

THE CHAPARRALIAN

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The Chaparralian #42

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The Chaparralian is the periodic journal of the California Chaparral Institute, a 501(c)(3) nonprofit organization that is dedicated to the preservation of native shrubland ecosystems and supporting the creative spirit as inspired by the natural environment. To join the Institute and receive *The Chaparralian*, please visit our website or fill out and mail in the slip below. We welcome unsolicited submissions to *The Chaparralian*. Please send to: naturalist@californiachaparral.org or via post to the address below.

You can find us on the web at www.californiachaparral.org

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Cover photograph: Chaparralian Bill Howell with a big berry manzanita hugging an Engelmann oak.

Photo upper left: Bill Howell on the way to Palisade Glacier in the High Sierra, 1998.

All photos by Richard W. Halsey unless indicated otherwise.

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NASCENT THOUGHTS

I was recently informed that a federal land manager has concluded that the Chaparral Institute poses the greatest fire threat in southern California. That's quite a turnaround from the days when we were defending the fire service after the 2003 fires and I was cutting line as a federal firefighter.

While I'll admit I smoke a cigar from time to time, I'm pretty careful with it. So what changed?

It's an old story, really. We got in the way of the money.

The moment we won our lawsuit against San Diego County, making it, according to a Cal Fire employee, more "difficult to conduct fuel treatments" in the region (i.e., harder to get federal grants), the Chaparral Institute became a thorn in the side of those who wanted to grind up the landscape.

San Diego County's first response was to go to Sacramento and try to initiate legislation to exempt all "fuel treatments" from environmental review. They were basically told to go home.

Now the California Board of Forestry is trying to repeat San Diego County's strategy by employing a Program Environmental Impact Report (EIR) to outline their proposal to target 1/3 of the state of California for habitat clearance projects. If certified, all future clearance projects would be green-lighted under the Program EIR, preventing any kind of independent review or challenge by citizens. Essentially, the Board is trying to take away your right to question their actions as guaranteed by the California Environmental Quality Act (CEQA). See our webpage for more: www.californiachaparral.org/helpcalfireeir.html

Our successful efforts to organize opposition to this effort have not gone unnoticed. There have been attempts to suppress our participation in a public education program designed to help citizens and government agencies better understand fire science and how to best protect lives and property from wildland fire. Fortunately, the effort was not

successful and the science is still winning. But the fact that public employees are engaged in trying to prevent the communication of factual data because it does not support their policies is an insult to public service.

Although it may cause delays, and it may derail some favored project, the public's right to demand accountability in a government agency's actions must not only be respected, but encouraged by those who work in those agencies. Unfortunately, we have found that many times a project "becomes personal" for those in charge, and any public criticism is seen as an insult rather than an essential part of the democratic process.

Fortunately, this is not always the case. We have worked with several government agency representatives who really do appreciate public involvement. They see themselves as public servants dedicated to inclusive stewardship of public land, as opposed to thinking they own it.

No one knows what the Board of Forestry will do after the huge influx of negative commentary over their habitat clearance proposal. In a curious and unusual move, they opened a new comment period two weeks after the original, extended comment period was closed. The new period ends April 8.

The question that needs to be asked by the public is why are taxpayers subsidizing the elimination of native habitat for the presumed benefit of private property owners? When I asked if the San Diego County Board of Supervisors would support a program to help homeowners retrofit their homes with ember-resistant attic vents instead of wasting money clearing nature, Supervisor Ron Roberts said (and I paraphrase), "You're crazy if you think we're going to subsidize vents for private property owners!"

O.K.



The Irresponsibility Complex

by Frank Landis

An edited version originally published in the March 2013 newsletter of the San Diego Chapter of the California Native Plant Society (CNPS)

I'll admit I have a fondness for conspiracy theories. It's not that I particularly believe any of them, but they can be entertaining in small doses.

Sometimes I like to speculate whether some of the things we see on our chapter's California Native Plant Society conservation committee are evidence of a conspiracy, or just bad copies of bad ideas. Suboptimal memetic mutants, if you will. I'll leave it for you to decide.

