

Heading South on the Plague Ship

South Atlantic Islands, including South Georgia, and Antarctica



Left to Right: (top) Mt. Darwin/Tierra del Fuego, post-sunset Beagle Channel, West Falklands – ship, me, albatross and rockhopper penguin colony; (middle) South Georgia - zodiac touring, Salisbury Plain, king happy feet, meadow penguins; (bottom) descending to Stromness, toasting the Boss, kayak selfie Drygalski Fjord, finally arriving at Antarctica after 3 long days at sea, on the pack ice

After ten years, I finally committed to this seriously expensive, high-risk/high-reward trip, booking a small-ship expedition (about 100 passengers and 60 crew) with Lindblad/National Geographic (LNG) two years in advance of my 50th birthday year. Some people questioned why I would do this “bucket list” trip when I was “so young” – but I had heard enough accounts of very rough sea/weather trips that I knew I didn’t want to be struggling with things like balance, agility, and rough zodiac landings in my 70’s (plus, my dad died in his 60’s – so I’ve always known you can’t assume anything about your lifespan). Age aside, I was also concerned about how I would handle open ocean travel in the world’s roughest seas, having suffered major “dock rock” while feeling out my sea-legs in the Galapagos back in 2007. Although the seas were definitely as rough as they say, though, I managed and came to terms with them... and that was not what marred a sense of complete satisfaction with this trip: rather, our group was plagued with epidemic levels of ship-passed respiratory infections – of which I (surprise, surprise) was not immune. As a professional microbiologist, it was very hard but educational to experience such an outbreak firsthand; indeed, the first day we landed on the Antarctic continent, a fellow passenger (also a university professor) asked me: “what experiences from this trip will you take back to the classroom?” My verbatim response: “the power of infectious disease to spread in close quarters.” This is a very honest account of a hard trip that was 50% great, but also 50% challenging. It is also written by a microbiologist who (probably because of the relatively small size of the passenger list/ship), did not expect to be caught up in a bad ship outbreak.

Indeed, that is not the introductory paragraph I thought I’d be writing when I committed to this trip. I intended to open with how I first came to know real people who traveled to Antarctica: How when I was an undergraduate doing research in Yellowstone in 1988 I met Dick and his collaborators who were doing research in the Antarctic Dry Valleys (at the time, you weren’t allowed to travel there unless you had your appendix removed because the medical risks were too high given the challenges associated with emergency evacuation). How when I was a graduate student my then-partner John spent 6 weeks collecting sea ice bacteria at McMurdo Station, his thesis ultimately comparing “south polar” isolates with “north polar” samples in Alaska; John’s mother was notably also an Antarctic researcher, studying the thermodynamics of katabatic winds. How as a faculty member now, one of my best friends and colleagues (Karen) amassed 30 months of Antarctic ecology/kill research experience (including diving) at Palmer Station, sailing the Drake Passage some 12 times under all conditions imaginable (Dick, John/mother never sailed to the continent – they all used military transport planes from New Zealand). Yes, I eventually discovered Shackleton (which added the South Georgia dimension) – but MY primary inspiration came from my experience as a scientist. Some important secondary inspiration came in the form of a couple truly

well-done adventure travel shows: specifically – Zay Harding’s two-part Globetrekker programs (the most honest account – so good I actually bought the DVD), and Art Wolf’s two-part Travels to the Edge programs (beautiful but not as honest). Although Bourdain aired his Parts Unknown Antarctica piece after I had booked, I Believe that that NSF-supported episode is one of his finest statement pieces he has ever done – an incredible testimony to science, evidence, the Antarctic research community, and teamwork.



Left to Right: (top) Dick (Yellowstone 1988) & collaborators studying Cyanobacteria in Dry Valley lakes; John at McMurdo and preparing core/dive areas on Ross Sea Ice Shelf (1991); (bottom) John processing cores for Bacterial surveys, barefoot karate (McMurdo 1991), and Karen at Palmer Station – dive tender, diving, on the pack ice with the Polar Duke in the background (1990’s)

In consideration of this goal, I systematically tested my sea-legs during my last academic sabbatical by doing a very small (16 people) ship-based tour of the Galapagos (December 2007), followed by a larger (100 people) ship-based tour of Norway and Svalbard (May 2008); if you read those reports, it’s pretty clear that I doubted I could survive Antarctica. But then I did a few more successful small ship (100 people) around Tierra del Fuego/Cape Horn while visiting Patagonia in 2008 and 2015 – and those helped me feel more confident to tackle the full Falklands, South Georgia, Antarctica, Drake Passage circuit. Of course, the two final missing ingredients are the all-important time and money. This trip involved 29 days of travel and is only available late fall through late winter – right in the middle of the academic year. That problem was solved by taking my second sabbatical, which consists of three fall terms off. When the sabbatical was approved in 2015, I booked this trip (it notably filled in 2016) and completed target research over the summer so I could free up time in the fall. Although about a dozen US companies run the full circuit, none are cheap – and if you are a solo traveler, you will pay a lot extra if you want your space. Half of the companies who do some version of this trip are big cruise ship companies (with thousands of passengers) that rarely let you off the ship, something I automatically excluded. In terms of small adventure travel cruise ships (with fleets of zodiacs, kayaking, hiking, etc.), I found that the cheapest version of trip would cost me over \$20K. Knowing I wanted a higher-end ship with a reputable company, I went with LNG – a company I had traveled with before – and paid over \$30K. In contrast with other companies, LNG ships offer “real” single cabins and didn’t “nickel and dime” clients with fees for things like kayaking; the one thing they don’t offer (which one cheaper competitor does) is the opportunity to sleep in a tent on the continent one night. I personally cashed in one of my dad’s life-insurance policies (things he took out on me) to pay for most of this – partly because he was an avid traveler, and partly because it was a big birthday year for me.

Packing Considerations – Tips, Challenges, What I Learned... and a Ship Microbiology Primer

When I first reviewed the “book” LNG provided us in preparation for this trip, it never dawned on me that I would have problems packing. After all, they had given us a 66 lb allotment for checked in luggage; somehow, I think that large weight blinded me from the fact that they were only allowing 17 lbs of carry-on for their chartered flight between Santiago and Ushuaia – which passengers almost universally found insufficient for cameras and electronics. Indeed, I spent the most time agonizing over what cameras to bring and whether to invest in another SLR (having broken my last one in 2012). Camera-philic friends could not believe I was considering doing this trip with only a high-end point-and-shoot (i.e. my beloved Canon Powershot G16, backed up by a small water-resistant Lumix). After consulting with a local camera shop (who correctly pointed out that most wildlife in Antarctica is in-your-face close) and thinking through my long history of camera destruction (I’ve killed 5 cameras in the last 12 years), I dropped some cash on a newer high-end point-and-shoot (a Canon SX60) - BUT, in the end, I NEVER used it because it was slower, larger, and clumsier than the G16. A week before the trip, I also “attended” a LNG webinar about trip photography/electronics and was relieved to see that LNG was embracing simpler things like iPhones and high-end point-and-shoots. In general, I found passengers on this trip to be less camera-crazy than what I’d seen in Norway (where it felt like most people had ginormous lenses – probably because the wildlife there IS far away). About 10% of passengers on this trip were expert level photographers with insane equipment/lenses; another 20% were advanced photographers with very good SLR/lens systems; half were like me - with half of them using basic SLR’s and the other half using advanced point-and-shoots. But about 20% brought ONLY their iPhones, OR carried no camera at all (with several relying on LNG photographers/videographers for trip pictures/video). I will say that the LGN photography instructors did a great job catering to pretty

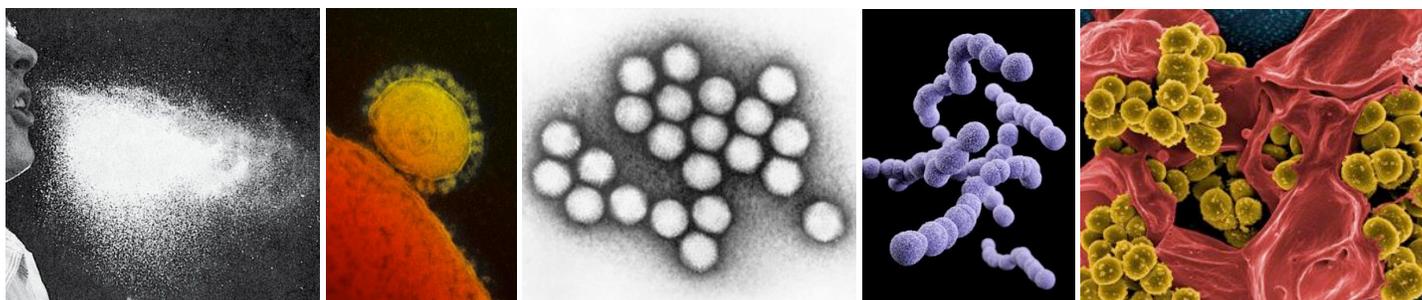
much everyone and every camera type; this was in stark contrast to the arrogant/expert-level only LGN photographer I experienced in Norway. Although I like to take pictures, I find – the older I get – that I am NOT a camera-ophile and I have no interest in or patience for mastering the nuances of the technological aspects of cameras. Of course, cameras represented only half of my carry-on problem. Given what I learned on the LNG Norway trip (i.e. there will be a lot of inactive days of sea travel to cope with, and the ship computers suck), I knew I had to come armed with my laptop (13 inch screen Apple) and my newest toy, an Amazon tablet with books and videos. Concerned about power issues during flights/transit segments, I also invested (unnecessarily) in an Anker power cube, something Allison carried on the John Muir Trail to power her cell phone, tablet, and GPS-messenger for 2 weeks straight (oh well – I will use that eventually on the trail!). Unfortunately, when I added the cameras, computers, power cube, cell phone, and my “must have” health items, it totaled 23 lbs. More about how that problem was solved later.

I started packing what would become my checked luggage about a week before, splitting gear into an “outdoor” rolling duffel and an “indoor” suitcase (notably my dad’s favorite suitcase, which I use often). In contrast with many passengers, I brought my own rubber boots (my good ol’ Alaska Xtra-Tuff’s). It should be noted, however, that the Xtra-Tuff sole grooving proved harder to physically clean than the Bogg rentals most people used – and cleaning is a big deal down there (i.e. a representative from Grytviken evaluated all our boots one day and I was thoroughly shamed). It is important to note that, although we didn’t hike a lot (4 miles tops, with maybe 5 “real” outings), it is expected that you walk in your rubber boots because most zodiac landings are very wet, and most routes are muddy, guano-y, and/or snowy. In terms of outdoor gear, I brought 2 pairs of rainpants (the most useful were my heavyweight blue waterproof ones from the Grand Canyon that cost, like, \$15), 2 pairs of longjohns (medium and expedition weight fleece – definitely used both for different weather conditions), 2 pairs of midweight capilene uppers, a mess of gloves (the best were heavy fleece with an over-mitt that flipped back so you could take pictures with bare fingers), 2 balaclavas (medium and heavy fleece), 2 warm hats with ear covers, and a variety of socks. LGN provides everyone with a Shackleton-inspired parka and quilted liner jacket. Although I did bring a lighter rain jacket, I used the LGN parka set the most because most outings were 2 hours tops and involved little to slow walking/watching animals, or sitting in zodiacs with intense wind/spray. I purchased a fully waterproof day-pack for this trip, but it was highly unnecessary for my needs; I could have done this entire trip with a small REI sack-pack (which I regret not bringing) or, as it turned out, just a Sea to Summit bag with a few essentials. I brought my hiking poles but, honestly, cannot recommend those for many reasons: they are a pain to manage on the zodiacs, they must be also carefully cleaned between islands, and they are mostly unnecessary (LNG actually provides some walking sticks for most outings – although probably not enough for everyone). In terms of indoor gear, I brought more than usual for this trip because there was a lot of ship time (consider that even in perfect conditions, 7/21 ship days represent “inactive” open ocean sailing on this trip)... and because I didn’t want to pay extra for laundry service. In addition to 8 different style shirts, I brought 2 sets of quick-dry workout clothes (for the small gym on board), which I hand-washed every few days in my sink. I brought 8 pairs of underwear and hand-washed those every day. Given extremely dry air, everything easily dried overnight. I also brought 2 nice sweaters, which I appreciated greatly when it became especially cold; I would have brought one more pair of ship pants had I known I was going to spill a full glass of wine all over one on the plane. Although I brought my camp slippers, I never used them – mostly because the bottoms were slick and quite unsafe for walking around the rocking and rolling ship! I also did not miss my Chaco sandals – which were thrown out after I realized I had a luggage weight problem!

