



FORESTLAND STEWARDS

WORKING TOGETHER FOR HEALTHY FORESTS

SUMMER 2002

Encourage wildlife in your forest

Wildlife is an integral and necessary part of a healthy forest. Not only does the forest support diverse animal species, but the animals play important roles in maintaining the forest's health. It's all part of the complex and interdependent forest ecosystem.

Most forestland owners welcome wildlife on their property—it's one of the pleasures of rural living. At the same time there may be certain species you wish to encourage more than others. Successful wildlife management requires an understanding of the roles played by animals in the forest and their individual species' needs.

Managing for wildlife

Generally, wildlife management does not involve managing animals themselves, but rather managing the habitat they live in. The theory is that if appropriate habitat is available, animals will utilize it, a "Field of Dreams" approach.

Wildlife requires four elements—water, food, cover, and space. These elements are collectively known as habitat and each animal species has its own requirements. When one or more



of these elements is scarce, it becomes a limiting factor for the species. To increase abundance of a desired species, it is often necessary to determine the limiting factor and find a way to increase that element.

Water is vital to all animals. While a few can get the water they need from their food, most require an external source. That means that water is an extremely important forest element. Besides the water source itself (creeks, springs, ponds, seeps, etc.), animals need to be able to reach the water safely which often means corridors of

vegetation or other cover leading to the water. If water is a limiting factor for a desired species, artificial "bodies of water" can be added, for example, quail guzzlers.

Food is an obvious requirement. Each species has its own needs—some eat only plants (herbivores), others only animals (carnivores), while still others eat both (omnivores). Animals may have very specific requirements or eat a variety of foods depending on availability. Common foods include berries and other fruit (soft mast), nuts

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In Memoriam

Francis A. "Fritz" Riddell (1921-2002)

Brian Dervin Dillon

California foresters lost a true friend with the recent death of Francis A. "Fritz" Riddell.

Fritz was an honored and beloved archaeological field researcher and teacher of nearly mythic proportions. An Olympian figure from the earliest days of California archaeology, Fritz spent almost 70 years working in California, Alaska, and Peru. Riddell leaves behind Caroline, his beloved wife of 41 years, four grown children, 13 grandchildren, and hundreds of friends and admirers.

Francis A. Riddell served as a mentor to the California Department of Forestry and Fire Protection (CDF) from the very beginning of its involvement with archaeological issues. CDF archaeologists, Riddell disciples all, owe him a debt of gratitude we can never repay.

Fritz Riddell first taught the archaeology training classes offered by CDF in 1986, and continued doing so right up to the time of his death. More than 1500 foresters over this long period had the pleasure of Fritz' acquaintance, and many if not most had an entirely new archaeological horizon opened up to them through his efforts. Fritz Riddell was very proud of CDF, and believed that it was a shining example of how good things could be accomplished through cooperative effort.

Perhaps more than any other individual, Fritz Riddell is responsible for the form, nature, and many successes of "official" archaeology as practiced in the Golden State over the past half-century.

As the very first archaeologist in California to work as a full-time state employee, Fritz created the archaeological program that most governmental programs in California, including CDF, are based upon.



Fritz Riddell reunited with his 1927 Ford Model T Roadster Pickup Truck, his first archaeological field vehicle, ca. 1996.

For many years, most California foresters have accepted the idea that archaeology is an interesting, even an exciting subject, and that archaeological sites not only have value, but also should be preserved. This concept, arrived at not without some resistance, is mainly due to the tireless and inspired efforts of Fritz Riddell. Riddell, through his friendly and humorous approach, turned hundreds of California foresters into avocational archaeologists, convincing them that looking for and caring for archaeological sites on their Timber Harvest Plans was not only the right thing to do, but a good thing to do as well.

Fritz had a vision of how things could be and should be in his native state, where fast-disappearing things of value from the past, be they archaeological sites, California Indian ceremonials, or historical relics, should be saved and protected before they were lost forever. Fritz Riddell built the archaeological and historical program at the California Department of Parks and Recreation almost single-handedly, finding time while he was at it to advise all other state agencies with archaeological involve-

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Wildlife *(continued from page 1)*

and acorns (hard mast), grasses and herbs (forbs), and shrubs (browse).

Cover is required by all wildlife for protection from predators and adverse weather conditions. Cover for travel, escape, and feeding is also needed in varying degrees. In certain seasons, nesting cover may become a priority. Cover requirements depend on species: shrubs, brush piles, tree cavities, fallen logs and stumps, burrows in the ground, etc., all can fulfill this need. When animals are displaced from their homes (cover), they become particularly vulnerable unless an appropriate, unoccupied place is found.

Space requirements are more difficult to provide than the more concrete food, water, and cover, but it is important nonetheless. Each species

has its own home range, the space it needs to carry out its life cycle. Some animals have a small home range; they travel very little over a lifetime. Others, such as mountain lions and migratory bird species, require very large areas indeed. These animals' ranges can extend far beyond property boundaries. Because of increasing fragmentation of forest habitats, many of the species that require large tracts of land are experiencing declines. One way to counter this trend is to work with neighbors to establish and maintain corridors and functionally larger habitats that go beyond a single property.