Two things inspired this thinking. By the time you read this, CNPS and the Chaparral Institute will have commented extensively on the execrable Vegetation Treatment Program (VTP) EIR, with various fireworks and alarms certain to follow. I talked about it last month in our chapter's newsletter, and indeed I've been dealing with it, on and off, since December. The basic idea of the VTP is to protect California vegetation from fire by burning, herbiciding, bulldozing, and otherwise mutilating millions of acres of wildlands into the indefinite future. They state they can't follow state Air and Water Quality laws in doing so, because that would limit how much land they could clear, so they're mostly ignoring those laws, while shamelessly calling the VTP the "Environmentally Superior Alternative." I should point out that maximizing cleared acres is not one of the goals of the VTP, and their cavalier dismissal of anything that gets in the way of defoliation gives one an idea of how they intend to treat California's native plants and plant communities.

There's something similar at work up on Cuyamaca State Park, as many of you know. State Parks has used the flimsy excuse of an emergency CEQA exemption from the last fires up there to bulldoze 1800 acres. Their theory is that the "brush" (aka nitrogen-fixing ceanothus) is keeping the trees from growing, and anyway, they received

money from a \$2.8 million legal settlement between California and ConocoPhillips and a fund-raising campaign by Coca-Cola and Stater Bros. Markets to sequester carbon in trees as a carbon offset. So they're going to plant lots and lots of trees, after getting rid of the "brush" and making sure that all the carbon currently in the shrubs goes back into the sky. Never mind that they're having trouble getting pine seedlings to survive in the moonscape they are creating. Never mind that the ceanothus may be the best nurse plants to protect the conifers while they establish their roots. Never mind how much carbon the ceanothus will sequester in the soil as part of nitrogen fixation.

A few decades ago during the Yellowstone fires, there was this pained national sigh as America's most famous national park burned, a lament that



Stumps of clear-cut ceanothus shrubs surrounded by bare dirt and piles of vegetation scheduled for burning. Removal of nitrogen-fixing ceanothus is part of the "reforestation" project at Cuyamaca Rancho State Park.

we'll never see forests there again in our lifetime; and then a lot of really cool science (some of which made it to TV) about how Yellowstone recovered after the fires and all the neat new things people were seeing. In the 1980s and '90s, it was cool and interesting, practical even, to let nature to take its course. Now, in the postmodern, post-recession 2010s, science doesn't matter. All that matters, apparently, is that someone thinks people in San Diego must have their pine trees, and that, as in the 1920s, some managers believe they can bring those pines back faster by paying someone to tinker with things.

Yeah... Well, it takes a 100 years to grow a century-old tree. The best you can do is to make sure your future forest monarchs don't die as seedlings, so that they can eventually shade out the ceanothus. On Cuyamaca they don't seem to have figured this out.

But it makes me wonder. Why throw large amounts of money at bulldozing and other forms of mechanized maceration? Why forcibly ignore the science? For that matter, why should managers ignore laws like CEQA that ask them to be responsible? Aren't managers supposed to be responsible in the first place?

...why should managers ignore laws like CEQA that ask them to be responsible? Aren't managers supposed to be responsible in the first place?

This is where I wonder about XXX-industrial complexes. We're all familiar with the Military-Industrial Complex, and many of us know of the Prison-Industrial Complex. It's a great idea: in the name of security from some grave threat, industry and bureaucracy hook up in a mutually beneficial relationship. The government pays, the industry grows, some basic level of service is provided to keep the scheme rolling, and all the people hurt by it are swept under the rug in the name of keeping "the public" safe and happy.

Since we've got the biggest military and biggest prisons in the world, it's a seductive meme for

copycats. I wonder if we're seeing people trying to set up similar things: the Fire-Industrial Complex, or perhaps the Sequestration-Industrial Complex. While on the surface these may seem like good ideas—who doesn't want huge anti-fire projects and huge carbon sequestration projects?—in practice they're little short of disaster. We can't really afford the military or prisons we have now, and the fact that these wannabe complexes avoid science, monitoring, and transparency suggest that they're really looking for eternal welfare for bulldozers, not that they're concerned with actually accomplishing anything beyond a basic, inefficient, level of protection. Think TSA, not Special Forces.

While calling them "Irresponsibility Complexes" is snarky at best, it is apt. Say what you will about the Military-Industrial Complex, they use science, and they do care very much about achieving their primary results. They study many things, occasionally even collateral damage. The schemes that State Parks and the Board of Forestry (among others) are proposing don't even bother to monitor their results to see if their goals are met. They're effectively money pits, and that's what's so sad about them.

Is this a conspiracy by a few wealthy industrialists? Possibly, but it doesn't really matter. Public-industrial complexes are simply the wrong meme for dealing with fire or global warming. There are better models out there, ones that involve local groups, boring, non-mechanized stuff like public planning, and that currently detested adjective, responsible managers and landowners. It's terribly old-fashioned, but the best way to protect some land is for people to actually care about it enough to learn what it needs and take care of it. Profits and careerism too often get in the way.



