



CALIFORNIA WETFISH PRODUCERS ASSOCIATION

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March 15, 2017

Mr. Herb Pollard, Chair
And Members of the Pacific Fishery Management Council
7700 NE Ambassador Place #200
Portland OR 97220-1384

RE: Agenda Item G.2. Anchovy OFL Process

Dear Mr. Pollard and Council members,

As Executive Director of the California Wetfish Producers Association (CWPA), representing the majority of coastal pelagic species 'wetfish' fishermen and processors in California, I appreciate your consideration of our continuing concerns in the ongoing discussion regarding anchovy management.

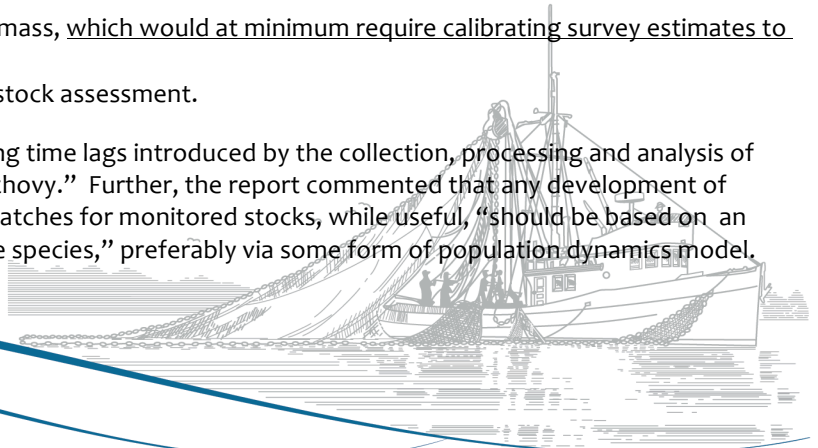
Summarizing points made in our earlier Council testimony and comments [F.3.c.Sep '16, F.4.c. Nov '16]:

- **"... the biomass of the central stock of northern anchovy is extremely variable and that this variability occurs with and without a significant fishery on the stock. [Richard H. Parrish, Agenda Item H.3.b Supp. Public Comment 4, Nov 2015]**
- **"... In 2015, the catch-per-tow of northern anchovy YOY ... was at record levels over the 2015 sampling period, with the frequency of occurrence near 80% for the entire survey... This would suggest that 2015 summer anchovy spawning was widespread ..." [Juvenile Rockfish Midwater Trawl survey for pelagic juvenile (young-of-the-year, YOY) rockfish - Central California Coast, May-June 2015 [pages 3-4]].**
- **Fishermen have observed and continue to observe a great abundance of anchovy of various sizes [small to large] from northern to southern California. Fishermen presented evidence of this abundance during public comment at the November 2016 meeting. This recruitment was not included in the egg/larval assessment developed in 2016.**

The SSC November '16 Supplemental Report identified several important steps and data needs that must be considered to develop a revised OFL:

- Estimate F_{MSY} or identify a suitable proxy
- Develop methods for estimating total stock biomass, which would at minimum require calibrating survey estimates to account for unsampled areas
- Preferably analyze all the data in an integrated stock assessment.

The SSC report also noted "the importance of considering time lags introduced by the collection, processing and analysis of abundance data due to the highly dynamic nature of anchovy." Further, the report commented that any development of procedures for updating OFLs and allowable biological catches for monitored stocks, while useful, "should be based on an understanding of the population demographics of these species," preferably via some form of population dynamics model.



The extreme variability of anchovy was also highlighted in a comment submitted by Dr. Richard Parrish in November 2015 [H.3.b. Supp. Comment 4, Nov 2015]: *“Clearly the biomass variations ... demonstrate that in the central stock of northern anchovy biomass estimates are worth very little for real time management if they are more than one year old.”*

In another comment [G.4.c. Nov 2016], he wrote: *“The fact that the annual egg and larval abundance estimates rose by nearly an order of magnitude from 2004 to 2005 and fell by more than an order of magnitude from 2005 to 2007 should convince anyone that real time management of the central stock of anchovy based solely on the egg and larval estimates do not even allow the determination of the year-class of the super abundant cohort.”*

Dr. Parrish also stated: *“The original CPSMT (of which I was a member) decided that the egg and larval surveys were not accurate enough to be used to calculate the spawning biomass of the central stock and the stock was therefore not managed on an annual basis.”*

In fact, northern anchovy was assigned to Monitored status at the onset of Amendment 8, expressly because landings had shrunk dramatically from the heyday of the fishery, when large volumes of anchovy were landed primarily for reduction. Catches have remained well below their respective ABC/ACL levels since implementation of the CPS FMP in 2000.

As both the SSC and CPS management team have acknowledged, neither the CalCOFI egg/larval production nor Acoustic Trawl surveys cover the full range of anchovy. Neither method surveys the nearshore [inside 50 meters], and neither method has measured the **total abundance** of anchovy (and sardine) observed by fishermen in recent years.

Further, there is a dearth of aged samples available to inform Daily Egg Production Method (DEPM) estimates. As the SSC noted in its November 2016 Supplemental Report, *“A proper expansion from eggs and larvae to spawning biomass would require data on sex ratio, mean female weight and fecundity.”* The SSC agreed that it would be inappropriate to scale egg/larval indices using DEPM estimates from the 1980s, now the only data available.

The Council action at this meeting is to provide guidance on the process, timeline and alternatives for developing a revised OFL for California anchovy. It is important to understand that anchovy biomass variability demonstrates the extremely difficult, and impractical, task of attempting to assess anchovy on an annual basis. Annual stock assessments would be hugely expensive for a fishery that has averaged less than 10,000 mt per year over the past two decades.

Moreover, In a lightly fished, highly dynamic monitored stock like anchovy, OFL should not be based on a single stock assessment. Rather, OFL/MSY is intended to reflect the largest average fishing mortality rate that can be harvested over the long term.

Please recognize that catches have averaged less than half of the precautionary 25,000-mt limit since the 1980s. As Dr. Richard Parrish pointed out, *“The fact that the stock [biomass] remained in the 0.2 to 0.5 MMT range from 1990 to 2004, surged to over 2.0 MMT in just two years and then fell by more than an order of magnitude in the next couple of years does not appear to have been “monitored” or noticed. **The anchovy fishery showed no response to the increased population... Fishery management has had essentially no impact as the conservative annual quota was larger than the market.**”*

The CPSMT White Paper on Anchovy Management [E.3.a Sep 2016] noted an increase in California anchovy landings in 2015 [to about 17,500 mt – still well below the precautionary harvest limit], and stated, *“... when higher value fisheries such as market squid and Pacific sardine are slow due to lack of availability to the fishery or*

season closures, northern anchovy landings tend to increase...”. This was clearly the case in 2015, with the sardine fishery closed and squid on sabbatical due to El Niño. California’s anchovy fishery provides a lifeline to fishermen and markets alike, keeping the boats on the water and market doors open during slack times. California’s anchovy fishery is like an insurance policy.

Also important to note, a recent study, *When does fishing forage species affect their predators?* [Hilborn, R. et al, Fisheries Research, Amsterdam] finds that variability in small coastal pelagic fish (i.e. anchovy and sardine) is controlled predominantly by the environment. Scientists concluded that patterns appear to be driven by both density-dependent and density-independent dynamics (Lindegren et al. 2013) and have been ongoing long before the presence of commercial fishing.

The study also shows that neither anchovy nor sardine abundance influences the rate of change in predator abundance (i.e. sea lion or brown pelican populations). Current management of CPS stocks is precautionary, conservative, and successful. Fishing pressure is generally negligible compared to the large-scale effects of environmental forcing.

Clearly, there is no biological point of concern re: anchovy abundance, but there could be a serious socio-economic point of concern if the small harvest limit now allowed in the CSNA fishery is further restricted.

The reduction fishery is history now. However, the anchovy fishery is still very important to California’s historic wetfish fleet as a target when no other CPS are available. **A further reduction in current harvest limits, precluding fishing opportunity to fish on anchovy in slack times, could be the proverbial last straw that curtails California’s wetfish industry, the backbone of California’s fishing economy.**

We again recommend that the Council :

[1] retain the status quo management option for the California anchovy fishery, with the current harvest specifications, which represent a reasonable average OFL and precautionary harvest limit, in light of the variability in anchovy abundance and the negligible impact of the fishery on the resource and dependent predators.

[2] acknowledge recent record anchovy recruitment and

[3] recognize the need to expand surveys to completely assess biomass (both anchovy and sardine) in nearshore habitat [inside 50 meters], as well as the upper water column.

Because of its importance to California’s historic wetfish industry and negligible impact on the ecosystem, this fishery should be allowed to continue under its current management framework.

Thanks very much for your consideration of these recommendations.

Our best regards,



Diane Pleschner-Steele
Executive Director

Prey abundance and predator rate of change in the California Current

*The following information is from Hilborn, R., Amoroso, R, Bogazzi, E., Jensen, O.P., Parma, A, Szuwalsky, C., Walters, C.J., accepted for publication in Fisheries Research – tentative release date March 30, 2017.

