

## ANDREW P. NOSAL, PH.D.

University of San Diego  
5998 Alcalá Park, San Diego, CA 92110  
*anosal at sandiego dot edu*

University of California – San Diego  
9500 Gilman Drive, La Jolla, CA 92093  
*anosal at ucsd dot edu*

### EDUCATION

- 2013 **Doctor of Philosophy (Ph.D.) in Marine Biology**  
Scripps Institution of Oceanography, University of California – San Diego, La Jolla, CA, USA
- 2007 **Bachelor of Science (B.S.) in Biology with High Distinction**  
*Concentration in Environmental and Biological Conservation*  
University of Virginia, Charlottesville, VA, USA  
Semester Abroad, University of Queensland, Brisbane, QLD, Australia

### TEACHING POSITIONS (\*courses taught for non-science majors)

- 2017 – **Adjunct Assistant Professor**  
Pres. Department of Environmental & Ocean Sciences, University of San Diego, San Diego, CA, USA  
*\*Life in the Ocean Lecture & Lab (EOSC 121; FA17)*  
*Organisms & Ecosystems Lab (EOSC 123; FA17)*  
*Introduction of Atmospheric and Ocean Sciences Lab (EOSC 220; FA17)*
- 2016 – **Assistant Professor of Biological Sciences**  
2017 Department of Natural Sciences, University of Saint Katherine, San Marcos, CA, USA  
*\*Natural World: Biology Lecture (BIO 100; FA16)*  
*\*Natural World: Chemistry Lecture (CHE 100; SP17)*  
*Introductory Biology I Lecture & Lab (BIO 105; FA16)*  
*Introductory Biology II Lecture & Lab (BIO 110; SP17)*  
*Human Anatomy & Physiology I Lecture (BIO 305; FA16)*  
*Human Anatomy & Physiology II Lecture (BIO 310; SP17)*
- 2011 – **Adjunct Professor**  
2016 Department of Biology, University of San Diego, San Diego, CA, USA  
*Introduction to Cell Processes Lecture (BIOL 225; SP13)*  
*Introduction to Cell Processes Lab (BIOL 225L; FA11, SP12, FA12, FA14, SP15, FA15, SP16)*  
*Introduction to Organismal Diversity Lab (BIOL 221L; SP11, FA13, SP14)*  
Department of Environmental & Ocean Sciences, University of San Diego, San Diego, CA, USA  
*\*Life in the Ocean Lab (EOSC 121; SP15)*  
Department of Biology, MiraCosta College, Oceanside, CA, USA  
*\*General Biology Lecture (BIO 101; SP11)*

### RESEARCH POSITIONS

- 2016 – **Visiting Assistant Researcher**  
Pres. Scripps Institution of Oceanography, University of California – San Diego, La Jolla, CA, USA
- 2016 – **IUCN Shark Specialist Group (SSG) Member – Northeast Pacific Region**  
Pres. International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC)
- 2013 – **Postdoctoral Research Fellow**  
2016 Scripps Institution of Oceanography, University of California – San Diego, La Jolla, CA, USA
- 2008 **Visiting Scientist**, Oceana – South America, Santiago, Chile

**SCIENCE COMMUNICATION AWARDS**

- 2015 **iBiology Young Scientist Seminar Series Competition**  
Sponsored by the Lasker Foundation and the Alan Alda Center for Communicating Science
- 2011 **Best Student Oral Presentation Award**  
29<sup>th</sup> Annual Meeting of the American Elasmobranch Society, Minneapolis, MN, USA
- 2011 **Best Student Oral Presentation Award**  
1<sup>st</sup> International Conference on Fish Telemetry, Sapporo, Hokkaido, Japan

