

*Jennifer Stock:* Hello everybody, and welcome! You're listening to Ocean Currents, I'm Jennifer Stock, and on Ocean Currents we delve into the blue watery part of our planet and highlight ocean related topics. We talk with scientists, educators, explorers, policy makers, ocean enthusiasts, ocean adventurers, ocean archaeologists, and more, all trying to learn more about that mysterious and vital part of our planet. I bring this show to you from NOAA's Cordell Bank National Marine Sanctuary. Cordell Bank is located just off of the KWMR listening radius, off the Marin/Sonoma Coast. I love hearing from listeners so feel free to send me an email at [Jennifer.stock@noaa.gov](mailto:Jennifer.stock@noaa.gov). I love to hear people are listening, and what you like and what you want to hear more of. This is going to be an interesting show today; my guests are going to be calling in a little bit. Today we will be getting a local update on an ocean transition of sorts, it's called the spring transition as we leave the winter conditions in the ocean and move into this upwelling period here on the CA coast. Upwelling brings the cold water and nutrients that help nourish and create this dynamic food web from plankton to fish and krill and whales and seabirds and many more things. So, we're excited today and we will talk with Russ Bradley, the Farallon Program Manager. He is out on the Farallons to give us a live report! Year round there are scientists out on the Southeast Farallon island, 26 miles out from San Francisco, this year round report is a great way to hear about the biology and any interesting events happening out there. So let's bring on Russ, Russ you're live on the air!

*Russ Bradley:*

Hi Jenny! Greetings from the Farallones!

*Jennifer Stock:*

Thanks for joining us! I was expecting to hear more wind, but I guess you're tucked away in a safe place.

*Russ Bradley:*

I'm actually safe inside the house on our new phone, our new communication system. If we were outside you'd hear the wind and the gulls, there's a lot of activity going on.

*Jennifer Stock:*

Exciting! Thanks for joining us. Each season on the islands has a different emphasis, and you have crews that rotate in and out, and you recently switched to the spring crew. What is the main effort for the biologists this time of year?

*Russ Bradley:*

This time of year, our main focus is on the breeding seabirds out here on the Farallones. The Farallon islands are the largest breeding seabird colony in the continuous united states, we have over 300,000 seabirds of 13 species that breed out here in the summertime, so that's our primary focus at this time of year.

*Jennifer Stock:*

And so, have birds started setting up eggs and nests, and what's the timing of all that? Seems like it's been an earlier year.

*Russ Bradley:*

Yeah it definitely has for some species, so we've seen, starting in late march, a pretty large pulse of early breeding from Cassin's Auklets, which are these small diving seabirds that are usually found pretty far offshore, they're sort of little nondescript and gray to see them but they are pretty amazing birds since they are wing-propelled divers, they use their wings to fly and also to swim underwater, they dive and eat krill, zooplankton, these big euphausiids, and they tend to be a great indicator of what's going on with local krill populations, since they eat the same thing that blue whales do and humpbacks do when they're up in this region. We've seen very strong early breeding by Auklets, they only come to the island at night and breed in burrows and nesting boxes we have for them, but there's very high occupancy already, almost all of our study sites are occupied at a really high rate, among the highest we've seen in recent years, it really appears that these birds are responding to the strong krill, it's what it looks like in this spring transition we've had, we've got really good krill out there because the auklets are responding and in early April we had a lot of whale response as well.

*Jennifer Stock:*

That's exciting; I was very excited to hear about humpback and blue whale sightings before May! Usually it's like June, July. So when were you seeing them, and where?

