

Women in Marine Mammal Science (WIMMS): Breaking Down Barriers to Success

Society for Marine Mammalogy
22nd Biennial Conference on Biology of Marine Mammals
28 October 2017
8:30-17:30

World Trade and Convention Centre, Halifax, Nova Scotia (Rm 203)

8:00 Registration, doors open

8:30 Introduction: workshop organizers

8:45 Keynote: Janet Mann
Navigating the Waters in Marine Mammal Science

SESSION 1

9:15 Gill Braulik
Personal Reflections

9:30 Katie Moore
The Seesaw Effect

9:45 Asha de Vos
The Backstory

10:00 *Break*

SESSION 2

10:30 Olive Andrews
To Be Pacific - 19 million km² of Whale Sanctuary

10:45 Alicia Amerson
Finding my Professional Calling at Almost 40

11:00 Susannah Buchan
Personal Reflections

11:15 Larissa Oliveira
1997 El Niño: Transforming Death in a New Life

11:30 **PANEL 1:** Rowenna Gryba, Yoko Mitani, Erin Oleson
Conducting fieldwork (including remote/international areas and technology); networking and support

12:15 **Networking Lunch:** Location TBA

SESSION 3

1:30 Heidi Pearson
Iowa to Alaska: My personal and professional path

1:45 Karen Stockin
Career/Family Considerations: A Personal Perspective

2:00 Ellen Hines
Navigating an International Journey

2:15 **PANEL 2:** Lynne Barre, Susanna Blackwell, Amy Van Cise
Communication and negotiation (including conflict resolution); seeking leadership roles; confidence and imposter syndrome

3:00 *Break*

3:30 Christina Lockyer
A personal journey through 50 years of marine mammal research

3:50 Survey summary and group discussion: workshop organizers

5:30 Finish

About our speakers:

Janet Mann: Navigating the Waters in Marine Mammal Science

Dr. Mann gives brief narrative describing key lessons throughout her career, followed by the studies/data on science-gender stereotypes, how implicit and explicit bias shape behavior. Discussion of attrition, bottlenecks for women and finally, solutions.

Dr. Mann started out in animal behavior/behavioral ecology more broadly, but became involved in the Shark Bay Dolphin Research Project in graduate school. She moved from Assistant to Associate to Full Professor of Biology and Psychology at Georgetown University and is currently Vice Provost for Research. She has been studying the Shark Bay dolphins for 30 years and has been supported by the National Science Foundation continuously for 25 years.

Gill Braulik: Personal Reflections

Dr. Braulik is the Director of Downstream Research & Conservation Ltd. and an Honorary Research Fellow at the University of St. Andrews. For over 15 years, she has conducted conservation-focused research on marine and freshwater cetaceans, primarily in South and Southeast Asia. In 2013, she was awarded a Pew marine fellowship that addressed the challenge that the greatest numbers of at-risk marine mammals populate the coastal waters of tropical developing nations. She designed and tested a marine mammal rapid assessment in Tanzania that allowed for broad-scale spatial data on marine mammal populations to be quickly generated at a national or regional level. A large focus of her previous work focused on river dolphins in Asia, especially the Indus River dolphin, which is a subspecies endemic to Pakistan. In addition to her work in Tanzania and Pakistan, she has been involved in work with river dolphins on the Brahmaputra River, India,

and in the Sundarbans of Bangladesh, as well as with the final efforts to save the Yangtze River dolphin in China.

Katie Moore: The Seesaw Effect

This is a background on Ms. Moore's path through marine mammal science and beyond with a focus on some life lessons along the way...basically "what she wishes she could tell her 22 year old self" or "what she wants her daughter to know". Dr. Moore will look at both the external and internal forces at play from her perspective.