Some species need more than one habitat type to meet their needs. Turkeys, for example, feed on grasses, forbs, seeds, and insects in forest clearings in the spring and summer. Then in the fall they feed on mast in the forest.

Other species live on the boundaries and use more than one type, e.g. the edge of a forest and meadow.

Unique habitat elements

Some habitat elements that are especially valuable to wildlife include:

◆ **Snags**—dead, standing trees provide potential nesting, roosting, and perching sites for reptiles, mammals (bats, flying squirrels, raccoons, etc), and birds (swallows, bluebirds, chickadees); also provides food and shelter to various insects and other arthropods.

◆ **Fallen logs**—provide cover for salamanders, chipmunks, and invertebrates, and nesting or courtship sites for birds (grouse, juncos, etc).

◆ **Rock piles and brush piles**—the spaces among the rocks or in the brush

(continued next page)

What is “wildlife” and why is it important to the forest?

The definition of “wildlife” is somewhat arbitrary depending on who is using it. Webster states that wildlife are “*living things that are neither human nor domesticated,*” a definition that can include plants as well as animals. In the past, “wildlife” was generally limited to game species but here we will include all animal groups (but exclude plant life).

Each species and group of wildlife has its own role in the forest ecosystem. Some of these functions are well-understood, others less so. What becomes increasingly obvious is the complex relationships among living things in the forest community.

Mammals. Mammals are the first group that most people think of when we talk about wildlife. These are the furry creatures we are most comfortable with. Forest mammals include predators like bears and mountain lions, herbivores such as deer,

rodents that turn over the soil and serve as food to many other species, and bats which provide insect control.

Birds. Everyone likes to watch birds; they add delightful color, movement, and sound to the forest. In addition, predators such as owls and hawks keep the rodent population in check. Some birds disperse seeds, pollinate plants, or control insects. Movement through a bird's digestive system is necessary for the germination of some seeds.

Reptiles. This is a group of wildlife that some people find less than desirable, however, even snakes, lizards, and the like play an important role in the ecosystem. These are both predators of and prey for other species. Recently it was learned that western fence lizards cleanse ticks' blood of Lyme's Disease, a very handy trick.

Amphibians. Frogs and salamanders are another largely overlooked group in the forest. These are prey for a number

of other animals and help control the insect population.

Fish. Humans like to eat fish as do many other species. It is now recognized that anadromous fish (those that move from freshwater to the ocean and back, e.g. salmon or steelhead) bring nutrients from the ocean to the terrestrial ecosystem.

Invertebrates. This is unfortunately the most undervalued group in the forest. Invertebrates are those animals that lack backbones—the worms, slugs, spiders, insects, etc. Besides providing food to many other species, invertebrates serve other functions—many are decomposers, they have the essential job of recycling nutrients through the ecosystem. Others are predators that keep down the pest population. Soil-dwelling invertebrates help aerate and build the soil. These also include important pollinators, necessary to plant reproduction.



Wildlife *(continued from page 3)*

provide cover for reptiles, ground squirrels, quail, and other species.

◆ **Grasses and Forbs**—may provide nesting sites for many birds, cover for snakes, lizards and small rodents.

◆ **Leaf litter and small wood**—provide protective cover and foraging cover for species such as shrews and salamanders.

◆ **Evergreen plants**—provide sheltered areas during winter storms. Even mistletoe clumps can provide cover and food during the winter.

◆ **Water bodies**—all water sources are valuable areas and should be protected. Water is vital for all species of animals—insects, fish, large and small mammals, etc. These are also good places for wildlife viewing.

◆ **Vernal pools**—seasonal ponds are important for amphibians and numerous invertebrate species.

Make your plans

Before undertaking a wildlife project, spend some time considering your goals and your property's potential.

Decide on your goals—do you want to encourage particular species or increase all species (the overall diversity of wildlife in your forest)?

Then take an inventory of your property. What habitat elements already exist? What wildlife utilize it now? What could be enhanced or restored to increase available habitat for desired species? The size, location, and other physical characteristics of your property will determine what is possible.

Next, learn about the species you want to attract. What are their habitat needs? What is the limiting factor in your forest? What techniques are available to address those limitations? What times of year are best to do the work?

It's a good idea to write down your wildlife management plans to help guide your activities over time. This also allows you to more easily share

your plans with wildlife professionals or funders. Professional advice can save you time, energy, and money.

Now you are ready to begin your wildlife management activities. But first, it is important to have a system in place to monitor your results. This way you can determine if your plans are working as expected or if you need to change or adapt your techniques. Monitoring will also give you valuable data about your forest and help you become more familiar with the wildlife there.

Some easy ways to enhance wildlife habitat

◆ Plant native oaks. These mast-producing trees benefit numerous animals—over 300 wildlife species utilize oaks either directly or indirectly.

◆ Leave snags in place or create new ones. Snags in various stages of decay are necessary for different species.

◆ Thin or burn patches of the forest to create browse for deer or other herbivores.

◆ Leave downed wood, such as logs, to decay in place on the forest floor.

◆ Leave (or augment) large woody debris in streams

◆ Plant native grasses and forbs

◆ Add artificial shelters such as nesting boxes for birds or bat boxes, especially when snags or other appropriate cover are limiting.

◆ Plant native wildflowers to attract butterflies and other insects.