**TEACHING, MENTORING, AND SCIENCE COMMUNICATION DEVELOPMENT**

- 2016 **Workshop Panelist: Science Communication: Becoming a Public Voice, Advancing Your Career**, *SACNAS National Diversity in STEM Conference, Long Beach, CA, USA*
- 2016 **Science Communication Coach at Improvisation for Scientists Workshop**, *University of California – San Francisco, San Francisco, CA, USA*
- 2015 **Inclusive Education Workshop Series: Enhancing the Learning Environment for Students with Learning and Mental Disabilities using Universal Design for Learning (UDL)**, *Center for Inclusion and Diversity, University of San Diego, San Diego, CA USA*
- 2015 **Improvisation for Scientists Workshop**, *Alan Alda Center for Communicating Science Stony Brook University, Stony Brook, NY, USA*
- 2013 **20<sup>th</sup> Institute on Teaching and Mentoring**, *Compact for Faculty Diversity, Arlington, VA, USA*
- 2011 **18<sup>th</sup> Institute on Teaching and Mentoring**, *Compact for Faculty Diversity, Atlanta, GA, USA*
- 2009 **16<sup>th</sup> Institute on Teaching and Mentoring**, *Compact for Faculty Diversity, Arlington, VA, USA*
- 2008 **NSF Communicating Ocean Sciences to Informal Audiences (COSIA) Course**  
 *Scripps Institution of Oceanography, La Jolla, CA, USA*

**RESEARCH FELLOWSHIPS**

2013	DeLaCour Postdoctoral Fellowship in Ecology and Conservation	\$150,000
2007	NSF Graduate Research Fellowship Program (GRFP)	\$121,500
2007	NSF Integrative Graduate Education and Research Traineeship (IGERT)	\$97,000

**SCIENTIFIC PUBLICATIONS** (\*undergraduate mentee)

- 2017 Ho C, Joly K, **Nosal AP**, Lowe CG, Clark CM. “Predicting Coordinated Group Movements of Sharks with Limited Observations using AUVs.” *Proceedings of the Association for Computing Machinery Symposium on Applied Computing*: Accepted.
- 2016 **Nosal AP**, Chao Y, Farrara JD, Chai F, Hastings PA. “Olfaction contributes to pelagic navigation in a coastal shark.” *PLoS ONE* 11(1): e0143758. doi:10.1371/journal.pone.0143758
- 2016 **Nosal AP**, Keenan EA, Hastings PA, Gneezy A. “The effect of background music in shark documentaries on viewers’ perceptions of sharks.” *PLoS ONE* 11(8): e0159279. doi:10.1371/journal.pone.0159279
- 2015 \*Barker AM, **Nosal AP**, Lewallen EA, Burton RS. “Genetic structure of leopard shark (*Triakis semifasciata*) populations along the Pacific coast of North America.” *Journal of Experimental Marine Biology and Ecology* 472: 151 – 157.

- 2014 **Nosal AP**, \*Caillat A, Kisfaludy EK, \*Royer MA, Wegner NC. “Aggregation behavior and seasonal philopatry in male and female leopard sharks (*Triakis semifasciata*) along the open coast of southern California, USA.” *Marine Ecology Progress Series* 499: 157 – 175.
- 2013 **Nosal AP**, Lewallen EA, Burton RS. “Multiple paternity in leopard shark (*Triakis semifasciata*) litters sampled from a predominantly female aggregation in La Jolla, California, USA.” *Journal of Experimental Marine Biology and Ecology* 446: 110 – 114.
- 2013 **Nosal AP**, Cartamil DC, Long JW, \*Lührmann M, Wegner NC, Graham JB. “Demography and movement patterns of leopard sharks (*Triakis semifasciata*) aggregating near the head of a submarine canyon along the open coast of southern California, USA.” *Environmental Biology of Fishes* 96: 865 – 878.

## RESEARCH GRANTS

2016	Link Family Foundation	\$22,800
2014	Moore Family Foundation	\$300,000
2014	Save Our Seas Foundation	\$4,500
2010	SeaWorld and Busch Gardens Conservation Fund	\$10,000
2009	Project AWARE Foundation	\$9,467
2009	Scripps Environmental Advocates	\$14,800
2009	PADI Foundation	\$3,000
2008	NSF Integrative Graduate Education and Research Traineeship	\$3,000
2007	Scripps Institution of Oceanography Graduate Department	\$11,000
2007 –	Other Private Research Grants	\$111,150

Pres.