Ms. Moore ended up in marine mammal science in “a roundabout way.” She knew she wanted to change the world, but this wasn't the plan she had! She has a graduate degree from Duke University and has spent over 20 years in stranding response in the US and internationally. After graduating, Katie worked for NOAA Fisheries, then was a founding staff member of the Cape Cod Stranding Network, later becoming the Executive Director. In 2007, they merged with IFAW, and she became the manager of the Marine Mammal Rescue and Research team. Her primary work has been on improved stranding response and stranding related science, with human interactions, mass strandings, and AEP hearing evaluations as specific concentrations. Since then she has added to her role, taking on first the management of all of IFAW's Animal Rescue divisions, then oversight across all IFAW programs. She is currently in a dual role as the Director of Animal Rescue and the Deputy VP of Conservation and Animal Welfare.

Asha de Vos: The Backstory

A brief story of Dr. de Vos's life as it relates to her path, highlighting her challenges with some of the key lessons she has learnt along the way.

Dr. de Vos is a Sri Lankan marine biologist and ocean educator working with blue whales in the Northern Indian Ocean. After years in academia, she escaped to start 'Oceanswell', with a mission to nurture the next generation of diverse ocean heroes, equipping

students from under-represented countries to conduct marine conservation research and engaging everyone in conversations about the magic of the world's oceans. Please check out www.oceanswell.org for more information!

Olive Andrews: To Be Pacific - 19 million km² of Whale Sanctuary

After attending her first IWC meeting at age 18 campaigning for the Southern Ocean Sanctuary, Ms. Andrews' career has taken her from the tropics to the poles. She will focus on her involvement in the development of national whale sanctuaries across the Pacific Islands region and the hurdles and opportunities that come with working in this region as a 'palagi' woman.

Ms. Andrews is the Marine Programme Manager for Conservation International, New Zealand and Pacific Islands, where she is a marine science and policy advisor on large scale marine protected areas. A research scientist of the South Pacific Whale Research Consortium, she conducts whale research projects in New Zealand, Palau, Tonga, Timor-Leste, and Niue. For a decade, she directed Australian NGO Whales Alive focused on the management of whale watching, the development of national whale sanctuaries leading to the development of Pacific regional whale watching guidelines, an international whale watching operator and guide training certification, and the implementation of the Pacific Regional Environment Program's (CMS) Marine Species Action Plans for Whales and Dolphins, Turtles and Dugong, which covers 22 Pacific island countries.

Alicia Amerson: Finding my professional calling at almost 40

At almost 40 years old, Ms. Amerson shares her experience of leaving a six figure salary to follow her childhood calling to become a marine biologist. She finds herself in a role somewhere between policy and science, asking where does she fit in, looking for advice and mentorship, and knowing that she has to follow her own journey. Ms. Amerson has launched into a new venture to develop global

best practices for UAS technology for use in marine habitats, provide flight skill training for women and girls, and encourage innovation for UAS in conservation science and art applications. They are creating the platform for ocean conservation with UAS technology. She invites you to be a part of the technology discussion, share your interest and knowledge, and ultimately join them in becoming UAS pilots for conservation.

Ms. Amerson worked as an environmental project manager for 13 years. She completed a Master's in Marine Biodiversity and Conservation at Scripps Institution of Oceanography, where she studied whale-watching along the west coast of North America from Canada to Mexico observing operations. She worked with the California Lt. Governor Gavin Newsom as his first Sea Grant Fellow and was able to secure \$100,000 for large whale entanglement response in 2016 and \$2.1M for entanglement and stranding in 2017. She spent two field seasons as a research assistant with Murdoch University using UAS to collect large whale body condition data. She is a licensed UAS pilot and instructor.

Susannah Buchan: Personal Reflections

Dr. Buchan is a British-American biological oceanographer based in Chile. Her research in Chile over the past 11 years, including her doctoral studies, has examined the acoustics and ecology of blue whales in Chilean Patagonia with the University of Concepción, and more recently of fin whales off the Atacama Desert in northern Chile with the CEAZA Research Center, to support Marine Protected Area proposals and marine spatial planning. She is also a Guest Investigator at Woods Hole Oceanographic Institution, USA. She is particularly interested in how acoustic data and oceanographic data can be coupled to examine the oceanographic processes that drive baleen whale distribution in different marine ecosystems. Her work has always been conducted in close collaboration with local communities in northern and southern Chile, supporting indigenous marine territory use proposals and community-based whale

watching. She currently supervises several undergraduate and masters students to advance this area of research, which is new to Chile.