When does fishing forage species affect their predators? Fisheries Research (Amsterdam).

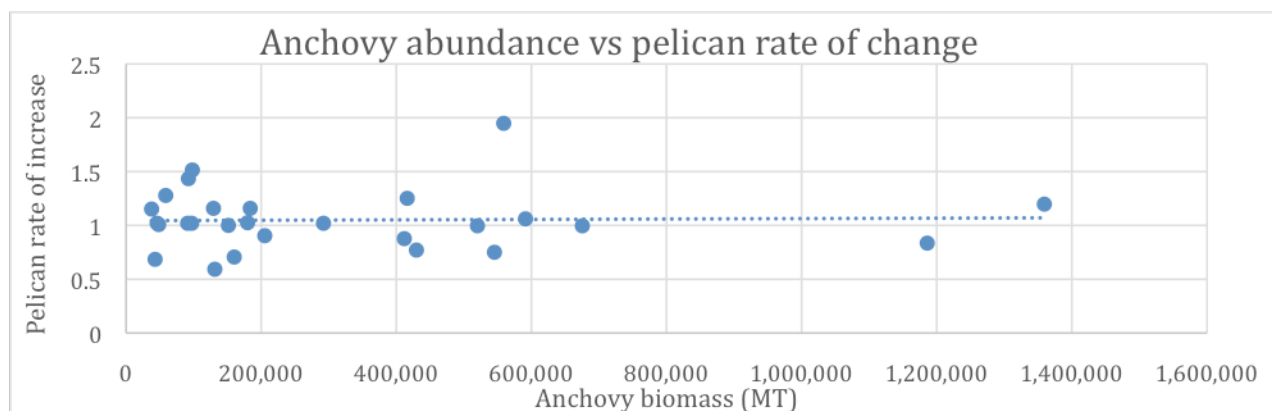
Data compiled by Joel VanNoord, supervising scientist for the California Wetfish Producers Association.

Key findings:

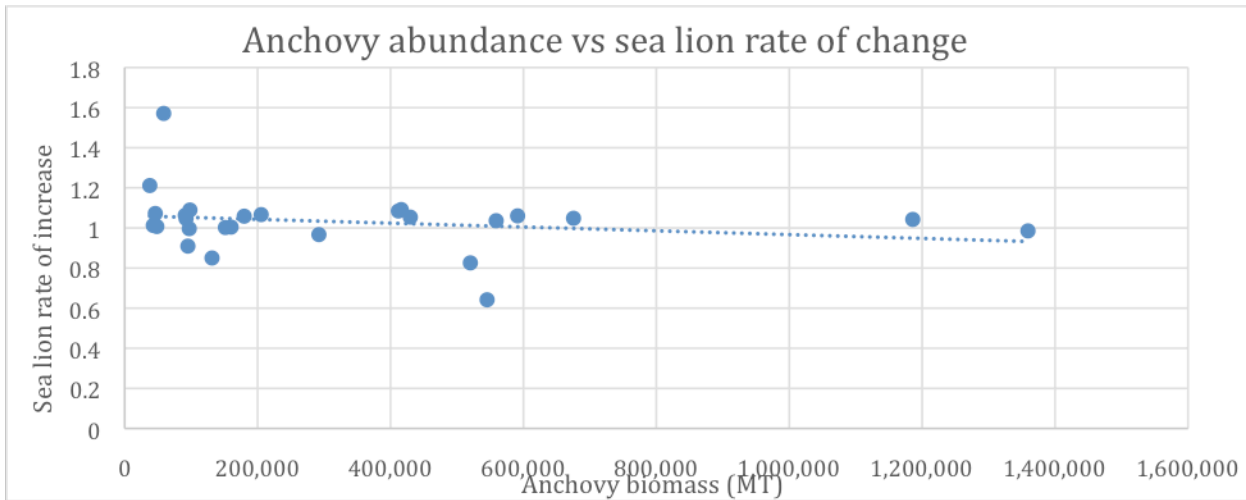
- Predator rate of increase is uncorrelated with forage fish abundance.
- Forage species are affected much more by environmental conditions than by fishing.
- Previous analysis of forage fish impacts on predators ignored natural variability.
- Spatial distribution of forage species may be more important than their abundance.
- Predators often take small forage fish that are unaffected by fishing.

Neither anchovy nor sardine abundance influences the rate of change in either Sea Lion or Brown Pelican populations.

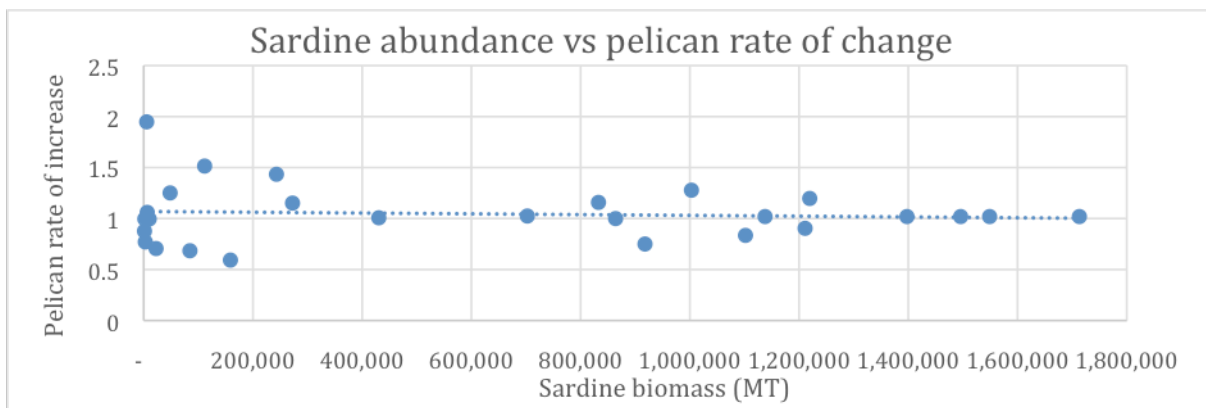
If anchovy or sardine populations controlled the growth rate of predators, we would expect an increasing population growth rate for predators with an increasing sardine or anchovy population. For example, the predator population would increase as more prey became available. Abundance data do not support this, however. We see a constant predator growth rate regardless of the population size of either anchovy or sardine.



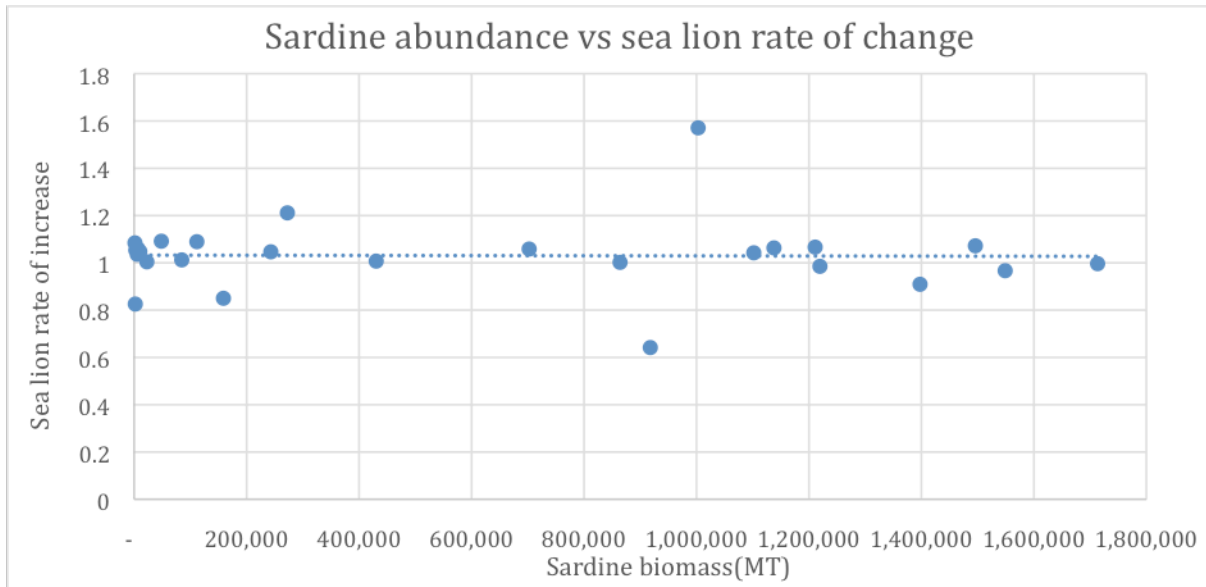
The estimated yearly biomass of the central subpopulation of northern anchovy ranged widely, from ~40,000 to nearly 1.4 million metric tons during the period from 1981-2009. Despite a wide range of anchovy prey available, the rate of increase of pelican nests remained unchanged during the same time period. A rate of change value of 1 indicates no change in the population. This pattern is similar for both predator and prey relationships, shown in the three graphs below.