*Russ Bradley:*

Isn't that extraordinary? You know every time I come out here and I've been working on the Farallones for over 10 years, I've spent over 1400 nights on the island, and you think that you've seen it all, and then something comes along to remind you that there are a lot of changes going on. So, basically in April they started to see some humpback whales and blue whales, and I actually have our Farallon Journal in my hand right now, and in the cetacean section we can look at... so for whales, we have our regular resident gray whales that are hanging around the island that pretty much every summer we have about 1-3 that stay here and don't do the whole migration to the Bering Sea to feed in the substrate, but like you said we have blue whale sightings, at the end of march, there were blue whales on March 29<sup>th</sup> which I have to check our records but that's probably one of the earliest ever seen, so blue whales in early April and humpbacks were seen throughout early April from the 6<sup>th</sup> to the 17<sup>th</sup>, and on the 8<sup>th</sup> there were 35 humpbacks, it's pretty extraordinary and it's probably another indicator that krill was probably very abundant very early for the whales to come this close to the island, and we've heard from fishermen that they're more along the coast a bit further south but it's pretty surprising for folks here on the island, but everyone here was pretty

amazed, I wasn't here on the island then but they were amazed to see that humpback and blue activity that early in the season.

*Jennifer Stock:*

Now usually it's a patchy type of thing in terms of where the food is, the whales move around, have they stuck around this entire time or have they disappeared a bit?

*Russ Bradley:*

The humpbacks and blues have pretty much disappeared, there were 2 humpback whales seen yesterday but basically from about mid-April those humpbacks and blues have pretty much disappeared, and have moved away from the islands, so they're obviously responding to some change in the distribution of food.

*Jennifer Stock:*

That's exciting. Now with the Cassin's Auklets, it's exciting to have that early setting up shop, is there's a chance for double clutches this year, since the food is so good that hopefully there will be two sets?

*Russ Bradley:*

Yeah I'll explain that a little bit, the thing about these birds is that, I'll give you a sense of what it's like to have them on the island. They're these little small birds, sort of miniature flying footballs that come in at night, come into their holes in the ground and sing, described by some people as crickets on steroids, that's the best definition I've heard, so these birds are all singing and digging, and as you said this population is very unique, ranges from Mexico to Alaska, and in the southern part of their range, and when the season is good, we can have birds lay in March and then what we call double-clutch which is after they rear a first young, they will lay another egg and have another chick, these last few years we've seen a lot of this and we've had chicks into October, and that's something that you see relatively commonly in songbirds and land birds, but in seabirds its extremely rare and we think a really good indicator of the length and strength of a productive ocean as krill go, from a krill perspective, is if its anything like the past few years, we expect to see very high rates of auklets again and lots of breeding into the fall.

*Jennifer Stock:*

It's great to hear such positive news from the ocean, we usually hear such bad news, I just did a climate change seminar for teachers and it's just very sobering, and its great to hear that the ocean is resilient and doing good things this year.

*Russ Bradley:*

Definitely, you know there's always challenges and we, with our over forty years of data, have seen some climate change impacts on the Farallones as well, and some species seem to respond very positively at certain times, and other species are definitely being affected in a negative way, but as far as krill and Cassin's Auklets are concerned, they are doing very well.

*Jennifer Stock:*

So this must be tied with the abundant salmon reports, are there tons of salmon out there?

*Russ Bradley:*

We've seen a few, but not too many, I think most of the salmon is along the coast right now, but you know salmon eat very similar things to seabirds, like krill and similar to other seabirds that eat fish. In some ways you can pick up seabirds as salmon with wings. That information that we can learn from seabirds can be used to help us understand what's going on with other species like salmon when we did that study at PRBO several years ago where we were actually able to look at and use the breeding success information from the previous year of Cassin's Auklets and incorporate that into the models that are used to predict salmon return in the Sacramento river, and actually improve the Fisheries models in their predictive ability, basically the bottom line is that we can learn from all aspects of the ocean, and by bringing these different sources of information together, we can better understand the animals that we care about and rely on.

*Jennifer Stock:*

That's exciting studies, bringing together ecology like that with predator and prey and how their interconnected. Moving on here, my question about the ocean conditions I'm not so sure I fully understand, but last year were we in a moderate La Nina period in the ocean, and do you think the ocean conditions tie in with that, can you talk about that at all?

