



## Editorial: The CoVi and Us

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*Latin American Journal of Aquatic Mammals* 15(1): 1-2

<https://doi.org/10.5597/lajam00253>

Dear Readers

It is my pleasure to present you with the first regular issue of the Latin American Journal of Aquatic Mammals of 2020, LAJAM 15(1). These are trying times, as CoVi (the new coronavirus, SARS-CoVi-2) put a halt on our field activities. Most of us are working from home, in a flat-screen-2D-world, unable to go to our study sites, work with our focus animals, or in partnership with local communities. Each of us has to look out for oneself and the others around us/them as well.

I've had to cancel participation in three international and two national meetings (and even a 50-year high school reunion) just prior the CoVid-19 hit us full blown. Like me, a lot of you had to do the same, frustrating a lot of expectations and impacting long-term data collection. Eventually we hope to be able to return to normal, or the so called "new normal", and rush to see what happened while we were under lockdown or social distancing – how our animal populations fared, how the local partners went through this period, and figure out how we are going to deal with the uncertainties from now on, or possibly with the CoVi's permanent presence among us. Throughout Latin America local communities and indigenous peoples consume bush meat or aquatic wild meat, which touches on food security issues, and the possibility that communities fared so badly that they had to hunt endangered species we work so hard to protect. We also have in our region at least one very much like Wuhan-style wet market, where whole or parts of those culled animals are brought into town and offered in the open, at the Belém market in Iquitos, Peru (which has been closed since June); smaller versions of it are scattered throughout the region. People have contracted

toxoplasmosis, tichinellosis, salmonellosis and botulism after eating undercooked cetacean or pinniped meat.

Among a number of lessons this pandemia has highlighted is certainly the connectivity between human, animal, and environmental health, aka the *One Health* concept. Zoonoses involving terrestrial animals have been relatively well studied or documented (e.g. rabies, HIV/AIDS, bird and swine flus, SARS, MERS, Ebola) but our knowledge about aquatic mammals and disease transmission to humans is much weaker. However, cetaceans, pinnipeds, sirenians, and mustelids are also hosts of a number of infectious agents of zoonotic potential either virotic (caliciviruses, poxviruses, influenza and rabies viruses), bacterial (*Brucella*, *Erysipelothrix*, *Leptospira*, *Mycobacterium*, *Mycoplasma*, *Salmonella*, *Streptococcus*), protozoan (*Giardia*, *Cryptosporidium*), or mycotic (*Blastomyces*, *Lacazia*). In Latin America, at least *Brucella*, *Leptospira*, *Mycobacterium*, *Giardia*, *Cryptosporidium*, influenza A and B viruses, and *Lacazia* have been recorded in cetaceans, pinnipeds and/or sirenians.

So in addition to the food security issue mentioned above, our community has to beware of interactions, specially those working in rescue and rehab, either with live animals such as in aquaria and oceanaria, and/or dealing with debilitated or dead animals found during stranding network activities, or efforts to release entangled animals. And let's not forget those involved with tourist activities (such as swim-with, or feed, or even watch cetaceans, pinnipeds or sirenians). This is particularly valid under present circumstances, as we continue bringing down the forest, increasing anthropogenic pressures on the environment, and exacerbating climate changes.

Given our present situation and behavior, future zoonoses involving aquatic mammals are bound to occur. We need to practice monitoring and surveillance, engaging professionals from a variety of disciplines in a coordinated effort to be able to respond promptly when it happens.

Let's hope that at least this crisis serves as an eye opener, and we extract 'lessons learned' regarding our role related to human effect on the environment in general, including climate change, and leaders who insist on negating our effects on the environment. How can we help overcome this pandemic? Here in Western Brazilian Amazon we are not going to the field, such as not to infect our local co-investigadors, but maintain daily contact with our research bases and local leaderships, who we feed with information on how to deal with the situation; we offer support on how to access governmental resources and raise money to provide them with 'basic food baskets'. But there is more we can do, now and when the pandemic is over and we return to the field, simple attitudes that shall help the health of the planet in general: save water, discard our trash appropriately, avoid consuming plastics, not consume fish during closed season or otherwise protected, or meat derived from deforestation, leave the car at home, and bike or walk more.

Just at the end of last year, as the CoVid-19 was likely blooming, we lost a champion of the *One Health One Ocean* concept and manatee work, with Greg Bossart's passing. Steve McCullough, colleague and friend pays homage to him on In Memoriam. I met Greg when he was chief vet at Miami Seaquarium and he became one of my MSc advisors, helping me learn histology and tissue interpretation. He was immediate to respond from across the continent whenever I had a minor crisis regarding manatees we were rehabilitating in the middle of the Amazon with little vet support at first. He even came to visit and brought some of Juliet's (oldest female in captivity, Romeo's partner, at the Seaquarium) milk to provide immunity to a baby manatee under our care, harpooned and separated from its mother. Likewise, he supported a number of other manatee projects throughout Latin America. Apart from Greg's many works in the US, he helped build capacity and supported Latin American students and researchers alike. Many (including me) participated in the long-term multidisciplinary Bottlenose Dolphin Health and Risk Assessment (HERA) Project in the Indian River Lagoon, FL. It has been eight months now and we are still mourning him, and will do so for a long time. We will deeply miss him.

Now back to our current issue, in the next pages you will find three notes and six short communications. Maieski *et al.* argue that single and multiple scratches, common natural marks in small odontocetes, although not permanent, may aid in population estimation under given circumstances. Their work was based on studies conducted in Babitonga Bay, Southern Brazil, with Guiana dolphins. Sometimes man-made marks, from non-lethal boat collision, such as with a large percentage of manatees in Florida, may also serve for

individual identification and aid in population studies. Unfortunately that is not the case with large ship encounters with whales, as Toro and colleagues show us in their work with fin whales on the Chilean coast. Then turning to a freshwater mammal, Guzmán provides information on monitoring four Amazonian manatees by radiotracking, in the region of Loreto, Peru.

After those three works you will find a series of new or extreme records of marine mammals in Latin America, from El Salvador to the mouth of the Amazon River in Brazil. Bachara *et al.* document the first stranding records of Cuvier's, Blainville's and Peruvian beaked whales in El Salvador. Ramos and collaborators report on the second stranding of a dwarf sperm whale, a pregnant female, in Honduras; and a pigmy sperm whale is reported for the first time in French Guiana by Bordin *et al.* In the Gulf of Venezuela, Briceño and colleagues recorded the first stranding of a Clymene dolphin. Marmontel *et al.* report on strandings of rough-toothed dolphins in Brazil's extreme north, and Lima and collaborators document the northernmost stranding event of a humpback whale in Brazil.

A lot of us are using the lockdown/quarantine to look back at data we generated over the years and that we have not had time to analyse in the midst of our very busy schedules. If you are among those, let me tell you that we are receiving submissions for our second issue of 2020, due in December. Thank you for your interest and keep those manuscripts coming.

If you can, stay home. If you have to go out, don't forget to wear a mask.

Enjoy your reading.

Sincerely

**Miriam Marmontel**

LAJAM Editor-in-Chief

#### **For further reading**

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