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Alaska Regional Office
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Alaska Marine Mammal Stranding Network Newsletter

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In this issue:

Greetings from the Coordinator

By Mandy Keogh, NMFS

Hello all! I am very excited to be joining the dedicated folks with the Alaska Marine Mammal Stranding Network and I'm looking forward to working with you all. First, I want thank Barb Mahoney for her dedication and hard work while she took on the role of Acting Stranding Coordinator, and dealt with 2 Unusual Mortality Events no less!! Luckily, Sadie Wright, Kate Savage, Barb Lake, and many of you helped with last year's busy stranding season.

As the new stranding coordinator I want to introduce myself. I have worked with stranding networks around the country beginning as a volunteer with the Texas Marine Mammal Stranding Network. In 2006, I moved to Alaska for graduate school and since then I have participated in research focused on marine mammal health and physiology. I am excited to once again be more directly involved with marine mammal strandings and I look forward to working with everyone involved with the Alaska Stranding Network.

I also wanted to reiterate the message from the MMHSRP Team about COVID-19. Our first priority is your health and we recognize that we may not be able to respond to stranded marine mammals as we normally would.

The stranding hotline will remain staffed and the public should continue to report all sightings of stranded animals. We will complete level A forms when possible but please always follow any local guidance including community closures, shelter in place, or other local restrictions if you respond to a stranding. Please feel free to reach out to me at any time.

Key:

 : This is a symbol to help easily recognize the end of a story or section.

Photo opp… : These are miscellaneous and interesting stranding photos received this year, but which do not necessarily accompany a specific story or topic in this newsletter.

Photo opp…

A gray whale floating near Aiaktalik Island, southwest Kodiak, caught in USCG helicopter prop wash during a June 2019 carcass survey.

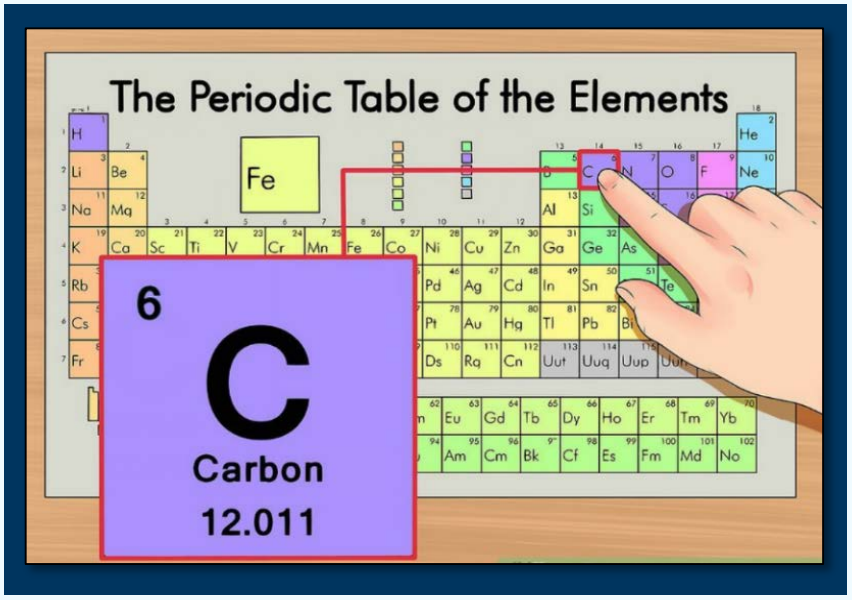
Photo courtesy K. Savage

Stable Iso-What?

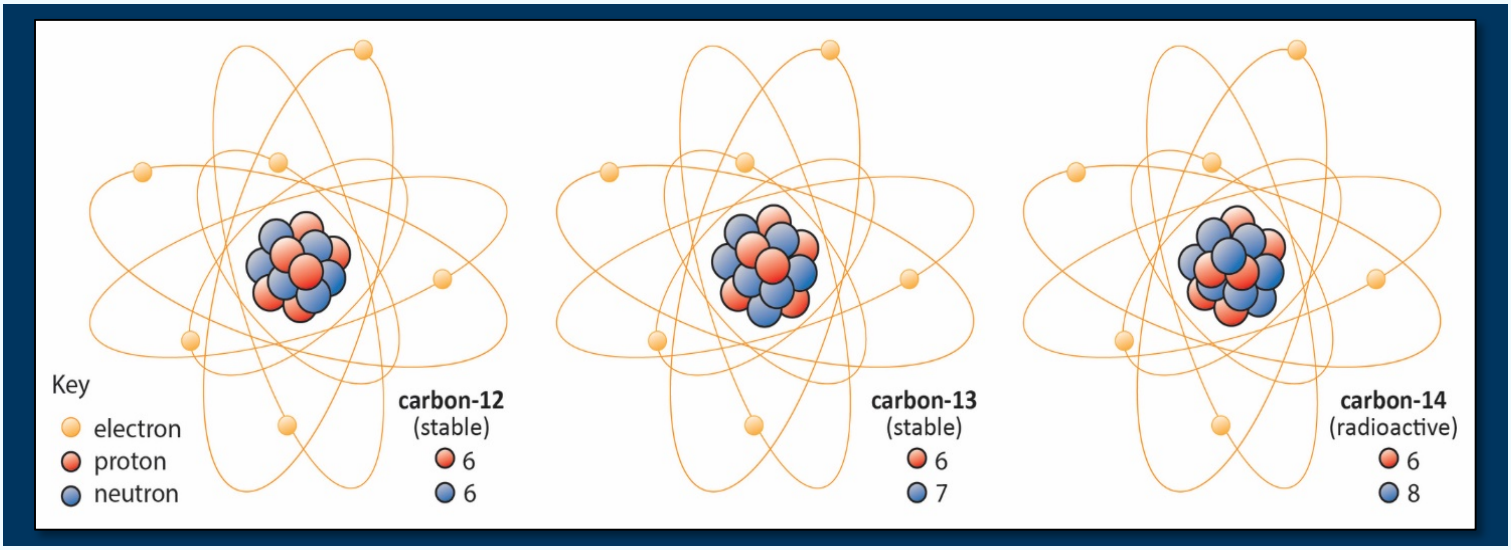
by Mandy Migura, NMFS (affiliate)

You may have been hearing more and more about stable isotope analyses, especially regarding samples collected from stranded marine mammals. But what are they and why do they matter? Hold on, we're going to do a quick chemistry refresher first to explain (it's ok, I am not a chemistry expert, so this is really elementary).