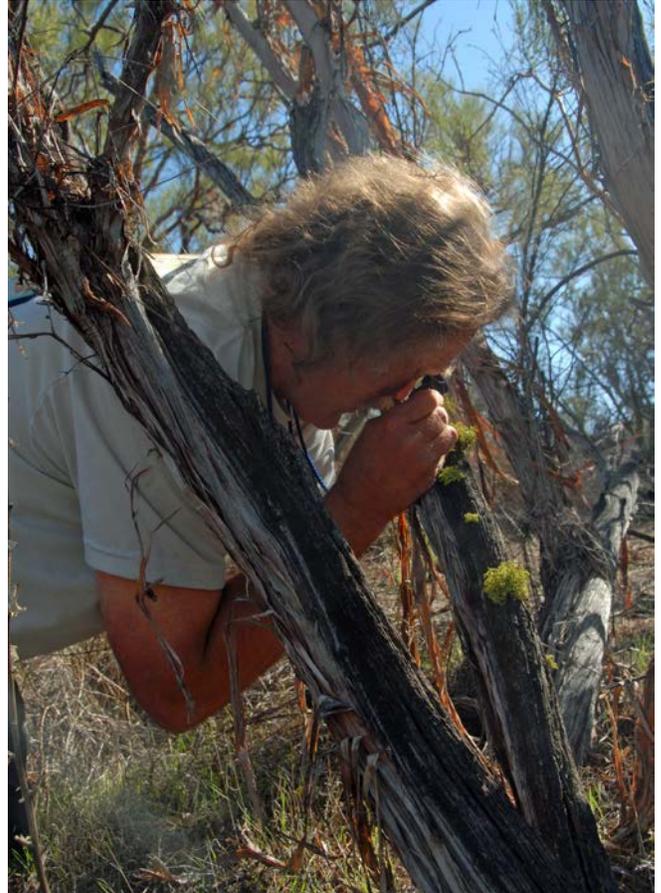
Photo: Joel Robinson. See our webpage for more: www.californiachaparral.org/helpcalfireeir.html

Lichens of the Chaparral: Wolfbane

By Kerry Knudsen

Rick Halsey and I were up at Indian Wells in San Diego County on Darwin's birthday. At 3,000 - 4,000 feet in cismontane southern California, in old-growth red shank and manzanita chaparral, you do not find many epiphytic lichens. Indian Wells was no exception. Because they grow too slowly to colonize the peeling ribbons of bark, lichens do not like red shanks (*Adenostoma sparsifolium*). They generally do not like the beautiful hard red wood of manzanita either. It is probably a combination of pH and chemistry. You find the few lichens that grow on them usually on the gray wood of old, short, fat trunks or on dead, twisted branches.

The largest and brightest lichen on red shanks and chamise chaparral in southern California is wolfbane, two species of the bright yellow and branching *Letharia*, *L. vulpina* and *L. columbiana*. Both species are common above 6,000 feet in the California mountains on dead conifers and logs. That is where you can see huge pendent populations on contorted snags among large granite boulders. But wolfbane occurs also at lower elevations in red shank and manzanita chaparral and even on chamise chaparral in the Menifee Hills in Riverside County or in the Santa Monica Mountains. It gets smaller at lower elevations. But it is always a bright yellow to yellow-green with



surreal branching. And it is always just as poisonous.

This is not the bane of werewolves, that herb of monster movie mythology. Wolfbane grows in Europe too. There it was the bane of real wolves. It was boiled with meat that was chummed on forest pathways to poison the wolves. In the Pacific Northwest it was used as a poison on arrows, more likely for mayhem than hunting deer. It was also once used as a dye by everybody. It does impart a luminous yellow.

Wolfbane is typical of the lichens that are common in old-growth chaparral. When chaparral burns frequently from human-caused fires, lichens like wolfbane that are natural to the chaparral do not have time to recolonize because they grow too slowly. For this reason we believe wolfbane is nearly extirpated in the chaparral of the Santa Monica Mountains, where



the lichenologist H.E. Hasse once collected both species in the 1890s and where now only one small population of *L. vulpina* is known on a surviving patch of old-growth chamise. Fortunately you can still see wolfbane in red shanks-manzanita chaparral in Riverside and San Diego counties in places like Indian Wells or out Morris Ranch Road in the San Jacinto Mountains.

