

CURRY

CURRENTS FALL 2008

Lower Rogue Watershed Council, South Coast Watershed Councils and Curry County Soil and Water Conservation District

Trees, shrubs, grass ... What else is living in your riparian areas?



Rana aurora, red-legged frog

There's more going on among the trees, shrubs, and herbaceous cover bordering streams than "just" shade, wood, leaf litter, and bugs for fish. Depending on the region and setting, and on which study you're reading, 70 to 90 percent of terrestrial life depends on riparian zones for some part of its life cycle.

That's amphibians, reptiles, birds, insects, mammals—feeding, sheltering, nesting, breeding, raising young in or moving through corridors of specialized riparian vegetation. Their compatibility with our land use varies widely. Some terrestrial users of riparian zones cannot adapt or move away when native riparian vegetation is replaced with a managed landscape, or at least can't adapt and thrive, or move very far.

Understanding which species might use your land, and the basic needs of such species, can help you make better decisions about managing your riparian area. You might even have a favorite animal you would like to encourage by providing certain habitat elements—and that might be easier than you think.

Turtles, frogs, snakes, lizards ...

Professional and amateur herpetologists study coldblooded vertebrates with four legs (herpetofauna, or "herps," from the Greek herpiton "creeping animal"). This group usually includes snakes due to remnant leg stubs on primitive species.

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Featured Creature: Rana aurora **Red-legged frog**

- Medium sized true frog, reddish brown with spots on back and sides. Red undersides of legs first, then lower abdomen with age.
- Range throughout western Oregon.
- Breeds in cool (41-44° F), quiet waters by mid-spring; attaches egg masses to emergent stems.
- Adults eat small invertebrates, and tadpoles eat algae and tiny stream organisms.
- May travel 300 meters from water to moist dense woody cover if no obstacles, but prefers thick riparian vegetation.
- A favored food of herons and bitterns.
- Potential impacts include chemical pollutants, escaped mosquito fish, and habitat loss from development and from heavy riparian grazing. Riparian buffers help!

Curry County Weed Advisory Board



Noxious Weed Spotlight

Tansy Ragwort

By Kean Fleming

Farmers and ranchers in Western Oregon this summer are noticing patches of the telltale bright yellow flowers of tansy ragwort – a noxious weed once the scourge of the 1970s.

Tansy is a most unsavory weed. It contains alkaloids that are toxic to cattle, deer, pigs, horses, and goats. These alkaloids cause degradation of liver function, with lethal results in one to two days when the animal ingests three to seven percent of its body weight in ragwort. But acute poisonings seldom occur because the low palatability of the plant usually results in only small quantities being consumed per day. Nonetheless, a pasture dominated by Tansy Ragwort indicates lost forage and can be seriously unnerving for any cattle rancher.

According to the Oregon Department of Agriculture's Noxious Weed Control Program, however, this summer's ragwort resurgence is no cause for alarm.

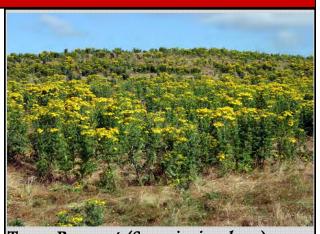
The equation is simple - as the tansy ragwort population grows, so do the populations of flea beetles and cinnabar moths that feed off the weed. It's all part of a natural cycle, and ODA's Noxious Weed Control Program believes that, over time, the insects will maintain the upper hand.

Recently landowners have been vocalizing their anxiety about the return of tansy ragwort, now in a very visible stage. This is because many Oregonians remember when tansy was so invasive in Western Oregon that cattle and horse owners re-

ported \$4 million their animals grazed on

more than "As long as we can suppress the weed the flea beetle working on the losses below an economically damaging each year level, we'll be satisfied"

infected pastures. Too often, the leaves of tansy grew among the grasses consumed by livestock in the spring, leading to sickness and death. Indeed, springtime is the most worrisome time of the year for ragwort poisoning. At this point in the growing season, the tansy flowers are in bloom and the weed is tall enough for animals to generally avoid by eating around it.