Let's think about carbon, an element we all know is vital to life on earth. I'm sure we all can remember from intro chemistry the periodic table, and that a carbon atom has 6 protons (i.e., its atomic number is 6), and an atomic mass of 12 (the number of protons plus neutrons in the nucleus). Let's just forget about electrons for now, ok? This particular combination of 12 protons and neutrons comprises the most common form of carbon on Earth (almost 99%). This form of carbon with an atomic mass of 12, is referred to as carbon-12 (written as ^{12}C).



However, some forms of carbon have a different atomic mass due to varying numbers of neutrons (but they all have 6 protons, which is what makes it carbon). A carbon atom with 7 neutrons is referred to as carbon-13 (^{13}C; comprising ~1% of carbon on Earth) and carbon with 8 neutrons is carbon-14 (^{14}C). The different forms of an atom due to different numbers of neutrons are referred to as that atom's isotopes. Carbon comes in three naturally occurring isotopes: ^{12}C, ^{13}C, and ^{14}C.



Stable Iso-what? - continued

Both ^{12}C and ^{13}C are stable isotopes, meaning they do not decay or transform into other forms or elements over time. Due to the additional weight of the additional neutron, ^{13}C is the heavy stable isotope compared to the more common and lighter ^{12}C stable isotope.

Because the chemical bonds and attractive forces are stronger in the heavy stable isotope, ^{13}C reacts more slowly than ^{12}C. In contrast, the very rare ^{14}C is a radioactive isotope; radioactive isotopes are unstable and will decay into another stable element over time. For ^{14}C, one of the neutrons eventually turns into a proton and the unstable carbon atom turns into a stable nitrogen atom, ^{14}N.

There are many atoms which have isotopes, including nitrogen, with certain isotopes of an atom being more abundant in some materials than others. Sticking with carbon, the ratio of ^{12}C and ^{13}C is uniform in the atmosphere, but differs in the tissues of plants and animals. This is because some physical and chemical processes "prefer" one isotope over another. When carbon is passed from one system to another (e.g., from the air to the tissue of a plant, or from food to the bones of an animal) there is a slight preference for either the heavier or the lighter isotope, resulting in changes to the ratio. These differences in isotopic ratio can be used as labels to identify the different sources of the atom. For example, NOAA atmospheric scientists studying CO_2 use these isotopic labels to determine what percent of that form of carbon was derived from fossil fuels, the terrestrial biosphere, or from the ocean.

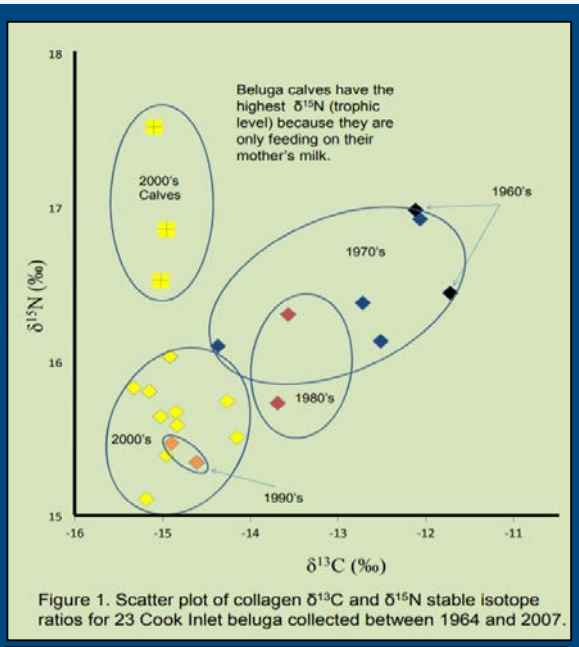


Figure 1. Scatter plot of collagen $\delta^{13}C$ and $\delta^{15}N$ stable isotope ratios for 23 Cook Inlet beluga collected between 1964 and 2007.

Reproduced from Nelson and Quakenbush 2011. Poster: Cook Inlet Beluga Whale Diet Using Stable Isotope Analyses

Because the isotopic ratios can result in numbers identical until well after the decimal point, the within sample ratio is compared to a standard ratio for that element as part of an equation to obtain the delta "δ" value. The δ values are essential for easier interpretation of the results and allow for comparison between samples, especially if they have similar ratios (e.g., a $^{13}C/^{12}C$ ratio of 0.011142 equates to $\delta^{13}C$ of -8 $^{0}/_{00}$). Note, the ratios are displayed in association with the heavier isotope (^{13}C for carbon and ^{15}N for nitrogen). For instance, when examining the ratio of ^{13}C to ^{12}C, the delta value (e.g., $\delta^{13}C$, "delta carbon-13") will be displayed with unit $^{0}/_{00}$. For consistency, the comparison is always the ratio of the heavier stable isotope to the lighter stable isotope (so you won't see $\delta^{12}C$ or $\delta^{14}N$). Thanks to the mathematical equations used to determine the delta values, and please don't ask me to explain it, $\delta^{13}C$ values are negative whereas $\delta^{15}N$ values are positive. For a practical example of how results are displayed and compared, see the figure reproduced from a poster by Nelson and Quakenbush 2011.

Stable Iso-what? - continued

For Alaskan marine mammals, ADF&G researchers have been examining carbon and nitrogen stable isotopes in parts from dead stranded (e.g., skulls) or live research animals (e.g., whiskers) to answer questions about:

- marine food webs.
  - Measuring carbon and nitrogen stable isotopes in tissues provides information about the trophic position (roughly analogous to an animal's position on the "food web") and feeding habits of animals.
  - Stable isotopes can be used to determine whether there has been a trophic shift over time, possibly indicating a change in foraging location (e.g., from more marine to more freshwater habitats) or a change in species consumed.
- whether diet or changes in prey availability was a contributing factor in the decline and/or currently impeding recovery of endangered species (e.g., western DPS Steller sea lions, Cook Inlet beluga whales).
  - The resulting stable isotope dataset has provided insight into the diet of gestating Steller sea lions, estimation of trophic enrichment factors for diet modeling using stable isotopes, and age-specific growth rates in Steller sea lion whiskers.
  - Stable isotope studies have determined that Cook Inlet beluga whales have a different isotope signature in recent years (1986–2007) then they did in the past (1964–1978), suggesting belugas are feeding on more freshwater-influenced prey.

