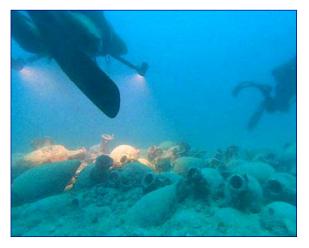
Scuba divers stumble on 2,200year-old shipwreck along coast of Croatia

Aspen Pflughoeft

While training off the coast of Croatia, scuba divers spotted something rising from the seafloor — and stumbled on a well-preserved ancient shipwreck. The Croatian and Italian navies planned a joint training for underwater mine clearing operations off the coast of Šedro Island, Croatia's Ministry of Culture and Media said in a June 23 news release. The training involved remote-operated vehicles and scuba diving.



Officials scanned the island's coast and selected some sites with unusual underwater structures for the divers to explore, the release said. Searching the seafloor about 160 feet below the surface, divers found a 2,200year-old shipwreck. Underwater archaeologists Saša Denegri and Tea Katunari Kirjakov identified the wreck as one of the earliest, completely preserved shipwrecks in the eastern Adriatic Sea, the release said. The sunken ship was still loaded with ancient Roman pottery dating to the 3rd century B.C., archaeologists said. Photos show the pile of artifacts on the seafloor.



Nine Dippers Dive into Bonaire for Ten Days



These Dippers enjoyed ten days in Bonaire diving, laughing, diving, Leating, diving, sleeping, diving, joking, diving, driving . . . Oh, and did we mention lots of diving too? Above, members Carl Tuttle, Ken 'Iron Diver' Agur, Barbara 'Mother Hen' Davis, Tristen 'Triscuit' Chutka, Teresa Hanson, Mike Chalup, Andrew Grice, Jim Rezowalli and Cedric Wright aboard the Buddy Dive Resort boat My Buddy for a 2tank dive off the small island of Klein Bonaire. Lots of stories to tell and more photos coming in the November newsletter. •

During the 3rd century B.C., the ancient Roman empire was expanding throughout the Italian peninsula, according to maps from Britannica. Modern-day Croatia, along with other neighboring countries, was under the control of the IIlyrian people during the 3rd century B.C., according to Britannica. An Illyrian queen "antagonized Rome" with a large fleet of ships during this period, leading Rome to retaliate. By 168 B.C., the ancient Roman empire had established control of Illyria, renaming it Illyricum, per Britannica. Illyricum would remain under Roman control until the empire's collapse and division in the fourth century A.D.

The 2,200-year-old shipwreck is the third shipwreck found near the island since 2014. Archaeologists will continue studying the shipwreck site and figure out how to protect and conserve the ruins, ministry officials said. 😂

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www.SJFlipperDippers.com

President's Corner



reetings Divers!

Everyone had a great time at the Club campout over Labor Day weekend and we were also able to do an urchin culling dive at Caspar Cove. Nine Dippers recently returned from another Club trip to Bonaire where we did some great warm water diving! Look for a full report on this trip in next month's newsletter. Last year we went to Bonaire in April and we found warmer

water and warmer surface temperatures in September.

Speaking of seasonal dive conditions, Fall is here and we often see the best local diving conditions at this time of year! But we can also get storms and rougher conditions. Always check the wave models and consider the skill level of all divers in your group when choosing your dive spots. We need to make sure everybody is diving within their comfort and skill level. There's always something else to do in Monterey if conditions are too rough for diving.

Looking ahead, Club Dues are due this month. Pay on time and avoid the \$5 late fee! See the article on page 3 for all of the info.

And in November, we'll be looking to nominate some of our fellow Dippers for 2024 Club Officers. Take a look at the requirements on page 3. Maybe you have been thinking about getting more involved in club activities? Here's your chance!

We've also got a number of Club trips in the planning stages, both local and international. Stay tuned for more details!

Everyone keep safe and keep diving!

– Barbara

And you booked the trip ... with who?