## ORAL PRESENTATIONS AT CONFERENCES (\*undergraduate mentee)

- 2017 **Nosal AP**, Cartamil DP, Lam CH, Bellquist LF, Ben-Aderet NJ, White CF, Logan RK, Freedman RM, Lowe CG, Semmens BX, Hastings PA. “Movement Ecology of the Soupfin Shark (*Galeorhinus galeus*) in the Eastern North Pacific.” 4<sup>th</sup> *International Conference on Fish Telemetry, Cairns, Queensland, Australia*
- 2016 **Nosal AP**, Cartamil DC, Lam C, Wegner NC, Hastings PA. “Movement ecology of juvenile blue (*Prionace glauca*) and shortfin mako sharks (*Isurus oxyrinchus*) off southern California and Baja California, Mexico.” 32<sup>nd</sup> *Annual Meeting of the American Elasmobranch Society, Joint Meeting of Ichthyologists and Herpetologists, New Orleans, LA*
- 2016 **Nosal AP**, \*Yanagitsuru Y, Hyde JR, Hastings PA, Wegner NC. “Hypoxia sensitivity in the bocaccio rockfish (*Sebastes paucispinis*).” 19<sup>th</sup> *Western Groundfish Conference, Newport, OR*
- 2016 **Nosal AP**, Bellquist L, Cartamil DP, Semmens BX, Hastings PA. “Movement ecology of the soupfin shark (*Galeorhinus galeus*) off southern California.” 2<sup>nd</sup> *Northeast Pacific Shark Symposium, Catalina Island, CA*
- 2015 **Nosal AP**, \*Yanagitsuru Y, Hyde JR, Hastings PA, Wegner NC. “Hypoxia tolerance in the bocaccio rockfish (*Sebastes paucispinis*).” 94<sup>th</sup> *Annual Meeting of the American Society of Ichthyologists and Herpetologists, Joint Meeting of Ichthyologists and Herpetologists, Reno, NV*
- 2014 **Nosal AP**, Hastings PA. “Shoreward homing in experimentally displaced leopard sharks (*Triakis semifasciata*).” 30<sup>th</sup> *Annual Meeting of the American Elasmobranch Society, Joint Meeting of Ichthyologists and Herpetologists, Chattanooga, TN*
- 2014 **Nosal AP**, Hastings PA. “Shoreward homing in experimentally displaced leopard sharks (*Triakis semifasciata*).” 2<sup>nd</sup> *Sharks International Conference, Durban, KZN, South Africa*

