Murphy said.

The police action was an overreaction to "awkward and uncomfortable" questions posed by the media, he said.

"This is not how things should work in a democracy and a normal open society," Murphy said.

Bainimarama, who has received criticism from rights groups such as Amnesty International over curbs on a free press, insisted that he supported media exposure of environmental wrongdoing.

The Fijian leader originally seized power in a 2006 military coup, but has since won two national elections and reinvented himself as a climate change campaigner.

Bainimarama said that he had been "deeply concerned" about Freesoul's activities for some time and planned to introduce laws to stop developers who ignored environmental protections from operating in the country.

"As both a Fijian who treasures our environment and a global advocate for sustainable development. I share in the public's outrage,"

he said.

A Look Back: Longtime Sea Turtle Scientist Lives Conservation Success



After 48 years studying green sea turtles in Hawai'i (known as "honu" in the Hawaiian language), George Balazs, Hawai'i Senior Sea Turtle Scientist at NOAA's Pacific Islands Fisheries Science Center, recently retired from NOAA service but not from sea turtle research. Learn more about his work and how life in the Hawaiian Islands has changed for green turtles since the late 1960s.

Let's start at the beginning. What piqued your interest in sea turtle conservation research?

I became interested in sea turtle conservation research during my first years in Hawai'i; in 1969, I witnessed commercial turtle fishermen unloading a boat full of live green turtles and loading them up, handling them very roughly, into the back of a pickup truck. It was tough to watch. It really affected me and I worried that this level of harvesting wasn't sustainable. I later applied for grant money to inventory nesting female turtles at their main breeding site, French Frigate Shoals, a wildlife sanctuary atoll about 500 miles northwest of Honolulu (now

part of the Papahānaumokuākea Marine National Monument).

Credit: Official White House Presidential Photographer

What is so special about these turtles, anyway?

I think one of the things that makes them so special is their tie to local, ancient culture. Many island native cultures admire these animals because they believe they're endowed with supernatural traits. And they are a mysterious animal if you think about it--they're one of the oldest creatures on Earth, they dive deep but breathe air, they swim hundreds of miles to their nesting grounds, disappearing and then returning. Some believe that these turtles are actually our ancestors, returning to us.



A Chinese woman prays to a green turtle for blessings in Hawai'i. Credit: George Balzas

Step out of your scientist role and step into your subject's point of view. What did the world look like to green turtles in Hawai'i when you started studying them?

Back then, turtles were afraid of humans, and for good reason. In the 1970s, a turtle was a hundred dollar bill, greatly valued for their meat. Turtle soup, stew, and steak were popular menu items in Hawaii, including for tourists. When I first inventoried Hawaii's nesting female green turtles in the summer of 1973, their numbers were woefully low. There were only 67 at their main breeding site, clearly not enough for the species to survive much longer in the Hawaiian Islands at the rate they were being overharvested.



George Balazs with a nesting green turtle in the French Frigate Shoals in the 1970s. Credit: George Balazs

What did you do to try to change the situation? And fast forwarding 46 years, what does the world look like to them today?

I gave talks to the public and to the State of Hawai'i policymakers to increase awareness about the situation. I asked them to consider a ban on the commercialization of turtles, and luckily, after seeing my data, they agreed. I continued to research and educate, and in 1978, the U.S. Fish and Wildlife Service classified the Hawaiian green sea turtle as threatened under the Endangered Species Act. This meant that killing a turtle became a federal offense. With these changes the turtles started to make progress, slowly but steadily. And as the turtles began repopulating in coastal waters of the Hawaiian islands, I saw a sociological shift happen; people became more aware of their conservation and began valuing them as "watchable wildlife"—a big tourism draw. The nesting population has grown steadily upward at about 5% per year since 1973. While green turtle populations vary by season, in a recent season, the same islet where I counted 67 mothers, in 1973 had nearly 900 mothers. The population has really restored itself and grown to healthy numbers and significantly expanded into new foraging habitats. And we've learned a lot about them through our research, which continues to support monitoring and protection efforts. We've come a long way in our knowledge in 46 years. But the turtles in Hawai 'i, through their resiliency, durability, and survival instincts, have come even further.



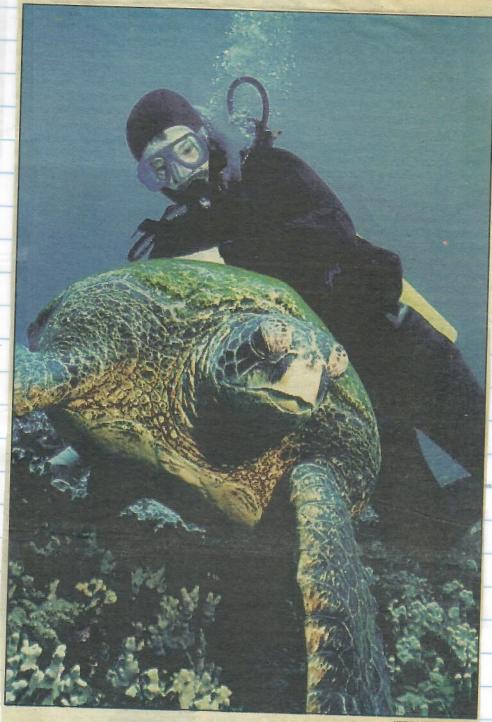
Green sea turtles bask along the shores of French Frigate Shoals, Northwestern Hawaiian Islands. (Credit: NOAA Fisheries/Marylou Staman)

Do you plan to continue focusing on sea turtle conservation? What do you hope to accomplish? What challenges do you want to focus on?



I've studied sea turtles for 48 years—for 35 years at NOAA and for 13 years at other organizations prior to that. But I'm pleased to report that I have not retired from sea turtles. They will continue to be a significant part of my life as an independent global sea turtle scientist and conservationist. Along with several close colleagues, I've formed a nonprofit consortium whose purpose is to provide advice, information, and assistance without charge on sea turtles and their conservation. In this way, we hope to better share what researchers have learned in the Hawaiian Islands over many decades. We will also continue to advocate sensibly for Hawaii's sea turtles and the Hawaiian people and culture so intimately linked together.

The Home Forum.



GEORGE BALAZS AND FRIEND: The biologist inspects a flippered (but unflapped) green turtle for tags off the coast of Maui. He led a campaign to save the turtles in the 1970s.



Tale of a sea turtle has a happy ending

Back from near-extinction - and getting closer to people

AI worked hard to escape her sandy nest on East Island, near Hawaii. The baby green sea turtle waved her tiny flippers until she was free.

Around her, dozens of her little brothers and sisters were scrambling out, too. Kai (Hawaiian for "sea") flopped and flapped across the sand, sometimes running over another hatchling, and sometimes being run over. The turtles knew, instinctively, they must get to the water.

Soon Kai was lifted by a wave and tossed upon the sea. She began to swim. On the beach, she'd looked like a flopping stone. Now she was as graceful as a bird. Kai's brothers and sisters swam, too. But of all the hatchlings in her nest, only Kai would return to East Island.

In the early '70s, when Kai was born, times were hard for Hawaii's green sea turtles. Hundreds were killed every year and eaten as soup, fritters, and steaks.

Hunting made turtles frightened of huan mans. "Turtles used to flee at the very sight of people or at a scuba diver's bubbles," says biologist George Balazs, an expert on sea turtles. "All you saw was the turtle's rear end as it swam away."

Dr. Balazs didn't plan to become a sea turtle scientist. But he saw Hawaiian fishing boats unloading dozens of turtles they'd caught. If so many were being killed, how many were left to breed? Were turtles in danger? He decided to find out.

Balazs knew turtles nested on a group

to per Willing to per Williams to per

For more information

You can watch sea turtles in Hawaii on Oahu (Laniakea, on the North Shore), the Big Island (Kahaluu Beach Park, south of Kailua-Kona), and Kauai (the cove next to Kuhio Shores on Lawai Road, Poipu). The best time is at high tide, when the turtles emerge to eat seaweed on the rocks.

Remember, never grab, catch, or ride on turtles. Don't feed them human food. Move away from a turtle if it seems disturbed. Don't go close to a nesting turtle that has not yet laid her eggs. For more guidelines, go to: www.coral.org. See also www.turtles.org and look under 'Things you can do to help.'

Sea Turtles of Hawai'i, by Patrick Ching (University of Hawaii Press, 2001, all ages). A wildlife ranger native to Hawaii explores the life history, breeding, biology, and conservation of the *honu*, the green sea turtle.

Interrupted Journey: Saving
Endangered Sea Turtles, by Kathryn
Lasky (Candlewick Press, 2001, Grades
3-6). A 10-year-old boy helps to rescue
a sea turtle stranded on Cape Cod.

of tiny islands (including East Island) 400 miles from Hawaii called the French Frigate Shoals. They are part of the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve. Balazs traveled to the islands in the summer of 1973 and began counting and tagging nesting sea turtles. He discovered that only about 150 nesting females were left. Most of them nested on East Island, where Kai was born.