Tansy Ragwort (Senecio *jacobaea*) The poisonous, noxious weed pops up again, but the Oregon Department of Agriculture asks for patience

and reassures that, in the long run, biocontrols should keep Ragwort in check.

ODA entomologist Eric Coombs notes that "It's counterintuitive to just let it go right now, but the whole premise of biological control is to allow the insects present to naturally build up on their own. It's all a natural cycle," says Coombs. "We will get these flare-ups of tansy ragwort that will move around from field to field depending on factors like the weather or how the field is used. It might be another year or two before the insects build up in numbers again and knock the weed back down. It would take three to five years if the natural enemies had to be reintroduced.'

The cinnabar moth eats the leaves of tansy ragwort. With roots and ragwort seed fly eating the seeds, the threesome has worked wonders. It has been almost too good. -Tim Butler, ODA Weed Control Program So much of the weed has been destroyed over the last

> 25 or so years that there hasn't been enough tansy to maintain high populations of the bugs. The result has been a sporadic but definite reappearance of Tansy. While ODA and ranchers prefer complete eradication of tansy, it is actually not in the biocontrol agent's best interests to eat every last plant.

> "As long as we can suppress the weed below an economically damaging level, we'll be satisfied," says

Tansy ragwort and biological controls

Tansy Ragwort, continued from page 2

Tim Butler, supervisor of the Weed Control Program.

ODA officials continue to suggest that as long as livestock are not dying from tansy poisoning, the insects are doing an adequate job at controlling tansy and patiently waiting for the established biological control agents to build back up is the best course of action. That's not easy for some farmers and ranchers, and it doesn't mean there is nothing they can do in the meantime to help.

Good pasture management techniques, such as fertilization, sound grazing patterns, and irrigation to help maintain the competitive advantage of desirable plants species all play a role in minimizing soil disturbances that lead to the appearance of tansy ragwort.

In addition to overgrazing, factors leading to the resurgence of tansy include construction, logging, fires, floods, and other events or practices that disturb the soil.

Pulling or mowing are always available options, but the latter only leads to the weed growing back stronger and heartier next year. Herbicides can be used to control tansy but need to be applied in early spring before the flowers pop out or late fall after some re-growth of seedlings.

For tansy ragwort images online, go to http://oregon.gov/ODA/PLANT/gallery_tansy.shtml For more information, contact Ken French at (541) 430-0762.

Email the author at kean.fleming@oacd.org

Tansy ragwort: biological controls

The following is excerpted from Oregon State Extension Service,



Eric Combs, Oregon Department of Agruclture. Bugwood.org

PNW 175 * Aug1994. Forage Information System http://forages.oregonstate.edu/index.cfm Accessed 9/16/08

The **ragwort seed fly** resembles a house fly and emerges in June when tansy ragwort is developing seed heads. Females deposit eggs among the florets or alongside the green bracts of the flower heads (usually, only one egg per head); eggs hatch in 3 to 4 days. Larvae penetrate the seed heads and feed on the developing seeds for several months.

They attach to up to 40 percent of the seed heads and consume 75 to 95 percent of the seeds. Uneaten seeds in the head often fail to germinate.

Attacked flower heads are easy to detect; the florets above the larvae turn brown and push upward, protruding above nearby florets. The raised florets are cemented together by a frothy substance excreted by the larvae. A whitish gray fungus also grows on the attacked heads. Mature larvae drop from the seed heads, enter the soil, pupate, and overwinter. There is only one generation a year. The seedhead fly is widely distributed throughout most areas of tansy ragwort infestations. The seed fly has been ineffective by itself.

The **cinnabar moth** is the insect most often seen on tansy ragwort. The black and red adult moths are most active in May and June. Females deposit 100 to 300 yellow eggs, in clusters of about 40 on the undersides of leaves. Eggs hatch in 1 to 3 weeks, and larvae feed on leaves, buds, and flowers-frequently defoliating all plants in an area. Larvae need





4 to 6 weeks to develop. Full-grown larvae are about 1 inch long and can be recognized by their black and yellow or orange bands.

