

Nature Trails

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Dr. Bruce Mate, Professor, Department of
Fisheries and Wildlife, Oregon State
University, and Director, Marine Mammal
Institute, Hatfield Marine Science Center,
Newport, Oregon

"The Biggest and Deepest: Tracking Whales"
Friday, 15 May 2009, 7:30PM, Room 100,
Willamette Hall, UO Campus

Our speaker this month may be a familiar face to you. You may have seen his picture in the March 2009 National Geographic, in a story about blue whales entitled “Still Blue”. Or you may have seen him on television, in the National Geographic Special “Kingdom of the Blue Whale”, which appeared on 8 March 2009 on the NGC Channel, and, much to our speaker’s credit, received the highest viewer rating of any program ever aired on that channel. He and his group have also been featured in two parts of a nine-part BBC series, “Blue Planet”, that aired in 2000 on the Discovery Channel. It is doubtful one could name any other person in the world who has added more to our understanding of whale behavior, and has done more to ensure the long-term survival of endangered whale species, than Bruce Mate.

Growing up in Illinois, not far from Chicago, Bruce Mate was turned on to science in general, and to marine biology in particular, by his high-school biology teacher. Upon graduation, having decided that a career in marine biology might actually be in the cards for him, he came out west for college. He said he thinks that persons from the Midwest, having grown up so far from the sea, may actually appreciate it more than those who have spent their entire lives here. He had never seen an ocean before he arrived in Oregon. He attended the University of Oregon for both his Bachelor’s and Ph.D. degrees.

In his Ph.D. thesis research Bruce studied sea lion migration. He was the first to document migratory patterns of these animals. Shortly after doing this work he began developing tags that could be affixed to seals, be unobtrusive, and emit a signal that could be remotely detected. At a marine-mammal research conference where he presented some of his findings he was approached by whale researchers who told him if he could only adapt his technology for whales there was a lot of information to be gained.

With more tinkering (Bruce revealed that while a graduate student in Eugene he rebuilt engines and transmissions for British racing cars such as MG, Triumph, and Jaguar; those who know how notoriously fickle these cars can be need no other proof of his tinkering prowess.) he came up with what he thought was a tag that would work for tracking whale movements. This was in 1979, six years after he accepted his faculty appointment at Oregon State University. He couldn’t get any funding for its further development, so he and his wife, Mary Lou, took a large gamble: they took out a second mortgage on their house, sold their second car, and financed the development and testing of the radio tag themselves.

With some prototypes in hand the two of them headed down to Baja California with one of his graduate students (now a professor himself) and the student’s girl friend (now his wife and a NMFS fisheries scientist). They managed to tag three gray whales. Bruce and Mary Lou then headed for Newport, and set up their only receiver in a friend’s office in San Diego. The tags had a range of just 5 miles, but the receiver picked one of them up, heading north during business hours. Then the US mail was put to the test: could it get the receiver to Newport before the whales arrived? Bruce got the package and set up the receiver, and heard nothing. After considerable time he couldn’t stand it any more so he put it in a small plane and headed south. The signals from the whales were picked up around Coos Bay. Back to Newport, set it up, wait. One day later they showed up and were recorded. In the car, up to Tillamook, set it up, wait. Here they came, after one more day. Now Bruce knew these whales were covering roughly 80 to 100 miles a day. Such data had never been collected before. Again the US Postal Service was tested: the receiver was mailed to another set of colleagues in Alaska, who took it to the Unimak Pass, a narrows through which the whales would swim to enter the Bering Sea. The weather

had been nasty so the researchers were delayed in getting to the prime spot, and when they arrived they were tired. Should they set it up that night, or wait until morning? Duty finally won out over ease, and the receiver was set up that night. Early the next morning the whales swam by. Luck favors the prepared.

The technology has come far since those first tags. Now tagged whales have their whereabouts followed by satellite. Bruce and his students and coworkers have used their increasingly sophisticated tags to study eight species of whale: fin, right, blue, sperm, bowhead, gray, humpback, and pilot (Latin names available upon request). Information that could never be obtained by other means has added mightily to our knowledge of their migratory patterns, feeding methods, breeding behavior, and more. As an example, movement of humpback whales in the Pacific Ocean turned out to be more complex than earlier, non-tag research had suggested. Although some of the whales did indeed head for SE Alaska from Hawaii, as had previously been thought the case for all of them, many did not. Some went to the coast of British Columbia, some to other parts of Alaska, and one even headed for the Kamchatka Peninsula of Russia. The tracklines from the tags show the whales fanning out from their wintering habitat around Hawaii across the entire North Pacific Rim. One tag transmitted information for 220 days.