While Balazs was learning about turtles, Kai was learning to survive. Young turtles swim in the open ocean, eating jellyfish and fish eggs. The open ocean can be dangerous. Large fish and sharks love to eat small turtles, and there is nowhere to hide. Still, the Pacific is big, and baby turtles are small and easy to overlook.

Kai grew bigger and stronger. One day, when she was about six years old, she swam toward Kauai, one of the main Hawaiian Islands. She had avoided becoming a shark snack. Could she avoid becoming turtle soup?

when Balazs realized how few sea turtles were left, he began an effort to protect them. In 1974, thanks to Balazs's work, Hawaii protected green sea turtles. In 1978, the United States government listed sea turtles as an endangered species. Today, all seven species of sea turtles (green, hawksbill, olive ridley, Kemp's ridley, leatherback, loggerhead, and flatback) are protected. Most of Hawaii's sea turtles are green turtles like Kai.

Although sea turtles could no longer be hunted, Balazs's work was not over. He has returned to the French Frigate Shoals every year to count and tag turtles. He has also studied turtles living near the main Hawaiian Islands. Children often help.

"We herd the turtles into a net on a shallow reef," Balazs says. "The kids catch the turtles gently, by hand, and bring them to our boat. The kids help weigh, measure, examine, and tag the turtles. Then we let them go free."



Kai grows up and goes home

Meanwhile, Kai had found a home. Juvenile and adult turtles prefer the seaweed and sea grasses found in coastal areas. Off Kauai there was plenty to eat, and underwater nooks for resting. Kai had never

been hunted, so she was not afraid of people. She swam close to shore at high tide to feed. When she wasn't eating, Kai rested in the nooks and crannies of offshore reefs. She grew a bit each year. When she reached



adulthood at 25, her shell was three feet long and she weighed 200 pounds or so.

One day, Kai left Kauai behind. She was heading home. Scientists still aren't sure how sea turtles find their way across hundreds, sometimes thousands, of miles of ocean to their nesting beaches. Perhaps turtles can sense the Earth's magnetic field

- like being born with a compass. However she did it, Kai swam back to East Island.

Kai mated with a male green turtle offshore. A few weeks later, she crawled onto the sandy beach. Like all nesting turtles, Kai came at night, just after high tide. It was June 1996.

Kai carefully dug a hole in the sand and laid about 100 eggs, each about the size and shape of a Ping-Pong ball. Instead of being hard like chicken eggs, Kai's eggs

were leathery and soft.



Balazs and his team found Kai. They saw her lay her eggs. Afterward, she was given four metal tags. (Using more than one tag helps scientists tell how well tags stay on.) Kai was care-

fully examined and measured. Then Kai disappeared again, back into the Pacific.

In 1996, Kai was one of about 700 female green sea turtles nesting in the French Frigate Shoals. That was very different from 1973, when Balazs found fewer than 150 nesting turtles. "The population started to increase within a few

years after state and federal protection," Balazs says. "The turtles that would have been killed were able to grow up, then migrate and reproduce."

With hunting over, turtles get closer

Protecting sea turtles changed the way turtles act around people, too. "Along with the greater number of turtles has come an amazing increase in tameness, or at least toleration of people," Balazs says. "The turtles now go about their business as long as you give them a comfortable distance."

That distance can be very small. At some places in Hawaii, green sea turtles graze on seaweed inches from the toes of people wading in the ocean. Today, turtles sometimes rest on shore, something they never did when they were hunted. "The turtles haul out right next to people on beach blankets," Balazs says. "You don't even have to snorkel to see them."

But even though sea turtles are no longer hunted, they still face dangers. Over the past 12 years, Balazs and volunteers all over the islands have rescued 152 sea turtles and returned them to the wild.

Continued on next page



MICHELLE CHRISTENSON/CORPUS CHRISTI CALLER-TIMES/AP - FILE

SKITTER TO THE SEA: A baby Kemp's ridley turtle charges toward the Gulf of Mexico during a turtle release at the Padre Island National Seashore near Corpus Christi, Texas.

Continued from previous page

Some were entangled in fishing lines, or had fish hooks stuck in them. One small turtle was rescued from a dog's mouth - it had been "retrieved" right off the beach!

Some of the rescued juvenile turtles also have tumors, which scientists think may be linked to ocean pollution. Balazs is working to find out more.

Some turtle dangers are as old as turtles themselves. Kai may have been at the surface, taking a breath of air. The big tiger shark grabbed Kai's right rear flipper in its jaws. The shark shook its head, biting off part of the flipper. Kai escaped.

Perhaps Kai's injury kept her away from East Island. Adult female green turtles usually nest every two to three years. After her first nesting in 1996, though, Kai didn't return for six years. On June 13,

nesting season. Scientists say green sea turtles may live to be around 50 years old in the wild. Kai may return many more times to East Island.

Face-to-tail with Kai

I met Kai while scuba diving off Kauai in September, at a spot known for its many turtles. I watched a large male turtle wiggling and twisting on a coral head. (A male turtle's tail is twice as long as a female's.) Clearly, turtles enjoy a good belly scratch! Nearby, another turtle floated to a "cleaning station." A school of small surgeonfish swarmed over his shell, pecking at algae like pigeons pecking at breadcrumbs. After a few minutes of this, the turtle glided off. Another turtle customer, waiting patiently, took his place.

A young male turtle slept soundly on a

157



2002, Kai was back on East Island.

Balazs and his team found Kai. She had grown slightly – 2/3rds of an inch. Of the four tags Kai was given in 1996, only one was left. Balazs's team put a tiny microchip in her left rear flipper. This new high-tech tag can be "read" at close range using a special scanner. They also painted a number on her shell: 293C. They saw that most of her right rear flipper was gone, but that the wound was healed.

Kai returned several times over the next two weeks, each time laying a clutch of eggs. This year was a good one for Hawaii's green turtles. From fewer than 150 in 1973 to about 700 in 1996, the number grew to about 900 by the end of the 2002 ledge. He looked as contented as a puppy on a rug. A large female was a few feet away. She rested with her head inside a crevice and her rear end sticking out. Her right rear flipper was mostly bitten off. There was something written in white paint on her shell: 293C.

In the three months since she had nested on East Island, Kai had swum 400 miles to her feeding grounds off Kauai. Several years ago, Balazs used satellite tags to track 16 green turtles after they left the French Frigate Shoals. Most made a beeline to the

main Hawaiian Islands. But one turtle made a huge loop through the open ocean before finding her way to coastal waters. I hope Kai took the direct route!

I saw Kai once more. We were climbing on board the dive boat when Kai surfaced nearby. She eyed us, then swam right over to the ladder at the back of the boat.

"This one is really friendly," said Debbie, our dive guide. She reached down and pushed Kai away, so the flopping ladder wouldn't hit her.

"Nice turtle," Debbie said.

Kai took one last look and vanished under the swells.

Pamela S. Turner

Ige signs rules banning feeding

By Kevin Dayton

Red 18 HSA

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Gov. David Ige has approved new rules for the state's small boat harbors that prohibit camping and the feeding of feral cats.

Public hearings for the new rules for the Department of Land and Natural Resources Division of Boating and Ocean Recreation were held in July, and the new rules took effect Friday, according to a statement from DLNR released Friday.

"DOBOR's priority is the health and safety of all of the harbor users," according to the written statement. "DLNR is also looking to protect native and endangered species as feral animals threaten birds, mammals, seals and other fauna. It is important to have a mechanism to address the department's harbor health and endangered species concerns as necessary."

The new rules prohibit anyone from feeding individuals or colonies of strays on any property under the



STAR-ADVERTISER

Underwood: He is the Division of Boating and Ocean Recreation administrator

control of the Division of Boating and Ocean Recreation. That applies to the feeding of birds, cats, chickens, deer, dogs, eels, fish, mongooses, pigs, rodents, seals, sharks, turtles and other creatures.

The new rules also prohibit abandoning cats or other animals at boating facilities, with violators facing fines of up to \$1,000.

Ed Underwood, administrator for the boating divi-



Feral cat colonies have become a problem at small bo Haleiwa, above. A new rule bans the feeding of wild a

sion, said feral cat colonies are an issue at some harbors, and "we're trying to work with these folks about

telling them that the harbors are not the best place to have these cat colonies."

Cat feces that washes into

feral cats at harbors



BRUCE ASATO / 2011

at harbors in Keehi and mimals at all boat harbors.

the water can cause toxoplasmosis in Hawaiian monk seals and has been blamed for the deaths of at least eight of the endangered seals since 2001.