The occurrence of diverse lichen communities on old-growth chaparral and their disappearance from frequently burned chaparral is evidence that longer fire frequencies were natural in the southern California and not caused by fire suppression. And now the lichen diversity of old-growth chaparral is also threatened by reckless, unscientific pork-barrel policies of controlled burns, herbicides, and masticating machines. It is possible one day that bright yellow wolfbane will be as rare as grizzlies in the California chaparral.

Kerry Knudsen is a well-known expert on lichens and works with the Herbarium, Department of Botany and Plant Sciences, University of California, Riverside, CA 92521 knudsen@ucr.edu

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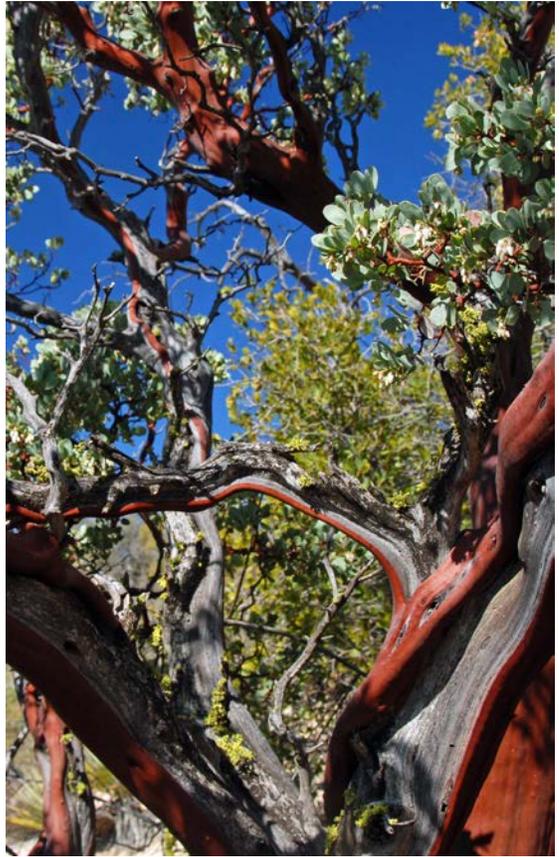
Above: Kerry Knudsen examines biological soil crusts formed by cyanobacteria and algae.



Left: Soil, sticks, and rocks and things.

Below: Close-up of soil crust.





Old-growth manzanitas of Indian Flats
Arctostaphylos glauca



Bill Howell

A True Chaparralian

By Richard W. Halsey

“Bill, you’ve got to hike into the canyon with me,” I said, my voice competing with cafeteria sounds of clanging plates and hurried conversations in the teacher’s lunch room. “If I’m going to take my kids there, I need to be able to identify the damn plants. The birds I know, but plants, forget it.”

“You’re not that good,” Bill answered back.

“Funny.”

“You want to go today?”

“Sure. I’ll swing by your room after school.”

I glanced up at the clock while shoving the last few potato chips into my mouth. “Gotta go.” I maneuvered around chairs and teachers and pushed my lunch tray into the dishwasher’s window. Spinning around, I slammed down on the exit door’s steel bar handle and entered the outside glare of the student lunch court. “Whoa! Excuse me,” I apologized after bumping into a ninth grader who also happened to be one of my students.

“Slow down Halsey!”

Bill Howell was the only other teacher I knew who was an active participant in the subject he taught. On weekends, we’d go into the field together collecting and observing anything that could contribute to our knowledge of the natural environment, stuff we could use in our classrooms. Bill would take his plant press, I’d take my camera and insect collecting supplies. Eventually, I added a plant press, Bill ditched his, replacing it with a camera and an insect net. At some point, he passed up my insect collection with huge numbers of butterflies filling stacks of Cornell display drawers. And his thousands of photographic images have since become an irreplaceable record of local, natural history.

It wasn’t always this way. I first met Bill in 1984 at Serra High School in San Diego when he was taking what I always knew was temporary leave from teaching as a school counselor. He had been a biology teacher in the district for years before occupying the main office. I’d drop by and visit him, talking about crazy parents, crazy teachers, crazy administrators. He has always claimed that I was there for psychological help. I think it was mutual.



Bill on his birthday at Serra High School, 1991.



Regardless, with my constant telling of tales about the joys of teaching what we both loved, I'm pretty sure I helped nudge Bill back into the biology classroom. The science department was never the same. We ended up having so much fun together, other teachers became jealous. When we decided to team teach one year, using our prep periods to help teach each other's courses, we were threatened with all sorts of nasty glares and comments. We ignored them all and just kept on.