The amount of anchovy prey available in the water also had little effect on the rate of change on the abundance of sea lion pup counts from 1981-2006.



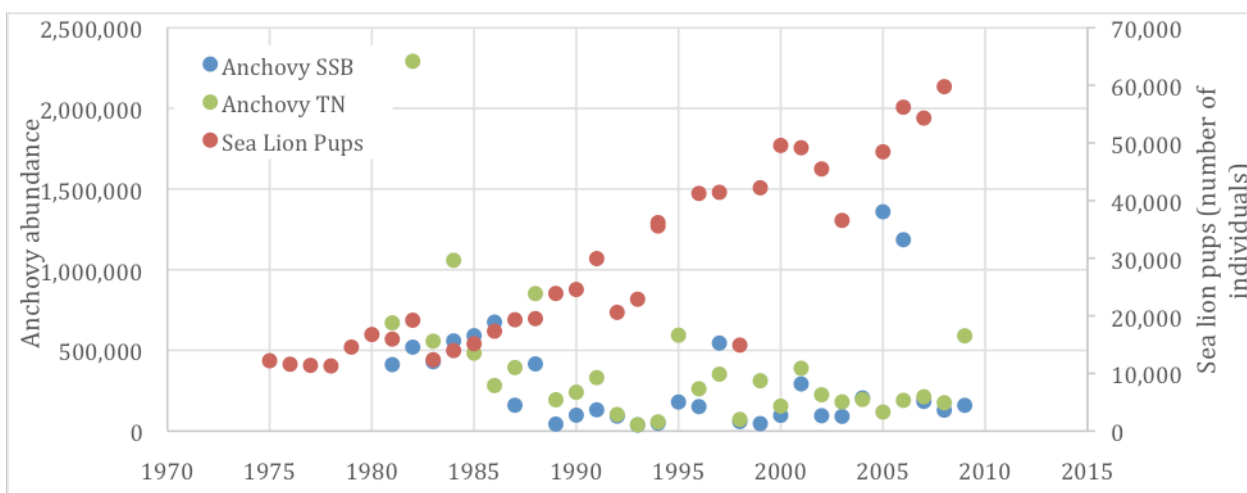
Sardine abundance ranged from < 7,000 to ~1,700,000 MT during the period from 1981-2007. Despite this wide range of estimated prey available in the water from year to year, the rate of change of pelican nests was not affected by this, meaning the growth rate was the same whether there were 7,000 MT of sardine, or 1,700,000 MT.



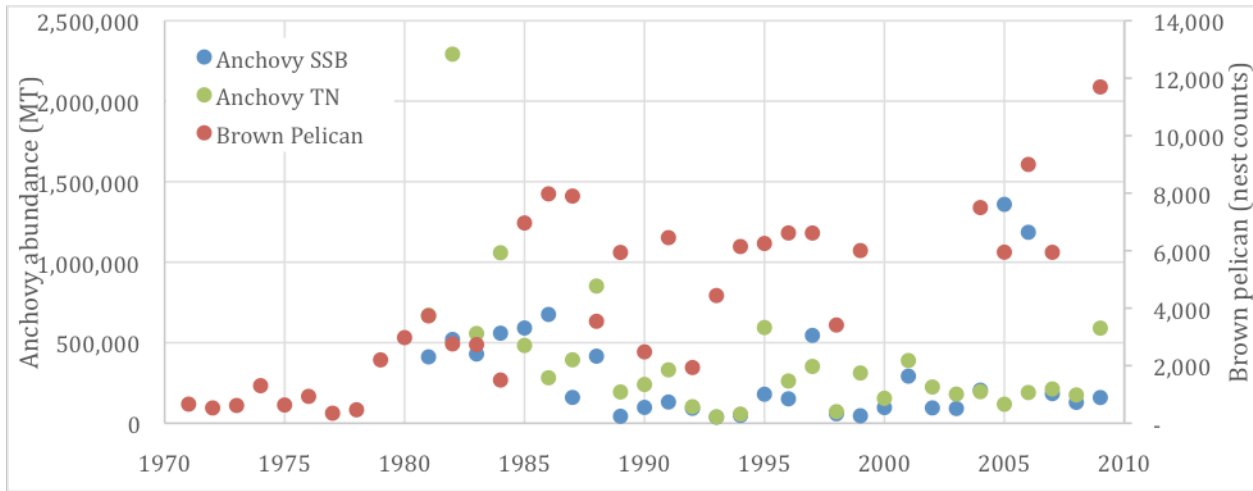
The amount of sardine prey available in the water also had little effect on the rate of change on the abundance of sea lion pup counts during the period from 1981-2006.

Predator populations increased while prey declined

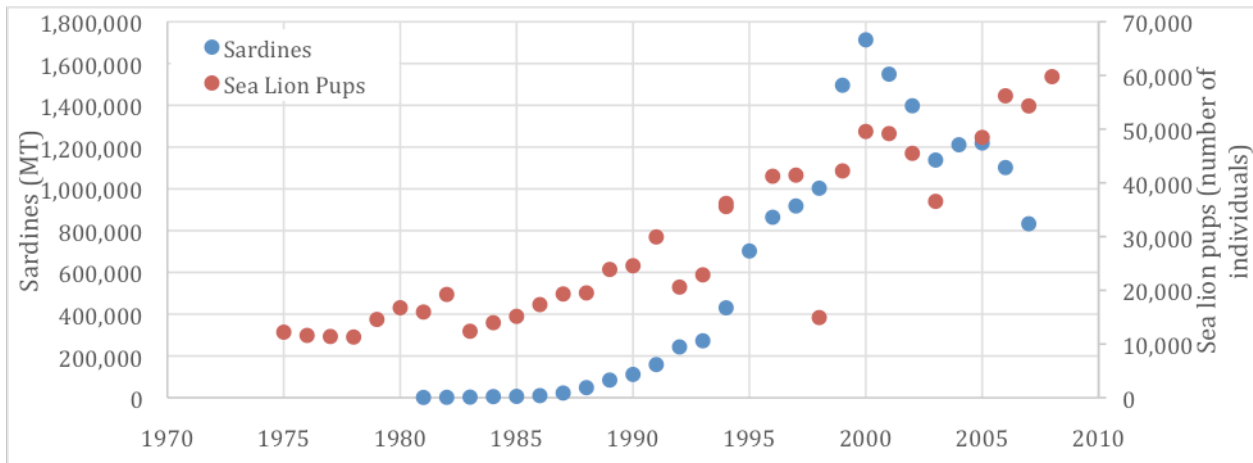
Sea Lion and Brown Pelican abundances have increased steadily from 1971 to 2009 despite declines and variability in anchovy and sardine populations. This is especially evident for anchovy populations, which seem to show an inverse relationship with sea lion pup counts. This shows a thriving predator population increasing over time, despite variability in prey populations and declines in anchovy abundance.



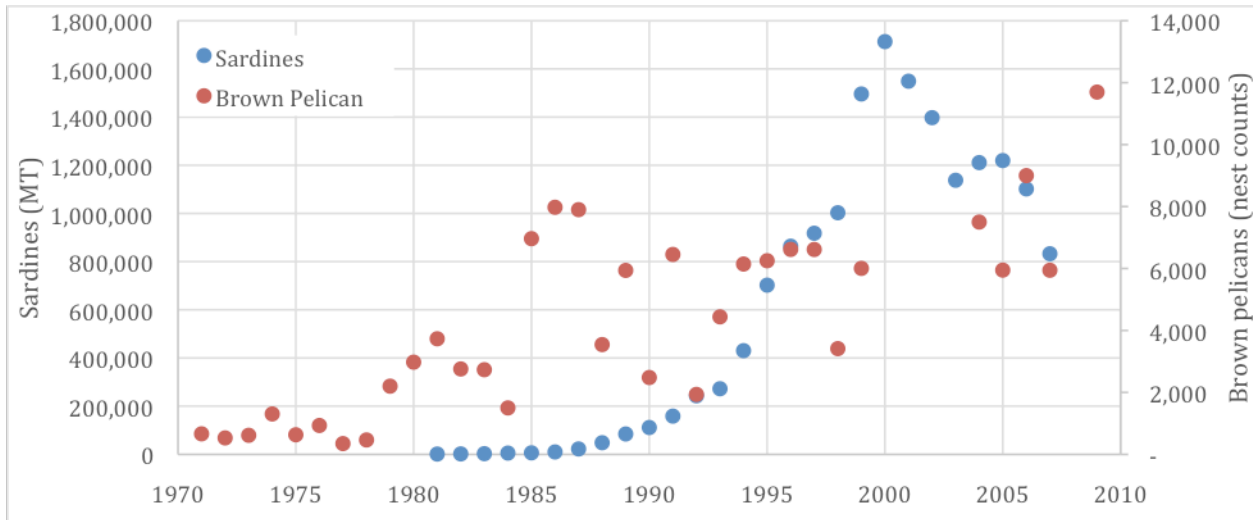
Sea lion pup counts increased dramatically from the 1970's to the present, despite an overall decrease in anchovy biomass available. The sea lion abundance increase is largely associated with the success of increased protections enacted with the 1972 Marine Mammal Protection Act. The major drop in sea lion pup counts seen in 1998 was largely attributed to warm ocean waters caused by the historically strong El Niño of 1997-98. SSB refers to spawning stock biomass, TN refers to total numbers.