But back to introducing our speaker. After his Ph.D. Bruce did an NIH-funded postdoctoral fellowship, working on heavy metal and organochlorine contaminants in pinnipeds. He joined the OSU faculty in 1973. He is now Director of the Marine Mammal Institute, and holds an endowed chair there. The MMI, two and a half years old, receives a significant proportion of its funding from an endowment that Bruce and

Mary Lou worked to establish since the early 1990's. Fully half the overall funding for MMI comes from philanthropy, which has all but dried up in the recent hard economic times. He has advised about twenty graduate students and the only one of them not working in her or his chosen field has two excellent excuses: she is the mother of twins.

When asked about adventures at sea, Bruce chuckled. Obviously, there have been many. He shared one with me: while swimming in the water with a camera, filming a mature sperm whale, it swam directly at him, passing within three feet. "It was wonderful not to look like a squid!" Knowing, as he did, that they are classified as a toothed whale, and that their flukes are both incredibly powerful and very heavy, this must have been a sobering few seconds. A member of our board, Evelyn McConnaughey, who knew the young graduate student Bruce Mate, related another of his adventures. While learning about seals and sea lions in the Coos Bay area, Bruce was wont to don swimming gear and mingle with his study group. One day they began madly swimming away from him and leaping out onto whatever rock they could. He wondered what was the cause of this aberrant behavior, when suddenly four killer whales surfaced and one swallowed a nearby sea lion in four bites.

With such experiences as these and many more under his belt, coupled with the rich trove of research results and a huge photo gallery, we can be guaranteed a wonderful, informative evening when Professor Bruce Mate delivers his lecture "The Biggest and the Deepest: Tracking Whales" to the Eugene Natural History Society on 15 May 2009 in Room 100 Willamette Hall, on the University of Oregon Campus. Please be sure to come, and inform your friends and family. John Carter

The May meeting is the Annual Meeting of the Eugene Natural History Society. At the start of the meeting we will have an election of officers, the only item of business. Please consider giving time to the ENHS as a board

member. We meet once a month in the home of one of the board members and discuss the upcoming meetings. Business is conducted, but the monthly board meeting is also a social event, a good time to share natural history stories and talk about things we'd like to do as a society. If you are at all inclined, please talk to Tom Titus (484-4477) or David Wagner (344-3327, at home after Monday, 11 May).

WHAT'S IN A NAME, by reida Kimmel

Yesterday morning I was standing on the hill above the pond watching our male redwing blackbird pecking at something in the crabapple thicket beside the pond, when I noticed that the little shadblow bush was blooming. What on earth is that, you say. Well, that is what old timers on the East Coast called the serviceberry shrubs because their bloom time corresponds with the annual breeding season for shad fish. As spring advances, the blooms of the shadblow announce the return of the shad, first in Virginia, then in the upper Chesapeake Bay and Delaware, and finally in New England. Planked shad and shad roe, the perfect spring feast! In recent decades shad were introduced into the Umpqua, the Siuslaw and the Columbia Rivers, where they have thrived, almost certainly at the expense of native fish. I called Chuck's attention to the shadblow flowers and by evening the word was out and the guys were planning a fishing trip! But will our Pacific Serviceberry [*Amelanchier florida*] be an accurate predictor of alien fish runs? Or is only Alleghany serviceberry [*A. laevis*] so gifted?

I think about plant names a lot. I relish the sounds of the old names, woundwort, eyebright, enchanter's nightshade, birdsfoot trefoil. They bring back other times and other ways of coping with life. Heartsease is the common *Viola tricolor*, though I do not know its uses. We have pretty purple all-heal, both native and introduced species, in our summer gardens. Another weed, plantain, also has healing properties, but the Native Americans called it "white man's

footsteps" because wherever the settlers went, plantain appeared. The mossy woods not far above our house, dominated by half-century-old incense cedars, is a favorite destination in the spring because of its richly varied flora. From January's grouse flowers through the trillium, spring beauty and violets of March, through April's Calypso orchids, hound's tongues and fawn lilies, we see something wonderful every day. At the woods' edge dogwoods and elderberry bushes are now in bloom, while small bouquets of purple iris are just starting their display. Next month we can look forward to spotted coralroot orchids and in one sunny area, cat's-ear (edible and nutritious!). You are all familiar with pretty places like this, and with the names I have just used. But if you questioned me, "what exactly do you mean by 'spring beauty'; I would answer; "I meant *Claytonia lanceolata*, not its kind of look-alike, Siberian candy flower, *Montia siberica*." The Latin nomenclature is vital to clarify our conversations and to help us organize our thoughts about divisions between species. If we know enough Latin, the names will tell us about the plant. Latin is also great for people with bad memories. When confused about a species – there are, for instance, so many names for fawn lilies and their cousins – just go for the Latin genus name, *Erythronium*. *Erigeron* and *Eriogonum* are also handy names I use to hide my stupidity about asters and buckwheats.