Bill's teaching style was a perfect complement to mine. My sometimes too serious lecturing became fodder for his dry humor. His incredibly well-structured worksheets allowed our students an easy, graphical way to follow our scientific bantering (see samples of his artwork on pages 16-17).

Although Bill has provided a counterweight to my revolutionary tendencies (he always made snide comments about the Question Authority sticker on my desk), he's actually a closet radical. There were a couple guerrilla-style, anti-administration activities he played a part in, although he will claim it was only a passive one. Beware the quiet revolutionary. And his teaching style is anything but conventional. My young son will never forget the time he threw down a cricket, stepped on it, then poured the remains on the stage of a dissecting scope to check out the tracheal tubes. This was in front of large auditorium of adults expecting a calm lecture on insects at the Natural History Museum. I yelled at him afterwards for traumatizing my young son, but in reality it was the kind of thing we both did to get the attention of students, no matter how old they were.

During one of our first excursions into the canyon below our school, Bill helped me make a discovery that I'll never forget, *Jepsonia parryi*.

Jepsonia is a diminutive, mysterious plant that appears as a single, ground-hugging leaf in the early spring. The leaf disappears by midsummer. Then, from the same spot, a single stem of tiny flowers appears. These different manifestations of this little life form are separated by so much time that the connection between the two can remain unknown to the casual observer.

"This is where I brought the class down, I think," I said while leading Bill under several low-hanging eucalyptus branches to reach the access point to the canyon.

"This is where your height becomes a selective disadvantage," Bill deadpanned. "Short is good."

"Sometimes."

After several minutes of bushwhacking, we found the trail into the canyon as it wound its way under the shade of several trees. "We hiked down there to the creek bed and ended up on a dirt road that follows that ridge on the opposite side. The place has a lot of potential."

"Hmm. Maybe," Bill said as he followed me down the hill. Suddenly, he paused and kneeled down to touch a cluster of tiny, white flowers attached to a thin, dark stalk barely an inch tall. "Look at this."

I'd already walked ahead several hundred feet and had to backtrack uphill to find out what Bill had discovered. He was always doing this to me. "This better be good. What is it?"

"Haven't a clue."

"Great. And you're supposed to be teaching me about botany down here."

“Nature humbles.”

“Yeah, right.” I looked around after letting out a short, laughing snort and noticed more of the little flowers scattered all along the trail. “They’re over here as well. Weird, I didn’t notice them last time.”

“No surprise,” Bill said without looking up.

“Thanks.”

“Well, you don’t notice things like this until you learn what to expect. Then, when something out of the ordinary appears, it sticks out like a sore thumb.”

The one- to two-inch tall, wire-like stalks emerged from the ground as if stuck there by tiny fairies. No leaves, no signs of photosynthesis, just plain, black stems and flowers barely 1/4 of an inch across. The five-petal blossoms were decorated with purple veins, giving them an appearance of thin, ghostly flesh. Sometimes the stalks presented only a single bell-like flower, others three to four. I pictured them being carried aloft by tiny elves celebrating the winter rainy season.

Bill took a pencil and carefully dug around one of the flowers, pulling out a little, rounded object. “It’s growing out of this thing.”

“A bulb?”

“No, doesn’t have those fleshy leaves bulbs have, like an onion. It’s more like a thick stem of some sort.” We later figured out the thing was called a caudex, a stem growing underground.



Top photo: the fall flowers of *Jepsonia parryi*.

Above: the spring leaf emerging from the underground caudex of *Jepsonia parryi*.

Left: *Jepsonia parryi* specimen in the botanical collection assembled by students studying in the canyon below Serra High School.

“So maybe it’s a lily kind of thing?”

“No. Lilies are monocots. Count the petals.”

“Five,” I answered.

“O.K. So monocots have how many petals?”

“Hmm...”

“Threes, monocots always have flower parts in threes.”

“So it’s a dicot?”

“Yes.”

“Glad we got that settled. We still don’t know what it is though.”

“We’re getting closer. We’ll collect this one and key it out later.” Bill produced a used, plastic baggie from his pocket and dropped the plant inside. Dirt stuck to the peanut butter and jelly remains along the sides of the bag as he shoved the entire assemblage into his shirt pocket.

“Yummy!”

It turns out Bill’s freezer is full of baggies, film canisters, jars, etc., filled with insects, plant parts, a bird or two. Not particularly unusual for a naturalist, a lover of nature.