In terms of health stuff, there are 3 big issues that passengers need to take into account when packing for this trip: (1) whether you need motion sickness drugs – which, by my sampling estimates (i.e. conversations or seeing patches), were used by 60-70% of all passengers; (2) what illnesses you have, hope to avoid, or need to treat; and (3) the dry, dehydrating air conditions. All of these points conspired on our trip to create a perfect storm of epidemic illness. That’s because virtually ALL motion sickness drugs cause intense dry-mouth – which was, in turn, exacerbated by the air/wind conditions - which, in turn, weakened respiratory lining, making people more susceptible to infectious germs (which on our trip – and the trip before - were PLENTIFUL). Indeed, the single most common complaint was HORRIBLE sore throat. Aware of these issues to some extent at the outset, I obtained a prescription for 10 Scop patches (which I never used because the neurological side effects scared the crap out of me) and over-the-counter Meclizine (which I did use). I packed and took/used Emergen-C every other day, and a Costco-sized bag of Ricola lozenges – but NEITHER were any match for the illness on this trip. I used almost-nightly ibuprofen for the throat pain and popped Nyquil 2 nights when I felt very sick or needed to sleep hard. I packed 80 bags of Traditional Medicinal Tea (e.g. throat coat, breathe easy) and drank them all (4X2 cups each a day – PLUS double that volume in more water and tea from the ship). I brought my Neti pot (with LGN providing distilled water) BUT I should have brought double the salt packets so that I could gargle with them to combat the throat problems. A few of us eventually asked the kitchen/galley for salt – which we used for gargling (some of us were gargling 10 times a day). My nose was always clear on this trip; it was the throat/palate that was a complete mess for me. Thankfully, my dentist had advised that Biotene was more important than my fluoride rinse because of the motion sickness and air/wind dry-mouth – BUT I should have brought more (another heavy item that was cut in half when I thought I had a luggage weight problem). I also should have brought a spare toothbrush (once you suffer one respiratory infection, an important thing to do is to throw out your old toothbrush). One of the other sad things I threw out to get my weight down was my swear-by bottle of Cloraseptic throat spray (never leaving home without that again!). I also regret NOT packing a travel humidifier; over time, I – and others – did discover that hanging wet towels all over the room overnight was helpful for the intense dry-mouth/throat pain. While I did carry plenty of hand-wipes, I mostly used those in transit – because the ship had hand-sanitizer stations EVERYWHERE (and, honestly, these were well-used).

The illness our trip experienced was, as far as I could tell, all respiratory – NOT diarrhea/norovirus (which can be controlled with hand-washing and surface disinfection). The viruses and bacteria being transmitted on our ship seemed likely to be transmitted by airborne aerosols (produced dramatically in the form of coughing, or more subtly while talking in close proximity... because everyone projects some spit when they talk, I hate to tell you). Airborne/aerosol infections are harder to control, particularly when you are on an enclosed ship, eating and socializing a lot in close quarters with limited fresh air. Although I asked my physician for broad-spectrum antibiotics

for this trip, it is not my clinic's policy to provide them. The ship doctor provided many people (including myself) with antibiotics during the first 10-12 days of the trip but when the plague reached epidemic proportions, such drugs seemed less available and the "party line" became that people were probably infected with viruses. Meanwhile, I learned that several physician/health professionals on board started taking their own personally-carried antibiotics prophylactically because it had been established that Streptococcus (a bacterium, which can be killed by antibiotics) was being passed around... NOT just viruses. There was also at least one case of pink-eye (that person notably showed up at my breakfast table), which is typically caused by skin-borne Staphylococcus; after the trip, I was also diagnosed with a Staph-like eye infection – my eyes having been sticky/not draining well during the final week of the trip (I assumed, at the time, it was just the dry air and drug side effects). Given what I saw on this trip, I would also recommend bringing masks – although NONE were provided or encouraged on our trip. Of course, I'm not sure how that would have gone over (whether in terms of someone uninfected trying to protect themselves, or in terms of – say – the ship DR asking/mandating that coughers to use them). My impression was that there were at least 4 possible "patient zero" hackers who came in sick and coughing; most did not use the proper coughing technique (despite public demonstrations and reminders by the ship DR), and NONE made any effort to quarantine themselves from public activities or spaces. Over 3 weeks, those numbers grew to about 70 infected – including one passenger who had to be med-evac'd with extremely serious pneumonia and partial kidney failure (that person spent 2 weeks in ICU having their lungs drained, but did eventually return home alive – and thinner). As a final point of data, it should be noted that the ship DR made it clear day one that on the last trip (those passengers left the ship 6 hours before we arrived), 50% were infected with respiratory illness; we surpassed that quantitatively (about 70% overall, and the sheer number of DR visits/interventions) and qualitatively (the med-evac emergency, and severity of illness). At the height of our epidemic, there was a lot of passenger chatter/speculation about whether LGN had properly cleaned the ship between trips given that 6 hours did not seem logically sufficient. As a microbiologist, I have given that a lot of thought and my answer is: it depends on the germ but, overall, probably not. For example, viruses are classified into 2 broad structural groups – "enveloped" (e.g. influenza, coronavirus – the latter was found on our ship and causes a range of respiratory illness – colds, sore throat, sinus infection, to serious pneumonia... ALL experienced on our ship) must be transmitted in wet body fluid/aerosols but then they "die" after the fluid dries on an inanimate surface (e.g. tables, chairs, beds, fabrics, utensils...) – or when hit with a disinfectant; and "unenveloped" (e.g. norovirus, rhinovirus – the latter likely on our ship... it's the most common cold virus) are hardy and survive on inanimate surfaces after being coughed or sneezed. Enveloped viruses were likely responsible for the majority of illnesses on our ship and shouldn't have survived more than 3-4 hours after the last group hacked them out just because they would have dried up; but unenveloped viruses would survive much longer – unless actively "killed" with a disinfectant (which, IMO) the ship crew was good about doing regularly in terms of surface cleaning (the fact that we had no obvious norovirus/diarrhea is testimony to their ability to manage unenveloped viruses on inanimate surfaces). Given that both Streptococcus and Staphylococcus bacteria have a tough Gram Positive cell wall, I would predict they would be persistent unless tenaciously cleaned! Think carefully and seriously about all those data when packing for or considering this trip.



Left to Right: aerosol transmission of millions of respiratory microbes, coronavirus (enveloped), common cold virus (unenveloped), Streptococcus bacteria (Gram Positive), Staphylococcus bacteria (Gram Positive). All images downloaded from the free-use CDC Public Health Image Library.

November 25-28, 2017 – The Long Trip to Santiago

Given an early flight Sunday morning, I left my home for a PDX airport hotel Saturday afternoon – after a somewhat stressful 24 hours trying to eliminate 4 lbs from my carry-on and 2 lbs from my checked bags (the problem being LNG's stated charter flight limit, not the regular airlines). In the end, I stripped 6 lbs from my checked bags (losing items described above), anticipating that I would shift some electronics during the charter flight. In the end, we learned that for our smaller ship (Orion), there was, in fact, no charter limit – and so all this stress was moot. Many of us, I am quite certain, have written up this critique to LNG because, as stated, charter carry-on limitations were a problem for anyone carrying mid-range cameras and electronics. That said, it should be noted that – while the LNG Orion (100 passengers) – has no charter limitations, the LNG Explorer (the 150 passenger Antarctic vessel) does still have limits because they max out the charter airplane. It is my understanding that LNG is, in the coming years, phasing out Orion in the Antarctic – in favor of larger ships like the Explorer and a new/pending ship under construction at this time. Although physically managing 4 pieces of luggage (1 rolling duffel, 1 rolling suitcase, 1 pack, and 1 purse) went OK during this quiet leg, I was not good at managing my junk as the trip proceeded - and will not travel with this much stuff ever again because of narrow escalators, elevators, and moving throngs of people in busier airports (which, alas, Santiago has become).

The flight to Dallas was on time and uneventful, landing around 6 – about 3 hours before boarding began for the overnight flight to Santiago. For a brief moment, I thought my request for an upgrade was going to happen but I didn't understand that it is common practice to list everyone on the waitlist regardless of outcome (I was last and the agent said there were NO seats in business). While eating a bagel and some fruit, I spotted a couple with obvious LGN bag-tags and briefly chatted them up, confirming we were all about

to be shipmates. The flight to Santiago was better than expected; it was on another Dreamliner and I paid for bulkhead seating (same plane/seating as on my Japan flights back in June). The pasta meal, while tasty, was very small and – as stated earlier – my glass of red wine slid right off the highly unstable tray – ALL over my upper left hip/thigh (shockingly, it never stained too visibly). Even though I had no seatmates (i.e. a row of 3 seats to myself), I didn't sleep more than 4 hours, in part because bulkhead seats don't allow you to pull up the armrests and actually lay down. After a spectacular morning view of Aconcagua, we landed in sunny Santiago (70°F) 20 minutes early (around 8:20) but then had to wait 15 minutes for the gate to clear. Thankfully, the customs lines were short and efficient (in stark contrast with HORRIFIC lines on the way back!) but the luggage/declaration process was very slow and bumpy. Since my last trip here in 2015, Chile has lifted the reciprocity fee with the US (likewise with Argentina). The arrivals area felt like a madhouse, reminding more of hectic and seedier Buenos Aires... aggressive taxi/service people instantly all over you. I spotted a couple representatives with LNG signs (picking up passengers who'd booked an extra night with them/using their fancy-schmancy \$350/night hotel – as opposed to me, using the cheaper Holiday Inn on my own) to confirm the process for meeting them tomorrow (the official trip start). Rolling my luggage literally across the street to the Holiday Inn, I arrived at the busy check-in desk at 10:30 – prepared to whine my way into my room early. Fortunately, I didn't have to whine because a HUGE French tourist group (fresh from a trip to Easter Island) was JUST checking out, meaning a HUGE block of rooms were ready. Following a thorough shower and a 3-hour nap, I awoke super-hungry – and so I enjoyed chicken soup and salad on the patio with some dirty old Russian guy chain-smoking and using a his cell phone a few tables away. After lunch, I caught up on emails and journaling, completed a good workout (both treadmill and PT), enjoyed some bad TV – and then it was time for dinner: walnut ravioli, pisco sour, and a freshly juiced raspberry drink for dessert. While I was enjoying the late-afternoon sun and reviewing my LNG paperwork, an older woman (84, the second youngest person on our trip) approached/introduced herself to me; she said she and her husband (an entomology professor until the day he died) booked this trip in 2016 but then he passed last December... she decided to come anyway because she loved birding.

The next morning, I enjoyed a fast breakfast at the very busy hotel buffet, and then hauled all my stuff back to the even more insane arrivals area where I flagged down a LNG representative. Along with a few others from the Holiday Inn, I waited almost an hour for LNG to gather us – and a dozen other passengers from what seemed to be a LONG delay in customs this morning. We boarded a big tourbus and then made our way to the new business district – driving initially by some dirty slums along the brown river, but then mostly driving through concrete tunnels. Apparently, Santiago has grown a LOT since my last visit to the city in 2008... and, in contrast with past impressions, I thought it sucked this time. Arriving at the LNG-selected hotel, I was the last one to be provided access to my room – meaning a 2-hour wait. Amusingly, I was sort of whisked off to a long, conversation-filled lunch by another passenger, a retired psychiatrist (this amused Ellen to no end) who had to come alone last-minute because his wife had fallen ill with some kind of horrible respiratory infection (hmmm). Although totally overpriced (LNG provided each of us with \$50 food vouchers for the day), the lunch buffet featured all kinds of amazing greens, salads, and grains... which meant that my GI tract was back in good order after getting all stopped up with the dehydrating plane travel. While my room (on the 20th floor) was, like, super fancy-schmancy, it was soon apparent we wouldn't really get to enjoy it: the wake-up call tomorrow was 4:15 a.m. (ARGH). And I had less than 30 minutes to get ready if I wanted to do the Santiago historic district tour at 2:30. In retrospect, I probably should have skipped that – but it was good to get out and walk a little around the Plaza de Armas... albeit in sticky-hot weather (85°F) and after riding the bus for almost an hour through HORRIBLE traffic. The only merits of the tour: the guide was really good, especially when talking about recent history (e.g. Pinochet etc.); and we were left on our own to tour the Museum of Pre-Columbian Art (as opposed to my last time there – which was overly guided). Also, I swear we never made it to the all-Chile exhibit downstairs (or it didn't exist in 2008?) – the most interesting thing being these string-based accounting devices used by the Incas (and half a dozen very enthusiastic local middle/high school student groups!). Unfortunately, we were late coming back – leaving one hour to clean up (and, in my case, get in one treadmill workout) before the group welcome meeting. In contrast with food/drink availability on the ship, I was surprised how limited food/drinks were here (having spent most of my voucher on lunch, I assumed I'd be able to amass dinner by filling up on appetizers here). It was also a short event (45 minutes) with a few introductions by our leader – the big emphasis on what was happening tomorrow. Afterwards, I joined one of the other solo travelers (I met 10 on this trip – 7 women, 3 men – but there could have been more) at an OK Thai-themed hotel restaurant; unfortunately, the service was PAINFULLY slow. Hopes to be in bed by 8 died around 9:30 when I FINALLY made it back to my room! Given that LNG wanted our checked-in luggage outside the room for pick-up by 11 p.m., I wasn't asleep until 11:30. Thankfully, though, we had learned at the welcome meeting that there were no weight limits – so: less fretting and repacking.