Brown pelican nest counts were as low as 663 nests in the early 1970's. These low population levels are largely due to the widespread use of pesticides, such as DDT and dieldrin, which caused high hatching mortality due to a thinning of the egg shells. After the elimination of these pesticides, brown pelican nest counts rose dramatically during the 1980's to a high of ~12,000 nests in 2009, this is despite decreasing and variable anchovy population estimates, indicating that the population recovery was largely due to the removal of poisons from the environment, and not the availability of additional prey resources.



Sardine and sea lion pup counts were in sync from the 1980's through 2000, when the sardine population began to decline, largely due to a changing oceanographic regime. Despite this drop in sardine prey availability, sea lion pup counts continued to increase.

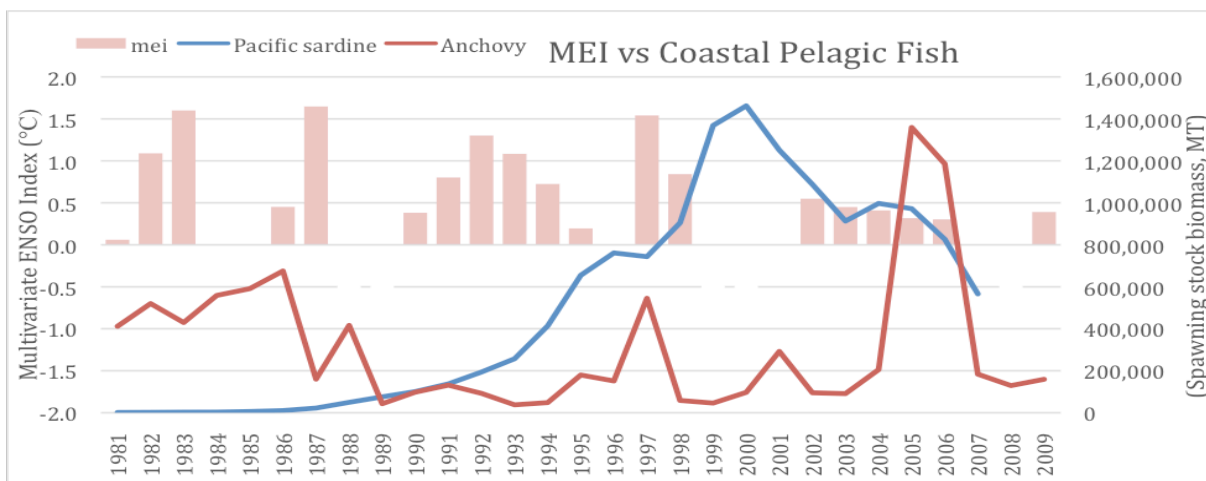


Brown pelican nest counts were very low in the 1970's, in large part to the widespread use of pesticides and such as DDT and dieldrin, which caused a thinning of pelican egg shells. After the elimination of these pesticides, brown pelican nest counts rose dramatically during the 1980's, a period when the sardine population was low. The brown pelican population then leveled off as the sardine population hit an estimated high in 2000 before dropping off again. Brown pelican nest counts were largely uninfluenced by sardine abundance.

Small coastal pelagic fish variability controlled by the environment

Anchovy and sardine are short-lived species that undergo periodic, asynchronous and large-scale population fluctuations that are driven by warm and cool phases of the El Niño Southern Oscillation and the Pacific Decadal Oscillation. We can see that in the time series below, where the anchovy population is initially high, drops, and begins to rebound. The sardine population is initially low, peaks in 2001, and begins to decline. This pattern has been ongoing long before the presence of commercial fishing. Lindegren et al. (2013) modeled the population fluctuation from the 1660's onward and found the same large-scale and asynchronous patterns of population expansion and contraction.

These patterns were concluded to be driven by both density-dependent and density-independent dynamics (Lindegren et al. 2013). Management of these stocks is precautionary, conservative, and successful. Fishing pressure is generally negligible compared to the large-scale effects of environmental forcing.



Notes and sources of data:

Data prepared by:

Hilborn, R., Amoroso, R, Bogazzi, E., Jensen, O.P., Parma, A, Szuwalsky, C., Walters, C.J. submitted. When does fishing forage species affect their predators? Fisheries Research (Amsterdam).

Brown Pelican: data were extracted from a graph reported at

<http://www.esasuccess.org/birds.shtml>

California Sea Lion:

Carreta, J. V, Forney, K. A, Oleson, E., Martien, K., Muto, M. M., Lowry, M. S., Barlow, J., Baker, J., Hanson, B., Lynch, D., Carswell, L., Brownell Jr., R., Robbins, J., Mattila, D. K., Ralls, K. and Hill, M. C. 2011. US. Pacific Marine Mammal Stock Assessments: 2011. NOAA-TM-NMFS-SWFSC-448. 356 pp.

Pacific Sardine:

Hill, K.T., Dorval, E., Lo, N. C. H., Macewicz, B. J., Show, C. and Felix-Uraga, R.. 2007. Assessment of the Pacific Sardine Resource in 2007 for U.S Management in 2008 .NOAA-TM-NMFS-SWFSC-41. 157 pp.

Northern Anchovy:

Fissel, B. E., N. C. H. Lo, and S.E. Herrick. 2011. Daily egg production, spawning biomass and recruitment for the central subpopulation of northern anchovy 1981–2009. CalCOFI Rep. 52:116-129.

Lindgren, M., Checkley, D.M. Jr., Rouyer, T., MacCall, A.D., Stenseth, N.C. 2013. Climate, fishing, and fluctuations of sardine and anchovy in the California Current. PNAS. 100:33, 13672-13677.

Abundance of anchovy and sardine correspond to the best estimates of the spawning biomass expressed in metric tons. In the case of the California Sea Lion, the preferred time series of abundance correspond to pups counts. For Brown Pelican, we used the number of nests as a proxy for abundance.

Rate of change for predators was calculated by subtracting the log of next year's abundance from the log of the current year's abundance estimate, divided by the number of years between counts, and then taking the exponentiation of that. So that,

Rate of Change = $e^{\log(abund.y2) - \log(abund.y1)} - 1$,

Where e is the exponential, $abund.y2$ is predator abundance in the subsequent year, $abund.y1$ is predator abundance in the current year, $y2$ is the subsequent year, and $y1$ is the current year.



111 SW Columbia Street, Suite 200
Portland, Oregon 97201
pewtrusts.org

March 16, 2017

Mr. Herb Pollard, Chair
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

RE: Agenda Item G.2: Central Subpopulation of Northern Anchovy OFL Process

Dear Chair Pollard and Council Members,

The Pew Charitable Trusts is submitting public comment on behalf of 718 anglers and outdoor enthusiasts who support the development and adoption of updated management measures for northern anchovy. These advocates attended one of several sportfishing events along the West Coast in early 2017, including the Northwest Sportsmen's Show in Portland, OR, and the Fred Hall Show in Long Beach, CA.

The petition itself is included here, along with a compilation of the names, cities and states of individual signers that were submitted to the Council as of this morning, March 16, 2017. You may continue to receive additional messages over the next two weeks.

Thank you for your time and consideration. We appreciate the opportunity to work with you to maintain sustainable fisheries and healthy ocean ecosystems.

Bobby Hayden
Senior Associate, U.S. Oceans, Pacific
The Pew Charitable Trusts
rhayden@pewtrusts.org

Mr. Herb Pollard, Chair
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220

Dear Chair Herb Pollard and Pacific Fishery Management Council members:

Northern anchovies are among the most important forage fish in the California Current ecosystem, but management of the stock is based on decades-old information. These fish are a critical food source for salmon, tuna, brown pelicans, humpback whales, and dozens of other marine species. In light of scientific studies showing that anchovies are now at very low numbers, I encourage you to act.

Please adopt an ecosystem-based management framework that protects northern anchovies' crucial role in the Pacific Ocean food web, with measures such as catch limits informed by the best available science and a precautionary cutoff that suspends fishing when populations are low. These efforts can ensure adequate prey for dependent predators, prevent overfishing, and support strong coastal communities.

