



DIVING WITH A PURPOSE XII

"Restoring Our Oceans, Preserving Our Heritage"

June 5-11, 2016

FLORIDA KEYS NATIONAL MARINE SANCTUARY, KEY LARGO, FLORIDA
PROGRAM CONTACT: KEN STEWART (615) 730-4906

Website : www.divingwithapurpose.org

The annual ***Diving With a Purpose*** (DWP) maritime archaeology program is scheduled for one week, starting Sunday, June 5 – Saturday, June 11, 2016. In the past, DWP began a waiting list within two weeks after each annual announcement. Please do not wait to register, slots are limited. This can be a very rewarding week for those of you who sign up, but before you do please read Erik Denson's attached summary of his fulfilling experience for an idea of what to expect. Upon completion of the course, you will have achieved the basic requirements for underwater archaeology and receive a DWP certificate and PADI specialty c-card verifying such. Additionally, if you are a returning participants, you do not have to repeat the required basic introduction academic course taught on the first day of the program but it is encouraged to refresh your baseline knowledge and meet the other program participants. Remember, the **DWP program is a PADI certified specialty! Upon successful completion of DWP you will receive a PADI specialty C-card (Archeology Survey Diver).**

WHAT TO LOOK FORWARD TO:

- A SCUBA setting
- Learn investigative & research techniques
- Team Discovery & Analyses
- Hard work w/familiar people
- Wreck site at 15-25ft. deep
- Research methods include, but are not limited to, skills and techniques employed in underwater cartography
- Trilateration mapping
- In Situ scaled drawing
- Drafting planimetric site plans

ELIGIBILITY & WHAT YOU NEED

- **Experience: 30 logged dives minimally in which ten (10) must be ocean dives. Also, you must have logged at least six (6) dives in the last year.**
- Thirst for new underwater experiences
- Ability to withstand 70° H₂O temperature
- Appropriate thermal wear for 70° H₂O
- Good verbal and written communication skills
- Ability to make accurate measurements & documentation on land & underwater
- Proficient with the Imperial and Metric measurement system and how to convert from one to the other
- Your own dive gear (less tank & weights)
- **Peak Buoyancy Skills** (verification required if under 50 dives)
- Confidence with long-term bottom time dives (60-90 min.)

EXPENSES:

Registration Fee - \$75

New DWP Participants \$550.00 (includes Sailing Ship Artifacts Guide, DWP Manual & Instructional DVD)

Returning DWP Participants & Instructor Candidates - \$400

Instructors - \$225

PADI C-Card - \$50

DWP Underwater Archeology Program includes two (2) days of academics covering underwater archaeological skills, lessons & activities, land and underwater supplies for various archeological tasks and results, three (3) days of structured diving plus tanks & weights. Box lunch will be provided on the boat on dive days.

REGISTRATION DEADLINE IS MARCH 31, 2015!!

Registration consists of completing the application and returning it with the course fee. This will be based on a first- come, first-serve basis. The DWP fee is due in full with the completed DWP XII registration form and a copy of your scuba certification card. No refunds after January 31st, 2016 due to pre-program planning cost obligations. If you cannot participate after registration payment, replacements are acceptable if DWP is notified by April 30, 2016.



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ACCOMMODATIONS/EXCLUSIONS:-

Hotel:

We have a block of rooms with the Key West Inn. The nightly rates are \$89 per room per night plus tax. Rooms have full kitchens, one queen bed upstairs and a pull out queen bed on the first floor.

Mention Rainbow Reef & Diving With a Purpose when making the reservation. Key West Inn, 201 Ocean Drive, Key Largo, FL 33037 Phone: (305) 451-5081.



Dormitory:

Dormitory style accommodations are available at the Florida Bay Science Center. 6 rooms - 2 beds per room bunk style with a desk in each room. There are two full bathrooms with outside sink and a full kitchen with joining living room. The complex has a screened in porch with picnic tables and an outside grill and ample parking. Separate rooms will be allocated for female and male participants. Dormitory donation is \$140 per person for 7 days. **Space is limited, rooms will be allocated on a first come, first serve basis.**

This location is next to the training center where the classroom sessions will be conducted.