Left to Right: Santiago – Plaza de Armas, Supreme Court , jacaranda, Incan accounting strings, hotel view; over the Andes

November 29-30, 2017 – To Ushuaia, Tierra del Fuego, Open Ocean

As indicated, LNG called a 4:15 wake-up that could have – for me – easily been delayed until 5:15 since our only deadline was boarding the bus at 6 for the airport (and breakfast didn't start until 5). After organizing my carry-on's by 4:25, I actually laid down for 40 minutes more to rest. Knowing the onslaught of food that was coming once we got on the ship, I tried hard to eat a small meal (1 piece

of bacon, some roasted potatoes, cereal with yogurt, a probiotic drink, and a small pastry), enjoying it with the couple I'd met back in Dallas. After breakfast, it was back to the room for a surprisingly fruitless poo attempt (must have been the nerves!). And then it was downstairs for a very efficient trip to the airport. LNG checked in our bags and provided us with our boarding passes (thus allowing us to skip the ticket counter area entirely), but we still had to clear customs and security again. Shockingly, we had a whole A320 to ourselves (the plane maybe half full) and we had our own gate (that said – we were not immune from the airport's tourism people who, in this case, couldn't speak English well and shouldn't be allowed to survey people this early in the morning). It should be noted that there are no commercial flights between Santiago and Ushuaia (probably driven by a combination of politics and economics) so the LNG charter is a special deal. There was chatter about how LNG pays \$250K to charter the A320 for the day – although that price covers both the incoming group (us) and the returning group (who we'd see leaving Ushuaia). Based on my calculations, that means that the per person charter rate represents about \$1000 of the trip cost. The nearly 4-hour flight to Ushuaia was quiet and scenic, although Patagonia was completely clouded over. The white-bread ham-cheese sandwich lunch was largely ignored. Thankfully, Ushuaia was GORGEOUS: sunny, warm, blue-skies with big white puffy clouds. As we were clearing customs again (having entered Argentina), we were in this funny fish-bowl room – and it dawned on us that the people in the adjacent room were the LNG-Orion group on their way home after our same tour. Initially, I was concerned because many of the people who I saw looked quite weary... but then, after we heard that their Drake Passage crossing was scary-huge and their infection rate was 50%, I understood. That said, I didn't feel we looked as weary upon our return... but our Drake was exciting (not scary) and so we could sleep well our last 2 days.



Left to Right: Beagle Channel, Tierra del Fuego – start of national route (44), Mt. Darwin, boardwalk (peak represents border with Chile), flowering calafate bushes with Bahia Lapataia and awaiting catamaran

Anyway – our group was divided into 3 big tourbuses (everything roomy to the point that if you wanted your own row, you probably could have it given that most couples always sat together) and taken to a place that, in all my time in Ushuaia/Tierra del Fuego, I have never visited: the ACTUAL Tierra del Fuego National Park area west of Ushuaia, and the beginning of the national route, the famous highway that spans the length of the country (and can be linked to drive all the way to Alaska). Our bus guide was exceptionally good and I appreciated that she took her time talking about the flora, fauna, and history for the hour-long drive to Bahia Lapataia. I also appreciated that she was from Ushuaia and, as we made our way through the cluttered outskirts of said town, she talked about the population increases (from a few thousand in the late 1970's, to 70K now) and the accompanying environmental challenges. Once we left said outskirts, the terrain, forests, and views (including the magnificent Mt. Darwin – an exceptionally rare treat, I know!) were STUNNING (almost making up for the fact that we didn't walk more than half a mile – despite obvious opportunities to do more). Things started feeling a little rushed after our guide encouraged us to take the longer walk to the Lapataia overlook (which was great)... but then – probably because they were trying to keep each bus group separate – it felt like they were sort of herding us down to the next activity: a catamaran-tour with lunch back to Ushuaia. As would be the case probably 25% of the time on this trip, I found myself at the “solo travelers table” (because, like I said, many couples seemed joined at the hip at all times and, in general, this often felt like a very couple-y trip). I cannot say that lunch was superb (a very basic salad with some kind of chicken stew, and a chocolate-wrapped ice-cream ball) but it was fine. Of course, I missed half of lunch because I wanted to be up on the high outdoor view deck taking pictures. After lunch, we had made our way back in view of Ushuaia – but spent half an hour touring some rocky islands in the harbor with birds and seals. As with much of this trip, it reminded me of being in the cold version of the Galapagos.



Left to Right: catamaran line-up, rocky seal island near Ushuaia, cormorant island with Isla Navarino peaks in background, Ushuaia

By around 3, we were back at the Ushuaia dock and it was finally time to embark OUR ship, the LNG-Orion. Ushuaia, of course, has become the tourism hub for Antarctic cruising (hence the population increase/issues) – so there were at least 4 other Antarctica-bound ships docked nearby. While not as horrible as, say, Juneau with HUGE cruise-beasts, Ushuaia is getting bad... and, in general, we saw tourist ships nearly every day throughout this trip (which I wasn't expecting!). Compared with the other ships we saw, Orion (built

in 2003) was on the smaller end (about 350 feet long, with 6 decks). But she reminded me of the same-sized Endeavor (which I sailed on the LNG Norway/Svalbard trip in 2008) and so I loved her and definitely accepted her as my home for 3 weeks. Some people in our group found her to be too Vegas hotel-like but I appreciated all of her comforts... even if the lounge did have a very Star Trek disco feel. My cabin was the only "official" solo room on the top cabin floor (5th deck) and featured 2 giant windows that I LOVED (once I quickly figured out that the open ocean waves didn't scare me as much as I thought they might). It was a long cabin with 2 twin beds (one under the windows, one perpendicular against the back wall), a big desk (which I used a lot for writing), a couple nice sitting chairs (which I used for enjoying the tablet or watching ship talks, which were piped in on the room TV's), and a good bathroom with hot, high-pressure water. Every floor had a room steward and mine was sweet Melvin (no pictures); Lindblad's hotel staff are mostly from the Philippines – with the bridge crew German and Scandinavian (Lindblad is a Swedish company) and many ship crew/engineers Russian. I'm sure I drove Melvin crazy because I used the second bed as my luggage staging area – gear pretty much spread everywhere ready for use at any time, contingent on the weather conditions. While unpacking, I made a point to pop my first meclizine tablet around 4, having learned that you need to have those med's in your system several hours before anticipated motion.



Left to Right: Orion embarkation, disco lounge (note multi-level ceiling with partial mirrors) after emergency drill, my clean cabin, disco lounge with fearless leader in the "truth circle," after sunset in the Beagle Channel

Our first afternoon/evening was busy with the mandatory emergency drill (i.e. putting on life jackets and finding the muster stations near the life-boats), an introduction to the hotel operations and staff (including the ship DR – who, as stated, described in no uncertain terms that a horrible respiratory infection hit the last group, infecting 50% of all passengers), a quick mile on the treadmill (there is a small fitness center on board with 2 bikes, 2 treadmills, an elliptical, and some weights), a cocktail hour preview by our leader (this was a nightly event, usually around 6, that served as a daily recap and preview), and dinner (a sit-down affair that usually began at 7). Dinner was the only full-service, multi-course meal (breakfast and lunch were both buffet style with more open times); for dinner, you picked what you wanted from a menu that had: appetizer, soup, salad, pasta, 3 main course options (at least one fish and meat), and dessert (chef's special or you could choose from a couple daily ice creams – all home-made on the ship). There was also a separate vegetarian menu, and you could also order in-room dining (which, as people became seasick or infected, happened more frequently). Tonight's dinner was the only one that I recorded in full - butternut squash soup, light salad, ribeye with broccoli, potatoes, tomato half, fried onions, and vanilla panna cotta with strawberries and a strawberry macaroon. All dinners were excellent – although I ate more meat on this trip (pretty much every day!) than I do in my normal life! We were told we would hit open ocean around 11 p.m., which was exactly when I was trying to fall asleep (at first, in the bed right under the windows). Unfortunately, I did not sleep well for hours – mostly because there are so many ship noises (including a sort of regular foghorn-like pitch that I never could identify). I tried many things to get the sounds down – earplugs didn't cut it, earphones with white-noise cut a little but were uncomfortable to wear. Initially, I slept MAYBE between 1 and 4. I was hoping to take only 1 meclizine per day but the ship DR mentioned in his presentation that they recommended up to 2 per day. Since I was awake at 4 and the ship was REALLY rocking and rolling, I decided to take half a tablet (so as to move my schedule to 10/10) – and so I got up, walked to the bathroom to fill a glass of water, and threw that back. Almost immediately, I knew I was going to toss my cookies... which I FULLY did into the sink. But I did feel better and then moved to the perpendicular wall bed option (which seemed quieter, the rolling movement better). By this point, the aforementioned ship noise had decreased (or was being drowned out by the sound of waves slapping against the hull!) so I slept solid 4:30 to 8:45.

Given my night, the breakfast experience felt a little too busy - and the husband (an MD) at the table where I sat at was definitely not interested in his wife's (academic/education) preoccupation with seasickness discussions (which of course happened when she asked how I had fared in the rough seas); I learned that about 6 people were very sick overnight, including at least 1 who summoned the ship DR. Despite concerns I might hurl again, I did eat (and keep down) a moderate breakfast (pretty much the same thing I ate every day: a scrambled egg, 2 pieces of bacon, yogurt with some branny cereal and granola, some stewed prunes and figs, wheat toast with apricot jam, = a puff pastry swirl, and a little fresh fruit) without tossing my cookies. After breakfast, our leader indicated we were ahead of schedule – and the captain decided to slow down a bit (because speeding up means more motion). Although I debated about switching to the scop patch, I decided to stick with the 10/10 meclizine schedule for a few more days. Today was our first of several ALL days at sea (it typically takes 36 hours to travel from Ushuaia to the West Falkland Islands). The landless ocean did not look scary but you definitely felt the boat moving all the time – and, for several hours, we had another tourist ship following us in the distance. The seas seemed very calm and, at times, we had largely blue skies. I attended all activities today, which began with a mandatory hour-long presentation about zodiac safety. Afterwards, I joined the birders for some fresh air out on deck (mostly petrels and a few albatross) and then I did several laps of stairs (i.e. you could make a loop between the 2 sets of ship stairs, climbing 3 stories each time) - in between drinking tea in the observation lounge/library (my favorite place on the ship for the nearly-360 views). By then, it was lunch. In addition to the full-restaurant buffet, Lindblad offered a lighter soup and salad option in the lounge, which I did every day: a

small roll ham or turkey/lettuce sandwich, a bowl of soup (always delicious!), some salad (they always had 2 offerings – usually pasta or bean-based), and some chips; over time, I started adding a cookie or slice of cake.

After lunch, I visited the treadmill, showered, enjoyed a 30-minute powernap, and then went to the first of a few photography instruction sessions. Unfortunately, I didn't think this was worthwhile – e.g. not enough detail, a few people took a majority of the instructors' time – to the point that I didn't go to other photography session. As things were wrapping up, the bar/hotel staff then put out "afternoon tea" (a mix of sweet and savory bites) – so of course, I had to eat 2 bruschetta (with Brie and sundried tomatoes) and 2 mini-elephant ear puff pastries. Thankfully, I managed to avoid "tea time" nearly all other days on the ship. Alas, the amount of food one COULD eat on this trip was staggering! After computer-journaling in my room, I attended the BEST event of the day at 5: a "should have been cut into 2 talks" 90-minute presentation about the natural and human history of the Falkland Islands, given by a 35-year veteran guide from Lindblad. Having carried my laptop down to the lounge, I found myself actually taking notes – the information was so rich. In terms of natural history, the most interesting things I learned were: geologically, the Falklands were once part of South Africa; there were never trees there; and this would be the only place we saw rockhopper penguins (one of two yellow-crested varieties on this trip) and Magellanic penguins (the same kinds I'd seen on Magdalena Island/Chile in 2015). In terms of human history, the most interesting things I learned were that there is a LONG history of goofy fighting between the Spanish, the French, and the British; Peron began pot-stirring about taking back the Falklands in the 1950's; and the Argentines actually landed FIRST at Grytviken, South Georgia (taking that over) before landing in the Falklands in 1982. I was also super-impressed that Lindblad was the first company not only to visit the Falklands (and South Georgia) with tourists, AND to develop environmental projects there with locals to promote bird habitat.