He said cat colonies are a problem in both the Haleiwa and Keehi small boat harbors, but "we have feral cats everywhere."

"Our intent isn't to go out and eradicate any predators," Underwood said. "We're trying to encourage the cat colony folks to find a more suitable location for them."

Sleeping and camping are already banned at small boat harbors, but the new rules would expand that ban to all property controlled by the Division of Boating and Ocean Recreation. However, sleeping and camping would be allowed for people on boats that are properly moored in the harbors with the authorization of DLNR.

That rule change would not affect the sizable homeless encampment near the Waianae small boat harbor because that camp is on property controlled by DLNR's Division of Aquatic Resources, Underwood said.



HENRY A.S. HUIHUI, SR.

81 of Waimanalo, passed away at home with his family by his side on December 19, 2018. He was born March 14, 1937 in Honolulu to Albert and Rachael (Hanawahine) Huihui. He will be remembered as a loving husband, father, grandfather, great-grandfather, brother, uncle, cousin, and friend.

He is survived by his wife, Etta Mae (Waiwaiole) Huihui; daughter Bernie Mae (Robert) Preston, sons Henry A.S. (Kathi) Huihui Jr, Eliot (Cassandra) Huihui, and Ryan (Uilani) Huihui; 15 grand-children and 13 great-grand-children; his brother Abel K. (Marilyn) Huihui Sr., and his sister, Grace Huihui.

Services will be held on Saturday, January 19, 2019 at Mililani Mortuary Downtown. Visitation from 10:00am to 11:30am. Memorial Service at 11:30am. o. Ou vour vongen sommage

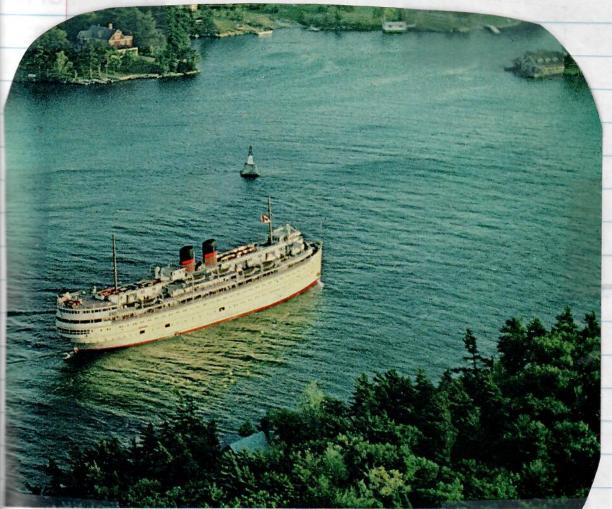
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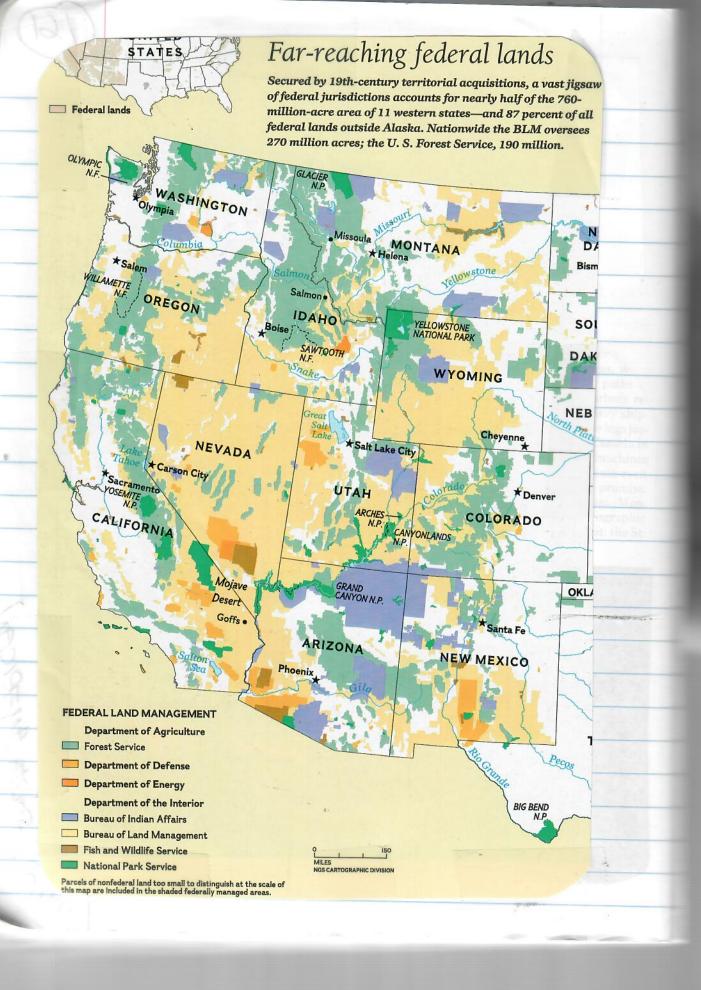
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KODACHROME BY JOHN LAUNOIS, BLACK STAR @ N.G.S

anadian vacationers. Cruise ship South American, bound from Montreal to Detroit, wigates the narrow road of the St. Lawrence Seaway where it threads the U. S. side.



09/11/15Cor FINANCE SPLASH

by robert duerr

word count 1613

Bring Honu Conservation Home. As a citizen volunteer and as the Co-Chair of the Oceania Region of the IUCN Marine Turtle Specialist Group, George Balazs recently wrote a letter-to-the-editor to newspapers around the state. The letter says it's time to bring U.S. federal endangered specie efforts for green sea turtles back home b Hawaii.

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All green sea turtles in Hawaii share the same genetic lineage. This is a unique subset of the greater global population of green sea turtles. This subset is known as a "Distinct Population Segment" or "Regional Management" unit. In 2012, the Association of Hawaiian Civic Clubs petitioned NOAA Fisheries that the Hawaii green sea turtles be a distinct population segment, and to remove it from listing under the Endangered Species Act.

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Balazs with his wife Linda presented their paper "Fall and Rise of the Hawaiian Honu: A 50-Year Witness to Cultural and Conservation" at this August's University of Hawaii Hilo 23rd Annual Hawaii Conservation Conference.

Here they said the good news is that "In 2012 Hawaii's green turtles or honu (Chelonia mydas) were downlisted from Endangered to the category of Least Concern following a comprehensive assessment by the IUCN Marine Turtle Specialist Group."

The IUNC Species Survival Commission Marine
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Should the same home rule logic be applied to humpback whale recovery? Instead of seeking ecosystem management and control of one third of Hawaiian waters, the Hawaiian Islands Humpback Whale National Marine Sanctuary should it pat itself on the back for ESA recovery, pack their bags and migrate back to Washington D.C.?

Not all are rushing to embrace the Balazs and IUCN honu recovery. NOAA now wants to reclassify the turtle from endangered to threatened. The geographical isolation of the Hawaiian green sea turtle is seen as a detriment to recovery.

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Until September 25, NOAA is accepting comments on delisting Hawaii green sea turtles. Submit all electronic comments via http://www.regulations.gov/#! docketDetail;D=NOAA-NMFS-2012-0154, click the

"Comment Now!" icon, complete the required fields, and enter or attach your comments.

Mail: Submit written comments to Office of Protected Resources, NOAA Fisheries, 1315 East-West Highway, Silver Spring, MD 20910.

Want to see more on IUCN see: http://

www.iucnredlist.org/details/16285718/0

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recreational lagoon."

Read Kittenger et al at http://onlinelibrary.wiley.com/doi/ 10.1111/j.1600-0587.2013.00245.x/abstract



Aloha

we hope that you are all well and that you have had a good year. bhristina and I are getting to be pretty old, daughter than is the Nurse Practioner at the Rehabilitation thospital of the Pacific is How olulu.

Love, banesey et al.

Better Late Than Never

Musician, music arranger, composer and filmmaker Eddie Kamae was drafted into World War II in 1945 and had to put aside graduating from Farrington High School.

"After the war he returned to Farrington, determined to obtain his diploma. Near the end of the semester, however, he was told that he was one credit short," Ted Sakai said. "He would have to attend summer school for it." Kamae walked away instead.

During the 2009-2010 school year, Eddie was helping Farrington's fledgling Hawaiian Academy. School Principal Catherine Payne thought Eddie's life work was worth far, far more than one credit.

"She granted Eddie the credit he needed for graduation. She then got permission from the senior class to have Eddie march with them at graduation."

On a sunny day in May 2010, Eddie Kamae proudly donned the maroon-and-white cap and gown and marched into the amphitheater as a member of the Farrington High School Class of 2010. He was 82.

George,

As you pointed out in your letter to the paper, the turbles and other treatures have survived this sort of thing in the past.