These are actual complaints received by 'Thomas Cook Vacations' from dissatisfied customers:

- "They should not allow topless sunbathing on the beach. It was very distracting for my husband who just wanted to relax."
- "We booked an excursion to a water park but no-one told us we had to bring our own swimsuits and towels. We assumed it would be included in the price."
- "The beach was too sandy. We had to clean everything when we returned to our room."
- "We found the sand was not like the sand in the brochure. Your brochure shows the sand as white but it was more yellow."
- "No-one told us there would be fish in the water. The children were scared."
- "We had to line up outside to catch the boat and there was no airconditioning."
- "My fiancée and I requested twin-beds when we booked, but instead we were placed in a room with a king bed. We now hold you responsible and want to be re-reimbursed for the fact that I became pregnant. This would not have happened if you had put us in the room that we booked."





San Jose Flipper Dippers

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We'll be having our in-person General Meeting this month. If you come please bring a refreshment to share – safely! We'll have a live Skype connection for those who like to meet virtually.

MEMBERSHIP

Ken Agur

We're a dive club and we're diving! If you're looking for a dive buddy look no further. See the Club's website for more information on becoming a member. (Membership Requirements).

Happy Birthday to You! If we had a regular General Meeting, a FREE raffle ticket would be given to *Kelly Drake* and *Howard Timoney*.

Club Dues Due This Month

It is October again and time to pay your annual dues. Dues help cover a portion of the yearly room rental, website hosting, domain name registration, and newsletter printing and distribution. Each member will also be asked to sign an "Assumption of Risk Agreement" when dues are paid (the form is available on the Club's Website). If you can't make the in-person General Meeting please send a signed copy with

your dues in the mail to: **Tom Gardner**, 2986 Everdale Court, San Jose, CA 95148. Contact Tom if you want to pay your dues in cash.

Club Dues this year are \$50.00 and \$10.00 per year to

receive this Newsletter via the U.S. Postal Service. Or download it FREE each month from the Club's Website in full color. Charter and Lifetime Members will continue to receive the Newsletter by U.S. mail.

CenCal (Central California Council of Diving Clubs) dues are \$15.00 and USofA (Underwater Society of America) dues are \$20.00. (Pay online at: www.cencal.org). These optional dues support the many efforts of CenCal and USofA on behalf of all divers in the areas of beach access along with conservation and state and national legislation. These two organizations form an effective method for presenting the divers' interests state-wide and nationally.

A summary of our annual dues is as follows:

CLUB DUES	\$ 50.00
Newsletter (U.S. Mail)	10.00
CEN CAL	15.00
USofA	20.00
Total	\$ 95.00

Remember, associate member (non-diving spouses of Dippers) dues are **\$5.00**. Associate members may attend Dipper functions at member prices, but have no voting privileges. Also, dues must be paid by November 30th or you will incur a late fee of \$5.00. **\$5.00. \$5.00. \$5.00. \$5.00.**



NOMINATIONS FOR 2024 CLUB OFFICERS

At the November General Meeting we will be nominating Club members for the following offices: President, Vice President, Secretary,

Treasurer and Sergeant at Arms. To be eligible to hold an office, one

HOW ABOUT YOU?

must be a current member in good standing. Presidential nominees must have been a club member for at least two years. Holding an office is a rewarding experience as well as being of benefit to the club. **This is your chance to** *get involved* and voice your ideas as to the future of the San Jose Flipper Dippers. **The Election** of our officers will take place at the December General Meeting.

Duties of our Club Officers are as follows:

PRESIDENT: Has overall responsibility for the club's success. Presides at all general, business and special meetings and appoints standing committees for the year and special committees as seen fit. Also includes writing a monthly *President's Corner* for the newsletter.

VICE PRESIDENT: Responsible for scheduling of the dive calendar each month, arranging for dive coordinators, and writing the monthly calendar article for the newsletter. Includes presiding at all meetings in the absence of the President.