◆ Use pesticides and herbicides only when absolutely necessary—they may harm non-target species.

◆ Create brush and/or rock piles

◆ Provide water through guzzlers or other structures

◆ Increase the variety of plant types. This will not only increase the diversity of food and cover available, it will also introduce redundancy into the forest ecosystem. Thus, if one species of plant does poorly, wildlife may be able to utilize another.

Funding wildlife restoration projects

Some enhancement/restoration projects may require technical expertise and/or permits. Both technical and financial assistance exists to help landowners. Contact one of the following organizations or agencies for more information and to find out about funding availability and criteria:

General contacts:

Your local Forestry Assistance Specialist (see page 10 for numbers)

Your local Resource Conservation District (RCD)

Funding sources (availability varies) and resources:

The Cost Share and Assistance Programs for Individual California Landowners and Indian Tribes contains information on numerous cost-share programs. The complete booklet is online at <http://ceres.ca.gov/foreststeward/pdf/costshare00.pdf> or contact the California Forest Stewardship Helpline at 1-800-738-TREE.

Potential funding sources include:

◆ CFIP (California Forest Improvement Program)

◆ EQIP (Environment Quality Improvement Program)

◆ CalFED

◆ California Fish & Game programs

◆ Proposition 40

◆ US Fish & Wildlife Service programs

Or, if you are totally confused, call the **California Forest Stewardship Helpline at 1-800-738-TREE.**



Species Spotlight

The Rodney Dangerfield of the animal kingdom

Bats just don't get any respect. The ultimate creepy crawly, they are an unloved, misunderstood, and maligned group of animals.

In reality, bats are fascinating creatures that provide great services to the ecosystem in terms of pollination, seed dispersal, fertilizer/nutrient flow and, especially, insect control. One bat can eat 600 mosquitoes an hour—that's more than 3000 insects in one night.

Bats are mammals. They have hair, nurse their young, and produce body heat internally. They are the only mammals that can actually fly. Bats are long-lived (up to 30 years for some species) and reproduce slowly; generally only one offspring per year.

Throughout the world, there are nearly 1,000 species of bats. About 70% feed on insects while the others have a variety of food specializations that include fruit, nectar, flowers, pollen, blood, and small animals like fish, frogs, birds, and other mammals.

Because of their high metabolic rate, bats require a lot of food. They forage for insects at night, resting between foraging runs in night roosts. Many species augment their night vision with sonar abilities known as echolocation. Sound waves are bounced off objects like flying insects. This ability is so refined that bats are able to tell one type of moth from another.

Bats require different habitat depending on the activity, time of day, season, and life stage. They need foraging habitat for food and night roosts for resting. During the day they sleep in day roosts. To save energy during the winter, they hibernate in winter hibernacula. And the females raise their young in special maternity colonies.

Of the 27 species of bats found in California, all are insect eaters except for one species that feeds on the nectar,

pollen, and fruit of desert plants.

Bats can be found in a number of different habitats including caves (and mines), on cliffs and other rocky areas, in human structures like buildings and bridges, and in forests.

Forest bats

Our knowledge of forest bats is limited. What is known of these species is that they often live in snags where they roost under bark, in woodpecker holes, and in other cavities. They favor large-diameter, tall trees that rise above the forest canopy and are in an early stage of decay. In redwood forests, bats use fire-scar cavities and the base of redwood trees as maternity, day, and night roosts. Other roosting sites include logs, stumps, and even rock crevices on the ground. Surprisingly, bats do not stay with one site but switch roosts often.

Bats are important predators of insects and may be significant in the control of forest insect pests. Forest bats prefer to forage along forest edges, in clearings, and in forest gaps, however, they avoid the middle of clearcuts. They also feed over bodies of water where nocturnal insects are abundant, preferring forested parts of streams.

Management

Bats play an important role in the forest and their presence is one indicator of forest health. What can you do to encourage bats on your property?

- ◆ Maintain and manage snags to increase the availability of natural roosts.
- ◆ Ensure foraging habitat by protecting permanent water sources such as ponds, marshes, and streams.
- ◆ Use pesticides sparingly.
- ◆ Build artificial roosts where natural habitat is limited.
- ◆ Share the news that bats are beneficial animals.

Bat Myths

Bats are rodents. Bats are not rodents—they are more closely related to humans than they are to mice and rats. Their presence is an indicator of a healthy ecosystem.

Bats are blind. Bats can see better than we do at night and also have echolocation to improve their night "vision."

Bats get tangled in your hair. Bats tend to avoid people. They may swoop close to your face while catching insects but are not interested in your hair. Their ability to echolocate is so acute they can avoid obstacles no wider than a piece of thread.

Bats will suck your blood. There are three species of vampire bats in Mexico and Central and South America. These don't suck blood, rather, they make a small cut in the skin of sleeping animals—birds, horse, and cattle—then lap up the blood as it flows from the wound. The bats' saliva contains an anti-coagulant to prevent clotting during the meal as well as an anesthetic so that the animal doesn't feel the prick. There are no vampire bat species in California.