Following a shortened cocktail hour devoted to ship captain/crew introductions, I was invited to the expedition leader's dinner table with 5 others for dinner. In general, dinner seating was open - except there were about 4 "invitation only" tables headed by staff – as in: you received a card in your door the morning of. During this trip, I received 2 invites – but never to the captain's table (I didn't take that personally because I am not as gregarious as he would have liked... plus, he only made it down 6-8 nights); some people were never invited. Amusingly, there was a big group of New Zealanders who, over time, "booked" their own permanent table area; they were the only willfully cliquy group on this trip – although it never moved passed them wanting to eat together. In general, our group of just under 100 people was highly sociable and open. About 20% were west of the Rockies, 50% east of the Rockies, and 30% international (with the majority Australia or New Zealand). Professionally, about 30% were doctors or health professionals (many retired); about 30% were academics or educators (many retired); and about 30% were educated professionals like engineers, computer programmers, or lawyers (fewer retired). The average age was about 62, with a range of 24 to 85. About 20 people were younger than me, 20 people were my age/50's, and the majority were in their 60's and 70's. Like I said before, about 10 people were traveling solo/single – with the majority in groups, either married (including 2 lesbians who were lots of fun!) or with families. The diversity level was about 12%, including 2 Asian-American families, and an Indian-American newlywed couple (this was their very gutsy honeymoon trip!); it should be noted, however, that neither of those groups count as "under-represented minorities" in educational research. I shared a meal or extended activity with 75% of the group at some time and, thankfully, my "asshole meter" went off with only 2 people during this entire trip; although it's likely most people on this trip shared many political views, most conversations seemed intentionally light for a reason: this kind of group is too small and the trip is too long to pick fights, engage in man-splaining, or make even light enemies.



Left to Right: our view for 36 hours, first land from observation deck, West Point harbor settlement (note Dutch yacht), non-native gorse on hill above settlement (reminded me of Scotch broom)

December 1-2, 2017 – Land Ho, the Falklands... Don't Undersell Them!

I am sure that many people who are interested in this trip discount the Falkland Islands as a necessary waypoint – a reprieve from what would be almost 4 days of open-ocean sailing if they didn't exist. While I was not quite one of those people (having remembered the 1982 conflict, and enjoying stark little islands in general), I did not appreciate how much I would enjoy visiting them until we were there. Of course, that our weather the first day was FAN-FUCKING-TASTIC (sunny and upper 60's) was super-helpful. Our 2 days in the Falklands was split into two areas: the less inhabited West Falklands, and the main town (Port Stanley) in the East Falklands. After sighting land around 7 a.m., we sailed through a few scenic channels (another big tourist ship in sight at times) and anchored in a small harbor at West Point, notably alongside a Dutch private yacht (so Ellen – apparently they like yachts AND campervans). There was a small farm settlement here and I chose to do the longest hike option this morning: 4 miles, 800 feet to "The Lookout" summit area of Mt. Ararat, all over fence-interspersed grassland and heath with the lichen-covered South African rocks here and there. Probably 40% of the ship set out on the long hike, with 80% making it. As stated earlier, all hiking has to be done in rubber boots. The ship doctor was out repairing feet/blisters on half a dozen folks who did NOT enjoy wearing slide-y rubber boots up what were some steep-grade hills. Having done a few 12+ milers in my X-traTuff's, I was fine. From the stark and scenic summit, we dropped steeply down to the Devil's Nose area, the famous albatross AND rockhopper penguin colony. Here, we sat in the muddy tussock grass watching the birds

for an hour. Shockingly, it did not smell. In general, MANY of our outings involved just sitting watching wildlife for, like, 1-2 hours – which I thoroughly enjoyed... between the crazy noises, all kinds of funny displays and skirmishes, the swooping albatross (as much in the air as on the ground), and the HILARIOUS rockhopper penguins (many with eggs and one with a chick that hatched while we were there). It made me want to go back to the Galapagos (did you read that Allison?).



Left to Right: (top) long-hikers heading up Mt. Ararat, almost there, stark summit, in the tussock of Devil's Nose; (bottom) albatross and my favorite – rockhoppers, the last 2 with eggs and a freshly-hatched chick

For folks not interested in the long hike, it should be noted that LNG provided 2 other easier options: a short-hike straight to the Devil's Nose (2.5 miles, 400 feet – bypassing the side-trip up Mt. Ararat), or the farm would drive you to the Devil's Nose in their jeep (bypassing most walking). That said, everybody had to walk down/up what was challenging mud and really uneven terrain – often fighting tall tussock grass – to get down close to the birds. Based on my observations, about 10% of the passengers did use the jeep option. The rest of us (both short and long hikers) walked directly back to the ship – up and over a shallow pass back to the bay. Although there was no official road here, the jeep drove pretty much alongside us in the grass. En route back, I attempted to capture the as-exciting (for me) flora. Here is a little montage of that. Both the diddle-dee and balsam bog groundcover were familiar from my time in Tierra del Fuego – although I'd never seen (or smelled) the waxy exudate from the balsam bog. In-bloom scurvy-plant, a relative of wood sorrel/oxalis, was an entirely new one for me.



Left to Right: West Falklands flora – gorst, diddle-dee, lichens, balsam bog (with waxy brown exudate), oxalis-relative scurvy plant

Around 2:30, we arrived at our second anchorage/activity for the day, Carcass Island, on a white sand beach that looked like Norway's arctic Lofoten Islands. Hikers (long or short options) were zodiac'd to the shore – I kid you not – escorted by 3 friendly dolphins. This beach was home to the only colony of Magellanic penguins we saw; they were not as tame as the Chilean/Magdalena Island ones Allison/Marshall/I visited in 2015. The long hikers (including me, with only about 25 others) went straight up this heath-y hill 400 feet (no trail), ridgewalked a little, and then descended to another settlement (2-3 miles, 400 feet). The Mt. Ararat hike this morning was definitely perceived as too hard by many people who either gave up or managed to huff their way up there. This significantly inflated the short hiker cohort (to about 60, with the rest staying on ship) walked low along the beach/coast (2-3 miles, 100-200 rolling feet) to the settlement. While we hiked, the ship moved from the uninhabited white sand beach area around the peninsula to this larger settlement – where we would be picked up. Later, there was short hiker feedback that even that trip was too hard – or that there were too many people so many couldn't hear commentary by the guides. While Carcass Island was not as dramatic as West Point – I liked the long-hike leaders better because they did a better job with the plants and rocks (plus we were a smaller group so we could interact more). We also got to move at our own pace down – and I enjoyed moving fast downhill and then quietly taking in the views on my own. At the settlement, there was afternoon tea, including a table full of cookies and pastries (like 20 dishes, each with about 3 dozen).

Of course, I had to sample 6 varieties and repeat 2. The most interesting new plant on this island was a variety of dusty miller and, although there were some caracara and oystercatchers about, I did not include pictures of these birds.



Left to Right: (top) zodiac landing with Magellanic penguins; long/pink) vs. short/blue hike; (bottom) hill/summit, dusty miller, teatime!

Back on the boat, we enjoyed our first recap with diving footage (LNG staff includes 2 divers who film and discuss undersea flora/fauna during the expedition) – in addition to the aforementioned hiking feedback, which came up because yesterday (before any hiking began) the leader had asked everyone to sign up for activities in Stanley (these require a LOT of extra logistics - like hiring local buses and tour-guides). And surprise surprise, OVER 60 people claimed they wanted to do the hardest hike option: a climb of Mt. Williams (for reference, only THREE signed up on LNG's last trip!). The leader rightfully talked that number down to one bus-full – but I think LNG continues to struggle with serving large groups with different hiking abilities – something that was also a challenge on the Norway/Svalbard trip. While there was a very strong hiking core of about 20 people, 10-15 dawdlers (including a few “patient zero” hackers) always signed on to long hikes. My impression is that they did so for a variety of reasons: ego/competition, the perception that they are strong hikers, the fact that this trip is expensive, and the long hiker groups are always the first to be let off the boat. While this problem was never solved, the increasing ship illness largely leveled the playing field and, like me, most people felt lucky doing what they were able to do in the face of being sick (plus – the hiking opportunities simply became rarer as we headed into the ice).



Left to Right: (top) setting out, British Air Force, peat bog, Argentine camp; (bottom) camp kitchen and view to Port Stanley, Mt. Tumbledown summit, hiking around the base of Mt. Williams

Breakfast conversation the next morning was focused on the fact that we had been enjoying this storm-free area between systems – but overnight, the storm on our tail increased speed and is now forecast to come over us starting tonight. Thus, the leader and captain began discussing sheltering at Stanley for 2 extra days until this thing passes. Alas, losing multiple DAYS to storms or ice navigation

problems are real possibilities on a trip like this, and have the potential to heavily impact quality time in South Georgia or the Antarctic Peninsula. Skies this morning looked OK but there were definitely more clouds and strong winds (25 mph sustained, with 40+ gusts). Perhaps not surprisingly, today was sort of wonky. As described, the leader did his best yesterday to reduce the long hike numbers – and the obvious weather breakdown/wind helped his cause even more. Come bus-loading time, there were only 30 of us, including 2 ship guides and 2 local guides (which had to accompany all walks in this area). After a ~30 minute drive on rough dirt roads to the trailhead (basically, some abandoned buildings near a farm), we dumped out – several people immediately peeing morning beverages out behind various concrete blocks in the grass. While it was windy and colder, it was MUCH easier than yesterday's hiking – which was a little disappointing. In the end, we never climbed Mt. Williams (we went up an easier side peak, Mt. Tumbledown) and we stopped every 15 minutes to talk about war or flora, including several interesting peat bogs with insectivorous sundew. Just before the final climb up to the memorial-bearing summit of Mt. Tumbledown, we stopped at this impressive Argentine war camp kitchen with a commanding view over the Port Stanley harbor – and adjacent Mt. Williams (mocking us a little). Thankfully, we did walk around its base, descending by an old peat-cutting area to a different pick-up trailhead (thus making a thru-walk). While the botany and war-sites were interesting, though, today was an easy casual walk, not a hike. Later, I asked our leader why the venue changed and all he said was that the local guides were concerned about the very high number of people and negotiated toning the trip down.



Left to Right: (top) dog lily, sundew, lichen, woolly ragwort, old peat cutting area under Mt. Williams; (bottom) Stanley church during busride back, working sheep farm, me cutting real peat - the only female who tried it, the family peat pile

Driving back to the ship for lunch, some of us were concerned that we were now over an hour late (having been assured we'd be back by 11:30) – meaning we would have little/no time to eat before the 1 p.m. bus trip to this working sheep farm, the activity option I – and about 30 others (most not on this hike) – had signed up for. We returned at 12:45 and, thankfully, they were able to delay the farm departure by 15 minutes. Given even higher winds, it was nice to visit the farm and have a lower key afternoon (during yesterday's recap adjustments, I changed from a beach walk, the other activity option, to the farm). We made an hour-long scenic drive out of Stanley to the sheep farm, driving – at times – VERY rough dirt roads. The geology of the Falklands is very interesting – particularly these “rock rivers” winding down from most summits that apparently fascinated Darwin. The farm we visited continues to use peat as its primary fuel source for home heating/cooking – and so the first thing we did was head to the bog for an introduction to and demonstration of peat-cutting. Peat is sort of like coal or oil in the sense that it is old decomposed plant material – specifically from bogs. Thankfully, the peat was not muddy today – although when you initially removed it, it was moist/oily. The farmers claimed that the first people to use peat for fuel were the Norwegians, cutting it with rectangular shovels (as do the Falklanders).