Hopefully after reading this you won't think "stable iso-what?" when you hear or see stable isotopes, and you'll understand that the numbers being presented with the squiggly symbol (delta) are showing the ratio of the two isotopes of a single element within a sample as compared to a standard ratio, and it's the comparison of those delta values across samples that allows us to learn more about our marine mammals. Fun Fact: Did you know Alaska has a stable isotope facility located at UAF and a stable isotope lab located at UAA?

Editor's note. A helpful reference is:
Bond, A. L. and K. A. Hobson. 2012. Reporting Stable-isotope Ratios in Ecology: Recommended Terminology, Guidelines and Practices. Waterbirds 35 (2): 324-331.

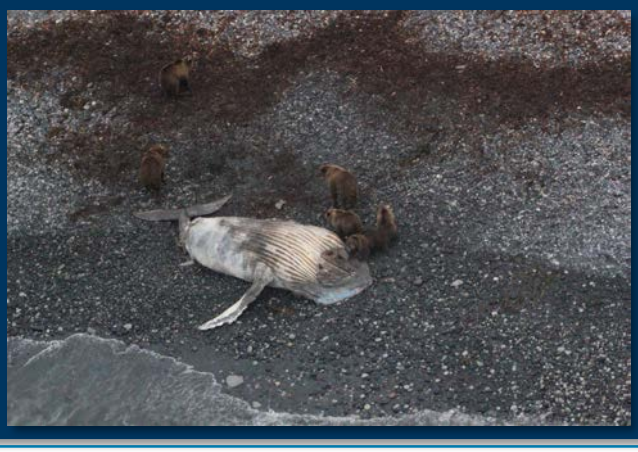


Photo opp...

Twenty two brown bears were counted around this humpback whale carcass observed along the western shore of Kodiak Island during a September 2019 gray whale carcass survey.

Photo courtesy K. Kreuger

Another Whale of a Question

by Kate Savage, NMFS (affiliate)

Thanks to Barb Mahoney for asking an excellent question, to Deb Fauquier for passing the question along to the experts, and a huge round of thanks to the experts that weighed in on the topic: Alex Costidis, Frances Gulland, Bill McLellan, Michael Moore, and Stephen Raverty.

The question: does the positioning of a dead whale on the beach help to indicate how it died?

From Alex Costidis:

My $0.10.

Depends in part on the whale type. Rorquals like to balloon at the throat/mouth when their tongue inflates. That quickly flips them upside down if the abdominal gas hasn't already. If they have not ballooned yet (or are post ballooning after the tongue pops), they can be deposited any number of ways depending on sediment, energy of beach, slope, etc., but if not dorsally recumbent, usually laterally recumbent. If whale is pretty fresh and found in ventral recumbency on a beach, there's probably a good chance it was a live stranding.

Photo courtesy A. Christiansen

Photo courtesy J. Cook

There is also an anecdotal but fairly well established correlation between body cavity penetration (i.e. sharp vessel trauma) and ventral recumbency at sea. When body cavities are exposed to environment and allowed to cool and off-gas, carcasses will often float (and land) belly down, which is relatively uncommon in dead floating whales. However, doesn't take much to roll them on their side, especially if of the short pec finned variety.

To use Michael's favorite argument...The most parsimonious explanation is that it was alive when stranded. :)

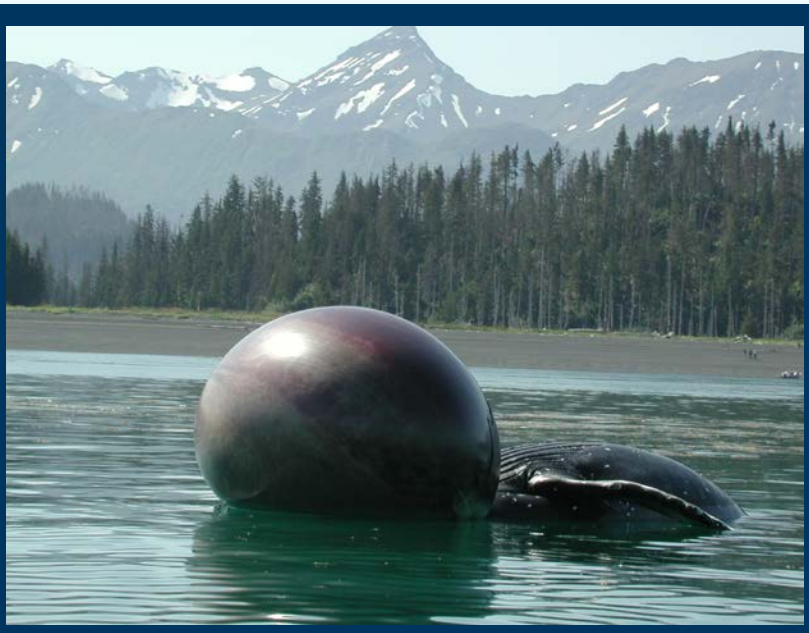
Whale Question - continued

From William McLellan:

Will add some taxonomic diversity to "whales":

For the animals I have been on the beach at euthanasia, 2x NARWs that were dorsal up, 10+ balaenopterids were all dorsal up, but the 2x sperm whales were on their sides. Ventral head morphology most likely has the most to do with position as the baleen whales have a flat ventral head. I think it helps that sperm whales can hold their breath for up to 2 hours so might not be panic driven as much to breath when in the surf .

Photo courtesy D. Gann



Photographer unknown

I can't think of many/any baleen whales that were CC2/fresh when first discovered that I didn't find evidence of live stranding and died on the beach before we found them. This most likely has to do with the distance it takes for a moribund whale to get to the beach fresh- would suggest only humpbacks and NARWs inhabit coastal waters close enough to get to the beach "fresh" if they didn't live strand.

The most common position for a balaenopterid whale to be found is on it side/back, with the ventral pleats expanded and the cavum ventrale filled with gas from decomp, that expels the tongue- have heard more than once that they whale was killed because it swallowed a weather balloon!

