

# Kimberly Maxwell Ulmer

biologist, educator, artist, hydrophile



781-413-1232



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kimberlymaxwellulmer.com

## PROFESSIONAL EXPERIENCE

### Director of Sustainability | Sail Martha's Vineyard | Martha's Vineyard | 2017 – present

- Education and outreach pertaining to marine science and sustainability
- Promoting partnerships and collaboration with local and regional organizations
- Design and teach marine sustainability curriculum at MV Regional High School

### Curriculum Developer | Habitat Kids, BiodiversityWorks | Martha's Vineyard | 2016 – 2017

- Conservation education through habitat stewardship, grades K-5

### Visiting Scientist | SSV *Corwith Cramer* | Sea Education Association | Woods Hole, MA | 2016

- Sail (134' brigantine) and ocean sampling from Jamaica to Dominican Republic
- Undergraduate semester abroad program focused on ocean-related environmental studies

### Full-time Teaching Faculty | Tabor Academy | Marion, MA | 2013 – 2016

- College preparatory boarding school, grades 9-12
- Courses taught: Biology (grade 9, full year); Aquaculture (upperclassmen, semester); Advanced Placement Environmental Science (upperclassmen, full year)
- Developed and implemented new curriculum for Aquaculture and Biology
- Sports coached: Instructional Sailing, JV Sailing, JV Girls Ice Hockey
- Other duties: residential dorm parent, advisor to a group of students
- Faculty chaperone aboard 92' schooner *SSV Tabor Boy* (Summer 2014)

### Research Assistant II | Marine Biological Laboratory | Woods Hole, MA | 2009 – 2013

- Lab of Roger Hanlon: cephalopod camouflage
- Live animal behavioral experiments using common cuttlefish *Sepia officinalis* and longfin inshore squid *Doryteuthis pealeii*
- Duties: experimental design and set up, digital image capture, data analysis, journal publication writing, grant writing, undergraduate intern management, lab tours, animal husbandry, cephalopod skin microdissection

### Crew and Scientific Assistant | *Sorcerer II* | J. Craig Venter Institute | 2009

- Sail (95' Cookson) and water sampling from Panama to Bermuda
- Global ocean sampling expedition focused on metagenomics of photosynthetic microorganisms

### Research Assistant | Brown University | Providence, RI | 2009

- Lab of Mayank Mehta: computational neuroscience in learning and memory
- Operant task training in rats, surgical implantation, live behavioral experiments, histology

### Research Assistant | University of California Santa Barbara | 2007 – 2008

- Lab of William Smith: ascidian developmental biology and embryogenesis
- Genetic mapping of naturally occurring mutations that disrupt notochord development in tunicates *Ciona intestinalis* and *Ciona savignyi*

## EDUCATION

### Bachelor of Arts in Biology, 2007 | Williams College | Williamstown, MA | 2003 – 2007

- Courses of interest: Genetics; Sensory Biology; Molecular Physiology; Oceanography; Bioinformatics, Genomics and Proteomics; Water and the Environment; Neuroscience; Social Psychology; Psychology of Teaching and Learning

### Galapagos Academic Institute for Arts and Sciences | Ecuador | 2006

- Undergraduate semester abroad in the Galapagos Islands, Ecuador
- Courses and fieldwork of interest: Marine Biology, Tropical Ecology, Maritime Communities

## SKILLS

- Curriculum design
- Interdisciplinary research
- Experimental design
- Data visualization
- Aquatic animal husbandry
- Live animal behavioral experiments
- Microdissection
- Confocal microscopy
- Histology
- Genetic mapping
- Creative processes
- Social media
- Brand development
- Logo design
- Choreography
- Movement aesthetics
- Artistic direction
- Small boat handling
- Sailing instruction

## SOFTWARE

- Microsoft Office proficiency
- GoogleDrive proficiency
- Adobe Creative Suite familiarity
- iMovie familiarity
- ImageJ familiarity
- MATLAB familiarity
- WordPress familiarity

## CERTIFICATIONS

- US Sailing Level 1
- PADI Open Water Diver
- CPR/AED & First Aid

## LANGUAGES

- French proficiency
- Spanish proficiency

## ACTIVITIES

- Sailing
- Wooden boat restoration
- Kiteboarding
- Ballet, modern dance
- Choreography
- Yoga
- Stop motion animation
- Graphic design