Location - Everglades National Park Florida Bay Interagency Science Center, MM 98.6, Key Largo, Florida 33037



Exclusions include: Additional dive equipment, room and board, auto rental (if nec.), round-trip airfare. Of course you are welcome to stay at any hotel of choice.



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DWP Archeology Program = Includes 2 days of academics covering u/w skills, lessons & activities; land and u/w supplies for various archeological tasks and results, 3 days of structured diving plus tanks & weights.

TYPICAL AGENDA

Sunday:

- Check-In
 - Instructor & Instructor Candidate Meeting
 - DWP Meet and Greet {everyone}

Monday:

(Not Required but encouraged for Returning Participants, Except Instructor Candidates)

- Introductions & Overview
- DWP Program Presentations
- Shipwreck Artifacts & Maritime History
- Acorn Wreck Site Overview & Mapping Plan
- Land Instruction:
 - Wreck Site Overview
 - DWP Overview & Equipment Description
 - Mock Wreck Site Instruction – Advocates, Instructors & Candidates
 - Establishing Baseline
 - Identification of Points of Interest
 - Trilateration Mapping & Off-Set Measurement
 - In-Situ Drawing
 - Team Instruction (Separate into Groups) – Instructor & Candidates

Tuesday

- Site Dive:
 - Assign sections of the wreck to each team.
 - Teams survey site.
 - Teams identify points of interest in their sections. Hand wave to clear site and place pin flags.
 - Trilateration mapping of team's section.
 - Individual In-Situ Drawings

Wednesday

- Site Dive:
 - Continue Trilateration mapping of team's section if necessary.
 - Individual In-Situ Drawings

Thursday:

- Site Composite Drawing:
 - Review Team drawings (Instructors & Candidates)
 - Team Presentations
 - Plot Baseline and pin flags on composite site map
 - Draw Individual In-Situ Drawings on composite site map

Friday:

- Site Dive: Individual In-Situ Drawings

Saturday:

- Site Composite Drawing & Graduation (Half Day):
 - Continue - Plot Baseline and pin flags on composite site map
 - Continue Draw Individual In-Situ Drawings on composite site map
 - GRADUATION!!!

Note: Lunch will be provided on the boat on dive days.



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June 5-11, 2016

FLORIDA KEYS NATIONAL MARINE SANCTUARY, KEY LARGO, FLORIDA

PROGRAM CONTACT: **Ken Stewart (615) 730-4906**

kenkye62@gmail.com

1309 Jackson St., Nashville, TN 37208

Diving with a Purpose –Restoring Our Oceans, Preserving Our Heritage. DWP is a community-focused nonprofit organization dedicated to the conservation and protection of submerged heritage resources by providing education, training, certification and field experience to adults and youth in the fields of maritime archaeology and ocean conservation.

DWP XII 2016 REGISTRATION FORM

NAME: _____ **DATE:** _____

ADDRESS: _____

CITY: _____ **STATE:** _____ **ZIP:** _____

HOME PH: _____ **DAY:** _____ **CELL PH:** _____

EMAIL (1): _____ **EMAIL (2):** _____

T-SHIRT **S -** **M -** **L -** **XL -** **XXL**

DIVING INFORMATION –

Dive Level & Number _____ **Dive Insurance #** _____

DIVE Number of Dives Logged: _____ **Deepest Dive:** _____ **Date of Last Dive:** _____

EXPERIENCE _____

HOME SCUBA CLUB: _____ **NABS MEMBER NO.** _____

Archeology or Related Experience _____

EMERGENCY CONTACT INFORMATION

Health Insurance _____ **Phone:** _____

Primary Phy _____ **Insurance Acct #** _____

Tele No. _____ **Group Acct #** _____

1st Contact **Name/Relationship:** _____

Day Phone _____ **Cell:** _____ **Hm:** _____

Address _____

City: _____ **State:** _____ **Zip:** _____

2nd Contact **Name/Relationship:** _____

Day Phone _____ **Cell:** _____ **Hm:** _____

Address _____



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kenkye62@gmail.com

1309 Jackson St., Nashville, TN 37208

All new and returning DWP instructors and candidates must apply to become an instructor or instructor candidate for DWP XII. Instructors will be notified by DWP administration upon their selection. A maximum of 4 instructors and 4 instructor candidates (in addition to lead instructors) will be selected per session. Instructors will be selected on a first come first serve basis. Previous instructors can participate in the program as non-instructor returning advocates.