Sincerely,
We the undersigned:

Bob Kurz
Laguna Niguel, CA

Anna Caldwell
Los Angeles, CA

Brad Shearson
San Diego, CA

Sally Kurz
Laguna Niguel, CA

Anneka Boone
Los Angeles, CA

Angel Yin
Arcadia, CA

SM McDonald
Glendale, CA

Anthony Vale
Lakewood, CA

Brenton Woolworth
Irvine, CA

Vanice Villa
Los Angeles, CA

Art Loya
San Bernardino, CA

Brian Larson
Los Angeles, CA

Richard Valenzuela
Long Beach, CA

Andy Vierra
Sacramento, CA

Paula Segurna
Fresno, CA

Justin Adkins
Glendora, CA

Baya Kabba
Torrance, CA

Mayra Cabrera
Chino, CA
John Falling
Waianae, HI

Alana Herrera
Los Angeles, CA

Joseph Hough
Fawnskin, CA

Carl Barry
Long Beach, CA

Ashley Albo
Laverne, CA

Marina Ferguson
Huntington Beach, CA

Mark De la Torre
Costa Mesa, CA

Andrea Kemp
Santa Monica, CA

Bradley Goodard
Gardena, CA

Chase Puentas
Avalon, CA

Chris Hogh
Las Vegas NV

Clara Holmes
Long Beach, CA

Christian Gange
San Diego, CA

Carl Brealey
Oceanside, CA

Alan Skobin
Chatsworth, CA

Damien Parker
Long Beach, CA

David Davila
Lakewood, CA

Diana Raimondo
Riverside, CA

Chris Skytte
Garden Grove, CA

Don Lee
Seal Beach, CA

Dustin Senella
Costa Mesa, CA

Evan Nelson
Laguna Niguel, CA

Kye Cror
El Segundo, CA

Eric Andersen
Hemet, CA

Erika Shintaky
Gardena, CA

Eric Shintaky
Gardena, CA

Hannah Germonpez
Los Angeles, CA

Gregg Hedrick
El Segundo, CA

Guillaume Pfahl
Larkspur, CA

Sergio Perez
Seal Beach, CA

John Hampton
Rancho Cucamonga, CA

Jacqueline Covarrubias
Rialto, CA

Isabel Villarreal
Buena Park, CA

David Pi
Los Angeles, CA

Jarrell Bergado
Signal Hill, CA

Jeff Bloks
Monrovia, CA

Jacob Luera
Azusa, CA

Jim Shankin
Santa Barbara, CA

Louis Lee
San Pedro, CA

Jared Benites
Anaheim, CA

Joseph Surgoft
Anaheim, CA

Randy Flores
Torrance, CA

Joshua Potter
La Canada, CA

Karla Martinez
Los Angeles, CA

Kathleen Medina
Murrieta, CA

Kaytee Canfield
San Luis Obispo, CA

Kaz Hata
Long Beach, CA

Kimberly Zwefow
Long Beach, CA

Kirk Scholrecck
Manhattan Beach, CA

Kirk Lindemann
Huntington Beach, CA

Kim McAlister
San Diego, CA

Kristy Moore
Long Beach, CA

Kellsie Warrell
Menifee, CA

Lee Lewis
Menifee, CA

Ann Lorri
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Mike Allen
Santa Clarita, CA

Marc Andelsen
Apple Valley, CA

Marisse Turner
Long Beach, CA

Marleah Turner
Long Beach, CA

Max Miller
Calabasas, CA

Michele Fox Hemet, CA	Rairaiaw Moffatt Upland, CA	Tayler Caldwell Claremont, CA
Mick Woodbury Huntington Beach, CA	Richard Aho Anaheim, CA	Terri-Ann Skelly San Diego, CA
Barbara Mitchell Buena Park, CA	Rick Braddock Simi Valley, CA	Gabriella DeMarco Los Angeles, CA
Michael Quill Topanga, CA	Ronney Sakoda Hacienda Heights	Timothy Courtemarche San Clemente, CA
Jeff Jamile Rancho Bernardo, CA	Rusty Wetzel Morro Bay, CA	Walter Aguirre Goleta, CA
Marcia Caldwell Seattle, CA	David Swing Ontario, CA	Tyler Little Newport Beach, CA
Eddie Madrid Artesia, CA	Sally McCarty Long Beach, CA	Trevor R Long Beach, CA
Robert Nigbor Altadena, CA	Sean Watson San Francisco, CA	Tom Schiff San Diego, CA
George Maturin San Ysidro, CA	Scott Parker Long Beach, CA	Will Braddock Simi Valley, CA
Nathaniel Lewis Long Beach, CA	David Smith Anaheim, CA	Hugh Lee La Canada Flintridge, CA
Mason O'Rosky San Diego, CA	Bruce Lindemman Newport Beach, CA	Zach Kauffman Silverlake, CA
Paula McFarlan San Clemente, CA	Romeo Ricarte Jr. Baker, CA	Lilet Baker San Diego, CA
Pearl Parker Long Beach, CA	Sam Kobban El Segundo, CA	Norman Orida San Diego, CA
Darlen Lee Buena Park, CA	Sherwood Prusso Jr. Huntington Beach, CA	Sam Shramboy Stanton, CA
Peter Syapin Camarillo, CA	Samuel Sun El Monte, CA	P. Shawn Santa Barbara, CA
Robert McGinty Mission Viejo, CA	Esteban Gonzalez Long Beach, CA	Charles Garnsey Ojai, CA
Gerard Edwards Lake Forest, CA	Tammy Strass Ontario, CA	Kathryn Cabral Redlands, CA

Lusitano de Coto Placentia, CA	Robert Slater Carson, CA	Patricia Araiza Los Angeles, CA
Christian Vasquez Huntington Beach, CA	Glen Apal Carson, CA	Maria McDonald Los Angeles, CA
Andrew Covarrubias Rialto, CA	Haazie Samad Long Beach, CA	Elliot Wezerek Los Angeles, CA
Laura Leza Riverside, CA	James Campbell Bishop, CA	Matt Binder Los Angeles, CA
Mark Landre La Mirada, CA	Randy Caffin Beverly Hills, CA	Michael Wayman Los Angeles, CA
Jocelyn Tejeda Whittier, CA	Gregg Money Pasadena, CA	Alvaro Delgado Los Angeles, CA
Jose Tejeda Whittier, CA	Rock Arden Monrovia, CA	Francis Maldonado Los Angeles, CA
Nicole Tejeda Whittier, CA	Nanette Smith Huntington Beach, CA	Melissa Martinez Los Angeles, CA
Janet Steele Mission Viejo, CA	Russ Butcher Newport Beach, CA	Grace Nolan Los Angeles, CA
Kent Wetzel Spanish Fork, UT	Irvin Hirsch Montrose, CA	David Gasperil Los Angeles, CA
Han Donnelly Santa Cruz, CA	Alexander Marquez San Bernardino, CA	Ignacio Aguilar Los Angeles, CA
Sara Lomorieo Dana Point, CA	Tom Striewig Long Beach, CA	Brad Davies Los Angeles, CA
Nannette Okada Huntington Beach, CA	Greg Stoll Long Beach, CA	Edwin Iniguot Los Angeles, CA
Jesus Garza Fullerton, CA	Korben Gradoville Santa Maria, CA	Richard Tapia Los Angeles, CA
Charles Moore Norwalk, CA	Cayden Gradoville Santa Maria, CA	Jovi Bantono Los Angeles, CA
Jo Ann Nunez Long Beach, CA	Charles Wells Gardena, CA	Rich Xifo Los Angeles, CA
Gerald Hartz Edwards, CA	Mia Stewart Long Beach, CA	Mike Alaniz Los Angeles, CA