*Russ Bradley:*

I think, I'm trying to remember, I think we may have been in a mild La Nina, but my experience in the Farallones over the past 10 years, is that that's something that's really come out strong, is that we appear to be seeing responses that are falling out of the conventional sense of the El Nino or La Nina conditions, certain species are responding in ways that are very different than what we've seen before, and even mismatch between krill and fish eating species, and that's something I'd like to highlight is that in the past few years the Cassin's Auklet has had such high breeding success, some of the fish-eating birds, in particular the Brandt cormorants, which is a species where the world's largest population breeds on the Farallon Islands, have done very poorly, they've had very poor breeding years, Western gulls as well have had poor breeding years, but there's this disconnect, on the island, where you think well there's lots of krill, there's got to be a lot of forage fish in the ocean, as well, and for certain species and the prey that they rely on, that doesn't seem to be the case. So we're starting to see some mismatches between different layers of the food web, which are very new and interesting to study as a scientist but also concerning because there are things that we really haven't seen before.

*Jennifer Stock:*

That's interesting, how do you find out what they are eating?

*Russ Bradley:*

So, part of our studies with seabirds involves looking at the diet, it's something that we think can help us using the birds as indicators for what is being eaten, and what is available to them. So we actually use the Cassin's Auklet, we collect a few samples every week of krill from birds that come in to the island to feed chicks, we get a sample of krill from them that we can send off and identify the krill species, the species like Common Murres and Pidgeon Guillemots we can sample the food they bring in to feed chicks, and we can identify them that way, and we can actually get fish from other species too from Rhinoceros Auklets, we're able to get some samples from fish in the hand that we can measure and compare with what is going on with fishery sampling for those forage fish, and for Brandt's Cormorant, we will actually get pellets, regurgitations, of hard parts of fish that aren't eaten by birds or their chicks, so at the end of the year we round them up and send them back to our lab at PRBO, where we have an incredible lab staff and volunteers and interns there who will meticulously go through them and remove the bones, the otoliths, the ear-bones of fish, and be able to identify the individual fish species inside these pellets that the cormorant are bringing in.

*Jennifer Stock:*

That's fascinating; I know you're doing that with an education program too, right? Some of the schools near San Francisco are having the opportunities to dissect them right?

*Russ Bradley:*

Yes that's part of our education program going on.

*Jennifer Stock:*

That's great!

*Russ Bradley:*

Yeah kids can get the chance to look inside cormorant pellets and see how scientist s and researchers conduct their work to figure out how birds are eating and help engage them in this incredible marine environment that's right outside their doorstep, and part of the city of san Francisco, for all those who live in san Francisco, and everyone in the bay area, that the Farallon Islands are legally a part of the city and county of san Francisco, and so there are truly spectacular resources out there.

*Jennifer Stock:*

Wonderful. So the Cassin's Auklets have set up, how about the Murre's and other birds, is it just becoming a wild cacophony of bird sounds right now?

*Russ Bradley:*

It is! The Murre's are just starting to lay their eggs so we have been busy up in the study lines every morning, following our plots and figuring out which birds have laid, and we're observing birds in lots of the plots, individuals we follow their entire lives, some of these birds live 30-40

years, so we're starting to see those Murre eggs being laid, brilliant green eggs, the adults are sitting and incubating them, so yes there's definitely a lot of activity going on, other species are starting to lay and the Cassin's Auklet had an early start but it seems like the other species are starting their breeding cycle, even the cormorants are starting to build their nests. So, pretty soon things will be reaching their peak and the island will be a loud and smelly place.

*Jennifer Stock:*

It's such a great time to get out on the boat and get out there, I haven't been out there in a few years but it's just such an amazing thing to see all those birds and everybody flying around, it's really exciting. Now I understand you recently had a very rare seabird sighting, just another week or so ago, can you tell us a little bit about that?