SECRETARY: Includes maintaining the minutes for all general and business meetings and handling club-related correspondence. Responsible for attending all meetings or making arrangements for someone to handle the duties in his/her absence.

TREASURER: Receives membership dues and handles all income and expenses, maintains financial records and makes monthly reports to the club. Also makes deposits into the club's accounts and issues checks for authorized expenses. Maintains expense accounts as needed for events such as boat dives, banquets, etc.

SERGEANT AT ARMS: Includes making arrangements for all meetings and setting up necessary meeting equipment. Maintains order at the meetings and collects fines levied upon members. •

Labor Day Weekend at Van Damme

Photos by Jackie Gardner, Ginny Matulich & Carl Tuttle

Dippers converged on Van Dame State Park, in Mendocino, for the labor Day Weekend. A number of them were able to get to the park early in the week.

The group enjoyed kayaking up Big River, riding bikes along the shoreline at Ft. Bragg and even some scuba diving. Evenings were spent eating great food and enjoying telling stories while sitting around the campfire. Oh, and one special lady celebrated her birthday! Yep, if you weren't there, you missed a good one. •





Deep-sea octopus garden is largest-known gathering in the world

Two miles below the ocean surface off Monterey, California, warm water percolates from the seafloor at the base of an underwater mountain. It's a magical place, especially if you're an octopus. In 2018 Amanda Kahn was aboard the research vessel E/V Nautilus when scientists discovered the "Octopus Garden." Thousands of pearl octopuses (Muusoctopus robustus) were curled up into individual balls in lines and clumps. As Nautilus Live streamed the expedition online, the world got to share the excitement of the discovery. In a new study involving

scientists from several fields, it was explaind why octopuses migrate to the Octopus Garden. It's both a mating site and a nursery where newborn octopuses develop faster than expected, giving them the best shot at survival in the deep, cold sea

Female octopuses seek out rocky cracks and crevices where warm water seeps from the rocks. There, they vigilantly guard their broods. Subsisting on their energy reserves alone, these mothers will never eat again. Like most cephalopods, they make the ultimate sacrifice for their offspring and die after their eggs hatch. The

Octopus Garden, at the base of Davidson Seamount about 80 miles (130 kilometers) southwest of Monterey, California, is the largest of a handful of octopus nurseries recently discovered in the Eastern Pacific. Many have been found near hydrothermal springs where warm water seeps from the seafloor.

Using Monterey Bay Aquarium Research Institute's deep-sea robots and sensors, researchers studied and mapped the Octopus Garden during several visits over three years to examine the links between

thermal springs and breeding success for pearl octopuses. They found nearly 6,000 nests in a 6acre (2.5-hectare) area, suggesting more than 20,000 octopuses occupy this site. They witnessed male octopuses approaching and mating with females cheering for the successful emergence of hatchlings, which looked like translucent miniatures of their parents.

And they mourned the deaths of mothers and their broods. When a nest became empty, it was quickly filled by a different octopus mother. Nothing went to waste at the Octopus Garden. Dead octopus provided a vital food source for a host of scavengers, like sea anemones and snails.

A new generation of octopuses must overcome at least two hurdles before hatching. First, they must develop from egg to hatchling. They start as opaque, sausage-shaped eggs cemented to the rocks. Over time, tiny black eyes, then eight little arms grow visible through the egg capsule. Second, crucially, they must not succumb to external threats, including predators, injuries, and infections. The longer the incubation period, the greater the risk that an embryo might not survive to hatch. For octopus species living in warm, shallow waters, brood periods are only days to weeks long. But a very different



Garden

scenario plays out in the abyss. Near-freezing temperatures dramatically slow metabolic processes in cold-blooded animals like octopuses. The longest-known brood period for any animal actually comes from another deep-sea octopus species, Graneledone Pacifica, with a mother tending her nest for a remarkable $4\frac{1}{2}$ years. An octopus nursery for this species was recently discovered off the west coast of Canada.