Hailey Reinschild
Los Angeles, CA

Nikhil Asken
Los Angeles, CA

Sherman Patrick
Los Angeles, CA

Rafael Pascual
Bell Gardens, CA

Manuel Perez
Bell Gardens, CA

Steve Puls
Beverly Hills, CA

L. Hashler
Compton, CA

Jose Navarro
Downey, CA

Grisha Drah
El Segundo, CA

Stefan Ignjutonic
El Segundo, CA

Carlis Gutierrez
Hawthorne, CA

Carlos Ortega
Hawthorne, CA

Jeremiah Yeh Diego
Hawthorne, CA

Abisai Garcia
Hawthorne, CA

Marvin Holland
Hawthorne, CA

Neal Tyler
Malibu, CA

Dan Plummer
Malibu, CA

Madison Hayes
Malibu, CA

Ralph Ramirez
Maywood, CA

John Issac
Pacific Palisades, CA

Roger Valeri
Rancho Palos Verdes, CA

Paul Derrico
Redondo Beach, CA

Eric Norlin
Redondo Beach, CA

Jacano Vacequez
South Gate, CA

Dave Newcamp
Topanga, CA

Walter Griffin
Inglewood, CA

Maurice Cooper
Inglewood, CA

Michael Moore
Santa Monica, CA

Eleanore Pernisco
Santa Monica, CA

Fed Pernisco
Santa Monica, CA

Richard Gossett
Torrance, CA

Evelyn Gossett
Torrance, CA

Rich Kenworth
Torrance, CA

Isaac Yoshinaga
Torrance, CA

Marco Vasquez
Whittier, CA

Mike Munoz
Whittier, CA

Casey Way
Whittier, CA

Ian Camarillo
La Habra, CA

Lance Grasperra
La Habra, CA

Amy Chan
Montebello, CA

Augie Aguayo
Pico Rivera, CA

Audres Gutierrez
Pico Rivera, CA

Angela Gonzalez
Santa Fe Springs CA

Dino Visciglio
Cerritos, CA

Jones John
Cerritos, CA

Douglas Gee
Cerritos, CA

Kim Thompson
Bellflower, CA

Joe Mora
Harbor City, CA

Patrick Nomura
Lakewood, CA

Lara Edwards
Lomita, CA

K. Kaultsman
Los Alamitos, CA

April Nuño Paramount, CA	Gary-James Gunnarson Long Beach, CA	Matthew Strang Newbury Park, CA
Holly Nuño Paramount, CA	Sergio Platero Long Beach, CA	Juan Soria Santa Clarita, CA
Clairissa Nuño Paramount, CA	Sally Sanchez Long Beach, CA	Randolph Rodriguez Sun Valley, CA
Abraham Nuño Paramount, CA	Mike Habib Long Beach, CA	Cece Rubin Westlake Village, CA
Tom Lindsey San Pedro, CA	Fred Brooks Long Beach, CA	Renton Fernando Westlake Village, CA
Anthony Scogumallo San Pedro, CA	Tomas Berrilia Long Beach, CA	Terry Pyle Woodland Hills, CA
Larry Wells Seal Beach, CA	Bobby Hayden Portland, OR	Darryl Ty Oak Park, CA
Robert Levin Surfside, CA	Anrette Nonurma Pasadena, CA	JR Oestuan Castaic, CA
Reginald Fagali Carson, CA	Ryen Rodriguez Sunland, CA	Steven Field Van Nuys, CA
LaJuan Hooper Carson, CA	Gary Kishmoto Tujunga, CA	Annette Takashima Van Nuys, CA
Renee Weiss Long Beach, CA	Nancy Chu Pasadena, CA	Christopher Osti Van Nuys, CA
James Middleton Long Beach, CA	Rooney Panossian Glendale, CA	Alice Hulac-Morentin Van Nuys, CA
Louise Luyun Long Beach, CA	Gilbert Mallari Canoga Park, CA	Linoli Martin Van Nuys, CA
Matt Riston Long Beach, CA	Dave Provence Winnetka, CA	Charleston Daulo Van Nuys, CA
Parriers Baldwin Long Beach, CA	Greg Hoke Chatsworth, CA	Christopher Osti Van Nuys, CA
Gabriel Vierra Long Beach, CA	Masashide Tale Chatsworth, CA	Chisselle Paterson Van Nuys, CA
Megan Richardson Long Beach, CA	Dory Edson Newbury Park, CA	Peter Chang Burbank, CA

Samantha Chang
Burbank, CA

Jeff Garfield
Studio City, CA

Autumn Maggard
Studio City, CA

Tommy Avila
Azusa, CA

Adelle Win
Chino Hills, CA

Scott Harlan
Chino, CA

Liz Moyer
Chino, CA

Frank DeAnda
Chino, CA

Corey Vantilburg
Chino, CA

Chris Brown
Chino, CA

Bob Brown
Chino, CA

Tom Cramer
Covina, CA

Timbo Jousesau
Covina, CA

Joel Caleron
Rancho Cucamonga, CA

John Villazonzola
Rancho Cucamonga, CA

Maximus Reyes
Rancho Cucamonga, CA

Jesse Perez
Rancho Cucamonga, CA

Danny Reyes
Rancho Cucamonga, CA

Tom Barrio
El Monte, CA

Luis Cuevas
Glendora, CA

Philip Gavl
Glendora, CA

Christopher Forbeck
Glendora, CA

Fred Flores
La Puente, CA

Daniel Yamamoto
Rowland Heights, CA

Wilma Medella
San Gabriel, CA

Susan Perry
Upland, CA

Chin Chong
Upland, CA

Malcolm Shroyer
Chula Vista, CA

Jacob Kilby
Jamul, CA

Shane Borklund
Jamul, CA

John DeLaurentis
Carlsbad, CA

Michael Klippone
Del Mar, CA

Dan Brown
Escondido, CA

Danna Moore
Oceanside, CA

Dawn Villarud
Vista, CA

Virgil Villarud
Vista, CA

Kenn China
San Diego, CA

Stacy Enns
San Diego, CA

Kat Abelardo
San Diego, CA

Odeth Tatton
Joshua Tree, CA

Victor Arwoli
Adelanto, CA

Jesus Caw
Amboy, CA

Ray Alvarez
Apple Valley, CA

Tracy Tokunaga
Big Bear Lake, CA

Yolanda Nava
Fontana, CA

Charlie Nona
Fontana, CA

Michael Faraoni
Fontana, CA

Gilbih Chavez
Hesperia, CA

Tiffany Leszczynski
Highland, CA

Stacy Manta
Redlands, CA

Jay Vasquez
Redlands, CA

James Taylor
San Bernardino, CA

Betsy Sulas
San Bernardino, CA

Jose Madrid
Riverside, CA

Steven Moreno
Riverside, CA

Francine Hinostrom
Riverside, CA

Frank Orta
Riverside, CA

Jordan Callahan
Riverside, CA

Melvin Tran
Riverside, CA

Honey Bernas
Riverside, CA

Matthew Smith
Riverside, CA

Dan Greenwood
Riverside, CA

Erika Walker
Lake Elsinore, CA

Dean Ristow
Moreno Valley, CA

Day Caffrey
Moreno Valley, CA

Suzanne Caffrey
Moreno Valley, CA

Glen Chavez
San Jacinto, CA

Mary Millar
Menifee, CA

Raylynn Losey
Sun City, CA

Pete Power
Irvine, CA

Ryan Vain
Irvine, CA

Wyatt Bresley
Costa Mesa, CA

Cleros Flynn
Dana Point, CA

Jane Wilson
Dana Point, CA

Jonathan Waltiter
Lake Forest, CA

Charlie Waltiter
Lake Forest, CA

Jemian Luna
Lake Forest, CA

Richard Martinez
Lake Forest, CA

Dee Smith
Huntington Beach, CA

Stacy Wood
Huntington Beach, CA

Roger Anderson
Newport Beach, CA

Paul Paul
San Juan Capistrano, CA

Rosalva Herber
San Juan Cap. CA

Gary Slater
Trabuco Canyon, CA

Gary Hooper
Westminster, CA

Edward Perez
Westminster, CA

Federic Doucedame
Westminster, CA

Gaby Martinez
Santa Ana, CA

James David
Santa Ana, CA

Ana Thompson
Santa Ana, CA

Britney Rosales
Santa Ana, CA

Hilda Rosales
Santa Ana, CA

Roberto Paso Lee
Santa Ana, CA

Julia Chuc
Santa Ana, CA

Britney Rosales
Santa Ana, CA

Jim Derr
Tustin, CA

Jose Contreras
Anaheim, CA

V Smith
Anaheim, CA

Robert Chai
Anaheim, CA

Mark Lopez
Anaheim, CA

Tim Hugur
Anaheim, CA

Julie Velazquez
Anaheim, CA

Alexis Velazquez Anaheim, CA	Shane Maver Moorpark, CA	Bruce Snider Big Creek, CA
Lary Ostrosky Anaheim, CA	Robert Schultz Simi Valley, CA	Brent Weigandt Fresno, CA
Diana Ostrosky Anaheim, CA	Hardy Gunawan Simi Valley, CA	Cody Olsen Fresno, CA
Jim Hooper Brea, CA	John Torres Simi Valley, CA	Blair Olsen Fresno, CA
Kristen Cruz Fullerton, CA	Kary Torres Simi Valley, CA	Richard Jew Daly City, CA
Ian Douglas Fullerton, CA	Jake Torres Simi Valley, CA	William Joe San Francisco, CA
Savannah Orange Fullerton, CA	Rafael Molina Bakersfield, CA	Terry Otoshi San Francisco, CA
Veronica Figueroa Orange, CA	Mike El Manari Avila Beach, CA	Sasha Sommer San Francisco, CA
Angel Elazegui Orange, CA	Fred Perry Lompoc, CA	James O'Donnell Santa Clara, CA
Robert Elazegui Orange, CA	Victoria Corr Lompoc, CA	Tyler Thomas Copperopolis, CA
Greg Shea Corona, CA	Garry Conner Acton, CA	Valerie Older Tracy, CA
Anthony Perez Yorba Linda, CA	Robin Rush Lancaster, CA	Nicki Enriquez Carmichael, CA
Cooper Matheson Ventura, CA	Glen Older Mammoth Lakes, CA	Steve Caldwell Mercer Island, WA
Mike Reese Ventura, CA	Jel Older Mammoth Lakes, CA	Marcia Caldwell Mercer Island, WA
Lindsey Boyd Ventura, CA	Sandra Gamboa Palmdale, CA	David Lee Mercer Island, WA
Daniel Lopez Fillmore, CA	Violet Gonzalez Palmdale, CA	Cailin Caldwell Mercer Island, WA
Mike Brien Fillmore, CA	Marylou Auelbuta Tehachapi, CA	Steve Caldwell Mercer Island, WA

