**Heidi Butcher**

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[www.nerdlingscience.com](http://www.nerdlingscience.com)

**AP Biology and AP Environmental Science Teacher, NMSI Consultant**

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**Professional Teaching Experience**

**National Math and Science Initiative (NMSI), USA, 8/2017-Present; Professional presenter and Consultant**

• Present AP biology and AP Environmental science concepts to high school students across the USA

• Conduct review sessions using real world examples as well as NMSI supplements

**Sam Rayburn High School, Pasadena, Texas, USA 2010-present**

**Teacher: AP Biology, AP Environmental Science (APES), and Pre-AP/Honors Biology Grades 9-12,**

• Have produced over **100** educational videos for AP biology, APES, and biology used worldwide: Youtube

Station <https://www.youtube.com/channel/UCO7OfGz2T5UNcAbIFiBDD_g>

•Increased AP enrollment from 25 students to 75 in AP biology and pass rate at my high school by 25% first 2 years

• Create all common assessments for the six, 6A high schools in the district for both AP biology and APES

• Present at district wide review sessions for all AP Biology students in the district

• Director of Academic UIL, National Honor Society sponsor, Envirothon Coach, Science UIL coach

• Provide district wide staff development on “flipped classroom” for teachers

**Alice Johnson Junior High, Channelview, TX, USA, 2008-2010 Teacher**: **Pre-AP** **Science teacher, Grade 8,**

• Taught earth science, life science, and basic physics concepts to 8th graders

• Established, directed and held science fair for all 8th grade students

• Organized and raised funds to award a student scholarship to attend a week-long science camp of their choice

**Education and Credentials**

**MA Secondary science education grades 5-12, 2013**

Western Governors University 221 W 6th St, Austin, Texas, USA

**Bachelor of Science, Marine Biology (*Cum Laude*), 2006**

Texas A&M University at Galveston, Texas, USA

**Texas Teacher Certification (Life Science 8-12) 2008** Valid through October, 2020

**Princeton University, 2 week molecular biology course**

Certificate of Completion July, 2013

**AP Biology and AP Environmental Science 30 hour Certification Trainings, 2011, 2012, 2013, 2015, 2017 respectively**

Rice University, Houston, Texas, USA

**Past Work and Research Experience**

**Skipper of Dusky Dolphin Research vessel** **and member of the Dusky Dolphin Research Team, Kaikoura, New Zealand** Summer 2014:

• Skippered (drove/controlled) the Kiko Rangi research vessel in pods of up to 300 dolphins so the PI could tag them • navigated using the GPS

• Collected focal follow data

**Lab Technician at University of Texas Medical Branch, Galveston, Texas, USA** 2006-2007:

• Used fluorescent imaging to determine effects of various chemicals on prostate Cancer

• Maintained cell lines (fed, rinsed, thinned and split cell lines), ran PCR, Electrophoresis gels, and western blots.

**Field Research Dusky Dolphin Project Assistant; Marlborough Sounds, French Pass, New Zealand** summer2006:

• Determined behavior, recorded focal follows, and described 0,1 interval data on dusky dolphins

• Learned to maneuver research vessel in the vicinity of dolphins, and marked bow-riding dusky’s with zinc oxide.

**Texas Institute of Oceanography Undergraduate Research Grant Fellow, Texas A&M University at Galveston, Texas, USA,** 2003-2004:

• Investigated the microstructure and innervation of the vibrissal follicle-sinus complex in the Bearded Seal

•Investigated hyolingual musculature using histological techniques, morphometric measurements, and gross

dissections.

**Professional Publications/Presentations**

Heidi L. Amin, Heidi C. Pearson, and Bernd Würsig. 2007 Leaping behavior is related to increase in group size and feeding behavior of dusky dolphins (*Lagenorhynchus obscurus*) in Admiralty Bay, New Zealand Society of Marine

Mammalogy Conference, Capetown, Africa. 2007

C.D. Marshal, H. Amin, Kovacs, K., and C. Lydersen. 2006. Microstructure and Innervation of the Vibrissal Follicle-Sinus Complex in the Bearded Seal, *Erignathus barbatus* (Pinnipedia: Phocidae). Anatomical Record 288(1):13-25.

**Webpages and Educational Videos**

• Website: [www.nerdlingscience.com](http://www.nerdlingscience.com)

•Personal Information on website: <http://www.nerdlingscience.com/About-the--Queen-Nerdling-.html>

• Youtube station AP Biology and biology videos: <https://www.youtube.com/playlist?list=PLVzxzNt-XSCTpB0UEXZ_JLN3MDC9y1-Wd>

• Youtube station AP Environmental Science videos: <https://www.youtube.com/playlist?list=PLVzxzNt-XSCQ1bhaL-SatH-NJOFc8HZ2e>