I am sure the picture gets more complicated if the animal is entangled with gear in place, or nearly cut in half from sharp trauma.

Whale Question - continued

From Michael Moore:

No short answers here. Some random observations:

The one time I thought I had such a scenario was a sperm whale on Great Point, Nantucket in calm weather. When first reported, it was perpendicular to the shore, nose in, dorsal up. No abrasion, 100% epidermis. So I assumed it had swum up to the beach at high tide and died. But no witness to that event if it occurred. No COD.

Photo courtesy S. Kumar

Once bloated, a dead pleated whale is unlikely able to sit dorsal up.

If a right whale has been rolled around in heavy surf, the soft tissues can extrude out of the mouth, along with bones, and then it can sit dorsal up again, but you will know that it had deflated by its reduced girth. I have seen freshly dead right whales liquidized internally by sandy beach surf maceration over night. Thus they can still have epidermis attached, but be largely deflated being a skin covered blubber bag of whatever bones have yet to be spit out. It took me years to figure that out.

Photo courtesy K. Kreuger

From Frances Gulland:

I'll add in "n" of three live gray whales all on their bellies dorsum up, but caveat that I have gone back to a dead humpback that was belly up and it had deflated and rolled in surf and was dorsum up.

Whale Question - continued

From Stephen Raverty:

Our experience is similar to Frances's with the 3 most recent grey whales belly down and in contrast, we had a humpback that presented on its back 2 weeks ago with bloated pleats and visceral displacement into the cranial thorax and oropharynx (presumed ship strike).

Photo courtesy K. Savage

Additional remarks and bottom line:

- If there are marks on the beach of flippers or tails having been moving back and forth, it's a pretty good indicator of it having been alive. Keep in mind that these marks can be erased by the tide.

- Like so much in the marine mammal world, there is no single answer or hard and fast rule. Each stranding is the result of a unique set of circumstances and we need to find and use all the surrounding pieces to solve the puzzle!

Photo opp…resilience in the face of adversity

A harbor seal with a probable oral tumor continues to return to Auke Bay, Juneau.

March 2016

Photo courtesy T. Roberts

February 2017

Photo courtesy L. Styczinski

January 2020

Photo courtesy J. Gorle

The Parts Guy

By Dave Gann, NMFS

Greetings and salutations dear reader!

I'd like to take this opportunity to address a marine mammal parts topic that's been of great concern to all of us here in the stranding network: what the heck is the difference between a permit and an authorization?! Yeah, I know- of all the crazy stuff going on in the world today, this was the one keeping you up last night, so I'm going to attempt to set your mind at ease.

An ESA scientific research or enhancement permit is required for collection of parts from dead or live stranded species that are endangered or threatened under NOAA Fisheries' jurisdiction. This includes:

- intrusive research on live animals in rehabilitation,
- collecting or receiving parts taken from subsistence-hunted animals for research purposes,
- collection of parts/samples from live healthy marine mammals in the wild (e.g., for baseline health assessments),
- incidental disturbance during collection of parts (e.g., during any stranding or research activity),
- use of cell lines in research, and
- import and export of ESA listed parts.

A Regional Authorization (RA) letter is required for collection of parts from dead or live stranded animals under MMPA (sections 109h and 112c), with the additional permit required for ESA listed species. This applies to Federal, state, and local government employees during official duties, and to Stranding Authorization (SA) holders and designees (aka stranding network participants).

An RA letter is also required for the transfer of parts legally collected, imported, or received under permit or authorization. If a permit holder is transferring parts for purposes of meeting the permit objectives, the recipient is authorized under that permit. However, if the transfer of parts is for purposes outside of the permit, then an RA letter is required.

If you think you may need an RA letter, please let me know at david.gann@noaa.gov or (907) 586-7285.

For information on getting a research or enhancement permit, please visit https://www.fisheries.noaa.gov/permit/esa-scientific-research-and-enhancement-permits.

Hormones and whales: what tiny molecules can tell us about gray whales mortality

By Valentina Melica, UAF

As of March 1, 2020, approximately 235 gray whales *(Eschrichtius robustus)* were found stranded along the coasts of Mexico, US, and Canada. This high mortality has led NOAA to issue the second ever Unusual Mortality Event (UME) for this population! It happened before, between 1999 and 2000 when more than 600 died, with no common discrete cause of death (Gulland et al., 2005). One thing was true though, emaciation was a factor in their deaths, and it seems to be a factor in 2019 as well.

Gray whales live exclusively in the Pacific Ocean (Rice et al., 1984) with two distinct populations: the Western (WNP) and Eastern North Pacific (ENP) populations. The ENP population performs the longest migration known in mammals, cruising over 6,000 miles roundtrip every year from the lagoons of Baja Peninsula, Mexico, where they breed, to as far North of the Bering, Chukchi, and now Beaufort seas to feed. At least, most of them do, there are always exceptions to the rule. In this case, there are two known groups that exhibit different migration patterns: the Pacific Coast Feeding Group (PCFG) and the North Puget Sound (NPS) grays. The PCFG is a group of a few hundred individuals, that forage primarily between southeastern Alaska and Northern California during the spring to fall (Calambokidis et al., 2010). The NPS grays, also known as the "Sounders" (or "The Saratoga grays"), consist of a few dozen whales, that take a little detour during their spring migration to feed on ghost shrimps in Puget sound before sprinting for the Far North. In southeast Alaska (SEAK) gray whales are sometimes seen off the Outer Coast (e.g. Sitka) or around Kodiak, but rarely in the inside waters. However, this past summer a juvenile gray whale was sighted in Tracy Arm, just south of Juneau (Fig. 1), another exception?

Figure 1: A gray whale, likely a juvenile, sighted in Tracy Arm, south of Juneau in summer 2019. Photo taken by James Beedle.

Hormones and whales - continued

Gray whales are suckers and opportunistic feeders. They use suction feeding to forage on benthic invertebrates. However, they don't dislike a taste of crabs, baitfish and cephalopods here and there. Different foraging groups might be driven by different prey distribution or whale population abundance.