*Russ Bradley:*

Certainly, that was pretty spectacular. That was a few weeks ago, some of us on the island saw a large white bird on the island, flying around, and took a closer look and saw that it was in the shape of a bird that we see more in the tropical pacific called a booby, they have a unique shape, they are the birds that plunge dive into the water, in the pacific they are more tropical, and they look closer and see that this species was actually the Northern Gannet, which is a bird that is in the northern hemisphere, these are called Gannets, they are a purely Atlantic species. They breed and are distributed throughout the Atlantic Ocean, and one has never been seen this far south in the pacific. Now I've heard through various e-mails among seabird biologists that there were sightings of gannets in the Bering Sea, in northern Alaska, a single sighting of an individual, so this very well may be the same bird. We possibly could be looking at a bird that has flown through the northwest passage with some of the retreating ice up there, there's still a chance this bird rode on a ship on the Panama Canal, but basically this species has never been seen in CA before, and has never been seen in the lower 48 Pacific states before, a truly unique sighting, so there's been a lot of first CA records for birds seen on the Farallones, but this was totally and completely unique, and we saw the bird again last week! Flying over areas of the island, and everyone was able to see it clearly, so it's a truly unique bird sighting.

*Jennifer Stock:*

So they are fish eaters as well, so I imagine it is eating while it's here?

*Russ Bradley:*

Yeah one would hope that the bird would be able to forage and find a unique feeding strategy that some of these nature films like Blue Planet have really highlighted, which is that the birds actually plunge themselves into the water, wings back, spear into the water to be able to catch fish, so this bird has been able to forage successfully, and we hope that it stays around and we can continue to see it. We haven't seen it for a few days now but we suspect it's around.

*Jennifer Stock:*

Have you heard of any other sightings outside of the Farallon areas? Is there a list where people can put out info on any unusual bird that is showing up?

*Russ Bradley:*

You know I haven't heard of any other sightings of this bird. I know that other people have been out looking for it from Point Reyes, \_\_\_\_\_ told me he went out to Point Reyes as soon as he heard, but it hasn't been seen on the mainland.

*Jennifer Stock:*

Yeah Point Reyes lighthouse is a great place to really feel like you're out on the ocean, if you need your ocean fix it's so awesome to get out there. Especially on a foggy day. You just feel the ocean there. Another thing I want to ask you about, I heard that there is a restoration project underway that the USFWS is leading that is there to get rid of house mice. How did those mice get there, and what is the planning process so far?

*Russ Bradley:*

Certainly. So sometime in the mid-1800's during the first operations out here and Murre egging and all of that, house mice were introduced to the Farallones and have been here ever since. Basically the work that has recently been done with our partners in this project, Island Conservation, we've determined that the densities of house mice when their population cycle peaks in the fall are among the highest ever recorded in the world for wild populations outside of par cultural settings. They arrived very early, and their numbers are numerous, and they've got a lot of impact to species out here, both direct and indirect. We're involved with our partners island Conservation and with USFWS, and I want to remind people that the Farallones are a National Wildlife Refuge, so we are very fortunate to be able to work here with our partners. We are involved now in the preparation of an environmental impact statement, and the planning process for the proposed eradication of house mice, this has been a detailed and intricate process, we're all pretty sure it's the most involved process for rodent eradication in the history of the world, so there's a lot of effort to try to make sure that this planning document is as comprehensive as possible. That's going to be coming out to the public someday TBD, but later on this year. So we're definitely very involved in this process, we're assessing all aspects of potential alternatives, potential impacts, positive and negative, and this planning process is designed to evaluate those and picking the best alternatives for going forward. It's very exciting and challenging, it's something we're spending a lot of time on now.

*Jennifer Stock:*

That's exciting. Thanks for that update on that, I had heard tidbits about it but not so much on where things were going and as a person who actually got to visit the islands over 10 years ago, I remember how impactful the

mice were just on the human biologists that lived in the house. Pretty in depth.