Larissa Oliveira: 1997 El Niño: transforming death in a new life

Ms. Oliveira is going to talk about how her scientific journey blended with the discovery of a new species of pinniped in South America.

Ms. Oliveira is a professor and researcher in Biology at the University of Vale do Rio dos Sinos and a member of the NGO, Study group of Aquatic Mammals of Rio Grande do Sul, working along the southern Brazilian coast. For 25 years, she has been studying marine mammals, mainly seals, fur seals, and sea lions along the coast of South America, Galapagos Islands, and Antarctica. Her professional career is mainly focused on the application of molecular tools to describe, manage, and conserve marine biodiversity. Her research seeks to generate knowledge for the mitigation of dilemmas of biological conservation and human welfare, in order to promote the sustainable use of marine resources and the conservation of pinniped species.

Heidi Pearson: Iowa to Alaska: My personal and professional path

Dr. Pearson will discuss the path she took from her hometown in Des Moines, IA to her current home in Juneau, AK and the experiences and mentors that have shaped her path. She will also provide some tips on grant-writing, which is a critical component of success in research and academia.

Dr. Pearson is an Associate Professor in Marine Biology at the University of Alaska Southeast (UAS) in Juneau. She earned a BS in Biological Anthropology and Anatomy, and Biology, from Duke University in 1998 and a PhD in Wildlife and Fisheries Sciences from Texas A&M University in 2008. Subsequently, she was the Assistant Director of the Whale Center of New England and a Lecturer at Stony Brook University. In 2011, Dr. Pearson was hired at UAS. Her

current research focuses on humpback whale, sea otter, and dusky dolphin behavior and ecology.

Karen Stockin: Career/Family Considerations: A Personal Perspective

*Ideas and discussion presented are based on Dr. Stockin's personal journey and the lessons learned, as well as things she wished she had considered or better informed herself about when wanting a family, but trying to establish herself as an early career/emerging researcher. A discussion and practical suggestions about family and career - if, when, and how best?**

**Disclaimer from Dr. Stockin: "I don't have all the answers (sadly) and am certainly not advocating woman necessarily agree or accept all of the suggestions I present. However, I offer food for thought and hope to provoke useful conversation."*

Dr. Stockin was first appointed as a Research Officer at Massey University in 2007 before securing a 2-year fixed term lectureship in 2009. In 2011, she achieved tenure as a Lecturer and in 2013, was promoted to Senior Lecturer and Major Leader for BSc Marine Ecology. She is the current Director of the Coastal-Marine Research Group and applying to promote to professorial in 2018.

Ellen Hines: Navigating an international journey

Dr. Hines will talk about how she met a woman scientist in Thailand in 1999, and started her research on dugongs. Since then she has worked in Thailand, Vietnam, Cambodia, Myanmar, Malaysia, Sri Lanka, and Belize and she believes she is one of the luckiest people she knows. She hopes her story is encouraging and positive.

Dr. Hines received her PhD in Geography from the University of Victoria in 2001, and started a faculty position at San Francisco State University that same year. She is currently a Professor in the Department of Geography & Environment and the Associate Director of the Estuarine and Ocean Science Center at San Francisco State. Please see online.sfsu.edu/ehines for more about her lab.

Christina Lockyer: A personal journey through 50 years of marine mammal research

Dr. Lockyer will talk about how she decided what she wanted to do from childhood and stuck to her decision rigorously through school, university, and 50 years of research employment. It is a personal journey, and she will draw together her "recipe" for achievement and the factors that inspired her.

Now retired from full-time employment, Dr. Lockyer continues with her own company Age Dynamics, started in January 2003 in reaction to redundancy. She has always believed in having other skills on the back burner, to be used when needed, and to steer one's own destiny as much as possible. She has primary and doctorate degrees from University of East Anglia and London (UK) starting in 1968, and has worked in several international research institutions doing fieldwork, lab work, administration, and run Secretariats for two intergovernmental organisations in the North Atlantic area. Her life's work has been in marine mammal research and conservation-management.