At Davidson Seamount, where ambient water temperatures are 35 degrees Fahrenheit (1.6 degrees Celsius), researchers expect pearl octopus embryos to take five to 10 years, or possibly longer, to develop. Such an extended brooding period would be the longest known for

any animal, exposing an embryo to exceptional risks. Temperature and oxygen sensors were slipped inside octopus nests documenting a much warmer microenvironment around the eggs. On average, the temperature inside octopus nests was about 41 F (5.1 C), considerably warmer than the surrounding waters. It was predicted that octopus embryos would develop faster in this warmer water. Distinctive marks and scars helped identify individual mothers. Over repeat visits, researchers tracked the development of their brood. Although they did expect faster growth in the warm water, they were stunned to find that eggs hatched in less than two years. Nesting in thermal springs clearly gives pearl octopuses a boost.

But nesting in thermal springs is a potentially risky strategy. Once eggs are laid, they're cemented to the rock. Little is known of the thermal tolerance of pearl octopuses or their embryos, but even a short exposure to overly warm waters could be lethal to developing embryos, wiping out any hope of successful reproduction for that mother. Indeed, one of the first recorded deep-sea octopus nurseries may have experi-

enced unpredictable fluid flow. The thermal springs at the Octopus Garden are part of a ridge flank hydrothermal system. Here, water percolating beneath the seafloor picks up heat from Earth's mantle before it's channeled out from volcanic rock outcrops like Davidson Seamount. These systems have become an emerging focus in seafloor geology, though only a few have been discovered so far.

Unlike hydrothermal vents, which form at ridge crests and belch plumes of hot water that are detectable hundreds of meters above the bottom, thermal springs on ridge flanks are cryptic. These springs

seep warm water that dissipates only meters above the bottom, making them exceedingly difficult to find and only visible by a slight shimmer in the water. Yearlong recordings from thermal springs at the Octopus Garden demonstrate these may be stable environments with the potential to release warm fluids for thousands of years. Such stability benefits not only the pearl octopus but also the com-

munity of life that thrives alongside the nesting mothers.

The recent discoveries of octopus nurseries off the Pacific coast of Costa Rica, also near hydrothermal springs, suggest these areas may be more common than previously thought. It also highlights that hydrothermal springs may be vital biological hot spots.

The deep sea is the largest living space on Earth, and that expansive size can hide the

importance of localized hot spots like these. Davidson Seamount and its Octopus Garden are protected as part of Monterey Bay National Marine Sanctuary, but many more biological treasures like thermal springs may be at risk, especially as deep-seabed mining proposes to scrape large understudied swaths of seafloor. There is hope the octopus mothers met at this nursery inspire everyone to rethink stewardship for the yet-undiscovered hidden gems that may be lost.



& ACTIVITY CALENDAR DIVE

Andrew Grice



www.SJFlipperDippers.com



OCTOBER 2023

WEDNESDAY, OCTOBER 4 BUSINESS MEETING

The meeting will be held virtually via Skype. All members are invited to attend. Please email Carl Tuttle if you need the link to join. Bring your own food, drinks, and internet connection and we'll discuss ideas for upcoming dives and events.

SATURDAY OCTOBER 7 NO SCHEDULED DIVE

SATURDAY, OCTOBER 14 SECOND SATURDAY SCUBA (S3) **BEACH DIVE: LOCATION TBD**

- We're looking for a coordinator! Join the Flipper Dippers for this month's Second Saturday Scuba! Be sure to watch your email for an update on a location and coordinator. Contact Andrew Grice at agrice07@gmail.com or text/phone: 669-289-5809 if you're willing to coordinate.

GENERAL MEETING WEDNESDAY, OCT 18

The in-person General **Meeting** will be held at **7:30 PM** at the Knights of Columbus Santa Maria Hall 2211 Shamrock Dr., Campbell.