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## OTHER EMPLOYMENT & EXPERIENCE

### Steward and Sailing Master | Woods Hole Yacht Club | Woods Hole, MA | May – Oct 2017

- General clubhouse and boat maintenance, managed membership payments, helped organize social events
- Coordinated sailing school applications, managed 5 instructors

### Volunteer Crew | *SSV Tabor Boy* | Tabor Academy | Marion, MA | 2017

- Sail (92' schooner) from Saint Thomas to Bermuda, Bermuda to New Bedford, MA

### Sailing Master | Woods Hole Yacht Club | Woods Hole, MA | Summer 2016

- Coordinated applications, designed new teaching curriculum, managed 5 instructors

### Coral Reef Ecology Course | Columbia University & BIOS | Bermuda | 2014

- Field intensive course taught through Columbia's Earth Institute Center for Environmental Sustainability (EICES) and the Bermuda Institute of Ocean Sciences (BIOS)
- Course topics: coral biology, reef communities, anthropogenic factors that impact coral reefs, reef restoration, sustainability

### Founder & Graphic Artist | Young Salts | [www.youngsalts.com](http://www.youngsalts.com) | 2013 – present

- Nautical design company, online shop, marketing, social media, brand development

### Teacher | The Art of Scientific Observation | Falmouth Academy Summer Program | 2014 & 2015

- Art course focused on scientific observation skills (ages 8-12)

### Animated Podcast Contributor | Creature Cast | [www.creaturecast.org](http://www.creaturecast.org) | 2011 & 2013

- Write, record, illustrate, and animate scientific findings into short videos

### Teacher | Marine Biology | Woods Hole Children's School of Science | 2010

- Field intensive summer course (ages 9-10)

### Co-Founder & Co-President | Green Eyed Monster | [www.greeneyed.com](http://www.greeneyed.com) | 2007 – 2010

- Limited edition art printed on reusable shopping bags, daily blog and giveaways, social media, brand development

### Crew Member and Medical Officer | *Dawn Treader* | 2006

- Sail (43' Hallberg-Rassy) from Huntington, NY to Bermuda and return trip

### Small Boat Sailing Instructor | Optimist, Laser, 420 | Summers 2000 – 2007

- Sail Martha's Vineyard; Cold Spring Harbor Beach Club; Block Island Club; Cohasset Yacht Club

## PUBLICATIONS

Chubb, C., Chiao, C.C., **Ulmer, K.M.**, Buresch, K.C., Birk, M.A., Hanlon, R.T. August 2018. Dark scene elements strongly influence cuttlefish camouflage responses in visually cluttered environments. *Vision Research*.

Buresch, K.C., **Ulmer, K.M.**, Cramer, C., McAnulty, S., Davison, W., Mäthger, L.M., Hanlon, R.T. October 2015. Tactical decisions for changeable cuttlefish camouflage: visual cues for choosing masquerade are relevant from a greater distance than visual cues used for background matching. *Biological Bulletin*.

Buresch, K.C., **Ulmer, K.M.**, Akkaynak, D., Hanlon, R.T. October 2014. Cuttlefish adjust body pattern intensity with respect to substrate intensity to aid camouflage, but do not camouflage in extremely low light. *Journal of Experimental Marine Biology and Ecology*.

Gonzalez-Bellido, P.T., Wardill, T.J., Buresch, K.C., **Ulmer, K.M.**, Hanlon, R.T. March 2014. Expression of squid iridescence depends on environmental luminance and peripheral ganglion control. *Journal of Experimental Biology*.

Staudinger, M.D., Buresch, K.C., Mäthger, L.M., Fry, C., McAnulty, S., **Ulmer, K.M.**, Hanlon, R.T. December 2013. Defensive Responses of cuttlefish to different teleost predators. *Biological Bulletin*.

**Ulmer, K.M.**, Buresch, K.C., Kossodo, M.M., Mäthger, L.M., Siemann, L.A., Hanlon, R.T. April 2013. Vertical visual features have a strong influence on cuttlefish camouflage. *Biological Bulletin*.

Chiao, C.C., **Ulmer, K.M.**, Siemann, L.A., Buresch, K.C., Chubb, C., Hanlon, R.T. March 2013. How visual edge features influence cuttlefish camouflage patterning. *Journal of Vision Research*.