About our panelists:

Rowenna Gryba

Ms. Gryba has 15 years in marine ecology working on a variety of projects, with a focus on spatial statistics, habitat modelling and field work. She has worked on all three Canadian coasts, and recently has been focusing (again) on ice-associated seal habitat use.

Yoko Mitani

Dr. Mitani is an associate professor of Hokkaido University. She received her PhD from SOKENDAI, the Graduate University for Advanced Studies for her work on reconstructing 3D diving behavior of Weddell seals. Now she is working on a variety of projects,

including projects with killer whales, northern fur seals, harbor seals, Antarctic minke whales, and humpback whales.

Erin Oleson

Dr. Oleson is the Cetacean Research Program Leader at Pacific Islands Fisheries Science Center in Honolulu, HI. She received her PhD at the Scripps Institution of Oceanography in 2005 on the calling behavior of blue and fin whales. For her postdoc, she began a passive acoustic monitoring network off Washington State to understand occurrence, movements, and abundance of cetaceans. In 2008, she made the big move to Hawaii where she has been since, leading a growing and dynamic team conducting assessment research on cetaceans in the Pacific Islands Region.

Lynne Barre

Ms. Barre has been with the NOAA Fisheries Protected Resources Division in Seattle for fourteen years implementing the Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA). Since 2003, she has worked on the endangered listing of the Southern Resident killer whales, designated critical habitat, developed and finalized a Recovery Plan, and has implemented actions to conserve and recover the whales, including vessel regulations put in place in 2011. In addition to her work on killer whales, Lynne supports other aspects of the marine mammal program, such as helping coordinate the stranding network. Lynne also works on ESA-listed rockfish species and coordinates with Puget Sound salmon recovery efforts. Lynne's background is in marine mammal research including fieldwork in Southern California and Shark Bay, Western Australia, studying social behavior, mothers and infants, and genetic relationships of local dolphins. Lynne also worked with the Crittercam team at National Geographic, putting underwater cameras on marine animals to learn about their lives under the surface before joining NOAA first in the Office of Protected Resources in Silver Spring, MD and then on the West Coast. Lynne has a B.S in Biology from Georgetown University and an M.S. in Animal Behavior from San Diego State University.

Susanna Blackwell

Dr. Blackwell has been working with large marine vertebrates for over 25 years - northern and southern elephant seals, Baltic grey seals, albacore tuna, Atlantic and Pacific bluefin tuna, bowhead whales, and narwhals, to name a few. In the early stages of her career, she was involved in the design and manufacture of several types of seal data loggers, recording parameters such as depth, temperature, heart rate, swim speed, activity levels, and bioluminescence. She joined Greeneridge in May 2000 and has since collected and analyzed acoustic data on man-made sounds, such as those produced by impact and vibratory pile-driving, airgun pulses, and numerous construction activities, to assess their range and impact on marine vertebrates, mostly marine mammals. More recently she has combined these two interests—in collecting data using tags and in assessing the effects of man-made sounds on marine animals—to examine how East Greenland narwhals react to sounds from airgun pulses, which are used the world over in seismic exploration for oil and gas. She is the first author of 11 refereed journal articles and a co-author in 31 others. She is a member and Fellow of the Acoustical Society of America, the Society for Marine Mammalogy, and Sigma Xi (National Society for Scientific Research).

Amy Van Cise

Dr. Van Cise just earned her PhD from Scripps Institution of Oceanography in September of this year, where she studied genetic and acoustic population structure in short-finned pilot whales in the Pacific Ocean. Before attending Scripps, she worked as a biologist for NOAA's Antarctic Ecosystem Research Division, where she was part of a team that conducted research off the Antarctic Peninsula, which was used to set catch limits of Antarctic krill and create protections for the Southern Ocean ecosystem.