Left to Right: tea-time with the family and the peat-burning stove, rightfully scared sheep, rock-river stop

After the peat-cutting, it was time for more “teatime” with the local family and their peat-burning stove. We then headed over for a sheep-sheering demonstration, which may have offended a few animal-lovers who couldn't watch the impressively-tattooed shearer

(tattoos being a popular thing to get in Stanley, or so I was told) wrestle the sheep out of the bin... and then observe several bleeding nicks. Of course, this is when my batteries ran out (I'd left my case/spares in the back of the bus). During the drive back, we made a strange stop in one of the rock river areas for a break/geology talk. Although I enjoyed the drive/farm, there was a strange amount of complaining on the bus: some people felt uninformed about the time/distance (i.e. unaware it was a whole hour on rough roads), some people claimed the seats were uncomfortable, some people were all over the local guide/driver for the microphone and heating system (too quiet, too hot). And I was displeased because someone stole my back-back seat after the tour – even after I had laid several of my things out there. But like I said: WONKY DAY. Within an hour of our return, the final decision was made to leave Stanley at 10 p.m., 4 hours later than planned. That would allow for a comfortable dinner, and the opportunity for everyone to batten things down before setting sail. The storm now seemed to be cutting more northerly so the hope was that we would pass through it tonight (effectively “in” it for 12 hours – with 60 mph winds much of that time) and then hopefully be out of it (assuming no more changes). Being in the very British Falklands, tonight’s dinner was British food night: black pudding (i.e. blood sausage) appetizers, barley soup, salad, meat pie with mashed peas and potatoes, and bread pudding with butterscotch sauce. At the time, all I could think looking at all that food was: I am sure that will look delightful in the toilet at some point this evening. Although I considered going on the scop patch, the recently retired pharmacist I dined with felt there was no difference in the literature-reported efficacy between that and meclizine. During dinner, the ship crew closed all decks and all portholes on the lower decks (including all third-deck passenger cabins) to protect from large waves; in general, passengers on that floor had their portholes closed 7 days during our voyage – which some people found very claustrophobic. We are scheduled to arrive at South Georgia (our next land) in 2.5 days, assuming the winds don’t change direction and drive us back. We pulled up anchor at 10 and you could feel the big swells by 11. Shockingly, I did not get sick – BUT it was so interesting that I didn’t sleep much because I kept wanting to know what the next big wave would be like.



Left to Right: the only photograph I got of the sea (Beaufort 8, morning 1) taken through the breakfast area windows on deck 3, Snopopolomine, zodiac touring in “excellent weather” at Elshahul

December 3-5, 2017 – Land No... UNTIL North South Georgia – Elshahul and Salisbury Plain

Not seeing land for 2 days was not as scary as I thought it would be, even though we hit a 9 (out of 12) on the Beaufort scale, and our average was 8 (40 mph winds and 20-25 foot swells with breaking wavecrests) for the first 1.5 days. In contrast with the leader’s hopes that we’d be out of the storm after 12 hours (based on the forecast at the time), the swells felt bigger and more organized well into our second day at sea. There was a lot of rolling but it was regular; you definitely had to hold onto things most of the time. It felt like being in class II (sometimes III) whitewater all the time. Even though I came into this trip concerned about the big ocean days (both from an inactivity and a fear factor standpoint), I did find a certain level of satisfaction and thrill/awe with being out there in the big water (that is my whitewater river brain region talking). And I never felt too bored because I came prepared with things to do. Unfortunately, probably 20 people were cabin-bound with seasickness some or part of those days – with breakfast attendance cut in half most mornings. I know at least one couple that had to get a DR-injected seasickness med to “stop the vomiting cycle” (their description). Both members of said couple had, notably, had been wearing scop patches. Although I never felt seasick during this crossing, I did develop one of the most painful sore throats I’ve ever experienced; initially, I thought it was just the air and drug side effects – but then I started running a fever. But I am getting ahead of myself: That first day, I took a 2-hour nap after breakfast (because I hadn’t slept much the night before – and I was feeling under the weather), worked on journaling/pictures, had lunch, and took a slow treadmill walk – all the while watching the massive swells and the ever-present albatross. I wasn’t interested in any of the morning/early afternoon LNG presentations – all photography. After noticing I was now running a fever, I watched the late afternoon presentation on whaling history on my in-room TV – which I appreciated, but did find highly graphic and bloody (i.e. honest). Although I also watched the recap from my room, I didn’t feel I could avoid dinner (probably because I didn’t understand how easy it was to get room service) – even though I was feeling shitty. Overnight, things grew worse – a raspy, deeper cough with increasing chest congestion - to the point that I visited the ship DR first thing the next morning and we agreed that a Z-pack was in order given my pneumonia history and the fact that I was showing most symptoms of Strep throat. I then slept nearly all day and night (17 hours total), skipping nearly all activities (I could not avoid 2 short, mandatory things: a kayak safety/overview, and a biosecurity cleaning of all my outdoor gear in preparation for landing on South Georgia). At the end of the day, I did manage to sneak down to dinner, took the only empty table in the back, and ordered just the main course – which was brought immediately and I finished in 15 minutes flat... the crew and several passengers aware I was sick and self-quarantining). Over the next week, I met several others with fully symptomatic Strep throat who were given different antibiotics (e.g. amoxicillin) or took their own (e.g. Cipro) and promptly recovered after 24-48 hours rest. Unfortunately, I also knew that several others reporting horrible sore throats (but not necessarily full Strep throat symptoms) did not get treatment – the party line, as indicated, being that their infections must be viral. And so the plague began.

Despite everything, we had been making up time (having been cruising along at over 12 knots) – and arrived at South Georgia first thing in the morning on December 5th. When we finally saw land again, I was well-rested, more energetic, there was no fever, and my

throat felt dry – but not sore. Initially, I wasn't sure I'd head out for the morning zodiac tour of Elsahul inlet (near the northern tip of South Georgia) but I bundled up and was glad I did... if only for the fresh, less germier air! While our group leader proclaimed this to be excellent weather, most people I know would probably disagree. It was very foggy, the skies gray, 37°F, and raining. Thankfully, I went in the second zodiac group (zodiac tours take place via two 60-70 minute shifts) and it was a little clearer – but still challenging to work with the camera in the rain and wind. Our zodiac driver was my favorite of the assistant guides because he was always very talkative and excited about everything. We had anchored in a sheltered bay and basically did a circle around the bay, stopping at various beaches. Key mammals included elephant and fur seals (you could hear them barking from the ship). We will be the last trip this season that sees elephant seals because they will head out to see shortly. The babies/toddlers were very cute – and, thankfully, we came during the 2-4 week window when they were at their “best.” We also saw lots of birds, although I was not able to photograph all of them. The ones that I successfully photographed included: yellow-crested macaroni penguins (similar to rockhopper but yellow feathering points upwards more like an eyebrow), king penguins (similar to emperors except more gray than black), gentoo penguins (smaller, plainer, and more dirtier-looking), cormorants, and northern giant petrel (these have tubes on their beaks to improve salt removal/excretion). The more important one I didn't get a good shot of were the pipits (a small indigenous songbird that was almost rendered extinct by the introduction of rats on the island).



Left to Right: (top) Elsahul beach with seals and tussock grass, fur and elephants seals, elephant seal detail, fur seal detail, king (larger) and gentoo (smaller) penguins; (bottom) kings – note big gash on second one, march of the penguins, cormorants, ship

Although the highly anticipated king penguins were impressive, several were really torn up and bloodied – one of many examples of very honest nature that this trip offered up. My favorite birds at Elsahul, though, were the macaroni penguins – which were nesting HIGH on this hill above the water (the colony looked like this big Falkland-esque rock river from a distance), and then awkwardly stumbling down these rocky/muddy chutes to the water. A few days later, we visited our only other macaroni colony and I learned that one zodiac driver (more later) didn't take people here at Elsahul. After just over an hour, our zodiac returned to the ship where the hotel/restaurant crew was doing something they called Fruschoppen (i.e. outdoor grilled bratwurst and split pea soup with bloody Mary's and German beers) on the open deck. Disturbingly, they were playing Centerfold (as in the J. Guils Band) when I came up the stairs with all my gear... and a couple enthusiastic staff were attempting to coax dancing behavior. Needless to say, they did not get very far with most people – even with the always-extensive liquor. I dined on half a brat with the retired psychiatrist, who I hadn't seen much since Santiago. He said he'd been laid up with back-pain (possibly from pushing too hard on the first long hike, he confessed).



Left to Right: northern giant petrel with tube-beak, giant gray-colored macaroni colony in the hills – and near the shore, brats?

Our afternoon target, Salisbury Plain (home to 120K+ king penguins), was one of the three TOP destinations I wanted to see on South Georgia. Still listed as TBA on our daily schedule (which meant “conditions uncertain, we'll see what happens”), our leader was concerned about what were high winds (30 mph) that often complicate this open and tricky landing. By around 4, though, things settled

down we seemed to easily make what the guides said was a very calm landing at the long open sand beach. Of course, what I don't recall from my pre-trip information about Salisbury was the presence of HUNDREDS (maybe thousands) of highly aggressive fur seals! At the landing, the crew had to make a kayak-defined barrier corridor we could walk up just to keep the seals away. Even though the most aggressive seal action was along the water's edge, our sub-group of 30 walkers were charged multiple times during our mile-ish walk on the edges of the colony – well above the shore. While the colony didn't smell bad, the "ground" was definitely made of mostly feces – and there was this one super-muddy estuary creek/pool area we had to slog through (like BLACK, boot-sucking mud) and squishing into that mucky sediment did release some FOUL and RANK smells (definitely the worst on the trip). Although it was cloudy, the surrounding mountains/glaciers were not fully visible, and snow began to fall as we departed, Salisbury Plant was easily one of the top five sites on this entire trip. The time of year we visited featured adults and "oakum boys" (the brown year-old teenagers that look like they are wearing fur coats). The noise of the colony, which I did video-record, was very impressive: the adults make these weird lower pitch sounds like sped-up electronic elephant trumpeting (I swear Star Wars sampled them for something!) while the oakum boys make these adorably sweet whistles and twitters. Of course, nothing does this place or experience justice – so here are the pictures.



Left to Right: All Salisbury Plain – nothing but king penguins (adult, oakum, and one “awkward age” molter) and fur seals... and those strange orange-and-black (except for the mutant in her BLUE Grand Canyon specials!) animal groupings.

December 6-7, 2017 – The Shackleton Days... Good Fortuna Hiking to Stromness, Toasting the Boss

After our amazing visit to Salisbury Plain, we made our way to and eventually anchored in Fortuna Bay, the second-to-last bay Shackleton, Worsley, and Crean saw before making the final steep descent to the Stromness whaling station. When we arrived, another tourist expedition ship was already there, meaning they got first dibs on sending their people out on the “Shackleton Hike” in the morning (hence, we would do ours in the afternoon). Given that we were anchored, I decided not take any motion sickness drugs but there was enough rocking to give me mild (but annoying) dock-rock (no puking) the next day. That said, today was the single best and most coherent/well-executed day of the whole trip – the sunny, blue skies utterly magnificent. While it might have been nice to hike first thing (with those beautiful skies and all) and get even better views of HUGE mountains & glaciers, everyone truly enjoyed doing our leisurely visit to a slightly smaller king penguin colony while the other group headed up... and the views of the mountains and glaciers were pretty damn fine from the ship and the penguin colony area. Our morning visit to the Fortuna penguin colony was, in general (or believe it or not), a richer experience than Salisbury for several reasons: hardly any aggressive seals, you could spend your time the way you wanted (i.e. it was a free-form experience that didn't require guides), I (for one) wasn't as obsessed with taking pictures (and so I could just watch things for a long time), and the backdrop of meadows, rivers, and mountains was mind-blowing with the penguins waddling about. Although one of my friends/colleagues thought the penguins looked unnatural here (i.e. where's the ice and snow?), I thought the penguin color scheme perfectly complemented what seemed like classic Cascade mountain scenery. In terms of my choices for the day: Well, first of all, I completely overdressed – having selected the same clothing as I used in Elsahul. After landing, I promptly lost half my clothes (stuffing accessories into my Sea to Summit bag, and tying jackets around my waist). I then took a slow

stroll around the rocky moraine – mostly trying to take pictures of this AMAZING mountain at the head of the HUGE glacier (no idea what that was). I then followed this GORGEOUS creek up, literally walking with groups of marching penguins all the way. At some point, I saw that a lot of people had climbed this little knoll that looked over the main colony – and headed up there, enjoying watching the penguins for about an hour. Once again - nothing does this place or experience justice – so here are the pictures.



Left to Right: the other ship, our zodiac reconnaissance team, penguins and amazing mountain, penguin creek, one of many penguin groups I strolled with, knoll view over colony, curious awkward penguin visits the crowd, heading back.

After a quick lunch (and repositioning the boat across the harbor nearer to that trailhead), Snoopy and I enjoyed a sunny powernap before FIFTY (that was the official count announced at dinner – NOT their record) Shackleton Hikers headed up into the tussock grass. The Shackleton Hike (traversing between Fortuna and Stromness – the only official trail we hiked) was the hardest hike on this trip; although it's only 4 miles and 1000 feet up/down, 900 of those feet are lost in a 0.5-0.75 mile stretch of very loose rock (trickier in rubber boots). For this hike, I packed my drypack and elected to wear/bring less and lighter clothing (e.g. I used my regular hiking jacket – not the full LNG parka). Unfortunately, the blue skies almost immediately vanished and it grew cold and windy – most big mountain views gone... and I did feel on the edge of being cold for probably half of this hike. Everyone made it at their own pace (having been sick, I was in the back). Our first task was to climb up a very steep section of tussock grass. After that, the grade became a little easier – but there was still more climbing, ascending and/or crossing several rocky plateaus. After an hour, we arrived at Crean Lake, which was much bigger than I was expecting. The scenery reminded me of being in the basin on the north side of Forester Pass.