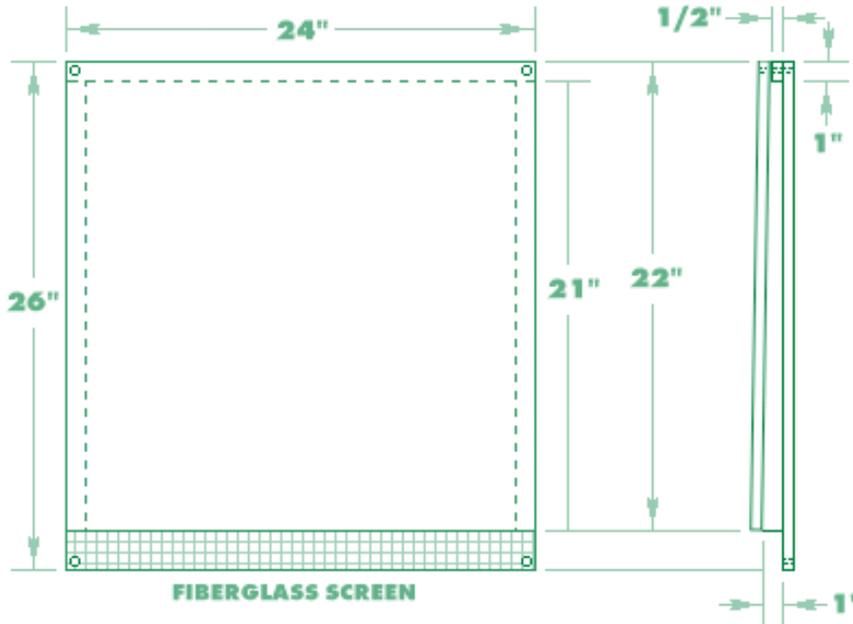
All bats have rabies. Like any mammal, bats can contract rabies, however, less than one half of 1% carry the virus. Unlike dogs, rabid bats become subdued and separate themselves from the colony, often resting on the ground. Avoid touching bats as well as any other wild animals.



Seasonal Stewardship

Build boxes for bats and birds

BAT HOUSE



—design by Bob Wisecarver; from California Bat Conservation Fund <http://www.Californiabats.com>

A bat house may encourage bats to colonize your property. This is a simple yet effective design that can be constructed and mounted in a few hours.

The bat house must be mounted on a large structure in order to maintain a stable temperature. A location on the southeast side of a building, snug against the eaves of the roof, is ideal. A back plate is unnecessary if the bat house is placed on a flat wall that is rough enough so that bats can cling to it. If using a back plate, it must either be scored horizontally (a screwdriver works nicely for this purpose) or covered with a sheet of fiberglass window screen.

Materials (24" by 26" bat house)

One sheet 1/2" x 24" x 48" CDX (outdoor) plywood cut into 24" x 22" front plate and 24" x 26" back plate (back plate optional)

Two pine boards 1" x 21"—tapered 1/2" to 1" (may be replaced with untapered 3/4" boards)

One pine board 1/2" x 1" x 24"

One 24" x 28" sheet of fiberglass window screen (if using an unscored back plate)

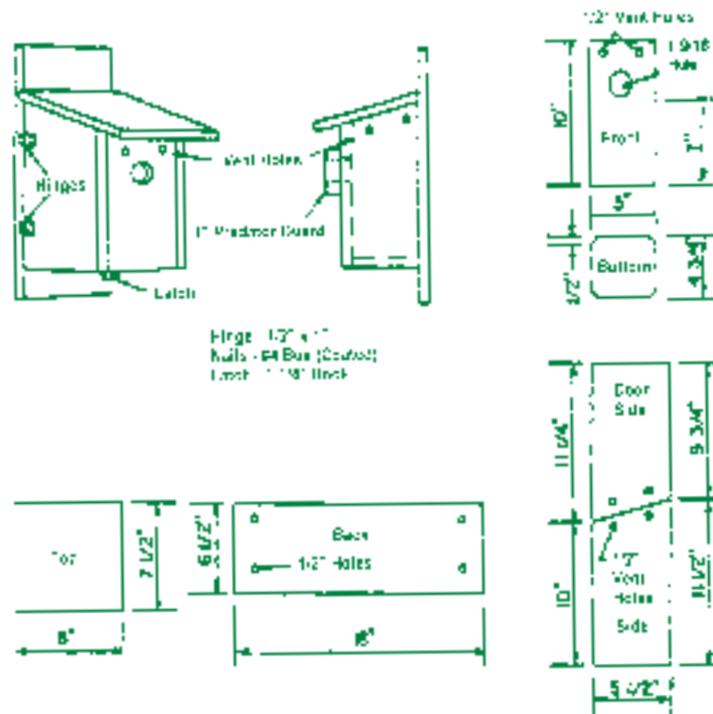
Screws

Securely staple fiberglass screen around back plate. Assemble as shown.

GENERIC BIRD HOUSE

1. Entrance hole is 1 9/16" in diameter and 6–7" above floor.
2. Trim off 1/2" of corners of bottom panel for water drainage.
3. Drill two 1/2" holes at the upper end of both sides for ventilation.
4. Put on roof last. First glue and nail the side to the back; then front to side; then floor; then hinged side; then roof. The roof and top of front could be beveled up to 13 degrees for a tighter fit.
5. Hinged side is shorter by 1/4" to allow it to swing.
6. Place a 1" predator guard over the entrance hole. A conical sheet metal predator guard can also be wrapped around the nest pole or tree.
7. Wood glue, in conjunction with galvanized nails, should be used for construction.
8. Use 1/2"–3/4" pine, redwood, or fir. Plywood can be used, but is not preferred since it usually doesn't last as long under adverse weather.