Additional advice, input, and insight:

Some women who were unable to attend the WIMMS Workshop, along with some of the Workshop co-organizers, were kind enough to answer the following questions about their experiences in marine mammal science. Thanks to **Dr. Jo Marie Acebes** (BALYENA.ORG); **Dr. Amanda Bradford** (NOAA Fisheries Pacific Islands Fisheries Science Center); **Dr. Clare Embling** (Marine Biology and Ecology Research Centre, School of Biological & Marine Sciences Plymouth University); **Siri Hakala** (NOAA Fisheries Pacific Islands Fisheries Science Center); **Dr. Kristin Kaschner** (Department of Biometry and Environmental Systems Analysis, Albert-Ludwigs-University of Freiburg and Robert Bosch United World College); **Dr. Kristin Laidre** (School of Aquatic Fisheries and Science, University of Washington); **María Constanza Marchesi** (Centro para el Estudio de los Sistemas Marinos (CESIMAR)); **Dr. Ann Pabst** (Biology and Marine Biology, University of North Carolina Wilmington); and **Dr. Mridula Srinivasan** (NOAA Fisheries Office of Science and Technology).

1. What was one of the most difficult decisions you have had to make in your career?

“One of the most difficult decisions I made in my career is whether to pursue marine conservation work by working in our own NGO or going into the academia and teach or finding a more financially stable job that does not entail much research or conservation. At the moment I'm making a compromise. I'm still working on our own NGO while juggling with a "normal" job. It is difficult, but the only way I can maintain my marine mammal research and conservation work while earning a living.” - **Jo Marie Acebes**

“The most difficult decision I made actually came within a decision that was relatively easy to make. When I got my current job toward the end of finishing my PhD, I was grateful and excited, and it was

easy to know that it was a good idea and great opportunity to take the position. However, emotionally, I really struggled with the decision, even long after making it, as it meant leaving a research project, network, and even residence that I loved and had been invested in for over a decade. I knew that I needed to define myself professionally in another way, but initially had a hard time letting go. I eventually did and realized that even in our careers, like so many other areas of life, we don't really move forward until we let go of our hold on the past." - **Amanda Bradford**

"I guess for me it was deciding in my late 20s to give up a permanent, well-paid job and to return to education to convert from my career in engineering to marine biology. It was rather daunting, but at the time I had no big commitments (such as a mortgage or family), so it felt exciting and I don't regret it for a minute! More recent difficult decisions have involved family-work balance -- now that I have 2 daughters, I've had to make difficult decisions such as taking a step back from research when the girls were very young, and the tough decision to return to work full time. I now always have to compromise either family commitments in favour of work/research, or research in favour of family (the former more difficult than the latter - there is always the resulting constant parental guilt). However, one thing I would add is that family does force work-life balance, which is a positive." - **Clare Embling**

"To move to Freiburg to join my husband after 6 years of transcontinental relationship directly after finishing my PhD, knowing very well that from a career perspective this was everything but ideal (Freiburg is a land-locked city about as far away from the sea as possible in Germany, and no marine science related department at any university nearby)." - **Kristin Kaschner**

"To pursue a career in marine mammals, I had to move almost 2000 miles away from my home, family and friends. As my parents are not getting any younger, it is difficult for me not to be able of seeing them more often or just being there for them." - **María Marchesi**

"To leave India and come to the United States in pursuit of a dream to become a marine mammal biologist without a single credential, skill, or qualification in the marine science field." - **Mridula Srinivasan**

2. Has the male-female dynamic in marine mammal science changed as you've grown as a researcher?

"Yes. But it is not quite noticeable in our country (the Philippines). It used to be more male-dominated, but in the past 10 years or so, more senior women scientists have emerged. When I was starting, it was not easy to find a female mentor."- **Jo Marie Acebes**