*Russ Bradley:*

They're very numerous at their peak.

*Jennifer Stock:*

So we just have a couple more minutes left, I wanted to hear a little bit about the observations you've noticed, you've been out there about 10 years, and one thing I've been very curious about this year is that it seems like in the springtime, winds are getting stronger, and are here for longer periods of time, where in my memory we get wind and then it calms down. From now though, it seems like its windy and it doesn't let up, and I'm just curious from your time on the islands and maybe some of the data collected through the Farallon journal, have you noticed any difference in that?

*Russ Bradley:*

I think that the spring transition, overall, has definitely gotten earlier, and were seeing associated strong wind speeds with that. I don't know specifics in terms of analyzing our data on that, but in my experience I think from the week and a half I've been out here, there seems to be really strong winds without these relaxation events. That's just anecdotally, but there have definitely been very strong spring winds for a few years. It can really blow out here when the wind picks up throughout the day and into the evening, and I remember the last few years, the last couple springs we'd have these nights that are 45-50 knots of wind by the night and you're literally feeling the house move, these houses are incredible, they're built in the 1870's, they have amazing foundations and redwood beams but the power of the wind is palpable, and you can literally feel it while you're lying in bed.

*Jennifer Stock:*

Wow. Well, thanks, it will be interesting to see, I know that the upwelling is predicted to change with climate change, and I'm going to be kind of following this a bit, I'm just curious, I know in Santa Barbara they had record wind speeds last year, and more small craft advisories than average, it seems to be a trend on the CA coast and I'm wondering how closely associated it can be with Climate change, it's interesting.

*Russ Bradley:*

Definitely! And the upwelling drives the core components of the biological processes to the system. Any changes to that will have changes to further down the food web, in terms of how water is mixed and how nutrients are provided to plankton and how it works its way up the food chain. There's definitely potential for changes and impacts.

*Jennifer Stock:*

Well for now it's really good news that we've got krill and the birds are happy and the whales are around, and I really appreciate you sharing this



update with us today. Is there still a website, a blog that's being kept by folks on the island in terms of what's going on out there?

*Russ Bradley:*

Absolutely. You can always go find out more information from our website [www.PRBO.org](http://www.PRBO.org), we also have a blog that we keep about events that are happening on the island, you can get to that through the website or the address is [lostfarallons.blogspot.com](http://lostfarallons.blogspot.com), so you can see what's happening on the island out there, and if you want to see what's happening on the island anytime, you can go and see the webcam, we have a collaborative project with the CA Academy of Sciences, we have a web camera out on the island, so you can see what we see out on the island right now, you can find it through PRBO or Cal Academy's website. If you want a firsthand look, actually right now, when we were talking it was foggy and we couldn't see anything, but during the time we have talked the fog has lifted completely and I'm looking at the West Island and clear blue skies and Gulls building nests, and all is good on the Farallones!

*Jennifer Stock:*

That's great, Russ, Thanks again, I really appreciate it, and enjoy your time out on that special place.

*Russ Bradley:*

Oh, I always do, I always know how fortunate we all are to work out here, and it's a truly unique privilege to be part of something much bigger than any of us individually, so I still love it.

*Jennifer Stock:*

Wonderful, thanks, we appreciate it.

*Russ Bradley:*

Thank you Jenny!

*Jennifer Stock:*

Alright we've been talking with Russ Bradley the Farallon Program Manager for PRBO, we got a nice update on how things are doing out there, we've got a good year so far in terms of krill, the really important food for birds and mammals and fishes as well, and I'm sure my next guest on the next half will be excited to hear about good conditions set up for Jellies, which will attract his favorite species, those leatherback Turtles, but we're going to take a short break here and come back, I'm going to play a song about the Farallon Islands, written by a good friend of mine Buttercup Bill!