Like for many other species of baleen whales, their feeding and migrating habits, as well as their cultural importance to Indigenous people along the Pacific coast, put gray whale as ecosystem sentinels. As summarized in Moore (2008) sea-ice, El Niño Southern Oscilliation and other oceanographic conditions have been known to affect the ecology of gray whales. Not to mention, the variety of anthropogenic disturbances these whales are exposed to: contaminants, noise, ship collision (Douglas et al., 2008; Gulland et al., 2005; Moore and Clarke, 2002), to mention some.

Could these whales be stressed?

Stress, such a short (and universal) word for a very complex and broad concept. Based on Atkinson and Dierauf (2018), stress is the alteration of homeostasis and the physiological processes necessary to restore it. Stress can be acute or chronic, in both cases, it begins with stressors or outside stimuli, that trigger a series of behavioral and physiological responses. The endocrine system is involved in this process, where tiny molecules called hormones are secreted into the system and act as messengers between different organs and tissue. For stress, the most famous is adrenaline, the most infamous is cortisol.

While we tend to think of stress negatively, stress can be good, in some cases vital. When animals feel they are in danger—think of a gazelle facing a group of lionesses—adrenaline kicks in first. The decision making-hormone. Fight or flight. Live or die. But some stressors are sneakier: they don't put your life in peril straight away, rather they are subtle in their action. They may not be high in intensity, but are persistent, or chronic. While these stressors don't force a life or death decision, they consume your energy.

Cortisol and its cousin corticosterone form a family of steroid hormones, known as glucocorticoids (GCs). They are the sneaky hormones. Secreted by the adrenal gland and in case of chronic stress, their role in the animal is to access and burn storage, such as lipid tissue, in order to fulfill the energy request. This is not so bad in the short term. Over time, the secretion of GCs has detrimental effects on the immune system, reproduction, and growth. This happens in humans and could be happening in whales.

Whales rely heavily on their fat layer (aka blubber) for buoyancy, insulation and, of course, energy. Since GCs target blubber, it is possible to measure them in this tissue as a proxy for a somewhat recent stressful event. And this is where I and my research come into play.

My name is Valentina Melica and five years ago I moved from Northeast Italy, to Juneau Alaska to pursue my PhD at University of Alaska Fairbanks, in Dr. Shannon Atkinson's lab. My research

on whales and hormones is driven by my curiosity on how a whale body works. I can tell you whether a whale is pregnant, ready to mate, and potentially stressed. All I need is: 1. Tissue samples; 2. Some reagents; 3. Enzyme Immunoassay kits; and 4. a plate reader (Fig. 2).

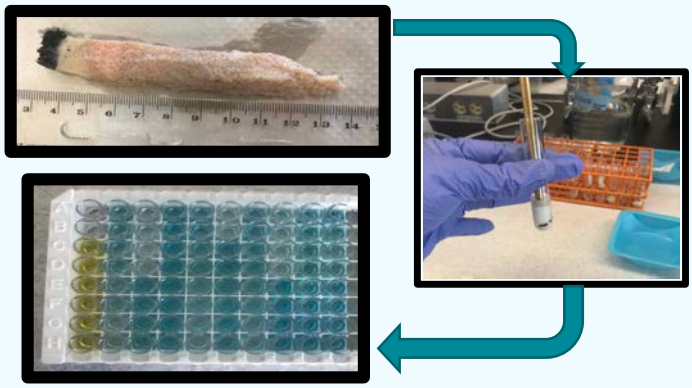


Figure 2: hormone extraction consists of a stepwise process, using a variety of chemical reagents. From the extracts, a technique called Enzyme Immunoassay is used to measure hormone concentrations.

I have been measuring GCs in more than 200 blubber samples from live and stranded gray whales collected over the past three decades by the NMMSN, Cascadia Research, and the Makah tribe marine mammal program (HUGE THANKS TO YOU ALL) and some of the main questions I have been working on are:

Can we use GCs as biomarkers for stress? Based on their concentrations, can we determine a baseline to discern between "healthy" and "detrimental" stress?

For the first part of the questions, I can tell you that GCs can be measured in blubber tissue. However, corticosterone appears to be a more accurate indicator of stress for live animals. Stranded animals showed higher concentrations of GCs than biopsies from live animals, and animals that stranded during 2019, showed lower but more variable concentrations compared to strandings from previous years. In the stranded groups, I observed other variables that may play a role:

1. Cause of death: animals that had trauma injuries (for example from a vessel strike) tend to have higher and more variable concentrations of GCs. This could be explained if we think that not all trauma injuries kill the animal straight away. In some cases, they may alter that homeostatic balance for a while and initiate a cascade of detrimental effects of the animal metabolism and immune system, eventually leading to death (Fig. 3).
2. Body conditions: animals that appeared emaciated at the time of the necropsy tend to have a wider range and higher GCs. This is not surprising, showing that GCs tend to accumulate in blubber as the tissue is consumed for energy.