Left to Right: (top) powernap, perfect lunch skies, zodiac to trailhead, up tussock; (bottom) tussock view, plateau climbing, Crean Lake

After a short climb to the actual pass (including a short jaunt across a snowfield), we admired the incredible view down to Stromness (the ship waiting for us in the harbor, having moved there while we hiked) – taking in the historic value of being at this place and trying

to imagine what the Shackleton party felt like. The steep section then promptly took over all attention. As usual, the steep descent was like being in Switzerland on Hohturli Pass for me – INCHING painfully down the ball-bearing rock-on-dirt; thankfully, most others moved as snail-like as me. Once things mostly leveled off, we regrouped at a gentoo colony... but then one of the hike leaders sort of allowed a free-for-all descent (which, in retrospect, I'm not sure was supposed to happen). Heading down sort of on my own (but near 4 others), we effectively made a B-line for the ship, descending trail-less through muddy hillside/grassfields to the flat rocky riverbed... and walking this fully to the whaling station. Others, staying with the other hike leader, followed the trail, visiting Shackleton's waterfall and then winding a longer route down to the rocky riverbed. At some point in the rocky riverbed area, I began meeting easy dayhikers from the ship coming up – their goal being just a walk to the waterfall and back. During the final half-mile near the sea, it was another aggressive seal gauntlet; by this point, though, I was less scared of them... and I had my hiking sticks so I could make myself seem larger. Appropriately, it began to spit cold rain as I zodiac'd back to the ship. Believe it or not, I would rank that hike among the top 10 I have done – for the remoteness, the scenery (even with the weather breakdown), and the historical power of that place.



Left to Right: (top) final walk to the pass, the hard part, gentoo with chick; (bottom), we came down THAT, riverbed and whaling station

Overnight, we anchored in Cumberland Harbor, which lies just beyond Grytviken – tomorrow's destination. It was clear at 6 a.m. but by the time we arrived in Grytviken (around 8), the weather – as forecast - pretty much started going to hell. Most ships are only allotted half a day at Grytviken – but whatever ship was behind us got caught in a big storm... so we took their spot and spent the whole day here. Following an on-ship presentation by South Georgia Heritage Trust leadership (who curate the museum and run environmental projects – like rat-removal/habitat restoration), we headed to shore for the mandatory whiskey toast at Shackleton's grave. Of course, as we disembarked, Grytviken officials performed a random sample boot-check – and my X-tra Tuff's and I failed miserably (they actually took photos of all the poopy mud in my narrow boot grooves to show to future expedition cruises, illustrating BAD behavior!). It seemed that people who'd rented Boggs had larger, more cleanable tread across the board – hence my packing recommendation. After the shaming, I was greeted by the bar/hotel staff at the cemetery fence, the LNG flag raised as they handed out shots. The cemetery is small, with most graves belonging to young Norwegian whalers/sailors (even Shackleton was only 47). Although I mostly knew what to expect, I did not know Frank Wild (who provided leadership on Elephant Island while Shackleton sailed to and then climbed over South Georgia to Stromness) had also been interred there. Unfortunately, our 35-year veteran guide/toastmaster had – like MANY people – caught the infectious plague, so his voice was poor, his toast short.



Left to Right: Grytviken harbor, the whiskey bar, waiting for all to arrive, the toast

Given that it began blowing light snow when the toasting was complete, I proceeded first and promptly through a very aggressive fur seal gauntlet (I was charged – but made myself big and clapped until they moved) because I wanted to be indoors – specifically in the museum (about 10 minutes away on foot) - before the throng arrived (thankfully, half the group stayed back for a slower guided tour of the whaling buildings). The museum was fine, but I was hoping for more Shackleton and less whaling. Had the weather been nicer, it

would have been interesting to spend more time doing a bunch of artsy-fartsy photography in the whaling buildings – but I felt I owed it to my health to take a break today. Before returning to the ship, I did wander briefly up to the church (a portable structure made in Norway) and over to the post-office to buy several unique South Georgia collections – the hottest thing to buy, IMO. I returned to the ship at 1 for lunch and decided, like I said, that it was time for a break in the action (as Roger likes to say). Over the last few days, I've avoided crowds as much as possible because of the palpable increase in respiratory illness. This morning's presentation was the first time I'd been in the lounge for a group meeting in days and, I kid you not, it sounded like a tuberculosis ward up there. Afternoon activity options I skipped included walking a shoreline trail to near the research station, or following a roadbed trail up towards Maiviken; given the weather decline, though, most options were shortened. Some passengers self-organized a short geo-cache walking trip, although there seemed to be some question about whether that was kosher (i.e. it was unclear whether previous geo-cachers had left physical objects at target sites, which would not have been allowed). We left Grytviken in very stormy conditions and sailed about 90 minutes in 60 mph winds and HUGE rolling seas (some waves flying over the bow – which you could watch on the "bow cam channel" even if the decks were closed!) down to a Godthul Harbor for protected anchorage overnight.



Left to Right: (top) the seal gauntlet along the harbor to the museum; (bottom) whaling buildings, church and fascinating memorial

December 8-9, 2017 – Wonky Days in South South Georgia

Although our leader thought the storm would abate by 10 the next morning so we could visit another gigantic penguin colony at Royal Bay, things were blizzard-like when we arrived. After a 90-minute delay (during which time I enjoyed a great presentation on seals), a few zodiac-fulls of people (not me) braved terrible conditions so they could photograph king penguins on the shore in the snow. I have NO pictures from this period. During lunch, we began a 3-hour sail (still in 40-60 mph winds with big rolling seas) down to Larsen Bay, a side-area of Drygalski Fjord - with towering Patagonia-like peaks and glaciers spilling into the ocean. During the sail, we traveled a fair bit away the coast and, around 2, I noticed a lot of blue skies out my window – so I went up to the observation room/library (skipping a presentation about whales – which was a last-minute substitution for a presentation about birds... made because a different guide was now sick). Sitting in the quiet observation area, I sipped several mugs of tea and thoroughly enjoyed an hour of SPECTACULAR views... the best so-far showing a more encompassing view of the island. At 4:30 (perhaps because the weather was better), we made an unplanned zodiac tour up this tiny finger of water between Larsen and Drygalski. With all the fresh snow, the views were amazing – and we saw our first Weddell seals. But it was VERY cold, and thankfully I dressed appropriately.



Left to Right: blue skies during long sail, finger tour with Weddell seal... more pictures of Drygalski later since we returned here again

The next morning, our leader was extremely insistent the conditions would be very favorable for sunrise (3:15 a.m.) images of king penguins at Gold Harbour (which required a backtrack north). Although I truly tried hard to accomplish this, I didn't feel I slept well (more on that front shortly), and I did not find the skies cloud-free when I looked out the window pre-dawn. My breakfast table partners (one of 80 who made it out – that was the recap estimate at least) said the light wasn't as great as they thought it would be (because

the forecast wasn't as favorable), the penguins weren't as numerous or impressively situated as at Salisbury – BUT the baby/toddler elephant seals were crawling into peoples' laps on the shore... and so that was the big hit of the morning. As we began sailing, 3 humpback whales appeared and so we spent an hour going nuts with those.



Left to Right: (top) Gold Harbor - humpbacks; (bottom) Cooper Bay – zodiacs, fur seal with chinstrap, elephant seals, ship with big Drygalski peaks in background

Although our leader promised us a 3-hour nap window between 9-12 (to allow early-risers to catch some Z's), he changed the schedule after breakfast: adding a zodiac tour in swell-filled Cooper Bay. Today's zodiac driver was the guide who I heard from other passengers had skipped the Elsahulmacaroni penguin colony; I felt he had trouble maneuvering, didn't seem aware of the sites we should visit, and wasn't as informative. I considered not including that observation but then I had the same experience with this driver later in the trip. We did see our first chinstrap penguin, more macaroni's, cormorants, fur and elephant seals. Given what looked like a weather breakdown (and nothing on the afternoon docket), I enjoyed lunch and then headed for the treadmill – only to learn (via intercom announcement) that the leader decided we were now going BACK to Drygalski Fjord. There, we would split the group in half: the first (not me) kayaked yesterday's side-finger (same as from the zodiac) while the second (me) cruised up Drygalski proper, viewing towering peaks and glaciers all the way. Then we'd switch. I was impressed with the cruise – to the point that when it started spitting rain, I ALMOST didn't kayak. But I reasoned we'd be sailing for the 2 days (minimum) so I better get out. Thanks to a bunch of people bailing, it was just me in a double kayak. I did fine, even if I didn't make it very far - loving my solitude and the quiet, fresh air!



Left to Right: (top) heading up Drygalski ; (bottom) heading down Drygalski, kayaking the little side-finger

We began sailing south in good conditions around 9, the first goal: Coronation Island in the South Orkney's ASAP because a big storm brewing again. The faster the ship moves, the more rocking/rolling – regardless of the waves/swell situation. Even so, I haven't taken

meclizine the last few days – and I’ve decided to try to see if I can go without for the next section. That’s because my sleep has been so negatively impacted by the intense dry-mouth (i.e. it’s hard to breathe through my nose because my throat is so raw/itchy – and if I mouth-breathe I snore and wake myself up). I upped my hydration 3-fold but makes no difference (i.e. I pee about as much as I do in my normal life); I’ve started hanging wet towels all over (which I’m sure upsets my room steward). Given at least 2 days at sea, things should be interesting (or not).

December 10-12, 2017 – A Longer Crossing of the Scotia Sea, Coronation Island (No Elephant... Sad Face)

The planned itinerary for the Scotia Sea crossing is 2 days to make the Antarctica Peninsula from South Georgia, with many peoples’ hope to land at Elephant Island – where Shackleton first touched rock after over a year trapped in the Weddell Sea. Given storms, we took 3 days and never made it to Elephant, subbing in a morning landing at Coronation Island (the largest of the South Orkney’s, and home to a cute colony of chinstrap penguins) on the second day. Our leader remarked in his 20+ trips here, they have put clients on Elephant only once – and, even then, it was only 1 zodiac-full (i.e. about 10) – because of intense weather issues and beach erosion. Some people on this trip seemed uninterested in Coronation because they just want to get to Antarctica (indeed, I have been on the fence as well) - but our landing RIGHT under this huge glacier was spectacular. There were so many icebergs that the ship had to anchor way out - meaning the zodiac ride in was longer than most (almost 10 minutes) and through a lot of ice. I was on the first zodiac out, which was ironically captained by one of the ship bridge crew (because another of our guides is now down with the plague). Today was about 40°F but with the winds and spray I felt like I wanted another layer for the first time. To the surprise of the guides, there were no seals on the pebbly/sandy shore (there were a couple on icebergs in the harbor). At the landing, we spent 90 minutes on our own sitting with the penguins in different places. Most were up in the rocks sitting on tiny pebble nests (I tried to photograph a mate gathering rocks for one such nest). Although not as cute as the yellow-crested penguins, the chinstraps had a lot of personality, cute pink feet, and they were funny to watch walk around. That said, there was a bloody penguin fight in the rocks; the ousted penguin was pinned down, pecked, and then flung down a mud/guano chute. Along the beach, penguins came flying out of the surf like a magic trick - most popping up to their feet after hitting the land (try as I might I could not get a video of this). As I returned to the lounge, I was very sad to find our oldest female passenger (the first one I met in Santiago – age 84) came down with the plague and skipped the landing.