Nevertheless, its sad to think of an island on which one has spent many hours has gone

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Bring Honu Conservation Home

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Haseko To Pay \$27 Million

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In the Aug "Splash!" colu low fisherman green sea turtl of historic nest be premature t turtles under th At first read, well-document article has som my fishery soci experience wor and bone analy

Haseko To Pay \$27 Million

A Circuit Court awarded an 'Ewa Beach class-action lawsuit \$27 million for a marina that was never built. Haseko, a Japanese developer, was told to pay the 1,800 homeowners \$1,300 each. This nearly \$7 million was awarded for a' marina not built between One'ula Beach Park and White Plains Beach. The additional \$20 million was tacked on as punitive damages for violating the state's consumer protection laws. Haseko, citing environmental planning delays and cost overruns, has applied to rezone the marina to a "recreational lagoon." Haseko, with 40 years of business experience in Hawai'i, said the punitive damages are ridiculous. Homeowners saw their properties increase in value without a marina and with a lagoon. **PURCHASE** 04/04 T-MOBILE HOTSPOT GMBH BONN 21.95 04/06 MAOHUA MOTEL TAICHUNG 157.13 04/07 NEW TAIWAN DOLLAR 4,840.00 X 0.032464876 (EXCHG RATE) 04/06 TaipeiTeacher s Hostel TaipeiCity 90,90 04/08 NEW TAIWAN DOLLAR 2,800.00 X 0.032464285 (EXCHG RATE) 1.UNC4233 04/05 **PLANTS TAIPEI** 04/08 NEW TAIWAN DOLLAR 1,304.00 X 0.032461656 (EXCHG RATE) 04/08 MAOHUA MOTEL TAICHUNG 41.54 04/09 NEW TAIWAN DOLLAR 1,280.00 X 0.032453125 (EXCHG RATE) 04/08 MAOHUA MOTEL TAICHUNG 04/09 NEW TAIWAN DOLLAR 2,560.00 X 0.032453125 (EXCHG RATE) 04/12 **BREEZE TAIPEI STATION TAIPEI** 04/13 NEW TAIWAN DOLLAR 1,045.00 X 0.032421052 (EXCHG RATE) 04/14 TaipeiTeacher s Hostel TaipeiCity 04/16 NEW TAIWAN DOLLAR

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Turtle Soup?

■ In the August HAWAII FISHING NEWS "Splash!" column, my friend, colleague and fellow fisherman Bob Duerr cited a recent article on green sea turtles that claims to estimate the loss of historic nesting beach sites and suggests it may be premature to consider delisting Hawai'i green turtles under the Endangered Species Act (ESA). At first read, the article seems reasonable and well-documented. On a more careful read, the article has some flawed assumptions. I've put on my fishery social scientist hat and drawn from my experience working with archeologists on midden and bone analysis to provide this comment.

The article mines a massive database that includes a sizeable number of historical accounts and archeological reports that include midden (faunal) analysis and reference to turtle bones. Midden analysis depends greatly on the experience of the analyst and is only as good as the analyst and the reference collection they are using. This is why many site reports only say unidentified fish bone, mammal bone, etc. Many factors influence the presence/absence of any bone in archeological sites, and samples are not very representative of localized activities.

People with training and experience in archeology know that extrapolations from bone presence in archeological sites to localized human activity should only be done with great caution. Reports of turtle bone presence should not be extrapolated to always indicate evidence of a nearby nesting beach. Basking turtles and swimming turtles could be harvested by a variety of methods, and turtles could sometimes be placed under kapu by chiefs and their konohiki and, hence, harvested elsewhere and taken to a chiefly residence. It should also not be assumed that all identified turtle bone in midden is from green turtles. While hawksbill were probably not eaten, they were harvested for important chiefly regalia and fishhooks.

The decision as to whether or not to delist the Hawai'i green turtle should be based on the best available science. This article does not, in my view, meet that standard.

Craig Severance, Ph.D. Hilo, Hawaiʻi 货币兑换水单 未设置 EXCHANGE MEMO 2106(A)16060356 面额 100 45 811:0 45 4500 ID type 当前中国中国人民事 序 规 曲具号 Signature 号别 81 伪码 1 05版 牌价 折算人民币金额 100 收/实付人 N1Z2322326 Rate 2 15版 Change RMB Amount Commission 100 tal RMB LF 4611190 ? 15脚。100 290071. 53.44% 60.00 15 hi 100 144/1244852 211170101 支付方式 Tran Type e of FX Pay Type 复核 外个人在24个月内出境是 heave been the meno, you have to show it and on document k into the foreign currency w. meno itse Donald ... L. ...)-64489059 10165

SCOTT

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beach, citizens and federal biologists rose to the occasion. Resident Masako Dix made a sign and driftwood barrier to allow Tully to rest undisturbed while waiting for help. Masako's neighbor Roy wrote, "Thanks to the NOAA turtle hotline, a turtle team responded ... and determined that Tully needed to be taken in for treatment." Because the turtle had a tumor in its throat that could not be removed, veterinarians had to euthanize the suffering animal. The good news is that these turtle tumors are far less common than they once were and that people have reliable numbers to call for help. (Use search words "Hawaii turtle rescue"). Roy wrote, "The NOAA turtle team did a good job." That's my experience with them, too.



A healthy green turtle basks on a Hawaii beach.

Last week I wrote about several nonprofits that research and rescue seabirds. By no means are those all there are here in Hawaii. From another, the Hawaii Wildlife Center, I received this message from a rescued wedge-tailed shearwater chick: "Dear Bird Santa ... I swear I've been good this year! I ate all my food, did my physical therapy, and only nipped or yelled at

HWC staff a few times. I might have thrown a fish or two, but I promise that was it!"

Thank you, everyone, for encouraging me to share another year of marine adventures. I hope the new year brings comfort, security and well-being to all species.

Reach Susan Scott at susan scott.net and click on "Contact" at the top of her home page.



Honu come from 'round Hawai'i Mate and lay their eggs out there, Nests will hatch under nā hōkū Hatchling scramble everywhere...



ORGAN WEIGHTS OF GREEN TURTLES STRANDED IN THE HAWAIIAN ISLANDS

Shandell M. Eames¹, George H. Balazs², Thierry M. Work³, Robert A. Rameyer³, Denise M. Parker⁴, and Shawn K. K. Murakawa⁴

¹ Joint Institute for Marine and Atmospheric Research, 2570 Dole Street, Honolulu, Hawaii 96822-2396 USA
² National Marine Fisheries Service, Pacific Islands Fisheries Science Center, Honolulu Laboratory, 2570 Dole Street,

Honolulu, Hawaii 96822-2396 USA

³ U.S. Geological Survey, National Wildlife Health Center, Honolulu Field Station, P.O. Box 50167, Honolulu, Hawaii 96850 USA

⁴ Joint Institute for Marine and Atmospheric Research, 8604 La Jolla Shores Drive, La Jolla, California 92037 USA

Introduction

Fibropapillomatosis (FP) is a neoplastic and debilitating transmissible disease of green turtles (Chelonia mydas) that has emerged as a serious threat worldwide, including the Hawaiian Islands. Previous studies of FP in Kaneohe Bay on the island of Oahu have shown severe tumor affliction as having a significant impact on green turtle growth rates (Balazs et al., 2000). Many turtles with severe FP also have poor body condition. In Hawaii, stranded turtles debilitated with FP are evaluated for possible rehabilitation. If prognosis for survival is deemed poor by two independent veterinary exams, turtles are humanely euthanized and a thorough necropsy is performed. During previous necropsies of severely tumored turtles, the liver and spleen showed gross evidence of shrinkage. We set out to quantify the degree of internal organ shrinkage by weighing organs and relating organ weights to degree of tumor severity.

Methods

Reports from the public, as well as from county, state, and federal personnel on six major inhabited Hawaiian Islands (Kauai, Oahu, Maui, Molokai, Lanai, and Hawaii) form the basis for initiating a response to collect a stranded turtle and acquire relevant data (Murakawa et al., 2000). Once collected, the turtles are measured, weighed, and assigned an overall subjective tumor score of 0 (no tumors), 1 (lightly), 2 (moderately), or 3 (heavily tumored) based on the size and number of tumors on the animal (Work and Balazs, 1999). In March 2000 we began weighing the major organs during necropsies of stranded turtles evaluated as euthanasia cases (n = 58) or freshly dead turtles considered to be viable for histopathological analysis (n = 16). The heart, liver, lungs, kidneys, spleen, and brain were each weighed separately using an electronic scale. Organs with tumors were omitted

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Remote Hawaiian island

By Julia Jacobs New York Times

First, the island was there. Then, it was mostly gone.

Before Hurricane Walaka swept through the central Pacific this month, East Island was captured in images as an 11-acre sliver of sand that stood out starkly from the turquoise ocean.

