Jacob Dixon

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Education

MIDDLEBURY COLLEGE | MIDDLEBURY, VT

- Bachelor of Arts in biology Candidate | February 2017 | GPA: 3.47

A.C. DAVIS HIGH SCHOOL | YAKIMA, WA

- International Baccalaureate (IB) Diploma | June 2012 | GPA: 3.90

RELATED COURSEWORK:
Ecology and Evolution, Cell Biology & Genetics, Biological Experimental Design and Statistical Analysis, Computing for the Sciences, Organic Chemistry I, Comparative Vertebrate Biology, Vertebrate Natural History, Topics in Reproductive Medicine, Plant Community Ecology, Fundamentals of GIS, Aquatic Ecology, Calculus I, Sexual Selection

Skills & Abilities

LANGUAGE

- Spanish (conversational)

SOFTWARE

- Data Analysis: Python, R, Excel, ArcMap GIS, Sequencher, BLAST
- Productivity: Microsoft Office Suite
- Audio and Video: Photoshop, Premier Pro, Audacity

TECHNIQUES

- Lab: PCR, qPCR, DNA/RNA extraction (environmental insect/coral tissue), Electrical Penetration Graph (EPG), tissue sectioning, histological mounting, GC-MS
- Field: Bird banding, electrofishing, mammal trapping, insect collection, PADI SCUBA certified

Publications and Awards

- Swisher, K.D., Sengoda, V.G., **Dixon, J.**, Echegaray, E., Murphy, A.F., Rondon, S.I., Munyaneza, J.E., and J.M. Crosslin. 2013. Haplotypes of the potato psyllid, *Bactericera cockerelli*, on the wild host plant, *Solanum dulcamara*, in the Pacific Northwestern United States Am. J. Potato Res. 90.6:570 – 577
- Swisher, K.D., Sengoda, V.G., **Dixon, J.**, Munyaneza, J.E., Murphy, A.F., Rondon, S.I., Thompson, B., Karasev, A.V., Wenninger, E.J., Olsen, N., and J.M Crosslin. 2014. Assessing potato psyllid haplotypes in potato crops in the Pacific Northwestern United States Am. J. Potato Res. 91.5:485-491
- 2015 NOAA Ernest F. Hollings Undergraduate Scholarship
- Middlebury Dean's List (x4) and Middlebury College Scholar

Experience

Researcher and Intern | Dr. Palumbi's Lab, Hopkins Marine Station, Stanford University | Jul. – Aug. 2015

- RNA/DNA extraction and PCR of coral for cryptic species identification. Self-designed pilot experiment assessing glucose mediated *Symbiodinium* expulsion in *Aiptasia* anemones.

Research Assistant | Dr. Spritzer's Lab, Middlebury College, Middlebury, VT | Sep. 2014 – May 2015

- Conducted behavioral testing of transgenic mice with a focus on impaired adult neurogenesis. Neural tissue preparation and analysis.

Researcher and Intern | Dr. Wylie- Echeverria's Lab, University of Washington's Friday Harbor Laboratories, WA | June - Aug. 2014

- Designed and executed study of watercraft-borne polycyclic aromatic hydrocarbons in relation to eelgrass (*Zostera marina*). GC-MS analysis of samples completed fall of 2014 via independent study.

Lab Assistant | Middlebury College Biology Dept. | Feb. 2013 – June 2013 & Dec. 2013 - May 2014

- Monitored, cared for, and consulted regarding octopuses for neuroscience and biology department research.

Marine Research Intern and Photographer | Archipelagos Institute of Marine Conservation | June - Aug. 2013

- Surveyed juvenile recruitment for preliminary creation of MPAs, photo-documentation of protected species.

Biological Science Aid | U.S. Dept. of Agriculture | June-Aug. 2011 & June 2012 - Jan. 2013

- Performed DNA extraction, PCR, qPCR, and EPG. Collected and analyzed research data from the field and lab regarding harmful Zebra Chip Disease in potatoes.