Note: This basic floor plan can be used for virtually all species of cavity nesting birds, although dimensions must be modified for the different species (see our website at <http://ceres.ca.gov/foreststeward/birdbox.html>). Install nest boxes in areas with the habitat features the birds prefer.



—from *Cavity Nesting Bird Education and Enhancement Project* by Circuit Rider Productions, Inc. (New edition expected in fall.) (707) 838-6641; <http://www.crpinc.org/index.html>



In the Field

RCD provides support for wildlife restoration

The Solano County (formerly Ulatis) Resource Conservation District (RCD) has a long history of commitment to wildlife habitat restoration; their wildlife committee has been around for almost half a century.

“We have an educational focus,” explains Tacy Curry, executive director of the RCD. “We facilitate what needs to be done.”

What needs to be done is an impressive list including Conservation Plans, a native plant nursery, a demonstration garden, grant writing, exotic plant eradication, educational events, and lots of collaboration.

The RCD facilitates conservation planning by providing the services of a wildlife technician who meets with landowners to tour their property, discuss goals and objectives, and design a conservation plan to meet their specific needs. The plan is educational and addresses any problems such as erosion, describes how to create desired habitats, lists appropriate natives to plant, and presents the general look of the property. Landowners receive a binder (soon to be a CD-ROM) with a full landscape design and background



Those who implement a conservation plan receive this sign that identifies the property as a wildlife habitat refuge.

fact sheets tailored to their goals.

The RCD also maintains a native plant nursery that provides education as well as plants. Two plants sales are held each year. In addition, the nursery takes custom orders for restoration projects. Sales not only include plants (sold for \$3/gallon container, the break even cost for the nursery) but also owl and bat boxes made by local high school students. The nursery is a way to involve others in the community: Master Gardeners, docents from nearby Jepson Prairie, students, and volunteers.

The RCD recently received a grant to create a demonstration garden behind the nursery. The garden will contain a diverse selection of native plants with identifying tags, as well as a quail guzzler, which provides a year-round water supply to quail, and an insectary strip, plants that attract beneficial insects.

The goal, according to Tacy, is “to show people

what a native landscape can look like. Natives don’t grow fast, so people have to have patience.”

The emphasis on native plants is important because natives provide better habitat for wildlife. In addition, some non-natives can become invasive and cause problems to the ecosystem. Tacy notes that most people become very excited and want to plant natives when they learn about the benefits.

The RCD is also facilitating a joint project of several landowners to restore a local stream. Vegetation was thinned and oaks planted about two years ago. The next phase is to remove arundo, an invasive species that looks like giant Bermuda grass. Eradication takes persistence; this will be a 3–5 year effort.

Tacy says, “Landowners want to do what’s right for the creek.” Luckily, the RCD is there to help them plan and design projects, get funding and permits, organize the work, and monitor the results.

For more information, contact Tacy Curry at (707) 678-1655.



Tacy Curry stands under a huge arundo plant. Arundo is a big problem in riparian areas.



Connie Bray cares for the plants in the native plant nursery.



Tribute to Fritz Riddell *(continued from page 2)*

ments (such as CDF) and also to volunteer his time and talent in myriad ways. Riddell spoke to, and worked with, a great number of organizations, Indian tribes, civic groups, and museums from one end of California to the other. He tirelessly criss-crossed the state doing pro bono work ranging from docent training at small museums to speaking to literally tens of thousands of California school children about California Indians.

Fritz Riddell worked with diverse groups of people frequently at odds with each other over archaeological issues. He was a great persuader, a great salesman, whose sincerity and honesty shined through no matter how controversial the problem he was involved with. Fritz always tried to get potential adversaries to find common ground and areas of mutual interest. Riddell could mediate between California Indians, foresters, ranchers, farmers, landowners, university professors, and government bureaucrats of every stripe with outstanding success;

the secrets of his success were his great gifts of charm and persuasiveness. He always spoke from the heart, and many of his listeners came to share his passion.

Perhaps his greatest contribution is how successful he was in getting others to take an active interest in archaeological and historical preservation, and to appreciate the remarkable Indian cultures of California: Fritz may be gone, but his legacy is not only alive and well, it continues to grow.

All California foresters who have gone through the CDF archaeological training courses since 1986 will remember Fritz's incisive wit, his wealth of examples to draw upon when illustrating a point, and his friendly, upbeat and relaxed teaching style. Fritz was a gentle soul with a great capacity for friendship and generosity. He gave unstintingly of himself and of his time to all, without hesitation, especially when archaeology might benefit through his doing so. There was not a mean or selfish bone in



Fritz Riddell teaching a CDF archaeological training class at a prehistoric pithouse village, Mendocino County, California, October, 2001.

his body. With beginners Fritz always had an encouraging word; he was always on the lookout to make new converts to his informal archaeological army. Most of all, Fritz Riddell had a unique and wonderful sense of humor, the kind rarely equaled in the world as a whole and completely unmatched within his chosen profession.