After the storm, government officials confirmed the island, in the northwestern part of the Hawaiian archipelago, had been largely submerged by water, said Athline Clark of the National Oceanic and Atmospheric Administration. East Island is the second island to disappear in recent months from French Frigate Shoals, a crescent-shaped reef including many islets, Clark said.

Chip Fletcher, a climate scientist with the University of Hawaii who has been studying East Island's natural history, said it comprises loose sand and gravel rather than solid rock. His team had just taken geological samples from the island in July. But a little more than a week ago, he said, he was

East Island in Hawaii before Hurricane Walaka nearly wiped cials confirmed that the island, located in the northwestern mostly submerged by oceanwater, said Athline Clark of tion.

alerted by government officials that it had mostly disappeared.

"From my experience in cases similar to this, I had just assumed that the island had another decade to three decades of life left," Fletcher said. "It is quite stunning that it is now, for the most part, gone."

Clark, the NOAA superintendent for the Papahanaumokuakea Marine National Monument, which includes the French Frigate Shoals, said no one immediately realized the island, located 750 miles northwest of Oahu, had largely disappeared because it is so remote.

East Island, with its sandy composition, wasn't much of a match for the storm in early October, which started off as a Category 5 hurricane and created large storm swells, Clark said.

Although experts cannot directly trace the shrinking of East Island to the effects of climate change, Clark said it contributes to the

Tinian island, one of three main islands of the U.S. commonwealth. It was one of the most intense hurricane strikes on record for the United States and its territories.

Kauai Quilt Show

- >> Where: Kauai Society of Artists Gallery, Kukui Grove Center, 3-2600 Kaumualii Highway, Lihue
- >> When: 11 a.m. to 5 p.m. Feb. 8-20; Fridays until 8 p.m. Opening reception and "Meet the Quiters" evening 5 to 8 p.m. Feb. 8.
- >> Admission:
- >> **Phone:** (808) 652-2261
- >> Email: lea ingram.artist@ gmail.com
- >> Notes: Some
 quiltmakers
 accept credit or
 debit cards for
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 will be accepted for sales
 of charity
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argely wiped out by hurricane



U.S. FISH AND WILDLIFE' NEW YORK TIMES

it out, left, and after the storm. Government offipart of the Hawaiian archipelago, had been ne National Oceanic and Atmospheric Administra-

strength and frequency of hurricanes like the one that overtook the island. Scientists say hurricanes will be stronger because warmer water provides more energy to feed them.

"The intensity and frequency of storms is likely to increase," Clark said. "This is probably a forebear of things to come."

In 2016, President Barack Obama more than quadrupled the size of the Papahanaumokuakea national monument, turning it into the world's largest protected marine area. Created by President George W. Bush a decade earlier, the monument is home to an estimated 7,000 marine and terrestrial species, a quarter of which are found nowhere else on Earth.

Charles Littnan, a conservation biologist with NOAA Pacific Islands Fisheries Science Center, said about 96 percent of Hawaiian green sea turtles, a threatened species, travel to the French Frigate Shoals to nest. About half used East Island, Littnan said.

The shoals are also home to more than 200 endangered Hawaiian monk seals, he said. Only 1,400 of the species remain in the state.

The animals dodged the worst effects of the hurricane, Littnan said, because it struck late in their breeding seasons. Most of the turtles had already left the island by the time the storm hit.

When the turtles return next year, they may try to find another island on which to nest, Littnan said.

But it is possible that East Island will resurface and the turtles and seals will return to their seasonal homes. In images of the island after the storm, Littnan said he could already see that some monk seals had returned and hauled themselves onto the 150-foot-long patch of sand that remained.

He added the island's future was uncertain.

"We've seen islands disappear in the past and reemerge," he said. "And we've had islands that disappear and they're gone 30 years later." Canada pulls citizens from embassy in Cuba

TORONTO SCanada an-nounced Wednesday it is removing up to half of the Canadians at its embassy in Cuba after another diplomat fell mysteriously ill.

Canada has confirmed 14 cases of unexplained health problems since early 2017. Twenty-six workers at the U.S. Embassy in Cuba have also been affected, suffering a range of symptoms and diagnoses including mild traumatic brain injury, also known as concussion.

Josefina Vidal, Cuba's ambassador in Canada, issued a statement saying her government considered the move "incomprehensible," but "Cuba remains committed to keeping the good state of bilateral rela-

Island vanishes

One of the most powerful Pacific hurricanes on record obliterated a remote Hawaiian island, causing an important turtle nesting site to disappear in early October. Former Category-5 Hurricane Walaka was still packing Category-3 force just before it struck the remote French Frigate Shoals, about 400 miles northwest of Kauai. Storm surge wiped out East Island, which is a critical habitat for green sea turtles, monk seals and various types of seabirds. University of Hawaii re-

searchers who were studying the wildlife were forced to evacuate the island before Walaka struck.

Tropical cyclones

Popular resorts on Mexico's Pacific coast were raked by Category-3 Hurricane Willa, which had earlier been at Category-5 force. Category-5 Super Typhoon Yutu wrecked buildings in the U.S. Pacific territory of the Northern Mariana Islands as the most powerful cyclone to strike anywhere in the world during 2018. The eye of the storm passed directly over

Researchers evacuated from atoll as storm nears

By Audrey McAvoy 10-5-2018
Associated Press HSA Ba

Seven researchers were evacuated from a remote atoll in the Northwestern Hawaiian Islands as a powerful hurricane headed their way, officials said Wednesday.

A research vessel picked up the seven from French Frigate Shoals, said Kate Toniolo, the acting superintendent of the Papahanaumokuakea Marine National Monument.

The atoll is about 500 miles northwest of Honolulu. Hurricane Walaka was south of the island on Wednesday and heading north with maximum sustained winds of 130 mph.

On Monday the Coast Guard evacuated four workers from a national wildlife refuge on Johnston Atoll before Walaka passed that island.

The storm hasn't threatened Hawaii's most populous islands, where the state's 1.4 million people

The French Frigate Shoals researchers were studying and monitoring Hawaiian monk seals and Hawai reen sea turtles. Toniolo said. They were due to we the island in the middle of this month, so the

evacuation accelerated their departure, she said.

Amanda Dillon, scientific content coordinator for the National Oceanic and Atmospheric Administration, said the research vessel picked up the team on Sunday after being diverted from a project near Kauai. The ship returned to Honolulu on Tuesday.

French Frigate Shoals is where 95 percent of Hawaiian green sea turtles — classified as threatened under the Endangered Species Act — nest.

The turtles dig holes on the beach and lay their eggs in the sand, so there's a possibility a storm surge from the hurricane may wipe out their nests. Storm surges also may hit Hawaiian monk seals that rest on the shoreline with their pups. The seals are an endangered species.

Toniolo said researchers won't return to the island until next year. But a crew collecting marine debris in the marine monument might stop by and check for damage before then.

Laura Beauregard of the U.S. Fish and Wildlife Service said the hurricane poses similar concerns for Johnston Atoll, which is about 825 miles southwest of Honolulu. Johnston is the lone nesting spot for tens of thousands of seabirds within 450,000 square miles, she said.



From: honu world < itsahonuworldinhawaii@hotmail.com>

Date: Mon, Nov 5, 2018 at 2:21 AM

Subject: [CTURTLE] Hawaiian Hurricane Walaka's submergence of East Island

To: <CTURTLE@lists.ufl.edu>

Dear Cturtlers, One of the under-appreciated beauties of Cturtle is it's archival element. All that is said, and has been said, on Cturtle is stored and searchable now and by those of the future. With this awareness I share below a view I recently contributed to the Washington Post's Letters Web Site- expanded upon from my earlier post sent to CTurtle.

*About Hawaiian Hurricane Walaka washing away the green sea turtle (honu) nesting islet of Hikina (East) in the Northwestern Hawaiian Islands: Surely this is one of the most exciting times of my 48-year career working with Hawaiian green turtles. The loss of East Island at French Frigate Shoals started decades ago documented by photo evidence. My first stay on the island as a University of Hawaii sea turtle researcher was in June 1973. At that time about 30% of the island had eroded away since the mid-1940s. The loss of the island is part of some natural long term process where sand, unlike stone, comes and goes, accumulates and then washes away in cycles. The entire northwestern segment of the Hawaiian chain has been sinking and disappearing over geologic time. And new land is formed by active Pele volcanism at the southeastern end of the chain. Sea turtles for millennia have always been able to adapt to such changes. If they hadn't they would all have gone extinct long ago. The Hawaiian green turtle population is robust, durable and incredibly adaptive. They will figure out where to nest new and it will be insightful and amazing to watch it happen over the next few years. Perhaps increasing their nesting on Kauai and Niihau where elevated sand beaches occur. With Confidence in both Mother Nature and the Honu of Hawaii 'Change is the Name of the Game' George Balazs, NOAA Retired Hawaii Senior Sea Turtle Scientist"

Referenced article from the Washington Post October 25, 2018:

https://www.washingtonpost.com/nation/2018/10/25/this-remote-hawaiian-island-was-critical-nesting-ground-threatened-species-climate-change-powerful-hurricane-wiped-it-out-overnight/?utm_term=.37975f90f970

Monk seal found with spotted eel

By Nina Wu nwu@staradvertiser.com

A Hawaiian monk seal with an eel coming out of its nose?