Nice little slow song to bring us into the second half of Ocean Currents, you're listening to the host, my name is Jennifer Stock, and in the studio with me I have Chris Pincetich from the Sea Turtle Restoration Project, Chris welcome!

*Chris Pincetich:*

Thanks for having me!

*Jennifer Stock:*

There's an exciting event that I think we can talk about, May 11<sup>th</sup>, I was talking with a friend and when she heard about it she signed right up! So maybe we'll get more people to sign up if you still have room.

*Chris Pincetich:*

Absolutely we still have room, and were hoping all folks across Marin County will get the news now and spread it far and wide, that at the Romberg Tiburon Center for Environmental Studies the Blue Mind is happening. The Blue Mind is an event conceived by a friend, a member of our board of directors at the Turtle restoration network, a world-renowned scientist of sea-turtles and innovator in ocean conservation, Dr. Wallace J. Nichols. Some of the years ago he really started tapping into how the functions of our brain, the structure, the way it connects us to our actions, is really critical in understanding. If we understand how our brain works, and how it drives so many of our actions that we don't think about even though we technically are thinking about them, we have a better chance of connecting people to the things that really need to get done, and when I say that I mean ocean conservation. We at the Sea Turtle Restoration Project have been working on this for over 20 years, I've been at the Turtle Island Restoration Network, the parent company for that and SPAWN and *Got Mercury*, and I've been at Turtle Island for four years now, and this is really going to be a great event that you can come learn about all of our projects that we do as an organization, and learn from some of the top minds in the bay area studying ocean conservation, marine Biology, and neuroscience.

*Jennifer Stock:*

I know this neuroscience thing is really interesting, I had J on our show in October 2009 and he was just starting to touch upon his thoughts on this whole effort, and I'm so curious to hear how it's going, it's something that the whole conservation world wants to know is "how do we get people to care?" and some of them do and we just don't know it, so finding out the intricacies of that is mind blowing. Is he going to be talking or having other special people present about that? Is that psychology or brain neuroscience?

*Chris Pincetich:*

Yes, all of the above is happening as a matter of fact! We have a more inclusive daytime program that's 10-4 and Jay is going to be giving a talk on his projects and running a panel on Blue Mind at 3:30, we will have an intermission break and then we can reconvene at 6 for the inception of the Blue Mind Evening, and the evening program will be amazing, that's when Jay will have the podium to explain all he has found, really unlock the secrets to the connections we have to the ocean and how we can take action to save the ocean in meaningful ways. Then he will bring together a panel of his expert Blue Mind people, from award winning teachers that are instructing teachers in new creative ways, to neuroscientists from Stanford who are hooking people up to MRI scans as they ask them how

they value nature, about how their decision process works when, for example, asked to donate to help save the planet, and then also we're having Jodi Lomask who leads the Capacitor Performance Group, they just finished their first run of Okeanos, on the oceans. It was an amazing performance I got to see in April, she will be there talking at length about that experience and more, so really diverse group of speakers, diverse group of neuroscientists, educators, artists in the panel and attending. We've got a fantastic list of people who are already registered and I hope we can get more! We still have room, it's at [seaturtles.org/bluemind](http://seaturtles.org/bluemind) if you want to type that in you can go to our website [seaturtles.org](http://seaturtles.org), you'll see Jay Nichols holding a sea turtle as part of his research, click on that photo and it will take you to the page to learn all about Blue Mind.

*Jennifer Stock:*

Great! Just to recap, earlier in the day from 10-4 is a symposium where scientists who are doing research and leading conservation projects can present and the public can come and listen to this, it's a bunch of sessions, and you're going to have an overview of all the different projects at Sea Turtles? Are there some other ones too?

