

Jeremiah Seymour

Curator – Life Support

AALSO certified: LSS level 2 /WQ Level 1

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Albuquerque, NM

Computer Controls PLC, working with PLCs to automate life support on aquatic animal systems. Including, VFDs, ABB, Allen Bradley, Johnson Controls, CSI life support systems, and other generic PLC systems.

Advanced management and leadership skills and experience working collaboratively with outside agencies while training and overseeing over 11 Life Support Supervisors/Operators, 10 aquarists, 25 interns and volunteers.

Biological Systems Engineering, worked on and designed dozens of life support water filtration systems. Including the engineering of all biological, mechanical, plumbing, and budgeting aspects of the system design.

PROFESSIONAL EXPERIENCE

Curator – Life Support

Biopark Zoo & Aquarium (Albuquerque, NM) 9/2020 – Present

Oversee, plan and coordinate a variety of Biological Park services, activities, operations and maintenance of life support systems and aquatic facilities; coordinate assigned activities with other divisions, outside agencies and the general public and provide highly responsible and complex staff assistance to the Aquarium Manager. Design and engineer new life support systems, repair and/or replace older systems up to 30 million gallons. Read through construction plans to determine Biopark effectiveness.

Life Support Technician

SeaWorld (Orlando, FL) 10/2019 – 9/2020

I joined SeaWorld to learn more. Mostly due to their outstanding record with water quality and life support. While working at SeaWorld I was responsible for maintaining the proper water chemistry, clarity, and movement for all SeaWorld animal systems.

- Performed day to day observations and adjusted all SeaWorld life support systems.
- Performed sand filter, pump and plumbing repairs.
- Learned about systems that have no salt water discharge.
- Performed proper water chemistry testing and made changes to systems as needed.
- Helped via computer and manually to move water millions of gallons of water from one system to another often daily.

SKILLS

Automation

Computer Controls

Programming in R

Coral Aquaculture

Computer Science

Published researcher

Statistics Programming

Protocol development for live animals

Health and safety inspections

Collection and research diving

Designed and created my website

Life Support design and installation

Pump repair and maintenance

Low voltage electrical

Professional plumbing

Photography

HIGHLIGHTS

Operated, programmed, and re-engineered life support, HVAC, and building automation at 3 facilities. Including two **500-point systems**.

Designed and set up a **remote field station** on South Water Caye, Belize.

Designed and installed a **1,500 gallon coral reef aquarium**. The largest in the West Indies at the time. Including cites 1 endangered species.

Aquarium Supervisor

Dallas Zoo/Children's Aquarium (Dallas, TX) 8/2017- 8/2019

Joined the Dallas Zoo team to help with their wide array of animals. While working there I helped train and promote 9 staff members. Some of whom have moved on to senior aquarist at other facilities.

- Managed 57 exhibit habitats and 37 off exhibit holding/quarantine
- Developed new standards and protocols for the aquarium
- Plan new exhibits and acquire collection animals
- Manage the LSS team and work with facilities to solve problems
- Reestablished a 3,000 gallon indo pacific reef exhibit and 2,000 gallon Caribbean reef
- Redesign and reprogram the 256 channel aquarium LLS computer system
- Maintain a relationship with US Fish and Wildlife and manage airport seizures where I have saved about 600 colonies of corals
- Redesigned and rebuilt 17 life support systems, protein skimmers, new pumps, ozone, UV and heat exchangers throughout the building. Including a 57,000 gallon shark exhibit
- Maintain and establish new professional connections through conventions and list serves
- Respond to round the clock emergencies
- Replaced large Hayward pumps with mag drives and DC pumps.
- Created project and budget to cut 100HP from the building over three years

Lab Manager/Aquarist

Boston University (Boston, MA) 3/2011–6/2017

Joined while still working on my Undergraduate degree as lab manager. While working for the university I got my masters. Managed 6 undergraduates at a time facilitating projects and teaching them about marine life and what is necessary to maintain a healthy environment in the lab for the animals. Built a 42 aquarium quarantine system.