For the full text of this article, go to the Forestland Steward website at <http://ceres.ca.us/foreststeward/html/fritz.html>.

Use Your Appliances Wisely

Cut back on unnecessary energy use to keep your hard earned money in your pocket. Here are some suggestions you can do, at absolutely no cost to you.

Put your computer and monitor to sleep. Most computers come with the power management features turned off. On computers using Windows 98/ME/2000 open your power management software and set it so your computer goes to sleep if you're away from your machine for 5 to 15 minutes. Those who use Macintosh computers look for the setting in your Control Panels called "Energy Saver" and set it accordingly. When you're done using your computer, turn it off; do not leave it in sleep mode overnight as it is still drawing a small amount of power.

Plug "leaking energy" in electronics. Many new TVs, VCRs, chargers, computer peripherals and other electronics use electricity even when they are switched "off." Although these "standby losses" are only a few watts each, they add up to over 50 watts in a typical home that is consumed all the time. If possible, unplug electronic devices and chargers that have a block-shaped transformer on the plug when they are not in use. For computer scanners, printers and other devices that are plugged into a power strip, simply switch off the power strip after shutting down your computer. The best way to minimize these losses of electricity is to purchase Energy Star® products.

Eliminate wasted energy. Turn off lights in unoccupied rooms. Turn off kitchen and bath-ventilating fans after they've done their job.

Check out www.flexyourpower.ca.gov for more information and ways to save money!



Fire Season

Fire season is on us once again. Here are some reminders to help increase your fire safety and get information when needed. It is good policy to have the number of your local CDF Unit handy at all times. Look in the state section of your telephone book or call the California Forest Stewardship Helpline, 1-800-738-TREE for information. Of course, in case of a fire or other emergency, dial 911.

10 simple things you can do to increase your fire safety

- 1 Clear leaves and needles from the roof, gutters, and under the deck of your home.
- 2 Remove branches within 10 feet of your chimney and dead branches overhanging your roof.
- 3 Make sure your house number is readily visible from the street.
- 4 Make sure your street is named or numbered, and a sign is visibly posted at each street intersection.
- 5 Stack woodpiles at least 30 feet from all structures and remove vegetation within 10 feet of woodpiles.
- 6 Maintain all plants by regular watering and by removing dead branches, leaves, and needles.
- 7 Cover your chimney outlet and stovepipe with a nonflammable screen of 1/2 inch or smaller mesh.
- 8 Clearly mark all emergency water sources.
- 9 Make sure your street name and house number are not duplicated elsewhere in the county.
- 10 Identify at least two exit routes from your neighborhood.

Information for the 2002 Fire Season

The CDF website at <http://www.fire.ca.gov> will take you to information regarding current fires. Click on "2002 Fire Season" under *Hot Topics*.

CDF fire information phone lines are set up when major fires are burning within CDF's jurisdiction. You will find those numbers listed on the website at <http://www.fire.ca.gov/FireEmergencyResponse/2001FireSeason/FireInformationNumbers.asp>. Also listed there are other agency's fire information phone numbers when CDF has a significant support role.

At any time, you may contact the CDF Unit or Region Headquarter near you. For numbers, go to <http://www.fire.ca.gov/MiscDocuments/CDFContacts.asp>.

Fires

Fires occur throughout the state within CDF jurisdiction on a daily basis during fire season. However, the majority of those fires are contained quickly and no information is provided on the website. If you would like to obtain information about a CDF fire burning in your area that is not included on the website, please contact your local CDF Unit.

Other Emergencies

The California Department of Forestry and Fire Protection (CDF) responds to all types of emergencies. When the Department responds to a major CDF jurisdiction incident, the Department will post general information concerning the incident on its website. The site is not meant to provide up-to-the minute evacuation or fire behavior information. Please refer to the incident information telephone numbers (see above) and website links for additional information, and monitor your local radio stations for emergency broadcasts.

The Difference Between State And Federal Responsibility

CDF is responsible for fire and emergency response on more than 31 million acres of "privately-owned" wildlands in California. The federal government is responsible for fire response on federal lands including those that fall under the US Forest Service (USFS), National Park Service, Bureau of Land Management, and Bureau of Indian Affairs. When a fire starts on National Forest land, the USFS takes the lead for the incident. Via cooperative agreements, CDF responds with crews and equipment to assist when requested by the USFS, and vice versa, especially when there are a number of major fires burning. However, the agency with jurisdiction is the lead and has command over all aspects of the incident. That includes disseminating information, including fire information phone numbers, media interviews, and incident websites.



Resources

Good stewards of the range

Grazing for Change tells the stories of ranchers who are working to improve the rangeland ecosystem as they pursue their livelihoods.

This 36-page booklet, produced by the California Cattlemen's Association, highlights nine ranches and three watershed groups using innovative techniques to address both economic and ecological issues. The ranches nominated for inclusion in the booklet are located throughout California and portray a variety of issues and solutions.

Each case history in the booklet includes a background introduction to the ranch and its owners, information about historic and current management, the stewardship goals of the owners, innovations and tools being used, the environmental benefits, the economic benefits, and monitoring being done. The pictures of each ranch gives the reader a feeling for its environment.