- 2013 **Nosal AP**, Keenan EA, Gneezy A. “Happy and playful sharks? The effect of background music in nature documentaries on viewers’ perception of and willingness to protect sharks.” *29<sup>th</sup> Annual Meeting of the American Elasmobranch Society, Joint Meeting of Ichthyologists and Herpetologists, Albuquerque, NM*
- 2013 \*Barker AM, **Nosal AP**, Lewallen EA, Burton RS. “Population structure of the leopard shark (*Triakis semifasciata*) along the Pacific coast of North America.” *29<sup>th</sup> Annual Meeting of the American Elasmobranch Society, Joint Meeting of Ichthyologists and Herpetologists, Albuquerque, NM*
- 2012 **Nosal AP**, Lewallen EA, Burton RS. “Low incidence of multiple paternity in leopard sharks (*Triakis semifasciata*) sampled from a predominantly female aggregation.” *28<sup>th</sup> Annual Meeting of the American Elasmobranch Society, World Congress of Herpetology, Vancouver, BC, Canada*
- 2012 \*Royer MA, **Nosal AP**, Wegner NC, Cartamil DC, Lankford TE, Graham JB. “Leopard shark (*Triakis semifasciata*) foraging ecology in the La Jolla Ecological Reserve using non-destructive dietary analysis.” *28<sup>th</sup> Annual Meeting of the American Elasmobranch Society, World Congress of Herpetology, Vancouver, BC, Canada*
- 2011 **Nosal AP**, \*Caillat A, Kisfaludy EK, \*Royer MA, Wegner NC. “Aggregation behavior of the leopard shark (*Triakis semifasciata*) at the head of La Jolla Submarine Canyon, La Jolla, California, USA.” *27<sup>th</sup> Annual Meeting of the American Elasmobranch Society, Joint Meeting of Ichthyologists and Herpetologists, Minneapolis, MN*  
**(Award for Best Student Oral Presentation)**
- 2011 **Nosal AP**, \*Caillat A, Kisfaludy EK, \*Royer MA, Wegner NC. “Aggregation behavior of the leopard shark (*Triakis semifasciata*) at the head of La Jolla Submarine Canyon, La Jolla, California, USA.” *1<sup>st</sup> International Conference on Fish Telemetry, Sapporo, Hokkaido, Japan*  
**(Award for Best Student Oral Presentation)**
- 2011 \*McCormick L, **Nosal AP**, Kohin S. “The movements of *Triakis semifasciata* in La Jolla shallows.” *19<sup>th</sup> Annual Spring Meeting of the Southern Division of the American Fisheries Society, Tampa, FL, USA*
- 2010 **Nosal AP**, Cartamil DC, Kisfaludy EK, \*Royer MA, \*Taylor M, Wegner NC, Graham JB. “Movement patterns of the leopard shark (*Triakis semifasciata*) along the open coast of San Diego County, California.” *26<sup>th</sup> Annual Meeting of the Elasmobranch Society, Joint Meeting of Ichthyologists and Herpetologists, Providence, RI, USA*

## INVITED LECTURES

- 2017 **“Public Perception, Science Communication, and Shark Conservation”**  
*SIO 295: Introduction to Marine Biodiversity and Conservation (Graduate Course)*  
*Scripps Institution of Oceanography, La Jolla, CA, USA*
- 2016 **“Local Legends: Movement Ecology of Leopard Sharks off La Jolla, California”**  
*Aquarium of the Pacific Guest Speaker Series, Long Beach, CA, USA* (<http://bit.ly/2nwOVu6>)
- 2016 **“Movement Ecology of the Leopard Shark off La Jolla, CA”**  
*SIO 90: Perspectives on Ocean Sciences (Undergraduate seminar)*  
*SIO 188: Biology of Fishes (Graduate Course)*  
*Scripps Institution of Oceanography, La Jolla, CA, USA*
- 2015 **“Elasmobranch Coastal Policy and Conservation.”**  
*SIO 295: Introduction to Marine Biodiversity and Conservation (Graduate Course)*  
*Scripps Institution of Oceanography, La Jolla, CA, USA*