On Monday, the National Oceanic and Atmospheric Administration's Hawaiian Monk Seal Research Program posted to its Facebook page a photo of a juvenile monk seal with what appears to be a spotted eel in its nose.

"Mondays ... it might not have been a good one for you but it had to have been better than an eel in your nose," said the post. "We have reported on this phenomenon before which was first noted a few years back. We have now found juvenile seals with eels stuck in their noses on multiple occa-



A juvenile Hawaiian monk seal was found with a spotted eel in its nose at French Frigate Shoals in the Northwestern Hawaiian Islands this past summer.

sions. In all cases the eel was successfully removed and the seals were fine. The eels, however, did not

make it."

Monk seal researcher Charles Littnan, division director of the protected

species division, said this is the third or fourth case scientists have observed of a seal with an eel in its nose.

02-04-19 email me

Hamp (HENRY BROWNIE)

H: 435-986-9667 EMAIL: HKODELE & GMAIL. Com





jammed in nose

"What is interesting that in the nearly 40 years we have been monitoring and conserving we have only started seeing this in the last few years," he said in an email. "We don't know if this is just some strange statistical anomaly or something we will see more of in the future."

How did it happen?

Hawaiian monk seals forage by shoving their mouth and nose into the crevices of coral reefs, under rocks, or into the sand, he said, in search of prey that like to hide, such as eels.

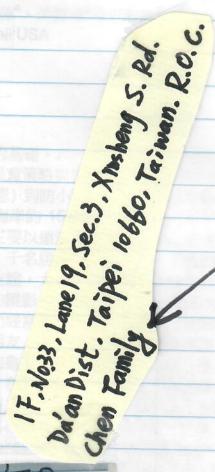
"This may be a case of an eel that was cornered trying to defend itself or escape," he said. "Alternatively, the seal could have swallowed the eel and regurgitated it so that the eel came out the wrong way. We might not ever know."

Fortunately, no harm to the seals was observed.

"All of the seals that we have encountered in this slippery situation have been quickly caught by our response teams and the eel gently and successfully removed," he wrote. "All the seals were released and haven't shown any issues from the incidents."

Hawaiian monk seals are a critically endangered species found only in Hawaii, and are protected by both state and federal laws. Only about 1,400 Hawaiian monk seals remain in the wild, with the majority residing in the Northwestern Hawaiian Islands.

Anyone who comes across a Hawaiian monk seal that appears to be in distress can call NOAA's hotline at (888) 256-9840.



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Whale towed but to sea; shark threat remain

A decomposing whale carcass was removed from shallow waters fronting Sand Island State Recreation Area on Saturday but officials are cautioning people from entering the water because a lot of "whale material" remains in the area and it may attract sharks.

The sperm whale carcass, first reported Thursday about a mile from Kewalo Basin, ended up on the reef on the Ewa end of the park Friday. On Saturday morning, a boat from the state Department of Land and Natural Resources' Division of Conservation and Resources Enforcement towed the carcass out to sea and released it into deep ocean water 15 miles from

The removal also involved the National Oceanic and Atmospheric Administration's Marine Mammal Response Program, the University of Hawaii stranding team, Honolulu's Ocean Safety and Lifeguard Services Division, the U.S. Geological Survey and a Hawaiian cultural practitioner.

Star-Advertiser staff

TURTLES, PEOPLE, TEMPLES AND GODS: CULTURAL ADVENTURES AT XIAO LIUQIU ISLAND BUILDING CONNECTIONS FOR CONSERVATION BETWEEN TAIWAN, HONG KONG AND HAWAII.

George BALAZS1 Ka-yan(NG Tien-cheng WANG Yao-wen(TSAI3 Jian-wei(ZENG4 Ching-ju HUNG Hai-yin(WANG

Pacific Islands Fisheries Science Center NOAA, Honolulu, Hawaii

City University of Hong Kong, Hong Kong SAR, China

³ Liuqiu Village, Ping Tung County, Taiwan ⁴ Zong Shang District, Taipei City, Taiwan



Successful sea turtle conservation programs that endure are best built with local communities as their foundation. National legislation and international conventions based on sound research findings clearly have importance. However, strategies for conservation are made robust and equitable when they integrate cultural and traditional components forged at the local level by the very people closest to the turtles and their environment. During 2011-2013, we (GB and KN) made five leisure visits to Xiao Liuqiu, a 6.8 km² island located at 22° 20'N, 120° 22'E, just 15 km off the southwest coast of Taiwan. The island is rich with numerous Tao and Buddhist temples serving as exquisite dwellings for an array of venerable Chinese Gods. Xiao Liuqiu's economy is substantially based on distant-water fishing and, increasingly, on ecotourism involving visitors from nearby Taiwan. The main purpose of our explorations has been to learn about and experience Taiwanese culture through the daily lives of Xiao Liuqiu's 12,000 residents. Paramount to these visits has been the nurturing of friendships with local families, based on a strong mutual interest in the conservation of green turtles (Chelonia mydas) occurring prominently year-round in the island's 12 kms of coastal waters. Seasonal nesting at low levels also takes place on several small sand beaches. Numerous turtles can often be seen foraging while snorkeling and from shoreline cliffs, perhaps rivaling such sightings in Hawaii. As guests at Xiao Liuqiu, our principal activity has been to listen and learn from our hosts, and to freely share biological knowledge about sea turtles linked to our own personal experiences with turtles and people in the greater China region, Japan and Hawaii. The key to lasting partnerships for balanced and sustainable conservation action is to build genuine trust and respect, with patience, at the person-to-person level. This presentation explores and photographically illustrates unique aspects of the Xiao Liuqiu culture relevant to current conservation challenges and opportunities. The following web sites provide background and insights visits: < http://akepa.hpa.edu/~mrice/turtle/liuqiu.pdf>; http://akepa.hpa.edu/~mrice/st.htm>. China and all of East Asia have vigorous and growing sea turtle conservation programs that deserve praise and partnership to improve the status of regional stocks. We thank Professor I-Jiunn Cheng for kindly introducing us to Xiao Liuqui during our initial visit in October 2011.

NATIONALREPOR

Navy warships travel through Taiwan Strait

By William Cole wcole@staradvertiser.com

PEARL HARBOR > The U.S. Navy sent two warships through the Taiwan Strait Wednesday as it continues to emphasize its right to sail through international waters in East Asia and the South China Sea.

The San Diego-based destroyer USS Stockdale and replenishment vessel USNS Pecos "conducted a routine Taiwan Strait transit ... in accordance with international law," Lt. Cmdr. Tim Gorman, a spokesman for U.S. Pacific Fleet headquartered at Pearl Harbor, said in a statement.

"The ships' transit through the Taiwan Strait demonshape" to weather increased tariffs, if it comes to that.

The United States is re-emphasizing its ties with democratic Taiwan — a potential flashpoint with China — and is determined to maintain free passage in the South China Sea in the face of an ever-increasing arsenal of sophisticated Chinese weaponry placed on manmade islands.

The Taiwan Strait passage is the third since July. Following a transit on Oct. 22 by the destroyer USS Curtis Wilbur and cruiser USS Antietam, Senior Col. Wu Qian, a spokesman for China's Ministry of National Defense, said at a press briefing that the U.S.-China

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Birthday 6 2019 -

strates the U.S. commitment to a free and open Indo-Pacific. The U.S. Navy will continue to fly, sail and operate anywhere international law allows," Gorman said.

The passage comes as President Donald Trump is set to meet with Chinese counterpart Xi Jinping on the sidelines of the Group of 20 summit in Argentina later this week with hopes to reach a trade deal. Trump has threatened to place tariffs on another \$267 billion in Chinese goods.

"The U.S. is coming to the summit in very good shape. Our economy is quite strong. It's growing at 3 percent over the last year. Second quarter was 4.1 percent," White House economic adviser Larry Kudlow told reporters Tuesday.

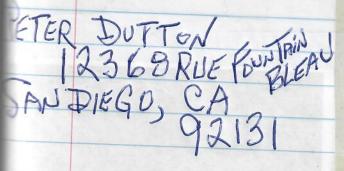
"China, not so good," he said, adding most observers believe China to be in a slump.