The discussions are very enlightening. Each ranch is managed with its own set of goals and faces its own unique challenges. While each case is different, all share with the reader the creative solutions employed to improve the economic and ecological health of the property.

The toolbox of techniques used by these successful stewards includes:

- ◆ rotational grazing
- ◆ offstream water development
- ◆ brush and woody vegetation control/removal
- ◆ rangeland water quality management plan or other management plan
- ◆ riparian restoration
- ◆ controlled burning program
- ◆ native perennial grass restoration

Most also have partnerships with one or more organizations or government

agencies that provide technical and/or financial support.

This publication does an excellent job of sharing ideas for good stewardship while reminding the reader that, besides food and fiber, we also rely on ranches to produce "open space, native grasses, functional watersheds, and

healthy wildlife habitats."

Grazing for Change is available online at <http://calcattlemen.org/GC.htm>. For information about ordering a hard copy, contact the California Cattlemen's Association office at (916) 444-0845 or staff@calcattlemen.org.

Technical Assistance Resources

Many agencies are available to provide technical assistance, referrals, information, education, land management plan assistance, and advice.

California Stewardship Helpline 1-800-738-TREE; ncsaf@mcn.org

California Department of Forestry & Fire Protection

Forest Landowner Assistance Programs

Jeffrey Calvert

(916) 653-8286

jeff.calvert@fire.ca.gov

Forestry Assistance Specialists

Jill Butler (Santa Rosa)

(707) 576-2935

jill.butler@fire.ca.gov

Rich Eliot (Fortuna)

(707) 946-1960

rich.eliot@fire.ca.gov

Tess Albin-Smith (Fort Bragg)

(707) 961-1531

tess.albin-smith@fire.ca.gov

Adam Wyman (Red Bluff)

(530) 528-5116

adam.wyman@fire.ca.gov

Chris Anthony (Camino)

(530) 644-2345 x292

chris.anthony@fire.ca.gov

vacant (Fresno)

(559) 243-4108

Glenn Barley (Riverside)

(909) 320-6120

glenn.barley@fire.ca.gov

California Association of RCDs

Thomas Wehri

(916) 447-7237

staff@carcd.org

California Dept of Fish & Game

Marty Berbach

(916) 327-8839

mberbach@dfg.ca.gov

California Resources Agency:

California Environmental Resources

Evaluation System (CERES)

Deanne DiPietro

(916) 653-8614

deanne@ceres.ca.gov

Farm Service Agency

Larry Plumb

(530) 792-5520

Natural Resources Conservation Service

Jerry Reioux

(530) 792-5655

jerry.reioux@ca.usda.gov

U.C. Cooperative Extension Forestry

Richard Harris

(510) 642-2360

rrharris@nature.berkeley.edu

Gary Nakamura

(530) 224-4902

gmnakamura@ucdavis.edu

USDA Forest Service

Sandra Stone

(707) 562-8918

sstone01@fs.fed.us



Calendar

August 5 & 6, 2002

Board of Forestry
Sacramento, CA
Board of Forestry
Donna Stadler 916-653-8007
<http://www.fire.ca.gov>

August 9–10, 2002

NCSAF Summer Field Meeting
Fresno/Porterville/Visalia Area
N. Calif SAF, S. San Joaquin, High Sierra
Sherry Cooper 530-224-4902
shcooper@ucdavis.edu

August 17–18, 2002

Sierra Nevada Alliance Conference
Water Connections: Future of the Sierra
Camp Richardson, S. Lake Tahoe
Sierra Nevada Alliance
530-542-4546;
kathy@sierranevadaalliance.org
\$50-\$90; www.sierranevadaalliance.org

August 28–29, 2002

**California Biodiversity Council
Regional Meeting**
Modoc Bioregion
California Biodiversity Council
Erin Klaesius 916-227-2661;

erin_klaesius@fire.ca.gov
www.ceres.ca.gov/biodiv/meetings.html

September 10–12, 2002

Board of Forestry
Visalia, CA
Board of Forestry
Donna Stadler 916-653-8007
www.fire.ca.gov

September 19, 2002

**Looking Ahead: Maximizing Your
Reforestation Investment**
Portland, OR
Portland Chapter SAF, OSU Ex. Svc., etc.
Kai Olson-Sawyer 503-226-4562
kai@westernforestry.org
\$135; www.westernforestry.org

September 25, 2002

**Forest Futures: Science, Politics and
Policy for the Next Century**
Salem, OR
Willamette Univ Public Policy Res Center
forest-futures@willamette.edu
\$40, \$5 for students
[http://www.willamette.edu/publicpolicy/
forest_futures](http://www.willamette.edu/publicpolicy/forest_futures)

September 25–26, 2002

**Reducing Wildlife Damage to Forest
Resources**
Olympia, WA

**Congratulations to Forest
Stewardship Helpline forester
Heather Morrison on the birth of
Waylon Edward on May 28 and to
Sherry Cooper on the birth of
Maddie Rose on June 17!**

Western Forestry and Conservation Assn.
Richard Zabel 503-226-4562
richard@westernforestry.org
\$195; <http://westernforestry.org>

October 1–3, 2002

Board of Forestry
So. Lake Tahoe, CA
Board of Forestry
Donna Stadler 916-653-8007
www.fire.ca.gov