If you walk with someone who is new to wildflowers, beware! There is no surer way to frighten and shame the novice nature lover than to babble learnedly in a foreign language. Don't be too serious in the face of

such beauty. Bring people to the plants gently. Some will remember the really important lesson, that wildflowers are spring's miracle and need space and a healthy environment to thrive. Others will become interested in studying plants and will seek out the knowledge of Latin names and plant taxonomy for themselves.

You can even play the name game. Sometimes it is useful and fun to make up new names for plants. In bringing people's

attention to all the lovely mosses with no common names, Dave Wagner gave colloquial names like palm tree moss, feather moss, and shower cap to common local species, but Dave's great triumph was his new name for *Geranium lucidum*, the horribly invasive and evil smelling Herb Robert. He calls it Stinking Bob! With a name like that it's got to be grubbed out. Hey, plants are fun! Names are fun! Enjoy the season!

ANNUAL ENHS POTLUCK PICNIC, 13 JUNE, 3:30 pm.

Once again the Kimmels are hosting our annual ENHS potluck picnic at the farm on Fox Hollow Road. We will hold the event on Saturday, 13 June, rain or shine. Just bring a favorite dish or beverage to share and come prepared to watch some birds, walk around the wild area and the pond, pat the horses, socialize with the turkeys, sheep and chickens, or best of all, to sit outside or by the woodstove chatting with friends, old and new.

Here are directions to the farm, **30306 Fox Hollow Road.**

If you are driving south on Hilyard Street, in 0.25 miles after passing the 30th Street light, [see the Dari Mart] go left on W. Amazon Dr. [This turn is the next light after E. Amazon Dr. Both intersect Fox Hollow actually.] Go 0.75 miles [see Calvary Chapel, which looks like a warehouse]. Turn right [approximately west] on Fox Hollow Rd. Ignoring the street numbers, drive through suburbia into the countryside. In 4.7 miles you will see S. Willamette St. coming in on the right. *Drive on. In another 1.9 miles there will be a fire station on your right, and Macbeth Rd will join Fox Hollow Rd from the right. Bear left, [southwest] staying on Fox Hollow Rd, which curves downhill in a southerly and southwesterly direction. In 1.1 more miles you will see our mailbox on the right [Kimmel, 30306]. Turn left into our driveway and park by the barn, the garage, the front walk or on the grass beside the driveway. You have now gone 8.7 miles from the intersection of 30th and Hilyard. The entire road is paved.

*If you are coming from Willamette St, just follow S. Willamette out into the country past Spencer's Butte Park to the stop sign and junction with Fox Hollow Rd and follow the directions from *

If you are coming from West Eugene, go on Bailey Hill Road to Lorane Highway and turn left on Lorane Highway at Twin Oaks Church, just after Twin Oaks School. Go east on Lorane Highway to Macbeth Road, just past the Grange. Turn right. Go 3.68 miles to the end of MacBeth, and turn right onto Fox Hollow. Go southwest downhill for 1.1 miles and turn left at our driveway.

Events of Interest in the Community

Audubon Society

Tuesday, 26 May, 7:30-9:30 pm. Nature for the Soul, by David Donahue. Eugene Garden Club, 1645 High Street, Eugene. From the Okavango Delta to the Andes, from Antarctica to Queensland, the program will highlight several fascinating places on the planet and reflect on environmental concerns threatening many of these spectacular ecosystems. Please join Eugene

native David Donahue on a photographic journey across seven continents celebrating biodiversity and the spirit of adventure.

Mount Pisgah Arboretum

34901 Frank Parrish Rd., Eugene, 97405. Located off I-5 Exit 189, 15 minutes southeast of Eugene.

Call Clare at 747-1504 or email mtpisgip@efn.org for more information or to sign up for any of the following Arboretum activities.