Eligibility:

- **Experienced Diver**
- *Demonstrate good diving skills – **Peak Buoyancy!***
- New Instructor Candidates – Participated in at least two DWP sessions.
- Good verbal and written communication skills
- Demonstrate leadership skills and ability to work with teams

DWP XII 2016

INSTRUCTOR & INSTRUCTOR CANDIDATE REGISTRATION FORM

Name: _____

Date: _____

New Candidate? _____

Returning Instructor? _____

DWP Sessions Attended (Circle): I II III IV V VI VII VIII IX X XI

Describe Your Applicable Training, Instruction & Leadership Experience:



Diving With a Purpose

Diving With A Purpose XII

June 5-11, 2016
Florida Keys National Marine Sanctuary
Key Largo, Florida

TAP, c/o Kenneth Stewart
Founder and Program Director
1309 Jackson St.
Nashville, TN 37208-3000

EXPENSES/COSTS: CHECK ALL THAT APPLY

Registration Fee (Required By All Participants)	\$75 []
New DWP Participants	\$550 []
(Includes: Sailing Ship Artifacts Guide, DWP Manual & Instructional DVD)	
Returning DWP Participants & Instructor Candidates	\$400 []
Returning DWP Instructors (Includes New DWP Instructor Kit)	\$225 []
PADI Specialty C-Card (Archeology Survey Diver).....	\$50 []
Florida Bay Science Center Dormitory Donation (7 days).....	\$140 []
DONATION (Youth DWP & Coral Restoration Project)	\$_____
TOTAL	\$_____

Method of Payment:

Payment must be submitted with your application and a copy of your C-card. Without these enclosures we are unable to process your request to participate in DWP XII. ALL registration forms with enclosures (check or money order **and** C-card) should be mailed to: DWP * c/o Ken Stewart * 1309 Jackson St. * Nashville, TN 37208 -3000

Checks and Money Orders should be issued to DWP.

ALL questions pertaining to Diving With a Purpose XII should also be directed to Ken Stewart at (615) 730-4906. **All application should be postmarked by the March 31, 2016 deadline.**

Liability Waiver and Release:

I, _____ release Diving With a Purpose (DWP), its officers, trip leaders, committee members, or other members of the organization from any and all liabilities, claims, losses, expenses, injuries, or damages to persons or property which may arise out of, or be connected in any way with, any scheduled or unscheduled dive trip or activity it may offer.

In exchange for being permitted to participate in any activity, I will not institute any action at law or in equity in consideration of any injury or other loss or damage sustained, or that may be sustained, by me as a consequence of my participation in an activity sponsored in full or in part by DWP. My participation in any activity offered by DWP is strictly voluntary.

I understand that DWP and no other member of the organization shall in any way be responsible for the safety of any member, or be responsible for the services of accommodations being offered by other enterprises or persons on all trips and/or activities, scheduled or unscheduled by this organization.

I agree to abide by the by-laws, rules and regulations of DWP. I will abide by safe diving practices and conduct my behavior in a responsible manner. This Waiver and Release form will be binding on me and on behalf of my heirs, agents, assigns and legal representatives. I further state that I have carefully read the foregoing Waiver and Release in its entirety. I sign this Waiver and Release knowingly and voluntarily with a full understanding of its content.

Signature: _____ Parent/Legal Guardian: _____ Date: _____

DIVING WITH A PURPOSE TESTAMENT !!!!