Kudlow said the United States is "in far better mintary-to-military relationship was "generally stable."

"Nevertheless, there are also some negative factors," he said. "I must say China's position on Taiwan and the South China Sea remains unchanged. The Chinese military's determination to safeguard national sovereignty and development interests is rock-solid."

The mild reaction contrasted with China's response to a freedom of navigation operation by the destroyer USS Decatur on Sept. 30 in the South China Sea when it sailed within 12 nautical miles of Gaven and Johnson reefs.

China, which claims much of the South China Sea as its territory, sent a Luyang destroyer within 45 yards of the front of the Decatur, conducting what Pacific fleet called an "unsafe and unprofessional maneuver" that forced the U.S. ship to maneuver to prevent a collision.





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兹聘请 George H. Balazs 为广东海洋大学深圳研究院海龟保育首席 聘期 2018年11月至 2023年10月。 科学家,

广东海洋大学深圳研究院 2018 年10 周 23 日

中国海洋生态事业缔造引领者

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Sea Life Park under The state has issued extinguisher.

\$130,000 in fines for safety violations

By Kristen Consillio kconsillio@staradvertiser.com

The state Department of Labor and Industrial Relations said it is investigating safety violations at Sea Life Park Hawaii.

The DLIR's Hawaii Occupational Safety and Health Division recently fined the marine life park \$130,000 for multiple citations involving workplace safety.

Sea Life Park wouldn't provide specific information on all the infractions, but said that it is contesting them. The park said it has already addressed violations such as replacing light bulb covers and an expired fire

"Sea Life Park is always happy to work with HIOSH on safety concerns, and we have swiftly addressed most of the noted items. However, while we are working with HIOSH in a friendly and cooperative manner and will gladly make safety improvements based on their recommendations. we are also respectfully exercising our right to contest the citations," Valerie King, general manager of Sea Life Park, said in a statement to the Honolulu Star-Advertiser. "Since discussions are ongoing, we do not think it is appropriate to go into further details."

A DLIR representative also declined to release further information because the case is still open. Park officials met with state inspectors about the safety



ASSOCIATED PRESS / MAY

Sea Life Park in Waimanalo has been fined \$130,000 for multiple safety infractions. Kina, a false killer whale, works with a trainer at the park.

issues Monday.

"Sea Life sincerely welcomes any input from HIOSH as part of our continual quest for premiere employee

safety. We are working in close cooperation with all necessary parties to promptly implement the provements recommend-

by HIOSH," King said. "We care for our employees and take their work safety very seriously. Safety is always our top priority and we are fully intent on complying with all of OSHA's guidelines and recommendations."

Palace Entertainment, owner and operator of Sea Life Park, is planning a major redevelopment that is estimated at \$30 million over the next five years. It plans to add a new green sea turtle conservation center and volcano exhibit, and to restore part of a historic fishing village.

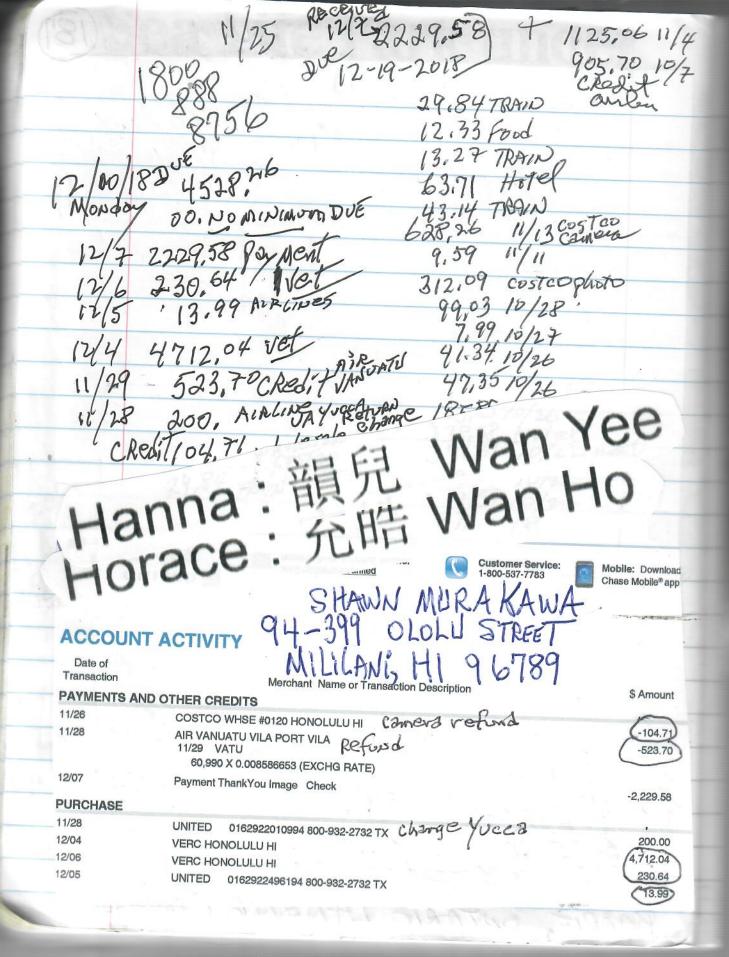
The company, a subsidiary of the Madrid-based Parques Reunidos Group, acquired the 22-acre park in 2008 from Dolphin Discovery of Cancun, Mexico, and owns and operates more than 60 amusement and

theme parks, zoos, and water and marine life parks in Europe, America, the Middle East and Asia.

The park is upgrading the main gift shop and the Hawaii Ocean Theater, which is closed to the public.

"We have been visiting Sea Life Park photographing rusted beams, walking beams, places where tanks were starting to leak," said Cathy Goeggel, president of Animal Rights Hawaii, which filed a complaint against the park year ago with the U.S. Department of Agriculture Animal and Plant Health Inspection Service, the federal agency overseeing the welfare of captive animals. "They closed up two entire buildings that are part of

their moneymaking program. There's got to be a reason for that."



Beijing's point system dubbed as 'Oryvellian' (SOCIAL CREDIT': The access, public services, travel,

'SOCIAL CREDIT': The penalties include banning offenders from making luxury purchases, such as buying airfare or tickets for trips on high-speed trains

REUTERS, BEIJING

Beijing's municipal government is to assign residents and firms "personal trustworthiness points" by 2021, state media reported yesterday, pioneering China's controversial plan for a "social credit" system to monitor citizens and businesses.

The system's rollout has attracted international headlines, sparking comparisons to George Orwell's novel *Nineteen Eighty-Four*, with critics saying it could massively heighten the Chinese Communist Party's already strict control over society.

access, public services, travel, employment and the ability to start businesses, with trustworthy people being provided a "green channel" and those who are blacklisted being "unable to move a step," it said.

"This is an important novel approach by Beijing to assess individuals' credit and tie it to their whole life," an unnamed official from the municipal state planner said, according to Xinhua news agency.

The plan also should serve as an example to the rest of the nation for how to improve behavior, Xinhua said.

A second system would also be set up to assess the trustworthiness of government officials and departments by measuring whether contracts and promises are honored, the results of which would be included in performance

assessments

In a road map plan released in 2014, China said it would by 2021 create a "social credit system" to reward or punish individuals and corporations using technology to record various measures of financial credit, personal behavior and corporate misdeeds.

However, it had not made any mention of using points, as proposed by Beijing's municipal government in a plan released on Monday to improve the city's business environment.

Lists of data, actions and measures would be used to create a trial system of "personal trustworthiness points" for residents and companies in the capital.

The term used can also be translated as "creditworthiness" or "integrity."

The plan did not include details of how the point system would work.

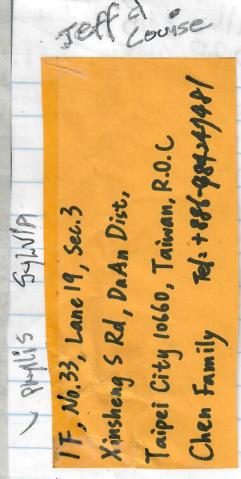
However, information from the system could affect market The social credit system, which is being built on the principle of "once untrustworthy, always restricted," would encourage government bodies to share more information about individual and business misdeeds to coordinate punishments and rewards.

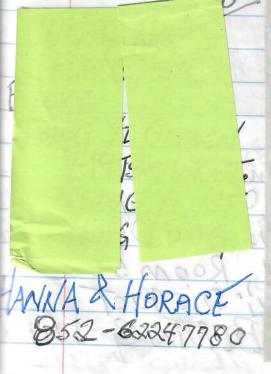
Some experts said that the system remains nascent and could help tackle social problems such as fraud or food security.

They said that punishments are mostly restricted to industry-specific blacklists rather than a holistic score.

A system for penalizing people blacklisted for such offenses as failing to pay court-mandated fines that was put in place by the central government was extended in March.