This is the thing about Bill. He’s a naturalist. Cut from the same cloth as Linnaeus, Audubon, Darwin. Bill was born during a time when nature was part of the curriculum. It was before plants and animals were drowned out by the latest molecular fad, dissection-on-the-computer-screen-so-I-don’t-have-to-smell-it program, and techno gizmos. His room was a natural history museum rather than a factory for lab techs. He shared the wonders of life kids could see and experience on their own, the kind of life they would be able to experience for the rest of their lives. Lately, during our periodic get-togethers over a glass of wine, we wonder about the social and ecological costs of students graduating without knowing what the local frogs sound like, or which bird is singing in the trees, or why *Jepsonia* is such a magical little plant.

Unfortunately, our unique, public school partnership came to an end when Bill decided to divorce me in 1991. He called it retirement. Even though I moved into



Bill helping to construct the trail in the canyon with our students. The trail would form the foundation of a successful field biology class at Serra High School.



Left: Bill describing the hunting behavior of a tarantula hawk wasp as it's ready to pounce on its unsuspecting prey. Photo taken during a gathering at Mission Trails Regional Park in celebration of Bill's commitment to teaching nature, March 9, 2013. Note the cake. Yes, that's a wasp with the orange wings attacking a tarantula (scary details below).



his old room after he left, the absence of my co-conspirator diminished the teaching experience for me, so I transferred to a new school shortly thereafter in search of another source of daily inspiration. I never found it. I left the public classroom myself eight years later. O.K., so my departure from teaching wasn't totally Bill's fault, but I sure as hell wish he'd been ten years younger.

Bill's passion for sharing his love for biology and the natural world didn't stop after he left me to fend for myself at Serra High. He not only continued his work at the San Diego Natural History Museum as the coordinator of the Canyoneers program which he started doing in 1986 (two years *after* I made him feel jealous about what I was doing in the classroom), in 1994 he started the Trail Guides program at Mission Trails Regional Park. Both programs train volunteers to guide folks on walks through the wilds of San Diego County. Of course he has dragged me into both to help teach the ecology sections.

When Bill introduces me to his volunteers, our banter and smiles make it pretty clear to everyone in the room that they are in the presence of two great friends. If they're lucky and we're in the right mood, we'll quietly bring two chairs to the front of the room and sit down next to each other, facing the class. Bill will point out that we're both the same height while sitting, and smile. Then he'll say to me, "Ready?"

"Ready."

We both stand up at the same time. As my extra long legs quickly send me towering over my friend, the class always laughs. It's one of our favorite routines.

"Something's weird here," Bill says, "and it isn't me."

A person is measured by the friends he or she keeps and ultimately by the wisdom shared with others. A large measure of the fun I have when coming to Bill's Canyoneer or Trail Guides classes these days is being able to let everyone know that's we're best friends and how lucky they are to have him as a mentor, how lucky I am to have him as mine.

