

The Western Grebe

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Scientists explore life in the deep waters off the California coast



Dr. Jim Barry

This month's speaker is Dr. James Barry, Marine ecologist and Senior Scientist, Monterey Bay Aquarium Research Institute. The meeting will be held via Zoom, October 19 at 7 pm.

Dr. James Barry leads a scientific team at the Monterey Bay Aquarium Research Institute (MBARI) that uses advanced technology developed by the institute to study biology and ecology of animals on the deep seafloor. They range from towering corals that grow on seamount slopes to tiny crabs that hitchhike on the bellies of sea pigs. MBARI is a nonprofit oceanographic research center located in Moss Landing, California. Founded by the late Silicon Valley innovator and philanthropist David Packard in 1987, the Institute's mission is to advance (Continued on page 2)

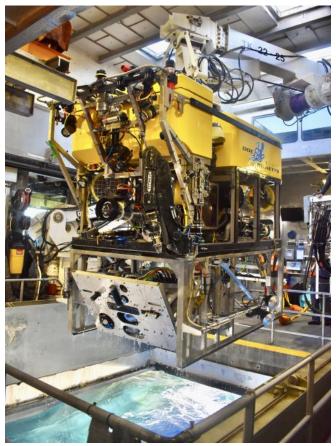


A pearl octopus mother tends her developing eggs. Photo courtesy of MBARI.

REDBUD AUDUBON OCTOBER MEETING Thursday, October 19, 7 PM

Speaker: Dr. James Barry, Marine Ecologist and Senior Scientist, Monterey Bay Aquarium Research Institute Topic: Life in the deep waters of California's coast To register for this Zoom meeting, click link: <u>Redbud Audubon Program Registration</u> Or visit RedbudAudubon.org and click on the registration link Or scan the following QR code:





Advanced submersible equipment developed by MBARI engineers monitored nesting octopus for six months. Photo courtesy of MBARI.



Talk to focus on life on the deep sea floor

(Continued from page 1)

marine science and technology to understand a changing ocean. MBARI researchers have made astonishing discoveries in the deep waters off the California coast. Dr. Barry leads MBARI's Benthic "Biology and Ecology Team, which seeks to better understand life on the deep seafloor and how climate change will affect this community.

Dr. Barry and his collaborators recently shed new light on the Octopus Garden, the largest known aggregation of octopus in the world. Thousands of deepsea pearl octopus migrate to an inactive underwater volcano off Central California to nest at hydrothermal springs two miles beneath the ocean surface. The warm water dramatically shortens the long incubation period that would normally occur at these cold ocean depths. This shorter brood period reduces the time developing eggs are at risk of injury, infection, or predation, and presumably increases the percentage of eggs that hatch successfully.

Dr. Barry explained that "Unique breeding grounds associated with thermal springs are a relatively new discovery right off our coastline and it is important to understand more about these special deep-sea secrets so that we can make informed decisions for managing deep sea resources."

Dr. Barry's Zoom talk will include fascinating videos of deep-sea animals.

Dr. Barry earned a BA in Zoology and MA in Biology at San Jose State University and a PhD in Oceanography from the Scripps Institution of Oceanography.

In addition to his research, Dr. Barry collaborated with MBARI's education and conservation partner, the Monterey Bay Aquarium, to develop the *Into the Deep* exhibition that brings visitors face-to-face with deep-sea animals and offers a deeper dive into the institute's work. MBARI also collaborates with NOAA's Monterey Bay National Marine Sanctuary, which has a direct tie to MBARI's recent work at the Octopus Garden.

See more photos on page 3 and 4

(At left) From a MBARI research ship, Dr. Jim Barry remotely controls the exploratory submersible on the seafloor. Credit: Steve Litvin, MBARI.



Nesting octopus mothers. Predatory sea anemones (orange) scavenge or prey on hatchlings. Photo courtesy of MBARI.



(Left) A portion of a photomosaic of octopus nests clustered along seafloor hydrothermal vents. Photo courtesy of MBARI.

Please let us know if you are having any trouble either registering for our Zoom programs or using the link that is sent the day of the program. Call us at (707) 805-9410, leave a message and someone will return your call, or email: redbud.audubon@gmail.com.



Male pearl octopus. Photo courtesy of MBARI.



A temperature probe measures conditions inside octopus nests. Photo courtesy of MBARI.

President's Message by Donna Mackiewicz



This year's slate of Audubon-supported or sponsored federal legislation had ups and downs. (AB720) which would have protected grassland birds like the Western Meadowlark and Grasshopper Sparrow didn't pass, even though grasslands are among the most imperiled ecosystems and there is an 80 percent decline in some of those grassland species.

Another bill that didn't pass was AB38 Save Our Night Skies. The bill would have protected migratory birds by reducing light pollution impacts and requiring external shields and automatic shut-off valves on night time lighting fixtures.

Locally here in Lake County, Redbud Audubon is reviewing projects weekly.

One project we in Lake County all need to be aware of is in Highland Springs: UP 20-96. Highland Farms Commercial Cannabis Cultivation project could severely impact wetlands and streams. The biological studies mention potential wetlands in and around the area with no protocol-level delineation performed. Phase One is 15 acres of cultivation and phase two is another eight acres of cultivation with greenhouses and a metal processing building for drying and storage. 75 solar panels, two shipping containers, and 37 parking spaces are also planned. Water should also be a concern with this project.