Left to Right: (top) Coronation glacier, harbor, chinstrap penguins; (bottom) crabeater seals and impressive icebergs, pesky pack ice

Following Coronation, we were hit with the aforementioned storm for the remainder of the sail to Antarctica (winds 40-60 mph sustained). The seas grew as rough (and often rougher) as they were during the crossing between the Falklands and South Georgia. Making matters worse, we hit several long bands of dangerous sea ice (i.e. mixtures of seasonal ice and hard glacial ice/iceberg bits) on the intended route in the middle of the night after Coronation, and so the captain slowed down to look for a route through it – before eventually deciding to go more north and cutting around/above it. Normally, we average about 250 miles a day; after Coronation, we made only 200. Unfortunately, the rough seas again interfered with my sleep (i.e. reducing to 4-5 broken hours, requiring more naps to try and stay healthy). After my first full open ocean day without meclizine seemed to be going well, I became motion sick (dry-heaving multiple times, but not fully barfing) right before dinner – to the point that I finally took a meal fully in my room. After that, I had to go back on the drug – this time successfully using 1 tablet per day (not 2). But, alas, there were much plague-ier problems brewing. Like well over half the ship, I succumbed to a mucus-y cough centered on my throat and upper trachea. Comparatively speaking, though, I considered myself lucky because I didn’t – at the time - have fever, body-aches, bed-confining exhaustion, serious bronchitis (heading into pneumonia)... what I have casually referred to as “the plague.” Last night at dinner, 3/5 people at my table had to physically excuse themselves at some point because they had these HUGE, gnarly coughing fits (pretty much you have to leave to hack violently and then spit garbage out, preferably in the restroom sink). At pretty much every breakfast and dinner, I shared a table with someone new who had a spouse or partner that was laid up in bed with the plague (most for multiple days). Those were not the only health issues that were occurring: one night, a large older man slumped over/passed out during dinner and we feared a heart attack or stroke (he was back up and about within an hour, no word on the cause; speculation was focused on serious dehydration – or possibly a drug

interaction between his patch and heavy alcohol consumption). We've also had at least one pink-eye case (that person, notably, showed up at my breakfast table unaware that what they had was highly contagious... are you shitting me?). Most passenger conversations I have had are HIGHLY focused on the contagion level on our trip. One highly social woman I communicated with daily told me that all the passengers in her conversation circle have been approaching the DR raising concerns that we are having a norovirus outbreak and asking what more can be done to improve hygiene. This woman, who was very informed though not a health professional, quickly added: you know - they don't understand norovirus is diarrhea... they just associate it with cruises and assume this must be what's happening. We knew that the problem is all the airborne microbes, all the close contact hacking.



Left to Right: kitchen/galley tour – EXCELLENT head chef with dishwashing area, produce room, AMAZING pastry chef, general prep kitchen, sailing along B9 (Is anyone else thinking TITANIC? Where's that Leonardo DiCaprio?)

Despite the heightening level of illness and cabin fever, there were a few good on-ship activities that I enjoyed over our 3 days at sea: (1) The ship's captain gave a really great talk about ice, navigating ice, and ship's ice features/protocol (e.g. they use big flood- headlights to do spotting at night – all manually); that presentation left no question as to why we were going slowly and being very conservative with the sea ice. (2) Several assistant guides gave interesting talks that previewed what would be our short time in Antarctica; (3) The kitchen/galley opened their doors for several 30-minute tours, allowing groups of 20 to visit the amazing industrial dishwashers (each batch took a mere 3 minutes!), meet the genius pastry chef (his day began every morning at 3 a.m.), and view the storage areas (which miraculously maintained produce, including delicate lettuce, fresh for 21 days); we were told that LNG budgeted approximately \$35 per person per day in food (not including drinks/liquor), which means that the total food cost per person is less than \$1K – NOT including EXCELLENT preparation/menus/service (which probably represents another \$2-3K); and (4) partly as a temporary shield against the wind, we intentionally sailed alongside a GIANT tabular iceberg called B9 (126 square miles, 18 miles long – I included a map image of its position from our TV-navigator channel) that has been floating around since 1987 when it broke off the Ross Ice Shelf (way around the continent near McMurdo); we stopped about an hour at a scenic spot along it – moving the ship to within 400 meters of the front, and then sailed along it for 90 minutes. Even so, as recorded in my journals/daily family/friend reports at the time: "I am finally getting a little tired of being on ship and my current impressions of the Antarctica leg of this journey are not as enthusiastic as for South Georgia - Sorry Karen" (my most-experienced Antarctica veteran friend).



Left to Right: (top) Antarctic Sound – Chilean Base, Brown Bluffs landing area, continent-landing Champaign, adelie's on ice; (bottom) adelie's marching, me and the nesting area, adelie with egg and visible brood pouch

December 13-15, 2017 – A Nice But Highly Abbreviated Time Along the Antarctic Peninsula

After mounting cabin fever felt by all passengers I talked with, we awoke to calm seas, blue skies, and our first view of Antarctica proper. The joy felt was palpable (and the Alabama election results provided a cherry on the sundae!). We sailed the Antarctic South to the northernmost area that opens to the Weddell Sea, landing at an area called Brown Bluffs between 9-11:30: a pebbly beach

under a soaring lava-like face with the only Adelie penguins we saw on this trip (also the only penguins John ever saw during his research time at McMurdo back in grad school), as well as some gentoos (I don't know why – but I never came to like gentoos much... they seemed like the most stinky and dirty-looking of the different penguins we saw on this trip). I was surprised how emotional some people were stepping onto the continent. I can't say, after 3 days at sea and watching the plague unfolding, that I felt like crying or kissing anyone. Other than LNG setting up the Champaign bar for the occasion, the activities/activity level was the same as at Coronation: walking along a short rocky beach looking at the usual array of penguin areas: nesting with eggs in the rocks, clusters of interactive birds on an ice-block area – some jumping into the sea, birds surfing onto the shore and waddling around the beach.



Left to Right: through the broken pack ice, parking/walking on the intact pack ice, kayaking (note other tourist ship in background)

After sailing back west (which took well through and after lunchtime), we spent late-afternoon in the pack ice of Antarctic Sound – first sailing through lots of broken ice areas, and then parking in it (i.e. the captain ramming the ship in bow-first). LNG offered 2 off-ship activities that afternoon, which they did in 2 hour-long shifts (as in Drygalski) – allowing us to rotate through both if we wanted: kayaking along the ice (which I did with one of the ship's youngest passengers – our only novelty being this HUGE glacier calving event in the distance), and snowshoeing a short distance (like – MAYBE a quarter total of a mile) on the ice. I'm not sure either fundamentally enhanced the view from the ship but it was good to get off the boat and into the cleansing rays of the sun for a couple hours. I will say that the ice conditions seemed very poor (which did not bode well in terms of hopes to cross-country ski on pack ice somewhere a little more south tomorrow); we had to wear life-jackets when on it and every 20 steps, you sunk down up to a foot (which, frankly, was unnerving). The whole time, another tourist ship was parked visibly next to us (maybe half a mile away). Right before dinner, 5 passengers and 5 staff did the polar plunge (I was not one of them – although I thought I would be). Our leader remarked that it was the lowest client turnout he's ever seen... the most popular response: "That's because we're all sick!" The water temperature was reported to be slightly below freezing.



Left to Right: hardy souls take the polar plunge, a little blue sky in Charlotte Bay, the most interesting iceberg on the zodiac tour

After yesterday's amazing weather, positive energy, and palpable excitement, today felt like a letdown – and not just because it was gray skies with largely distant scenery (when, that is, we were in the wide Gerlache Strait). Mostly, it was because people expected to be doing more off-ship on the continent (!) - the original goal to land at Charlotte Bay for cross-country skiing around 11. When we stopped at 9 for nearly 2 hours to watch 3 humpbacks feeding near the ship, I pretty much knew the day was going to be another TMS (Too Much Sailing, Too Much Sitting – a trip acronym I introduced in email reports to family/friends). As mentioned, most of the day was spent sailing the LONG Gerlache Strait – at the end of which were all the BIG Antarctic sites people come here to see: Lemaire Channel, Port Lockroy, Paradise Bay, and – if you were really lucky - Palmer Station (where Karen worked!). So who is this Gerlache and why was such a long strait named for him? Well – we learned that during the morning presentation when my favorite assistant guide gave a really interesting talk about Gerlache's Belgian expedition, the first scientific/discovery-based trip to Antarctica in 1897-99. Among Gerlache's crew was young Amundson - who clearly took away lots of useful ideas. Most of them lived and made it back to Punta Arenas, despite spending the first winter in this area in history. Other than luck, a key to their success was to eat less pre-packed food and more "Antarctic beefsteak" (i.e. killing and eating seals and penguins, not considered savory at the time) to prevent nutritional diseases. After lunch, we arrived in Charlotte Bay and it was more than obvious there was no pack ice - so skiing was canceled (NOT a surprise given what we saw yesterday!). Given that the winds were ripping off the all-around glaciers at 60 mph sustained, we were first told we were giving up on this area and heading to one of the western islands - but, after 30 minutes sailing away from the fronts of the glaciers, the leader decided it was pleasant enough to lead a 75 min zodiac tour. Alas, I wound up on the aimless zodiac and, once again, we were the ones who circled a few icebergs but, as usual, didn't find the coolest stuff (ALL other zodiacs managed to spot, coordinate with one another, and then follow multiple whales, like, RIGHT THERE). And of course pretty much everyone was totally soaked because we seemed to hit every wave on the way back. The only saving grace to the day was that

the post-dinner evening was shockingly calm and beautiful – to the point I was out on the observation deck an hour past my usual bedtime (typically 9 p.m.), enjoying the fascinating light on the ice-covered continent.



Left to Right: (top) a rare smile on the “another TMS” day, the continent – so close and yet so far; Cuverville climb; (bottom) more Cuverville, father-daughter pair I adored (he was the oldest trip member – 85 – and NEVER got sick), whale iceberg, stinky gentoo itching itself (no surprise)

The next morning, we awoke to gray skies at Cuverville Island, half a mile from the continent. Initially, Cuverville seemed like an odd choice because the snowclimbing route seemed steep and very slick; later, I learned that another tourist ship was anchored behind Cuverville at the less difficult Danco Island (possibly our target), in a stunning harbor surrounded by massive glaciers pouring off the continent. Regardless, I did the snowclimb (about 300 feet up) to this intermediate plateau (some people hoped to climb to the full summit for what looked like a KILLER view... but going higher was deemed too icy and dangerous). In contrast with a few hikers (who found the narrow boot-track scary and slipped/fell), I had an easy time going up. My faux pas was trying to stab my hiking pole into the hard snow and having it resist, fly out of my hand, and rocket towards several nesting gentoos 100 feet away. I was MORTIFIED... but less so when 3 other people did the same thing shortly after me. The view over the iceberg-filled harbor was worth the effort. Given that I knew I'd be slow, I headed down by myself before most others – my plan to quietly glissade most of the big hill. It is unclear whether this was supposed to be broadly allowed - but the one of the hiking guides (notably the same one who let several of us B-line/off-trail the end of the Shackleton hike) told me I could when I was up top. In the end, I was one of 4 who glissaded the slope, ruddering with the stick. At the bottom, I walked around the shoreline gentoo rookery - but, alas, this was one of the stinkiest colonies... and they, and the snow, were SO dirty! After the climb, we did a short zodiac tour around the harbor; it was then that we saw the other tourist ship. I was also disappointed because our zodiac driver (my favorite, from Elsahel) said we could do a whole hour with him – circumnavigating Cuverville entirely... but then, for reasons that quickly became evident, the leader radioed a definitive no on that idea.

Unfortunately, when we returned to the ship at noon, our leader asked everyone to convene in the lounge for an emergency meeting where it was revealed that one of the passengers had developed sepsis and needed to be med-evac'd; this diagnosis was made in collaboration with the ship doctor on LNG's other ship (the Explorer), with which we'd rendezvous'd at Cuverville for some kind of gear/equipment exchange. The patient was currently on an IV drip but his urine output was nil (indicating possible kidney failure in progress). Hearing this diagnosis, those of us with microbiology training were immediately concerned that this sounded JUST like an untreated *Streptococcus* infection (as Strep can progress to pneumonia and then cross into the blood, causing sepsis – where it/the immune response can clog up the kidneys). In any event, this development would affect the rest of our itinerary – as stated clearly by the leader. So, instead of spending another 2 days moving 30-50 miles south towards Port Lockroy, Palmer Station, Paradise Bay, and the Lemaire Channel, we immediately turned north and sailed all day – the crew trying to coordinate with a med-evac plane that would land at the Chilean Base on King George Island in the South Shetlands (the same airport many travel companies are now using to “fly” people to Antarctica – i.e. they fly from Punta Arenas to South Shetland, skipping the Drake Passage, and then board a peninsula-only ship). As we proceeded north, one of the assistant guides played up the idea of doing an alternative landing in the caldera harbor of Deception Island tomorrow; indeed, I fully got my hopes up about the prospect that we might land there and do a long volcanic rim hike tomorrow. Around 6 that night, however, the leader finally received word that the med-evac plane could not come until tomorrow... and, probably feeling a little desperate, he scheduled a late (9-11), after-dinner look-see penguin landing along the outer flanks of Deception Island. I did not participate in this high surf, steep beach landing for all sorts of reasons: too late, too much effort for another short penguin trip, and – honestly – I was upset that this meant we wouldn't do the “real” volcanic climb.