The penalties include banning offenders from making luxury purchases, such as tickets for flights or high-speed railways, for up to a year.





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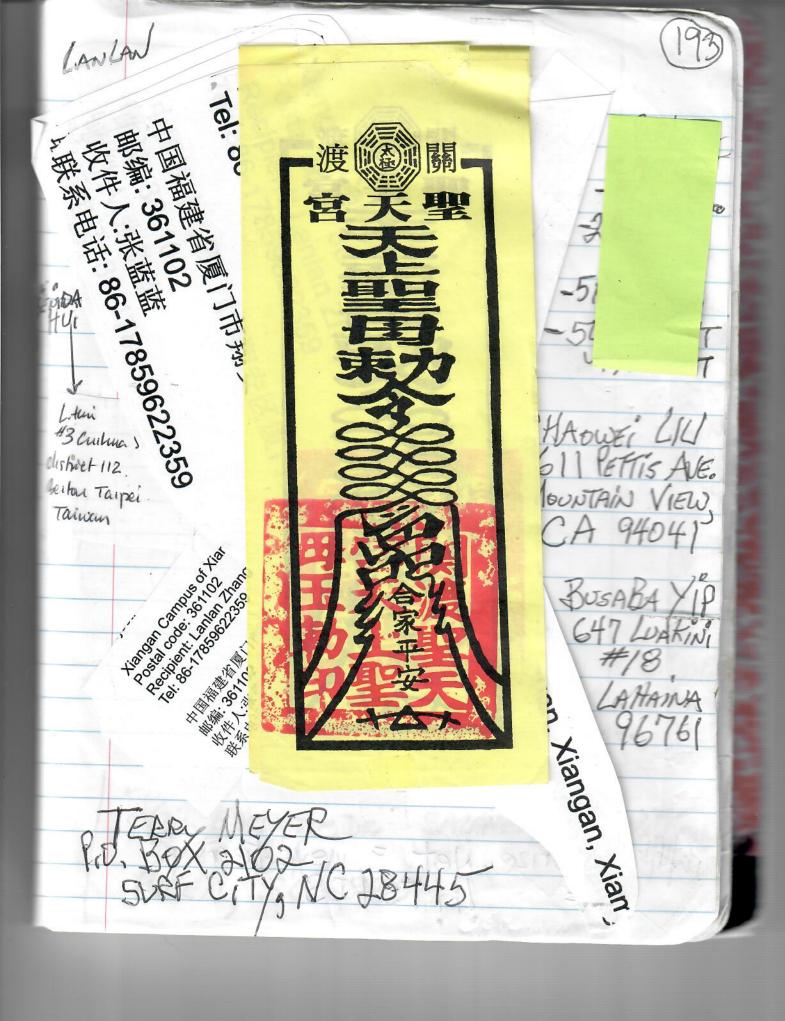
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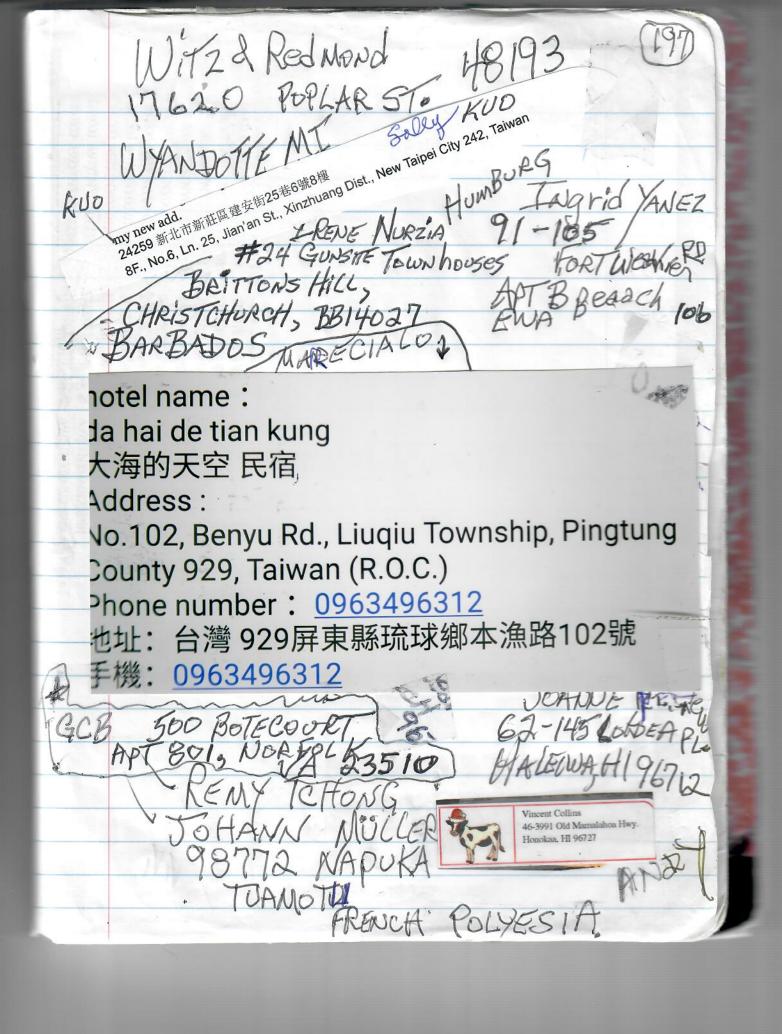
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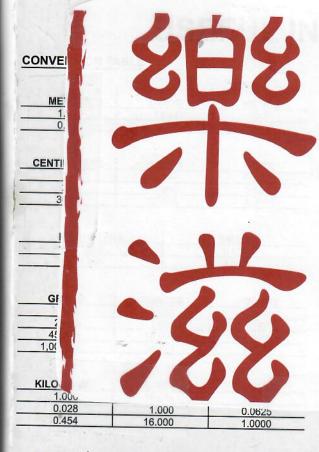
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LITERS	PINTS	QUARTS	GAL.
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0.473	1.000	0.500	0.125
0.946	2.000	1.000	0.250
3.785	8.000	4.000	1.000

LENGTH

1 meter (m) = 100 cm	=	1,000 mm
1 milimeter (mm)	=	0.001 m
1 centimeter (cm)	=	0.01 m
1 decimeter (dm)	=	0.1 m
1 decameter (dkm)	=	10 m
1 hectometer (hm)	=	100 m
1 kilometer (km)	=	1 000 m

CAPACITY

1 liter (I) = 100 cl	=	1,000 m
1 mililiter (ml)	=	0.0011
1 centiliter (cl)	=	0.011
1 deciliter (dl)	=	0.11
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1 hectoliter (hl)	=	100 [
1 kiloliter (kl)	=	1,000 [

WEIGHT

1 gram (g) = 100 cg	=	1,000 mg
1 miligram (mg)	=	0.001 g
1 centigram (cg)	=	0.01 g
1 decigram (dg)	=	0.1 g *
1 decagram (dkg)	=	10 g
1 hectogram (hg)	= -	100 g
1 kilogram (kg)	 =	1.000 a

3 feet = 1 yard = 1 rod 5-1/2 yards 40 rods = 1 furlong 8 furlongs (5280 ft.) = 1 mile

Miscellaneous Measures

40 "	
12 units	= 1 dozen
12 doz.	= 1 gross
12 gr.	= 1 great gross
20 units	= 1 score
1 hand	= 4 inches
1 fathom	= 6 feet
1 knot	= 6076 feet
3 knots	= 1 league
1 bu. potatoes	= 60 lbs.
1 barrel flour	= 196 lbs

Diamete circumfe Atmosp per sq. 13-1/2

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1 cu. ft. of water = 7.48 liquid gals. Make Kula



SEVERAL THOUSAND **GREEN SEA TURTLES**

tagged by HPA students since 1987

241 301 701

cubic foot 1 cubic yard 1 cord of wood perch of stone s a pile 8 feet 4 feet high. ck is 16-1/2 de, and 1

10is Weight

1 ounce (cz.) 1 pound (lb.) 1 hundredweight(cwt.) 1 ton (T.)

1 long ton(L.T.)

Weight

1 penny-weight (dwt) 1 ounce (oz.) = 1 pound (lb.)

Jar Measure

- = 1 minute
- = 1 degree = 1 circumference

2018

e earth's surface or a meridian = 69,16 miles at the equator

Table of Apothecaries' Weight

20 grains (gr.) = 1 scruple 3 scruples 8 drams = 1 dram = 1 ounce 12 ounces = 1 pound (b.)

Table of Surface Measures

144 sq. in. = 1 sq. ft. 9 sq. ft. 30-1/4 sq. yd= 1 160 sn. 1-4s = 1 sq. yd. = 1 sq. rad = = 1 acre