If you have a minute to make a difference, reach out to Community Development Department, 255 N. Forbes St., Lakeport CA 95457 Attn: Mary Claybon or email <u>Mary.Claybon@lakecountyca.gov</u> and ask that a protocol-level wetland delineation be performed to verify the precise extent of wetlands for UP 20 -96. Mention that not doing so would be in violation of the Federal Clean Water Act and/or the California Environmental Quality Act. You could also mention that two special status chaparral plant species were identified onsite: Scrub oak (Quercus dumosa; CNPS List 1B.1) and Konocti manzanita (Arctostaphylos manzanita ssp. elegans; CNPS List 1B.3).

It only takes a few minutes to let your voice be heard - make a difference. Thank you.

Please provide us with your email

A number of our members have emailed us at <u>redbud.audubon@gmail.com</u> to opt to receive our newsletter, "The Western Grebe" by email, as opposed to receiving it by mail.

Not only do you help save a tree, you help us save on expenses and energy in sending it to you by regular mail, and it comes to you in color versus the black-and-white mailed version. If you have been meaning to, but haven't yet done so, take a minute or two out of your time to do so.

Even if you still prefer to receive the mailed version of the "Grebe", we would like to have your email for our records. Once in a while, we send emails to our members about important events or bird sightings that may be of interest. You are also welcome to email us with any information that you think would be of interest to the membership. Questions requiring expert opinions are forwarded to the appropriate persons.

Also, we rely on our members for whom we have emails to help us with any volunteer efforts that we may have. Often it just means a couple of hours of your time. Whether you have areas of expertise or birding skills that you can share, or are willing to help us with general staffing of booths, setting up booths and transporting materials, we welcome your participation.

Please give us your email address by sending it to <u>redbud.audubon@gmail.com</u>, and, if you wish, let us know in what areas you feel you can help.

Donna Mackiewicz

2022-23 Chapter Financial Report Redbud Audubon Society, Inc

July 1, 2022 to June 30, 2023

Contributions19,391Sales (books, booth sales)760Interest1Total income\$22,400Cost of Goods Sold\$466Total Revenue\$21,934ExpendituresAdministrationAdministration\$3,774Educational Programs & Events2,515Newsletter Printing/Mailing2,489Marketing Outreach210Storage rental554Total Expenditures\$9,542Net Income in Operating Funds\$12,392Beginning Retained Earnings 6/30/23\$30,785Net Income 2020-202112,392Ending Retained Earnings 6/30/23\$43,177AssetsCash & Equivalents (Checking, Savings, etc)\$42,623IubilitiesAccounts Payable175FundsReserved (Osprey Fund)\$43,130Total Liabilities\$42,643Sales Construction\$43,130Total Liabilities\$42,643	Revenues	Membership Revenue	\$2,248
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Unreserved (Not Committed) 37,130		Total Liabilities	\$175
	Funds	Reserved (Osprey Fund)	5,493
Total Fund Balances\$42,623		Unreserved (Not Committed)	37,130
		Total Fund Balances	\$42,623

Welcome new and returning members

Welcome new and returning members: Ellen Karnowski, Kelseyville; Wolfgang Sheppard, Lakeport, Margie Hackett, Hidden Valley Lake; Michele Quere, Upper Lake.

Field Trip will be at Clear Lake State Park

The October field trip for Redbud Audubon will be held on Oct. 21, at Clear Lake State Park. Please meet in the main parking lot near the Visitors Center at 9 a.m. for a pleasant morning walk at this gem of a State Park. Brad and Kathy Barnwell will be leading the walk so you are bound to see some interesting birds.

Please remember to stop at the entrance and pay the entrance fee to the park.

Legislative support needed!

Some of our members who are also members of National Audubon may receive email from National on legislative issues that affect our birds. National Audubon (as well as California Audubon) makes it easy to click on a link to locate your representatives in Congress and their email.

Your voice is important! Our voices together can make a difference. Redbud Audubon forwards pertinent legislative notices via email to you. We hope you will not mind if you receive them both from National Audubon and us. The protection of our bird life is extremely important.

Membership explained

Just a quick reminder that you have a choice between two types of membership. Most of you are members of National Audubon and are assigned by National to our Redbud Audubon chapter. We offer chapter-only membership for which you *must enroll via the internet*.

Visit our website at **www.redbudaudubon.org** and click on membership for further details.

Also, as a reminder, if you are receiving this newsletter by regular mail and are open to receiving it by email, you can save the chapter significant printing and mailing costs by emailing us at <u>redbud.audubon@gmail.org</u> and letting us know.

If you prefer to receive the newsletter by mail, please consider donating \$10 - \$15 to Redbud Audubon to defray printing and mailing expenses.

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National Audubon/Redbud Audubon Joint Membership Application New Member Introductory Rate — \$20 for the first year

□ YES Enroll me in both the National Audubon Society and local chapter Redbud Audubon. Start my subscription to *Audubon Magazine*, and *The Western Grebe* chapter newsletter.

□ Check this box only if you wish to receive **The Western Grebe** newsletter by regular mail. Otherwise, it will be emailed to you.

□ From time to time, National Audubon may share its mailing list with other environmental organizations. If you do not wish to be contacted, please check this box.

You have the option of joining just the Redbud Chapter by enrolling online at **www.redbudaudubon.org**. Newsletter by email \$25/year; by regular mail \$35/year.

Name		
Mailing Address		
City	State	Zip
Phone		
Email		

□ I would also like to make a donation to the local work of Redbud Audubon. My check is enclosed for

\$25	 \$5	50	 \$7	75		{	\$100	Ot	ther	:	
					-						

Please make check payable to Redbud Audubon Society. Mail your application and check to POB 5780, Clearlake, CA 95422

Thank you for supporting Redbud Audubon Society

Connecting People with Nature since 1974