Mature larvae pupate in the soil or beneath debris and remain inactive until adults emerge in spring. The cinnabar moth is most effective in areas heavily infested with tansy ragwort.

Tansy ragwort flea beetle adults (less than 1/8 inch long and tan in color) lay eggs on the root crowns of rosettes or

in nearby soil in the fall. During fall through early spring, larvae burrow into and feed on roots, injuring or killing them. To check for flea beetles, pull several rosette leaves, and check for the shot holes or adult feeding marks. In late spring,



larvae leave the roots and pupate in the soil. Emerging adults feed on the leaves of tansy ragwort for several weeks, but then enter a 3- to 5-month resting stage. In the fall, adults once again feed, mate, and deposit eggs.

This beetle's damage complements the damage inflicted by the cinnabar moth and/or the ragwort seed fly. In coastal counties, the flea beetle is the main control factor.

Ragwort Seed fly

Project highlight: Solar power

Using Solar Energy to Pump Livestock Water on Langlois Mountain

Protecting our water resources from grazing livestock is a smart thing to do. Putting up a fence to keep livestock out of the creek helps protect water quality and salmon habitat while enabling greater control of grazing livestock. But now that your animals can't wander down to the creek or pond to drink, how are you going to provide them with the daily water that they need? As we have come to understand the importance of excluding livestock from our water sources, there is a growing need to build dependable off stream watering systems to supply these animals with their daily water requirements. This article takes a look at how solar powered pumps can help deliver water to your livestock.



Solar Water Pumping Station installed at a ranch on Langlois Mtn.



The 2500 gallon storage tank is located approximately 600 linear feet and 140 vertical feet from the pump.

A solar water pumping station has been installed and is operating on a Langlois Mountain ranch in northern Curry County. The source of water is a pond located 140 feet below a 2500 gallon storage tank used to supply two livestock watering troughs on a hillside pasture. A 165-watt solar array is used to power a 24 volt dc submersible pump. A water meter was installed to measure the flow of the system. In April 2008, the system pumped 12,220 gallons of water; in May we recorded 12,616 gallons. This amounts to 400-700 gallons per day (depending on weather), enough water for about 40-50 head of cattle.

Here is a quick look at some of the advantages and disadvantages of solar-powered and traditional pumping systems.

Comparison of Solar and Gas/Diesel Powered Pumps

Pump Type Advantages Disadvantages Low maintenance · Potentially high initial cost Solar • No fuel costs/spills · Lower output in cloudy weather · Easy to install · Must have good sun exposure · Simple and reliable • Unattended operation Very Low Fire Risk Gas/Diesel · Needs maintenance and replacement · Moderate capital costs • Can be portable · Fuel often expensive • Extensive experience available · Noise, dirt and fume problem

The initial costs of solar pumping systems are not low. The total equipment costs for this system were \$3,659. But if your water needs are far away from any source of utility-grid power, you do not have any gravity-based options, or you have serious fire concerns about using gas/diesel powered pumps, then solar pumping may be the best option for you. Please contact Steve Dicicco (steve.dicicco@oacd.org or 541-698-8464) or Beth Pietrzak at the Curry SWCD (541-247-2755) if you would like to see our experimental pumping project to get a first hand view of this simple system. You can also visit our website, http://www.currywatersheds.org, to view a fact sheet with further details on this project.

Funding for this project was provided by the Oregon Department of Agriculture and the Oregon Department of Environmental Quality

The Secret Life of a Water Drop (as told by 5th graders!)

At the start of the 7-10 watershed lessons series delivered by the Watershed Council's Education staff, students get to experience "life" as a water droplet and travel around the world via the water cycle! Using The Incredible Journey activity from Project WET combined with students' great imaginations brings you the highlights below from Mrs. S. Martin's 5th grade class of Riley Creek School, Gold Beach, OR:



My tale as a single drop of water ... by Woody Mayer

earth was made. I am at least a cloud. An announcement came again, but did not melt to the sea. millennium old. One day I was in on a loud speaker and said: "We We got collected and put in a fish the ocean with my liquid friends are now at the glacier, get ready tank! But, soon after that, we then Mr. Sun said, "Pack your for precipitation." So we got off. evaporated and went back to the bags, it's time to go!" So, me and It was so cold, we became solid sea anyway.