October 8–11, 2002

Sierra Nevada Science Symposium
N. Lake Tahoe, CA
UC Wildland Res. Ctr., US Forest Svc.,
Natl. Park Svc., UC Berkeley etc.
Peter A. Stine 916-498-5378
pstine@fs.fed.us; Joni Rippee 510-642-
0095; rippee@nature.berkeley.edu
\$295–\$350 after 9/13/02; [http://
danr.ucop.edu/wrc/snssweb/snss.html](http://danr.ucop.edu/wrc/snssweb/snss.html)

October 18, 2002

**Sudden Oak Death Syndrome: Issues
and Implications for Management,
Policy, and Society**
Susan Frankel, USDA FS
[http://www.cnr.berkeley.edu/forestry/
lecture.html](http://www.cnr.berkeley.edu/forestry/
lecture.html)

October 24–27, 2002

**SERCAL Conference—Restoration
With a View: Sustaining Fragile
Habitats**
N. Lake Tahoe
Calif Society for Ecological Restoration
Susan Clark smclark@lightspeed.net

*For more information on these events call the
number given or the Forest Stewardship
Helpline, 1-800-738-TREE. To submit an
event, contact Sherry Cooper, 530-224-4902;
shcooper@ucdavis.edu.*

Forest Stewardship Workshop Series for non-industrial forest landowners

Coming this fall . . . an 8- to 12-session workshop series for private forestland owners to increase your enjoyment and understanding of your forest, and improve your management of it. Sponsored by the California Forest Stewardship Program, California Dept. of Forestry and Fire Protection, and UC Cooperative Extension

Topics to be covered in lectures and field trips include:

Forest ecology/Forest management history/Current forest environmental issues
Tree growth and competition
Fire and risk management
Forest pests—insects, disease
Forest economic issues—timber harvest, taxes, estate planning
Regulation and assistance—Forest Practice Act, Timber Harvest Plans, cost-share and assistance programs
Vegetation management—silviculture, weed control, exotics, T&E species
Wildlife—benefits, habitat requirements, pests and control, management
Streams and watersheds—riparian forests, water quality, fisheries
Roads—construction, maintenance, rights and responsibilities
Stewardship objectives and planning—what do you want and how will you get it

**Comprehensive calendar,
updated monthly online at
<http://ceres.ca.gov/foreststeward>**



Book Review

Looking for solutions to forest loss

America's Private Forests

by Constance Best and Laurie A. Wayburn; Island Press, 2001. ISBN 1-5593-901-6

"More people want more out of forests: wood for the booming building market, beautiful settings for new (often second) homes, recreational opportunities for greater leisure time, habitat for threatened creatures, increased carbon stores to reduce global warming gases, and clean water for all uses."

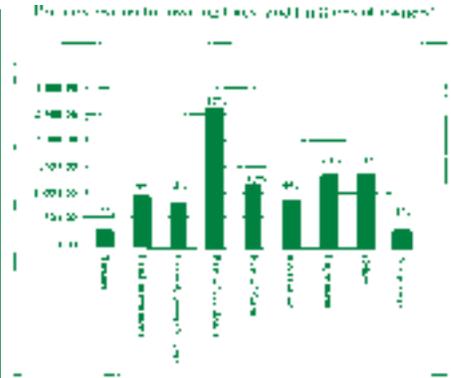
Forest use is intensifying; forest health is deteriorating. Yet we depend on the forest for many of our most basic needs. What can be done to protect the integrity of our

forests and all the vital functions they provide?

The authors, Constance Best and Laurie Wayburn, approach this challenge in several steps. First, they look at forest ownership: who owns the forest and why. Second, they discuss the importance and functions of forestlands and the threats and barriers that exist to conservation. Next, they present a conservation toolbox of programs and markets that are available (or have the potential) to help finance conservation of forests. Finally, they present an action plan to accelerate conservation.

The action plan has as its objectives:

1. turn the tide on private forest loss;
2. dramatically reduce the fragmentation of larger forests;
3. create ways to functionally reassemble the landscape;
4. fuel the restoration of ecosystem wealth; and
5. build a culture that values forests.



At issue is the need to make the returns from good stewardship and conservation competitive with those from development and degradation. To this end the authors recommend:

1. Provide new conservation capital for intervention during the turnover in ownership of significant forest properties.
2. Expand the public market for conservation through improved and expanded funding programs.
3. Catalyze the development of new sources of funding for ongoing conservation through markets for forest ecosystem services, in particular for forest-based carbon sequestration and watershed services.
4. Improve returns from long-term forest stewardship through changes in key areas of taxation.
5. Increase access to liquidity and traditional sources of capital for small landowners.
6. Increase returns for managing forests with high native biodiversity values.

This book is surprisingly enjoyable to read despite its being filled with facts and figures and somewhat technical ideas. The descriptions of forest threats and the very practical solutions presented will give the reader much food for thought. Anyone interested in forests at any level will benefit from the ideas in this book.

-L.L.



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Send to CDF, Forestry Assistance, P.O. Box 944246, Sacramento, CA 94244-2460. Phone: (916) 653-8286; Fax: (916) 653-8957; email: jeffrey_calvert@fire.ca.gov