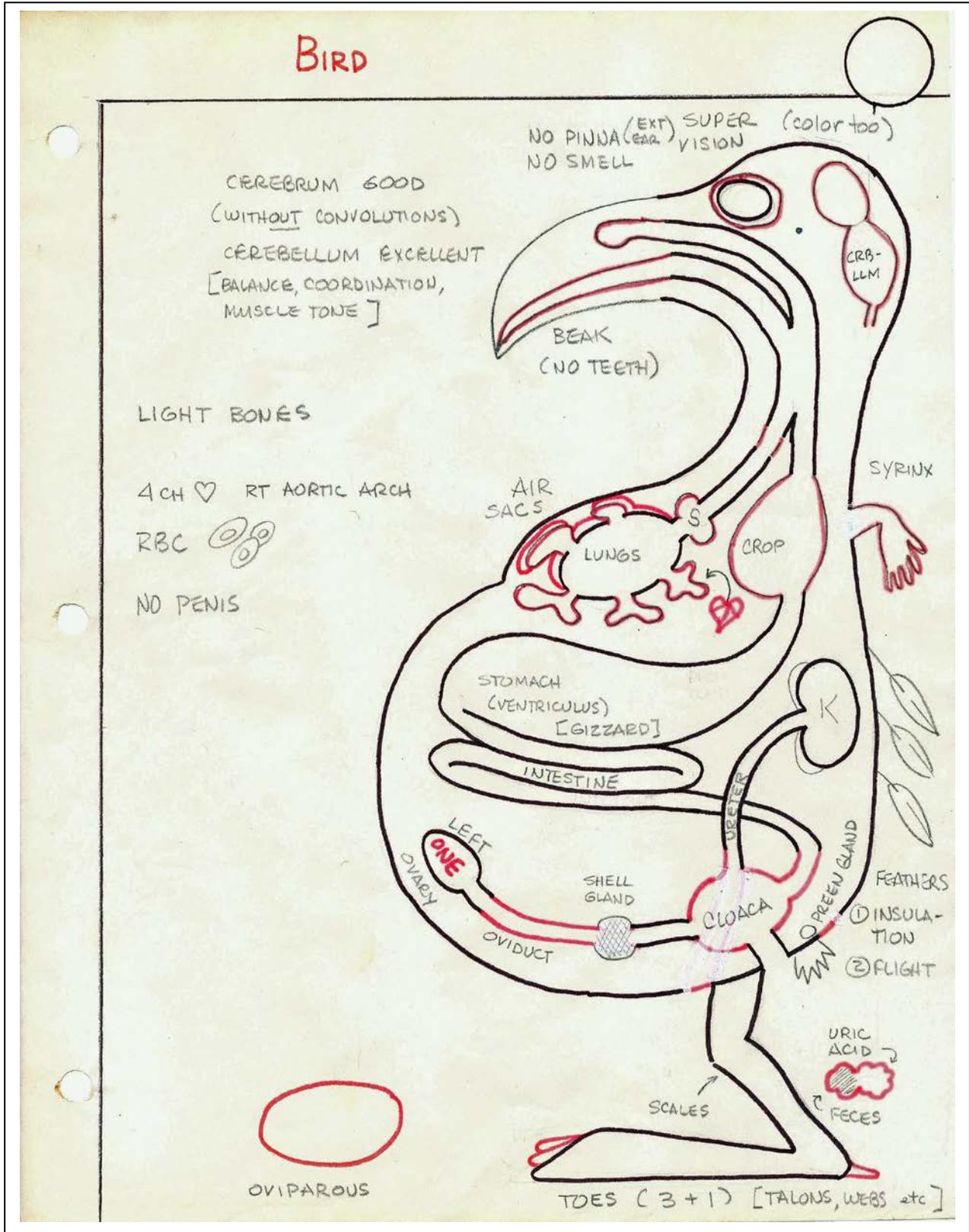
The wisdom Bill has been sharing for all these many years has inspired thousands to love nature the way it was meant to be: wild and free. He turns 80 years old this week. It took a couple of those years for us to figure out the connection between the leaf and flower of *Jepsonia*.

Bill Howell, a True Chaparralian.