I started my journey when the my friends were working in the ice! We soon became liquid

My life as a water drop ... by Misha Freeman

is the sun is so Hot (rainy days clouds...

Being a water drop thunder rolled; I saw some of my time!) But then, an animal drank is pretty fun; you get friends crash onto the ground. me right up and after that, I sank to travel a lot, ride the tides and Then all of the clouds cleared into the ground. Next I went up most of the time you're cool. The and the sun shone. Soon, I to the clouds (again!), and then worst part of being a water drop evaporated and went back to the parachuted down into a tributary. I liked the tributary the best, I are for me!)! I began my journey Next, I rained into the river. I could stay there all day. But of in the ocean. I really liked the dodged two fish, three rocks and course, a raindrop never stays in ocean, but the clouds called me five boats. What a day! I like the one place. It lives a continuous up and then dumped me on the river because you can relax and cycle. It's amazing how a rainground! Lightening crashed and ride the current (even at night- drop can go so many places!

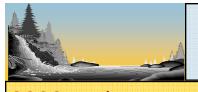
My Journey ... by Jacob Carpenter

That was scary! I thought I would plankton went deeper and got our lives together.

I was a little water get hurt, but I'm okay. Then it eaten by a whale. The whale

droplet on a glacier started to get hot and I went up came up and I got eaten too! when...What happened? It got into the clouds. I looked around Then, I got shot out of the blow so hot that I evaporated into the expecting to see my friends, but hole! I landed on the glacier I Then I looked around all I saw was strangers. There had started out on and saw a and what do you know, I see all were big drops, little drops, fat couple of my friends. I started of my friends! So we started talk- drops and skinny drops! I saw playing tag with them and got ing, got bored then fell asleep. one kid drop and asked him to tagged. We kept playing until Then it got cold so I woke up and play with me but he yelled no in everyone got tired. I slipped all I was falling! I finally landed in a my face. It started to get cold the way off the glacier and into river. I looked around and all of again and I knew the cloud would the ground. I saw so many bugs my friends were gone. I got let us go. Everyone fell into the but only one that looked friendly; scared until I looked around and ocean and started swimming in a worm. I said "hi" and asked saw some fish. I said "hi!" and every direction. A whole bunch him to play and he said "yes!" the fish sucked me into its gills of plankton started swimming His name was Fred. Fred and I and then pushed me back out. through me. It tickled! All of the played everyday for the rest of

Email South Coast & Lower Rogue Watershed Councils Education Coordinator, Statia Ryder: statia@currywatersheds.org



2008 update

By Colleen Ellis

It's been raining; you have your bottles storm events. ready and are wondering if the call will come in. Then the phone rings, it's your data were used to meet each of the objectives of the area's team leader, "We are sampling program. between 8 and 10 am tomorrow morn- Locate tributaries and sections of river that ing." The rain and howling wind contin- should be prioritized for restoration ues all night. The morning comes and you put on your rain gear and grab your bottles. In the pouring rain, you head off to grab water samples from your designated sampling sites.

At the drop off site, you meet other Storm-

chasers with their water samples and stories of the sampling event. You have sampled the same sites for 3, 5, or 8 sampling events. You have seen the site at different flows; you've been there durhave had first hand experiences of seeing the creek at high flows. You have gained a new under-

standing and appreciation for the creek you • sample and have been part of the advancement of knowledge of the water quality in your watershed.

Stormchasers!

The South Coast's Volunteer Water Sampling Program.