- 2015 **“Not Just on Vacation: Why Leopard Sharks Hang Out In La Jolla.”**  
*iBiology Young Scientist Seminar Series (<http://bit.ly/1O45XXj>)*
- 2015 **“Behavioral Ecology of the Leopard Shark (*Triakis semifasciata*) in La Jolla, California.”**  
*Evening Lecture Series, Saint Katherine College, San Marcos, CA, USA*
- 2014 **“Protecting Sharks: Documentary Music and Viewers’ Perceptions”**  
*Center for Marine Biodiversity and Conservation Brown Bag Lecture Series  
Scripps Institution of Oceanography, La Jolla, CA, USA*
- 2014 **“Behavioral Ecology of the Leopard Shark (*Triakis semifasciata*) in La Jolla, California.”**  
*Ecology Seminar Series, Scripps Institution of Oceanography, La Jolla, CA, USA*
- 2014 **“Sharks and Rays: Biodiversity and Conservation.”**  
*SIO 295: Introduction to Marine Biodiversity and Conservation (Graduate Course)  
Scripps Institution of Oceanography, La Jolla, CA, USA*
- 2014 **“Behavioral Ecology of the Leopard Shark (*Triakis semifasciata*) in La Jolla, California.”**  
*Coastal and Marine Institute Seminar Series, San Diego State University, San Diego, CA, USA*
- 2013 **“Shark Conservation: Safeguarding the Future of Our Oceans.”**  
*Jeffrey B. Graham Perspectives on Ocean Sciences Lecture Series, Birch Aquarium at Scripps,  
La Jolla, CA, USA (<http://bit.ly/1DWxdhy>)*
- 2013 **“Demography, movement patterns, and mating system of leopard sharks (*Triakis semifasciata*) aggregating along the open coast of southern California, USA.”**  
*University of San Diego Biology Department Seminar Series, San Diego, CA, USA*
- 2013 **“Shark Conservation: Safeguarding the Future of Our Oceans.”**  
*San Diego Zoo Institute for Conservation Research Seminar Series, Escondido, CA, USA*
- 2012 **“Local Legends: the Leopard Sharks of La Jolla Shores.”**  
*Jeffrey B. Graham Perspectives on Ocean Sciences Lecture Series, Birch Aquarium at Scripps,  
La Jolla, CA, USA (<http://bit.ly/1Df1ygt>)*
- 2012 **“Sharks at the End of the Line.”**  
*Tijuana River National Estuarine Research Reserve Saturday Speaker Series  
Imperial Beach, CA, USA*

## PROFESSIONAL SERVICE

### 2009 – Editorial Peer Reviewing

Pres. *Conservation Biology*                      *California Fish and Game*  
*PLOS ONE*    *BioMed Central Research Notes*  
*Aquatic Biology*                                      *Marine and Freshwater Research*  
*International Union for the Conservation of Nature (IUCN)*  
*Journal of Experimental Marine Biology and Ecology*

### 2014 – Center for Marine Biodiversity and Conservation Steering Committee

Pres. *Scripps Institution of Oceanography, La Jolla, CA, USA*

### 2012 – American Elasmobranch Society Judge for Best Student Oral Paper Award

Pres. Chaired judging committee and developed oral presentation guidelines for award candidates

### 2010 – American Elasmobranch Society Store Manager

2013 Selected and stocked merchandise, fulfilled orders, prepared budget reports

**COMMUNITY ENGAGEMENT AND OUTREACH****2013 – Volunteer SCUBA Diver at Birch Aquarium**

Pres. Live underwater cleaning, feeding, and education performances

**2008 – Media Consulting (>150 print and broadcast news interviews):**

Pres. Associated Press	FOX, CW, NBC, CBS, ABC, KUSI, CBSN
New York Times	National Public Radio (NPR)
Los Angeles Times	Al Jazeera International
Washington Post	Discovery News
San Diego Union-Tribune	New York One News (NY1)
North County Times	Central Coast Public Radio (KPBX)
Christian Science Monitor	Mail Online
La Jolla Light	Women's Health Magazine

*Special television features:*

“Big Blue Live” Series – BBC (International) and PBS (USA)

“Shocking Sharks” Documentary – Nat Geo Wild (USA and International)

“It Ain't Rocket Science” Series – NY1 (NY, NJ, PA, CT) and Time Warner Cable (USA)

“Lifeguard!” Series – The Weather Channel (USA) and Nat Geo Adventure (International)

**2011 – Other Consulting**

Pres. Long Beach Aquarium of the Pacific  
Banning LLP  
San Diego Lifeguard Services  
San Diego County Medical Examiner