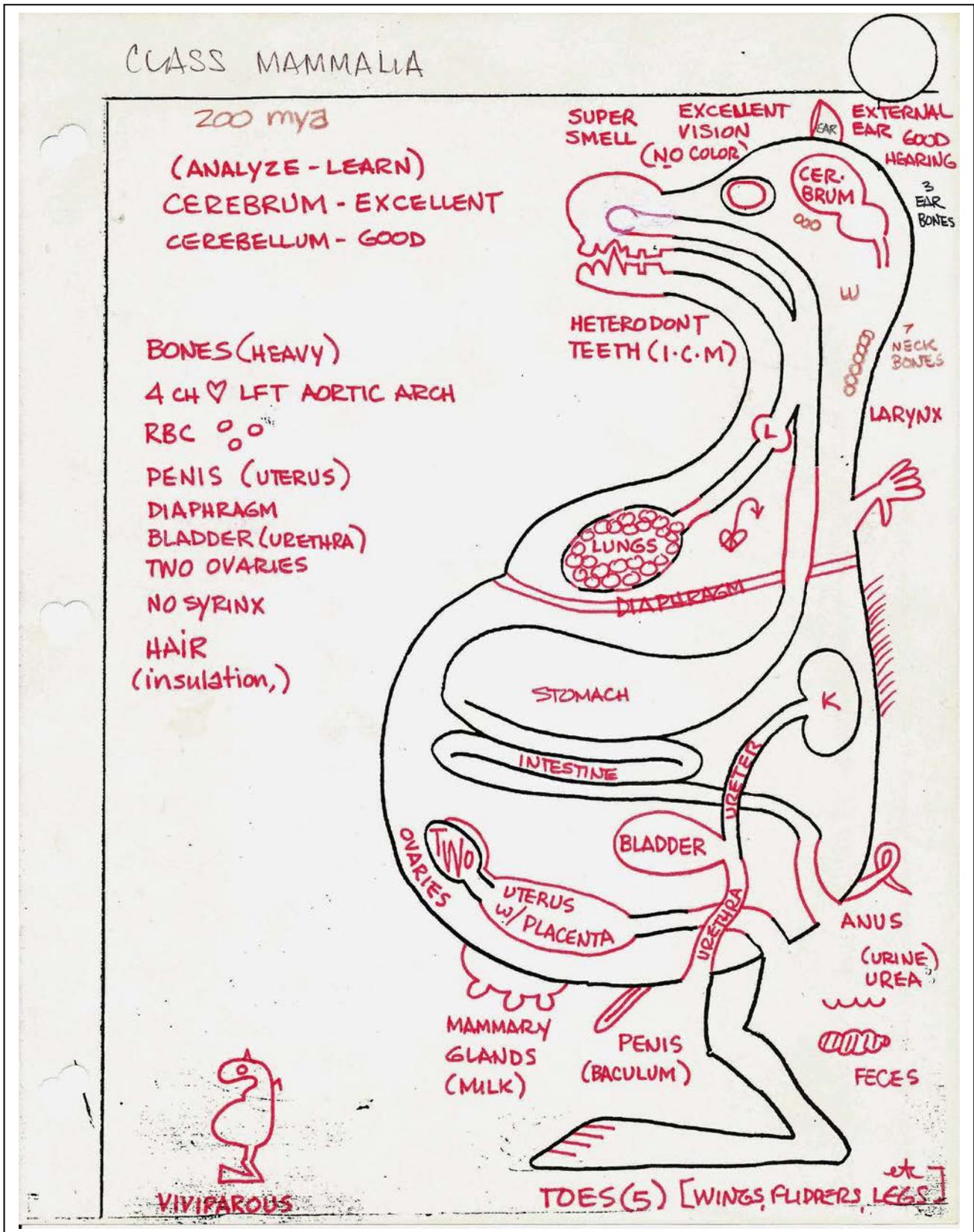


Rick Halsey and Bill Howell, Bristlecone Pine Forest in the White Mountains, California, August, 1991.





The Vertebrate Lecture Worksheet. Bill designed the basic outline (in black) of a terrestrial vertebrate that would allow it to be used to describe the inner workings of several animal groups. In this case, Aves (birds). Students would be given the basic outline, then fill in the details (in red) as discussed in class.



Bill's Vertebrate Lecture Worksheet, which was used to follow the discussion on class Mammalia. Such a device allowed students to form pictorial ways to understand comparative anatomy and was a fun way to team teach. Bill would do the mammal on one board, I'd do the bird on the other.

UNFOLDINGS

One may well ask: "How can you advocate breaking some laws and obeying others?" The answer lies in the fact that there are two types of laws: Just and unjust. I would be the first to advocate obeying just laws. One has not only a legal but a moral responsibility to obey just laws. Conversely, one has a moral responsibility to disobey unjust laws.

- Martin Luther King Jr.

Learn the rules like a pro, so you can break them like an artist.

- Pablo Picasso

Injustice anywhere is a threat to justice everywhere.

- Martin Luther King Jr.

Let me say, at the risk of seeming ridiculous, that the true revolutionary is guided by great feelings of love.

- Che Guevara

I'd put my money on the sun and solar energy.

What a source of power! I hope we don't have to wait 'til oil and coal run out before we tackle that.

- Thomas Alva Edison

I would feel more optimistic about a bright future for man if he spent less time proving that he can outwit Nature and more time tasting her sweetness and respecting her seniority.

- E.B. White

A man is usually more careful of his money than of his principles.

- Ralph Waldo Emerson

Follow the money.

- Depththroat

The most common form of terrorism in the U.S.A. is that carried out by bulldozers and chain saws.

- Edward Abbey

The world is not ready for some people when they show up, but that shouldn't stop anyone.

- Ashly Lorenzana

If you don't stand for something you will fall for anything.

- Malcolm X

Clearly the biggest danger comes not from what we know, but from what we do not know. There are so many intricate relationships that we have only a tiny pinhole perspective of what might happen if a native plant community is displaced by a non-native alternative.

- David Rodriguez

The wildland fire service would do a much better job doing its job if they asked, "how can we protect lives and property" rather than "how can we *maybe* stop a fire."

- Richard Halsey

There are two kinds of fires; the ones we prepare for and the ones that do all the damage.

- C.J. Fotheringham

We are in the business of making shitty pies.

- USFS Fuel Management Officer