Hormones and whales - continued

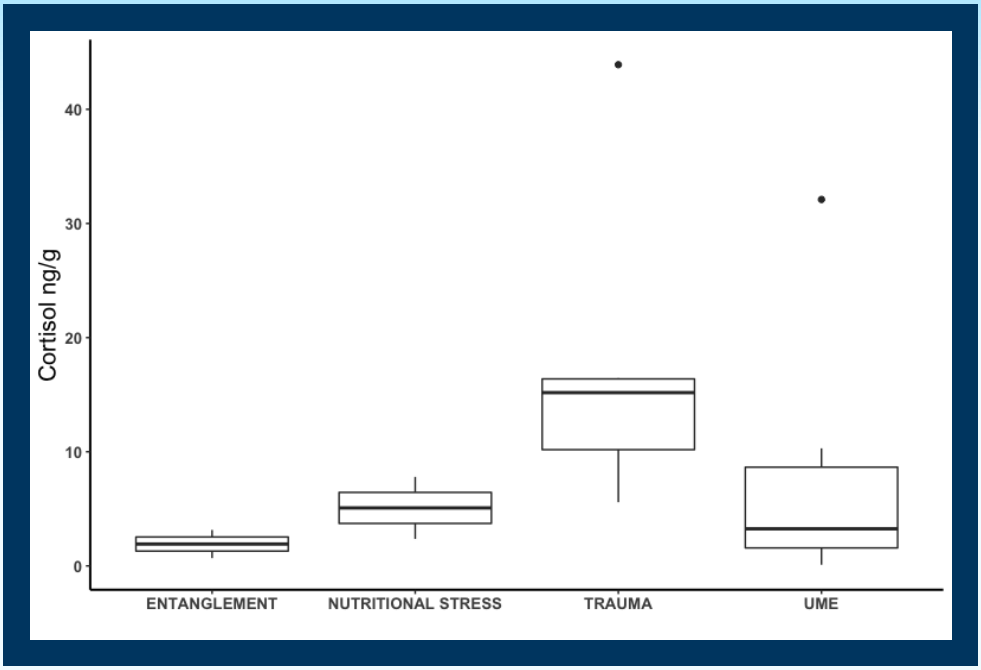
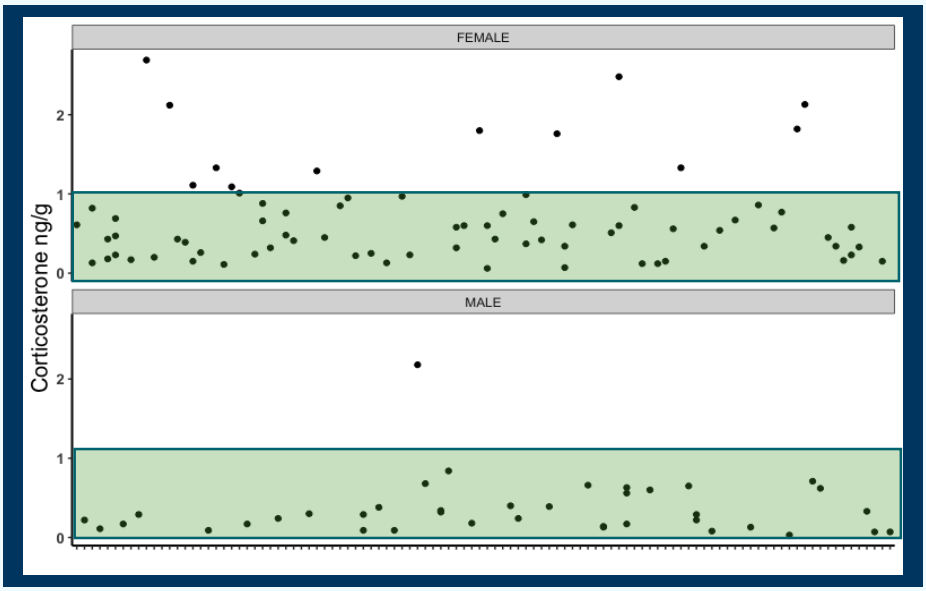


Figure 3: Preliminary data on cortisol concentrations compared across cause of death.

The second part of the question is where things get trickier. Unfortunately, given the nature of the sample, it's hard to establish a baseline levels of GCs. You can do that in other mammals in captivity, with a stress-challenge, in which the stress response is triggered in an experimental setting and hormone levels are measured in blood at specific time interval, until they go back to the initial state. This is impossible to do on free swimming giants (imagine the paperwork!).

When I graphed concentrations of Corticosterone in live animals, I observed that most have concentrations in a range between 0 and 1 ng/g, while some have much higher concentrations. Interestingly, most of whales with higher concentrations of corticosterone were females (Fig. 4).

Figure 4: Corticosterone concentrations in single individual gray whales. Most of them show hormone levels between 0 and 1 ng/g, suggesting the range as a baseline.



Hormones and whales - continued

While my research can tell you that, YES, GCs can be used as biomarkers for stress, they are likely not enough. Understanding the stress response is an important step to track physiological changes over long periods of time and comprehend how these animals are coping with a rapidly changing environment. It is possible that these stranding events, might become more frequent or chronic. Biomarkers for health assessment are critical at this point to better understand the dynamics of such events.

My research is just one piece of a big puzzle, but I hope it can contribute to fill the gap of knowledge on important physiological processes of these majestic and unique mammals, and further fine tune parameters for continuing efforts on health assessment.

This project wouldn't be possible without all my collaborators and federal agencies. Many thanks to Cascadia Research Collective, the Makah Tribe Marine Mammal Program, the National Marine Mammal Stranding Network (particularly Alaska and West coast) and NOAA Southwest Fisheries Science Center Marine Mammal and Sea Turtle Lab for allowing and helping me in getting samples. Thank you to my advisor, Dr. Shannon Atkinson at UAF for the guidance and support.

On a different note, I am looking for employment during the summer, part- or full-time. If you are looking for a lab or field technician, please contact me at vmelica@alaska.edu.

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Whale Bone Sandwich

By Kate Savage, NMFS (affiliate)

We get requests to ID bones found on the beach all the time and this was a particularly interesting puzzle. Thanks to Gary Freitag for passing it along.

Several 12” disk shaped bones (above) were found near an old whale carcass (left). Any ideas? We voted caudal vertebrae or calcified disc.

Lee Post, the “bone man”, had the correct answer. He explained that the “cookie” pieces are actually the epiphyses of two growing vertebrae in a young whale and the “filling” is the intervertebral disc between them.

Simply put, an epiphysis is the end cap of a bone, in this case the end of a vertebra. The disc found between vertebrae includes the cartilage, ligaments and soft tissue that allows the backbone to flex yet stay together.

In a young, growing whale, the epiphysis is separated from the vertebral body by the presence of an epiphyseal or growth plate, which is a layer of tissue/cartilage that allows for new bone growth. When the whale stops growing the growth plate closes and the epiphyses fuse to the main body of the vertebrae. Until then, the epiphyses remain unattached, “floating” on the expanding tissue of the growth plates. In this instance, two adjacent epiphyses and the intervertebral disc between them became separated from their vertebral bodies and formed the bony sandwich cookie.

Photo opp...