December 16-17, 2017 – Somber South Shetlands, the Drake Does Not Disappoint, More TMS

Overnight, we sailed a few more hours to the Chilean Base/landing strip on King George Island and, around 7 a.m., many of us (including me) watched the med-evac plane land – and the patient being zodiac'd to shore. It was a magnificently blue-sky, sunny, and

warm day. A few hours later, we made our last landing of the trip – on nearby Barrientos Island; for me (and many others), it was somber and bittersweet. Barrientos was a nondescript South Shetland island with the usual stuff: penguins (chinstraps and SUPER-stinky/dirty gentoos) and a single Weddell seal. Our zodiac group found it sad how cynically unimpressed we had become about “more penguins.” We began sailing the Drake Passage around 4 – half a day early because it was forecast that a massive storm would hit the Drake Tuesday (the 19th), and Ushuaia port authorities said that they had too many calls from ships wanting to safe-harbor there. If we wanted a place, we had to arrive Monday (the 18th) by 2 (again – half a day earlier). After a special 8-course gourmet meal, we were subjected to crew entertainment night. For some reason, I thought this was going to be a more traditional Filipino dance and song review; in fact, it was a mix of that – plus, for example, the entire galley crew doing the Village People/YMCA. In between the 8-ish acts, the hotel manager (who is HILARIOUS) told funny jokes that made me bust up.

During this time, I would be remiss if I didn't mention several notable statements made on several fronts: (1) It was claimed that our med-evac plane was the first aircraft down in 10 days because of so much snow/ice on the runway; when we arrived, there were 4 waiting cruise ships full of people allegedly trapped the last week because their “fly” package planes couldn't land. If that's true, that would be something to think about if you think “fly” packages are easy alternatives to touring Antarctica. (2) It was also claimed that other ships (including the Explorer) could not access sites like Lemaire, Lockroy etc. because of ice problems the day we were to be there; some passengers questioned this claim, believing LNG was just trying to assuage feelings about skipping these hallmark sites. My post-trip review of several daily expedition report websites didn't support that ice or weather was a problem for ships during that time. (3) Most troubling to me as a microbiologist, it was recap-announced that the med-evac patient did not have sepsis but, rather, severe/acute pneumonia and tested positive for a highly virulent coronavirus (ultimately, we later heard, requiring multiple weeks in ICU, large-volume lung-draining, and kidney support). Said coronavirus, the Punta Arenas hospital suggested, had been popping up in several Ushuaia-origin cases for a few weeks. For those of us with microbiology training, all our minds immediately went to SARS/MERS (which the case matched), the most notorious and dangerous members of the coronavirus family. However, efforts to confirm or deny that SARS/MERS (or a potentially new SARS/MERS-like variant) was the culprit were never addressed. CDC did respond to an inquiry on this matter but they generally consider ship infections to be par for the course if you take ANY kind of cruise; you can read their official statement and recommendations on these matters by searching CDC Travelers' Health webpages – specifically: Antarctica, and the sub-link for cruise ships.

Initially (overnight, maybe 30% of the crossing), the Drake was kind – with 10-foot swells, decent rocking and rolling. The next day, the Drake lived up to its reputation in a very exciting (but not completely scary) way: 20-30 foot waves with whitecaps, a third splashing over/across the bow as they hit the ship. When we would ride up on an especially large wave, there would be a HUGE THUD as the ship slammed into the trough beyond the crest. This has definitely been larger than anything we've experienced before and the wave situation supposedly grew to 35-40 foot waves after I went to bed (but pretty much stopped around 1 a.m., when we finally made it to the protection of the Cape Horn island complex (and onto the continental shelf). During the whole ride, they have closed all the decks and, for the 7th day on the trip, put covers over all the lowest/3rd floor portholes (something that many passengers on that floor find frustrating). Given all the motion, it was a slow day with few activities; we went over departure logistics (NOT PRETTY), turned in borrowed gear, heard a couple talks, and saw a preview of the trip video we can buy (for \$50 extra!). I got in a light workout, which was negated because the lunch special was build your own BLT's. I also did a final big picture organization and backup. Roger and Ellen were surprised to hear I only took about 2200 photos on this trip - but that does speak to the high number of sea/TMS days.



Left to Right: dark lava Deception Island, med-evac zodiacs at King George, Barrientos, in-room map locator of Drake crossing

December 18-20 and Beyond, 2017 – More TMS, a LONG Return, a LONG Recovery

Our final day on ship was extraordinarily tedious because of ship traffic problems, having arrived “near” Ushuaia around 11 (near = 30 minutes away, down the Beagle Channel). Basically, we were forced to anchor in this position from 11-6... and then, after being told we could dock at 6, that was delayed another hour because Ushuaia port authorities ran out of “pilots” (officials who must accompany the captain during the final section). The idea that we could sail to any number of nearby sites in Tierra del Fuego (which I knew all about, having done 2 short cruises here with Mare Australis in 2008 and 2015) did not seem to be something LNG could/would do, despite having made on-the-fly activity changes on several other days. Similarly, there seemed to be no option for, say, spending the day IN Ushuaia by anchoring closer and zodiac-ing people to shore. And so it was another TMS day with little on the docket (by this point, most scheduled activities consisted of watching videos). The next morning, we FINALLY disembarked from ship at 9; I was thrilled to be heading home. It should be noted that our original itinerary had us flying to Santiago at noon, meaning STRAIGHT to the airport... no time in Ushuaia. However, thanks to a massive Argentinian airline strike, our charter could arrive later – giving us some leisure time. LNG did organize a decent morning in Ushuaia, providing bus service to the prison museum, about an hour of free time for shopping, and snacks at a downtown hotel (all of which I have done before, and did again that morning). Although our strike-induced charter

delay made the morning/afternoon nice and relaxed, it completely fucked up making it through customs, getting luggage, getting back on outbound flights, and going through THREE additional lines after that (we landed at 6:30). Even with a 3-4 hour window (mine was 4, most others were 3), I was still running for my plane. Santiago was a nightmare – which is sad because it didn't use to be that way.

Dallas, fogged in, to Portland wasn't much better, taking off 45 minutes late. Our pilot seemed to gain some of that back but then something unexplained happened 10 minutes before landing and he pulled out of the fog over the Columbia and did some big loop to try again. There were screaming babies, a woman with a full-sized dog that was allowed to sit at her feet crowding my bulkhead row (when did that become legal?). I took a hilarious but scary looking spill at PDX on the escalator with all my bags. And my ship plague cough was frightening enough to a fellow airport shuttle rider that she offered me Ricola cough drops. So - there you go. I think the only harder travel itinerary I have ever done was Nepal (about 40 hours total – notably with food poisoning). NOT recommended. Following this trip, I was laid up with a flu-like illness until December 28 (yes – I missed Christmas with the family because I was contagious, and we felt it was inappropriate to expose them to the ship germs). Concerned about pneumonia, I did drag myself to my clinic where they assumed I HAD to have influenza – but I tested negative; we discussed the ship coronavirus situation but they had no way to test for that. I also learned I had pink-eye (surprise, surprise). In the aftermath of the trip, group emails were a mix of glory days reminiscing and illness recounts, with several people laid up like me (or worse) after the trip.

So – what do I have to say after all that: Was it my favorite trip ever? No, and not even of the year (Japan with Ellen earned that top honor). I would give it a 7-8/10. I would not recommend this trip to someone who hasn't spent at least a week on a ship/cruise – not only because of motion sickness issues, but also to understand whether they like and/or how to manage the MANY inactive sailing days. I would not recommend this trip to someone who catches a lot of colds, flu, Strep, or respiratory infections in general. Fully understand the risks and rewards of taking a trip like this, and be prepared to deal with the same things we dealt with. If you cannot manage those possibilities - and a high level of uncertainty, in general - this trip is not for you. Make certain sure you buy complete insurance for this trip (our options ranged from \$2K to \$9K – on top of the trip cost!). Anyone who thinks, "oh – this was all a fluke, it will never happen to me," should consider that over a couple breakfasts at the end of our trip, the group discussion topic was: have you had these things (medevac, emergencies, trip shortening) happen on other LNG trip? In my sampling size of 12 people, 10/12 have had one or both happen on other trips. In my case, BOTH happened on LNG's Norway/Svalbard trip: we were delayed over a day because of a mechanical problem in Bergen, and a woman fell on one of the decks and left the trip with a broken arm in Tromso; there was also another couple who suffered a family death back in the US and left in Tromso. Thankfully, the medevac and death news happened near a major city so it's not like we had to re-route/disrupt the trip to deal with those issues. NINE other people had similar stories. While it must be stated clearly that no ship or company is immune to any of these outcomes (as communicated on the aforementioned CDC's Travelers' Health webpages about Antarctica and cruise ships), I think ships/companies should be more willing to do things like provide/require masks for sick people, more actively counsel self-quarantine practices/options, more actively promote health/wellness basics like rest, hydration, and hygiene, and provide specific information on pathogens and disease management if specific microbes – like Strep or pink-eye or worse – emerge during the trip. Indeed, prior to this trip I found a peer-reviewed medical research paper written by the medical team who works for one of LNG's cheaper competitors (Quark Expeditions) and their infection rates were SIGNIFICANTLY (like 20X) lower than the high rates on our (and the previous) LNG trip; that google-able article, authored by Schutz et al. (2014) is entitled "Pattern of Passenger Injury and Illness on Expedition Cruise Ships to Antarctica." Although I highly recommend reviewing that study, it did get my hopes up that a company as reputable as LNG would surely match those infectious disease stat's... but apparently not. That Quark has made the effort to perform such a transparent study of illness on their ships (and showing, in my professional opinion, good outcomes) tells me that they are willing to use an evidence-based approach to understanding what clearly is a big problem on cruise ships; I cannot say I feel/perceive the same about LNG.

Infectious disease issues aside, the other very serious frustration some passengers felt about our trip was the extreme loss of Antarctica days (specifically – hallmark activities like Lemaire Channel, Paradise, Lockroy, and Palmer) – whether because of ice/navigational issues coming from South Georgia, whether because LNG/leadership prioritized activities like Coronation Island and the B9 iceberg, or whether because of the medevac. My impression was that about a third of the passengers (like me) were more interested in South Georgia, a third were more interested in Antarctica, and a third didn't care but wanted to see both. About a month before I left for this trip, I met up with one of my favorite people ever: Barry, my first Sierra Club hike leader from Corvallis. I hadn't seen Barry in a few years but there he was on a stunningly beautiful Silver Falls hike in November. Barry retired from a Biology professorship back east about 20 years ago and LOVES to travel (hiking, culture, history, science, every aspect) and I've always known that we have very similar tastes when it comes to what we love to see when we travel. Long story short, I learned that day that Barry (who'd led a Sierra Club trip to Antarctica over 20 years ago) wasn't exactly jumping for joy when it came to the white continent... too white, too monotonous, little land for walking – meaning hardly anything to do off-ship. Listening to Barry speak, I knew this was also why I knew in my heart why prioritized South Georgia first. And, seeing what I did of Antarctica, I 100% agree with Barry. While I'm frustrated we didn't see everything we should have seen in Antarctica, I just wasn't that into Antarctica – and the illness situation was exhausting to the point I just wanted to get off the ship and be home. Fundamentally, though, I liken the experience to what I learned about my tastes while chasing Rainier in my Seattle days: namely, I LOVED the Wonderland Trail, the greenery, the meadows, looking up at the ice... but when I made forays into the ice to try and climb it, I honestly didn't enjoy it – it was not hospitable, I lost my view of the mountain, and it was too white/monotonous.

Top Ten Best:

- (1) South Georgia Fortuna Bay with Shackleton hike
- (2) South Georgia Salisbury Plain
- (3) West Falklands rockhopper/albatross hike

- (4) Brown Bluff Antarctica experience
- (5) Sailing the roughest waters on the earth and not freaking out or barfing too much
- (6) The people on this trip, that we all wore geeky nametags so it was like being at a fancy science conference
- (7) Jonathan and Shaun – as both zodiac drivers and gifted speakers
- (8) The many comforts of the ship, especially my room steward, the kitchen/galley crew, and the bar/lounge lunch staff
- (9) Seeing Shackleton's grave
- (10) Penguins, penguins, penguins, penguins, penguins

Bottom 10 Worst:

- (1) Streptococcus
- (2) Staphylococcus
- (3) Coronavirus (SARS/MERS?)
- (4) Other unenveloped respiratory viruses
- (5) Other enveloped respiratory viruses
- (6) The incredibly high rate of infectious disease illness – 50% last trip, 70(+++)% our trip
- (7) The stressful and almost ever-present passenger coughing for well over half this trip
- (8) The challenging and unknown aspects of the med-evac situation
- (9) The too many TMS days, and consequent loss of several important Antarctica days
- (10) The lack of masks, passengers who don't practice or understand good microbiology/immunology basic

And that is perhaps the most ironic thing about this trip: Who knew I would experience so much microbiology and affirm why I love being a microbiologist by going on a ship to Antarctica?

Sarah's March of the Penguins Closing Montage



Left to Right: in order of our sightings – rockhoppers (Falklands), Magellanic (Falklands), macaroni (South Georgia), King (South Georgia), chinstrap (South Georgia, South Orkney, South Shetland), adelic (Antarctica), gentoo (those dirty stinkers seemed like they were everywhere!)