"I came into the field in the late 1990's along with a lot of other women. My impression at conferences and other venues was that my peers consisted of more women than men. Yet, most people around me in leadership positions, all the established scientists I worked with, and all the people on my graduate committees were men. My male mentors and colleagues were phenomenal, and I feel fortunate for the support and opportunities I've had. I did think that the gender ratio within leaders in our field would start to balance out and reflect the number of women coming up with me through the ranks. To some degree, I think it has, although like in many other STEM fields, women in marine mammal science disproportionately fall out of career or leadership tracks. Leadership positions within most institutions, including my own, still seem so largely male-biased that sometimes it's hard to imagine how or when a more gender balanced composition will occur." - **Amanda Bradford**

"To be honest I'm not sure! One thing I do notice is the skew towards men as you progress higher in the 'ranks'. For example, when I was a PhD student in marine mammalogy, I was surrounded by predominantly female PhD students. As I've progressed higher there have been fewer and fewer women. For example in the marine biology department I work in at the moment, we feel like we are doing quite well because we have 5 female lecturers out of 20 (of

which 5 are professors – none are female). I do feel like there are more inspirational senior women in the field now than there were 10 years ago, and it does make a difference – it makes you feel like you can do it too (role models). I do feel there is more support for women than there was in the past to keep us in academia, but I also think there is a lot more that can be done.” - **Clare Embling**

“Yes, I think it’s currently changing. It used to be that a vast majority of the professors, the lead scientists etc. were male, and a majority of the undergraduates, interns, and younger graduate students were female. As these women mature, the balance is shifting and we are seeing more women in leadership positions; I think that filters down to all levels. One thing that doesn’t seem to be shifting as quickly is the representation in our field by minorities. We need to focus on that.” - **Siri Hakala**

“Yes. But depends on the country and in the United States, depends on the state. In my case, it was my ‘foreignness’ and skin color that was actually problematic and continues to be so, regardless of whether it is a male or female.” - **Mridula Srinivasan**

3. What changes have you noticed in your treatment from male counterparts/supervisors/colleagues as you have grown in “status” in the field?

“In the Philippines, there is still some biased towards male researchers especially older male researchers. However, since I received my PhD and have published a few papers, it has become easier. But whenever I encounter other researchers in a different field (i.e. terrestrial), it still takes time for them to look at me seriously.” - **Jo Marie Acebes**

“There is a clear change in interactions as you progress in an area, but I’m not sure it’s male specific – I feel much more respected now than I did as a new student. That’s a nice feeling, to feel like others think you know something and respect your opinion (inside the

imposter syndrome still rages, so this type of support is good). I’m not sure I could differentiate between treatment by male or female colleagues/supervisors though and that is a positive. Of course, there are still some (particularly male) colleagues that I will probably always struggle with, ones who always treat you as a subordinate, treating their male colleagues with more respect. But thankfully they are few and far between (& seem to be unrelated to my ‘status’).” - **Clare Embling**

“I think it’s less that I’ve grown in status, and more that the world is changing. We are all becoming more aware of the impacts of unconscious bias, and also of sexual harassment.” - **Siri Hakala**

“None that I perceive. I like to work with folks who would not treat one differently based on status.” - **Ann Pabst**

“People are more respectful, but I still remain ‘foreign’ and culturally and socially alienated by both males and females professionally and personally (barring a few exceptions).” - **Mridula Srinivasan**

4. Who is your support network and how have you developed it?

“We have a small group of local marine mammal researchers whom I have worked with in the past. We are all friends and it has made things much easier and more fun. I’m also lucky to have met a good, friendly group of Asian marine mammal researchers.” - **Jo Marie Acebes**

“I have a very good support network – I think it’s essential for all of us, but I find it is incredibly important as a parent. For me, a very supportive husband is my key support, we are both academics in the same field, so support each other, take it in turns to do research trips, write grants & papers together. We were also very lucky to have my mother-in-law move in a few doors away to help with childcare, which makes a huge difference with us both working as

full time academics. Outside this core support, I find that a network of colleagues both within the university, UK and worldwide is incredibly important for asking careers advice (as mentors), chatting through ideas, writing papers/grants, recommending each other for work/roles/reviewing, etc. My network has built up over time through colleagues, meeting people at conferences & workshops, tweeting/blogging, and keeping in contact with people.” - **Clare Embling**