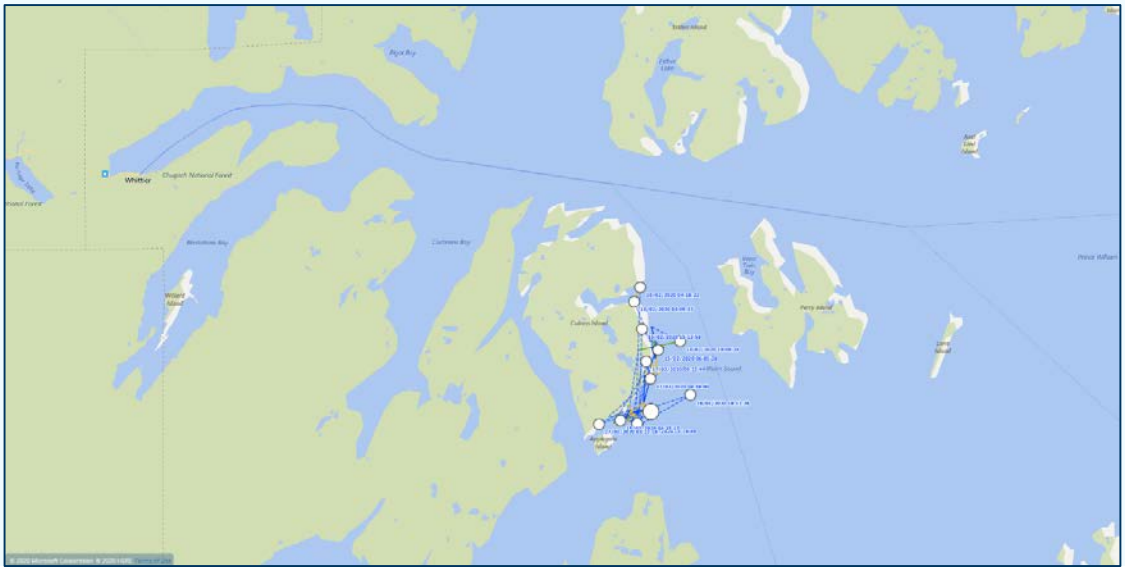
On March 14, 2020, a group of private pilots stopped to look at a small whale stranded along the outer coast south of Yakutat, which turned out to be an adult male Cuvier’s beaked whale (*Ziphius cavirostris*). Note the apical teeth on the lower jaw.

Photos courtesy B. Shaw

Wrapping Up 2019 In Photos

"Kenai" PV1908 was admitted July 6, 2019. She presented with severe parasitism and multiple lacerations. After intensive rehabilitation, she was released on November 7th outside of Whittier with a satellite tag to track her movements.

Almost 4 months after release, we are still receiving location data from Kenai's satellite tag.



Alaska SeaLife Center - continued

We are excited to announce the debut of the television series, *Alaska Animal Rescue*! Camera crews spent the summer filming the Alaska SeaLife Center's Wildlife Response Team to capture the trials and triumphs of marine mammal rescue, rehabilitation and release. Also featured on the series are the Alaska Wildlife Conservation Center and Sitka Raptor Center. *Alaska Animal Rescue* will begin airing on Nat Geo WILD on April 11.

Photo opp...

On Feb. 14, 2020 this photo was taken of harbor seal in Auke Bay, Juneau. If you look closely, you can see raised skin lesions along the back and head. The most likely diagnosis is sealpox, a zoonotic viral disease that can infect multiple pinniped species and is fortunately a rare finding in Alaska.

Photo courtesy A. Lambert

Thanks to Frances Gulland for confirmation as well as providing photos of more seriously affected animals.

Photos courtesy F. Gulland

Announcements, Updates and FYIs

Welcome Maia Victoria Pearson!

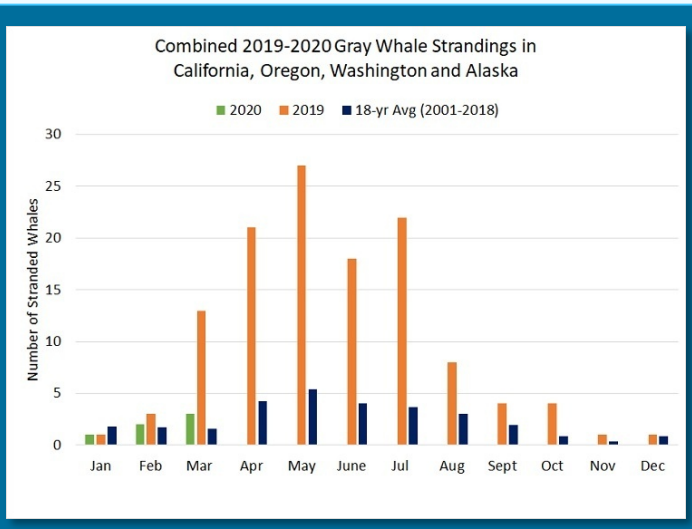
And congratulations to SN member and mom Heidi Pearson of Juneau!

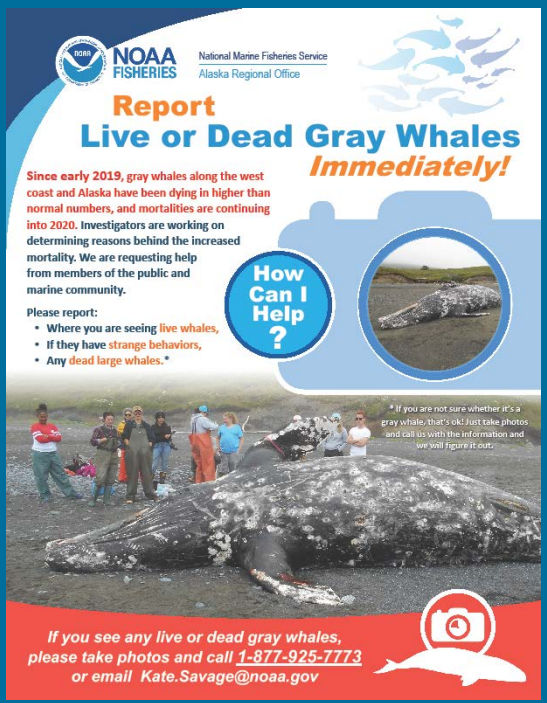
Maia was born August 2, 2019 at 7:06 am at Bartlett Regional Hospital in Juneau. She was 6 lbs 7 oz and 21 1/4 in long. According to Heidi, Maia has already been out on their Boston Whaler to see humpback and killer whales. She also received a stamp in her passport in Barcelona for the World Marine Mammal Conference. She is continually entertained by her 2 black lab sisters.