Marcia Caldwell Mercer Island, WA	Candace Wheeler Portland, OR	Sonya Coy Milwaukie, OR
Richard Martinez Hillsboro, IA	Kathryn Wheeler Tigard, OR	Vanessa Hawk Gresham, OR
Sally Homer Palatine, IL	Samuel Kille Washougal, WA	Laura Mayer Gresham, OR
Leroy Brown Coeur D Alene, ID	Brad Hergert Vancouver, WA	Ed Haley Gresham, OR
Rex Huang Sandy, UT	Cory Scott West Linn, OR	Kiley Heller Hillsboro, OR
June Koch Las Vegas, NV	Tyler Ramey Kelso, WA	Amy Holt Woodland, WA
Zack Crafton Sherman Oaks, CA	Rodney Weigel Portland, OR	Kevin Clark Vancouver, WA
Nate Jones Fountain Valley, CA	Patrick Hambleton Portland, OR	Jessica Taylor Rock Springs, WY
Sam Plane Murrieta, CA	Robert Huber Hillsboro, OR	Randy Chatfield Beavercreek, OR
Dan Ramey Vancouver, WA	Bob Burke Hillsboro, OR	Ruth Wood Molalla, OR
Eric Wright Portland, OR	Marcia Burke Hillsboro, OR	Debbie Hebdon Molalla, OR
Misty Sayers Vancouver, WA	Mark Chow Berkeley, CA	Steven Illman Marcola, OR
Aaron Eyer Vancouver, WA	Jeff Messinger Milwaukie, OR	Teddy Peetz Vancouver, WA
Matt Grider Vancouver, WA	Angel Baker Milwaukie, OR	Kathleen Bradley Rhododendron, OR
Kevin Marple Vancouver, WA	Robert Chivino Sherwood, OR	Adam Wright Troutdale, OR
Anne Marple Vancouver, WA	Mike Crane Sherwood, OR	Staci Pace Gresham, OR
Scott Moss Tigard, OR	Edmond Keene Banks, OR	Sandy Wright Troutdale, OR

Patrick Henderson
Portland, OR

Christopher Funk
Vancouver, WA

Jack Whitney
Brush Prairie, WA

Tom Berg
Damascus, OR

Theresa Shaw
Portland, OR

Albert Greenwood
West Linn, OR

Rick Robinson
Lake Oswego, OR

Virgil Wilbur
Auburn, WA

Donald Janiqian
Battle Ground, WA

Harold Adams
Kennewick, WA

Steve Hatfield
Aurora, OR

Patrick Hatfield
Gervais, OR

Elizabeth McCulley
Vancouver, WA

Martin Butler
Salem, OR

Frank Carrillo
Hillsboro, OR

Jason Leonard
Vancouver, WA

Thomas Zitzwitz
Vancouver, WA

Steve Reed
Milwaukie, OR

Jerry Kneppers
Vancouver, WA

Jacqueline Smith
Estacada, OR

Michael Whitten
Estacada, OR

Zachary Ek
Woodland, WA

Marin Mirich
Portland, OR

Austin Schoenborn
Woodland, OR

Wade Schoenborn
Woodland, OR

Jess Rickman
Molalla, OR

Percy Traill
Tigard, OR

Jim Allen
Molalla, OR

Evan Crompton
Gresham, OR

John Downing
Vancouver, WA

Todd Brooks
Lake Oswego, OR

Chenie Reins
Battle Ground, WA

Jody Stables
Clackamas, OR

Amanda Chrusoskie
Molalla, OR

Randy Mildenerger
Portland, OR

William Blake
Portland, OR

Robert Kirschner
Portland, OR

Michael Crupper
Portland, OR

David Olsen
Clatskanie, OR

James Jevnstedt
Gresham, OR

Kipp Susick
Vancouver, WA

John Klochak
Davenport, CA

Douglas Stewart
Portland, OR

Jenifer Denton
Gresham, OR

Michael Dribin
Woodland, WA

Dhana Gunter
Woodland, WA

Rick Dahlstrum
Ridgefield, WA

Ernest Zselezky
Portland, OR

Richard Duncan
Lake Oswego, OR

John Holt
Portland, OR

Joe Keelong
Beaverton, OR

Robert Jauron Portland, OR	John Tate Tigard, OR	Dean Muchow Gladstone, OR
David Pflugrad Hillsboro, OR	Brevin Leslie Lake Oswego, OR	Joseph Schoonover Centralia, WA
Richard Settje Washougal, WA	Edward Puls Clatskanie, OR	Tyler Jaskowiak Gresham, OR
Richard Bolm Ridgefield, WA	Charles Johnson Clatskanie, OR	Peggy Macko Portland, OR
Ron Yow Sandy, OR	Eric Jans Portland, OR	Lucas Gregory Vancouver, WA
Matt Jues Bend, OR	Nick Conley La Pine, OR	Brian McLaren Portland, OR
Adriene Cruz Olympia, WA	Cesar Esparza Beaverton, OR	Stella Butler Troutdale, OR
Jonas Jones Snohomish, WA	Mason Brock Portland, OR	Allen Butler Gresham, OR
Belhay Wyatt Vancouver, WA	David Illig Portland, OR	Dagmar Friedrich Dallas, OR
Colby Brown Roy, WA	John Thompson Hillsboro, OR	Linda Hollingshead Canby, OR
Abigail Fordice Tigard, OR	Jana Nelson Milwaukie, OR	Doug Moore Hillsboro, OR
Doug Cassidy Sandy, OR	Rikki Velasco Portland, OR	Brooks Green Vancouver, WA
Jordan Flemming Hillsboro, OR	Carissa Campbell Amboy, WA	Nick Giusti Vancouver, WA
Neil O'Connor Milwaukie, OR	Catherine Smith Seaside, OR	Jace Kincaid Silverton, OR
Diane Loop Corvallis, OR	Laroy Smith Seaside, OR	Brian West Beaverton, OR
Joane Smith Canby, OR	Lindy Nelson Prineville, OR	John Kopacek Tualatin, OR
Vince Archibald Vancouver, WA	Neil Hieronymus Auburn, WA	Kerry Bell Scappoose, OR

Khoriey Smith Bay City, OR	Jackie Nash Bend, OR	Jay Nahumy Portland, OR
Lydia Miller Monmouth, OR	Derek MacDickeN Portland, OR	Duc Huynh Portland, OR
Jason Miller Battle Ground, WA	Janelle Wilson Chehalis, WA	Patty Jo Curler Portland, OR
Joshua Beebe Battle Ground, WA	Bryan Hutchison Scappoose, OR	David Gassman Milwaukie, OR
Sarah Robinson Battle Ground, WA	Randy Newton Beaverton, OR	Pauli McQuan Portland, OR
Dave Maroon Gresham, OR	John Montgomery Corvallis, OR	Rebecca Leib Portland, OR
Kyle Dooney Rainer, OR	Karyn Smith Canby, OR	Kare Vasanth Portland, OR
Brian Lee Salyers Beaverton, OR	Vonnie Roquemore Eagle Point, OR	Brendan Donovan Portland, OR
Nichole Kirby Toledo, WA	David Horton Wilsonville, OR	Kellen Donovan Portland, OR
Dave Messinger Newberg, OR	Dana Lundell Lake Oswego, OR	Trevor Donovan Portland, OR
Megan Bibile Oregon City, OR	Mike Larkin Portland, OR	Steve Donovan Gaston, OR
Alina Bibile Portland, OR	Alison Harding Gresham, OR	Jacob Pimley Portland, OR
Robin Harrison Woodland, WA	Chad Acheson Portland, OR	CW Taylor Tigard, OR
Mary Pat Sabde Tigard, OR	Cynthia Christensen McMinnville, OR	R Ruffo Portland, OR
Jenelle Lemonds Toutle, WA	Tracy Johnson Lebanon, OR	Matt Earley Salem, OR
Angelica Jordan West Linn, OR	Harlan Grimwood Portland, OR	Kirsten Fulk Sweet Home, OR
Jon Nash Bend, OR	Carol Clark Beavercreek, OR	Gordon Gentry Dallas, OR