The **virtual meeting** will continue to be hosted via Skype.

Please contact *Carl Tuttle* for more details on the in-person meeting or a link to the virtual Skype meeting.

Celebrate 59 Years of the San Jose Flipper Dippers!

Entertainment:

- Social Hour
- Dive Plans and More



SATURDAY OCTOBER 21 NO SCHEDULED DIVE

SUNDAY OCTOBER 22 FOURTH SUNDAY CYCLE

Join us for our monthly Fourth Sunday Cycle led by Rezowalli. Remember to bring vour bike and helmet, some water. and a snack! Please RSVP at jimandthebeach@gmail.com, 408-293-7390 to receive final details and any last minute updates!

SATURDAY OCTOBER 28 NO SCHEDULED DIVE

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UPCOMING IN NOVEMBER

- 01 Pt. Lobos Reservations for Dec 27
- 01 Business Meeting
- 11 Second Saturday SCUBA
- 15 General Meeting
- **Nominations for 2024 Office** 19 Memorial Day Weekend
- Reservations (May 20-27, 2024) **Location TBD**
- 26 Fourth Sunday Cycle (FSC)



Are Butterflyfish Spreading SCTLD?

Undercurrent

here appears to be an association between four-eye butterflyfish and Stony Coral Tissue Loss Disease. Research scientists in the Florida Keys have found that the four-eve butterflyfish foraged significantly more often on diseased corals than healthy or recently dead corals compared to the other species of butterflyfish. They were observed feeding directly on the SCTLD line of infection, while other butterflyfish were not. The researchers suggest that by feeding on the SCLTD corals, they may contribute to the progression and/or transmission of this insidious coral disease. https://tinyurl.com/563wsshd.

Aqualung Flips Ownership Again

Undercurrent

lacques Cousteau started Aqualung and made it a success, and for years it was owned by the French gas supply giant Aire Liquide. In 2015, they sold it to Montagu Private Equity, which milked it dry, leaving it unable to pay its debts. Recently, a French judge decided it should be taken over by its principal lender, MassMutual Financial Group. No doubt they will sell it when a buyer can be found. Meanwhile Aqualung products are available as usual, reports industry insider Darcy Kiernan. •

Do You Need a Nitrox Certification?

Undercurrent

ith more and more liveaboards and dive centers supplying nitrox as a **V** matter of course, the question has been raised whether you need the certification. The most important aspect of a nitrox course is learning that every gas has a maximum operation depth, including air. So, you should always check what's in your tank and know how to use it, certified or not. Despite what anyone tells you, best get certified. •

Pouble Bubble, Pouble Trouble?

Under current

We keep seeing iterations of Spare Air, the emergency breathing cylinder, aimed at unsuspecting swimmers who don't understand the ramifications of breathing compressed air underwater. The latest has combined it with a full-face snorkeling mask, itself subject to suspicion in the deaths of those who suffer CO2 poisoning or immersion pulmonary edema. It's the Lung T-500 sub-mask. Don't let your friends buy one. •



Oceanic BCDs Recalled

Undercurrent

uish Outdoors sold about 7,445 Oceanic OceanPro, Hera, and Excursion BCDs throughout North America, but it only took one to fail to cause a recall. Huish has discovered that the handle for the QLR4 integrated weight pockets may snap off if you try to dump them during use. If this happens in an emergency, you might be unable to conduct an emergency ascent. If you have one of these BCDs, do not use it and return it to where you purchased it to check it's not one of the affected ones. More details: www.oceanicworldwide.com/blog/category/recalls/ 3

NOTE: All certified divers are encouraged to attend San Jose Flipper Dippers' dives.

Non-Club members will be required to show proof of certification to the dive coordinator prior to entering the water with our group. Please sign up for dives at the General Meeting or call the coordinator. This is needed in case of cancelation or changes.







FIRST CLASS MAIL