The Stormchasers program, a volunteer-based sampling program, began in 2004 with an initial proposal to include 15 volunteers sampling 40 sites. The very first sampling event doubled the proposed number with 34 volunteers sampling 81 sites. The Stormchasers Program has now sampled eight storms, with a maximum number of 58 volunteers sampling 124 sites. The Stormchasers program furthered the community's awareness of water quality and made evident their desire to protect the water quality in our county. Many landowners and con-

cerned community members have been willing to brave the elements to collect water samples during multiple

The examples below illustrate how Stormchasers

- Identified streams with high sediment levels to focus road sediment reduction surveys and investments.
- Provided evidence to Siskiyou NF road managers that a drainage ditch was eroding/diverting into a small stream along the Winchuck and needed to be re-routed.

Stormchaser volunteers:

"The rain and howling wind continues all night. The morning comes and you ing the peak of the storm and put on your rain gear and grab your bottles."

> Examined the effects of the Biscuit Fire on water quality in the Rogue and Chetco Rivers (the original group of Stormchasers sampled in 2002).

Locate sources of bacteria or nutrients that may be controlled

- Identified tributaries within the Floras Creek/New River watershed where technical and financial resources should be focusing on nutrient reduction to control algae and aquatic plant growth.
- Supplemented data on storm inflows and outflows from Floras Lake, to be used to address a state listing for nuisance growth of aquatic weeds.
- Obtained funding to sample other sources of bacteria to grazed watersheds, such as road ditches, beaver, or upstream contributions. Sampled reference levels of bacteria runoff from forested watersheds.

Continued next page

Stormchasers!

The South Coast's Volunteer Water Sampling Program: Update 2008 — Above and beyond the initial objectives

Continued from page 6

- Located an area with failing septic systems on Mill Creek.
- Provided monitoring results from agricultural and non-agricultural areas for ODA's biennial report to the Local Advisory Committee for agricultural water quality (SB1010).

Determine how long sediment levels are high enough to affect fish behavior during storms

Continuously sampled turbidity during a storm on • **Euchre Creek**

Understand the contribution of clay soils to higher sediment and nutrients in some watersheds

Collected water samples from undisturbed watersheds that have soils that are high in clay and watersheds that have soils that are low in clay content, and tested samples for turbidity and total solids. Evidence collected here on the coast revealed that differing soils/geology can affect turbidity and responses of total suspended solids.

Provide data to obtain technical and financial support for restoration projects

- High turbidity readings in Pistol River were used to
 The Stormchasers program also brought awareness to strengthen the justification in an OWEB restoration grant for a 1.5 mile road & livestock sediment abatement project.
- Floras Creek data used in an OWEB small grant & livestock exclusion project.
- Sixes River data captured pre-implementation turbidity and E.coli status prior to OWEB & EQIP funded whole ranch livestock exclusion and offstream watering implementation.

Above and beyond the initial objectives, data from the Stormchasers program was also used to:

- Raise awareness of a need for better implementation/maintenance of erosion control on a housing development along the Chetco River.
- Provide storm levels of bacteria from rivers that transport to near-shore areas for the Surfrider

Foundation.

- Support interpretation of Beach Bacteria sampling on Mill and Harris Beaches, to illustrate the effect of "first flush" fall storms versus later seasonal storms on E.coli levels.
- Compare turbidity with health of aquatic insect communities (fish food) on small streams where riparian areas are being restored.
- Provide pre- and post-project conditions for riparian improvements on Fourmile Creek, to Oregon Trout.



the community as a whole through articles in multiple local newspapers regarding the sampling events, such as the one in the Curry County Reporter,

"Volunteers Brave Storms to Check Streams."

application to display need for sediment abatement The Stormchasers program, funded through the Title III, Rural Schools and Community Self-Secure Determination Act of 2000, has been successful due to the immense support of the volunteers. The program has added significantly to the restoration efforts and knowledge of water quality on the South Coast Watersheds.

> We, at the Watershed Council, would like to once again express our appreciation and gratitude to all those who bravely faced the elements to collect water samples for the purpose of advancing our understanding of water quality in our watersheds.

> For more information on the Stormchasers Program or to become involved in future sampling event please call the Watershed Council office 247-2755 and contact Colleen Ellis at ext 5# or Cindy Myers at ext 7#.