Sunday, 10 May, 10 am-4 pm. Finding and Harvesting Edible Mushrooms Workshop. Join mushroom enthusiast Josiah Legler and learn where and when to look for edible mushrooms, sustainable harvesting methods, field guide use, permitting and more. Meet at MPA, then carpool to a mushrooming location 45 minutes away. This class will prepare you to find and harvest mushrooms on your own, but we won't harvest what we find on class day. \$30/\$25 MPA members.

Sunday, 17 May, 10 am-4 pm. Wildflower Festival and Plant Sale! Come to Mount Pisgah Arboretum for our annual celebration! Enjoy a huge display of native wildflowers, live music, kids' activities, great food and wine, arts, crafts, and books, and free parking! Leave pets at home. Suggested donation \$5 per person, \$10 per family.

Saturday, 6 June, 8-10am. Spring Bird Walk. Bring binoculars and join birder Davey Wendt for this Saturday morning bird walk for all levels of expertise. Limit 20; RSVP by calling Clare at (541) 747-1504. Meet at the Arboretum Visitor Center. \$5/MPA members by donation.

WREN

Tuesday, 12 May, 9-10 am. May Wetland Wander. Meet at the Stewart Pond overlook off of Stewart Road. WREN will provide binoculars. For more information contact Holly McRae at 683-6494.

Saturday, 23 May, Session 1 – 9:30 am-noon; Session 2 – 1-3:30 pm. Wetlands & Weaving for Wee Ones. Join us as we explore the wetlands in search of the living trees and shrubs used by Native American people for making clothing, baskets, rope and even baby diapers. After a tour at Stewart Pond, participants will learn how to make simple rope and cordage. Each session is limited to 20 children and registration is required. Contact Holly McRae at hmcrac@wewetlands.org or 683-6494. Children must be accompanied by an adult. Suggested donation: \$2/WREN member and \$4/non-member. Meet at the West Eugene Wetlands Yurt, 751 S. Danebo Ave. in Eugene.

Saturday, 30 May, 10 am-2 pm. Third Annual Walkin' & Rollin' Through the Wetlands. Celebrate American Wetlands Month and explore the West Eugene Wetlands by biking or walking the Fern Ridge Bike Path between Beltline and Greenhill Rd. Along the way, local experts and organizations will have educational displays highlighting the many wonders of the wetlands. Learn about wetland plants, animals, and restoration projects. Participants also receive a Wetland Passport they can have stamped at each booth for a chance to win prizes in a drawing. For more information, contact Holly McRae at 683-6494.

Emerald Chapter of the North American Rock Garden Society

Tuesday 12 May, 7:00 pm. Malcolm McGregor will give a slide lecture entitled "Saxifrages" at the Eugene Garden Club, 1645 High St. McGregor's recent book, published by Timber Press, covers the 2000 species, hybrids and cultivars of saxifrages. He was editor of the Scottish Rock Garden Club (2000-2006) and has traveled widely in search of saxifrages – in North America,

Europe, Turkey, Morocco, the Himalayas, the Olympic Mountains, Austria and Italy. The meeting is free and open to the public. Call Jim with questions at 541-484-1284.

Nearby Nature

Saturday, 30 May, 10 am-noon. Natural Treasure Hunts Nature Quest. Take a family-paced hike in search of natural treasures. Learn how to use a GPS unit and a compass. Also enjoy a craft, snack, and a visit from a costumed Kinder Critter. Meet at the Alton Baker Park Host Residence (between the dog run and community gardens). \$2/person or \$5/family. Pre-registration suggested: 687-9699.

We welcome new members! To join ENHS, fill out the form below. You will receive *Nature Trails* through December of next year. Membership payments allow us to give modest honoraria to our speakers, as well as to pay for the publication and mailing of *Nature Trails*. Please make your check to Eugene Natural History Society, and mail to the address below.

MEMBERSHIP FORM

Mail checks to **Eugene Natural History Society**
P.O. Box 3082, Eugene, OR 97403

Name_____

Phone_____

Address_____

E-mail (optional)_____

City_____State & Zip_____

ANNUAL DUES: Contributing 20.00
 Family 15.00
 Individual 10.00
 Life Membership 100.00

Generosity is Appreciated

Do you have any special experience in natural history?_____

Would you like to organize/lead field trips?_____

Teach informal classes?_____

Work on committees?_____

What natural history topics interest you for future talks?_____

ENHS OFFICERS AND BOARD MEMBERS 2008-2009

Your name could be in this list! Think about it!

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