“My support network comes from the friendships I’ve made with women in this field over the years and in my current job. Taking the time to nurture these relationships and be available to others is important.” - **Siri Hakala**

“This has probably been the biggest challenge due to my relative isolation (in an academic sense) throughout my career. My main PhD supervisor was Daniel Pauly, well connected in the field of fisheries science, but not really directly involved in marine mammal science, so from very early on I was generally on my own presenting my research at meetings, etc. Overall I think that having a mentor, who is well connected in your field and can introduce you to people and will get you involved in projects, is actually extremely helpful and can greatly facilitate your career.” - **Kristin Kaschner**

“My family (parents and sister) and old friends, although as I live far away from them sometimes is difficult having to deal with everything by yourself on the daily basis.” - **María Marchesi**

“My husband, parents, and brother are my support network. I don’t rely on anyone else. I have learned early in life that no one can be trusted when it comes to personal or professional decisions. The decision is ultimately yours, but only your family can give you an unbiased opinion and help make a decision in your favor.” - **Mridula Srinivasan**

5. What key advice or message would you like to convey to women in the early stages of their career in marine mammal science?

“I’d say they should try to seek out researchers within their country and they might be surprised that they are women...at least in Southeast Asia I have found this more common now.” - **Jo Marie Acebes**

“I usually pass on advice that applies to both women and men in the early stages of their career in marine mammal science - find a supportive mentor, *work hard*, ask good questions, learn quantitative skills, focus on a discipline not a species, work with or get to know people from other countries and cultures, *be kind*, love what you do (although you won’t all the time), and so much more, but specific to women, I would convey the following. Know that there are indeed a lot of internal and external barriers that keep some women from reaching their full potential. Be conscious of these barriers, but not self-conscious; aware, but not hyper-sensitive; empowered, but not antagonistic. I look back on some instances in my career and believe that I would have better advocated for myself and better developed some skills if I had a greater awareness and appreciation of these barriers. Most importantly, as you find good mentors to support and encourage you and begin to achieve your career goals, find ways to support and build up others around you” - **Amanda Bradford**

“Get a mentor or even better mentors! This can be formally (e.g. through mentorship schemes in organisations such as the BES (British Ecological Society)), or just be someone who inspires you, someone who you can talk to and gives good advice. I have had both formal mentors, and those I’ve thought of as mentors, and they have had the biggest impact on my career. Also *publish* – it wasn’t emphasised on me when I was working on my PhD, but is incredibly important if you want to stay in research. And network – talk to people, whether via email, in person, at conferences, through social

media, through a blog, have your own website – the more people you know and who know you and what you do, the more chance you will have of being able to make the most of opportunities. But it's also important to maintain that network, and keep in contact with people.” - **Clare Embling**

“Something I see people do (and not just women, but maybe more so), is do good work, wait to be recognized, and then get upset when years go by without a lot of advancement. In an ideal world we'd have perceptive, omniscient managers, but in lieu of that, you should adopt the practice of helping your supervisor help you. Highlight your strengths and accomplishments, and let them know what you would like to tackle next, or how you feel you should be rewarded. Your supervisor's job is to help you. Help them help you.” - **Siri Hakala**

“I am not sure that this is actually advice about how to be particularly successful in your career, but perhaps more some 'words of wisdom' with respect to managing expectations that can be quite stressful to live with (in my own experience): Even if this is not a very popular notion at the moment, to be honest, it is actually quite difficult (and very exhausting) to have it all - a career in marine mammal science and a family. Mostly because the geographic flexibility that is often expected and necessary during your postdoc phase (which tends to coincide for many with the time when you are starting to seriously think about having kids) and that often involves moving around for relatively short contracts and projects in addition to other travel requirements, which really is quite difficult to logistically manage in terms of your partner also having a job and child care arrangements, etc.