Email the author: colleen.ellis@oacd.org

What else is living in your riparian areas? —Riparian dwellers continued

Continued from page 1

Frog fan?

To encourage amphibians and other herps, consider these habitat elements

- Clean water: Amphibians especially are extremely sensitive to chemical runoff.
- Woody vegetation bordering all water, shrubs on dry slopes, and sunny basking areas near shelter
- Cover including leaf litter, woody debris, brush piles, rotting logs, rocky talus. Many herps depend on insects and other invertebrates for food.
- Connectivity corridors: Can your favorite herp navigate a road? Open pasture? Field borders and riparian buffers make a difference.
- Never release non native species. Avoid mosquito fish or other non-natives in ponds or troughs if flooding is possible.



A good OSU Extension reference: http://extension.oregonstate.edu/catalog/html/ec/ec1542/





The Audubon The Audubon Society has information to adapt for your property: http://www.audubon.org/

Bird lover?

Do you know your property's place in their landscape?

- A large-scale patchwork of open space, forested cover, shrub land, and open water attracts and sustains a range of popular birds.
- Open pasture with riparian corridors can be an ideal setting for insectivorous birds.
- Riparian areas provide food (invertebrates, seeds, leaves, nectar), cover (tall grasses, trees, old snags, shrubs) for various life stages, and sheltered access to water and open areas.
- Seed eaters often add riparian insects to nestlings' diet, and nest in tall grasses. Hummingbirds nest in trees, feed nestlings insects, and take advantage of flowering shrubs.
- Avoid disturbing established grass and shrubs in riparian/habitat corridors March to mid-July, the primary nesting season.

Continued next page

What else is living in your riparian areas? —Riparian dwellers continued

Bats: Beautiful and useful

Often overlooked in planning, **bat conservation is catching on.** All 15 species of Oregon bats eat insects, including forest and pasture pests—up to 600 per hour! Bats reproduce slowly (typically 1-2 pups a year) and can be very sensitive to loss of roosting habitat.

- Aging trees are important habitat for bats, who roost in limbs and under loosening bark, in cavities, and in snags. Forested riparian areas provide hunting and important roosting near water, especially when a range of tree ages provides new roosts as old bark sloughs away.
- Bats drink on the wing from ponds, streams, and other open water. Properly designed escape ramps in troughs, overhanging wood, and sloped pond sides allow bats and other small animals to survive an accidental dunking. See Water for Wildlife, a handbook for ranchers and range managers at www.batcon.org.



WANTED

FOR POLLINATION OF CROPS AND WILDFLOWERS



WESTERN BUMBLE BEE A.K.A. BOMBUS OCCIDENTALIS

Bombus occidentalis workers have three main different color patterns.



If you have seen Bombus occidentalis please contact info@xerces.org

For more information on bumble bees in decline please visit www.xerces.org/bumblebees

Decien by Slaine Evans

Make room for native bees

Bumblebees are large and social, but most other native bees are small, solitary insects. Some look like flies, but like all bees collect pollen and nectar. Many natives are more efficient pollinators, and forage earlier and later, than European honeybees.

- Native bees need natural areas with undisturbed habitat including dry soil between bunchgrasses, wood snags, soft-stemmed shrubs, and old rodent burrows. Riparian corridors and field margins are ideal.
- **Early blooming native plants near production areas** attract native bees to help pollinate clover, cranberries, and other crops.
- Avoid pesticide drift; never apply insecticide to blooming plants, and choose low toxicity products and methods.
- **Location counts!** Many native bees appear to forage less than 300 yards from nests.

A must-read for native bee conservation:

Farming for Bees: Guidelines for Providing Native Bee Habitat on Farms. 2006 The Xerces Society, http://www.xerces.org.

CURRY CURRENTS

FALL 2008

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Matt Swanson, Chris John, Kean Fleming and Jerry Becker Caught Smiling In Rock Creek

To receive electronic notification of our newsletter please contact us and provide your name and email address. Also, visit our website at www.currywatersheds.org for more great watershed information and news!