**2008 – Invited Presenter**

Pres. Sierra Club San Diego (2016)  
Village Gate Children's Academy (2015)  
Aldo Leopold Charter School (2009, 2010, 2011, 2012, 2013, 2014, 2015)  
San Diego Shell Club (2015)  
Better Education for Women in Science and Engineering (BE WiSE; 2013)  
St. Joseph Academy (2013)  
Rancho Santa Fe School (2010, 2011, 2012, 2013, 2016)  
Torrey Pines Docent Society (2015)  
Exploring Ocean STEM Careers at the Birch Aquarium (2015)  
Solana Santa Fe Elementary School (2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017)  
Project Wildlife (2012)  
El Cajon Valley High School (2012)  
Torrey Pines High School (2010, 2012)  
Mount Miguel High School (2010, 2017)  
Temecula Valley High School (2009)  
La Jolla Elementary School (2009)  
San Diego County Libraries (2009)  
California State Summer School for Mathematics and Science (COSMOS; 2008)  
Southwest Marine Educators Association (SWMEA; 2008)  
Cabrillo National Monument (2014)

**2008 – Tour Guide for Scripps Community Outreach Program for Education (SCOPE)**

Pres. Walking tours of Scripps Institution of Oceanography and snorkeling tours with leopard sharks

**2008 – Moderator and Science Judge for National Ocean Science Bowl (NOSB)**

2012 Annual high school competition hosted by the Birch Aquarium

**UNDERGRADUATE AND HIGH SCHOOL STUDENTS  
MENTORED AS RESEARCH ASSISTANTS**

<b>Year(s)</b>	<b>Name</b>	<b>Institution</b>
2017	Anik Ribera	University of Saint Katherine, San Marcos, CA
2017	Tabitha Hannon	University of Saint Katherine, San Marcos, CA
2016	Chris Papatheofanis	Pitzer College, Claremont, CA
2016	Dylan Sarish	University of California – San Diego, La Jolla, CA
2016	Ram Iyer	University of California – San Diego, La Jolla, CA
2016	Wenda Ly	University of California – San Diego, La Jolla, CA
2015, 2016	Lindsay Baerg	Bellarmino Preparatory High School, Tacoma, WA
2015	Mitchell Simpson	University of San Diego, San Diego, CA
2015	Jennifer Joseph	San Diego State University, San Diego, CA
2014, 2015	Danielle Lemieux	University of San Diego, San Diego, CA
2014	Jamie Canepa	Pomona College, Pomona, CA
2014	Isaac Davidson	University of San Diego, San Diego, CA
2014	Caitlin McNally	University of San Diego, San Diego, CA
2013, 2014	Katherine Laybourn	University of San Diego, San Diego, CA
2013	Jesse O'Neil	University of San Diego, San Diego, CA
2013	Sydney Davis	University of San Diego, San Diego, CA
2013	Brittany Nelson	University of San Diego, San Diego, CA
2013	Melis Okter	University of California – San Diego, La Jolla, CA
2013	Ronia Sham	University of California – San Diego, La Jolla, CA
2013	Delanie Medina	California State University – San Marcos, San Marcos, CA
2012	Allison Randolph	Florida Institute of Technology, Melbourne, FL
2012	Adam Hardy	Swarthmore College, Swarthmore, PA
2012	Megan Ouyang	University of California – San Diego, La Jolla, CA
2011, 2013	Justin Beckman	University of California – San Diego, La Jolla, CA
2011, 2012	Taylor Smith	Yorktown High School, Yorktown Heights, NY
2011, 2012	Amanda Barker	University of California – San Diego, La Jolla, CA
2011	Bryan Frossard	University of California – Berkeley, Berkeley, CA
2011	Jordan Arce	University of California – San Diego, La Jolla, CA
2011	Sara Pennebaker	University of California – San Diego, La Jolla, CA
2010, 2011	Alex Caillat	Cornell University, Ithaca, NY
2010	Amanda Martin	University of California – Los Angeles, Los Angeles, CA
2010	Mary-Cate Bernal	Santa Clara University, Santa Clara, CA
2010	Lillian McCormick	Eckerd College, Saint Petersburg, FL
2010	Lindsay Bonito	University of California – San Diego, La Jolla, CA
2009, 2010	Mark Royer	University of North Carolina – Wilmington, Wilmington, NC
2009	Marcus Taylor	University of Hawaii – Hilo, Hilo, HI
2008	Martin Lührmann	University of Cologne, Cologne, Germany