- Bred and reared larvae of *Amphiprion percula* and various Caribbean Gobies for undergraduate and graduate student projects
- Operated, repaired and maintained 114 aquariums
- Kept the lab ready for various university and accredited inspections
- Inventory and order all livestock and materials for lab
- Replaced seals and bearings on the high flow pump motors
- Tested and monitored water quality
- Installed a computer system to keep the 60 semi-open *Amphiprion percula* aquaria with the same water quality parameters

Open Water SCUBA Instructor -- PADI #240265

Scubatech & D2O(St. Georges, Grenada, WI) 9/2007–1/2010

Leading dives for Scubatech as a divemaster, increasing my knowledge in diving and learning how to manage guests and help them have fun. Working for D2O I worked to become an instructor and certified new students.

- Assisted with all the daily activities associated with the dive center
- Educated divers about fish and invertebrate identification in marine environment and snorkeling trips, loaded/unloaded the boat and filled scuba tanks

Have adapted to remote island life before and know how to **solve problems** with little resources.

Imported **5,000 wild fish** *Amphiprion percula*, Anthias, Piranha, Cardinals, lionfish, Jacks, Tangs, Sharks, and Jellyfish

Participated in over **30 scientific** collection dives

Currently **authored and published 3** peer reviewed articles

Designed and built a rotifer culture system that can go **without maintenance for a week** and still have counts as high as **800 per ml**

PADI Scuba instructor with over **2,000 dives** 500 logged.

Volunteer of the month

“Sea Star” in Aqualog Magazine

EDUCATION

Master of Science, Behavioral ecology
Boston University

Thesis title: “Lunar cycles of reproduction in the clown anemonefish *Amphiprion percula*: individual level strategies and population level patterns”.

Bachelor of Science, Psychology
Magna cum laude
University of Massachusetts, Boston
Member of Psi-Chi Honor Society

PERSONAL INTERESTS

Breeding marine fish

Computer science

Animal training

Camping

Hiking

Skiing

Yoga

- Led dive expeditions, boat tours, and snorkeling trips, loaded/unloaded the boat and filled scuba tanks

Owner/Aquarist

Boston Aquatic Technologies (Boston, MA) 1/2008–1/2010

Designed and installed large scale marine systems .Collaborated with clients to make detailed maintenance plans and develop custom water quality parameters for established systems

- Educated novice company employees to manage and operate these complex marine systems to reduce overall maintenance.
- Managed livestock, took inventory and decided which animals to add or remove
- Specialized in many types of aquatic environments including seahorse habitats, jellyfish tanks, shark ponds, stingray pools and giant living coral reef tanks.

Senior Volunteer/Intern

New England Aquarium (Boston, MA) 9/2004–9/2007

Joined to volunteer to work with African cichlids and assist with brain research under Les Kauffman and Caroly Shumway, promoted rapidly to increased responsibility senior volunteer and eventually interning. Was in charge of weekend care and husbandry needs of the African cichlids used in the neuroscience research projects.

- Operated, repaired and maintained 40 African rift lake aquariums
- Managed animal husbandry to ensure species survival and prevention of secondary health issues during the stress of being tested
- Helped identify the social and neural features underlying mating preferences effect on brain/behavior
- Explored the role of environmental and social plasticity in observed species-specific differences, set up ran, and coded maze and visual acuity experiments

Senior Aquarist

Gibbons Aquaria (Wakefield, MA) 2006–2008

Learning about commercial marine systems, I maintained and helped design coral reef systems, performed weekly long term maintenance for clients though monitoring water chemistry, livestock and diseases.

- Installed and maintained tropical freshwater and live coral reef aquarium systems that averaged 500 gallons in capacity
- Made adjustments to systems and replaced plumbing as necessary
- Responded to emergency calls

Apprentice Plumber

Bilo Plumbing and Heating (Hamilton, MA) 1999-2002

- Installed and maintained plumbing, air conditioning and radiant heating systems in high end houses
- Used plans to navigate plumbing and heating routes through house
- Worked on projects that include the TV show This Old House.