By Erik Denson - NABS #254
DIVERSe Orlando

Just like many veteran divers, there comes a time when we look for more. I have been diving for 13+ years now. Diving With a Purpose (DWP) offers a new adventure and a different challenge for veteran divers, maritime archeology. Archeology received fame with Raiders of Lost Ark. That was mostly glamour. Archeology is a precise science that requires painstaking patience and precision. The DWP course is an intense week long program that teaches you the basics of underwater archeology. This includes underwater mapping and trilateration. Trilateration is the method archeologist use to map and measure the various sections of the wreck. During the course, you can spend up to a 1 ½ hours surveying a 6' x 6' section of a site, not moving from that area. This includes fanning the sea floor to expose the wreck and documenting the site using a ruler, pencil and slate with Mylar paper. This type of diving is not for everyone. It takes diligence and concentration. Being an engineer, this type of work came naturally. However, the work is very rewarding knowing that you are responsible for preservation and cataloging history. I had no idea that this would be one of the most rewarding dive trips for me. As a diver we should always look for ways to increase our knowledge and thirst for the sport through advance training and specialty diving such as "Diving With a Purpose".



Erly Thornton In-Situ Drawing



DWP Participants Mapping the Wreck Site

Steamship *Acorn* History and Archaeology

By Matthew Lawrence, Archaeologist, Office of National Marine Sanctuaries

Introduction

Office of National Marine Sanctuaries (ONMS) archaeologist Matthew Lawrence and maritime heritage coordinator Brenda Altmeier conducted a reconnaissance survey of Florida Keys National Marine Sanctuary (FKNMS) shipwreck site E5 in September 2012 following up on the work of the FKNMS's volunteer Submerged Resources Inventory team. While snorkeling over the site on Elbow Reef, ONMS staff noted that it was the remains of an iron or steel-hulled screw steamship. While the site appeared to have been salvaged, the researchers saw a partial boiler and propeller blades. Using this information, Matthew Lawrence conducted archival research to identify iron or steel-hulled steamships lost on Elbow Reef.

Archival research revealed that numerous steamships grounded on Elbow Reef, but most were refloated, particularly those constructed with iron/steel hulls. Out of six iron/steel-hulled screw steamships reported to have grounded on Elbow Reef, only two were historically described as complete casualties. The *Hannah M. Bell* was a 315-foot long twin screw steamer carrying coal that struck the reef in 1911 and has been the subject of archaeological mapping by Diving With a Purpose and the ONMS since 2012. The only other iron/steel steamship reported lost on Elbow Reef is the *Acorn*.

Steamship *Acorn* History

Acorn was built in the Thistle Works Shipyard in Paisley on the White Cart Water, a tributary of the River Clyde in Scotland by the shipbuilding company of Campbell and Co. It was the second hull built by the business, a duplicate of their first steamship, named *Elfrida*. The *Acorn* measured 165 feet long, 24 feet 6 inches in breadth and had a 12-foot 9-inch depth of hold. It had a raised quarterdeck that extended 77 feet from its stem to its raised bridge deck and a raised forecabin. Two masts punctuated its profile for handling cargo and providing emergency propulsion should its single compound inverted steam engine fail.¹

Campbell and Co. took the steamship on its sea trial at the beginning of March 1881 and turned it over to its captain, A. Duncan, and managing owner Peter H. Dixon of Glasgow. The following month, Campbell and Co declared bankruptcy and went out of business having not made any profit on the five completed steamships they had launched since going into business in March 1880.²

Little information has been found on *Acorn's* early voyages; however, it likely operated as a tramp steamer around Europe. The first records located thus far put the vessel on repeated trips between New York City and Baracoa, Cuba carrying fruit cargos during the last months of 1884. At the beginning of 1885, *Acorn* began steaming between New York City and Laguna (believed to be in Brazil) carrying mahogany, hides, and logwood. On the night of 8 February 1885, *Acorn* grounded on Elbow Reef. The steamship became an immediate loss as its stem post was broken and its holds filled with water. All of the steamer's crew was rescued by wreckers who

¹ *Lloyd's Register of British and Foreign Shipping*, 1885-1886; www.clyde-ships.co.uk;

² *Paisley and Renfrewshire Gazette*, 5 March 1881, 9 April 1881

attempted to save some of the steamer's cargo of oil and lard, which floated free from the wreckage.³