*Chris Pincetich:*

We've got two presenters from SFSU, those researchers are doing some amazing work, we've got Dr. Katherine Boyer, her entire talk is about essential eelgrass restoration to habitats, because as most people know, San Francisco Bay can serve as a massive filter and estuary to clean the water before it gets to the ocean, and then we're also having Dr. Jonathan Stern about the re-occupation of Harbor Porpoises in San Francisco Bay, I've already seen his photos, they're unlike anything I've ever seen, some really intimate behavior with those harbor porpoises. Yes so we have David Helvarg, author and leader of the Blue Frontier Campaign, he'll be talking about his books on saving the sea. Myself, my talk is Pacific Leatherbacks: Giants in Jeopardy, Plagued by Plastic. We've got the Center for Biological Diversity's Katherine Kildiff, talking about saving blue fin tuna from extinction, David Maguire who's now with turtle Island Restoration Network, leading Shark Stewards, who will bring us up to speed on the current research of sharks in the SF bay, and our nationwide efforts to ban Shark Fins. We were successful in CA and are spreading that around the nation. The final talk is Jay, Dr. Wallace Jay Nichols, on his blue marlin project, on his sea turtle research and learning to live and love the ocean.

*Jennifer Stock:*

Excellent. So, Blue Mind Conference this Friday May 11<sup>th</sup>, at Romberg Tiburon, go to [seaturtles.org](http://seaturtles.org) for the full schedule and registration information. Hopefully we will have a robust turnout. Not very often do all these people come together just to share this incredible information, so I hope you get a really good, diverse turnout. What else is happening with sea turtles? I was reading about the leatherback sea turtles as

potentially becoming an official state symbol for CA. can you tell us a little bit about this?

*Chris Pincetich:*

Yeah you're referring to our current campaign to send Assembly Bill 1776 through CA legislature right now. That bill would name the leatherback sea turtle as the official marine reptile, a symbol of the states biodiversity and conservation ethic. It would also name October 15<sup>th</sup> as Leatherback Sea turtle Conservation Day, and it really comes on the heels of an amazing accomplishment for our organization, to have the largest protected area for sea turtles in conservation history established off of CA and off of the west coast, and that's the critical habitat designation for the pacific leatherback sea turtles. So we've had this bill idea, to give the sea turtle recognition to the state of CA for over a year, we didn't get a sponsor. This year, with the designation of the critical habitat, there's a whole list of federal scientists who have signed off on the document that CA is critical to the leatherback life and history, therefore a critical designated habitat for the endangered species. With that document in place, it really validated the effort, I think it mainly has to do with the timing that we got the support, and we cleared the first hurdle, it's headed towards a few senate committees in June, and we could use your support. Got o seaturtles.org, look for the bill, do a quick search for AV 1776 and there's ways to take action, were looking for leatherback leaders to lead efforts in classrooms, we've got hundreds of letters out of some events in Pacifica over earth day, great letters from kids, they aren't voters but they are the future.

*Jennifer Stock:*

They're great, my sister and my niece were at that event and they loved it.

*Chris Pincetich:*

Fantastic! We are also just gaining more and more support letters, most important are these coastal businesses that need healthy oceans. We've got whale watching tours, different charters already writing into Sacramento saying "healthy oceans are essential to our business" raising awareness whether its leatherbacks or a gray whale tangled in ropes, reminds people to what's out there and to be aware and make sure we do take care and save the oceans. Through all of our actions every day.

*Jennifer Stock:*

Fantastic, I think it's an awesome way to bring attention to this poor species that is really suffering but hopefully this is a way to give it some help. Well Chris, we actually have a couple more minutes, what else is going on, I know you said you may have some World Oceans Day celebrations going on?

*Chris Pincetich:*

Yes, Blue Mind is kicking off a fantastic season, engaging with public, sharing our conservation work. It's going to be a highlight and a jewel in our conservation work, but world oceans day is coming right up, and if

you go to [Seaturtles.org/events](http://Seaturtles.org/events), you'll get straight to our events page, David Maguire has set up a world oceans day party with a film at the amazing fish restaurant in Sausalito, we'll be going to cal academy Thursday nights, both Thursday June 7<sup>th</sup> near world ocean day and June 14<sup>th</sup> which is right next to world sea turtle day. That will be a sea turtle themed nightlife. If you've never been to Cal Academy Nightlife, it's quite a scene, you have access to almost the whole museum, all the exhibits, its adults only, and they serve cocktails so it's quite a night.