I know that there are successful women in marine mammal science who have one kid, but I would guess that there are certainly fewer women with two or more kids, and there are probably more women who are successful who don't have any kids. In my personal opinion, there are reasons for this that go beyond gender equality and are

perhaps more of a general nature - namely, that actually the amount of work required to be successful as a scientist - as defined in most western societies - is so much that you're missing out incredibly in terms of really enjoying your kids and a family life. Depending on where you live and the kind of partner you have, some aspects of this might be easier to solve from a logistical perspective, but my key message perhaps here is that I think that honestly, wanting to have a family and a career - not only in marine mammal science but generally - does involve some hard choices, and I believe that in many parts of the world it is not enough to simply be good at what you do, you also need to be in right place at the right time, have the right partner (and the right kids and the right grandparents, the right boss, etc. etc.) - and then you can maybe make it work. But if it doesn't work out - try to remember that this doesn't necessarily mean that you didn't work hard enough because I really think it takes more than hard work to make the combination of family and career work - at least in a way that also makes you happy.” - **Kristin Kaschner**

“I do not know if it is only for women, I would say it to males also: Do not listen to people when they tell you to choose a different path because working with marine mammals is “very difficult”. I was told that by a male professor when I was starting my career, I was 18. It took me a couple of years to realize that he was wrong!” - **María Marchesi**

“Do not anticipate that your path will be any different than another based upon sex or any other characteristic. Just decide what you want to do, and go do it. Surround yourself with people whom you value and who value you. Have a sense of humor. Work hard and enjoy what you are doing.” - **Ann Pabst**

“Passion and ambition is great, but develop career goals early in life and work to accomplish them. Don't be a humming bird moving from one project/job to another without an idea of whether you are achieving your goals of working towards your goals. Always have a

plan in hand before you graduate, not after you graduate.” - **Mridula Srinivasan**

6. Do you have any specific recommendations for women wishing to achieve a leadership position in marine mammal science?

“I think as long as you keep doing good work and make your work known by attending and participating in conferences or workshops, slowly you can build your network and will soon get recognized for the work that you do. I believe there is also a cultural barrier that we have to break through especially in Asia. We should speak up more in meetings, gatherings, workshops and whatever venue possible.” - **Jo Marie Acebes**

“Decide on what you’d like to achieve, work out what you need to do to get there, give yourself targets, focus, and work hard to achieve it. Use setbacks as learning experiences (we all make mistakes, and things rarely go to plan). But most importantly enjoy what you do, and be passionate – you want to enjoy the journey!” - **Clare Embling**

“If you want a leadership position, start by leading. Lead by example. Start a group. Look for areas that need attention and start to address them. Don’t wait to be asked. Build a strong foundation of skills, contribute as much as you can to the field, network and stay connected, and most importantly, help others around you. Be the person others would like to have in a leadership position.” - **Siri Hakala**

“I think it’s really important not to compare yourself to others or be deterred by others’ successes. It’s easy to feel like you’re not good enough when you do that. The most important thing is to stay focused, work hard (publish!), and be a colleague that other people want to have around in the field and in the office. Developing a network of people you can lean on for advice and support is also

key. Find people that you admire and that are good role models - male or female - people who can guide you through the rough patches or teach you based on their past experiences. It’s especially important to be around people who encourage you and do what they can to give you opportunities. However, in the end your career (whether it’s graduate school or a job) depend very much on you and what you put into it. Many young scientists are given golden opportunities and don’t make anything out of them. Don’t be one of those people. Aim high!” - **Kristin Laidre**

“As I am just starting my career I do not feel ready to give advice on this, but in my short experience I think believing in yourself is fundamental!” - **María Marchesi**

“Assess your work environment and observe leaders in your field, carefully. This assessment will help you determine what skills you have and what you lack if you are seeking leadership positions. Always, seek ways to improve and acquire the necessary skills to become a leader in your place of work or new organization. Learn from your mistakes and seek mentors who can guide you at the right time and be a sounding board.” - **Mridula Srinivasan**

“If you are so inclined, volunteer to take the lead on some project. Offering to do a job, and then doing it well, is being both a good colleague and a leader. Be dependable. I think I would also say to take advantage of leadership training opportunities if they become available.” - **Ann Pabst**