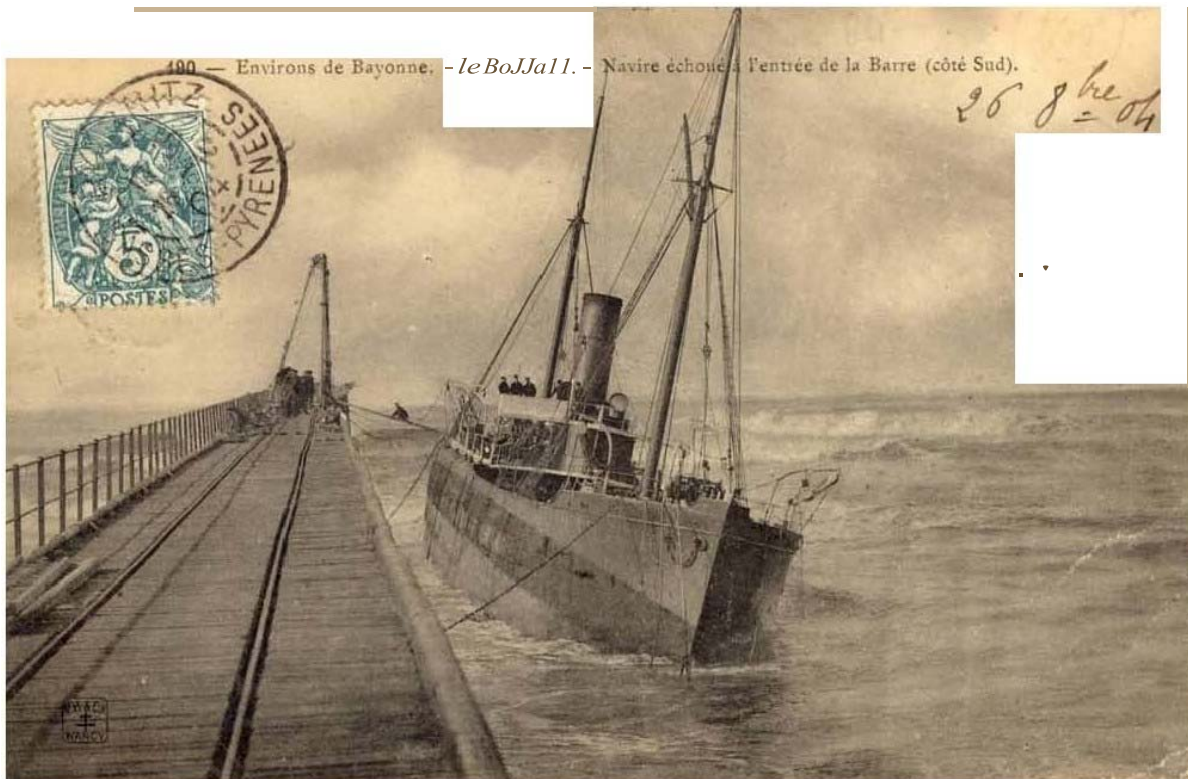


Figure 1. Postcard believed to depict the *steamship Eijrida*, *Acorn's* sistership.

Archaeological Investigation of Shipwreck E5

Following the initial site visit in 2012, ONMS staff re-visited shipwreck E5 in August 2014. Divers measured the articulated hull to be 142 feet long with a maximum of 32 feet of structure across the site's longitudinal axis. Further investigation of the site revealed that a portion of its hull, believed to be either its bow or stern, has been broken from the main wreckage and is lodged in the reef. This piece still maintains some structural integrity and interior space.

Archaeological research planned for 2016 will map the shipwreck's remains and characterize the site for comparison to *Acorn's* historical record. As the wreck no longer has its engine or other machinery, the site investigation is also expected to yield information about salvage activities on Elbow Reef. Shipwreck E5 has been incorporated into Elbow Reef and is heavily encrusted with sea fans and gorgonians. Lying at a depth of 20 to 30 feet, Elbow Reef's blue waters and excellent visibility make for a stunning dive.

³*New York Times* 28 August 1884, 9 November 1884, 3 December 1884, 22 January 1885, 12 February 1885, 18 February 1885



Figure 2. The wreck's keel and keelson along its longitudinal axis (Matthew Lawrence/ONM S).



Figure 3. Divers swim over the wreck's fractured **hull** (Matthew Lawrence/ONMS).



Figure 4. Remains of a boiler (Matthew Lawrence/ONMS).