*Jennifer Stock:*

Fantastic! Well Chris thanks again for coming in to Ocean Currents! Another local ocean organization, it's great to hear what's going on!

*Chris Pincetich:*

Oh you're welcome, I love talking about the ocean.

*Jennifer Stock:*

I'm going to take us to a quick break here because Chris I have a special song for you with your sea turtle passion, we've got a great song from the Banana Slug String Band, here is a quick break with that. Now to wrap up today, this is Ocean Currents, my name is Jennifer Stock, thanks for joining us today, and we had Russ Bradley from the Farallon Islands calling in earlier, got a great idea of what is happening out there, and just heard a bit of an overview of Blue Mind with Chris Pincetich, of Sea Turtle Restoration Project. Blue Mind Conference is this Friday, and sounds like a fantastic overview of ocean conservation work going on during the day, and it involves stuff that we don't talk about too much, and that is our brains, and how they work, and I'm looking forward to learning more about that. You can go to [www.seaturtles.org](http://www.seaturtles.org) to find out more about that. A reminder for everybody is that there is a super low tide tomorrow, we had the incredible super moon that brought some low tides that allowed us to access an area we don't get to get to often, that intertidal area, when the tide is out we get to see this wonderful environment along the coast there are some great tide pool areas, so it's supposed to be a negative 1.8 tomorrow, so that's pretty exciting. I just want to remind folks to please be careful when walking in the intertidal area, those are creatures that are hanging on to the rocks and trying to survive so please walk very carefully and of course be keeping an eye on the ocean at all times, making sure you're communicating with folks about where you're heading out to. Be safe out on the coast and out on the water. I want to share one little story that popped up into the news, it's a nice one, unfortunately we have a problem with whales getting tangled and old fishing gear up and down the coast from time to time, and earlier this year in April there was a gray whale off the coast of Southern California near Orange County, spotted with some gear on it, and the NOAA officials have a disentanglement network of people that are trained to handle and remove this gear, couldn't relocate the whale. Well it just showed up here locally, right outside of bodega bay, it started migrating north, and a

fisherman saw the whale and was wondering what all the stuff was moving along the surface, got a closer look and realized this whale had a bunch of gear on it, and he took a very brave step and decided to try and remove it and he successfully did, but you do want to know that there is something called the Marine Mammal Protection Act, and he is very lucky that NOAA recognized his good faith effort and he was exempted from any charges but it's a good idea to call the local authorities for helping trained people get out there, because these animals are huge and can be quite dangerous. You can call locally here the Marine Mammal Center, I think its 1-800-SEAL, you can call the center and they activate the network right away, if you happen to see any mammals entangled in gear, but luckily he was able to get the whale free and get exempt for any charges. People care! They want to help these animals that have the misfortune. I'm excited that this whale is on its way without any gear on its tail. So, good year so far in the ocean, good krill and ocean conditions, enjoy your locally caught salmon, and we will be back next month on Ocean Currents with another show, the show is the first Monday of every month part of the West Marin Matters Series, you can tune in every Monday to hear some topic of local or global relevance on the environment. You can catch old episodes of Ocean Currents at [cordellbank.noaa.gov](http://cordellbank.noaa.gov). I've got 5 years of shows, so you have a lot of catching up to do if you haven't tuned in, you can also look for it in iTunes. I'd love to hear from you if you have any information you'd like to share, any feedback, my email is [Jennifer.stock@noaa.gov](mailto:Jennifer.stock@noaa.gov). Thanks again for tuning in to ocean currents, and I'm going to pass it off in just a few minutes, we have the west Marin report coming before cruising with guest host Loretta Farley. Thanks for tuning in!