Dan Laizure
Walla Walla, WA

Donna Laizure
Walla Walla, WA

Vonda Van Liver
Vancouver, WA

Xander Gyllenskog
Monmouth, OR

Dave Schmidt
Cornelius, OR

Brenda Muchow
Gladstone, OR

Michael Myrick
Portland, OR

Gage Prince
Winlock, WA

Isabella Prince
Winlock, WA

Scott Prince
Winlock, WA

Alexis Phillips
The Dalles, OR

Roger Shaw
Vancouver, WA

Secret Yanez
Castle Rock, WA

Kevin McLaughlin
Portland, OR

Gary Hedges
Long Beach, WA

Jade Laselle
Centerville, WA

Kyra Erickson
Washougal, WA

Ashley Subers
Sherwood, OR

Chet Trapp
Tualatin, OR

Luke Krebs
West Linn, OR

Loralee Hopper
Newberg, OR

Rich Hopper
Newberg, OR

Angela Phillips
The Dalles, OR

Jeffrey Hamilton
Banks, OR

Hilary Mantz
Beaverton, OR

Cody Chapman
Woodland, WA

Karson Paris
Los Angeles, CA

Paula Johnson
Adel, OR

Jaes Cathcart
Portland, OR

Carrie Miyake
Vancouver, WA

Keagan Vinyard
Longview, WA

Jason Vinyard
Longview, WA

Sandra Byers
Longview, WA

Aaron Yanez
Castle Rock, WA

Adam Odem
Longview, WA

Aaron Odem
Kalama, WA

Mackenzie Maxwell
Camas, WA

James Maxwell
Camas, WA

Julie Bensar
Yamhill, OR

William Hutchison
Scappoose, OR

Tory Hutchison
Portland, OR

Mary Kennison
Scotts Mills, OR

Regina Noxon
Lake Oswego, OR

Jessica Inman
Oregon City, OR

Nianna Denton
Dallas, OR

Stacy Edwards
Salem, OR

Shawna Fair
Springfield, OR

Haley DeRocher
Yacolt, WA

Amanda Gavin
Vancouver, WA

Tamara Hermanson
Yacolt, WA

Heidi Leslie
Beaverton, OR

Melissa Remillard
Hillsboro, OR

Kyla Somerville
Keizer, OR

Benjamin Ewing
Oregon City, OR

Jim Anderson
Oregon City, OR

David Jiwings
Portland, OR

Traci Johns
Stayton, OR

Dennis Reeves
Milwaukie, OR

Juan Calvillo
Oak Grove, OR

Ernest Tsukuda
Portland, OR

Ruth Ann Tsukuda
Portland, OR

William Kremers
Corvallis, OR

Grant Zadow
Tualatin, OR

Patrick Tsukuda
Portland, OR

Rocco Jaconis
Portland, OR

Thomas Horning
Gresham, OR

Richard Hollenbeck
Portland, OR

Terry Turner
Gladstone, OR

Justin Boucher
Portland, OR

Clarence Bergevin
Eagle Creek, OR

Thomas Goodwin
Merlin, OR

Christian Ewing
Oregon City, OR

Harry Rectenwald
Lake Oswego, OR

Susan Rectenwald
Lake Oswego, OR

Mark Rogers
Sandy, OR

Dennis Cone
West Linn, OR

Joe Engler
Sandy, OR

Thomas Dufala
Boring, OR

Alex Salazar
Oak Grove, OR



111 SW Columbia Street, Suite 200
Portland, Oregon 97201
pewtrusts.org

March 16, 2017

Mr. Herb Pollard, Chair
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

RE: Agenda Item G.2: Central Subpopulation of Northern Anchovy OFL Process

Dear Chair Pollard and Council Members,

As of the April 2017 Advanced Briefing Book Deadline of March 16, the Pew Charitable Trusts can confirm 12,370 email comments from ocean advocates across the country who support the development and adoption of updated management measures for northern anchovy.

The petition language is included here. For the Supplemental Briefing Book deadline we will provide a similar compilation of all of additional the names, cities, states, and any personal comments of individual signers. This will be submitted to the Council as of the morning of March 30, 2017.

Thank you for your time and consideration. We appreciate the opportunity to work with you to maintain sustainable fisheries and healthy ocean ecosystems.

Bobby Hayden
Senior Associate, U.S. Oceans, Pacific
The Pew Charitable Trusts
rhayden@pewtrusts.org

March 16, 2017

Mr. Herb Pollard, Chair
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220

Dear Chair Herb Pollard and Pacific Fishery Management Council members:

I am writing to ask the Council to adopt management measures, based on the best available science, that protect northern anchovies' crucial role in the Pacific Ocean food web. In particular, I ask that you establish new catch limits in response to recent information about the status of the stock. This effort can ensure adequate prey for dependent predators, prevent overfishing, and support strong coastal communities.

Northern anchovies are among the most important forage fish in the California Current ecosystem, but existing management of the stock is based on decades-old information. These fish are a critical food source for salmon, tuna, brown pelicans, sea lions, humpback whales, and dozens of other marine species. In light of new scientific studies showing that anchovies are now at very low numbers and that predators may be bearing the brunt of these declines, I encourage you to act.

Sincerely,

A full list of names, cities, states and any additional personal comments will be submitted to the April 2017 Supplemental Briefing Book Deadline.

Following are a few examples of of the 12,370 emails received on this agenda item

Dear Chair Pollard and Council Members:

These fish are the core of the mid-trophic level of the Pacific ecosystem. This vital functional component appears to have been burdened with an unacceptably high catch limit, and has been depleted to an unacceptably low level, depriving wildlife of the food to which they are rightfully entitled and which has sustained them for eons. The PFMC must adopt a catch limit that confines the human privileges to the Northern Anchovies to a level that does not injure the senior and superior rights of predator species to enjoy this resource, as they have for eons before humans set foot or boat on the Pacific Coast. They must not be consigned to whatever scraps of Anchovy populations remain after humans have satiated their appetite for cheap proteins and lipids.

I am writing to ask the Council to adopt management measures, based on the best available science, that protect northern anchovies' crucial role in the Pacific Ocean food web. In particular, I ask that you establish new catch limits in response to recent information about the status of the stock. This effort can ensure adequate prey for dependent predators, prevent overfishing, and support strong coastal communities.

Northern anchovies are among the most important forage fish in the California Current ecosystem, but existing management of the stock is based on decades-old information. These fish are a critical food source for salmon, tuna, brown pelicans, sea lions, humpback whales, and dozens of other marine species. In light of new scientific studies showing that anchovies are now at very low numbers and that predators may be bearing the brunt of these declines, I encourage you to act.

Sincerely,
Jim Steitz
Gatlinburg, TN

Date: Sat, Mar 18, 2017 at 1:58 PM
Subject: HUMANS REVOLT AGAINST ALIENS FROM HYPERSPACE
To: pfmc.comments@noaa.gov

Dear Chair Pollard and Council Members:

I am writing to ask the Council to adopt management measures, based on the best available science, that protect northern anchovies' crucial role in the Pacific Ocean food web. In particular, I ask that you establish new catch limits in response to recent information about the status of the stock. This effort can ensure adequate prey for dependent predators, prevent overfishing, and support strong coastal communities.

Northern anchovies are among the most important forage fish in the California Current ecosystem, but existing management of the stock is based on decades-old information. These fish are a critical food source for salmon, tuna, brown pelicans, sea lions, humpback whales, and dozens of other marine species. In light of new scientific studies showing that anchovies are now at very low numbers and that predators may be bearing the brunt of these declines, I encourage you to act.

Sincerely,
Alba Morillo
Gresham, OR

Date: Thu, Mar 16, 2017 at 12:45 PM
Subject: Protect Anchovies
To: pfmc.comments@noaa.gov

Dear Chair Pollard and Council Members:

Please adopt management measures that protect northern anchovies' crucial role in the Pacific Ocean food web.

In particular, I ask that you establish new catch limits in response to recent information about the status of the stock. This effort can ensure adequate prey for dependent predators, prevent over fishing, and support strong coastal communities.

Thank you.

Sincerely,
Henry Frank
Philadelphia, PA

Date: Mon, Mar 13, 2017 at 11:44 AM
Subject: Northern Anchovies
To: pfmc.comments@noaa.gov

Dear Chair Pollard and Council Members:

I am aware that Northern anchovies are among the most important forage fish in the California Current ecosystem, and serve as a critical food source for salmon, tuna, brown pelicans, sea lions, humpback whales, and dozens of other marine species. I also am aware that anchovies are now at very low numbers; therefore I ask you to please direct the PFMC to break away from the existing anchovy management plan and adopt management measures that are designed to protect northern anchovies. Thank you.

Linn Barrett, Greeley, CO

Dear Pacific Fishery Management Council:

California sea lion pups have been found stranded on beaches during spring months in recent years. Many died and many others were found underweight, dehydrated, and starving. Their mothers were not finding enough forage fish to eat. They were spending more time away from their pups foraging, farther from shore, and the nursing sea lion pups were in turn, starving to death.

Approximately three times as many sea lions washed ashore in 2015 compared to 2013, when the severity of strandings emerged as an issue of great concern. About 90 percent of sea lion pups were estimated to have died last year before reaching weaning age.

More must be done to ensure there is adequate forage fish to support a healthy and abundant food web in the Pacific Ocean.

I am greatly concerned that management of the commercial forage fish fisheries off California, Oregon and Washington is leaving ocean wildlife without enough fish to eat. Sea lions, whales, pelicans, and many other species rely on these same forage fish for a large part of their diet. Pacific sardine and Northern anchovy populations are at historically low levels and are some of the most important forage fish in the California Current ocean ecosystem. Immediate, lasting action is needed to prevent future overfishing and to help these forage fish populations rebuild to healthy and abundant levels.

I urge you to take immediate measures to fix the Pacific sardine management framework, prevent Northern anchovy overfishing, and ensure abundant forage fish populations for dependent predators. Ocean wildlife and coastal communities don't have time to wait.

Thank you for your time and consideration,

Caleb Laieski