Left: Maia enjoys the snow at Lena Beach.

Gray Whale Update…

To date, it's looking like 2020 may be another tough year for gray whales but perhaps not as tough as 2019 (right).





The reason for the increased number of strandings remains unresolved. If and when normal stranding response resumes, the 2020 AKR plan is to increase the speed and magnitude of regional response in an effort to quickly and fully necropsy fresh carcasses. In the meantime, a flyer (left) was distributed to communities along the migratory route requesting reports of both live and dead whales.

Announcements, Updates and FYIs

From SN member Dr. Link Olson, Curator of Mammals, University of Alaska Museum:

Please follow best practices in marine mammal sample preservation and curation!

The University of Alaska Museum of the North's (UANM) collection of marine mammal samples is the largest of its kind in North America and supports research on a wide range of scientific topics conducted by scientists all over the world. Its rapid and continued growth is the result of a statewide collaborative effort involving virtually every stakeholder group in Alaska, including the stranding network. Research conducted on UAMN specimens is meticulously documented and tracked, and all resulting publications as well as data associated with each specimen are digitized and freely available through UAMN's online database Arctos, providing managers with an unparalleled tool for tracking specimen use and impact over time. In addition to the museum's Mammal collection, which houses traditional skeletal and soft-tissue specimens, UAMN's Genomic Resources Facility features state-of-the-art liquid-nitrogen cryopreservation that provides a far more permanent and stable archival solution for tissue samples than traditional mechanical freezers, which are prone to failure and can't maintain temperatures low enough to halt deterioration. *Even at -80ºC--the lowest temperature mechanical freezers are able to maintain--biological samples degrade!*

Please consider partnering with UAMN at the earliest stages of your project in order to follow best practices in sample preservation and to maximize the long-term scientific and management impact of these irreplaceable resources! Archiving specimens in fully accredited, permanently staffed public museums is consistent with the National Science Foundation's two merit review criteria (intellectual merit and broader impacts) and ensures compliance with Sec. 1421a of the Marine Mammal Protection Act. Contact Link Olson, Curator of Mammals (**link.olson@Alaska.edu, 907-474-5998**) or Kyndall Hildebrandt, Manager of Genomic Resources (**kbhildebrandt@Alaska.edu, 907-474-6914**) for additional information.

Congratulations to Aleria Jensen, winner of the 2020 SSL FIA (Steller Sea Lion Flipper in the Air) Sweepstakes!!

Aleria Jensen captured the crown this year with an early-in-the-season call on January 29 (last year it was April 1) from a caller concerned about jugging, one of the iconic marine signs that spring is forthcoming.

Announcements, Updates and FYIs - continued

Don't forget! The Human Interaction form is now a requirement!

Along with the Level A form, a human interaction form is now a standard requirement. A copy of the form, an instructional webinar, the 2020 Examiner's Guide and associated documents may be found here:

https://drive.google.com/drive/folders/1ncJccruvGAy1_F1TSva0HocjfqDdawx5?usp=sharing

And now for the gorilla in the room…COVID-19

To all Alaska marine mammal stranding responders:

There are seven coronaviruses around the world that can infect people. Four of these coronaviruses are common human infections that usually cause a mild to moderate upper-respiratory tract illness, like the common cold that people catch every year. Sometimes coronaviruses that infect animals and evolve into a new human coronavirus, which includes COVID-19.

We hope you are all well and managing to navigate through some very challenging times with COVID-19. We at the regional office agree with the message from the MMHSRP team on the following page. We fully endorse your safety as the first priority in marine mammal stranding response, even if it means no physical response. Our team is currently on an indefinite near total stand-down mode and we are relying on reports to track strandings in the state.

Please let us know if you have any questions or we can support you in any way.

Thank you and stay safe!

Mandy, Sadie, Barb, Kate,
Kim, and Dave

Announcements, Updates and FYIs - continued

Dear Members of the U.S. Marine Mammal Stranding and Entanglement Response Networks,

We recognize that things may be very fluid in your state/area with regard to limitations and requirements from the COVID-19 pandemic. Your health and safety are our number one priority and NMFS fully supports your decision to not respond to reports of stranded or entangled marine mammals when you do not feel that you can do so safely, or if you are prohibited from responding due to beach closures, shelter in place, or other local restrictions. Please always follow any local guidance and requirements for human health and safety first and foremost.

If you are able to respond to marine mammals in distress, we recognize that it may not be a typical response - you might only be able to collect photos, or take limited samples, or choose not to bring an animal into rehabilitation, or decide to recover and freeze a carcass rather than necropsying it immediately. We have posted messages on NMFS' homepage and on the report a stranding page (https://www.fisheries.noaa.gov/report) to help inform the public that operations may be restricted or delayed, and have conveyed that same message to the media when contacted. We support any choices you need to make operationally in order to be protective of human health and welfare. Please let us know if there is more we can do to support you with the media or public opinion.

We ask that you do two things:

1. Inform your Regional Stranding Coordinator as soon as possible of any changes to your organization's capacity to respond to stranding calls (recognizing that this may be continually evolving).
2. Follow the attached guidance when filling out the Level A form for any cases that were impacted by the COVID-19 situation. Please note: we are not expecting nor asking for any change in your organizational protocols for when to fill out a Level A form. Please use this guidance for any Level A form that you would normally have completed.

Additional guidance has been sent to Prescott Grant Principal Investigators regarding increased flexibility and options in place at this time to help grant recipients fulfill their award conditions. If you have any questions about your Prescott Grant requirements, please direct them to Steve Manley or Lanni Hall.

For any non-profit organizations, the CARES Act (the recent stimulus bill that was passed) provides some support directed at you. For additional information, please see: https://www.philanthropy.com/article/Trump-Signs-Stimulus-Bill/248350

Please let us know if you have any questions or if there is anything that we can help you with at this time.

Keep safe,
The MMHSRP Team

Once again THANK YOU in advance for all your hard work during the stranding season. Many calls and reports came in to NMFS from all over the state, demonstrating a true team effort to respond to stranded animals in Alaska. Thank you for your help! A reminder to please submit any level As, photos, and necropsy reports within 30 days to: Kate.Savage@noaa.gov
Your reports allow us to track marine mammal health in Alaska and beyond.